Service
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ServiceManual

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IMPORTANT SAFETY NOTICE

Proper service and repair is important to the safe, reliable operation of all Philips Consumer Electronics Company** Equipment. The service procedures recommended by Philips and described in this service manual are effective methods of performing service operations. Some of these service operations require the use of tools specially designed for the purpose. The special tools should be used when and as recommended.

It is important to note that this manual contains various **CAUTIONS** and **NOTICES** which should be carefully read in order to minimize the risk of personal injury to service personnel. The possibility exists that improper service methods may damage the equipment. It also is important to understand that these **CAUTIONS** and **NOTICES ARE NOT EXHAUSTIVE**. Philips could not possibly know, evaluate and advise the service trade of all conceivable ways in which service might be done, or of the possible hazardous consequences of each way. Consequently, Philips has not undertaken any such broad evaluation. Accordingly, a servicer who uses a service procedure or tool which is not recommended by Philips must first satisfy himself thoroughly that neither his safety nor the safe operation of the equipment will be jeopardized by the service method selected.

** Hereafter throughout this manual, Philips Consumer Electronics Company will be referred to as Philips.

WARNING

Critical components having special safety characteristics are identified with a ⚠ or "S" by the Ref. No. in the parts list and enclosed within a broken line* (where several critical components are grouped in one area) along with the safety symbol ⚠ on the schematics or exploded views. Use of substitute replacement parts which do not have the same specified safety characteristics may create shock, fire, or other hazards. Under no circumstances should the original design be modified or altered without written permission from Philips. Philips assumes no liability, express or implied, arising out of any unauthorized modification of design. Servicer assumes all liability.

*** Broken Line ____ _ ____ _ ____ _ ____**

FIRE AND SHOCK HAZARD

1. Be sure all components are positioned in such a way as to avoid the possibility of adjacent component shorts. This is especially important on those chassis which are transported to and from the service shop.

2. Never release a repaired unit unless all protective devices such as insulators, barriers, covers, strain reliefs, and other hardware have been installed in accordance with the original design.

3. Soldering and wiring must be inspected to locate possible cold solder joints, solder splashes, sharp solder points, frayed leads, pinched leads, or damaged insulation (including the ac cord). Be certain to remove loose solder balls and all other loose foreign particles.

4. Check across-the-line components and other components for physical evidence of damage or deterioration and replace if necessary. Follow original layout, lead length, and dress.

5. No lead or component should touch a receiving tube or a resistor rated at 1 watt or more. Lead tension around protruding metal surfaces or edges must be avoided.

6. Critical components having special safety characteristics are identified with an **'S'** by the Ref. No. in the parts list and enclosed within a broken line* (where several critical components are grouped in one area) along with the safety symbol ⚠ on the schematic diagrams and /or exploded views.

7. When servicing any unit, always use a separate isolation transformer for the chassis. Failure to use a separate isolation transformer may expose you to possible shock hazard, and may cause damage to servicing instruments.

8. Many electronic products use a polarized ac line cord (one wide pin on the plug). Defeating this safety feature may create a potential hazard to the servicer and the user. Extension cords which do not incorporate the polarizing feature should never be used.

9. After reassembly of the unit, always perform an ac leakage test or resistance test from the line cord to all exposed metal parts of the cabinet. Also, check all metal control shafts (with knobs removed), antenna terminals, handles, screws, etc., to be sure the unit may be safely operated without danger of electrical shock.

*** Broken line ____ _ ____ _ ____ _ ____**

LEAKAGE CURRENT COLD CHECK

1. Unplug the ac line cord and connect a jumper between the two prongs of the plug.

2. Turn on the power switch.

3. Measure the resistance value between the jumpered ac plug and all exposed cabinet parts of the receiver, such as screw heads, antennas, and control shafts. When the exposed metallic part has a return path to the chassis, the reading should be between 1 megohm and 5.2 megohms. When the exposed metal does not have a return path to the chassis, the reading must be infinity. Remove the jumper from the ac line cord.

LEAKAGE CURRENT HOT CHECK

1. Do not use an isolation transformer for this test. Plug the completely reassembled receiver directly into the ac outlet.

2. Connect a 1.5k, 10W resistor paralleled by a 0.15uF. capacitor between each exposed metallic cabinet part and a good earth ground such as a water pipe, as shown below.

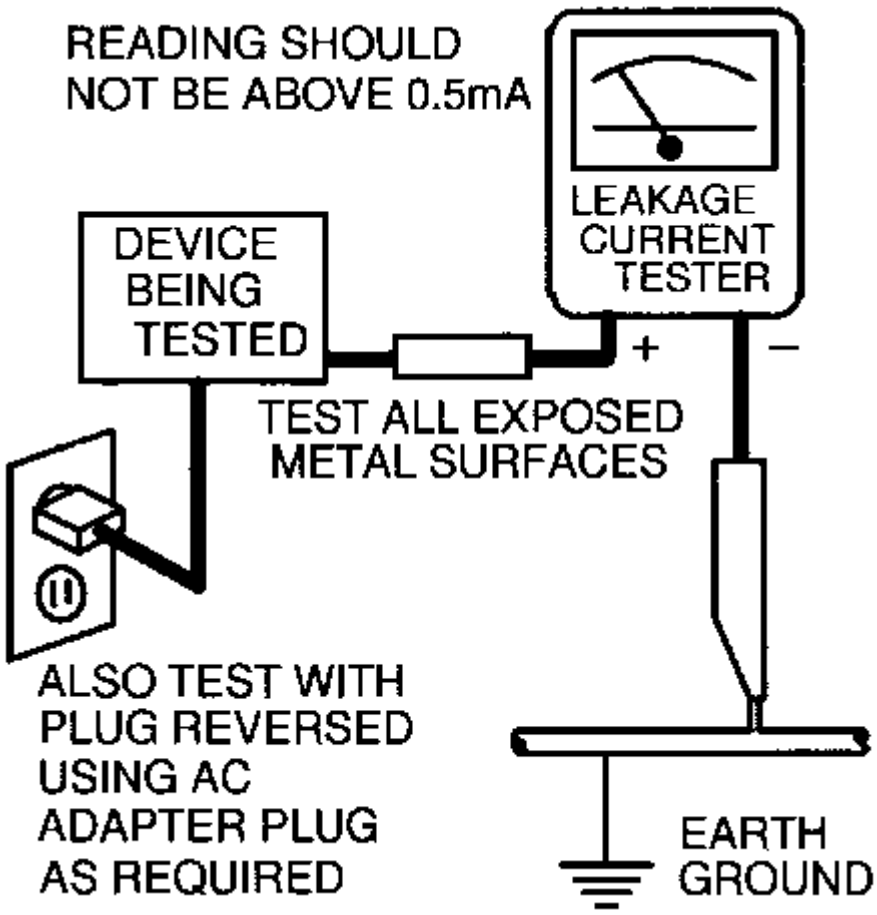
3. Use an ac voltmeter with at least 5000 ohms/volt sensitivity to measure the potential across the resistor.

4. The potential at any point should not exceed 0.75 volts. A leakage current tester may be used to make this test; leakage current must not exceed 0.5mA. If a measurement is outside of the specified limits, there is a possibility of shock hazard. The receiver should be repaired and rechecked before returning it to the customer.

5. Repeat the above procedure with the ac plug reversed. (Note: An ac adapter is necessary when a polarized plug is used. Do not defeat the polarizing feature of the plug.)

OR

With the instrument completely reassembled, plug the ac line cord directly into a 120Vac outlet. (Do not use an isolation transformer during this test.) Use a leakage current tester or a metering system that complies with American National Standards Institute (ANSI) C101.1 Leakage Current for Appliances and Underwriters Laboratories (UL) 1410, (50.7). With the instrument ac switch first in the on position and then in the off position, measure from a known earth ground (metal water pipe, conduit, etc.) to all exposed metal parts of the instrument (antennas, handle brackets, metal cabinet, screw heads, metallic overlays, control shafts, etc.), especially any exposed metal parts that offer an electrical return path to the chassis. Any current measured must not exceed 0.5mA. Reverse the instrument power cord plug in the outlet and repeat the test. See the graphic below.


READING SHOULD
NOT BE ABOVE 0.5mA
LEAKAGE
CURRENT
TESTER
DEVICE
BEING
TESTED
+
–
TEST ALL EXPOSED
METAL SURFACES
ALSO TEST WITH
PLUG REVERSED
USING AC
ADAPTER PLUG
AS REQUIRED
EARTH
GROUND

TV SAFETY NOTES

SAFETY CHECKS

After the original service problem has been corrected, a complete safety check should be made. Be sure to check over the entire set, not just the areas where you have worked. Some previous servicer may have left an unsafe condition, which could be unknowingly passed on to your customer. Be sure to check all of the following:

Fire and Shock Hazard
Implosion
X-Radiation
Leakage Current Cold Check
Leakage Current Hot Check
Picture Tube Replacement
Parts Replacement

WARNING: Before removing the CRT anode cap, turn the unit OFF and short the HIGH VOLTAGE to the CRT DAG ground.

SERVICE NOTE: The CRT DAG is not at chassis ground.

IMPLOSION

1. All picture tubes used in current model receivers are equipped with an integral implosion system. Care should always be used, and safety glasses worn, whenever handling any picture tube. Avoid scratching or otherwise damaging the picture tube during installation.

2. Use only replacement tubes specified by the manufacturer.

X-RADIATION

1. Be sure procedures and instructions to all your service personnel cover the subject of X-radiation. Potential sources of X-rays in TV receivers are the picture tube and the high voltage circuits. The basic precaution which must be exercised is to keep the high voltage at the factory recommended level.

2. To avoid possible exposure to X-radiation and electrical shock, only the manufacturer's specified anode connectors must be used.

3. It is essential that the service technician has an accurate HV meter available at all times. The calibration of this meter should be checked periodically against a reference standard.

4. When the HV circuitry is operating properly there is no possibility of an X-radiation problem. High voltage should always be kept at the manufacturer's rated value - no higher - for optimum performance. Every time a color set is serviced, the brightness should be run up and down while monitoring the HV with a meter to be certain that the HV is regulated correctly and does not exceed the specified value. We suggest that you and your technicians review test procedures so that HV and HV regulation are always checked as a standard servicing procedure, and the reason for this prudent routine is clearly understood by everyone. It is important to use an accurate and reliable HV meter. It is recommended that the HV reading be recorded on each customer's invoice, which will demonstrate a proper concern for the customer's safety.

5. When troubleshooting and making test measurements in a receiver with a problem of excessive high voltage, reduce the line voltage by means of a Variac to bring the HV into acceptable limits while troubleshooting. Do not operate the chassis longer than necessary to locate the cause of the excessive HV.

6. New picture tubes are specifically designed to withstand higher operating voltages without creating undesirable X-radiation. It is strongly recommended that any shop test fixture which is to be used with the new higher voltage chassis be equipped with one of the new type tubes designed for this service. Addition of a permanently connected HV meter to the shop test fixture is advisable. The CRT types used in these new sets should never be replaced with any other types, as this may result in excessive X-radiation.

7. It is essential to use the specified picture tube to avoid a possible X-radiation problem.

8. Most TV receivers contain some type of emergency "Hold Down" circuit to prevent HV from rising to excessive levels in the presence of a failure mode. These various circuits should be understood by all technicians servicing them, especially since many hold down circuits are inoperative as long as the receiver performs normally.

PICTURE TUBE REPLACEMENT

The primary source of X-radiation in this television receiver is the picture tube. The picture tube utilized in this chassis is specially constructed to limit X-radiation emissions. For continued X-radiation protection, the replacement tube must be the same type as the original, including suffix letter, or a Philips approved type.

PARTS REPLACEMENT

Many electrical and mechanical parts in Philips television sets have special safety related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. The use of a substitute part which does not have the same safety characteristics as the Philips recommended replacement part shown in this service manual may create shock, fire, or other hazards.

PRODUCT SAFETY GUIDELINES FOR ALL PRODUCTS

CAUTION: Do not modify any circuit. Service work should be performed only after you are thoroughly familiar with all of the following safety checks. Risk of potential hazards and injury to the user increases if safety checks are not adhered to.

USE A SEPARATE ISOLATION TRANSFORMER FOR THIS UNIT WHEN SERVICING.

PREVENTION OF ELECTROSTATIC DISCHARGE (ESD)

Some semiconductor solid state devices can be damaged easily by static electricity. Such components commonly are called Electrostatically Sensitive (ES) Devices, Examples of typical ES devices are integrated circuits and some field-effect transistors and semiconductor "chip" components. The following techniques should be used to help reduce the incidence of component damage caused by electrostatic discharge (ESD).

1. Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any ESD on your body by touching a known earth ground. Alternatively, obtain and wear a commercially available discharging ESD wrist strap, which should be removed for potential shock reasons prior to applying power to the unit under test.

2. After removing an electrical assembly equipped with ES devices, place the assembly on a conductive surface such as aluminum foil, to prevent electrostatic charge buildup or exposure of the assembly.

3. Use only a grounded-tip soldering iron to solder or unsolder ES devices.

4. Use only an anti-static solder removal device. Some solder removal devices not classified as "antistatic (ESD protected)" can generate an electrical charge sufficient to damage ES devices.

5. Do not use Freon propelled chemicals. These can generate electrical charges sufficient to damage ES devices.

6. Do not remove a replacement ES device from its protective package until immediately before you are ready to install it (most replacement ES devices are packaged with leads electrically shorted together by conductive foam, aluminum foil or comparable conductive material).

7. Immediately before removing the protective material from the leads of a replacement ES device, touch the protective material to the chassis or circuit assembly into which the device will be installed.

CAUTION: Be sure no power is applied to the chassis or circuit and observe all other safety precautions.

8. Minimize bodily motions when handling unpackaged replacement ES devices. (Otherwise harmless motion such as the brushing together of your clothes fabric or the lifting of your feet from a carpeted floor can generate static electricity (ESD) sufficient to damage an ES device.)

NOTE to CATV system Installer:
This reminder is provided to call the CATV system installer's attention to article 820-22 of the NEC that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

PRACTICAL SERVICE PRECAUTIONS

IT MAKES SENSE TO AVOID EXPOSURE TO ELECTRICAL SHOCK. While some sources are expected to have a possible dangerous impact, others of quite high potential are of limited current and are sometimes held in less regard.

ALWAYS RESPECT VOLTAGES. While some may not be dangerous in themselves, they can cause unexpected reactions – reactions that are best avoided. Before reaching into the powered color TV set, it is best to test the high voltage insulation. It is easy to do, and is just a good service precaution.

BEFORE POWERING UP THE TV WITH THE BACK OFF (or on a test fixture), attach a clip lead to the CRT DAG ground and to a screwdriver blade that has a well insulated handle. After the TV is powered on and high voltage has developed, probe the anode lead with the blade, starting at the bottom of the High Voltage Transformer (flyback – IFT). Move the blade to within two inches of the connector of the CRT. **IF THERE IS AN ARC, YOU FOUND IT THE EASY WAY, WITHOUT GETTING A SHOCK!** If there is an arc to the screwdriver blade, replace the High Voltage Transformer or the lead, (if removable) whichever is causing the problem.

PICTURE TUBE REPLACEMENT PROCEDURE

Note: a. Two (2) people are required to handle this picture tube.
b. Safety Glasses must be worn during this procedure or whenever directly handling a picture tube.
c. Take care in each step not to damage the CRT or the cabinet.

1. Remove the Chassis and the CRT Socket Board Module from the cabinet.
2. A furniture pad or blanket should be positioned on the floor to support only the CRT Face. This pad or blanket should be high enough to keep the CRT Face approximately 12 to 14 inches off the floor.
3. Using two people, place the cabinet in a front down position with the CRT Face on the pad or blanket.
4. Place padded blocks under each corner of the cabinet to keep it from rocking.
5. Remove the four screws, at the corners of the CRT.
6. With two people lowering the cabinet to the floor, leave the CRT elevated by the pad or blanket.

Note: Take care not to grasp the neck of the CRT during this procedure, as it is extremely fragile.

7. Two (2) people may then lift the CRT from the cabinet.
8. Remove the degaussing coil from the defective CRT and mount on the replacement. Take care to maintain the exact shape and fit.

To install the new CRT, reverse steps 1 to 7.

Quick Use and Setup Guide

TV/DVD

Let's make things better.

PHILIPS

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IMPORTANT

NOTE: This owner's manual is used with several different television models. Not all features (and drawings) discussed in this manual will necessarily match those found with your television set. This is normal and does not require you contacting your dealer or requesting service.

WARNING: TO PREVENT FIRE OR SHOCK HAZARD DO NOT EXPOSE THIS UNIT TO RAIN OR EXCESSIVE MOISTURE.

CLASS 1 LASER PRODUCT

DVD VIDEO

LASER SAFETY

This unit employs a laser. Due to possible eye injury, only a qualified service person should remove the cover or attempt to service this device.

USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.

LASER

Type	Semiconductor laser GaAlAs
Wave length	650 nm (DVD) 785 nm (VCD/CD)
Output Power	7 mW (DVD) 10 mW (VCD/CD)
Beam divergence	60 degree

The region code for this set is ALL or 1.
DVDs must be labeled for ALL regions or for Region 1 in order to play on this TV/DVD Player. You cannot play Discs that are labeled for other regions. Look for the symbols above on your DVDs. If these region symbols do not appear on your DVDs, you cannot play the DVD in this TV/DVD Player.

NOTE:
PICTURES SHOWN MAYBE DIFFERENT BETWEEN COUNTRIES.

NEVER MAKE OR CHANGE CONNECTIONS WITH THE POWER SWITCHED ON.

CAUTION

VISIBLE AND INVISIBLE LASER RADIATION WHEN OPEN AVOID EXPOSURE TO BEAM (WARNING LOCATION: INSIDE ON LASER COVERSHIELD OR THE BACKPLATE OF SET)

This product incorporates copyright protection technology that is protected by method claims of certain U.S. patents and other intellectual property rights owned by Macrovision Corporation and other rights owners. Use of this copyright protection technology must be authorized by Macrovision Corporation, and is intended for home and other limited viewing uses only unless otherwise authorized by Macrovision Corporation. Reverse engineering or disassembly is prohibited.

Playable Disc Types

This DVD Player will play Digital Video Discs (DVDs), Audio CDs, CD-Rs and CD-RW discs. In order to play a DVD or Audio CD on this DVD Player, make sure the Disc meets the requirements for the Region Code as described on this page.

The Discs should contain the logos shown below and meet the standards listed for each.

Disc Type	Logo	Contents	Disc Size	Maximum Playback Time	Disc Segments
Digital Video Disc	DVD VIDEO	Sound and Pictures	12 cm	Approx. 4 hours (single-sided) Approx. 8 hours (double-sided)	DVDs are divided into Titles, which are divided into Chapters. Titles and Chapters are numbered.
			8 cm	Approx. 80 minutes (single-sided) Approx. 160 minutes (double-sided)	
Audio CD		Sound	12 cm	74 minutes	Audio CDs are divided into numbered Tracks, i.e., a track may be one song.
			8 cm (singles)	20 minutes	
Video CD		Sound and Pictures			Video CDs are divided into Tracks.
Compact Disc Recordable		Sound and Pictures	12 cm	74 minutes	
			8 cm (singles)	20 minutes	
Compact Disc Rewritable		Sound and Pictures	12 cm	74 minutes	

Basic TV and Remote Control Operation

Television

BEGIN

1 **Press the POWER button** to turn the TV ON.

2 **Press the VOL (+) button** to increase the sound level **or the VOL (–)** button to lower the sound level.

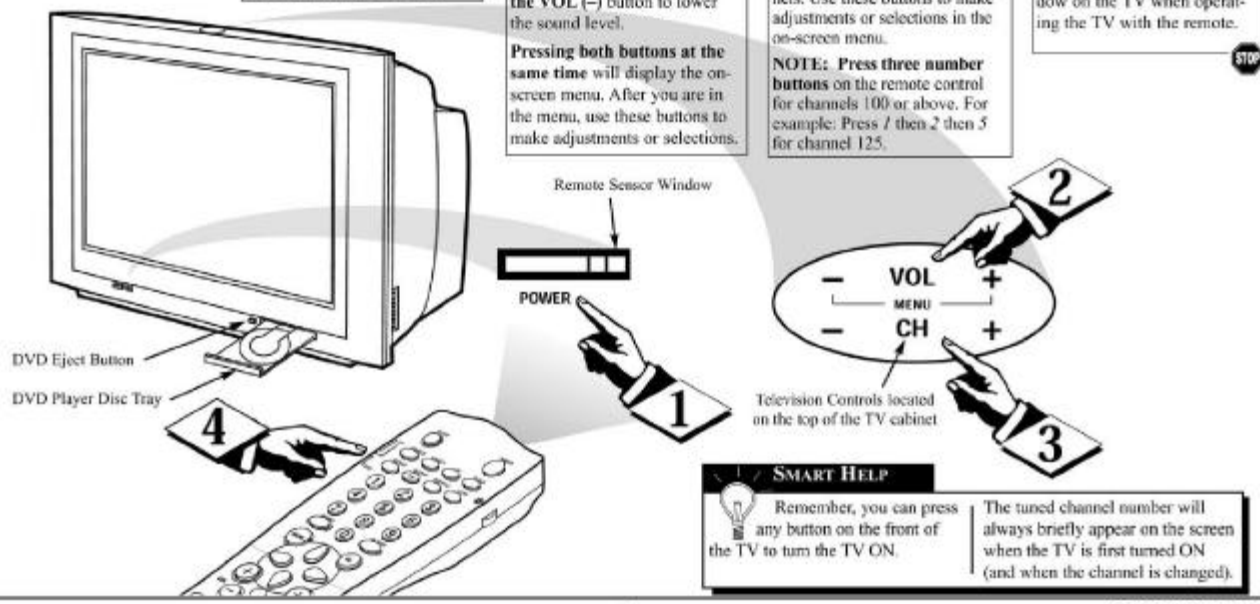
Pressing both buttons at the same time will display the on-screen menu. After you are in the menu, use these buttons to make adjustments or selections.

3 **Press the CH – (down) or + (up)** button to select TV channels. Use these buttons to make adjustments or selections in the on-screen menu.

NOTE: Press three number buttons on the remote control for channels 100 or above. For example: Press *1* then *2* then *5* for channel 125.

4 **Point the remote** control toward the remote sensor window on the TV when operating the TV with the remote.

STOP



Smart Help

Remember, you can press any button on the front of the TV to turn the TV ON.

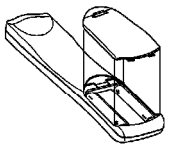
The tuned channel number will always briefly appear on the screen when the TV is first turned ON (and when the channel is changed).

Basic Remote Control Operation

Remote Battery Installation

To load the supplied batteries into the remote:

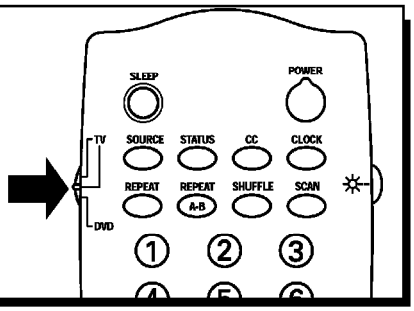
1. **Remove the battery compartment lid** on the back of the remote.
2. **Place the batteries (2-AA) in the remote.** Be sure the (+) and (–) ends of the batteries line up correctly (the inside of the case is marked).
3. **Reattach the battery lid.**



Remote TV/DVD Switch

This remote control is capable of controlling both the TV controls and the DVD Player controls.

When using the TV be sure to have the SWITCH in the "TV" position. When using the DVD Player, move the SWITCH to the "DVD" position. Certain buttons may have no functionality if not related to the position of the SWITCH (TV or DVD).



Remote Control Button Descriptions

Sleep Button (TV)
Press to set the TV to automatically turn itself OFF. Press to set the TV to automatically turn itself OFF after a period of time. Choose 15, 30, 45, 60, 90, 120, 180, or 240 minutes before the TV will automatically turn off.

STATUS Button (SYST MENU) (TV/DVD)
Press to see the current channel number on the TV screen. Also press to clear the TV screen after control adjustments. When in the DVD mode, press to display the DVD Player on-screen menu.

Source Button (TV)
Press repeatedly to select the different signal sources connected to the A/V inputs on the TV.

TV/DVD Mode Switch (TV/DVD)
Slide to the TV position to control TV functions, or to the DVD position to control the functions of the DVD Player.

Repeat Button (DVD)
When using the DVD player, press to repeat the playback of a chapter, title, track or the disc.

Repeat A-B Button (DVD)
When using the DVD player, press to repeat the sequence in a title.

Number Buttons (TV/DVD)
Press the number buttons to select TV channels. When selecting single-digit channels, press the number of the desired channel. The TV will pause for a few seconds and then tune to the selected channel. (Note: You can press *0*, then the number also.) For channels *100* and above, first press *1* then the next two numbers of the desired channel.

Sound Button (TV)
Press to select an AutoSound™ control. Choose from three factory-set controls (VOICE, MUSIC, and THEATRE) and a PERSONAL control that you set according to your own preferences through the on-screen Sound menu. The three factory-set controls will tailor the TV sound so as to enhance the particular type of program you are watching.

Menu Button (TV)
Press for the on-screen menu to appear. Pressing the menu button after menu selections are made will eliminate the menu from the display.

Volume (+) or (–) Buttons (TV/DVD)
Press to adjust the TV sound level.

T/C Button (DVD)
Press to select a specific title or chapter.

Audio Button (DVD)
Press to select the desired audio language.

Previous Button (DVD)
Press to select a previous chapter or track.

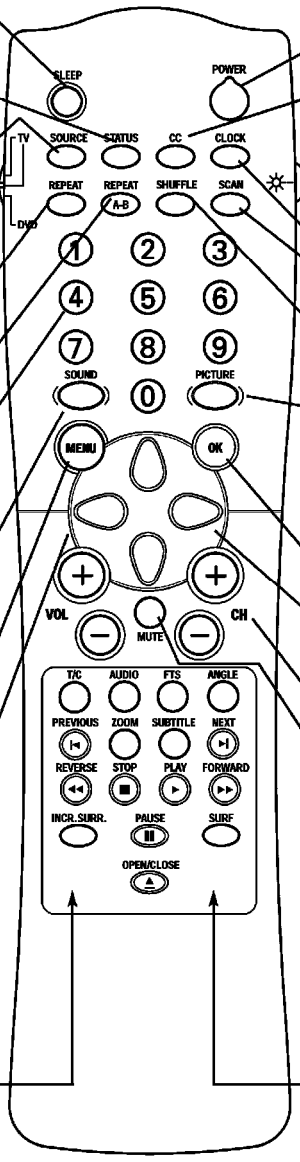
Zoom Button (DVD)
Press to enlarge the video image.

Reverse Button (DVD)
Press and hold to play the disc backward. Works similar to a rewind button.

Stop Button (DVD)
Press to stop the playback of a DVD disc or audio CD.

Incr. Surr. Button (TV/DVD)
Press to set various factory preset Surround Sound listening modes.

Pause Button (DVD)
Press to pause the playback of a DVD disc or audio CD. Pressing repeatedly will show frame-by-frame playback of a DVD disc.



Power Button
Press to turn the TV ON and OFF.

CC Button
Press to select Closed Captioning options within the menu. (See the *Directions for Use* manual for details.)

Light Button
Press to back-light the buttons on the remote control.

Clock Button
Press the CLOCK button to access the on-screen Clock menu.

Scan Button
Press to play the first ten seconds of any track, chapter, title on the disc.

Shuffle Button
Press to play CD tracks in random order.

Picture Button
Press to select an AutoPicture™ control. Choose from four factory-set controls (MOVIES, SPORTS, WEAK SIGNAL, and MULTI MEDIA) and a PERSONAL control that you set according to your own preferences through the on-screen PICTURE menu. The four factory-set controls will tailor the TV picture so as to enhance the particular type of program you are watching, or to improve the picture of a program that has a weak signal.

OK Button
Press the OK button to confirm selections and adjustments within the on-screen menus.

Cursor Buttons (Left, Right, Up, Down)
Press these buttons to highlight, select, and adjust items on the TV's on-screen menu.

Channel (+) or (–) Buttons
Press to change the tuned channel.

Mute Button
Press to turn the TV sound OFF. Press again to return the sound to its previous level.

FTS Button
Press to store your favorite titles, chapters, or tracks. FTS will hold up to 20 selections.

Angle Button
Press to select the desired DVD camera angle.

Subtitle Button
Press to select the subtitle language.

Next Button
Press to advance to the next chapter or track.

Play Button
Press to begin playback of a DVD disc or an audio CD.

Surf Button
Press to select previously viewed channels. You can place up to 10 channels in memory. Then by pressing the SURF button you can quickly view the select channels. (See the "Using the Channel Surf Control" section in your *Directions for Use* manual to see how to select a series of channels using the Surf button.)

Open/Close Button
Press to open or close the DVD disc tray.

Smart Help

The tuned channel number will always briefly appear on the screen when the TV is first turned ON (and when the channel is changed).

You can press the STATUS button (on the remote control) to see what channel the TV is on.

BASIC DVD PLAYER INFORMATION

DVD INTRODUCTION

The Digital Video Disc Player portion of this television will allow you to enjoy better picture quality, clearer sound, and endless playback features available on Digital Video Discs (DVDs). Expanding technology allows you to add options to your viewing - watch a director's cut of a movie, listen to the producer's comments, or play your favorite scene over and over again. Hear a movie in different languages, or listen only to the soundtrack. The possibilities are limited only by your choices and the materials available on the DVD.

Of course, you can listen to your favorite Audio Compact Discs on this DVD Player as well. Determine the order in which you want to hear the songs, or play the Disc repeatedly - all while seeing the status of the CD on your television.

We hope you enjoy this Television/DVD Player combination and learn to use all of its features. To get the most out of the DVD Player, read this Quick Use and Setup Guide along with the Directions for Use manual carefully. It will describe how you can access all the features listed below.

When referring to this manual, remember...

DVD *Indicates that the feature described is available on some Digital Video Discs.*

AUDIO CD *Indicates that the feature described is available on some Audio Compact Discs.*

Disc Menus...

Some explanations in this Quick Use and Setup Guide and the Directions for Use manual describe the Disc Menus. These menus are set by the movie producers or by the music industry; the menus will vary among Discs. Furthermore, not all Discs have menus.

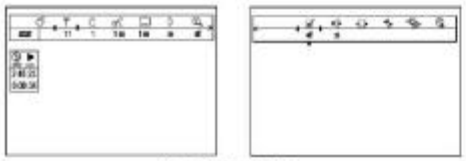
DVD Player Menus...

Some instructions explain how to use the DVD Player's menu to set up features of the DVD Player or the Disc. You get to the DVD Player Menu by pressing the STATUS button on the remote control when Disc playback is stopped and the remote is in the DVD mode. Even if a feature is set up in the DVD Player's menu, it may not be available if the current Disc does not include that feature.

Available Disc Features...

Not all of the features described in this manual may be available on every DVD or Audio CD. If the feature is not available on the Disc, you cannot use the DVD Player to make these features available. An "X" will appear in the top right corner of the TV screen if you try to access a feature that is not available on the current Disc or not available at the current time. The "X" may not be visible if the DVD you are playing is in Wide screen format (with black bars at the top and bottom of the picture).

DVD ON SCREEN DISPLAY GENERAL INFORMATION



Menu Bar/Status Windows



Default Screen



Temporary Feedback Field Screen

MENU BAR/STATUS WINDOW

- Personal Preferences
- Title/Track
- Chapter/Index
- Audio Language
- Subtitle Language
- Angle
- Zoom
- Video Program
- Sound
- Picture by Picture
- Slow Motion
- Fast Motion
- Time Search

STATUS WINDOW ICONS

The Status Widow displays the current status of the player and appears with the first part of the menu bar. (You must activate this in the Features Menu. - See the Personal Preference section of the *Directions for Use* for more details.)

General



Disc Type



Tray Status

DEFAULT SCREEN

The Default Screen is displayed when the player is in the STOP mode. It may contain a "Status Window" and a "Temporary Feedback Field". This give information concerning prohibited actions, playback modes, available angles, etc.

TEMPORARY FEEDBACK FIELD ICONS

- Repeat All
- Repeat Title
- Repeat Track
- Repeat Chapter
- Shuffle
- Shuffle Repeat
- Repeat A to End
- Repeat A-B
- Angle
- Child Lock On
- Child Safe
- Resume
- Action Prohibited

Please refer to the *Directions for Use* manual for detailed information on DVD Player features and operation.

BASIC TELEVISION CONNECTIONS

CABLE TV

BEGIN

CABLE INPUT/CONVERTER

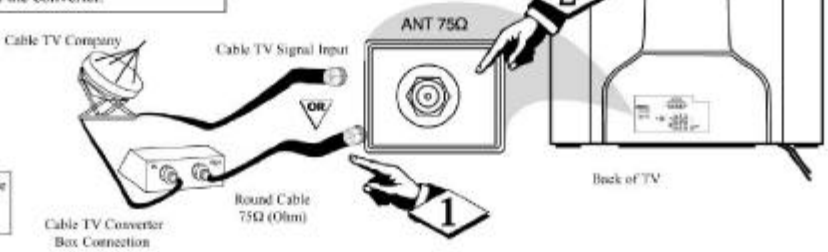
Your Cable TV input into your home may be a single (75 ohm) cable or a converter box installation. In either case, the connection to the TV is very easy. Just put the threaded end of the cable signal to the TV's antenna plug and screw it down finger tight.

NOTE: The connecting cable for the converter is supplied by the cable TV company.

1 **If your Cable TV signal is a single, round cable** (75 ohm), then you're ready to connect to the TV.
If you have a cable converter box, connect the cable TV signal to the cable signal IN(put) plug on the converter.

2 **Connect the cable TV** cable to the ANTENNA/CABLE plug on the TV.
If you have a cable converter box, connect the OUT(put) plug from the converter to the 75Ω (ohm) plug on the TV.

STOP



SMART HELP

Remember to set the TV for the type signal to which you've just connected (see the "Tuner Mode" section on page 7).

To select only the channel numbers on your cable system, see "Auto Program" (page 8). If you use a cable converter box, set the TV to the same channel as the converter's CH 3/4 switch (on the back of the converter).

Basic Television Connections

Antenna

Combination UHF/VHF

A combination antenna receives normal broadcast channels (VHF 2–13 and UHF 14–69). Your connection is easy because there is only one 75Ω (ohm) antenna plug on the back of your TV, and that's where the antenna goes.

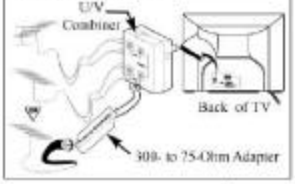
BEGIN

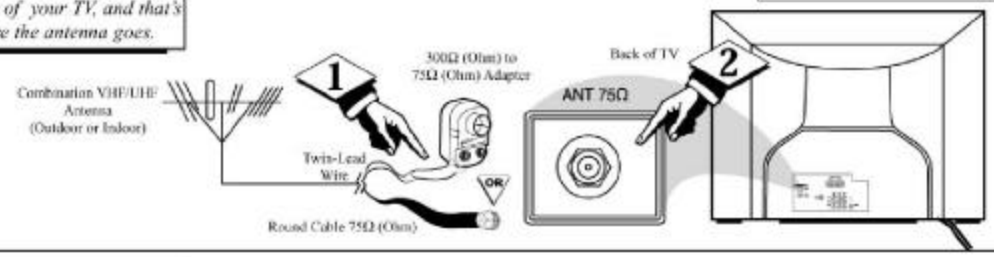
1. **If your antenna has a round cable** (75 ohm) on the end, then you're ready to connect it to the TV.
   If your antenna has flat, twin-lead wire (300 ohm), you first need to attach the antenna wires to the screws on a 300- to 75-ohm adapter.

2. **Push the round end** of the adapter (or antenna) onto the 75Ω (ohm) plug on the back of the TV. If the round end of the antenna wire is threaded, screw it down finger tight.

STOP

NOTE: For homes with separate UHF and VHF antennas, you will need an optional combiner to connect to the TV.





Smart Help

Remember, be sure to set the TV for the type of signal to which you've connected (see the "Tuner Mode" section on page 7).

To set the TV to select only the channel numbers in your area, see how to "Program" or "Add" channels in memory on page 8 ("Auto Program" section).

Contact your dealer,

or call our Parts Information Center at

1-800-851-8885 to order the following accessories:

- 300Ω (ohm) to 75Ω (ohm) adapter
- Combination VHF/UHF antenna.

TV to VCR

Basic Connection

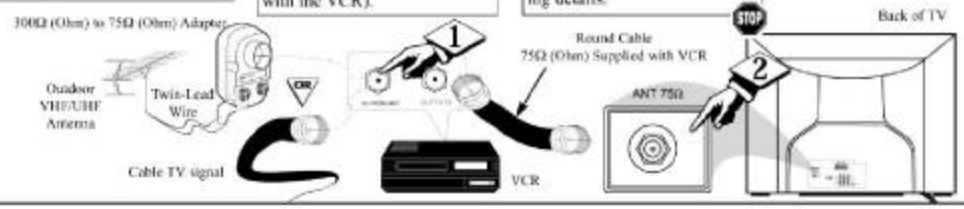
Follow the steps to the right to connect a basic antenna or cable TV signal to a VCR, and then the VCR to the TV. For information on other hookups (possible when cable/descrambler boxes are included), refer to the owner's manuals for the VCR and the cable converter.

BEGIN

1. **Connect your antenna or cable TV signal to the IN FROM ANT(enna)** plug on the VCR.

2. **Connect the OUT TO TV plug on the VCR to the 75Ω (ohm)** plug on the TV (connecting cable supplied with the VCR).

3. **Refer to the owner's manual** included with your VCR for other possible connections and TV/VCR operating details.



Side Inputs

Side Audio/Video Inputs

For more convenient, direct playback connections, you can use your TV's side Audio/Video Input panel. Located on the right and angled toward the front for easy access. The audio/video jacks in this panel allow for quick connections that are especially handy for playing back camcorder tape recordings.

BEGIN

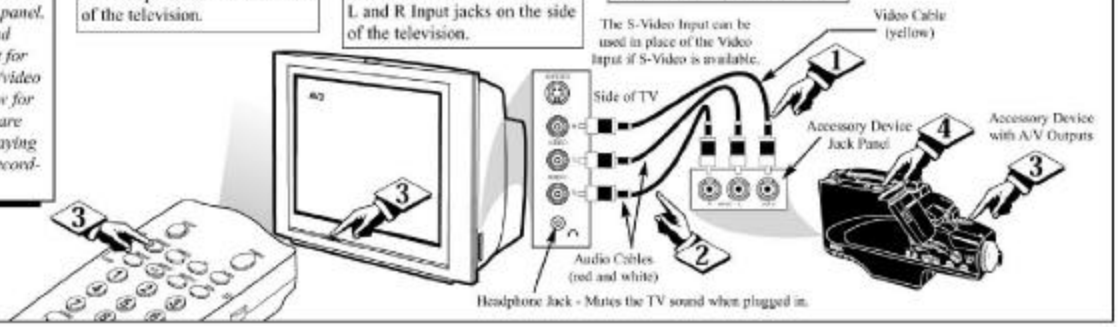
1. **Connect one end of the Video (yellow) cable** to the Video Output jack on the Camera (or accessory device). Connect the other end to the Video Input located on the side of the television.

2. **Connect one pair of Audio (red and white) cable** ends to the Audio Outputs jacks on the camera (or accessory device). Connect the other ends of the cable to the Audio L and R Input jacks on the side of the television.

3. **Turn both the TV and the Camera (accessory device) ON,** press the source button on the remote control until AV3 appears in the upper left corner of the TV screen.

4. **Press PLAY on the accessory device** to view the recording.

STOP



Advanced Television Connections

External Speakers

By adding optional external speakers to the TV's sound system, you can create the feeling of reflected sound that surrounds you at a movie theater or concert hall.

BEGIN

1. **Connect both external speakers** to the speaker wire terminals on the TV.

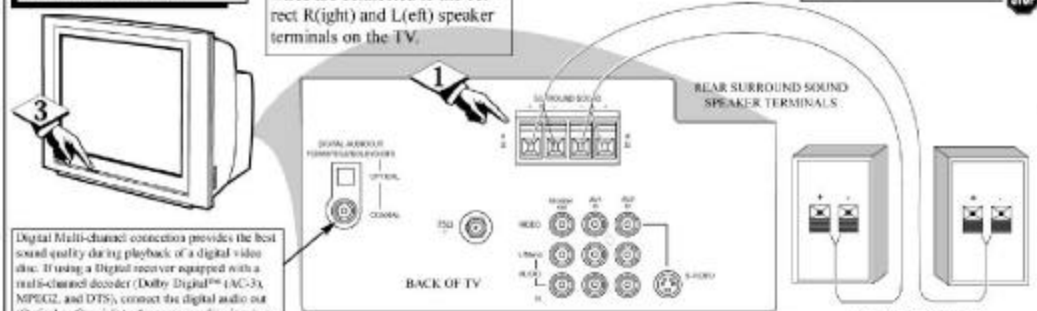
   Recommended speakers: 8 ohm, 15 watt minimum. Be sure the (+) and (–) speaker wires are connected to the correct R(ight) and L(eft) speaker terminals on the TV.

2. **Place the speakers** so that the viewing area is between the TV and the rear surround speakers. (See inset diagram.)

3. **Turn the TV and the STEREO control ON.**

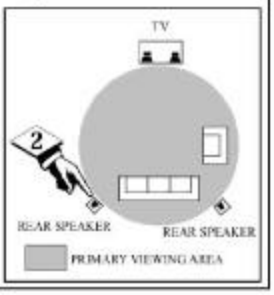
   After setup, whenever a stereo signal is received, the audio will be heard in Surround Sound.

STOP



Digital Multi-channel connection provides the best sound quality during playback of a digital video disc. If using a Digital receiver equipped with a multi-channel decoder (Dolby Digital℠ (AC-3), MPEG2, and DTS), connect the digital audio out (Optical or Coaxial) to the corresponding input on the receiver using an optional digital audio cable. Refer to the *Directions for Use*, "Digital Output" section for more information on proper setup.

NOTE: The rear Surround Sound speakers will not be heard at the same volume level as the front TV speakers. The rear speakers are intended to give a background noise effect that requires a lower volume level than the TV's front speakers.



Smart Help

Remember, Surround Sound will not work with only one speaker connected, nor with a monaural audio source supplied, unless the Incredible Surround feature is turned ON (see the *Directions for Use*, page 31).

ADVANCED TELEVISION CONNECTIONS

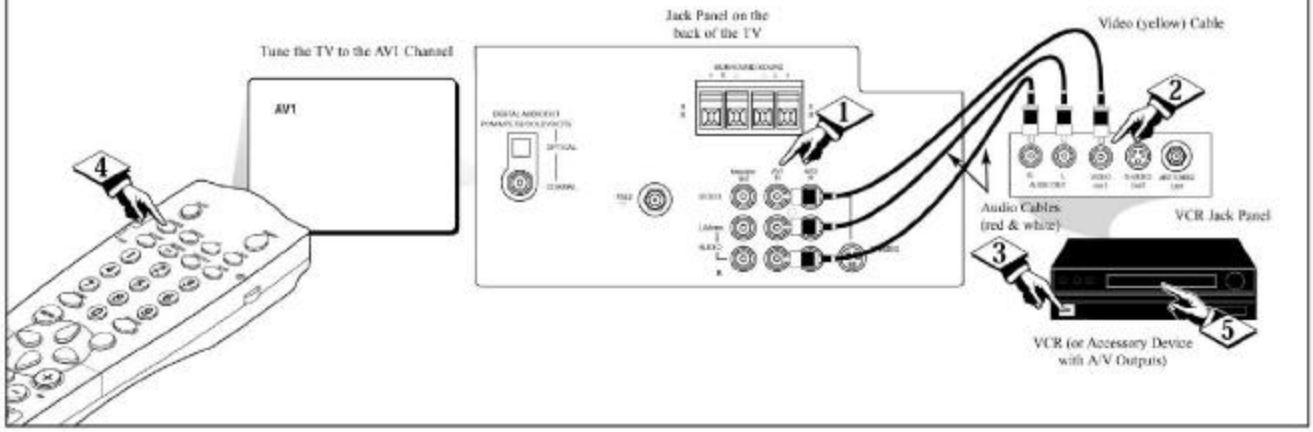
A/V 1 JACKS

BEGIN

The TV's Audio/Video Input Jacks are for direct picture and sound connections between the TV and a VCR (or similar device) that has audio/video output jacks.

1. **Connect the VIDEO (yellow) cable** to the VIDEO AV1 in jack on the back of the TV. Then **connect the AUDIO (red and white) cables** to the AUDIO (left and right) AV1 in jacks on the rear of the TV.
2. **Connect the VIDEO (yellow) cable** to the VIDEO OUT jack on the back of the VCR. Then **connect the AUDIO (red and white) cables** to the AUDIO (left and right) OUT jacks on the rear of the VCR.
3. **Turn the VCR and the TV ON.**
4. **Press the SOURCE button** on the remote control to select the AV1 channel.
5. With the VCR ON and a prerecorded tape inserted, **press the PLAY button** to view the tape on the television.

STOP



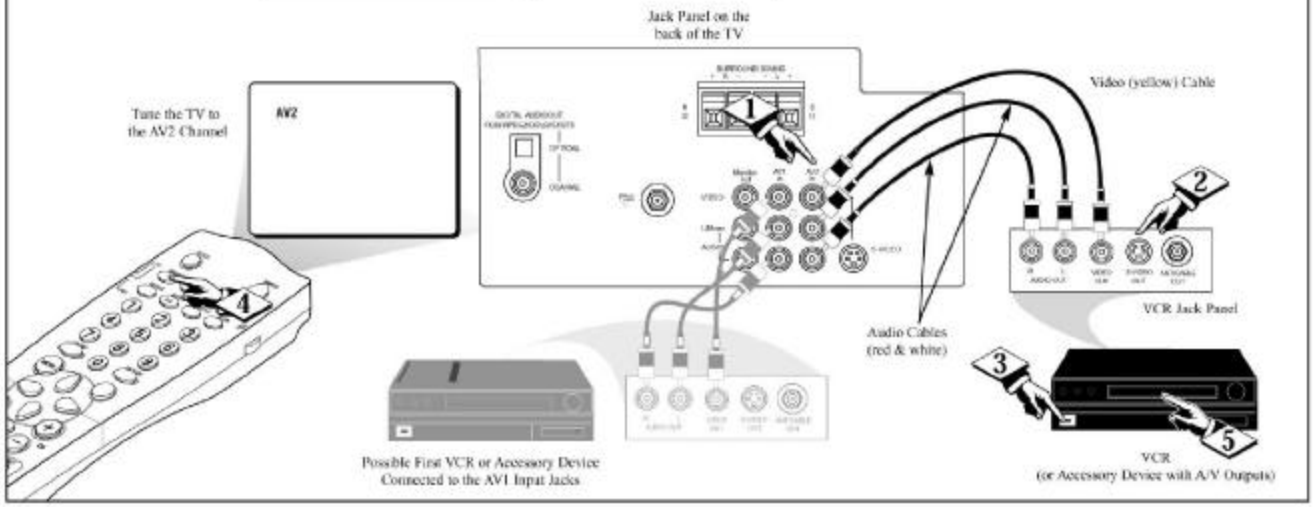
A/V 2 JACKS

BEGIN

A second VCR or accessory device with audio/video output jacks can be added by using the AV2 Inputs on the back of the television.

1. **Connect the VIDEO (yellow) cable** to the VIDEO AV2 in jack on the back of the TV. Then **connect the AUDIO (red and white) cables** to the AUDIO (left and right) AV2 in jacks on the rear of the TV.
2. **Connect the VIDEO (yellow) cable** to the VIDEO OUT jack on the back of the 2nd VCR. Then **connect the AUDIO (red and white) cables** to the AUDIO (left and right) OUT jacks on the rear of the 2nd VCR.
3. **Turn the 2nd VCR and the TV ON.**
4. **Press the SOURCE button** on the remote control to select the AV2 channel.
5. With the 2nd VCR ON and a prerecorded tape inserted, **press the PLAY button** to view the tape on the television.

STOP



S-VIDEO

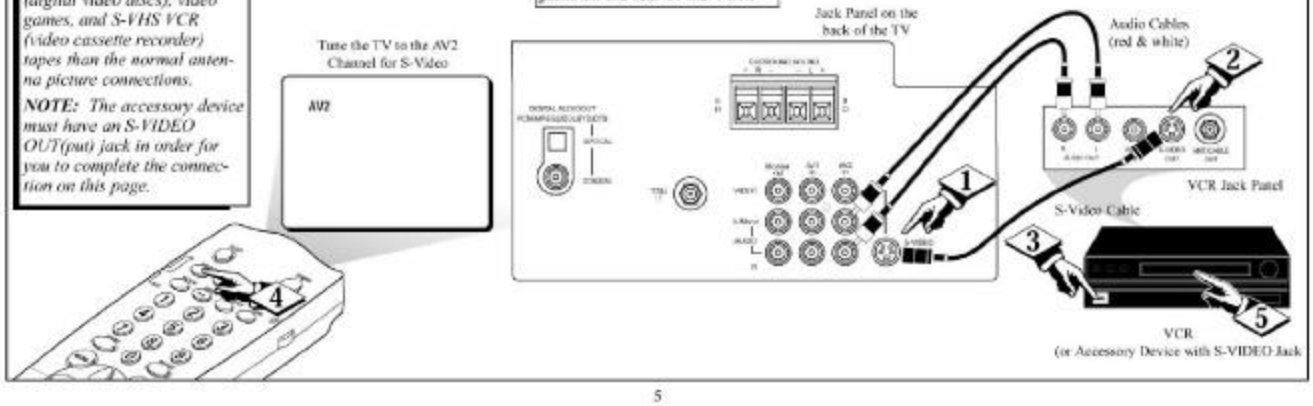
BEGIN

The S(uper)-Video connection on the rear of the TV can provide you with better picture detail and clarity for the playback of accessory sources such as DBS (digital broadcast satellite), DVD (digital video discs), video games, and S-VHS VCR (video cassette recorder) tapes than the normal antenna picture connections.

***NOTE:** The accessory device must have an S-VIDEO OUT(put) jack in order for you to complete the connection on this page.*

1. **Connect one end of the S-Video (SVHS) cable** to the S-Video jack on the back of the TV. Then **connect one end of the AUDIO (red and white) cables** to the AUDIO (left and right) AV2 in jacks on the rear of the TV.
2. **Connect the other end of the S-Video (SVHS) cable** to the SVHS jack on the back of the VCR. Then **connect the other end of the AUDIO (red and white) cables** to the AUDIO (left and right) OUT jacks on the rear of the VCR.
3. **Turn the VCR and the TV ON.**
4. **Press the SOURCE button** on the remote control to select the AV2 (SVHS) channel.
5. With the VCR ON and a prerecorded tape inserted, **press the PLAY button** to view the tape on the television.

STOP



Advanced Television Connections

Monitor Out

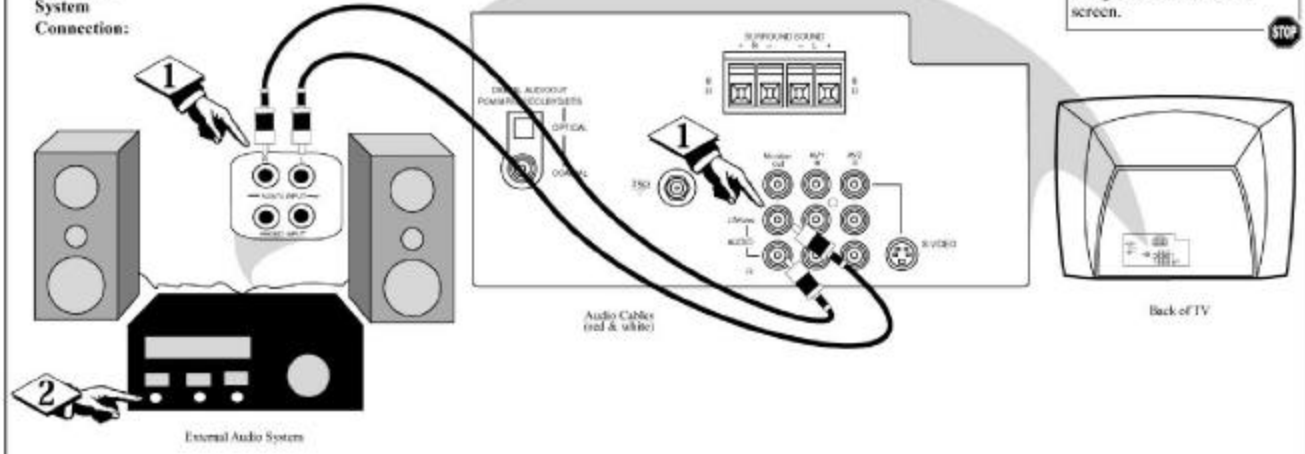
BEGIN

The Audio/Video (Monitor) Output jacks are great for recording with a VCR or used to connect an external audio system for better sound reproduction.

1. **For an external audio system: Connect one end of the R(ight) and L(eft) AUDIO (Monitor Out)** jacks on the TV to the R and L audio input jacks on your amplifier or sound system. Set the audio system's volume to a normal listening level.
2. **Turn the TV and audio system ON.** You can now adjust the sound level coming from the audio system with the VOLUME (+) or (–) button on the TV or remote control.
3. **To connect a second VCR for recording: Connect one end of the yellow Video Cable** to the Monitor Out VIDEO plug. Connect the other end to the VIDEO IN plug on the second VCR.
4. **Connect one end of the red and white Audio cable** from the Monitor Out AUDIO L and R plugs on the TV to the AUDIO IN plugs on the VCR.
5. **Turn the Second VCR ON,** insert a black VHS tape and it's ready to record what's being viewed on the TV screen.

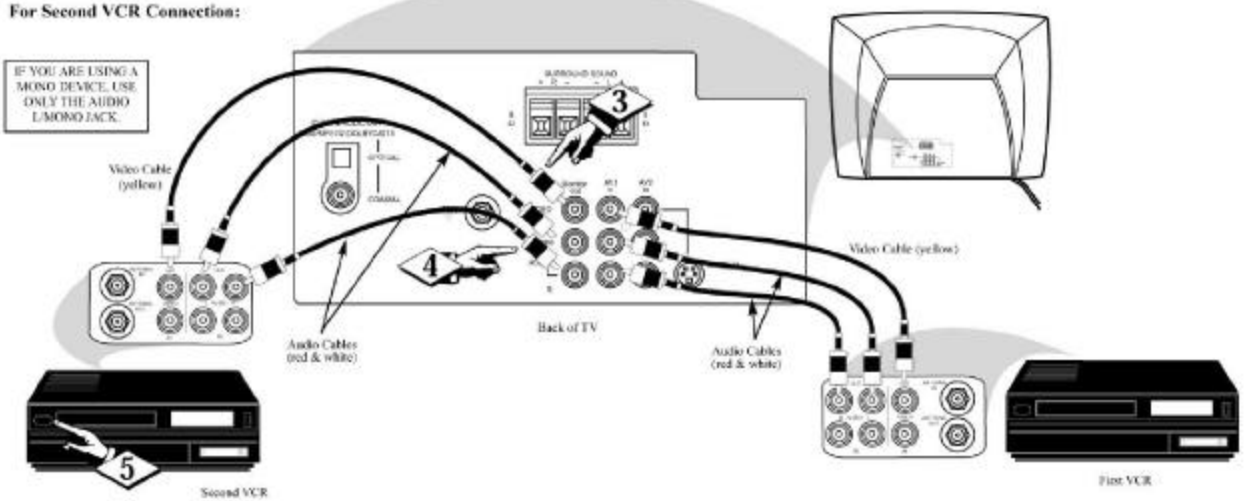
STOP

For Audio System Connection:



For Second VCR Connection:

IF YOU ARE USING A MONO DEVICE, USE ONLY THE AUDIO L/MONO JACK.



How to Use the Television Install Features

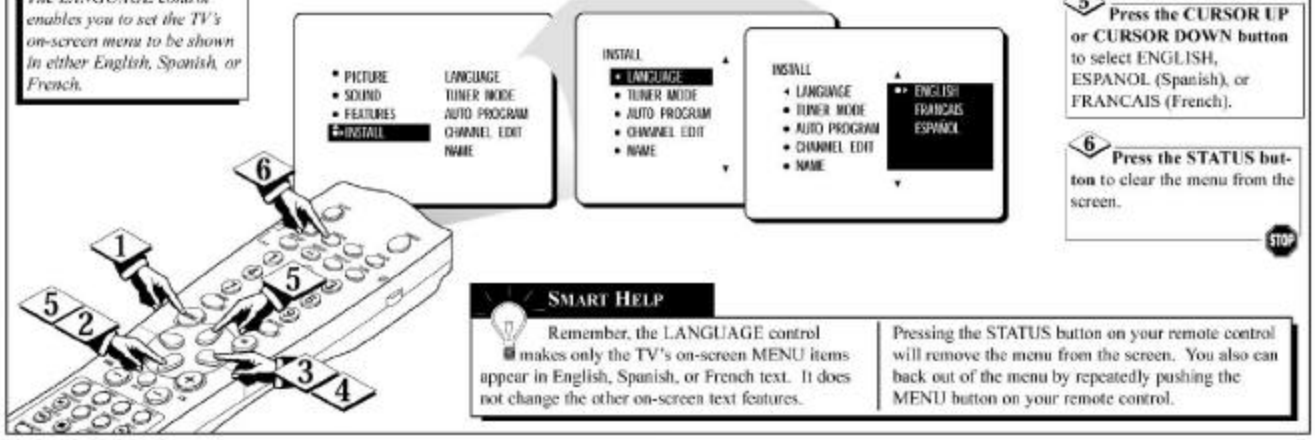
Language

BEGIN

For or Spanish- and French-speaking TV owners, an on-screen LANGUAGE option is present. The LANGUAGE control enables you to set the TV's on-screen menu to be shown in either English, Spanish, or French.

1. **Press the MENU button** on the remote control to show the on-screen menu.
2. **Press the CURSOR DOWN button** repeatedly until INSTALL is highlighted.
3. **Press the CURSOR RIGHT button** to shift the menu to the left and highlight LANGUAGE.
4. **Press the CURSOR RIGHT button** to highlight the LANGUAGE control options.
5. **Press the CURSOR UP or CURSOR DOWN button** to select ENGLISH, ESPANOL (Spanish), or FRANCAIS (French).
6. **Press the STATUS button** to clear the menu from the screen.

STOP



Smart Help

Remember, the LANGUAGE control makes only the TV's on-screen MENU items appear in English, Spanish, or French text. It does not change the other on-screen text features.

Pressing the STATUS button on your remote control will remove the menu from the screen. You also can back out of the menu by repeatedly pushing the MENU button on your remote control.

How to Use the Television Install Features

Tuner Mode

BEGIN

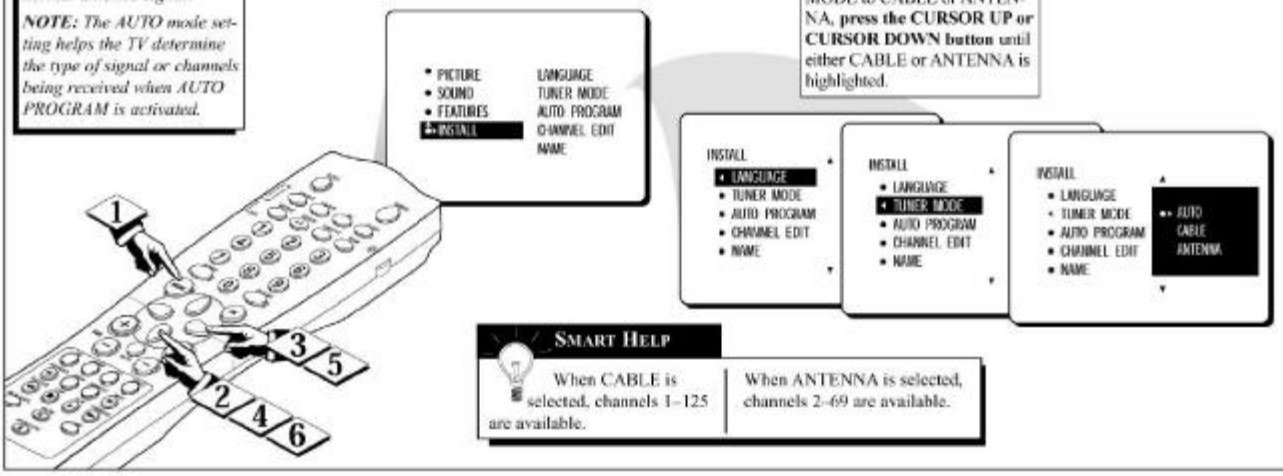
The TUNER MODE feature allows you to change the TV's signal input to CABLE, ANTENNA, or AUTO mode. It's important for the TV to know if you want to receive channels from a cable TV signal or a normal antenna signal.

***NOTE:** The AUTO mode setting helps the TV determine the type of signal or channels being received when AUTO PROGRAM is activated.*

1. **Press the MENU button** on the remote control to show the on-screen menu.
2. **Press the CURSOR DOWN button** repeatedly until INSTALL is highlighted.
3. **Press the CURSOR RIGHT button** to shift the menu to the left.
4. **Press the CURSOR DOWN button** once to highlight TUNER MODE.
5. **Press the CURSOR RIGHT button** to highlight the tuner options.
6. With the AUTO setting selected, Auto Program will detect if a cable input is present.

   If you want to set the TUNER MODE to CABLE or ANTENNA, **press the CURSOR UP or CURSOR DOWN button** until either CABLE or ANTENNA is highlighted.
7. **Press the STATUS button** to clear the menu from the screen.

STOP



Smart Help

When CABLE is selected, channels 1–125 are available.

When ANTENNA is selected, channels 2–69 are available.

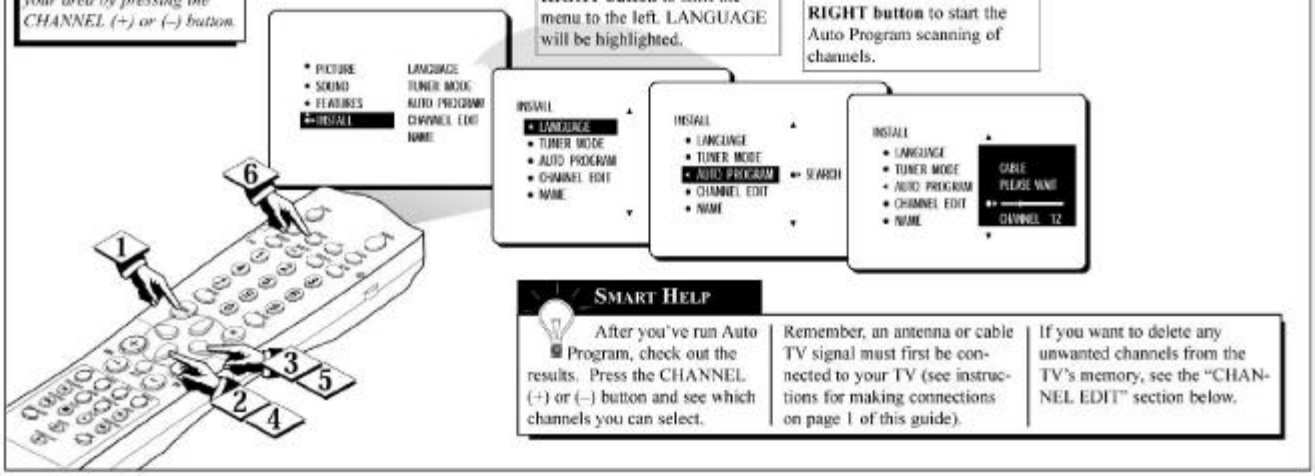
Auto Program

BEGIN

Your TV can automatically set itself for local area (or cable TV) channels. This makes it easy for you to select only the TV stations in your area by pressing the CHANNEL (+) or (–) button.

1. **Press the MENU button** on the remote control to show the on-screen menu.
2. **Press the CURSOR DOWN button** repeatedly until INSTALL is highlighted.
3. **Press the CURSOR RIGHT button** to shift the menu to the left. LANGUAGE will be highlighted.
4. **Press the CURSOR DOWN button** repeatedly until the AUTO PROGRAM control is highlighted.
5. **Press the CURSOR RIGHT button** to start the Auto Program scanning of channels.
6. **Press the STATUS button** to clear the menu from the screen.

STOP



Smart Help

After you've run Auto Program, check out the results. Press the CHANNEL (+) or (–) button and see which channels you can select.

Remember, an antenna or cable TV signal must first be connected to your TV (see instructions for making connections on page 1 of this guide).

If you want to delete any unwanted channels from the TV's memory, see the "CHANNEL EDIT" section below.

Channel Edit

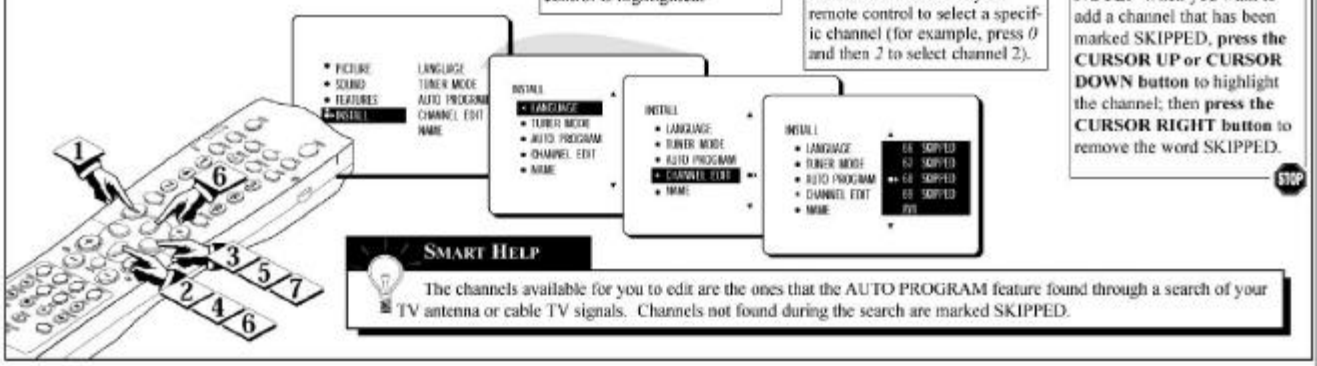
BEGIN

CHANNEL EDIT makes it easy for you to add or delete channels from the list of channels stored in the TV's memory.

1. **Press the MENU button** on the remote control to show the on-screen menu.
2. **Press the CURSOR DOWN button** repeatedly until INSTALL is highlighted.
3. **Press the CURSOR RIGHT button** to shift the menu to the left. LANGUAGE will be highlighted.
4. **Press the CURSOR DOWN button** repeatedly until the CHANNEL EDIT control is highlighted.
5. **Press the CURSOR RIGHT button** to access the CHANNEL EDIT menu.
6. **Press the CURSOR UP or CURSOR DOWN button** to scroll through the list of available channels. Or you can press the number buttons on your remote control to select a specific channel (for example, press *0* and then *2* to select channel 2).
7. With the channel you want to edit selected, **press the CURSOR RIGHT button** to mark the channel as SKIPPED. The channel you've marked SKIPPED will not appear when you are changing from channel to channel while watching TV.

   NOTE: When you want to add a channel that has been marked SKIPPED, **press the CURSOR UP or CURSOR DOWN button** to highlight the channel; then **press the CURSOR RIGHT button** to remove the word SKIPPED.

STOP



Smart Help

The channels available for you to edit are the ones that the AUTO PROGRAM feature found through a search of your TV antenna or cable TV signals. Channels not found during the search are marked SKIPPED.

How to Use the Television INSTALL Features

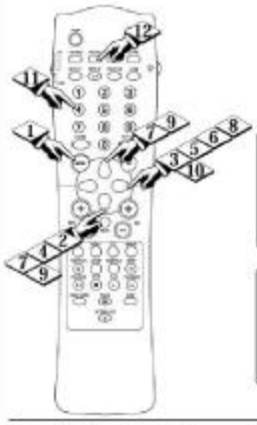
AutoChron

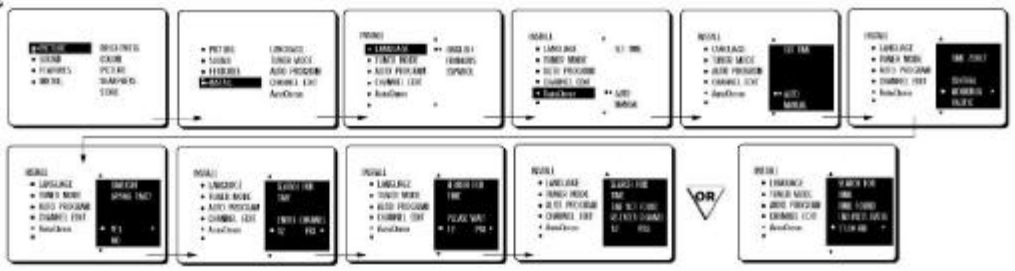
The AutoChron feature will set your TV's clock automatically; however, you must ensure that a cable TV or antenna signal is present, because the time is received from a broadcast signal.

How to Use AutoChron to Automatically set the TV's Clock.

BEGIN

1. **Press the MENU button** on the remote to show the on-screen menu.
2. **Press the CURSOR DOWN button** repeatedly until the word **INSTALL** is highlighted.
3. **Press the CURSOR RIGHT button** to shift the menu to the left. The word **LANGUAGE** will be highlighted.
4. **Press the CURSOR DOWN button** until the word **AutoChron** is highlighted.
5. **Press the CURSOR RIGHT button** to enter the AutoChron SET TIME area.
6. **Press the CURSOR RIGHT button again** to select AUTO. Within a few seconds a menu containing TIME ZONE options will appear.
7. If necessary, **press the CURSOR UP or DOWN button** to highlight your correct time zone.
8. With your correct time zone highlighted, **press the CURSOR RIGHT button.** Within a few seconds, you will be given the option of DAYLIGHT SAVINGS TIME.
9. If necessary, **press the CURSOR UP or DOWN button** to select YES or NO for Daylight Savings Time.
10. **Press the CURSOR RIGHT button** to activate your selection.
11. Within a few seconds a new menu will appear asking you to enter your local PBS channel. (AutoChron looks for the current time on PBS channels.) **Enter the PBS channel using the NUMBERED buttons.** "PLEASE WAIT" will appear as AutoChron looks for the time. If the wrong channel is entered, you will have to re-enter a correct PBS channel again. If the correct time is found the menu will read "TIME FOUND" and display the current time.
12. When finished, **press the STATUS button** to clear the on-screen menu from the TV screen.

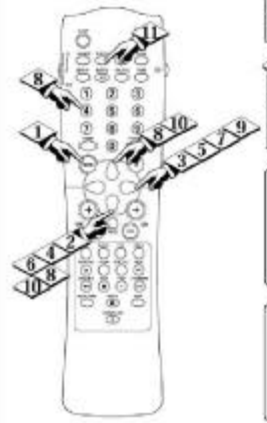


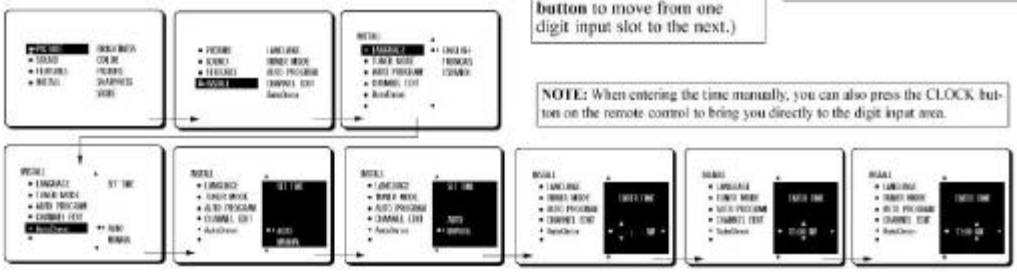


How to Use AutoChron to set the TV's Clock Manually.

BEGIN

1. **Press the MENU button** on the remote to show the on-screen menu.
2. **Press the CURSOR DOWN button** repeatedly until the word **INSTALL** is highlighted.
3. **Press the CURSOR RIGHT button** to shift the menu to the left. The word **LANGUAGE** will be highlighted.
4. **Press the CURSOR DOWN button** until the word **AutoChron** is highlighted.
5. **Press the CURSOR RIGHT button** to enter the AutoChron SET TIME area.
6. **Press the CURSOR DOWN button** to select MANUAL.
7. **Press the CURSOR RIGHT button** to enter the MANUAL time input area.
8. **Use the NUMBERED buttons on your remote control to input the current time.** Or, **press the CURSOR UP or DOWN buttons** to scroll through a list of digits to input the correct time for each of the time input slots. (**Press the CURSOR RIGHT button** to move from one digit input slot to the next.)
9. After you have input the time, **press the CURSOR RIGHT button** to enter the AM/PM area of the menu.
10. **Press the CURSOR UP or DOWN button** to select the AM or PM setting.
11. When finished, **press the STATUS button** to remove the menu from the TV's screen.





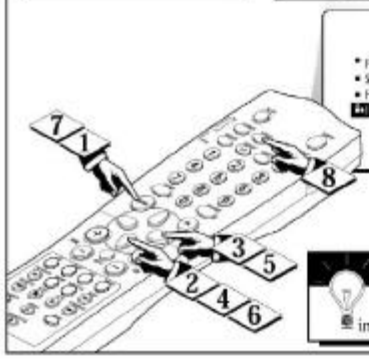
NOTE: When entering the time manually, you can also press the CLOCK button on the remote control to bring you directly to the digit input area.

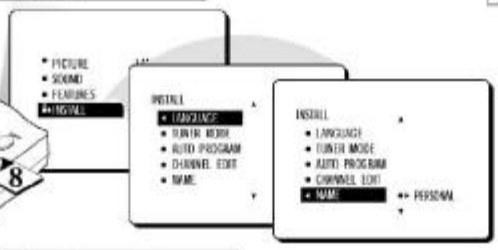
Name

The channel NAME feature allows you to list the "call" letters of your favorite stations beside their channel numbers when they appear on the screen. The TV has in memory a list of the 50 most popular channel names (for example, ABC, NBC, FOX, etc.). You also can enter a custom name (up to five characters).

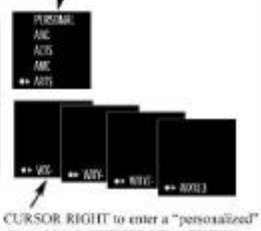
BEGIN

1. **Press the MENU button** on the remote control to show the on-screen menu.
2. **Press the CURSOR DOWN button** repeatedly until INSTALL in highlighted.
3. **Press the CURSOR RIGHT button** to shift the menu to the left. LANGUAGE will be highlighted.
4. **Press the CURSOR DOWN button** repeatedly until the NAME control is highlighted.
5. **Press the CURSOR RIGHT button** to highlight the NAME options area.
6. **Press the CURSOR RIGHT button again;** then **press the CURSOR UP or CURSOR DOWN button** to scroll through a list of predefined labels or enter a personalized label using characters A through Z, or 0 through 9). **Press the CURSOR RIGHT button** and scroll up or down to enter the character for that position. Repeat for the second, third, fourth, and fifth characters.
7. After you have selected a name for the channel, **press the MENU button** to save the name in the TV's memory.
8. **Press the STATUS button** to clear the menu from the screen.





CURSOR UP or DOWN to select predefined channel labels.

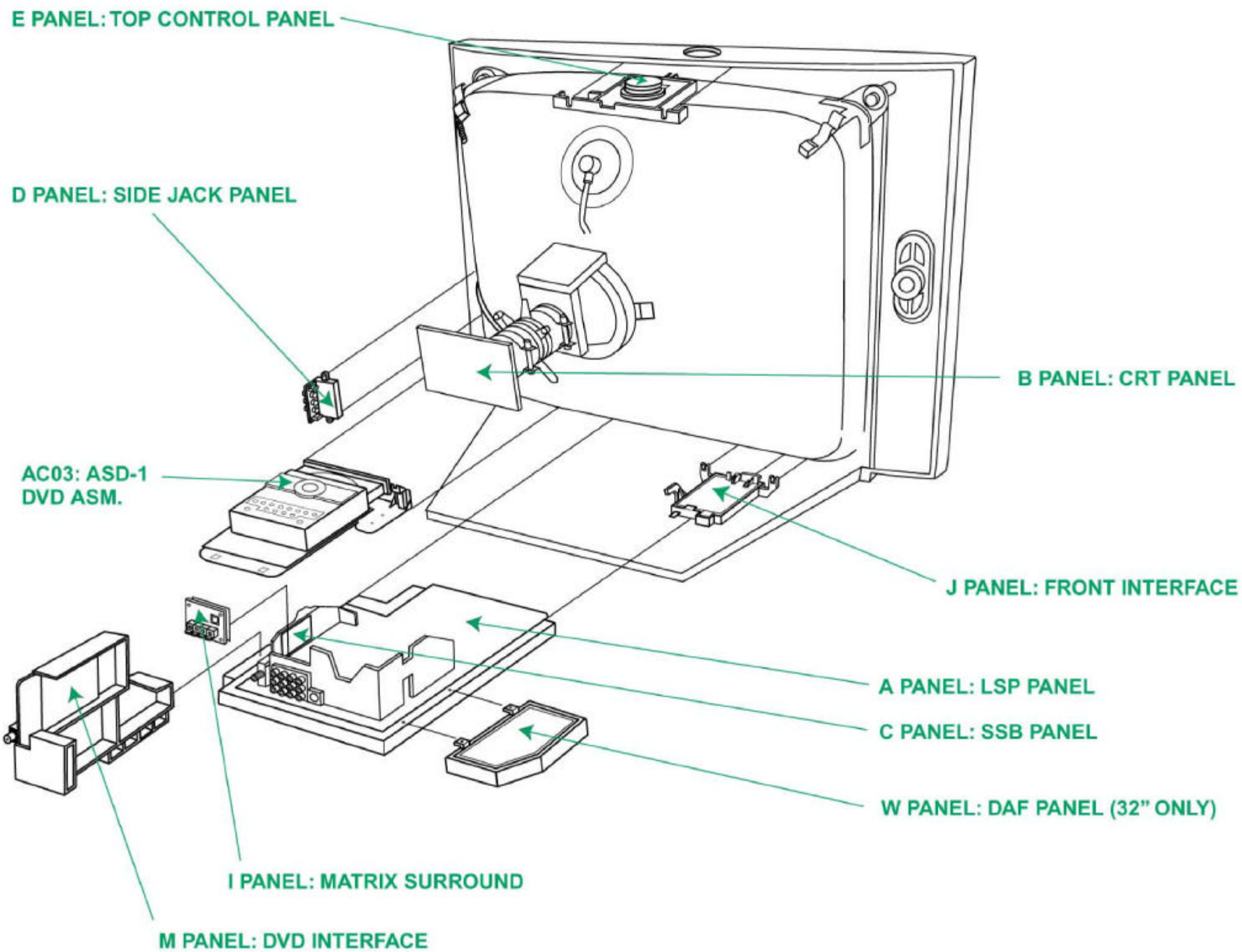


CURSOR RIGHT to enter a "personalized" channel label. CURSOR UP or DOWN to select number or letters for each label up to 5 characters.

Smart Help

The five characters that the channel NAME feature allows you to input can be letters, a dash character, or the numbers 0 through 9

PANEL GUIDE: H8 Chassis w/DVD



27" Stereo Remote Color Monitor/Receiver with DVD

27DV60S

Philips Real Flat™ TV with DVD

- *27" Real Flat™ invar picture tube*
- *Digital Comb Filter*
- *Scan Velocity Modulation*
- *Side and Rear AV jacks with Headphone, S-Video and Digital audio outputs*
- *Plays DVD, Audio CD, CD-R and CD-RW discs*
- *5-Disc Resume*
- *Discrete Dual-Laser Pickup*
- *3x Digital Zoom*
- *dbx® hi-fi stereo sound with Incredible Surround™ and subwoofer*



Remote control unit varies with model

Let's make things better.

PHILIPS

27" Stereo Remote Color Monitor/Receiver with DVD

27DV60S

Picture

Real Flat™ Invar picture tube
Our Real Flat™ invar picture tube provides the best picture by minimizing unwanted reflections and providing a wider viewing angle. The special alloy invar shadow mask delivers a sharper picture with purer color, higher contrast and brighter whites as compared to standard tubes.

Incredible Picture™
Creates a remarkable increase in clarity and sharpness at the point of transition from dark to light areas of the video image for a picture so sharp and well defined that you'll never want to go to the movies again.

Digital Comb Filter
Digital circuitry clearly separates black and white detail from color data virtually eliminating dot crawl and delivering unmatched, razor-sharp picture performance with 800+ lines of horizontal resolution.[1]

Scan Velocity Modulation
The electron gun varies its scanning speed to optimize image detail and edge sharpness during transitions between dark and light picture areas.

Improved Image Definition (IDD™)

AutoPicture™

Black Stretch

Blue Stretch

Green Stretch

3-Position Color Temperature

Remote Control

DVD System Remote	RCAU013SLV
Number of remote control buttons	42 top buttons + 2 side buttons

Gain complete control of both the television and built-in DVD player with one easy to use remote. Operates all functions for TV and DVD including menus and special effects such as Digital Zoom and Still modes.

Convenience

Multimedia Mode
One button instantly switches to A/V input source and automatically sets the Auto feature options to MULTIMEDIA.

AutoSurf™
Simplify channel surfing by storing up to ten favorite stations in the Surf™ memory and then surfing only those channels at the touch of a button. Add or delete channels from list through onscreen display.

AutoChron™
Automatically sets the right time of day and maintains it through brown-outs, power failures, and even daylight savings time adjustments.

Side stereo AV jacks
Easily connect your camcorder, video game or other source using high resolution side S-Video and stereo AV inputs. A stereo headphone jack provides a quick connection for private listening.

S-Disc Resume
Automatically "bookmarks" where you stopped your last 5 DVD discs so you can easily resume viewing where you left off. No more searching for the right spot!

AutoLock™

AutoMute™

Alternate Channel

Onscreen Clock with Sleep Timer

Alarm On/Off Timer

Second S-Video Jack

Trilingual Onscreen Display

AutoProgramming

Close Caption

Onscreen Volume Bar

Sound

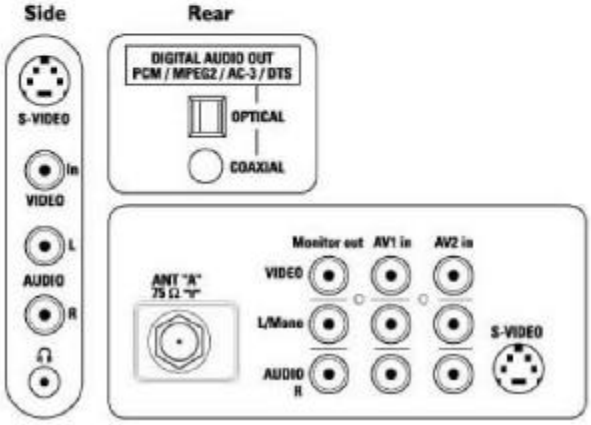
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An exciting psycho-acoustic method of widening the stereo spatial image for full-impact home entertainment.

AutoSound Plus™
Instantly optimize sound to satisfy any program situation. Select from one of four factory settings including movies, music, voice, or personal with a variety of combinations of ultra bass, treble and automatic volume leveling to suit any taste.

20-Watt dbx® hi-fi stereo sound system, Subwoofer and Digital Coaxial and Optical Audio Outputs
(5 Watts X 2 RMS into 8 ohms from 40Hz to 15.6kHz, with no more than 7% Total Harmonic Distortion). Digital Coaxial and Optical AC-3 Audio Outputs for the highest quality connection to Dolby Digital™ and DTS™ surround systems. Built-in active subwoofer adds impact and excitement to shows and movies, especially from digital sources like DVD! (10 Watts RMS active subwoofer into 8 ohms from 50Hz to 250Hz, with no more than 7% Total Harmonic Distortion).

Tone Controls

Audio/video Jack Panel



DVD

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3x Digital Zoom
The unique digital filtering system allows you to zoom in on every detail without losing picture quality, during play and still modes. Enlarge up to three times without image degradation.

TV Standard

	NTSC
	60 Hz
• Number of lines	625
• Playback	Multistandard (PAL/NTSC)

Video Format

• DA Convertor	10 bits
• Signal handling	Components
• Digital Compression	MPEG2 for DVD

DVD	50 Hz	60Hz
• Hor. Resolution	720 pixels[2]	720 pixels[2]
• Vert. Resolution	576 lines	480 lines

Audio Format

• Digital	MPEG/ AC-3	Compressed Digital
	PCM	16, 20, 24 bit f_s 48, 96 kHz

• Analog Sound Stereo
Dolby Pro Logic downmix from multi channel sound 3D Sound for virtual 5 channel sound on 2 speakers.

Audio Performance

• DA Converter	24 bits	
• DVD	f_s 96 kHz	4 Hz - 44 kHz
	f_s 48 kHz	4 Hz - 22 kHz
• CD	f_s 44.1 kHz	4 Hz - 20 kHz
Signal-Noise	(1 kHz)	100 dB
Dynamic Range	(1 kHz)	100 dB
Crosstalk	(1 kHz)	110 dB
Distortion / Noise	(1 kHz)	90 dB

Connection

Digital Output	1 coaxial, 1 optical IEC958 for CDDA/LPCM IEC1937 for MPEG1/2, AC-3 DTS
Subtitles Selection	(1 out of max. 32 languages)
Aspect Ratio conversion	(16:9, 4:3 Letterbox, 4:3 Pan Scan)
Parental Control and Disk lockout	
Disc Menu support	(Title Menu and Root Menu)
Resume	(5 discs) after stop / standby

Programming Titles / chapters with Favourite Selection

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Time Display	(Total / Track / Remaining Track Time)

Full audio functionality with remote control
Programming with Favourite Track Selection *(FTS)*

UPC: 0 37849 91066 5
Product Dimension: 31.0" W x 23.2" H x 19.8" D
Product weight: 101.0 lbs
Carton dimensions: 34.6" W x 27.4" H x 23.2" D
Carton weight: 123.0 lbs
Master pack: 1
Carton contains: 27" Stereo Remote Color Monitor/Receiver, Remote Control w/Batteries, Operating Instructions, Warranty Information.

CC Icon
This television receiver provides display of television closed captioning in accordance with §15.119 of the FCC rules

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[1] Lines per picture width. 600 based on EIA measurement procedures.
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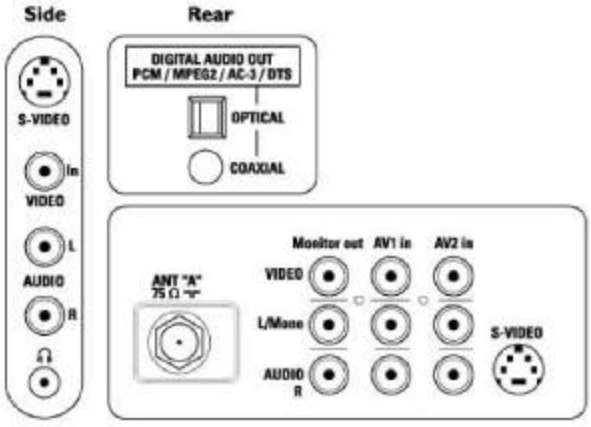
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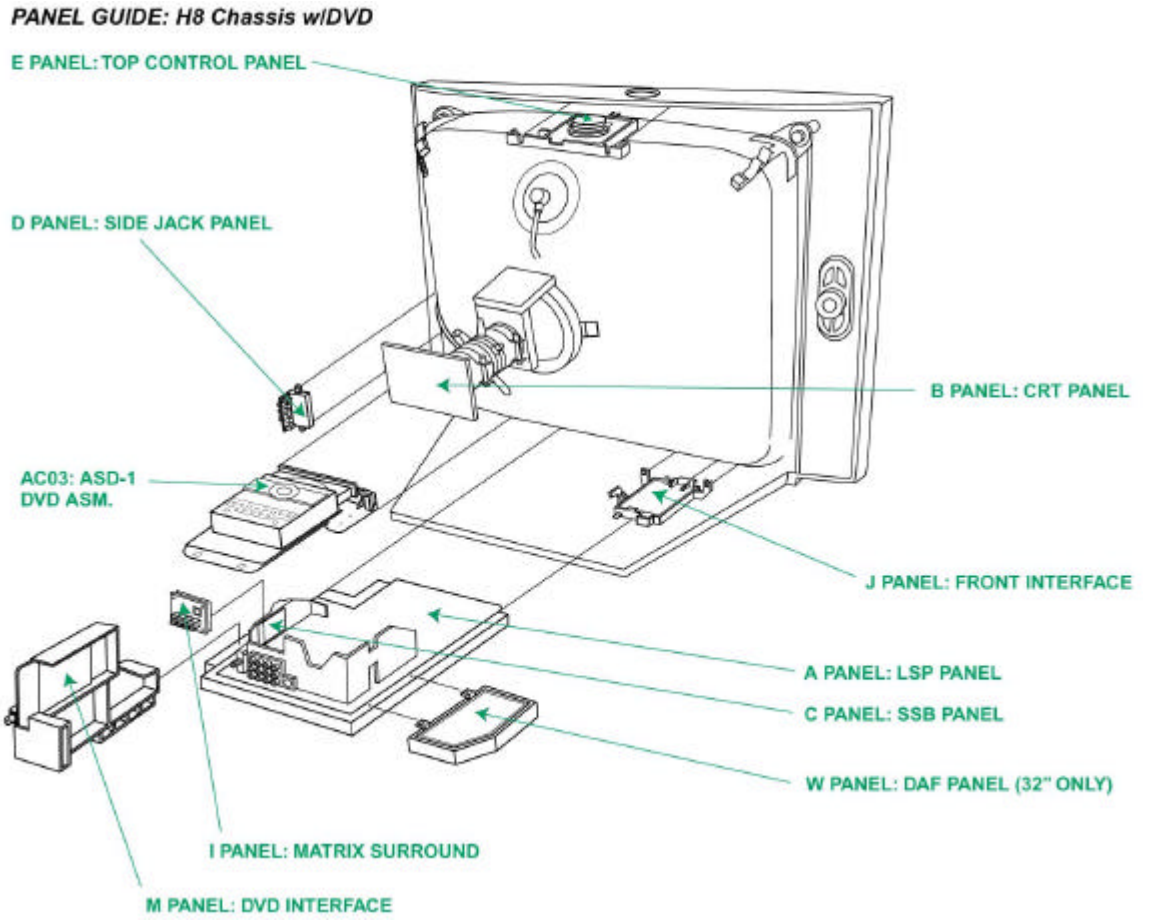
[1] Lines per picture width. 600 based on EIA measurement procedures.
[2] Equivalent to 500 lines on your TV.

Specifications subject to change without notice.

H8 CHASSIS w/DVD (A10) ADJUSTMENTS

Electrical Adjustments

Panel Location Guide



Conditions

All electrical adjustments should be performed under the following conditions:

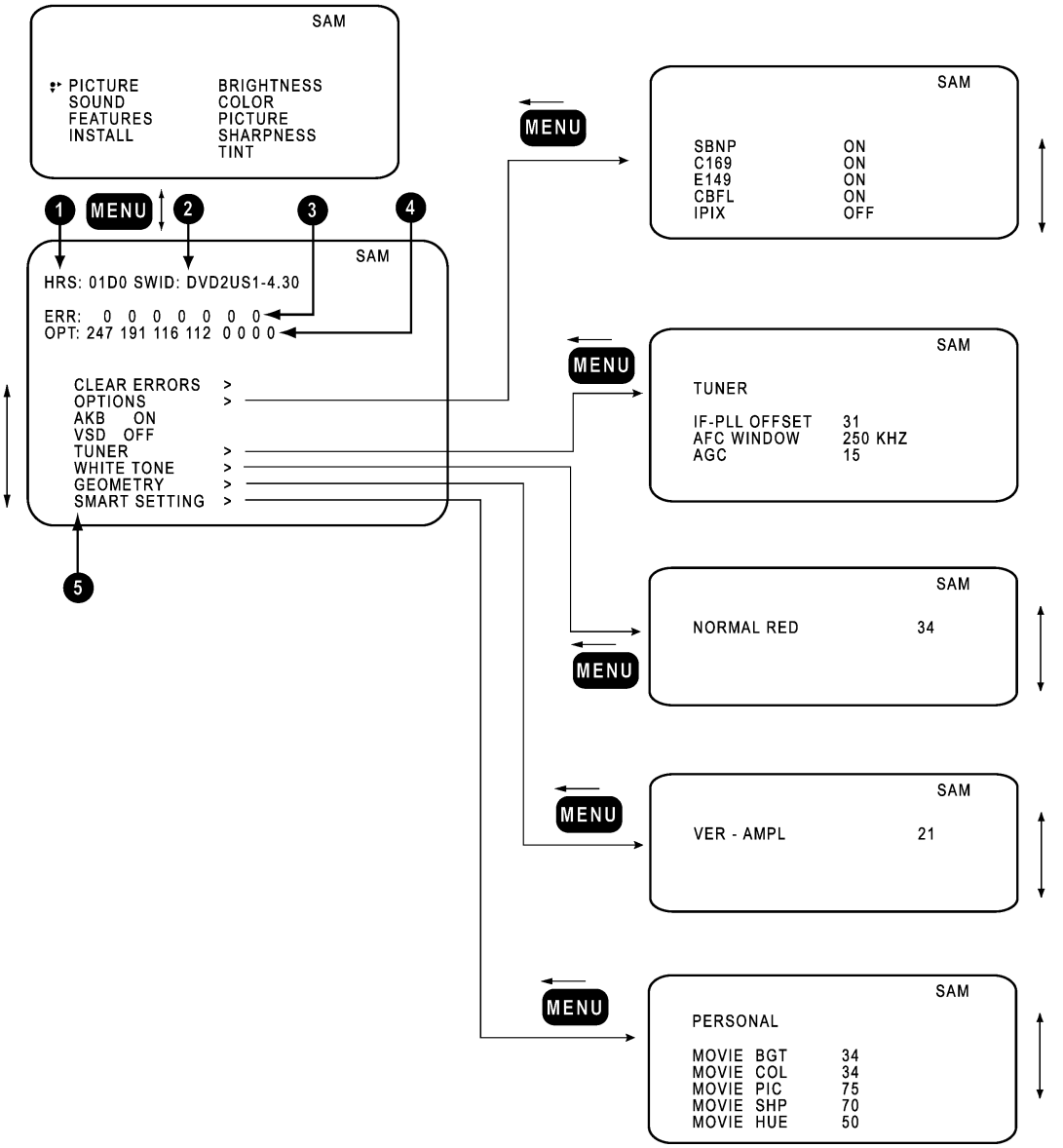
- Supply voltage: 120V +/- (10%)
- Warm-up time: 10 minutes
- The voltages and oscilloscope waveforms are measured in relation to the tuner ground.
- Test probe: Ri > 10Meg Ohm; Ci < 2.5 pF.

Software Alignments (Service Alignment Mode)

With the software alignments of the Service Alignment Mode, the geometry, white tone and tuner (IF) can be aligned.

Service Alignments Mode screens and structure.

SAM Menu (Entry: 0-6-2-5-9-6-STATUS)



Option Codes/Features

Options are used to control the presence / absence of certain features and hardware. There are two ways to change the option settings, see Service Alignments Mode screens and structure.

Changing a single option

An option may be selected with the MENU UP/DOWN keys and then changed with the MENU LEFT/RIGHT keys.

Changing multiple options by changing option byte values

Option bytes make it possible to set all options quickly. An option byte represents a number of different options. All options of the H8 are controlled via 8 option bytes. Select the option byte (OB1, OB2, OB3, OB4, OB5, OB6, OB7 or OB8) and enter the new value.

List of options

Unless otherwise stated ON means the option is turned on or present, OFF means the option is turned off or not present

Option Codes

DVD2US1-4.30		
Single Tuner		
Option bit	**Status**	**Description**
SBNP	ON	Picture no ident, autostandby after 10 mins timeout
C169	ON	Compress 16:9 - Format
E149	ON	Expand 14:9 - Format
CBFL	ON	Comb filter available
IPIX	OFF	Incredible Picture when set to ON, Contrast Plus when set to OFF
IPMU	ON	Incredible Picture/Contrast Plus via Menu selection
PLST	ON	Enable Program List
SOSD	ON	Enable Smart picture OSD (Dealer display)
BLMU	ON	Blue Mute for no ident picture
VSLC	OFF	Vertical data slicing
SURF	ON	Surf via RC
CCAP	ON	Close caption submenu
DNRM	ON	Digital Noise Reduction menu item
VMUT	ON	Video mute
TIME	ON	Timer submenu
AAVL	ON	AVL menu item
FUNN	OFF	Fine Tune menu item

SPKC	ON	Speaker menu item
VCBK	ON	V-CHIP BLOCK UNRATED
VBNR	ON	V-CHIP BLOCK NO RATING
USRC	OFF	US backup remote fro M-Link
BNUM	ON	Enable Bar number display
ROTI	OFF	ROTATION for 32" TV and above
SNIC	OFF	ON when sound IC is MSP3451, OFF when sound IC is MSP3435/3415
TMWIN	OFF	Time window: OFF- digit entry timeout after 2 sec, ON- digit entry timeout after 5 sec.
AOUT	ON	Audio Out menu item
INCF	ON	Internal comb filer, must set to ON
NVM	ON	Nonvolative Memory
OB1	247	Option Byte 1
OB2	191	Option Byte 2
OB3	116	Option Byte 3
OB4	112	Option Byte 4
OB5	0	Option Byte 5
OB6	0	Option Byte 6
OB7	0	Option Byte 7
OB8	0	Option Byte 8

Option bits/bytes

Option bytes for NAFTA models (4:3 Flat Screen) with software named: DVD2US1-4.30.

OB1 bits 8, 7, ..., 1: SBNP, C169, E149, CBFL, and IPIX
OB2 bits 8, 7, ..., 1: IPMU, PLST, SOSD, BLMU, VSLC
OB3 bits 8, 7, ..., 1: SURF, CCAP, DNRM, VMUT, TIME, AAVL, FUNN
OB4 bits 8, 7, ..., 1: SPKC, VCBK, VBNR, USRC, BNUM, ROTI, SNIC, TMWIN
OB5 bits 8, 7, ..., 1: AOUT, INCF, NVM, (res), (res), (res), (res)
OB6 bits 8, 7, ..., 1: (RESERVED)
OB7 bits 8, 7, ..., 1: (RESERVED)
OB8 bits 8, 7, ..., 1: (RESERVED)

An option byte value is calculated in the following way:
value “option bit 1” x 1 =
value “option bit 2” x 2 =
value “option bit 3” x 4 =
value “option bit 4” x 8 =
value “option bit 5” x 16 =
value “option bit 6” x 32 =
value “option bit 7” x 64 =
value “option bit 8” x 128 =
Total value is “option byte” =

Option Code Bytes

	27DV60 S121	32DV60 S127
OPTION 1	247	247
OPTION 2	191	191
OPTION 3	116	118
OPTION 4	112	112
OPTION 5	0	0
OPTION 6	0	0
OPTION 7	0	0
OPTION 8	0	0

Service Modes & Error Messages

The following topics are covered:

- Test points
- Service Modes and Dealer Service Tool (DST)
- Error code buffer and error codes
- The “blinking LED” procedure
- Trouble shooting tips
- Customer Service Mode

Test points

The H8 chassis is equipped with test points shown on the CBA and the schematic diagrams.

Each test point has a reference number indicating the functional block in which it is located.

- A1-A2-A3, etc.: Test points for the audio processing circuitry [A6, C6]
- C1-C2-C3, etc.: Test points for the control circuitry [C8]
- F1-F2-F3, etc.: Test points for the frame drive and frame output circuitry [A3]
- I1-I2-I3, etc.: Test points for the Intermediate Frequency Circuitry [A4, C1]
- K1-K2-K3, etc: Test points for the Guide+ panel
- L1-L2-L3, etc.: Test points for the line drive and line output circuitry [A2] and PIP-panel
- P1-P2-P3, etc.: Test points for the power supply [A1]
- S1, S2, S3, etc.: Test points for the synchronization circuitry [C1]
- V1-V2-V3, etc.: Test points for the video processing circuitry [B, C2, C3]

Measurements should be performed under the following conditions:
Video: NTSC color bar signal
Audio: 3kHz left, 1kHz right

Service Default Mode (SDM)

Introduction

The **Service Default Mode** (SDM) is a technical aid for the service technician. The Service Default Mode (SDM) establishes fixed, repeatable settings of customer controls, which allow consistent measurements to be made. The SDM also initiates the blinking LED procedure and, if necessary, overrides the 5V protection.

The SDM places the set in the following pre-defined conditions:

- Tuning frequency set to 61.25 MHz (channel 3).
- Volume level set to 25% (of the maximum volume level).
- Other picture and sound settings set to 50% (mid-range)

The following functions are turned off in SDM (and after leaving SDM):

- Timer
- Sleep timer

The following functions are disabled during SDM (and enabled after leaving SDM):

- Parental lock
- Blue mute
- Hospitality Mode
- No-ident Timer (normally the set is automatically switched off when no video signal (IDENT) was received for 15 minutes).

All other controls operate normally.

Entering Service Default Mode

To enter the Service Default Mode, press the following key sequence on the remote control transmitter:

0-6-2-5-9-6-Menu

Do not allow the display to time out between entries while keying the sequence.
It is also possible to enter the Service Default Mode by temporarily short-circuiting jumpers 9261 and 9262 while turning the set on By shorting jumpers 9261 and 9262 while turning the set on.

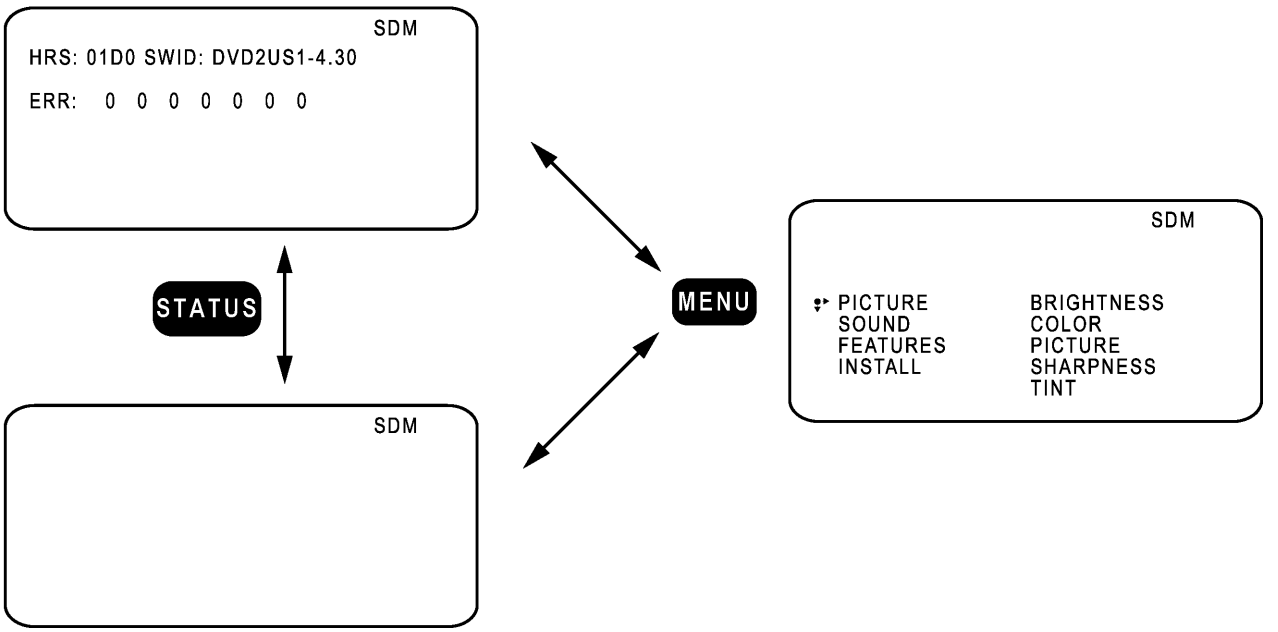
Note: Entry into SDM by temporarily shorting jumper 9261 and 9262 while turning the set on, the 5V protection will be disabled.

CAUTION! Overriding the 5V protection should only be used for a short period of time. In case of S/W protections (error 1-4) the set will shutdown after 15 sec.

Upon entry into the Service Default Mode, the letters “SDM” will be displayed at the upper right corner of the screen.

Service Default Mode (SDM) Screen

SDM Menu (Entry: 0-6-2-5-9-6-MENU)



Special SDM functions

Access to normal user menu

Pressing the “MENU” button on the remote control switches between the SDM and the normal user menus (with the SDM mode still active in the background)

Auto Program

Press the Cursor Down button and highlight the "Install" menu item. Press the Cursor Right button to highlight the "Language " menu item. Press the Cursor Down button until the "Auto Program" menu item is highlighted. Press the Cursor Right button to activate Auto Program.
Auto programming is indicated by a blinking LED; the LED will discontinue blinking when a transmitter is located.

Error buffer

To show/hide the error buffer press the “Status/Exit” button on the remote control. The error buffer information can be hidden to prevent interference with oscilloscope measurements.

Access to SAM

To access the Service Alignment Mode while in the SDM press the “VOLUME +” and “VOLUME –“ buttons on the local keyboard simultaneously.

Exiting Service Default Mode

To exit the Service Default Mode, press the Power button.
Note: To save the error codes, unplug the AC power cord without turning off the set. When the power is turned back on, the Service Default Mode will still be active.

Service Alignment Mode (SAM)

Introduction

The Service Alignment Mode (SAM) is used to align the set and/or adjust the option settings and to display/clear the error code buffer values.

Entering Service Alignment Mode

To enter the Service Alignment Mode (SAM), press the following key sequence on the remote control transmitter:

0-6-2-5-9-6-STATUS

Do not allow the display to time out between entries while keying the sequence
It is also possible to enter the Service Alignment Mode by pressing the “VOLUME +” and “VOLUME -” key on the local keyboard simultaneously when the set is in SDM

Exiting the Service Alignment Mode

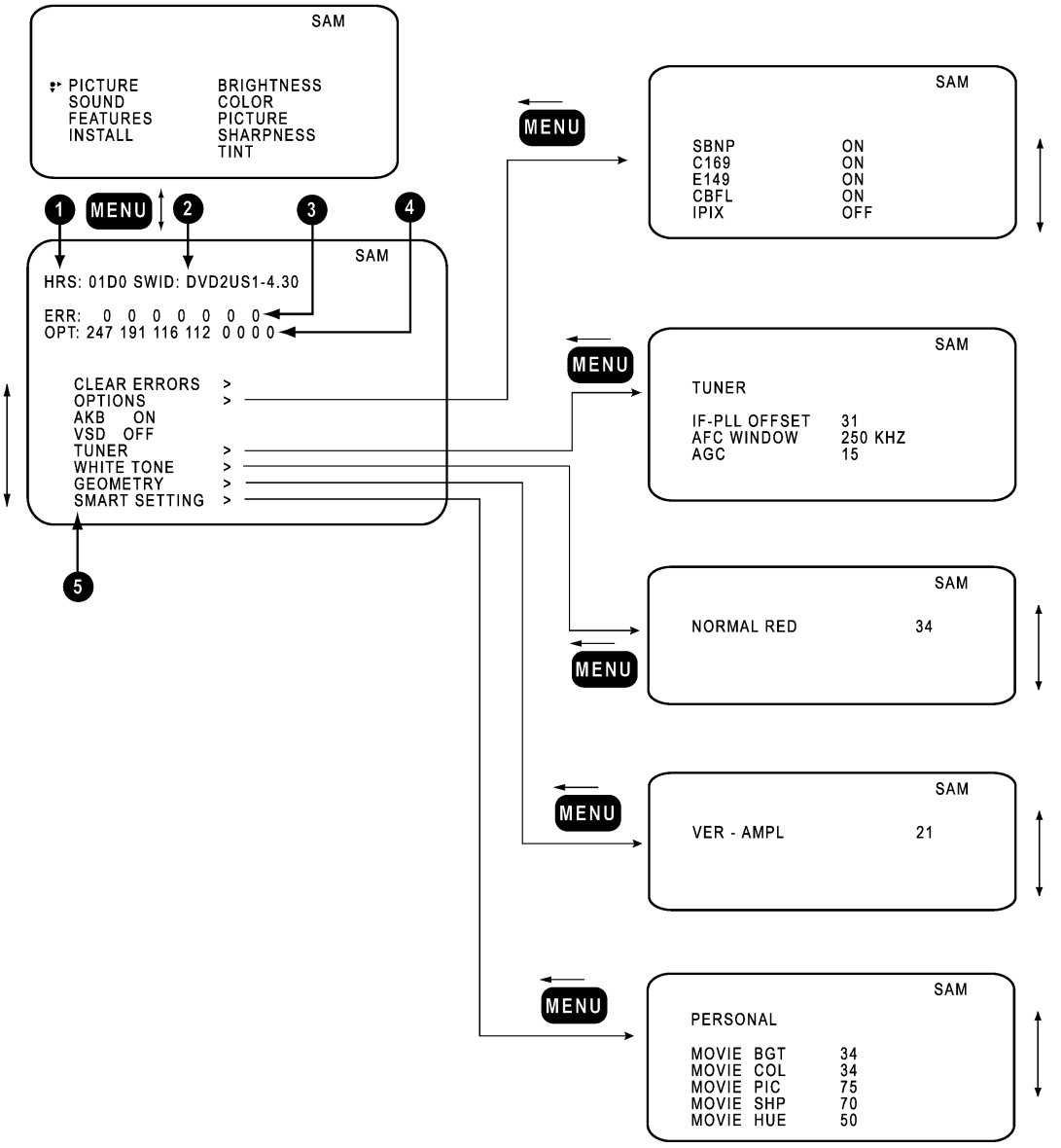
To exit the Service Alignment Mode and save your modified settings, first press the Menu button on the remote (to back-up to the upper level SAM Menu), then press the Power button. The set will take a few seconds to write the new data and then turn off.
Pressing the Power Button without first returning to the upper level SAM Menu will cause set to exit the SAM Mode & shut-down without saving any modified values.

Note: To save the error codes, unplug the AC power cord without turning off the set. When the power is turned back on, the Service Alignment Mode will still be active.

In the SAM the following information is displayed on the screen:

SAM Screen and Menu Structure

SAM Menu (Entry: 0-6-2-5-9-6-STATUS)



Explanation notes/references:

1 Operation Hours (Run Timer):
This display indicates the accumulated total of operational hours. (Shown in hexadecimal format)
2 Software identification of the main micro controller (DVD2US1-4.30)
DVD2 is the engineering name for the H8 chassis with integrated DVD player.
- **US1** is a 2 letter and 1 digit combination to indicate the software type and the supported languages:
- **US** = USA
- **1** = Main Software language version number
- 4**.30** = sub-version number

3 Error buffer (7 errors possible) Displays the 7 most recent errors. The most recent error is displayed at the upper left.
4 Option bytes (8 codes possible), summary of options are explained below.
5 Sub menus are listed in a scroll-menu.

SAM Menu Control

Menu items may be selected using the cursor UP/DOWN key.
- The selected item will be highlighted.
- When not all menu items will fit on the screen, pressing the cursor UP/DOWN key on the remote transmitter will display the next/previous menu items.

With the cursor LEFT/RIGHT keys, it is possible to:
- (de)activate the selected menu item (e.g. GEOMETRY)
- change the value of the selected menu item (e.g. VER-SLOPE)
- activate the selected submenu (e.g. SERV-BLK)

Access to normal user menu

Pressing the “MENU” button on the remote control switches between the SDM and the normal user menus (with the SAM mode still active in the background). Pressing the “MENU” key in a submenu will return the screen to the previous menu.

The Menus and Submenus

CLEAR ERRORS

Erasing the contents of the error buffer. Select the CLEAR ERRORS menu item and press the MENU RIGHT key. The content of the error buffer is cleared.

The functionality of the OPTIONS and ALIGNMENTS (TUNER, WHITE TONE, GEOMETRY and SMART SETTING) sub menus is described in the service adjustments.

Error code buffer and error codes

Explanation of the Error code buffer

The error code buffer contains all errors detected since the last time the buffer was erased. The buffer is written from left to right. When an error occurs that is not yet in the error code buffer, the error code will appear at the left side and all other errors shift one position to the right.

The error code buffer will be cleared in the following cases:

- by activating CLEAR ERRORS in SAM menu
- exiting SDM or SAM with the “Standby" command on the remote control
- upon automatic reset when content has not changed for 50 consecutive hours

By leaving SDM or SAM via the power switch, the error buffer will not be reset.

Examples:
ERROR: 0 0 0 0 0 0 0 : No errors detected
ERROR: 6 0 0 0 0 0 0 : Error code 6 is the last and only detected error
ERROR: 9 6 0 0 0 0 0 : Error code 6 was first detected and error code 9 is the last detected (newest) error

The contents of the error buffer can also be displayed by use of the “blinking LED” procedure, if no picture is available. See explanation of “The blinking LED procedure “below.

Error code definition

In case of non-intermittent faults, clear the error buffer before starting the repair, to make sure “old” error codes are not present. If possible check the entire content of the error buffers. In some situations an error code is only the result of another error code (and not the actual cause).
Note: a fault in the protection detection circuitry can also lead to a protection.

Error 0 = No error

Error 1 = X-ray protection, E/W protection and/or Beam
X-ray protection, E/W protection and/or Beam; set is switched to protection; error code 1 is placed in the error buffer; the LED will blink 1 time (repeatedly). If this happens, isolate each circuit to determine the cause. These circuits are:

- x-ray protection – PROTN

If this protection is active, the most likely cause is the LOT. Detection via pin 3 of the signal processor – item 7301.

- EW protection – PROT-UP

If this protection is active, the causes could be one of the following:

- bad contacts of:
- horizontal deflection coil
- linearity coil 5417
- S-correction capacitor 2418/2419
- flyback capacitor 2414/2416
- line output stage
- short circuit of:
- flyback diode 6414
- EW transformer (bridge coil) 5478/5479 or 5474/5475/5476 (item number depends upon the model version)
- EW driver 7470
- High beam current protection - Beam

  As the name implies, what causes this protection is a high beam current (bright screen with flyback lines) which is too high. Check for the presence of the +200V supply to the CRT panel. If the voltage is present, the most likely cause is the CRT panel or the picture tube. Disconnect the CRT panel to determine the cause. If the +200V voltage is not present, check R3840 at CRT-panel and R3445 & D6445 on the main chassis.

Error 2 = Vertical protection - VFB
If this protection is active, the cause could be one of the following (most likely in the vertical output stage):
- 7501 is faulty
- poor contact or open circuit of deflection coil
- +13V-VERT and/or -13V not present

Error 3 = Reserved

Error 4 = +5V protection
5V protection active; set is switched to protection; error code 4 is placed in the error buffer; the LED will blink 4 times (repeatedly). A 5V failure can cause a drop in the 5V-supply output, resulting in an undefined behavior of the set. Therefore, all I^2C devices connected to the 5V supply are constantly monitored. When none of these devices responds to the micro controller for a prolonged time, the micro controller assumes that there is a failure in the 5V supply.

By starting up the set with the service jumpers shorted, the 5V protection is disabled and it is easier to determine the cause. +5V protection will be activated when these I^2C devices fail (no I^2C communication):
- Main Tuner – 1125 on main panel
- ITT sound processor – MSP34xx (7064) on the SSB

The following tips are useful to isolate the problem area after overriding the +5V protection. Determine whether:
- The +5V source is working properly; isolate coil 5430 and jumper 9044 and measure the +5V
- ITT sound processor circuit is loading the +5V; isolate coil 5430
- The tuner is loading the +5V source; isolate jumper 9044
- Main tuner circuit is loading the +5V source; isolate coil 5261

Caution! Overriding the 5V protection when there is a 5V failure can increase the temperature in the set and may cause permanent damage to components. Do not override the 5V protection for a prolonged period of time.

Error 5 = Reserved

Error 6 = General I^2C error. This error code will be displayed in the following cases:
- SCL or SDA is shorted to ground
- SCL is shorted to SDA
- SDA or SCL connection at the micro controller is open circuit.

Error 7 = BC-loop not stabilized (BCF = 1) Black current loop instability protection. The possible cause could be a defect in one or more of the RGB amplifiers, RGB guns or RGB driving signals.

Error 8 = BOCMA (signal processor) IC – TDA888xx I^2C communication failure. BOCMA (item 7301 on SSB) is corrupted or the I^2C line to the BOCMA is low or no supply voltage present at pin 14 and/or pin 60 (3V3)

Error 9 = BOCMA (signal processor) IC – TDA888xx 8V failure (SUP bit). No supply voltage at pin 53. Check NFR 3331 and coil 5333.

Error 10 = Non Volatile Memory I^2C error. NV memory (EEPROM – item 7066) does not respond to the micro controller.

Error 11 = Micro controller / NV Memory identification error. During the last start-up the NVM and the micro controller did not recognize each other (e.g. one of them was replaced or the NVM memory has been changed/adapted or lost), therefore the NVM was loaded with default values.

Error 12 = Microprocessor (Painter – item 7064) internal RAM test failure.

Error 13 = Main Tuner I^2C failure UV13xx. Tuner (item 1225) is corrupted or the I^2C line to the Tuner is low or not supplying voltage at pin 9, pin 6 or pin 7 of the tuner.

Error 14 = Sound processor I^2C error (MSP34xx -). Sound controller MSP3400 or MSP3410 does not respond to the micro controller.

Error 15 = SRAM (Static Random Access Memory) IC uPD431000A-B test failure (item – 7070).

Error 16 = PIP/DW Tuner I^2C error. The Tuner (TEDE9 – item 1900) on the PIP-panel does not respond to the micro controller.

Error 17 = PIP IC – M65669SP I^2C failure (item 7803) or Double Window IC SAB9081 I^2C failure.

Error18 = I/O expander IC – 62320P I^2C failure (item 7910 on PIP panel).

Error 19 = Guide+ I^2C failure (LC27016B – item 7005).

Error 20 = V-chip for PIP, IC ZILOG 86130 I^2C failure.

Error 21 = NV clock IC MK41T56 I^2C failure at mono board – Item 7011 at A7. (Latam only)

Error 22 = Reserved.

Error 23 = Second BOCMA IC – TDA888xx (item 7301on Double Window PIP panel) I^2C communication failure.

Error codes 1,2, and 4 are protection codes, and in this case the supplies of some circuits will be switched off. Also in protection, the LED will blink the number of times equivalent to the most recent error code.

Error code table

Error code	Error description	Possible defective components
0	No error detected	—
1	X-ray protection/ EW and/or High beam protection active	LOT, Line deflection circuit, EW-circuit or CRT amplifier circuit, picture tube or +200V missing
2	Vertical protection	Vertical circuit is defective
3	Reserved	
4	5V protection active	+5V supply line is low or short circuit
5	Reserved	
6	General I2C bus error	I^2C bus s/c or o/c on µP
7	BC-loop not stabilized	RGB amplifiers, RGB guns or RGB driving signals of BOCMA
8	BOCMA (signal processor) I^2C error	IC 7301on SSB
9	BOCMA (signal processor) 8V supply failure	IC 7301 and R3331on SSB
10	NVM I^2C error	IC 7066
11	NVM identification failure	IC 7066
12	µProcessor internal RAM test failure	IC 7064
13	Main Tuner I^2C error	IC 1225 – UV13xx
14	Sound processor I2C error	IC 7 (2CS/Nicam)
15	SRAM I2C error	IC 7070
16	PIP tuner I^2C error	IC 1900 – TEDE9
17	PIP IC I^2C error or DW IC I^2C error	
18	I/O expander IC 62320P I2C error	IC 62230P – item 7910
19	Guide+ I^2C error	IC LC27016B – item 7005
20	V-chip for PIP – I^2C error	IC ZILOG 86130 -
21	NV clock – I^2C error	IC MK41T56 – item 7011
22	Reserved	
23	Second BOCMA (signal processor) IC (on Double Window PIP panel) – I^2C error	IC TDA888xx – item 7301on Double Window PIP Panel

The Blinking LED Procedure

The contents of the error buffer can also be made visible through the “blinking LED” procedure. This is especially useful when there is no picture.

- When the SDM is entered, the LED will blink the number of times, equal to the value of the error code. Upon entry into the SDM, the LED will blink the contents of the error-buffer.
  Error-codes greater than/equal to 10 are shown in the following manner:
  A long blink of 750 mSeconds indicating the decimal digit, followed by a pause of 1500 mSeconds. The LED will then blink the number equal to the error code. When all error-codes are displayed, the sequence is finished with an LED display of 3 seconds. At this point the sequence will begin again.

Example:

Error code position	1	2	3	4	5
Error buffer:	12	9	6	0	0

- After entering SDM:
- The sequence will begin with 1 long blink of 750 mSeconds, then pause 1500 mSeconds, then blink twice (indicating error code 12), then the LED will pause for 3 seconds, then blink 9 times (indicating error code 9), then the LED will pause for 3 seconds, then blink 6 times (indicating error code 6), then pause 3 seconds and blink for 3 seconds again, ending the blinking sequence.

NOTE: If errors 1, 2 or 4 occur the LED ALWAYS blinks indicating the last error which occurred, even if the set is NOT in service mode.

Customer Service Mode (CSM)

All H8 sets are equipped with the “Customer Service Mode” (CSM). CSM is a special service mode that can be activated and deactivated by the customer, by request of the service technician/dealer in order to identify the status of the set. This CSM is a 'read only' mode, therefore modifications in this mode are not possible.

Entering the Customer Service Mode.

The Customer Service Mode can be switched on:

- By pressing the MUTE button on the remote control and any key on the local keyboard (Channel Up, Channel Down, VOL +, VOL -) on the TV simultaneously for at least 4 seconds.

When the CSM is activated:

- picture and sound settings are set to nominal levels
- Modes that interfere with the behavior of the set are switched off (sleep timer, auto standby, etc.)

Exit the Customer Service Mode.

The Customer Service Mode will be switched off after:

- Pressing any key on the remote control (except “Channel Up” or “Channel Down”)
- Switching off the TV set by pressing the Power button on the remote control or the local keyboard.

Exiting CSM resets the TV set back to its initial values.

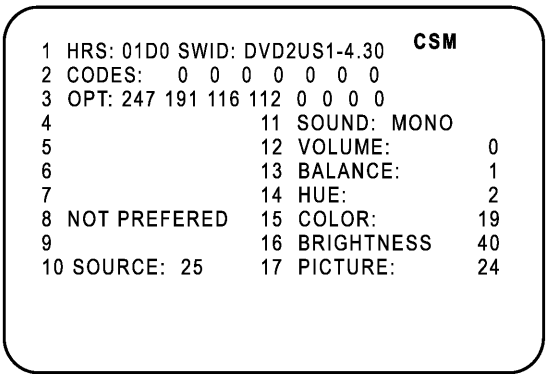
The Customer Service Mode information screen

Upon entry into the Customer Service Mode the following screen will appear.

CSM Menu Screen

CSM Menu

(Entry: MUTE & Top Control Function; for 4 seconds)



The Customer Service Menu shows the following information:

- **Line 1 : “HRS : nnnnn” and SWID : “DVD2US1-X.Y”**

HRS:

Indicates the accumulated total of operational hours. (Shown in hexadecimal format.) (Standby hours are not counted as operating hours).

SWID:

Software identification of the main micro controller (example: DVD2US1-4.30)

A10 is the engineering chassis name for the H8 chassis

- **US1** is 3 character designation used to indicate the software type and the supported languages:
- **US** = USA
- **1** = Main Software language version number
- 4.30 = sub-version number

- **Line 2 : “CODES : xx xx xx xx xx xx xx ”**

Error code buffer (see explanation of error codes above) Displays the last 7 errors of the error code buffer.

- **Line 3 : “OPT xxx xxx xxx xxx xxx xxx xxx xxx”**

Option bytes

Option bits control the software and hardware functionality of the A10.0. An option byte or option number represents 8 of those bits. Each option number is displayed as a number between 0 and 255. The set may not work correctly when an incorrect option code is set. See Service Adjustments for more information on correct option settings

- **Line 4: “SYSTEM : USA”**

Indicates this set is equipped to receive an NTSC broadcast signal.

- **Line 5 : "NO SIGNAL"**

Indicates that the set is not receiving an "ident" signal on the selected source.

- no or bad antenna signal; connect a proper antenna signal
- antenna not connected; connect the antenna
- no channel / preset is stored at this program number; go to the INSTALL menu and store a proper channel at this program number
- the tuner is faulty (in this case the CODES line will contain number 13 or 16); check the tuner and replace/repair if necessary

Note: On some models, (if the BM option is ON), BLUE MUTE is displayed when no signal is received.

- **Line 6 : "TIMER ON "**

Indicates that the on/off timer is running.
The following Complaints may be caused by the activation of the sleep timer:
The set may turn on from standby or may switch to a different channel without using either the remote control or the local keyboard.

To switch off the activation timer:
Select "TIMER" in the "FEATURE" menu.
Select "ACTIVATE' in the "TIMER" menu.

Set to "OFF" with the left/right cursor keys.

- **Line 7 : NOT AVAILABLE**

- **Line 8 : "NOT PREFERRED"**

Indicates that at least one channel is deleted as a preferred channel (by default, all channels are skipped.
Note that "SKIPPED" will always be displayed in CSM unless all the channels are not skipped.

To add a channel as a selected channel to the list of preferred channels:
Select "INSTALL" menu
Select "CHANNEL EDIT"
Select "ADD/DELETE"
Set to "ADD" with the left/right cursor keys

- **Line 9 : "HOTEL MODE ON"**

Indicates that the Hotel mode has been activated.

- **Line 10 : "SOURCE :"**

Indicates which SOURCE is installed for this preset.
EXT1, SVHS2, EXT2, Tuner.

- **Line 11 : "SOUND"**

Indicates which sound mode is installed for this preset.
Mono, NICAM, Stereo, L1, L2, SAP, Virtual or Digital

- **Line 12 : "VOLUME"**

Value indicates level at entry CSM.

- **Line 13 : “BALANCE”**

Value indicates level at entry CSM.

- **Line 14 : “HUE”**

Value indicates level at entry CSM.

- **Line 15 : “COLOR”**

Value indicates level at entry CSM.

- **Line 16 : “BRIGHTNESS”**

Value indicates level at entry CSM.

- **Line 17 : “CONTRAST”**

Value indicates level at entry CSM.

VG2 Adjustment

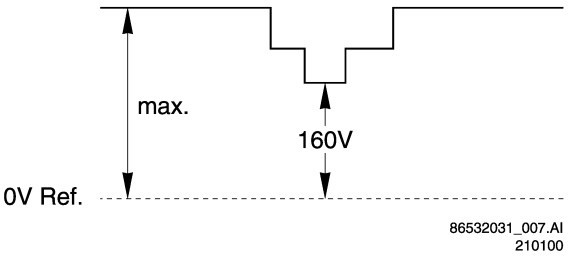
Rough alignment

Using a pattern generator displaying a circle pattern, adjust the VG2 potentiometer of LOT L5630 to obtain a normal picture.

Fine adjustment

1. Enter Service Alignment Mode (SAM) (see Software alignments (Service Alignment Mode)). Press the Cursor Down button to highlight the WHITE TONE menu item. Use the Cursor Right button to enter the WHITE TONE submenu. The NORMAL RED submenu item appears.
- Use the Cursor Up/Down buttons to select NORMAL RED, NORMAL GREEN, and NORMAL BLUE submenu items.
- Using the Cursor Right button, increase the value of RED, GREEN and BLUE to 40
- Adjust the value of RED, GREEN and BLUE to 42 for 29” Models.
2. Press the MENU button to leave the SAM-menu and go to the customer menu. When the customer menu appears, the PICTURE menu item is highlighted. Press Cursor Right button to enter the PICTURE submenu. Press the Cursor Down button to highlight PICTURE submenu item. Press the Cursor Right/Left buttons to set register value to 0.
3. Press the MENU button to return to the main customer menu. Press MENU again to return to the SAM Main Menu. Press the Cursor Down button to highlight the AKB menu item. Press Cursor Right button to turn AKB OFF.
4. Connect RF output of the pattern generator to input antenna. Test pattern: blank pattern (blank screen on CRT). Set the time base of the oscilloscope to 0.5ms with external triggering of the vertical pulse. Measure the black level pulse during the vertical flyback at the RGB cathodes of the CRT.

Black Level Pulse



Adjust the highest of the three guns with the VG2 potentiometer of the LOT to 160Vdc for 27FSQ-sets, while the minimum black level voltage 165Vdc is for 32” / 36” FSQ-sets and 29” / 34” RF picture tubes.

Focus Adjustment

Using a pattern generator displaying a crosshatch pattern, adjust the focus potentiometer of LOT L5431 in such a way that the haze on the vertical lines at 2/3 from the left and right edges of the screen (just) disappears.

AGC Adjustment

Set pattern generator with gray scale video signal and connect to antenna input with RF signal amplitude - 10mV and set frequency to 63.25 MHz.

- Enter SAM (see Software alignments (Service Alignment Mode)). Press Cursor Down button to highlight the TUNER menu item. Press Cursor Right button to enter the TUNER submenu. Press Cursor Down button to highlight the AFC submenu item. Use the Cursor Left/Right buttons to set the value of AFC to 100kHz.
- Press the Cursor Down button to highlight AGC submenu item.
- Connect a DC multi-meter to pin 1 of the tuner IC 1225 (Large Signal Panel) or IC 1900 (Double Window PIP Panel).
- Press the Cursor Right/Left buttons to adjust the AGC register value until the voltage at pin 1 of the tuner is within 2.5 V AGC takeover voltage of 3.8 V.
- Once the desired level has been reached, press the Menu button the remote (to back-up to the upper level SAM Menu).
- Press the power button on the local keyboard or the remote control to turn the power off and save the settings.

Tuner options - IF PLL OFFSET and AFC WINDOW

NO ADJUSTMENT IS NECESSARY FOR THESE MENU ITEMS

The default values for these options are:

- IF PLL OFFSET : 31
- AFC WINDOW : 250KHZ

White Tone Adjustment

Enter SAM (see Software alignments (Service Alignment Mode)). Press the Cursor Down button to highlight the WHITE TONE menu item. Press the Cursor Right button to enter the WHITE TONE submenu. In the white tone submenu the values for the color temperature values can be adjusted. The color can be selected with the Cursor Up/Down buttons. The value can be changed with the Cursor Left/Right buttons.
First the values for the NORMAL color temperature should be selected. Then the offset values for the DELTA COOL and DELTA WARM mode can be selected. Note that the alignment values are non-linear
0 represents the middle value (no offset difference).

Submenu: **WHITE TONE**		Values	Remarks
NORMAL			
	NORMAL RED	0..63	
	NORMAL GREEN	0..63	
	NORMAL BLUE	0..63	
DELTA COOL			
	DELTA COOL RED	-63..0..+63	The displayed values will satisfy the following equation: 0 <= (NORMAL RED + DELTA COOL RED) <= 63 EXAMPLE: If NORMAL RED = 40, then DELTA COOL RED will range from –40 to 23.
	DELTA COOL GREEN	-63..0..+63	Similar rule to DELTA COOL RED applies.
	DELTA COOL BLUE	-63..0..+63	Similar rule to DELTA COOL RED applies.
DELTA WARM			
	DELTA WARM RED	-63..0..+63	Similar rule to DELTA COOL RED applies.
	DELTA WARM GREEN	-63..0..+63	Similar rule to DELTA COOL RED applies.
	DELTA WARM BLUE	-63..0..+63	Similar rule to DELTA COOL RED applies.

TYPICAL WHITE TONE VALUES AS NOTED ON A 27DV60 S121

	Typical Value
NORM RED	34
NORM GREEN	36
NORM BLUE	40
DELTA COOL RED	0
DELTA COOL GREEN	-2
DELTA COOL BLUE	6
DELTA WARM RED	0
DELTA WARM GREEN	-3
DELTA WARM BLUE	-12
CATHODE DR	9

TYPICAL SMART SETTINGS VALUES AS NOTED ON A 27DV60 S121

	Typical Value
MOVIE BGT	34
MOVIE COL	34
MOVIE PIC	75
MOVIE SHP	70
MOVIE HUE	50
SPORT BGT	34
SPORT COL	34
SPORT PIC	67
SPORT SHP	65
SPORT HUE	50
WEAK BGT	34
WEAK COL	32
WEAK PIC	59
WEAK SHP	50
WEAK HUE	50
MULTI BGT	34
MULTI COL	34
MULTI PIC	71
MULTI SHP	60
MULTI HUE	50

Geometry Adjustment

The geometry alignments menu contains 13 items for correct picture geometry alignment. In widescreen models, the GEOMETRY SW is available for separate alignments of the superwide (panorama) mode. The geometry alignments are:

Initial set-up:

- Press the PICTURE button on the remote control repeatedly to change the Smart Picture setting to "SPORTS."
- Enter SAM (see Software alignments (Service Alignment Mode)).
- Press the Menu Down button to select the GEOMETRY menu item.
- Press the Cursor Right button to enter the GEOMETRY submenu.
- Press the Cursor Down button to highlight the VER-SCOR submenu item.
- Use the Cursor Right buttons to adjust VER-SCOR to 13.
- Vertical zoom should be set at a default value of 35.
- Vertical scroll should be set at a default value of 32.

VER-SCOR Aligns the vertical linearity, so that the vertical intervals of the grid-patterns are the same over the entire height of the screen.

Extra Alignment for 4:3 sets

- Set Service blanking on SERV-BLK ON
- Adjust Vertical slope VER-SLOPE xx
- Set Service blanking OFF SERV-BLK OFF

General Alignment (4:3 set)

- Adjust Vertical amplitude VER-AMPL xx
- Adjust Vertical shift VER-SHIFT xx
- Adjust Horizontal shift HOR-SHIFT xx
- Adjust Vertical height VER-ZOOM xx
- Adjust Vertical posistion VER-SCROLL xx
- Adjust Vertical linearity VER-SCOR xx
- Not used H60-SHIFT xx
- Not used V60-AMPL xx
- Adjust Horizontal width EW-WIDTH xx
- Adjust Parabola EW-PARA xx
- Adjust Up corner EW-UCORN xx
- Adjust low corner EW-LCORN xx
- Adjust Trapezium EW-TRAP xx
- Adjust Horizontal parallelogram HOR-PARALLEL xx
- Adjust Horizontal bow HOR-BOW xx

Geometry Submenu Item Descriptions

		Typical Value
VER-AMPL	To align the picture height (other vertical alignments are NOT compensated)	21
VER-SLOPE	To adjust the picture so the proportions are the same at the top and bottom of the screen. (This alignment must be performed first, before all other vertical alignments)	37
SERV-BLK:	To turn on/off the blanking of the lower half of the screen (To be used in combination with the vertical slope alignment)	OFF
HOR-SHIFT	To align the horizontal center of the picture to the horizontal center of the CRT	32
HOR-BOW	To align straight horizontal lines at the top and the bottom of the screen; horizontal rotation around the center	31
HOR-PARALLEL	To align straight vertical lines at the top and at the bottom of the screen; vertical rotation around the center (*)	34
EW-WIDTH	To align the picture width (*)	41
EW PARA	To align straight vertical lines at the sides of the screen (*)	23
EW TRAP	To align straight vertical lines at the middle of the screen (*)	21
EW-UCORN	To align straight vertical lines in the upper corners of the screen (*)	20
EW-LCORN	To align straight vertical lines in the lower corners of the screen (*)	43
H60-WIDTH	Not used	2
H60-PARA	Not used	2
H60-SHIFT	Not used	6
V60-AMPL	Not used	5
VER-SCOR	To adjust the vertical linearity of the picture	13
VER-SHIFT	To align the vertical center of the picture to the vertical center of the CRT	30
VER-ZOOM	To adjust picture height	26
VER-SCROLL	To vertically align the raster	33

Alignments indicated with (*) are not applicable for sets without East/West circuitry

Trouble Shooting Tips

Trouble shooting tips for the deflection and power supply circuitry.

The Deflection Circuit:

- Measure for VBAT (140V) across 2939/2940 (Section - A1 POWER SUPPLY). If the voltage is not present, disconnect jumper 9936 and 9937 **(see A1 Power Supply)** The complete Line Deflection stage is now disconnected. If the voltage is present then the deflection circuit may be the cause of the problem.

Possibilities include:

- Defective Transistor 7410
- Faulty driver circuit around transistor 7481
- No horizontal drive signal coming from the BOCMA (signal processor) IC 7301 pin 56 on the SSB

Note: If the Collector and Emitter of 7410 are shorted, a "hiccup" noise may be heard from the power supply circuit.

To determine whether the fault is present in the line deflection circuit (Section - A2 LINE DEFLECTION) or in the EW circuit/panel (screen size above 21"), insert jumper into position numbers 9409 (in this case the EW protection is disabled). If the basic deflection is working (picture is parabolic distorted), then the fault is located in the EW circuit/panel. If there is no horizontal deflection, the fault is present in the basic deflection circuitry.

Also take note of protection circuits in the line output stage. If any of these circuits are activated, the set will shut down. Depending upon protections, the LED will blink according to the fault defined. In order to determine which protection circuit is active, isolation of circuits is necessary. These protection circuits are:

- High beam protection. See error 1 - High Beam Protection.
- X-ray protection : See error 1

If the high beam protection or the X-ray protection is active, it will switch the set to protection and the SDM will be automatically activated. The service LED blinks repeatedly 1 time. If this happens, isolate each circuit to determine the cause

The Power Supply Circuit:

Trouble-shooting the H8 Switch Mode Power Supply (SMPS)

- First check the +5V_STBY voltage on IC 7968, pin 3/4.
- If this voltage is not present, check fuse 1961 and D6961.

- If there is not an open circuit at 1906 or D6917, the problem may be caused on the primary side of the switching supply. Check the output of the bridge diodes on the cathode side of D6912/D6913 or D6915 - pin 1 for approximately 150V DC.

- If this voltage is not present, check the bridge diodes and the fuse.
- If fuse F1900 is open, check IC7921 (circuit A1) between pins 2 and 3 to insure that there is no short circuit present.
- If the 150V DC is present on pin 3 of IC7902, check for a startup voltage of 16V on pin 4 of IC7921.
- If the startup voltage is not present, check R3914 for an open circuit; a short circuit between pins 4 and 5 may also be the cause of this problem.
- It is necessary to have a feedback signal from the hot secondary side of switch mode transformer T5912 at pin 8 and pin 9 for the power supply to oscillate.

- If this startup voltage is present on pin 4 of IC7902 and the supply is not oscillating, check R3929 and D6929.
- The H8 power supply has been designed with Over Voltage Protection (OVP).
- To determine whether OVP is active, check whether VBAT – 141V is present at IC7971 pin 1. If not, check the components D6938, C2939 and C2940 and L5941.
- If these components are O.K., then check voltage at pin 3 of IC 7942.
- If this voltage is not present check fuse 1941 and fuse 1942. Replace if necessary.
- If dc-voltage is present at pin 3, replace opto-coupler 7929.
- Another way to confirm whether OVP is active is to measure the voltage with an oscilloscope at IC7902 pin 4. If the voltage is fluctuating between 11-14V, then check the components described above.

Solving other problems

TV switched off or changes channel without any user action
Set switches off after “TV SWITCHING OFF” was displayed
Auto standby switched the set off because:

- there was no ident signal for more than 15 minutes
- there was no remote control signal received or local key pressed for > 2 hours

See Service Adjustments for a description of options to enable/disable auto standby.

Picture problems

Picture too dark or too bright

- Press “Smart Picture” button on the remote control. If this improves the picture, increase / decrease the brightness value or increase / decrease the contrast value.
- Enter the Customer Service Mode. If this improves the picture, exit Customer Service Mode, then Increase / decrease the brightness value or increase / decrease the contrast value.

White line around picture elements and text

- Press “Smart Picture” button on the remote control. If this improves the picture, decrease the sharpness value.
- Enter the Customer Service Mode. If this improves the picture. Decrease the sharpness value.

Snowy picture

- Snow is an antenna or antenna connector problem. Check tuner and AGC.

Black and white picture

- Press the “Smart Picture” button on the remote control. If this improves the picture, increase the color value.
- Enter the Customer Service Mode. If this improves the picture. Increase the color value.

Menu text not sharp enough

- Press the “Smart Picture” button on the remote control. If this improves the picture, decrease the contrast value.
- Enter the Customer Service Mode. If this improves the picture. Decrease the contrast value.

Sound problems
No sound or sound too loud (after channel change / switching on)

- Enter the Customer Service Mode. If the volume is OK. Increase / decrease the volume level.

Mechanical Disassembly

Rear Cover Removal & Replacement

Removal of the Rear Cover
1. Remove all screws from the rear cover.
2. Remove the rear cover.

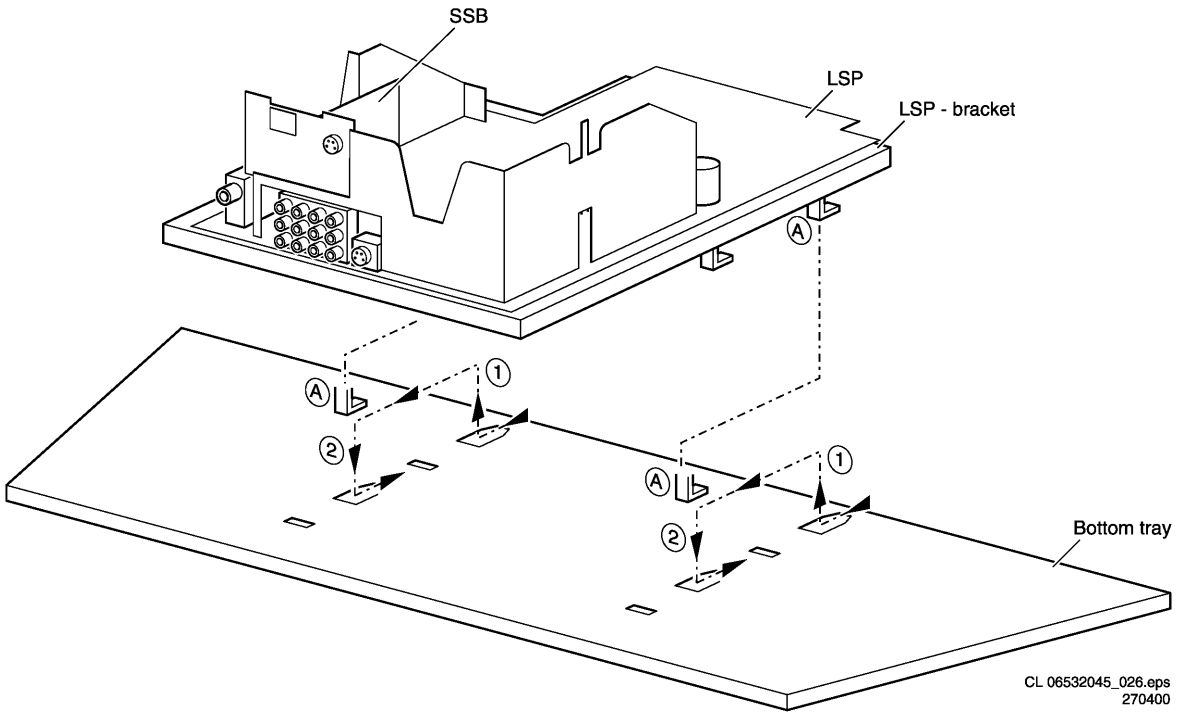
Replacement of the Rear Cover
Before replacing the Rear Cover, perform the following inspection:
- Ensure that AC Cord is placed correctly in the guide brackets.
- Ensure that all cables are placed in their original position.

Service Positions

The following CBA's are present in this chassis (see also 'Chassis overview', CBA Location Diagram):
3. Large Signal Panel (LSP)
4. Small Signal Board (SSB)
5. Top Control Panel
6. CRT Panel
7. Side Jack Panel
8. Front Interface Panel

Service Position 1 for the Large Signal Panel (LSP)

Position 1: The following service position will provide the best accessibility to the Top Side of the Large Signal Panel:



Service Position 1 - Large Signal Panel

1. Remove the LSP-bracket from the bottom tray by sliding the bracket backward and then pull the bracket up and out of the bottom tray.
2. Place the Hooks (A) of the bracket in the first row of fixation holes of the cabinet bottom. In other words reposition the bracket hooks from position (1) to position (2).

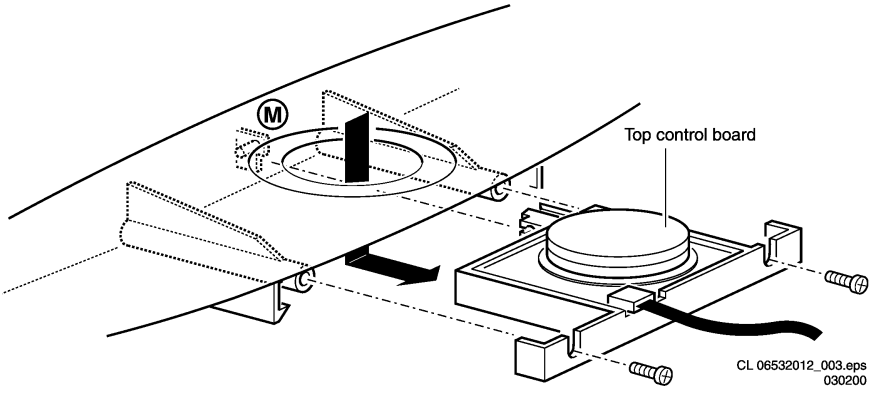
Service position for the Small Signal Board (SSB)

There is not a predefined service position for the bottom (B-) side of the SSB. All relevant test points can be accessed in both LSB service positions.

If IC's must be replaced: take the complete panel out of the SIMM-connector.

1. Put the Large Signal Panel in service position 1 (as described above).
2. Release the 2 metal clamps at both sides of the SIMM-connector and the complete SSB can be taken out. It 'hinges' in the SIMM-connector.

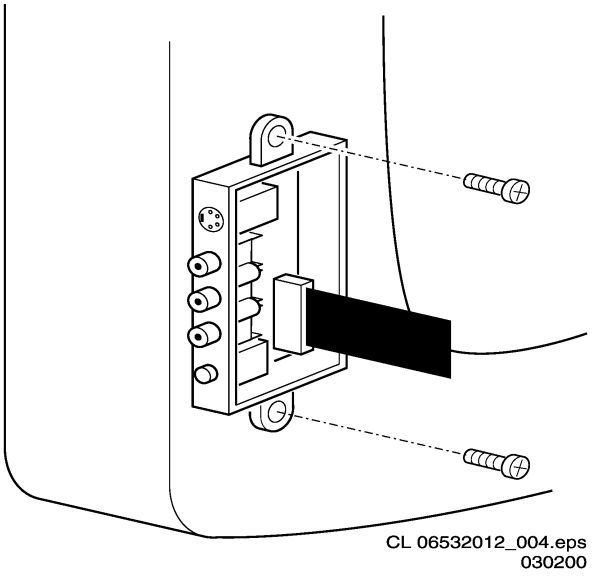
Access to the Top Control Panel



Top Control Panel

1. Remove the two screws that hold the panel to the cabinet back.
2. Slide the board backward (release it from the front hinge).
3. The board can easily be lifted out of the bracket after releasing the two clamps on the connector side.

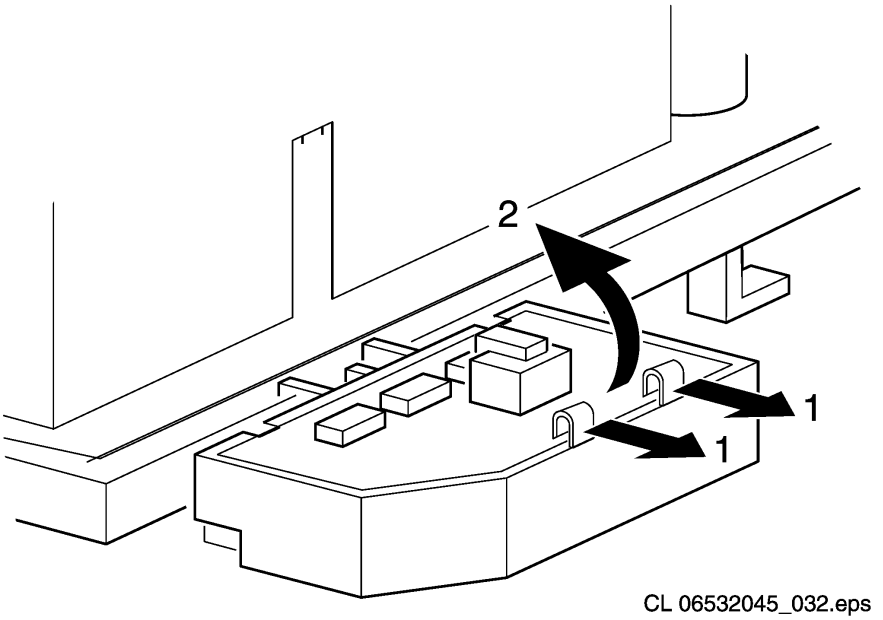
Access to the Side Jack Panel



Side Jack Panel

1. Remove the two screws.
2. Remove the complete Side I/O-assembly.
3. Release the two clamps then lift the board out of the bracket.

Access to the DAF panel

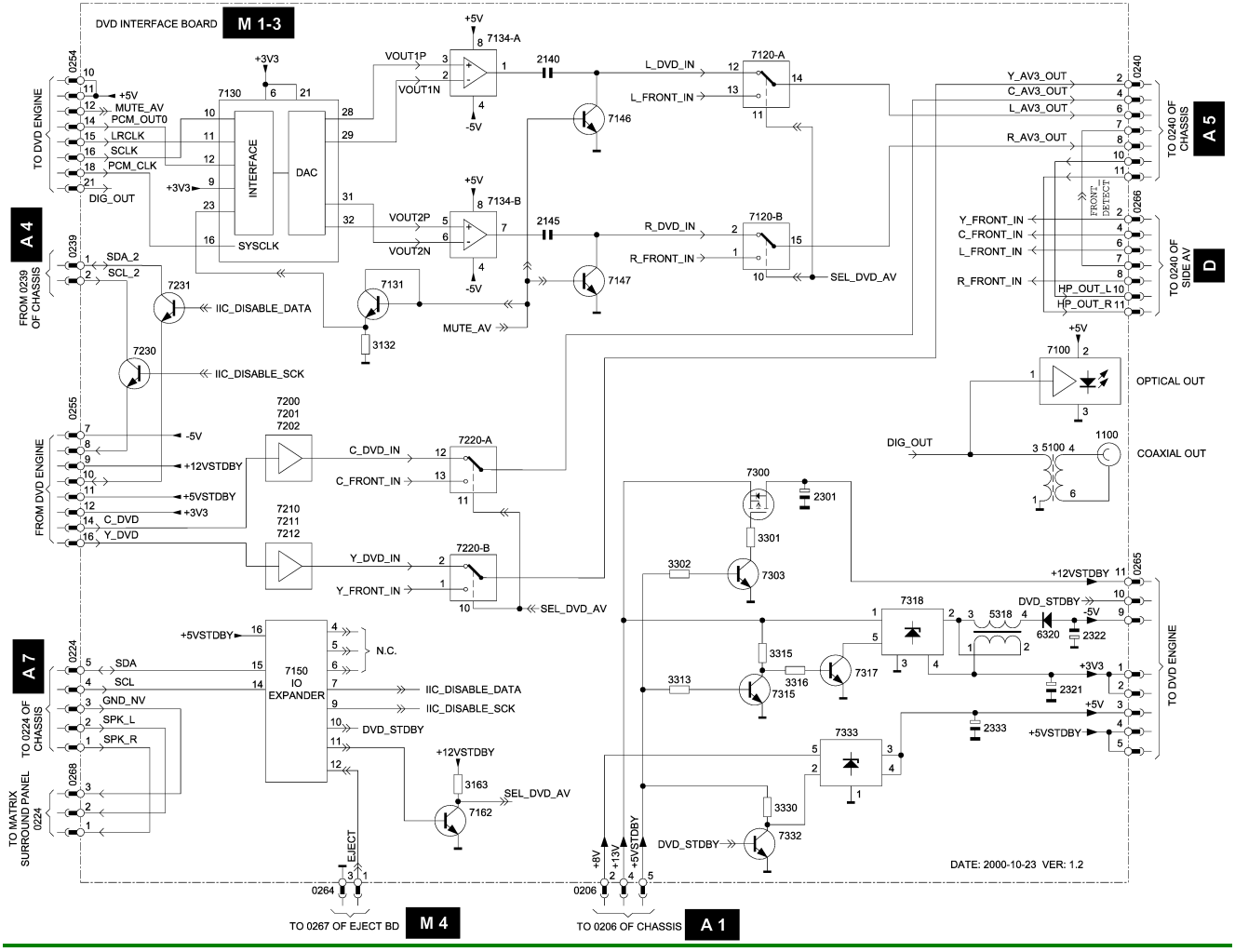


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DAF Panel

1. Release the clamps (1) and remove the board (2) from the bracket.

DVD Interface Block Diagram



DVD-Video Player **DVD Module ASD-1**

Service
Service
Service



Service Manual

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1. Technical Specifications

1.1 Connections

1.1.1 Connector 1600: Supply input connector.

1. +3V3stby
2. +3V3stby
3. +5V
4. +5Vstby
5. Vreserved
6. GND
7. GND
8. GND
9. -8Vstby
10. Standby control line
11. +12Vstby
12. GND

1.1.2 Connector 1603: A/V 1 connector.

1. P50
2. Blue Video
3. Green Video
4. GND
5. Red Video
6. CVBS
7. GND
8. Slow blanking scart
9. -8Vstby
10. +5V
11. +5V
12. Audio mute
13. GND
14. I2S data0 out
15. I2S wordselect
16. I2S bitclock
17. GND
18. I2S systemclock
19. Center_on
20. Kar_bypass
21. Kar_bypass
22. GND

1.1.3 Connector 1604: A/V 2 connector.

1. GND
2. Hor. sync.
3. GND
4. I2S data 2 out
5. GND
6. I2S data 1 out
7. -8Vstby
8. I2C clock
9. +12Vstby
10. I2C data
11. Vreserved
12. +3V3
13. GND
14. C video
15. GND
16. Y video

1.1.4 Connector 1501: I2C interface connector.

1. I2C clock
2. GND
3. I2C data
4. Standby control line
5. P50

1.1.5 Connector 1602: Service connector.

1. TXD
2. Service activation
3. RXD
4. Reserved for RTS
5. 5: GND
6. Reserved for CTS
7. +5V

1.2 Signal specifications

This the specification of all signals as described under "Connections"
H = +5V ±0.5V
h = 3V3 ±0.3V
L = 0V ±0.5V
l = 0V ±0.3V

Stby	:	If the set supports a "standby" function, all supply voltages marked with "stby" have to stay on during standby.
Standby control line	:	HStandby mode
	:	LOn mode.
P50	:	Connection between front and A/V board, and can be used as P50 signal line. The signal is not connected to the module electronics.
Slow blanking scart	:	This signal switches between
	:	0V (220Ωoutput impedance)
	:	12Vstby/2 (455Ω output impedance)
	:	12vstby (690Ω output impedance)
Audio mute	:	Can be used for audio mute transistors during stop or power on/off.
	:	Mute on : +5Vstby
	:	Mute off: -8Vstby via a 10kΩ resistor.
I2S data0 out	:	I2S front data output.
	:	Level h/l
I2S wordselect / I2S bitclock	:	I2S timing signals
	:	Level h/l
I2S systemclock	:	256xFS audio systemclock.
	:	Level H/L
Kar_bypass	:	Bypasses the karaoke chip on the A/V board.
	:	Bypass activeH
	:	Bypass offL
Center_on	:	Switches the center audio to the scart output.
	:	Center to scarth
	:	L/R to scartl
SPDIF out	:	Digital audio output
	:	Level H/L

Hor. Sync	:	Video Horizontal synchronisation
	:	Level h/l
I2S data1 out	:	I2S surround data output.
	:	Level: h/l.
I2S data2 out	:	I2S center/sub data output.
	:	Level h/l.
I2C clock / I2C data	:	I2C databus
	:	Level: H/L
TXD / RXD / RTS / CTS	:	Service UART to be connected direct to PC serial input.
	:	Output levelsH/L
	:	Input levelsRS232 compliant
Service activation	:	Signal openNormal module start-up
	:	Signal tied to GND Module start-up in service mode.
Vreserved	:	Reserved in case the A/V board requires an extra supply voltage.
	:	This supply is limited by a positive polarised 47uF/16V elco + 100nF/16V.

1.3 Performance:

1.3.1 Digital output

CDDA/LPCM	:	according IEC958
MPEG1 is converted to LPCM	:	
MPEG2, AC3 audio.	:	according IEC1937
DTS.	:	according IEC61937 amendment 1.
	:	Digital output level is 0V / 5V with GND as reference. To meet the standards a decouple circuit is necesary.

1.3.2 I2S output

Accuracy	:	Up to 24bit.
Sample rate	:	44.1kHz / 48kHz.
Standard	:	Philips I2S output
Number of I2S outputs	:	3 (6 channel: Front / Surround / Center-Bass)
Deemphasis	:	Already processed in module.
Audio source streams	:	CDDA / MPEG1 / LPCM / MPEG2 / AC3
	:	No DTS decoding.
Audio trick modes	:	Dolby Pro Logic (multichannel downmix on front output)
	:	3D sound.

1.3.3 Analog output

The module has no analog audio ouput.	:	The analog audio specification will be determined by the external DAC circuit.

1.3.4 Video.

Standards	:	The video output standard will follow the source material.
	:	The OSD standard is switchable between PAL or NTSC.
Outputs	:	The module has 6 analog outputs (3 formats): Y/C CVBS RGB.
Specification.	:	The output is fully according PQR3 IMS except
	:	Output load>1kΩ to GND / Cap. load <47pF.
	:	Level0.5Vpp with 100% white
	:	DC-levelSync bottom = -0.65V ±10%
	:	Some specification points are significantly better then PQR3
	:	SNR on all video outputs is better then 60dB.
	:	Video bandwidth >5MHz (±3dB)

2. Warnings and Laser safety instructions

WARNING

All ICs and many other semi-conductors are susceptible to electrostatic discharges (ESD). Careless handling during repair can reduce life drastically.
When repairing, make sure that you are connected with the same potential as the mass of the set via a wrist wrap with resistance.
Keep components and tools also at this potential.

ESD



Safety regulations require that the set be restored to its original condition and that parts which are identical with those specified be used.

SHOCK, FIRE HAZARD SERVICE TEST:

CAUTION: After servicing this appliance and prior to returning to customer, measure the resistance between either primary AC cord connector pins (with unit NOT connected to AC mains and its Power switch ON), and the face or Front Panel of product and controls and chassis bottom,
Any resistance measurement less than 1 Megohms should cause unit to be repaired or corrected before AC power is applied, and verified before return to user/customer.
Ref.UL Standard NO.1492.

NOTE ON SAFETY:

Symbol ⚠ : Fire or electrical shock hazard. Only original parts should be used to replace any part with symbol ⚠
Any other component substitution(other than original type), may increase risk or fire or electrical shock hazard.

LASER SAFETY

This unit employs a laser. Only a qualified service person should remove the cover or attempt to service this device, due to possible eye injury.

LASER DEVICE UNIT

Type:	SemiconductorlaserGaAlAs
Wave length:	650 nm (DVD)
	780 nm (VCD/CD)
Output Power:	7 mW (DVD)
	10 mW (VCD/CD)
Beam divergence:	60 degree



USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURE OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.

AVOID DIRECT EXPOSURE TO BEAM

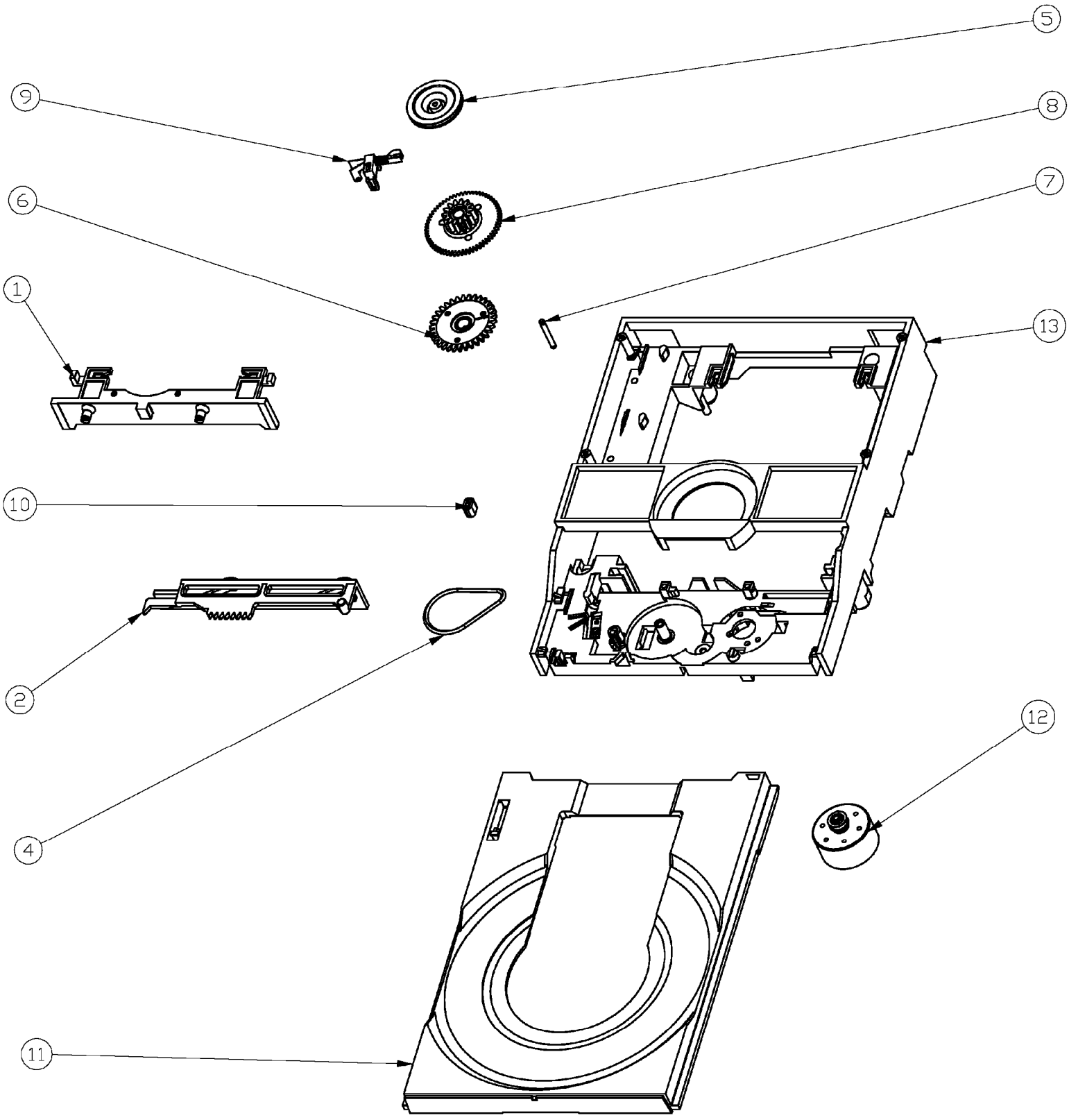
WARNING

The use of optical instruments with this product will increase eye hazard.
Repair handling should take place as much as possible with a disc loaded inside the player

WARNING LOCATION: INSIDE ON LASER COVERSHIELD

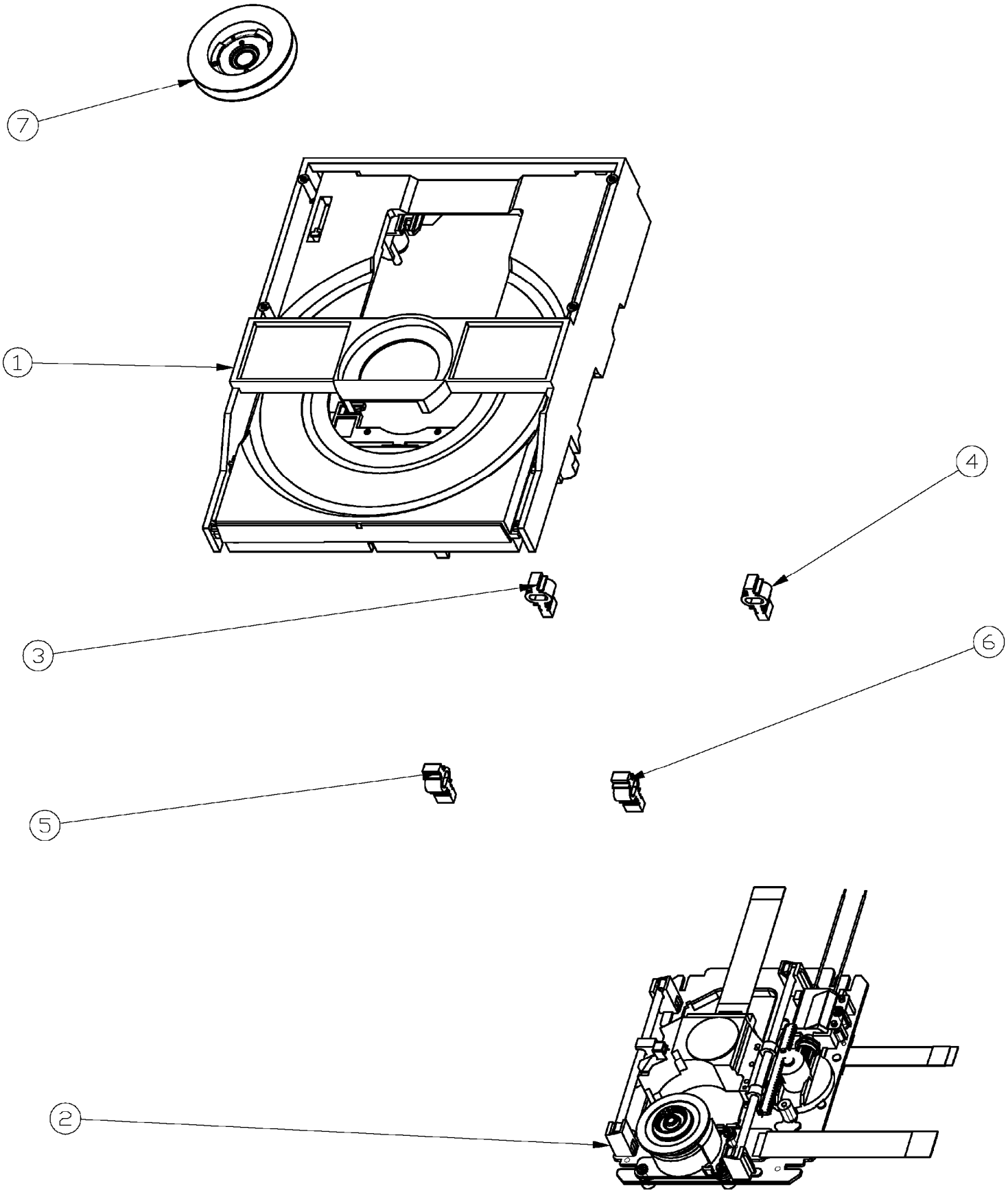
CAUTION VISIBLE AND INVISIBLE LASER RADIATION WHEN OPEN AVOID EXPOSURE TO BEAM
ADVARSEL SYNLIG OG USYNLIG LASERSTRÅLING VED ÅBNING UNDGÅ UDSÆTTELSE FOR STRÅLING
ADVARSEL SYNLIG OG USYNLIG LASERSTRÅLING NÅR DEKSEL ÅPNES UNNGÅ EKSPONERING FOR STRÅLEN
VARNING SYNLIG OCH OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD BETRAKTA EJ STRÅLEN
VARO! AVATT AESSA OLET ALTTIINA NÄKYVÄLLE JA NÄKYMÄTTÖMÄLLE LASER SÄTEILYLLE. ÄLÄ KATSO SÄTEESEEN
VORSICHT SICHTBARE UND UNSICHTBARE LASERSTRAHLUNG WENN ABDECKUNG GEÖFFNET NICHT DEM STRAHL AUSSETSEN
DANGER VISIBLE AND INVISIBLE LASER RADIATION WHEN OPEN AVOID DIRECT EXPOSURE TO BEAM
ATTENTION RAYONNEMENT LASER VISIBLE ET INVISIBLE EN CAS D'OUVERTURE EXPOSITION DANGEREUSE AU FAISCEAU

4. Mechanical instructions



4	4822 358 10266	BELT
9	3139 198 80010	SWITCH
10	4822 532 13097	TULE
11	3139194 00270	TRAY
12	3139 197 50060	TRAY MOTOR ASSY

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	9305 023 61101	VAL6011/01 LOADER COMPLETE
1	3139 197 60090	GENEVA LP LOADER ASSY
2	9305 022 60101	VAM6001/01
3+4	3139 194 00710	SUSPENSION (YELLOW)
5+6	3139 194 00620	SUSPENSION (BLUE)
7	3139 197 60060	CLAMPER ASSY

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180500

5. Test instructions mono board DVD-ASD1

5.1 General

- Impedance of measuring-equipment should be > 1MΩ.
- Most tests have to be done by software commands. Together with the software command you will find a Ref.# nbr. This is the number of the diagnostic nulceus used for this test. More detailed information can be find in the chapter "Diagnostic Nuclei".
- Levels: Most measurements are digital measurements. The high and low levels in this document got to have next specification:
  low : < 0.3V
  high : > 3.0V
  LOW : < 0.4V
  HIGH : > 4.5V
- All voltages marked with "stby" have to stay on during standby.

5.2 General start-up measurements

5.2.1 Supply check:

Pin nbr.	Supply
1600-1	3V3
1600-2	3V3
1600-3	+5V0V during STAND BY
1600-4	+5Vstby
1600-5	+6V
1600-6	0V
1600-7	0V
1600-8	0V
1600-9	-8V
1600-10	0V5V during STAND BY
1600-11	+12Vstby

0V

Check the supply currents to be sure there are no large failures on the board. Before measuring the currents, make sure that no A/V board, display board or Mercury 1 loader is connected to the mono board and that the PC interface cable is connected to the board.
Also check if the servo part gets its power.
Testpoint F608: +3V3 ±5%
Testpoint F101: +9V ±5%
The supply currents can be measured using a Tektronix AM503B current probe.

Supply	power consumption	
3V3	400mA ±10%	
5V	370mA ±10%	
5Vstby	< 5mA	
-8V	55mA ±10%	fluctuation: ±20mA
12Vstby	30mA ±20%	fluctuation: ±150mA

5.2.2 Reset check:

The reset circuit is triggered by the stand-by line. First make sure that the STB_CONT line is HIGH by connecting 5V to testpoint F505.
Then switch STB_CONT over to LOW and check next timing at the STI5505 reset input (testpoint F503):

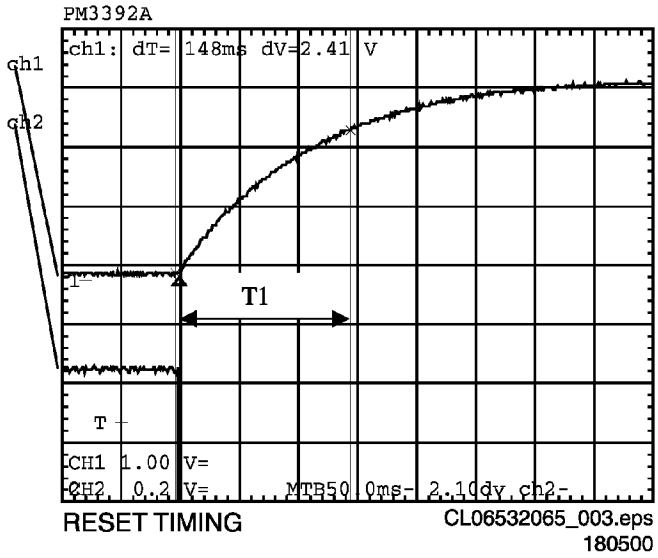


Figure 5-1

T 1 = 150msec ±25% (From 0V to 3V3 -3db)
If the reset input doesn't go high then check the circuit around transistor 7501.

5.2.3 Clock check

To check the correct functioning of the STI5505, we first have to check the presence of all clocks.
All clocks to be measured with 0.02% tolerance.

Clock-name	Testpoint	Frequency
27M_CLK	F051	27MHz
PCM_CLK	F566	11.2896MHz

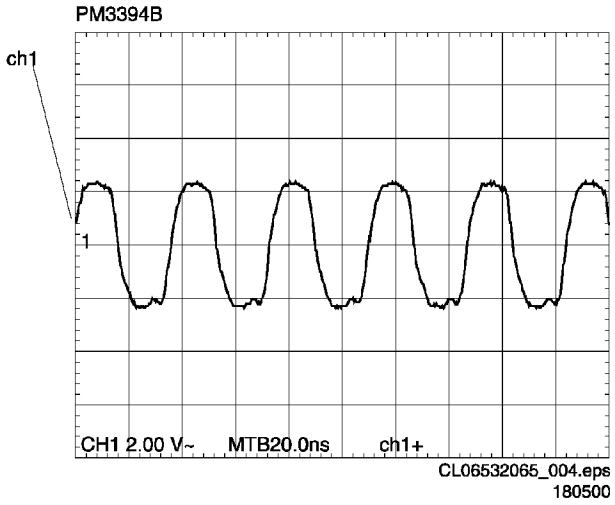


Figure 5-2

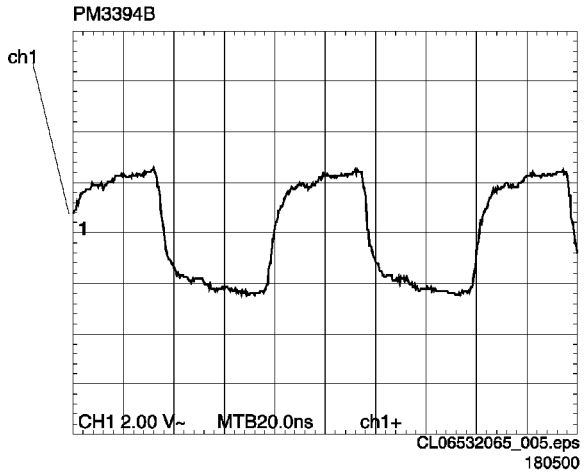


Figure 5-3

5.3 µP environment:

5.3.1 General:

All the tests are carried out by software tests. To start the software tests, connect a PC to the serial bus of the STI5505. Use connector 1602 for this connection:

Connector pin	Signal
1602-1	TXD (STI5505 out)
1602-2	Service-mode select
1602-3	RXD (STI5505 in)
1602-4	RTS (STI5505 out)
1602-5	GND
1602-6	CTS (STI5505 in)
1602-7	+5V

Now start the terminal program. Make sure that the service-pin of the µP is pulled low
(pin 1602-2) and then reset the µP (make the STB_CONT line low). The terminal program of your PC should now display: "DVD2 Diagnostic software version ...". This message already means that the µP is running. The first 5 commands from the diagnostic software will be carried out automaticly during diagnostic start-up. The other commands can be carried out by selecting the "command input". Just type the reference nbr. to do the test.
To be sure that the µP is able to run the diagnostic software, serial port will be checked during start-up.

Ref. #	Reference Name	Remark
(1)	BasicSpAcc	Serial port Access test/initialisation
(2)	BasicDramWrR	DRAM Write Read

5.3.2 Memory check:

The µP has a data bus that is connected to a DRAM (not present!!) and a Flash.
The µP has also an internal link to the MPEG SDRAM interface.
Next databus checks will be done at start-up to check this data-bus and SDRAM bus.

Ref. #	Command Name	Remark
(2b)	BasicInterconSDRAM	Data and address bus Interconnection
(2c)	BasicInterconFlash	Data and address bus Interconnection

There are 2 memory checks left that can be done by hand command

Ref. #	Command Name	Remark
6	PapChksFl	Checksum FLASH
16	CompSdramWrR	SDRAM Write Read

5.4 General I/O port & peripherals check

5.4.1 I2C bus / EEprom check

To access the EEprom, the I2C bus is used. So by writing and reading to the EEprom the chip and the bus is checked. With next commands a certain byte is written to the EEprom. The original information will always be written back into the EEprom.

Ref. #	Command Name	Remark
11	PapI2cNvram	I2C NVRAM access

The complete Eeprom can also be checked on failures by writing to all addresses and reading back. This test takes a long time (110 sec).

Ref. #	Command Name	Remark
15	PapNvramWrR	NVRAM Write Read

5.4.2 Audio clock switch check

For a DVD disc the audio clock has to be switched from 44.1KHz sampling to 48KHz sampling.
To do so IO-port 1 / 4 has to be switched. Send next commands and check the audio-clock

Ref. #	Remark	Testpoint	Frequency
7a	(Clock A_CLK in 44.1kHz mode)	F566	11.2896MHz ± 0.02%
7b	(Clock A_CLK in 48kHz mode)	F566	12.288MHz ± 0.02%

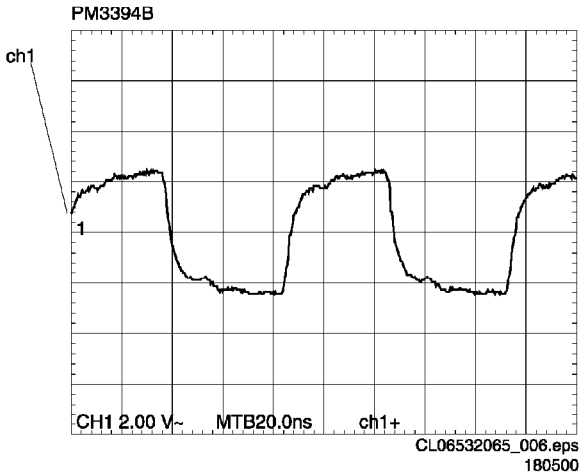


Figure 5-4

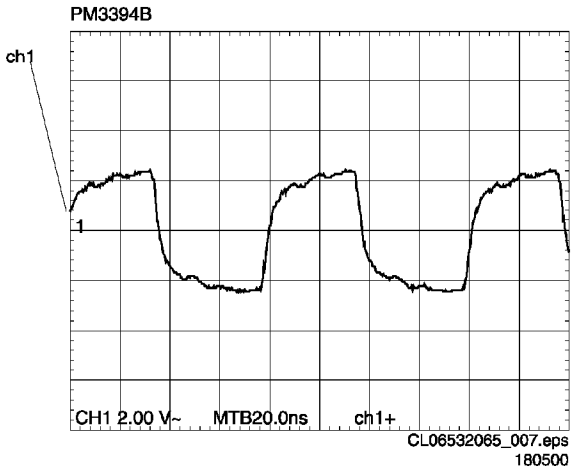


Figure 5-5

5.4.3 Audio deemphasise check

The STI5505 output pins PIO 4-0 and PIO 4-1 were used to switch deemphasis on a previous type of DAC. This function is not used anymore, because deemphasis is done internally in STI5505, but the name still remains. The lines are now used for a series of functions such as centre_on_stereo or karaoke_bypass. The PIO 4-0 has got a pull-up to +5V and the PIO 4-1 has not. To check these pins these commands can be used.

Ref. #	Command Name	Remark	Testpoint	Value
18e	AudioDeemp0TristateOn	PIO 4-0 Tristate On	------	
56a	AudioDeemp0On	PIO 4-0 On	F630	HIGH
56b	AudioDeemp0Off	PIO 4-0 0 Off	F630	low
18f	AudioDeemp0TristateOff	PIO 4-0 Tristate Off	------	
56c	AudioDeemp1On	PIO 4-1 On	F633	high
56d	AudioDeemp1Off	PIO 4-1 Off	F633	low

5.4.4 Audio mute check

Switch on the Mute circuit by sending next command:

Ref. #	Command Name	Remark
19a	AudioMuteOn	AudioMuteOn

Check the Mute output again at testpoint F625: 4.7V ±10%
Switch off the Mute circuit by sending next command

Ref. #	Command Name	Remark
19a	AudioMuteOff	AudioMuteOff

Check the Mute output at testpoint F625: -8V ±10%

5.4.5 Audio I2S check

To check the audio output, connect a audio DAC to the I2S output (DVD950 A/V board) and start-up the audio test. Look at the audio outputs from the A/V board for both sine and pink noise.

Ref. #	Command Name	Remark	Audio outputs
21a	AudioSineOn	Audio Sine signal Off	Audio Sine signal On Sine, 1kHz on stereo Press stop button
20a	AudioPinkNoiseOn	Audio Pinknoise On	Pink Noise on 6 channels
20b	AudioPinkNoiseOff	Audio Pinknoise Off	

The audio signal (sine or pink noise) will also be present on the digital ouput (SPDif). This can be checked by connecting an amplifier with digital input.
Check the I2S output.
LRCLK at testpoint F641

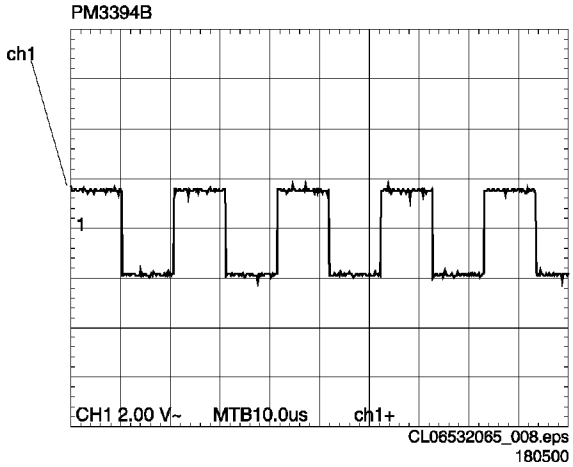


Figure 5-6

SCLK at testpoint F637

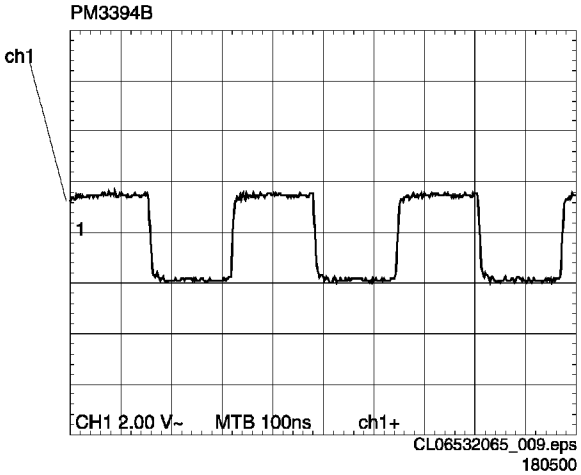


Figure 5-7

PCM_OUT0 at testpoint F638
PCM_OUT1 at testpoint F659
PCM_OUT2 at testpoint F658

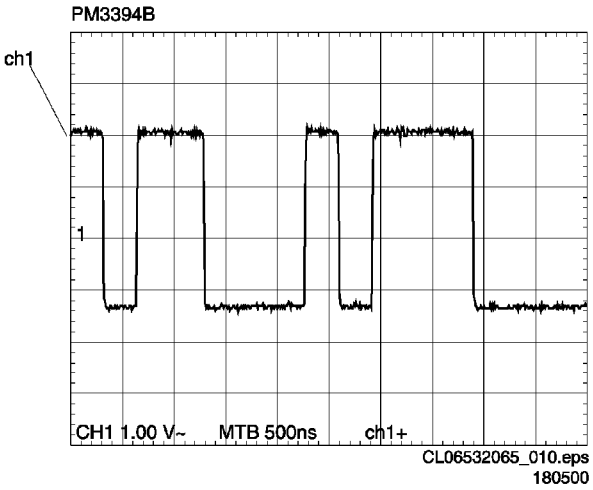


Figure 5-8

PCM_CLK at testpoint F640

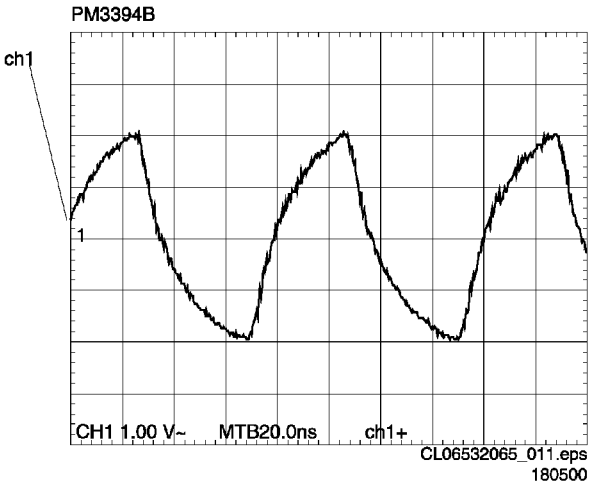


Figure 5-9

SPDIF at testpoint F644

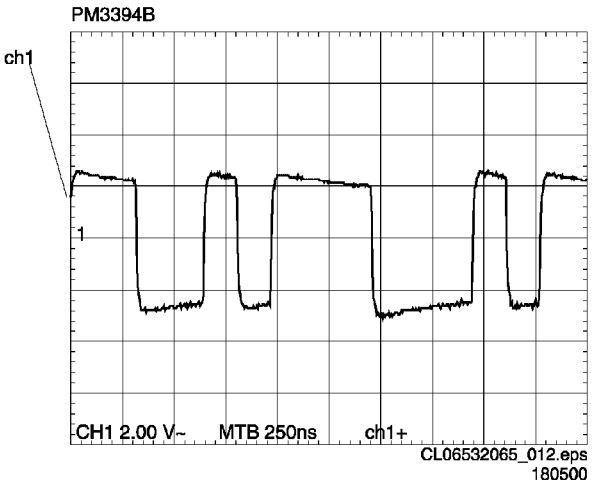


Figure 5-10

To switch the audio signal off, press the STOP button on the front.
Without A/V board all levels should be switching between low and high except:

- PCM_OUT1 and PCM_OUT2 only between low and high for pink noise. For sine, this is low.
- PCM_CLK and SPDIF switches between LOW and HIGH

Alternatively, there is a check that can be done without A/V board.
First, let the decoder generate pink noise on the audio outputs.

Ref. #	Command Name	Remark
20a	AudioPinkNoiseOn	Audio Pinknoise On

Measure then these signals on level and frequency.

Signal	Level between	Frequency
LRCLK	low/high	48kHz ± 0.02%
SCLK	low/high	3.072MHz ± 0.02%
PCM_CLK	LOW/HIGH	12.288 MHz ± 0.02%
PCM_OUT0, 1, 2	low/high	N/A
SPDIF	LOW/HIGH	N/A

Put the pink noise off:

Ref. #	Command Name	Remark
20b	AudioPinkNoiseOff	Audio Pinknoise Off

5.5 VIDEO

5.5.1 Video output check

Check DC output-level at all video-outputs at conn 1603-2,3,5,6 and conn 1604-16: -0.65V ± 10%
Generate a color-bar via next software commands:

Ref. #	Command Name	Remark
23a	VideoColDencOn	Colourbar DENC On
23b	VideoColDencOff	Colourbar DENC Off

Check video output at the next testpoints:
F646: R_VID

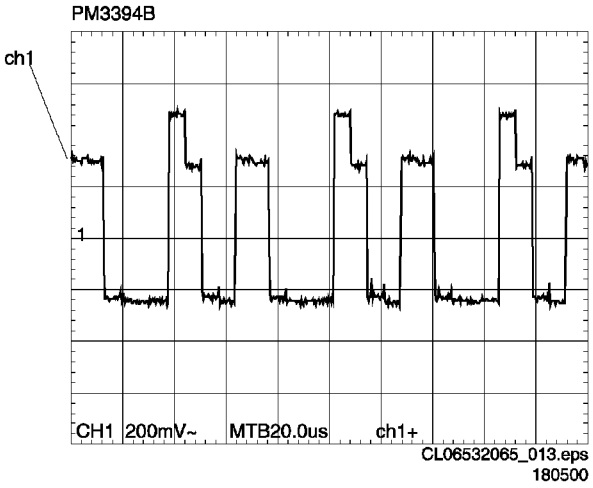


Figure 5-11

F649: G_VID

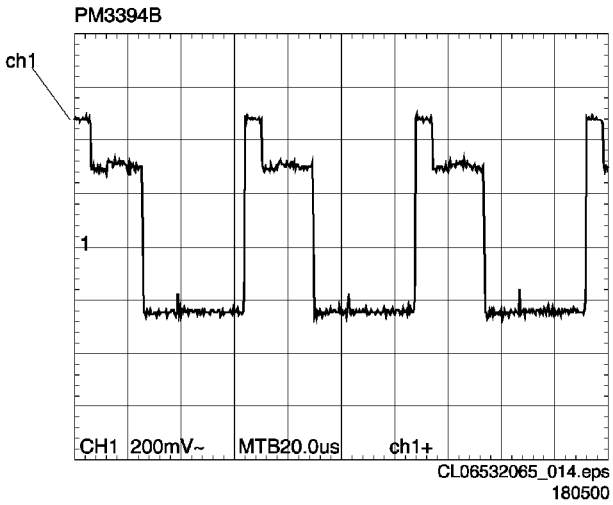


Figure 5-12

F653: B_VID

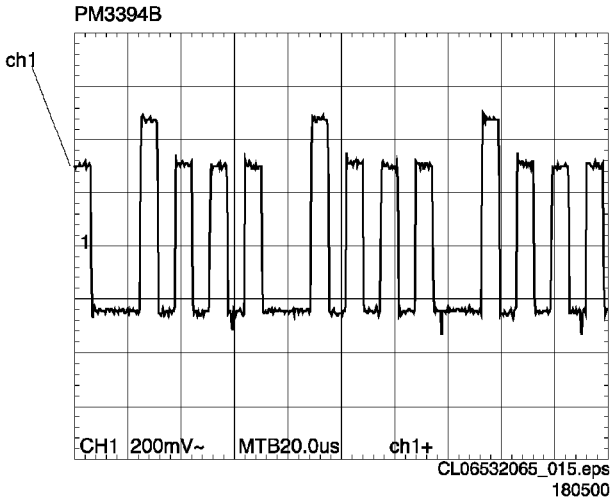


Figure 5-13

F657: CVBS

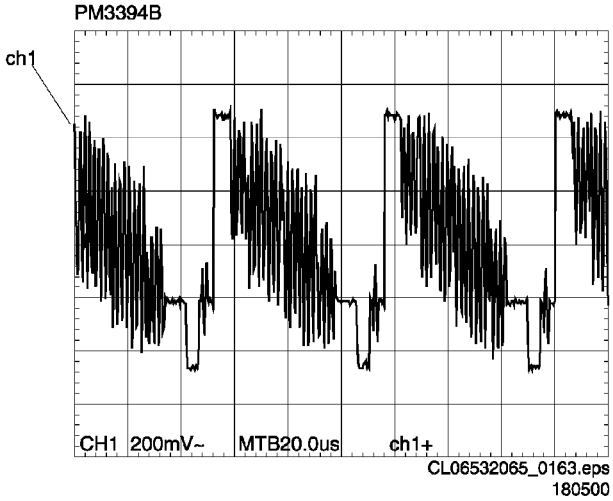


Figure 5-14

F665: C_VID

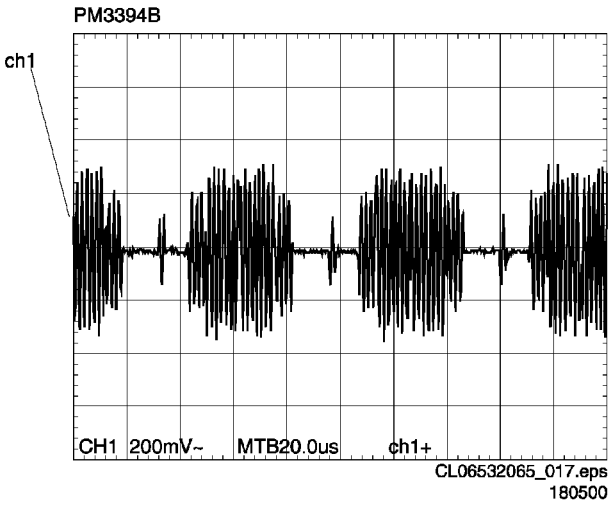


Figure 5-15

F666: Y_VID

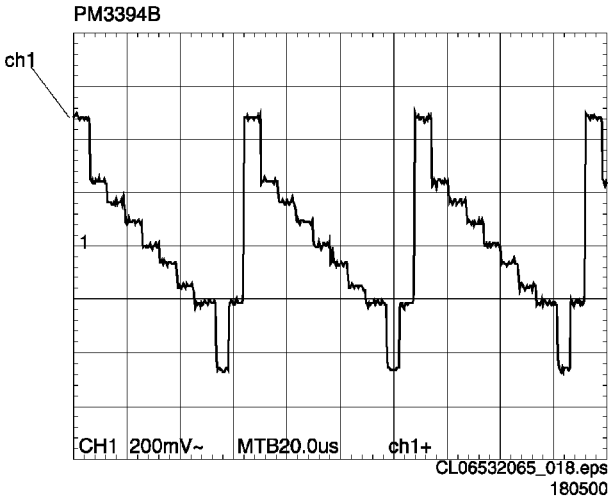


Figure 5-16

5.5.2 Scart-switching voltage

An aditional part of the video-path is the scart-switching voltage.
This voltage can be 0V, 6V, 12V.
Check at testpoint F620 the output-voltage while using next commands:

Ref. #	Command Name	Remark
25a	VideoScartLo	Sends out 0V ± 0.5V
25b	VideoScartMi	Sends out 6V ± 10%
25c	VideoScartHi	Sends out 12V ± 10%

5.5.3 Video Hsync check.

To measure the correctness of this output, F656 should be checked.

Ref. #	Command Name	Remark	Value
23a	VideoColDencOn	Colourbar	DENC on15.625 kHz ± 0.02% Vpeak-peak > 3V
23b	VideoColDencOff	Colourbar	DENC off No measurements needed

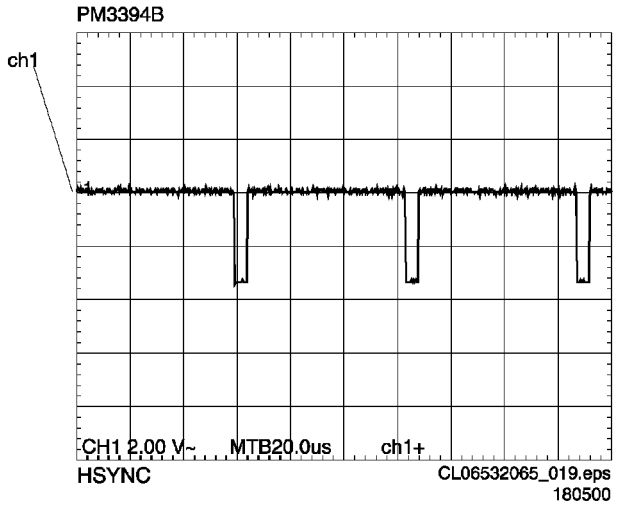


Figure 5-17

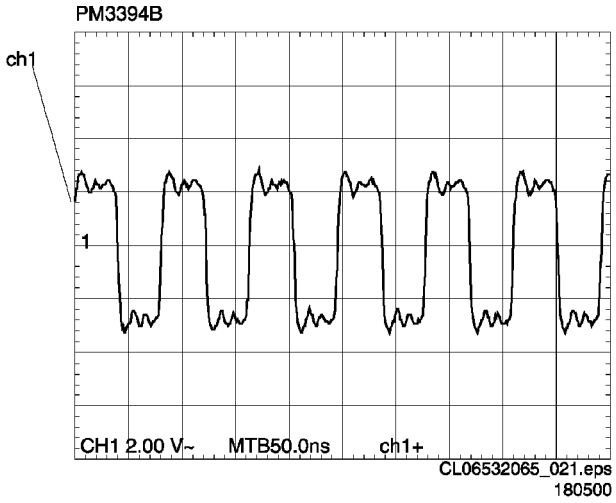


Figure 5-19

5.6 Servo

5.6.1 General start-up measurements:

Reset the Basic Engine part

Ref. #	Command Name	Remark
44	BeReset	Basic Engin

Check Vref

Name	Testpoint	Value
Vref	F188	2.5V+/-0.3

Check I2S interface

Name	Testpoint	Value
B_BCLK	F347	6.0MHz +/-0.1

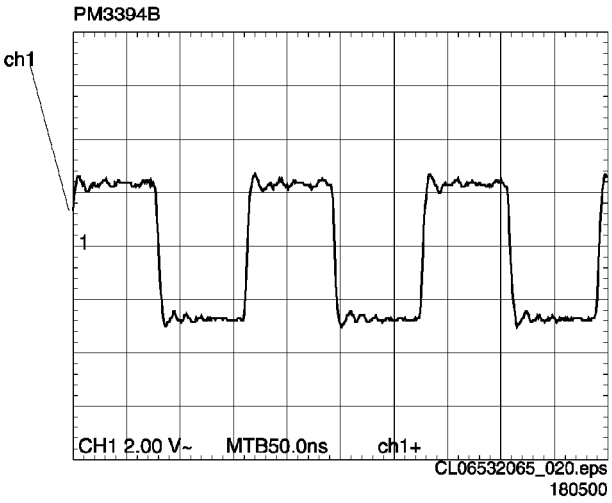


Figure 5-18

CL1F33712.0MHz +/-0.2

B_WCLKF343HIGH
StopclkF338HIGH
B_SyncF344HIGH
B_V4F348HIGH

5.6.2 Spindle Motor:

Before switching on the discmotor, check the following testpoints:

Name	Testpoint	Value
Stby	F357	high
Stby-out	F355	LOW
Moto1	F361	3V±0.3

Switch the Discmotor on/off with next commands:

Ref. #	Command Name	Remark
39a	BeDiscmotorOn	Discmotor on
39b	BeDiscmotorOff	Discmotor off

Check the following signals when discmotor has been switched on::

Name	Pin nr.	Frequency
Stby	F357	low
Stby-out	F355	HIGH
Moto1	F361	3V±0.5V
A3	F350	see oscillogram
A2	F352	see oscillogram
A1	F353	see oscillogram

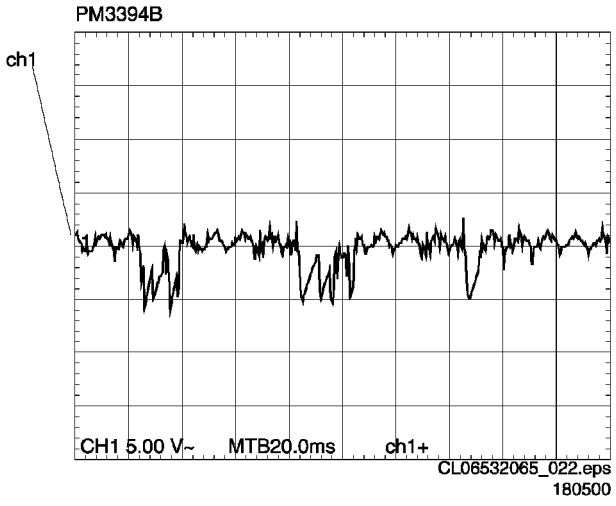


Figure 5-20

T1	F280	see oscillogram
T2	F368	see oscillogram
T3	F371	see oscillogram

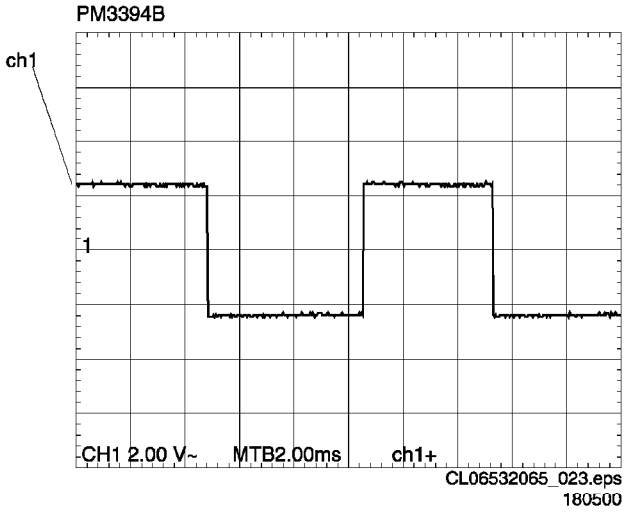


Figure 5-21

VH	F365	3V±0.5V
H1+	F354	see oscillogram
H1-	F359	see oscillogram
H2+	F364	see oscillogram
H2-	F366	see oscillogram
H3+	F367	see oscillogram
H3-	F370	see oscillogram

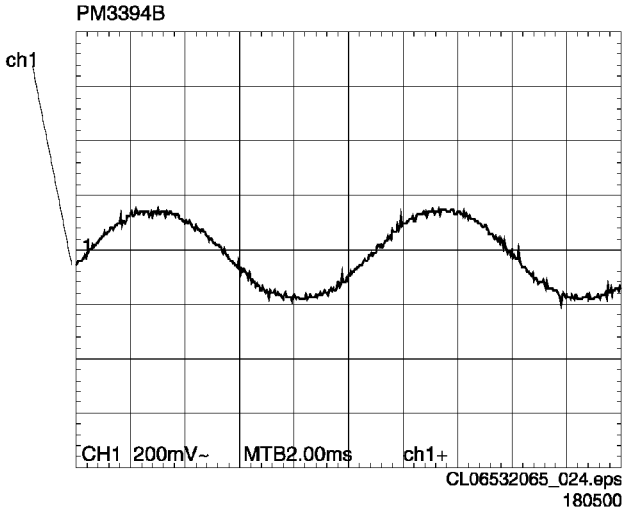


Figure 5-22

Switch the discmotor off.

5.6.3 Radial

Swith the radial control on/off with the following commands:

Ref. #	Command Name	Remark
40a	BeRadialOn	Radial control on
40b	BeRadialOff	Radial control off

Check the following signals:

Name	Testpoint	Value
Rad -	F128	4.3V±0.5V
Rad +	F121	4.3V±0.5V

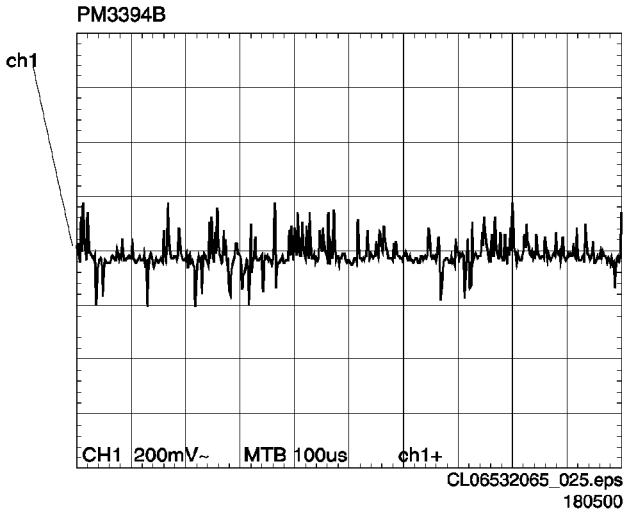


Figure 5-23

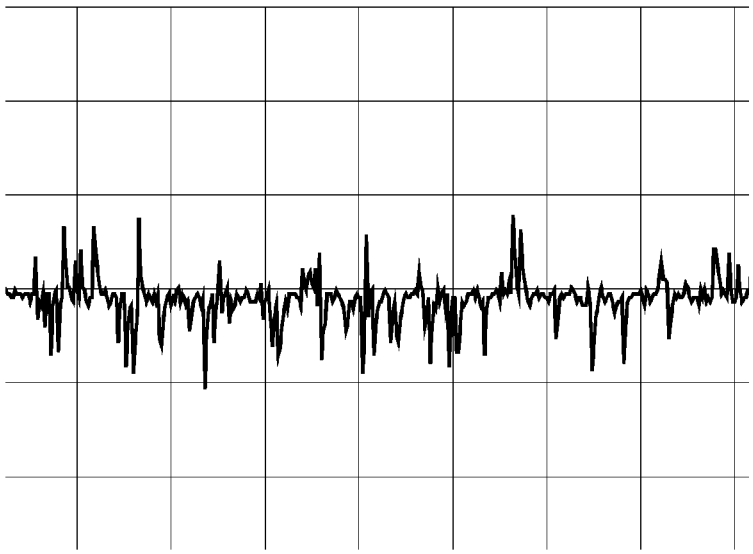


Figure 5-24

Check for pulse density signal RA at testpoint F227

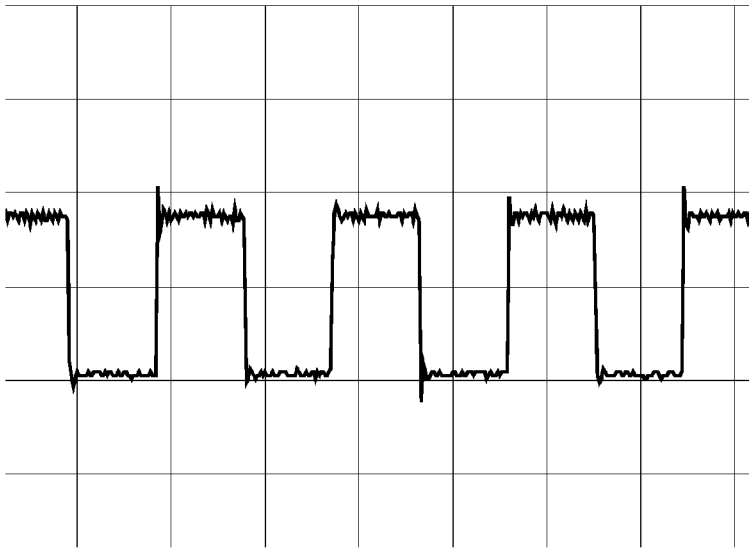


Figure 5-25

Check if laser is switched on (visual check of laserlight).
Switch the radial control off.

5.6.4 Sledge

Use the following commands to move the sledge:

Ref. #	Command Name	Remark
41a	BeSledgeIn	Sledge inwards
41b	BeSledgeOut	Sledge outwards

Check pulse density signal SL at testpoint F221

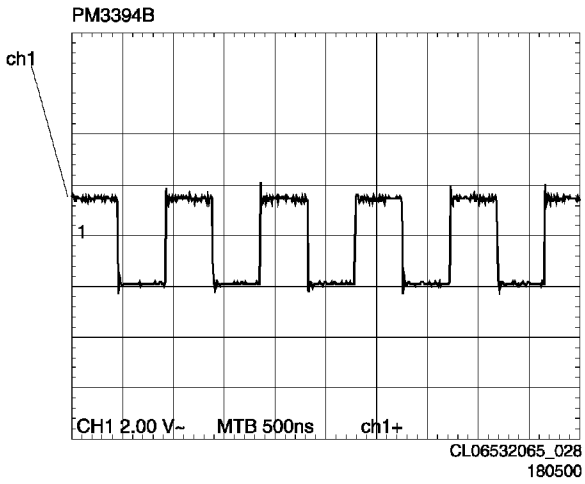


Figure 5-26

Name	Testpoint	Value
Sl -	F012	4.5V±0.5V
Sl +	F011	4.5V±0.5V

Measure peak to peak signal on SL- and SL+ while moving sledge outwards.

Name	Testpoint	Value
Sl -	F012	10Vptp +/-0.5
Sl +	F011	10Vptp +/-0.5

Measure input sledge control (sledge in home position)

Name	Testpoint	Value
Sinph	F182	2.2V±0.5V
Cosph	F192	2.2V±0.5V

5.6.5 Tray:

To open and close the tray use the following commands:

Ref. #	Command Name	Remark
43a	BeTrayIn	Tray in
43b	BeTrayOut	Tray out

Measure the driver outputs of the BA5938FM for the tray closed.

Name	Testpoint	Value
Vo2 -	F116	4.3V±2.0V
Vo2 +	F111	4.3V±2.0V

Measure again the driver outputs while the tray is opening.

Name	Testpoint	Value
Vo2 -	F116	2.0V±1.0V
Vo2 +	F111	6.0V±1.0V

5.6.6 Focus

To switch the Focus motor on/off, use the following commands:

Ref. #	Command Name	Remark
38a	BeFocusOn	Focus on
38b	BefocusOff	Focus off

Measure the driver outputs of the BA5938FM for the Focus off.

Name	Testpoint	Value
foc -	F124	4.3V±0.5V
foc +	F127	4.3V±0.5V

Switch the focus on
Measure again the driver outputs

Name	Testpoint	Value
Foc - (sawtooth)	F124	1V±0.2V
Foc + (sawtooth)	F127	1V±0.2V

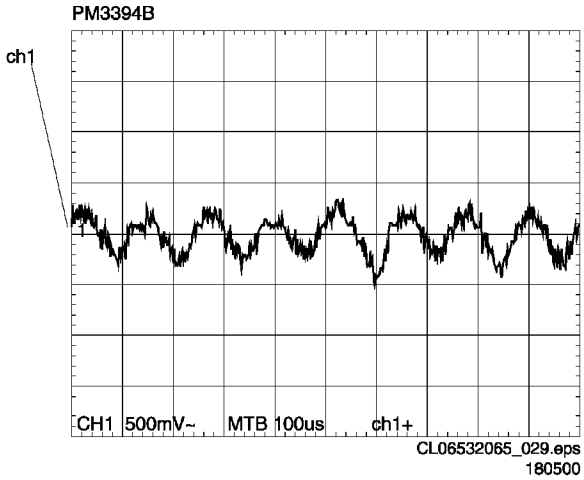


Figure 5-27

Check for pulse density signal FO at testpoint F234

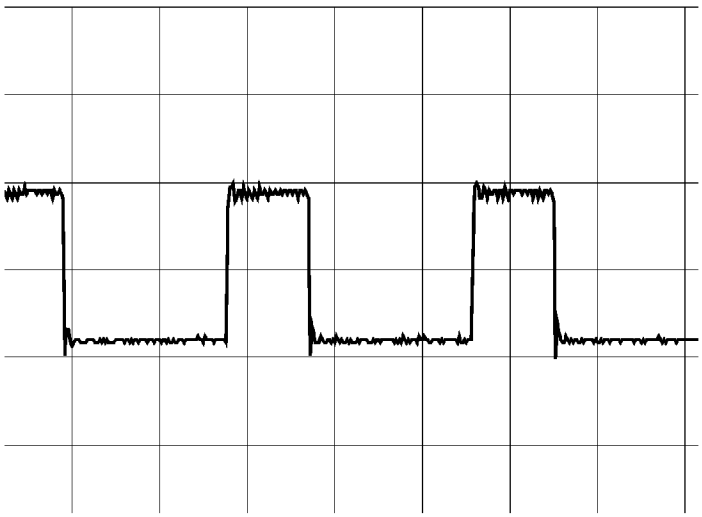


Figure 5-28

Check for laserlight.
Switch the focus off

5.6.7 Hf path

Play DVD test disc.
Measure outputs of diodes A, B, C, D, E, F.

Name	Testpoint	Value
A	F140	2.6V±0.2V
B	F141	2.6V±0.2V
C	F143	2.6V±0.2V
D	F144	2.6V±0.2V
E	F147	2.6V±0.2V
F	F148	2.6V±0.2V

At outputs of diodes A, B, C, D the following oscillogram can be measured:

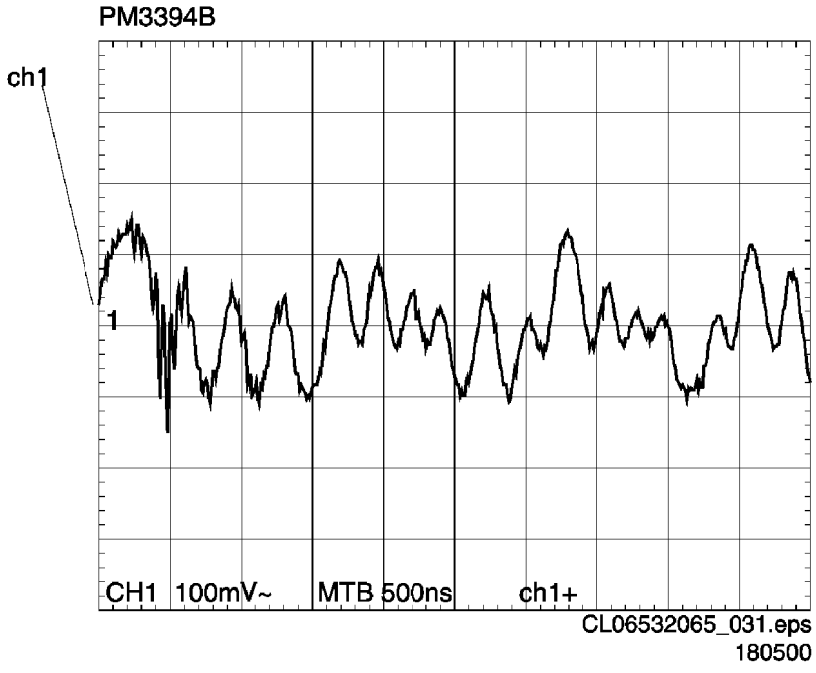


Figure 5-29 cl06532065-031

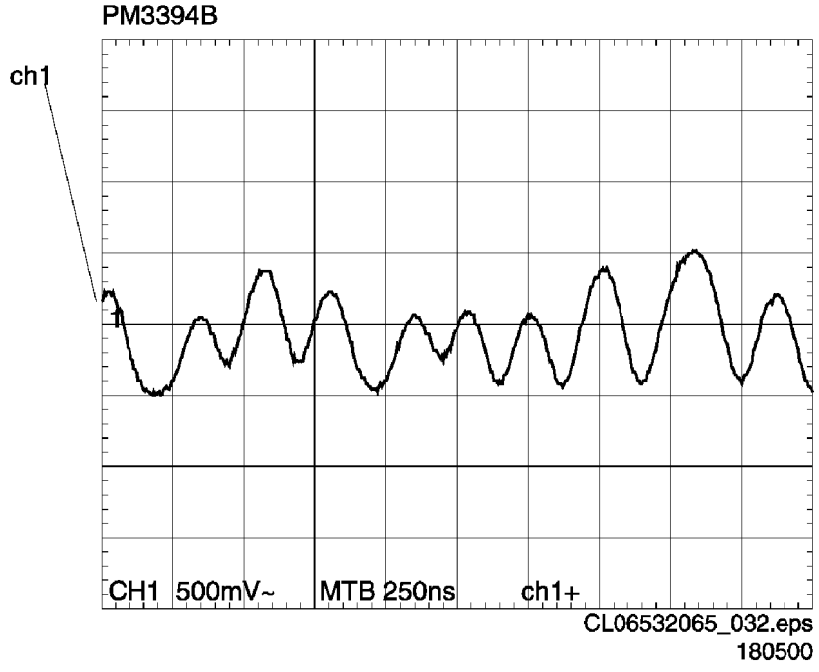


Figure 5-30

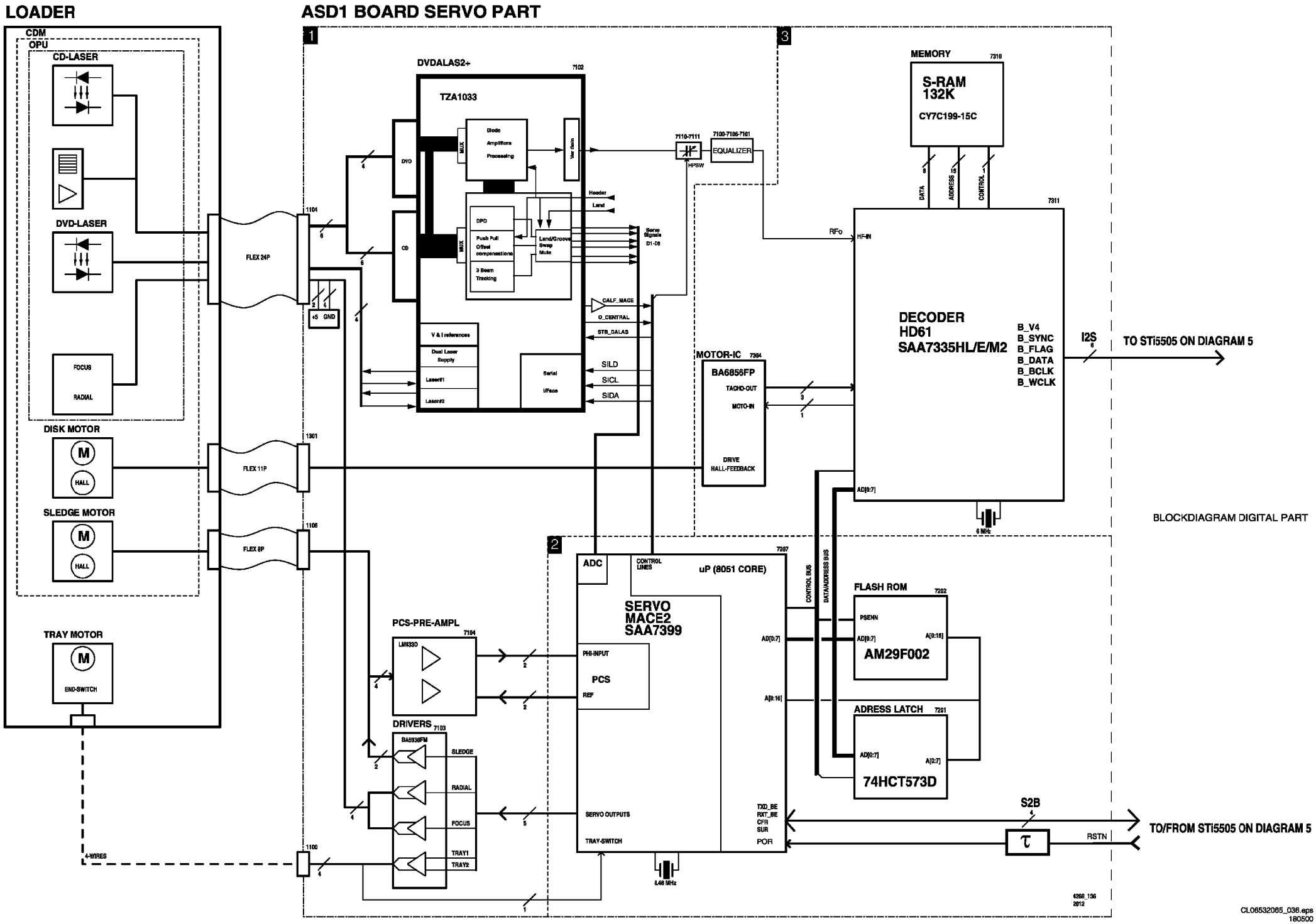
Measure DVDALAS outputs

Name	Testpoint	Value
RFO DC	F146	2.5V ±0.2V
O1	F156	25mV±10mV
O2	F159	25mV±10mV
O3	F169	25mV±10mV
O4	F166	25mV±10mV
S1	F174	25mV±10mV
S2	F175	25mV±10Mv

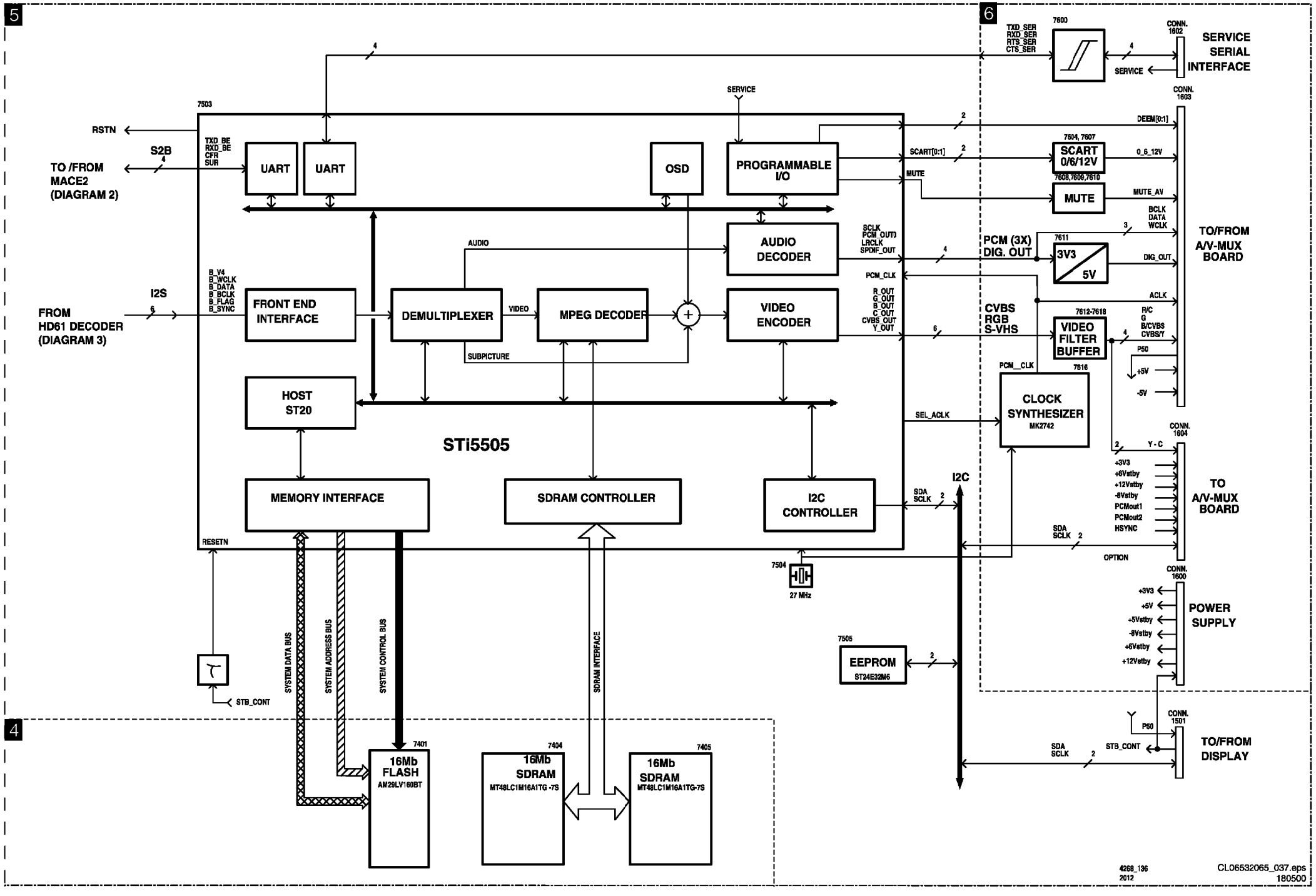
At output RFO, the following oscillogram can be measured:

6. Block diagrams

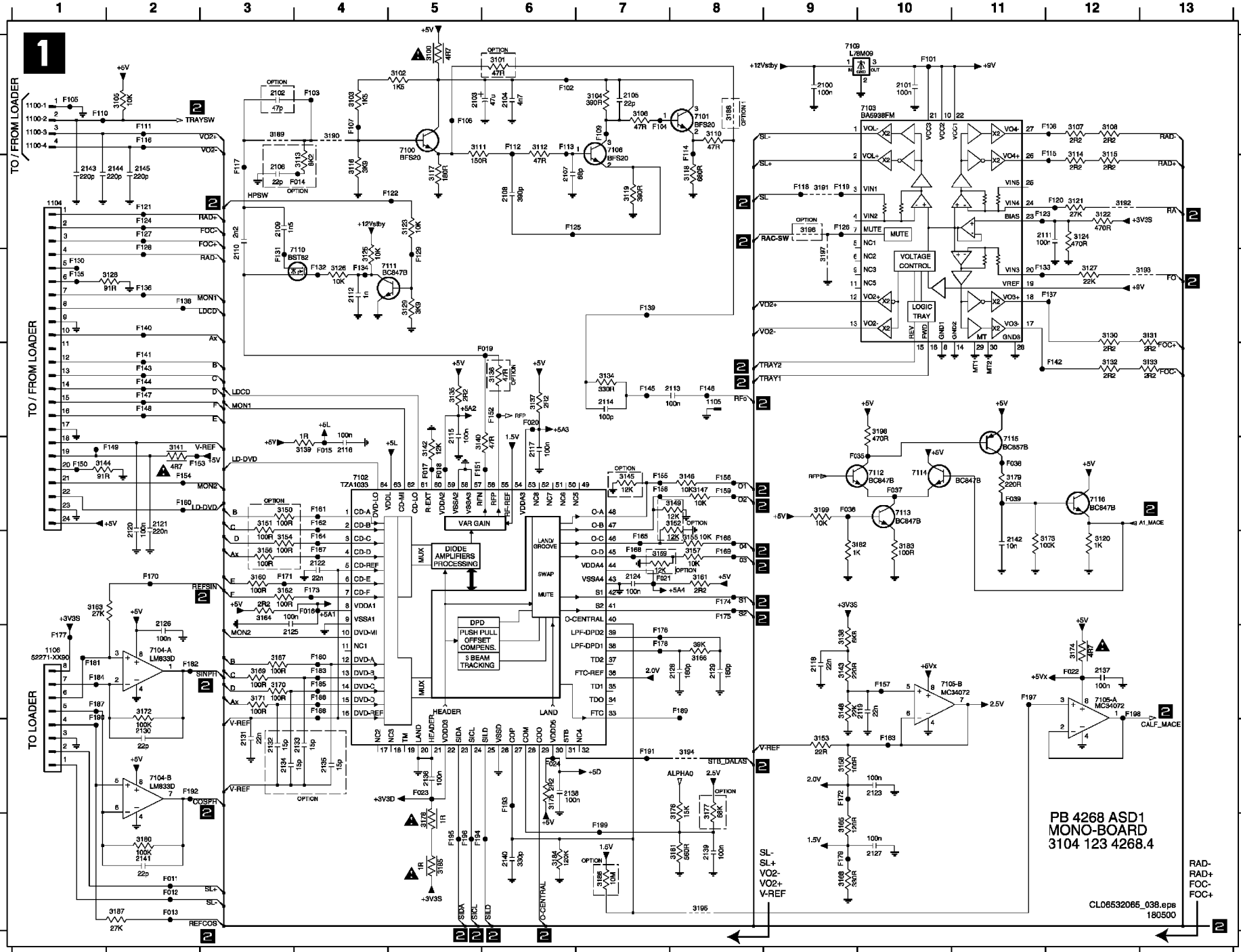
Servo



ASD1 BOARD DIGITAL PART

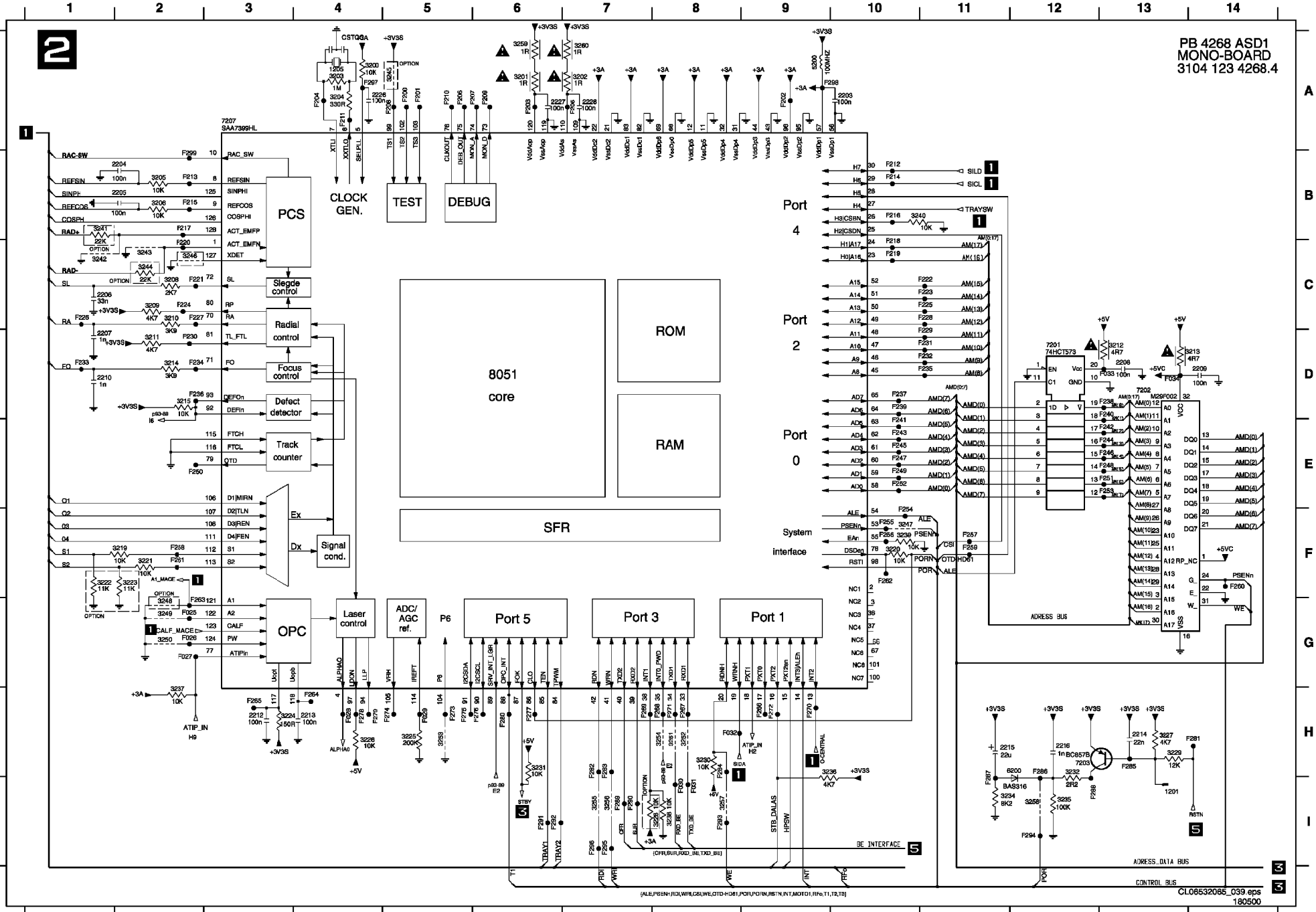


MONO-BOARD: SERVO DALAS

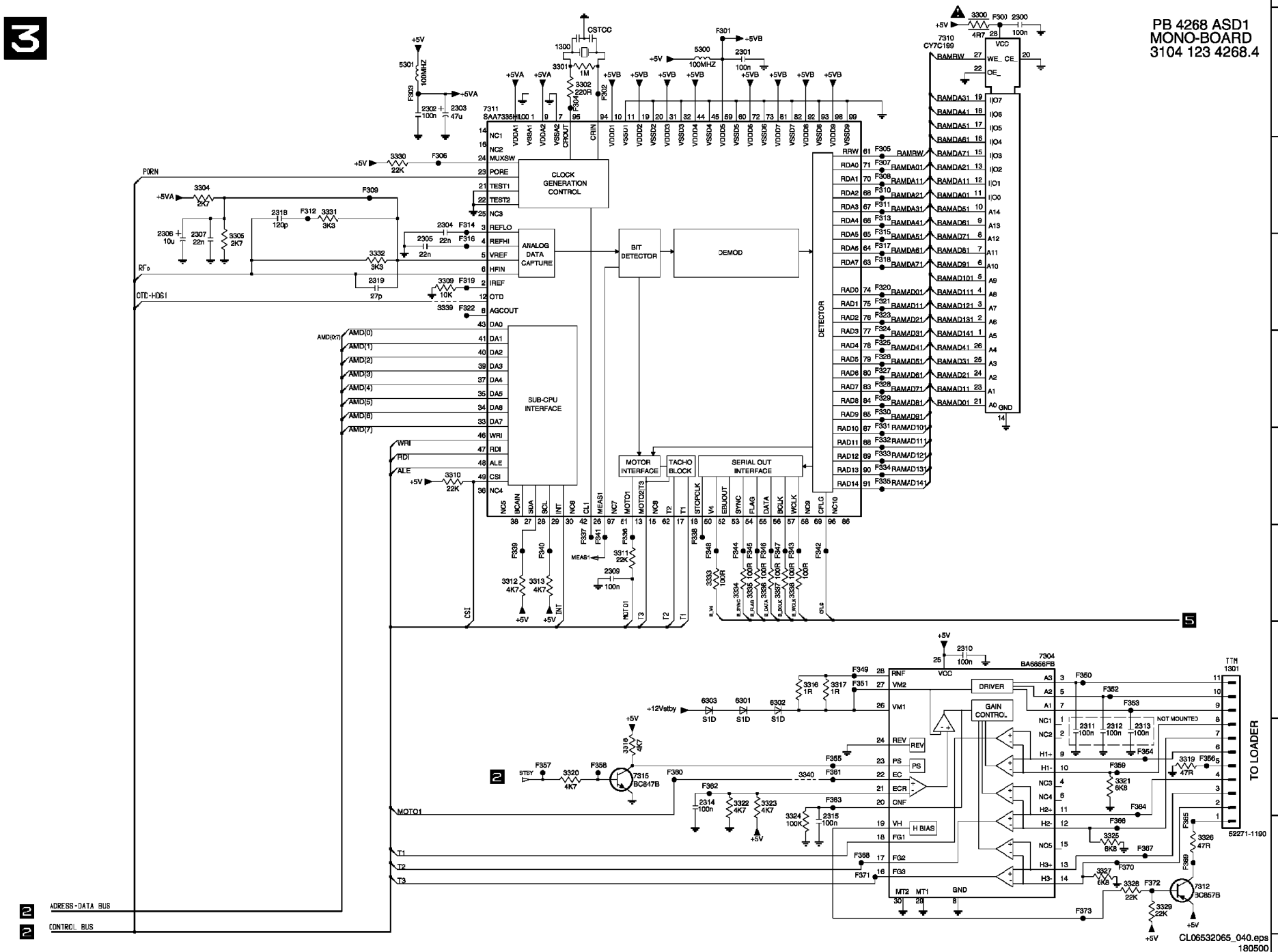


1100-1 A1
1100-2 A1
1100-3 A1
1100-4 A1
1104 B1
1105 D8
1106 G1
2100 A9
2101 A10
2102 A3
2103 A5
2104 A6
2105 A7
2106 B3
2107 B6
2108 B6
2109 B3
2110 B3
2111 B11
2112 C4
2113 D8
2114 D7
2115 D5
2116 E4
2117 E6
2119 G9
2119 G10
2120 E2
2121 E2
2122 F4
2123 H10
2124 F7
2125 G3
2126 G2
2127 I10
2128 G8
2129 G8
2130 H2
2131 H3
2132 H3
2133 H4
2134 H3
2135 H4
2136 H5
2137 G12
2138 I8
2140 I8
2141 I2
2142 F11
2143 B1
2144 B2
2145 B2
3100 A5
3101 A6
3102 A5
3103 A4
3104 A7
3105 A2
3106 A7
3107 A12
3108 A12
3110 A8
3111 A5
3112 A6
3113 B4
3114 B12
3115 B12
3116 B4
3117 B5
3118 B8
3119 B7
3120 F12
3121 B12
3122 B12
3123 B5
3124 B12
3125 C4
3126 C4
3127 C12
3128 C2
3129 C5
3130 C12
3131 C13
3132 D12
3133 D13
3134 D7
3135 D5
3136 D6
3137 D6
3138 G9
3139 E4
3140 E5
3141 E2
3142 E5
3143 G9
3144 E1
3145 E7
3146 E8
3147 E8
3148 G9
3149 E8
3150 E3
3151 E3
3152 E8
3153 H9
3154 F9
3155 F8
3156 F3
3157 F8
3158 H9
3159 F7
3160 F3
3161 F8
3162 F3
3163 F1
3164 F3
3165 I9
3166 G8
3167 G3
3168 I9
3169 G3
3170 G3
3171 G3
3172 G2
3173 F12
3174 G12
3175 H6
3176 H8
3177 H8
3178 I5
3179 E11
3180 I2
3181 I8
3182 F10
3183 F10
3184 I8
3185 I5
3186 I7
3187 I2
3188 A8
3189 A3
3190 A4
3191 B9
3192 B12
3193 C13
3194 H8
3195 I8
3196 B9
3197 C9
3198 D10
3199 E9
7100 A5
7101 A8
7102 E4
7103 A10
7104-A G2
7104-B H2
7105-B G10
7106 A7
7109 A9
7110 C4
7111 C5
7112 E10
7113 E10
7114 E10
7115 D11
7116 E12
F011 I2
F012 I2
F013 I2
F014 B4
F015 E4
F016 F4
F017 E5
F018 E5
F019 D6
F020 D6
F021 F7
F022 G12
F023 H6
F024 H6
F035 E9
F036 E9
F037 E10
F038 E11
F039 E11
F101 A10
F102 A6
F103 A4
F104 A7
F105 A1
F106 A5
F107 A4
F108 A12
F109 A7
F110 A1
F111 A2
F112 A6
F113 A6
F114 A8
F115 B12
F116 A2
F117 B3
F118 B6
F119 B6
F120 B12
F121 B2
F122 B6
F123 B11
F124 B2
F125 B6
F126 B9
F127 B2
F128 C2
F129 C5
F130 C1
F131 C3
F132 C4
F133 C11
F134 C4
F135 C1
F136 C2
F137 C12
F138 C2
F139 C7
F140 C2
F141 D2
F142 D12
F143 D2
F144 D2
F145 D7
F146 D8
F147 D2
F148 D2
F149 E2
F150 E1
F151 E5
F152 D6
F153 E2
F154 E2
F155 E7
F156 E8
F157 G10
F158 E7
F159 E8
F160 E2
F161 E4
F162 E4
F163 H10
F164 F4
F165 F7
F166 F8
F167 F4
F168 F7
F169 F8
F170 F2
F171 F3
F172 H9
F173 G7
F174 G7
F175 G7
F176 G7
F177 G1
F178 G7
F179 I9
F180 G4
F181 G1
F182 G2
F183 G4
F184 G1
F185 G4
F186 G4
F187 G1
F188 G4
F189 G8
F190 H1
F191 H7
F192 H2
F193 H6
F194 I5
F195 I5
F196 I5
F197 G11
F198 G12
F199 I7

MONO-BOARD: SERVO MACE



MONO-BOARD: Decoder



1300 A6	F353 Q12		
1301 Q13	F354 H12		
2300 A11	F355 H9		
2301 A8	F356 H13		
2302 A5	F357 H6		
2303 A5	F358 H7		
2304 B5	F359 H12		
2305 C5	F360 H8		
2306 C2	F361 H9		
2307 C3	F362 H8		
2309 F7	F363 H9		
2310 G11	F364 H12		
2311 H12	F365 I13		
2312 H12	F366 I12		
2313 H12	F367 I12		
2314 H8	F368 I9		
2315 I8	F369 I13		
2318 B3	F370 I12		
2319 C4	F371 I9		
3300 A11	F372 I12		
3301 A6	F373 I12		
3302 A7			
3304 B3			
3305 C3			
3309 C5			
3310 E5			
3311 F7			
3312 F6			
3313 F6			
3316 G9			
3317 G9			
3318 H7			
3319 H13			
3320 H8			
3321 H12			
3322 H8			
3323 H8			
3324 I9			
3325 I12			
3326 I13			
3327 I12			
3328 I12			
3329 I13			
3330 B5			
3331 B4			
3332 C4			
3333 F6			
3334 F8			
3335 F8			
3336 F6			
3337 F9			
3338 F9			
3339 C5			
3340 H9			
5300 A8			
5301 A5			
6301 G6			
6302 G9			
6303 G8			
7304 G11			
7310 A10			
7311 A8			
7312 I13			
7315 H7			
F300 A11			
F301 A8			
F302 A7			
F303 A5			
F304 A6			
F305 B10			
F306 B5			
F307 B10			
F308 B10			
F309 B4			
F310 B10			
F311 B10			
F312 B4			
F313 B10			
F314 B5			
F315 C10			
F316 C5			
F317 C10			
F318 C10			
F319 C5			
F320 C10			
F321 C10			
F322 C5			
F323 C10			
F324 D10			
F325 D10			
F326 D10			
F327 D10			
F328 D10			
F329 D10			
F330 D10			
F331 E10			
F332 E10			
F333 E10			
F334 E10			
F335 E10			
F336 F7			
F337 F7			
F338 F8			
F339 F6			
F340 F6			
F341 F7			
F342 F9			
F343 F9			
F344 F8			
F345 F9			
F346 F8			
F347 F9			
F348 F8			
F349 G9			
F350 G12			
F351 G9			
F352 G12			

4 MEMORY PART

PB 4268 ASD1
MONO-BOARD
3104 123 4268.4

OPTION = NOT USED FOR FUTURE APPLICATION: I²C FROM MASTER TO SLAVE FOR SYSTEMS / COMBI'S

SYSTEM DATA Bus
SYSTEM ADDRESS Bus
RAM/ROM Interface
SDRAM Interface

OPTION

OPTION

OPTION

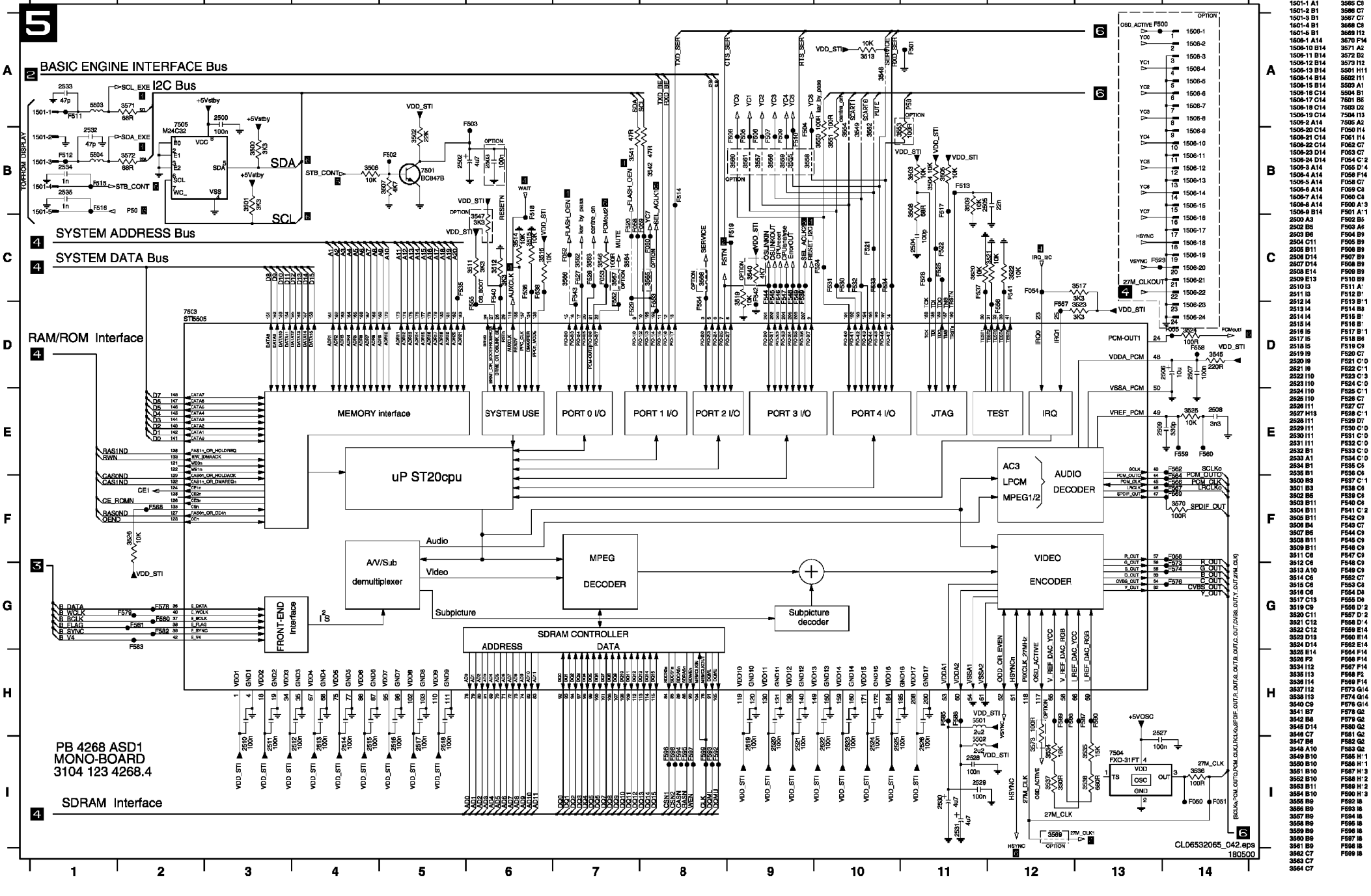
OPTION

BOTTOM

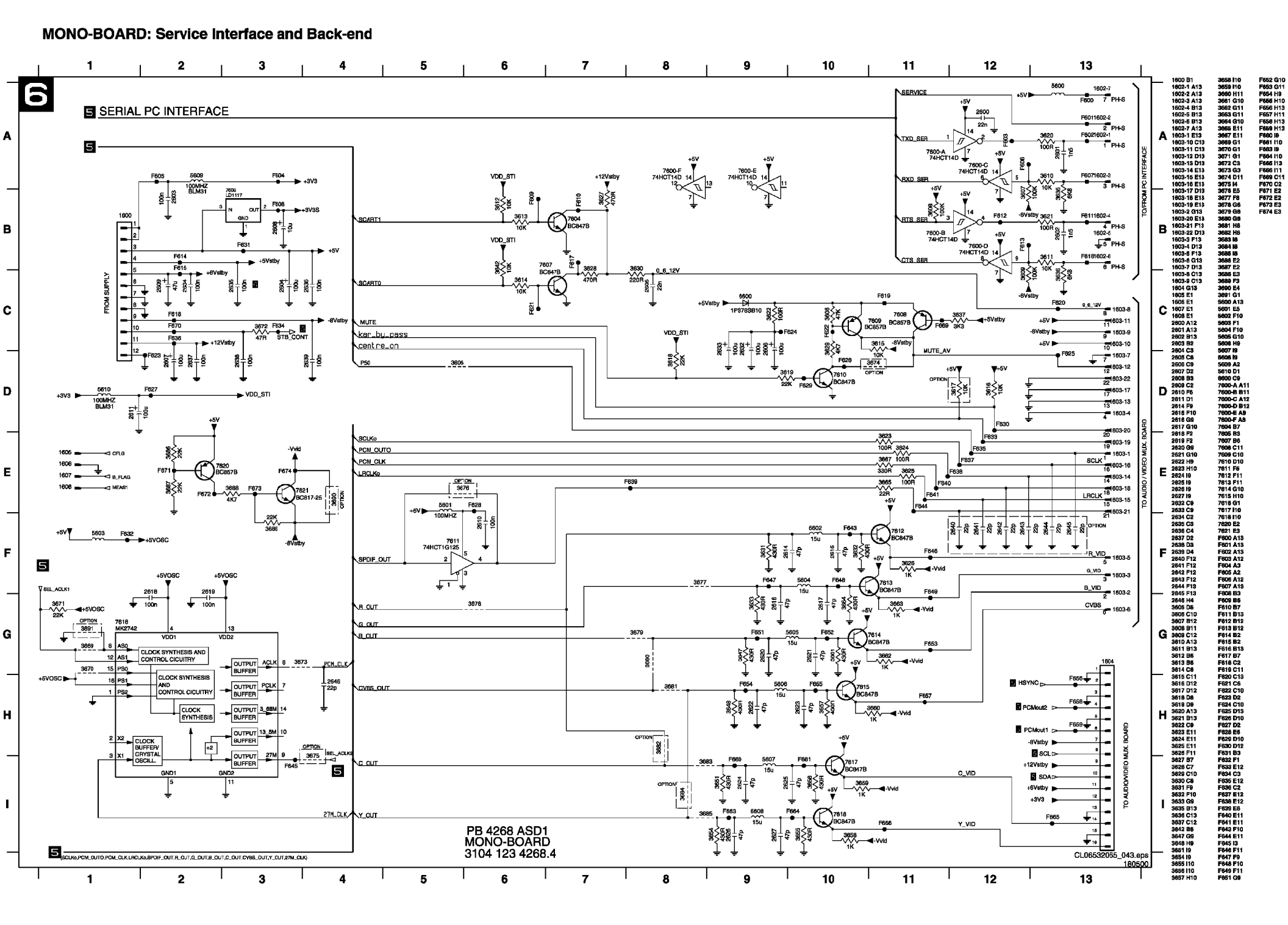
TOP

CL06532065_041.eps
290500

MONO-BOARD: STI 5505

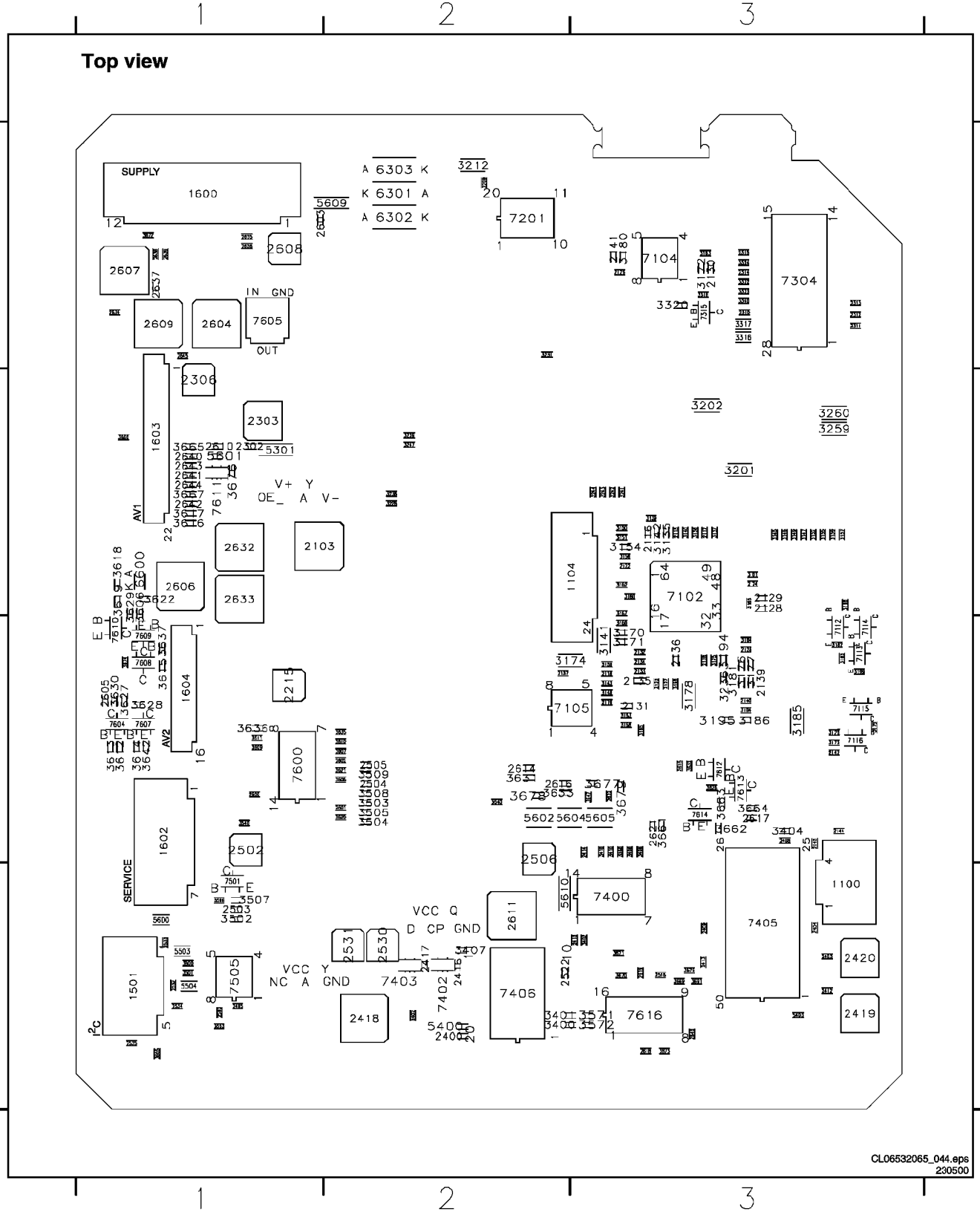


MONO-BOARD: Service Interface and Back-end



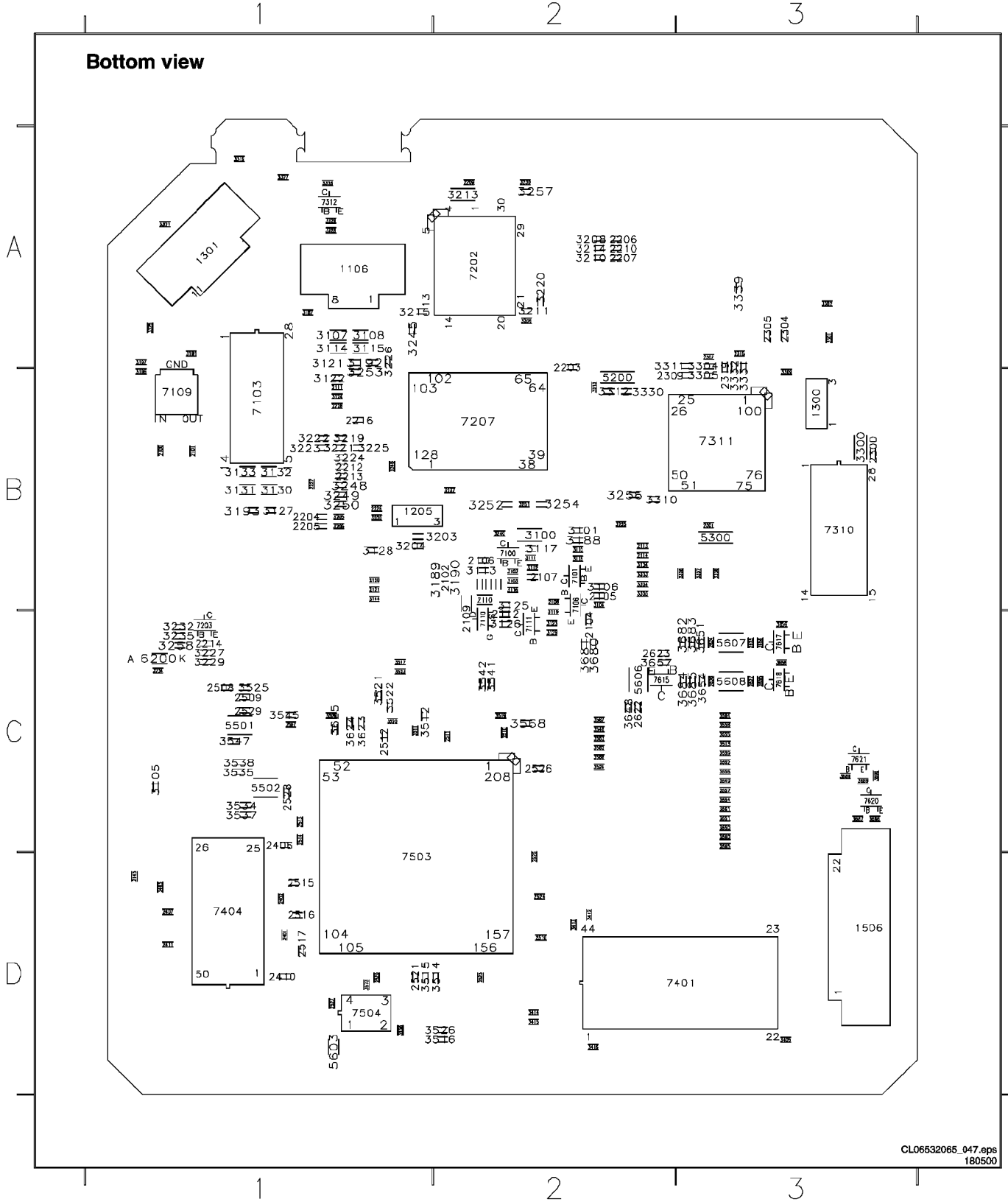
1600 B1
1602-1 A13
1602-2 A13
1602-3 A13
1602-4 B13
1602-5 B13
1602-6 B13
1602-7 A13
1603-1 E13
1603-10 C13
1603-11 C13
1603-12 D13
1603-13 D13
1603-14 E13
1603-15 E13
1603-16 E13
1603-17 D13
1603-18 E13
1603-19 E13
1603-2 C13
1603-3 C13
1603-4 D13
1603-5 F13
1603-6 G13
1603-7 D13
1603-8 C13
1603-9 C13
1604 G13
1605 E1
1606 E1
1607 E1
1608 E1
2600 A12
2601 A13
2602 B13
2603 B2
2604 C8
2605 C8
2606 C9
2607 D2
2608 B3
2609 C2
2610 F6
2611 D1
2614 F9
2615 F10
2616 G9
2617 G10
2618 F2
2619 F2
2620 G9
2621 G10
2622 H9
2623 H10
2624 I9
2625 I9
2626 I9
2627 I9
2632 C9
2633 C9
2634 C2
2635 C8
2636 C4
2637 D2
2638 D8
2639 D4
2640 F12
2641 F12
2642 F12
2643 F12
2644 F13
2645 F13
2646 H4
3605 D8
3606 C10
3607 B12
3608 B11
3609 C12
3610 A13
3611 B13
3612 B6
3613 B6
3614 C8
3615 C11
3616 D12
3617 D12
3618 D8
3619 D8
3620 A13
3621 B13
3622 C9
3623 E11
3624 E11
3625 E11
3626 F11
3627 B7
3628 C7
3629 C10
3630 C8
3631 F9
3632 F10
3633 G9
3635 B13
3636 C13
3637 C12
3642 B6
3647 G9
3648 H9
3651 I9
3654 I9
3655 I10
3656 I10
3657 H10
3658 I10
3659 I10
3660 H11
3661 G10
3662 G11
3663 G11
3664 G10
3665 E11
3667 E11
3669 G1
3670 G1
3671 G1
3672 C3
3673 G3
3674 D11
3675 I4
3676 E5
3677 F6
3678 G6
3680 G6
3681 H6
3682 H6
3683 I8
3684 I8
3685 I8
3686 E2
3687 E2
3688 E3
3689 F3
3690 E4
3691 G1
5600 A13
5601 E5
5602 F10
5603 F1
5604 F10
5605 G10
5606 H9
5607 I9
5608 I9
5609 A2
5610 D1
6600 C9
7600-A A11
7600-B B11
7600-C A12
7600-D B12
7600-E A8
7600-F A8
7604 B7
7605 B3
7607 B6
7608 C11
7609 G10
7610 D10
7611 F6
7612 F11
7613 F11
7614 G10
7615 H10
7616 G1
7617 I10
7620 E2
7621 E3
7800 A13
7801 A13
7802 A13
7803 B13
7804 B13
7805 B13
7806 B13
7807 B13
7808 C13
7809 C13
7810 D13
7811 F6
7813 F11
7814 G10
7815 H10
7816 G1
7817 I10
7818 I10
F600 A13
F601 A13
F602 A13
F603 A12
F604 A3
F605 A2
F606 A12
F607 A13
F608 B3
F609 B6
F610 B7
F611 B13
F612 B12
F613 B12
F614 B2
F615 B2
F616 B13
F617 B7
F618 C2
F619 C10
F620 C13
F621 C6
F622 C10
F623 D2
F624 C10
F625 D13
F626 D10
F627 D2
F628 E6
F629 D10
F630 D12
F631 B3
F632 F1
F633 E12
F634 C3
F635 E12
F636 C2
F637 E12
F638 E12
F639 E8
F640 E11
F641 E11
F642 F10
F644 E11
F645 I3
F646 F11
F647 F9
F648 F10
F649 F11
F651 G9

Top view



1100	D3	2618	D3	3318	A3	5609	A2
1104	B3	2619	D3	3320	A3	5610	D2
1501	D1	2620	C3	3322	A3	6301	A2
1600	A1	2621	C3	3323	A3	6302	A2
1602	C1	2632	B1	3324	A3	6303	A2
1603	B1	2633	B1	3340	A3	6600	B1
1604	C1	2634	A1	3400	D2	7102	B3
2103	B1	2635	A1	3401	D2	7104	A3
2115	B3	2636	A1	3402	D3	7105	C3
2116	B3	2637	A1	3404	C3	7112	C3
2117	C3	2638	A1	3406	C3	7113	C3
2118	C3	2639	A1	3407	D2	7114	C3
2119	C3	2640	B1	3409	C3	7115	C3
2122	B3	2641	B1	3410	C3	7116	C3
2123	C3	2642	B1	3418	C3	7201	A2
2124	B3	2643	B1	3500	D1	7304	A3
2125	C3	2644	B1	3501	D1	7315	A3
2126	A3	2645	A1	3502	D1	7400	D3
2127	C3	2646	D3	3503	C2	7402	D2
2128	B3	3120	B3	3504	C2	7403	D2
2129	B3	3135	B3	3505	C2	7405	D3
2130	A3	3136	B3	3506	D1	7406	D2
2131	C3	3137	B3	3507	D1	7501	D1
2132	C3	3138	C3	3508	C2	7505	D1
2133	C3	3139	C3	3509	C2	7600	C1
2134	C3	3140	B3	3540	C2	7604	C1
2135	C3	3141	C3	3548	C1	7605	A1
2136	C3	3142	B3	3553	D1	7607	C1
2137	C3	3143	B3	3569	C3	7608	C1
2138	C3	3145	B3	3571	D3	7609	C1
2139	C3	3146	B3	3572	D3	7610	C1
2140	C3	3147	B3	3605	D1	7611	B1
2141	A3	3148	C3	3606	B1	7612	C3
2142	C3	3149	B3	3607	C2	7613	C3
2144	C3	3150	B3	3608	C2	7614	C3
2145	C3	3151	B3	3609	C1	7616	D3
2208	A2	3152	B3	3610	C1		
2215	C1	3153	B3	3611	C1		
2302	B1	3154	B3	3612	C1		
2303	B1	3155	B3	3613	C1		
2306	B1	3156	B3	3614	C1		
2310	A3	3157	B3	3615	C1		
2311	A3	3158	C3	3616	B1		
2312	A3	3159	B3	3617	B1		
2313	A3	3160	B3	3618	B1		
2314	A3	3161	B3	3619	B1		
2315	A3	3162	B3	3620	C2		
2400	D2	3163	A3	3621	C2		
2403	D3	3164	C3	3622	B1		
2404	D3	3165	C3	3626	C3		
2405	D1	3166	B3	3627	C1		
2408	C3	3167	B3	3628	C1		
2409	D3	3168	C3	3629	B1		
2412	D3	3169	C3	3630	C1		
2413	D3	3170	C3	3631	C2		
2414	C3	3171	C3	3632	C2		
2415	D3	3172	A3	3634	C2		
2416	D2	3173	C3	3635	C2		
2417	D2	3174	C3	3636	C1		
2418	D2	3175	C3	3637	C1		
2419	D3	3176	C3	3642	C1		
2420	D3	3177	C3	3647	C3		
2500	D1	3178	C3	3660	B1		
2502	C1	3179	C3	3661	C3		
2503	D1	3180	A3	3662	C3		
2504	C2	3181	C3	3663	C3		
2505	C2	3182	C3	3664	C3		
2506	C2	3183	C3	3665	B1		
2518	D3	3184	C3	3667	B1		
2522	D2	3185	C3	3669	D3		
2530	D2	3186	C3	3670	D3		
2531	D2	3194	C3	3671	D3		
2532	D1	3195	C3	3672	A1		
2533	D1	3198	B3	3673	D3		
2534	D1	3199	C3	3674	C1		
2535	D1	3201	B3	3675	D3		
2600	C1	3202	B3	3676	B1		
2601	C2	3212	A2	3677	C3		
2602	C2	3228	B2	3678	C2		
2603	A1	3231	A2	3679	C3		
2604	A1	3236	C3	3691	D3		
2605	C1	3238	B2	5301	B1		
2606	B1	3239	B2	5400	D2		
2607	A1	3241	B3	5402	D2		
2608	A1	3242	B3	5403	D3		
2609	A1	3243	B3	5503	D1		
2610	B1	3244	B3	5504	D1		
2611	D2	3247	B2	5600	D1		
2614	C2	3259	B3	5601	B1		
2615	C3	3260	B3	5602	C2		
2616	C2	3316	A3	5604	C3		
2617	C3	3317	A3	5605	C3		

Bottom view



1106	A1	3117	B2	3338	B3	7202	A2
1205	B1	3118	B2	3339	A3	7203	C1
1300	B3	3119	C2	3403	D1	7207	B2
1301	A1	3121	A1	3405	D3	7310	B3
1506	D3	3122	B1	3412	D2	7311	B3
2100	B1	3123	C2	3413	D2	7312	A1
2101	B1	3124	B1	3414	D2	7401	D3
2102	B2	3125	B2	3415	D2	7404	D1
2104	C2	3126	C2	3416	D2	7503	D1
2105	B2	3127	B1	3511	C1	7504	D1
2106	B2	3128	B1	3512	C1	7615	C2
2107	B2	3129	C2	3513	C3	7617	C3
2108	B2	3130	B1	3514	D2	7618	C3
2109	C2	3131	B1	3515	D1	7620	C3
2110	B2	3132	B1	3516	D2	7621	C3
2111	B2	3133	B1	3517	C1		
2112	C2	3134	B2	3519	C2		
2113	B2	3144	B1	3520	C1		
2114	B2	3187	A1	3521	C1		
2120	B1	3188	B2	3522	C1		
2121	B1	3189	B2	3523	C1		
2143	D1	3190	B2	3524	C2		
2203	A2	3191	A1	3525	C1		
2204	B1	3192	A1	3526	D2		
2205	B1	3193	B1	3534	C1		
2206	A2	3196	B1	3535	C1		
2207	A2	3197	A1	3536	D1		
2209	A2	3200	B1	3537	C1		
2210	A2	3203	B2	3538	C1		
2212	B1	3204	B1	3541	C2		
2213	B1	3205	B1	3542	C2		
2214	C1	3206	B1	3545	C1		
2216	B1	3208	A2	3546	C2		
2226	B1	3209	A2	3547	C1		
2227	B1	3210	A2	3549	C3		
2228	B1	3211	A2	3550	C3		
2300	B3	3213	A2	3551	C3		
2301	B3	3214	A2	3552	C3		
2304	A3	3215	A1	3554	C3		
2305	A3	3219	B1	3555	C3		
2307	A3	3220	A2	3556	C3		
2309	B2	3221	B1	3557	C3		
2318	A3	3222	B1	3558	C3		
2319	B3	3223	B1	3559	C3		
2401	D1	3224	B1	3560	C3		
2402	D1	3225	B1	3561	C3		
2406	C1	3226	A1	3562	C2		
2407	D1	3227	C1	3563	C2		
2410	D1	3229	C1	3564	C3		
2411	D1	3230	A2	3565	C3		
2507	C1	3232	C1	3566	C2		
2508	C1	3234	C1	3567	C2		
2509	C1	3235	C1	3568	C2		
2510	C2	3237	B2	3570	C3		
2511	C2	3240	B2	3573	C3		
2512	C1	3245	A1	3623	C1		
2513	C1	3246	B1	3624	C1		
2514	C1	3248	B1	3625	C1		
2515	D1	3249	B1	3648	C2		
2516	D1	3250	B1	3651	C3		
2517	D1	3251	B2	3654	C3		
2519	D2	3252	B2	3655	C3		
2520	D1	3253	B1	3656	C3		
2521	D1	3254	B2	3657	C3		
2523	D2	3255	B2	3658	C3		
2524	D2	3256	B2	3659	C3		
2525	D2	3257	A2	3680	C2		
2526	C2	3258	C1	3681	C3		
2527	D1	3300	B3	3682	C3		
2528	C1	3301	A3	3683	C3		
2529	C1	3302	A3	3684	C3		
2622	C2	3304	A3	3685	C3		
2623	C2	3305	B3	3686	C3		
2624	C3	3309	B3	3687	C3		
2625	C3	3310	B2	3688	C3		
2626	C3	3311	A2	3689	C3		
2627	C3	3312	B2	3690	C3		
3100	B2	3313	B2	5200	B2		
3101	B2	3319	A1	5300	B3		
3102	B2	3321	A1	5501	C1		
3103	B2	3325	A1	5502	C1		
3104	B2	3326	A1	5603	D1		
3105	C1	3327	A1	5606	C2		
3106	B2	3328	A1	5607	C3		
3107	A1	3329	A1	5608	C3		
3108	A1	3330	B2	6200	C1		
3110	B2	3331	B3	7100	B2		
3111	B2	3332	B3	7101	B2		
3112	B2	3333	B2	7103	B1		
3113	B2	3334	B2	7106	B2		
3114	A1	3335	B2	7109	B1		
3115	A1	3336	B3	7110	C2		
3116	B2	3337	B3	7111	C2		

10. Spare parts list

VAL6011

Various

0001	3139 197 60090	GENEVA LP LOADER ASSY
0002	9305 022 60101	VAM6001/01
0003	3139 194 00710	SUSPENSION
0004	3139 194 00710	SUSPENSION
0005	3139 194 00620	SUSPENSION
0006	3139 194 00620	SUSPENSION
0007	3139 197 60060	CLAMPER ASSEMBLY

Loader

Various

0004	4822 358 10266	BELT
0009	3139 198 80010	SWITCH
0010	4822 532 13097	TULE
0011	3139 194 00270	TRAY
0012	3139 197 50060	TRAY MOTOR ASM.

Monoboard

Various

1104	2422 025 15963	CON BM H 24P F 0.50 FFC SMD R
1106	2422 025 16158	CON BM H 8P F 1.00 FFC 0.3 R
1205	2422 540 98428	RES CER SM 8M467 CSTCC8.46MHz R
1300	2422 540 98426	RES CER SM 6MHz CSTCC6.00MHz R
1301	4822 267 51454	CONN. 11P FEMALE
1603	2422 025 16389	CON BM V 22P F 1.00 FFC 0.3 R
1604	2422 025 16388	CON BM V 16P F 1.00 FFC 0.3 R

⊣⊢

2100	4822 126 14305	100nF 10% 16V 0603
2101	4822 126 14305	100nF 10% 16V 0603
2103	4822 124 80151	47µF 16V
2104	4822 126 13193	4.7nF 10% 63V
2105	4822 122 33761	22pF 5% 50V
2107	4822 126 13956	68pF 5% 63V CASE 0603
2108	4822 126 14315	390pF 5% 50V 0603
2109	2020 552 95697	
2110	2222 861 15222	50V 2N2 PM5
2111	4822 126 14305	100nF 10% 16V 0603
2112	5322 126 11578	1nF 10% 50V 0603
2113	4822 126 14305	100nF 10% 16V 0603
2114	4822 122 31765	100pF 2% 63V
2115	4822 126 14305	100nF 10% 16V 0603
2116	4822 126 14305	100nF 10% 16V 0603
2117	4822 126 14305	100nF 10% 16V 0603
2120	4822 126 14305	100nF 10% 16V 0603
2121	4822 126 13879	220nF 20% 16V
2123	4822 126 14305	100nF 10% 16V 0603
2124	4822 126 14305	100nF 10% 16V 0603
2125	4822 126 14305	100nF 10% 16V 0603
2126	4822 126 14305	100nF 10% 16V 0603
2127	4822 126 14305	100nF 10% 16V 0603
2128	4822 126 14508	180pF 5% 50V 0603
2129	4822 126 14508	180pF 5% 50V 0603
2130	4822 122 33761	22pF 5% 50V
2131	4822 126 14494	22nF 10% 25V 0603
2136	4822 126 14305	100nF 10% 16V 0603
2137	4822 126 14305	100nF 10% 16V 0603
2138	4822 126 14305	100nF 10% 16V 0603
2139	4822 126 14305	100nF 10% 16V 0603
2140	4822 126 14241	0603 50V 330P COL R
2141	4822 122 33761	22pF 5% 50V
2142	5322 126 11583	10nF 10% 50V 0603
2143	4822 126 13883	220pF 5% 50V
2144	4822 126 13883	220pF 5% 50V
2145	4822 126 13883	220pF 5% 50V
2203	4822 126 14305	100nF 10% 16V 0603
2204	4822 126 14305	100nF 10% 16V 0603
2205	4822 126 14305	100nF 10% 16V 0603
2206	4822 126 14549	33nF 16V O6O3
2207	5322 126 11578	1nF 10% 50V 0603
2208	4822 126 14305	100nF 10% 16V 0603
2209	4822 126 14305	100nF 10% 16V 0603
2210	5322 126 11578	1nF 10% 50V 0603
2212	4822 126 14305	100nF 10% 16V 0603
2213	4822 126 14305	100nF 10% 16V 0603
2215	4822 124 23237	22µF 6.3V
2216	5322 126 11578	1nF 10% 50V 0603
2226	4822 126 14305	100nF 10% 16V 0603
2227	4822 126 14305	100nF 10% 16V 0603
2228	4822 126 14305	100nF 10% 16V 0603
2300	4822 126 14305	100nF 10% 16V 0603
2301	4822 126 14305	100nF 10% 16V 0603
2302	4822 126 14305	100nF 10% 16V 0603
2303	4822 124 80349	47µF 20% 6.3V
2306	4822 124 23002	10µF 16V
2309	4822 126 14305	100nF 10% 16V 0603
2310	4822 126 14305	100nF 10% 16V 0603
2314	4822 126 14305	100nF 10% 16V 0603
2315	4822 126 14305	100nF 10% 16V 0603
2318	5322 122 33861	120pF 10% 50V
2319	4822 126 11669	27pF
2401	4822 126 14305	100nF 10% 16V 0603
2402	4822 126 14305	100nF 10% 16V 0603
2403	4822 126 14305	100nF 10% 16V 0603
2404	4822 126 14305	100nF 10% 16V 0603
2405	4822 126 14305	100nF 10% 16V 0603
2406	4822 126 14305	100nF 10% 16V 0603
2407	4822 126 14305	100nF 10% 16V 0603
2408	4822 126 14305	100nF 10% 16V 0603
2409	4822 126 14305	100nF 10% 16V 0603
2410	4822 126 14305	100nF 10% 16V 0603
2411	4822 126 14305	100nF 10% 16V 0603
2412	4822 126 14305	100nF 10% 16V 0603
2413	4822 126 14305	100nF 10% 16V 0603
2418	4822 124 12095	100µF 20% 16V
2419	4822 124 80349	47µF 20% 6.3V
2420	4822 124 80349	47µF 20% 6.3V
2500	4822 126 14305	100nF 10% 16V 0603
2502	3198 030 74780	EL SM 35V 4U7 PM20 COL R
2503	4822 126 14305	100nF 10% 16V 0603
2504	4822 122 31765	100pF 2% 63V
2505	4822 126 14494	22nF 10% 25V 0603
2506	4822 124 23002	10µF 16V
2507	4822 126 14305	100nF 10% 16V 0603
2508	5322 126 11579	3.3nF 10% 63V
2509	4822 126 14241	0603 50V 330P COL R
2510	4822 126 14305	100nF 10% 16V 0603
2511	4822 126 14305	100nF 10% 16V 0603
2512	4822 126 14305	100nF 10% 16V 0603
2513	4822 126 14305	100nF 10% 16V 0603
2514	4822 126 14305	100nF 10% 16V 0603
2515	4822 126 14305	100nF 10% 16V 0603
2516	4822 126 14305	100nF 10% 16V 0603
2517	4822 126 14305	100nF 10% 16V 0603
2518	4822 126 14305	100nF 10% 16V 0603
2519	4822 126 14305	100nF 10% 16V 0603
2520	4822 126 14305	100nF 10% 16V 0603
2521	4822 126 14305	100nF 10% 16V 0603
2522	4822 126 14305	100nF 10% 16V 0603
2523	4822 126 14305	100nF 10% 16V 0603
2524	4822 126 14305	100nF 10% 16V 0603
2525	4822 126 14305	100nF 10% 16V 0603
2526	4822 126 14305	100nF 10% 16V 0603
2527	4822 126 14305	100nF 10% 16V 0603
2528	4822 126 14305	100nF 10% 16V 0603
2529	4822 126 14305	100nF 10% 16V 0603
2530	3198 030 74780	EL SM 35V 4U7 PM20 COL R
2531	3198 030 74780	EL SM 35V 4U7 PM20 COL R
2532	4822 122 33777	47pF 5% 63V
2533	4822 122 33777	47pF 5% 63V
2534	5322 126 11578	1nF 10% 50V 0603
2535	5322 126 11578	1nF 10% 50V 0603
2600	4822 126 14494	22nF 10% 25V 0603
2601	4822 126 14247	0603 50V 1N5 COL R
2602	4822 126 14247	0603 50V 1N5 COL R
2603	4822 126 14305	100nF 10% 16V 0603
2604	4822 124 12095	100µF 20% 16V
2605	4822 126 14494	22nF 10% 25V 0603
2606	4822 124 12095	100µF 20% 16V
2607	4822 124 12095	100µF 20% 16V
2608	4822 124 23002	10µF 16V
2609	4822 124 80151	47µF 16V
2610	4822 126 14305	100nF 10% 16V 0603
2611	4822 124 12095	100µF 20% 16V
2614	4822 122 33777	47pF 5% 63V
2615	4822 122 33777	47pF 5% 63V
2616	4822 122 33777	47pF 5% 63V
2617	4822 122 33777	47pF 5% 63V
2618	4822 126 14305	100nF 10% 16V 0603
2619	4822 126 14305	100nF 10% 16V 0603
2620	4822 122 33777	47pF 5% 63V
2621	4822 122 33777	47pF 5% 63V
2622	4822 122 33777	47pF 5% 63V
2623	4822 122 33777	47pF 5% 63V
2624	4822 122 33777	47pF 5% 63V
2625	4822 122 33777	47pF 5% 63V
2626	4822 122 33777	47pF 5% 63V
2627	4822 122 33777	47pF 5% 63V
2632	4822 124 12095	100µF 20% 16V
2633	4822 124 12095	100µF 20% 16V
2634	4822 126 14305	100nF 10% 16V 0603
2635	4822 126 14305	100nF 10% 16V 0603
2636	4822 126 14305	100nF 10% 16V 0603
2637	4822 126 14305	100nF 10% 16V 0603
2638	4822 126 14305	100nF 10% 16V 0603
2639	4822 126 14305	100nF 10% 16V 0603

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3100	4822 117 11152	4Ω7 5%
3102	5322 117 13034	1k5 1% 0.063W 0603 RC22H
3103	5322 117 13034	1k5 1% 0.063W 0603 RC22H
3104	5322 117 13062	390Ω 1% 0.063W 0603 RC22H
3105	4822 051 30103	10k 5% 0.062W
3106	4822 051 30479	47Ω 5% 0.062W
3107	4822 051 20228	2Ω2 5% 0.1W
3108	4822 051 20228	2Ω2 5% 0.1W
3110	4822 051 30479	47Ω 5% 0.062W
3111	5322 117 13058	150Ω 1% 0.063W 0603 RC22H
3112	5322 117 13021	47Ω 1% 0.063W 0603 RC22H
3114	4822 051 20228	2Ω2 5% 0.1W
3115	4822 051 20228	2Ω2 5% 0.1W
3116	5322 117 13042	3k9 1% 0.063W 0603 RC22H
3117	4822 051 30181	180Ω 5% 0.062W
3118	4822 051 30681	680Ω 5% 0.062W
3119	5322 117 13062	390Ω 1% 0.063W 0603 RC22H
3120	4822 051 30102	1k 5% 0.062W
3121	4822 051 30273	27k 5% 0.062W
3122	4822 051 30471	470Ω 5% 0.062W
3123	4822 051 30103	10k 5% 0.062W
3124	4822 051 30471	470Ω 5% 0.062W
3125	4822 051 30103	10k 5% 0.062W
3126	4822 051 30103	10k 5% 0.062W
3127	4822 051 30223	22k 5% 0.062W
3128	2322 704 69109	
3129	4822 051 30392	3k9 5% 0.063W 0603
3130	4822 051 20228	2Ω2 5% 0.1W
3131	4822 051 20228	2Ω2 5% 0.1W
3132	4822 051 20228	2Ω2 5% 0.1W
3133	4822 051 20228	2Ω2 5% 0.1W
3134	5322 117 13047	330Ω 1% 0.063W 0603 RC22H
3135	4822 117 13613	2Ω2 5% 0603
3137	4822 117 13613	2Ω2 5% 0603
3138	5322 117 13053	6k8 1% 0.063W 0603 RC22H
3139	4822 117 12917	1Ω 5% 0.062W CASE0603
3140	4822 051 30479	47Ω 5% 0.062W
3141	4822 117 11152	4Ω7 5%
3142	5322 117 13028	12k 1% 0.063W 0603 RC22H
3143	5322 117 13043	220Ω 1% 0.063W 0603 RC22H
3144	2322 704 69109	
3146	4822 051 30103	10k 5% 0.062W
3147	4822 051 30103	10k 5% 0.062W
3148	5322 117 13022	22k 1% 0.063W 0603 RC22H
3153	4822 117 12139	22Ω 5% 0.062W
3155	4822 051 30103	10k 5% 0.062W
3157	4822 051 30103	10k 5% 0.062W
3158	5322 117 13017	100Ω 1% 0.063W 0603 RC22H
3160	4822 051 30101	100Ω 5% 0.062W
3161	4822 117 13613	2Ω2 5% 0603
3162	4822 051 30101	100Ω 5% 0.062W
3163	4822 051 30273	27k 5% 0.062W
3164	4822 117 13613	2Ω2 5% 0603

3165	5322 117 13063	120Ω 1% 0.063W 0603 RC22H
3166	4822 051 30393	39k 5% 0.062W
3167	4822 051 30101	100Ω 5% 0.062W
3168	5322 117 13047	330Ω 1% 0.063W 0603 RC22H
3169	4822 051 30101	100Ω 5% 0.062W
3170	4822 051 30101	100Ω 5% 0.062W
3171	4822 051 30101	100Ω 5% 0.062W
3172	4822 117 13632	100k 1% 0603 0.62W
3173	4822 117 13632	100k 1% 0603 0.62W
3174	4822 117 11152	4Ω7 5%
3175	4822 117 13613	2Ω2 5% 0603
3176	4822 051 30153	15k 5% 0.062W
3178	4822 117 11151	1Ω 5%
3179	4822 051 30221	220Ω 5% 0.062W
3180	4822 117 13632	100k 1% 0603 0.62W
3181	4822 051 30561	560Ω 5% 0.062W
3182	5322 117 13018	1k0 1% 0.063W 0603 RC22H
3183	5322 117 13017	100Ω 1% 0.063W 0603 RC22H
3184	2322 704 61204	
3185	4822 117 11151	1Ω 5%
3187	4822 051 30273	27k 5% 0.062W
3189	4822 051 30008	0Ω jumper
3190	4822 051 30008	0Ω jumper
3191	4822 051 30008	0Ω jumper
3192	4822 051 30008	0Ω jumper
3193	4822 051 30008	0Ω jumper
3194	4822 051 30008	0Ω jumper
3195	4822 051 30008	0Ω jumper
3197	4822 051 30008	0Ω jumper
3198	5322 117 13049	470Ω 1% 0.063W 0603 RC22H
3199	5322 117 13042	3k9 1% 0.063W 0603 RC22H
3200	4822 051 30103	10k 5% 0.062W
3201	4822 117 11151	1Ω 5%
3202	4822 117 11151	1Ω 5%
3203	4822 051 30105	1M 5% 0.062W
3204	4822 051 30331	330Ω 5% 0.062W
3205	4822 051 30103	10k 5% 0.062W
3206	4822 051 30103	10k 5% 0.062W
3208	4822 051 30272	2k7 5% 0.062W
3209	4822 051 30472	4k7 5% 0.062W
3210	4822 051 30392	3k9 5% 0.063W 0603
3211	4822 051 30472	4k7 5% 0.062W
3212	4822 117 11152	4Ω7 5%
3213	4822 117 11152	4Ω7 5%
3214	4822 051 30392	3k9 5% 0.063W 0603
3215	4822 051 30103	10k 5% 0.062W
3219	4822 051 30103	10k 5% 0.062W
3220	4822 051 30103	10k 5% 0.062W
3221	4822 051 30103	10k 5% 0.062W
3224	4822 051 30151	150Ω 5% 0.062W
3225	2322 704 62004	
3226	4822 051 30103	10k 5% 0.062W
3227	4822 051 30472	4k7 5% 0.062W
3229	4822 051 30123	12k 5% 0.062W
3230	4822 051 30103	10k 5% 0.062W
3231	4822 051 30103	10k 5% 0.062W
3232	4822 117 13613	2Ω2 5% 0603
3234	4822 117 12902	8k2 1% 0.063W 0603
3235	4822 117 13632	100k 1% 0603 0.62W
3236	4822 051 30472	4k7 5% 0.062W
3237	4822 051 30103	10k 5% 0.062W
3238	4822 051 30103	10k 5% 0.062W
3239	4822 051 30103	10k 5% 0.062W
3240	4822 051 30103	10k 5% 0.062W
3242	4822 051 30008	0Ω jumper
3243	4822 051 30008	0Ω jumper
3246	4822 051 30008	0Ω jumper
3247	4822 051 30008	0Ω jumper
3249	4822 051 30008	0Ω jumper
3250	4822 051 30008	0Ω jumper
3251	4822 051 30008	0Ω jumper
3252	4822 051 30008	0Ω jumper
3253	4822 051 30008	0Ω jumper
3254	4822 051 30008	0Ω jumper
3255	4822 051 30008	0Ω jumper
3256	4822 051 30008	0Ω jumper
3257	4822 051 30008	0Ω jumper
3258	4822 051 30008	0Ω jumper
3259	4822 117 11151	1Ω 5%
3260	4822 117 11151	1Ω 5%
3300	4822 117 11152	4Ω7 5%
3301	4822 051 30105	1M 5% 0.062W
3302	4822 051 30221	220Ω 5% 0.062W
3304	4822 051 30272	2k7 5% 0.062W
3305	4822 051 30272	2k7 5% 0.062W
3309	4822 051 30103	10k 5% 0.062W
3310	4822 051 30223	22k 5% 0.062W
3311	4822 051 30223	22k 5% 0.062W
3312	4822 051 30472	4k7 5% 0.062W
3313	4822 051 30472	4k7 5% 0.062W
3316	4822 051 20108	1Ω 5% 0.1W
3317	4822 051 20108	1Ω 5% 0.1W
3318	4822 051 30472	4k7 5% 0.062W
3319	4822 051 30479	47Ω 5% 0.062W
3320	4822 051 30472	4k7 5% 0.062W
3321	4822 051 30682	6k8 5% 0.062W
3322	5322 117 13026	4k7 1% 0.063W 0603 RC22H
3323	5322 117 13026	4k7 1% 0.063W 0603 RC22H
3324	4822 117 13632	100k 1% 0603 0.62W
3325	4822 051 30682	6k8 5% 0.062W
3326	4822 051 30479	47Ω 5% 0.062W
3327	4822 051 30682	6k8 5% 0.062W
3328	4822 051 30223	22k 5% 0.062W
3329	4822 051 30223	22k 5% 0.062W
3330	4822 051 30223	22k 5% 0.062W
3331	4822 051 30332	3k3 5% 0.062W
3332	4822 051 30332	3k3 5% 0.062W
3333	4822 051 30101	100Ω 5% 0.062W
3334	4822 051 30101	100Ω 5% 0.062W
3335	4822 051 30101	100Ω 5% 0.062W
3336	4822 051 30101	100Ω 5% 0.062W
3337	4822 051 30101	100Ω 5% 0.062W
3338	4822 051 30101	100Ω 5% 0.062W
3339	4822 051 30008	0Ω jumper
3340	4822 051 30008	0Ω jumper
3403	4822 051 30103	10k 5% 0.062W
3404	4822 051 30103	10k 5% 0.062W
3405	4822 051 30103	10k 5% 0.062W
3412	4822 051 30008	0Ω jumper
3414	4822 051 30008	0Ω jumper
3416	4822 051 30008	0Ω jumper
3500	4822 051 30332	3k3 5% 0.062W
3501	4822 051 30332	3k3 5% 0.062W
3502	4822 051 30223	22k 5% 0.062W
3503	4822 051 30103	10k 5% 0.062W
3504	4822 051 30103	10k 5% 0.062W
3505	4822 051 30103	10k 5% 0.062W
3506	4822 051 30103	10k 5% 0.062W
3507	4822 051 30472	4k7 5% 0.062W
3508	4822 051 30689	68Ω 5% 0.063W 0603 RC21 RST SM
3509	4822 051 30103	10k 5% 0.062W
3511	4822 051 30332	3k3 5% 0.062W
3512	4822 051 30332	3k3 5% 0.062W
3513	4822 051 30103	10k 5% 0.062W
3514	4822 051 30103	10k 5% 0.062W
3515	4822 051 30103	10k 5% 0.062W
3516	4822 051 30103	10k 5% 0.062W
3517	4822 051 30332	3k3 5% 0.062W
3519	4822 051 30103	10k 5% 0.062W
3520	4822 051 30103	10k 5% 0.062W
3521	4822 051 30103	10k 5% 0.062W
3522	4822 051 30103	10k 5% 0.062W
3523	4822 051 30332	3k3 5% 0.062W
3524	4822 051 30101	100Ω 5% 0.062W
3525	4822 051 30103	10k 5% 0.062W
3526	4822 051 30103	10k 5% 0.062W
3534	4822 051 30103	10k 5% 0.062W
3535	4822 051 30153	15k 5% 0.062W
3536	4822 051 30101	100Ω 5% 0.062W
3537	4822 051 30331	330Ω 5% 0.062W
3538	4822 051 30681	680Ω 5% 0.062W
3541	4822 051 30479	47Ω 5% 0.062W
3542	4822 051 30479	47Ω 5% 0.062W
3545	4822 051 30221	220Ω 5% 0.062W
3546	4822 051 30101	100Ω 5% 0.062W
3548	4822 051 30008	0Ω jumper
3549	4822 051 30008	0Ω jumper
3550	4822 051 30101	100Ω 5% 0.062W
3551	4822 051 30101	100Ω 5% 0.062W
3552	4822 051 30008	0Ω jumper
3554	4822 051 30008	0Ω jumper
3564	4822 051 30008	0Ω jumper
3566	4822 051 30008	0Ω jumper
3570	4822 051 30101	100Ω 5% 0.062W
3571	4822 051 30689	68Ω 5% 0.063W 0603 RC21 RST SM
3572	4822 051 30689	68Ω 5% 0.063W 0603 RC21 RST SM
3605	4822 051 30008	0Ω jumper
3606	4822 117 12925	47k 1% 0.063W 0603
3607	4822 117 13632	100k 1% 0603 0.62W
3608	4822 117 13632	100k 1% 0603 0.62W
3609	4822 117 13632	100k 1% 0603 0.62W
3610	4822 051 30103	10k 5% 0.062W
3611	4822 051 30103	10k 5% 0.062W
3612	4822 051 30103	10k 5% 0.062W
3613	4822 051 30103	10k 5% 0.062W
3614	4822 051 30103	10k 5% 0.062W
3615	4822 051 30103	10k 5% 0.062W
3616	4822 051 30103	10k 5% 0.062W
3618	4822 051 30223	22k 5% 0.062W
3619	4822 051 30223	22k 5% 0.062W
3620	4822 051 30101	100Ω 5% 0.062W
3621	4822 051 30101	100Ω 5% 0.062W
3622	4822 051 30101	100Ω 5% 0.062W
3623	4822 051 30101	100Ω 5% 0.062W
3624	4822 051 30101	100Ω 5% 0.062W
3625	4822 051 30101	100Ω 5% 0.062W
3626	4822 051 30102	1k 5% 0.062W
3627	4822 051 30471	470Ω 5% 0.062W
3628	4822 051 30471	470Ω 5% 0.062W
3629	4822 051 30472	4k7 5% 0.062W
3630	4822 051 30221	220Ω 5% 0.062W
3631	2322 704 64301	RST SM 0603 RC22H 430Ω PM1 R
3632	2322 704 64301	RST SM 0603 RC22H 430Ω PM1 R
3633	2322 704 64301	RST SM 0603 RC22H 430Ω PM1 R
3635	4822 051 30682	6k8 5% 0.062W
3636	4822 051 30682	6k8 5% 0.062W
3637	4822 051 30332	3k3 5% 0.062W
3642	4822 051 30103	10k 5% 0.062W
3647	2322 704 64301	RST SM 0603 RC22H 430Ω PM1 R
3648	2322 704 64301	RST SM 0603 RC22H 430Ω PM1 R
3651	2322 704 64301	RST SM 0603 RC22H 430Ω PM1 R
3654	2322 704 64301	RST SM 0603 RC22H 430Ω PM1 R
3655	2322 704 64301	RST SM 0603 RC22H 430Ω PM1 R
3656	2322 704 64301	RST SM 0603 RC22H 430Ω PM1 R
3657	2322 704 64301	RST SM 0603 RC22H 430Ω PM1 R
3658	4822 051 30102	1k 5% 0.062W
3659	4822 051 30102	1k 5% 0.062W
3660	4822 051 30102	1k 5% 0.062W
3661	2322 704 64301	RST SM 0603 RC22H 430Ω PM1 R
3662	4822 051 30102	1k 5% 0.062W
3663	4822 051 30102	1k 5% 0.062W
3664	2322 704 64301	RST SM 0603 RC22H 430Ω PM1 R
3665	4822 117 12139	22Ω 5% 0.062W
3667	4822 051 30331	330Ω 5% 0.062W
3669	4822 051 30008	0Ω jumper
3670	4822 051 30008	0Ω jumper
3671	4822 051 30223	22k 5% 0.062W
3672	4822 051 30479	47Ω 5% 0.062W
3673	4822 051 30101	100Ω 5% 0.062W
3677	4822 051 30008	0Ω jumper
3678	4822 051 30008	0Ω jumper
3679	4822 051 30008	0Ω jumper
3681	4822 051 30008	0Ω jumper
3683	4822 051 30008	0Ω jumper
3685	4822 051 30008	0Ω jumper
3686	4822 051 30223	22k 5% 0.062W
3687	4822 051 30223	22k 5% 0.062W
3688	4822 051 30472	4k7 5% 0.062W
3689	4822 051 30223	22k 5% 0.062W

5200	4822 157 11717	BLM31P500SPT
5300	4822 157 11717	BLM31P500SPT
5301	4822 157 11717	BLM31P500SPT
5402	4822 157 11499	BLM11P600SPT
5403	4822 157 11499	BLM11P600SPT
5501	4822 157 70299	2.2µH (NL322522T-2R2J)
5502	4822 157 70299	2.2µH (NL322522T-2R2J)
5503	4822 157 71206	BLM21A601SPT
5504	4822 157 71206	BLM21A601SPT
5600	4822 157 71206	BLM21A601SPT
5601	4822 157 11499	BLM11P600SPT
5602	4822 157 10547	15µH 5%
5603	4822 157 71206	BLM21A601SPT
5604	4822 157 10547	15µH 5%
5605	4822 157 10547	15µH 5%
5606	4822 157 10547	15µH 5%
5607	4822 157 10547	15µH 5%
5608	4822 157 10547	15µH 5%
5609	4822 157 11717	BLM31P500SPT
5610	4822 157 11717	BLM31P500SPT

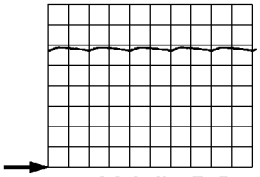
6200	4822 130 11397	BAS316
6301	9322 128 69685	S1D

6302	9322 128 69685	S1D
6303	9322 128 69685	S1D
6600	4822 130 11528	1PS76SB10



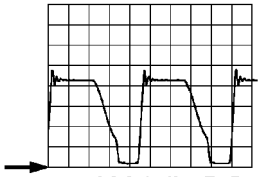
7100	5322 130 42718	BFS20
7101	5322 130 42718	BFS20
7102	9352 637 37518	
7103	4822 209 17229	BA5938FM
7104	4822 209 30095	LM833D
7105	4822 209 32073	MC34072D
7106	5322 130 42718	BFS20
7109	4822 209 15083	AN78M09
7110	5322 130 60803	BST72A
7111	5322 130 60159	BC846B
7112	5322 130 60159	BC846B
7113	5322 130 60159	BC846B
7114	5322 130 60159	BC846B
7115	4822 130 60373	BC856B
7116	5322 130 60159	BC846B
7201	9351 869 80118	
7202	3104 123 95660	
7203	4822 130 60373	BC856B
7207	9352 636 60557	SAA7399HL/M2A
7304	4822 209 16877	BA6856FP
7310	4822 209 15899	CY7C199-15C
7311	9352 622 13557	SAA7335HL
7312	4822 130 60373	BC856B
7315	5322 130 60159	BC846B
7401	9322 132 01668	AM29LV160B
7404	9322 144 59668	IC SM MT48LC1M16A1TG-7S (MRN)R
7405	9322 144 59668	IC SM MT48LC1M16A1TG-7S (MRN)R
7501	5322 130 60159	BC846B
7503	9322 151 16671	IC SM STI5505AVC (ST00) Y
7504	4822 242 10838	27MHZ 120P FX0-31FT
7505	8204 056 05580	IC SM M24C32-WMN6TNKSA
7600	5322 209 71568	PC74HCT14T
7604	5322 130 60159	BC846B
7605	4822 209 17398	LD1117DT33
7607	5322 130 60159	BC846B
7608	4822 130 60373	BC856B
7609	4822 130 60373	BC856B
7610	5322 130 60159	BC846B
7611	9352 456 80115	
7612	5322 130 60159	BC846B
7613	5322 130 60159	BC846B
7614	5322 130 60159	BC846B
7615	5322 130 60159	BC846B
7616	4822 209 16062	MK2742-03S
7617	5322 130 60159	BC846B
7618	5322 130 60159	BC846B
7620	4822 130 60373	BC856B
7621	4822 130 42804	BC817-25

P1



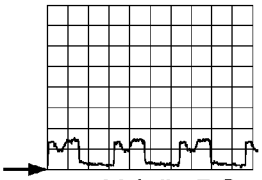
50V / div DC
5ms / div

P2



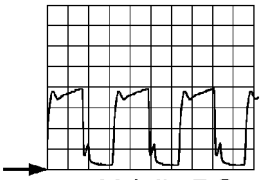
0.1kV / div DC
2µs / div

L1



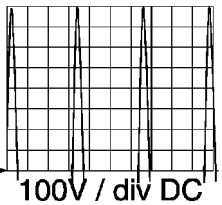
0.5V / div DC
20µs / div

L2



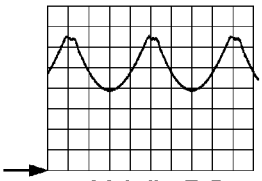
20V / div DC
20µs / div

L3



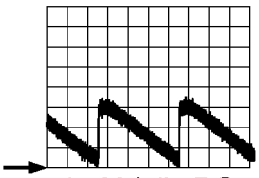
100V / div DC
20µs / div

L7



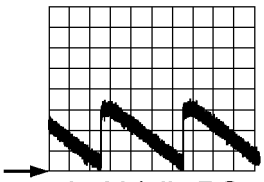
5V / div DC
5ms / div

F1



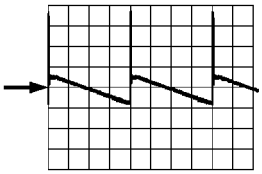
0,5V / div DC
5ms / div

F2



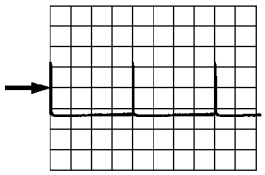
0,5V / div DC
5ms / div

F3



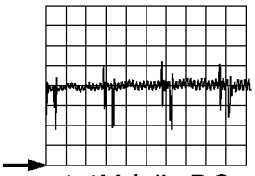
10V / div DC
5ms / div

F4



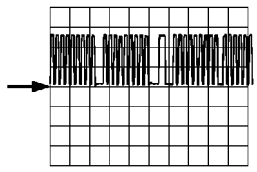
10V / div DC
5ms / div

I1



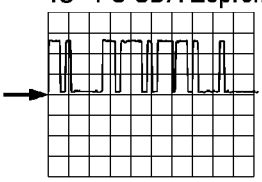
0.2V / div DC
5µs / div

I2 I^2C SCL



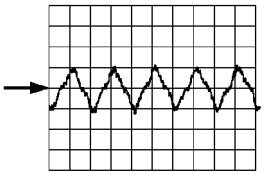
2V / div DC
50µs / div

I3 I^2C SDA Eeprom



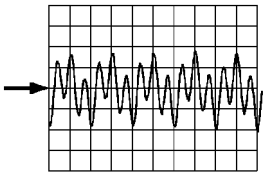
2V / div DC
50µs / div

A1



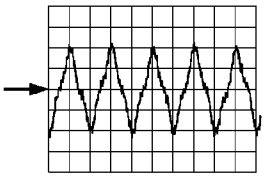
50mV / div AC
0.5ms / div

A2



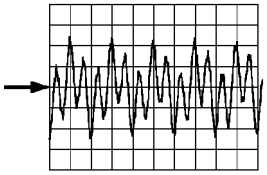
50mV / div AC
0.5ms / div

A3



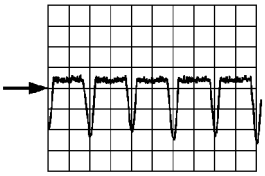
0.5V / div AC
0.5ms / div

A4



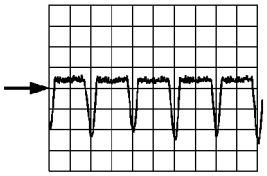
0.5V / div AC
0.5ms / div

A5



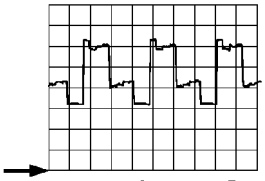
0.1V / div AC
0.5ms / div

A6



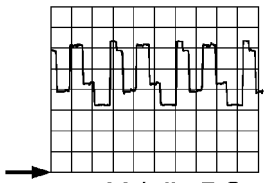
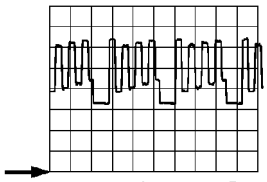
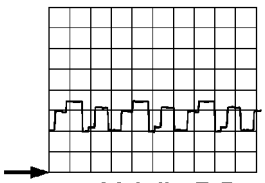
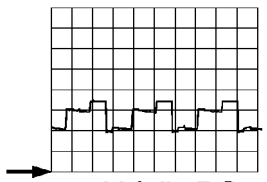
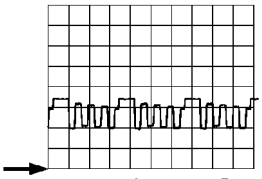
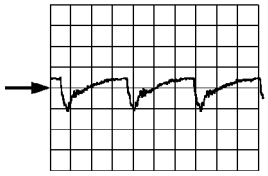
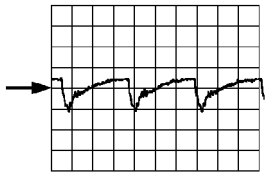
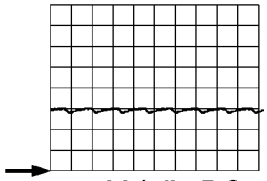
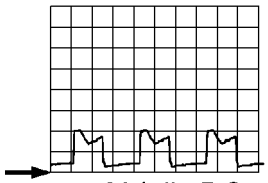
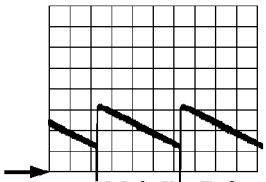
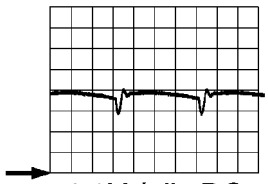
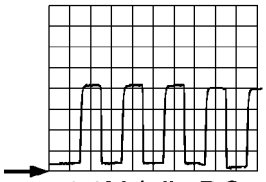
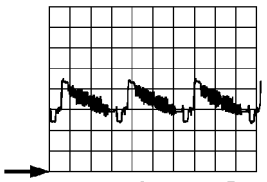
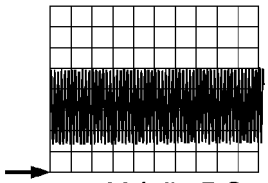
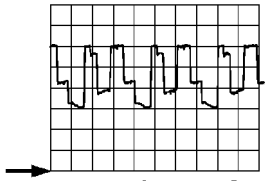
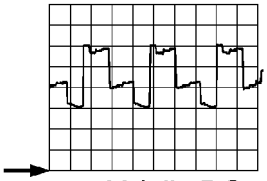
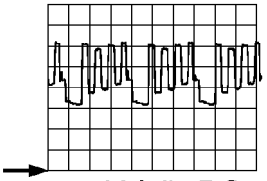
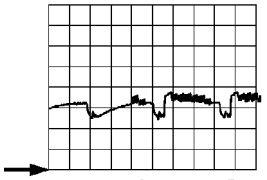
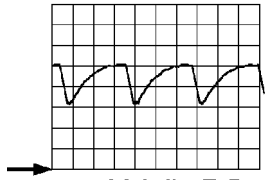
0.1V / div AC
0.2ms / div

V20

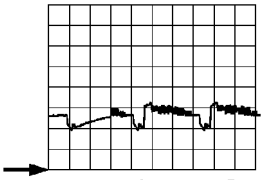


0.5V / div DC
20µs / div

27H8(7619)

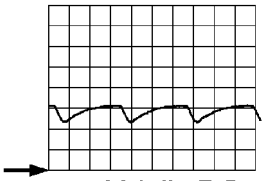
V21  0.5V / div DC 20µs / div	V22  0.5V / div DC 20µs / div	V23  50V / div DC 20µs / div	V24  50V / div DC 20µs / div
V25  50V / div DC 20µs / div	I4  100mV / div AC 20µs / div	I5  0.5V / div DC 20µs / div	I6  1.0V / div DC 5.0µs / div
S1  0.5V / div DC 20µs / div	S2  0.5V / div DC 5ms / div	S3  0.5V / div DC 5ms / div	S4  1.0V / div DC 5ms / div
V4  1.0V / div DC 5µs / div	V2  0.5V / div DC 20µs / div	V3  0.5V / div DC 0.5µs / div	V6  1.0V / div DC 0.5µs / div
V7  0.5V / div DC 20µs / div	V8  0.5V / div DC 20µs / div	V9  0.5V / div DC 5µs / div	V10  0.2V / div DC 20 s / div

V11



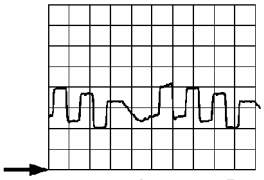
0.5V / div DC
20µs / div

V12



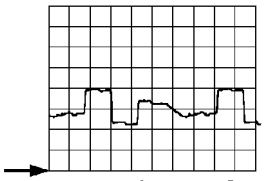
0.5V / div DC
20µs / div

V13



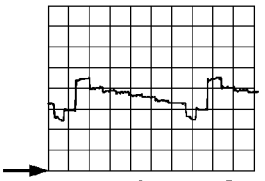
0.5V / div DC
10µs / div

V14



0.5V / div DC
10µs / div

V15



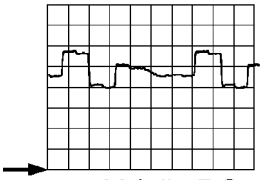
0.5V / div DC
10µs / div

V16



0.5V / div DC
10µs / div

V17



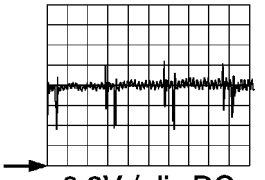
0.5V / div DC
10µs / div

V18



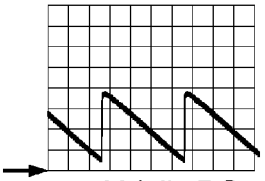
0.5V / div DC
10µs / div

I1



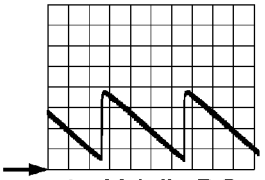
0.2V / div DC
5µs / div

S2



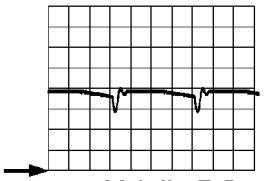
0.5V / div DC
5ms / div

S3



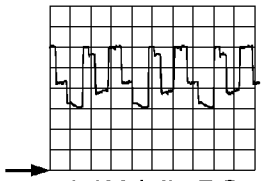
0.5V / div DC
5ms / div

S4



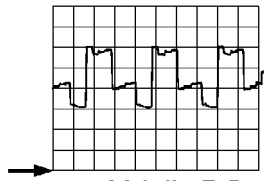
1.0V / div DC
5ms / div

V6



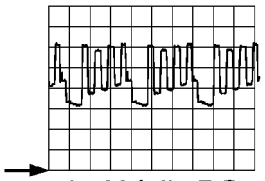
1.0V / div DC
0.5µs / div

V7



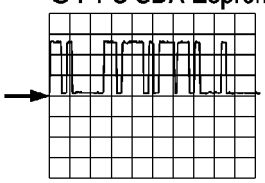
0.5V / div DC
20µs / div

V8



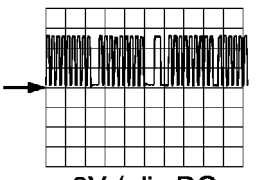
0.5V / div DC
20µs / div

C1 I²C SDA Eeprom



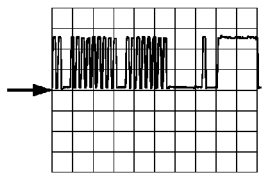
2V / div DC
50µs / div

C2 I²C SCL



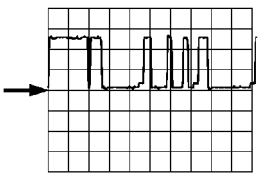
2V / div DC
50µs / div

C3 I²C SCL-2



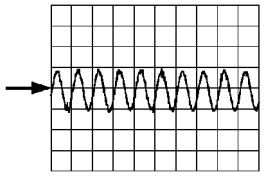
2V / div DC
50µs / div

C4 I²C SDA-2



2V / div DC
50µs / div

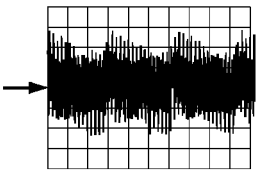
A7



0.5V / div AC
1ms / div

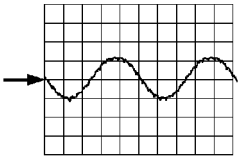
27H8(7619)

A8



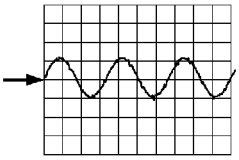
0.1V / div AC
20µs / div

A9 headphone volume max.



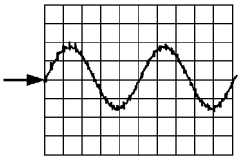
1V / div AC
0.2ms / div

A10 headphone volume max.



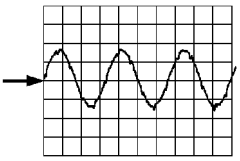
1V / div AC
0.1ms / div

A11 audio volume max.



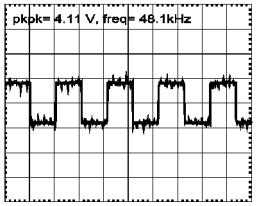
0.5V / div AC
0.2ms / div

A12 audio volume max.



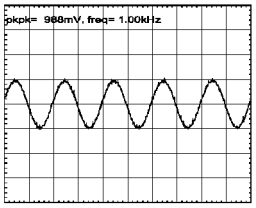
0.5V / div AC
0.1ms / div

A13



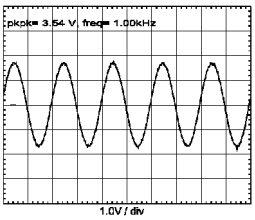
2.0V / div
10µs / div

A14



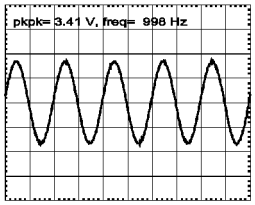
0.5V / div DC
500µs / div

A15



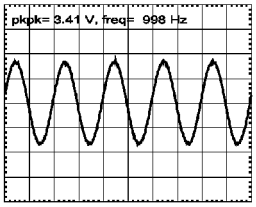
1.0V / div
500µs / div

A16



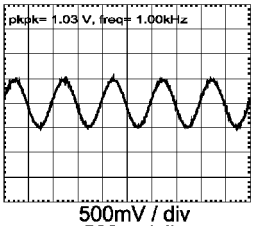
1.0V / div
500µs / div

A17



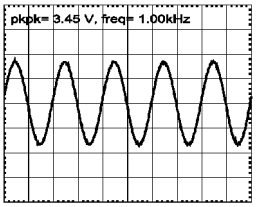
1.0V / div
500µs / div

A19



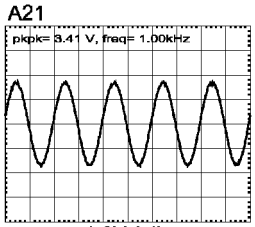
500mV / div
500µs / div

A20



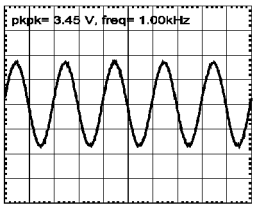
1.0V / div
500µs / div

A21



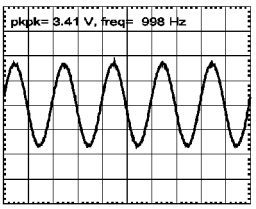
1.0V / div
500µs / div

A22



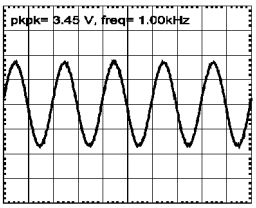
1.0V / div
500µs / div

A17



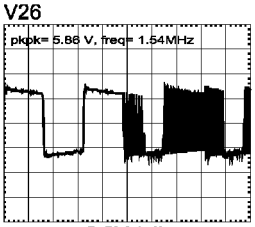
1.0V / div
500µs / div

A22



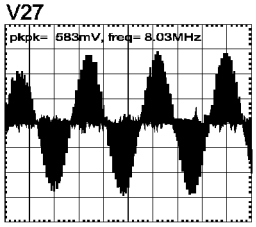
1.0V / div
500µs / div

V26



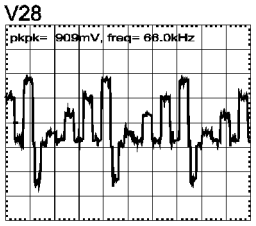
2.0V / div
200ns / div

V27



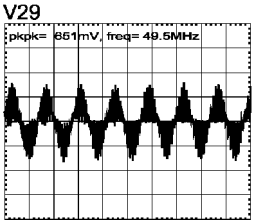
100mV / div
100ns / div

V28



200mV / div
20.0µs / div

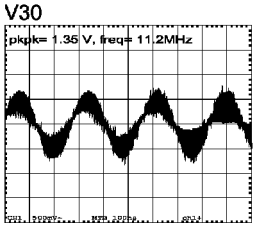
V29



200mV / div
200ns / div

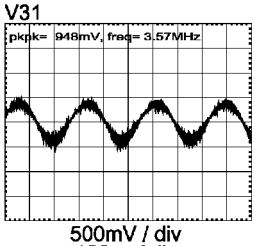
27H8(7619)

V30



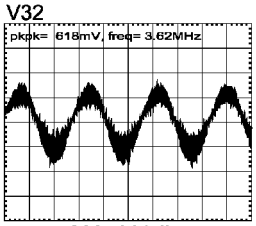
500mV / div
100ns / div

V31



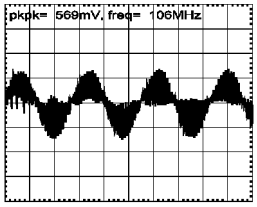
500mV / div
100ns / div

V32



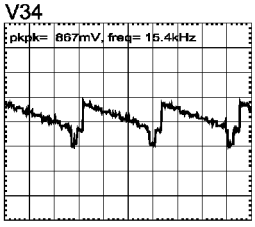
200mV / div
100ns / div

V33



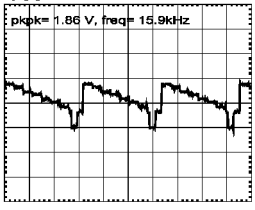
200mV / div
100ns / div

V34



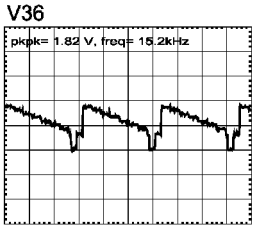
500mV / div
20.0µs / div

V35



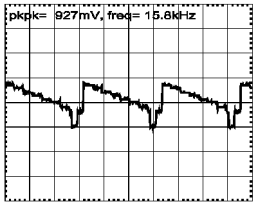
1.0V / div
20.0µs / div

V36



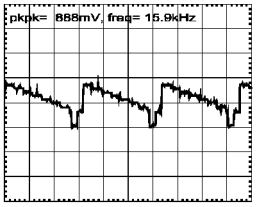
1.0V / div
20.0µs / div

V37



500mV / div
20.0µs / div

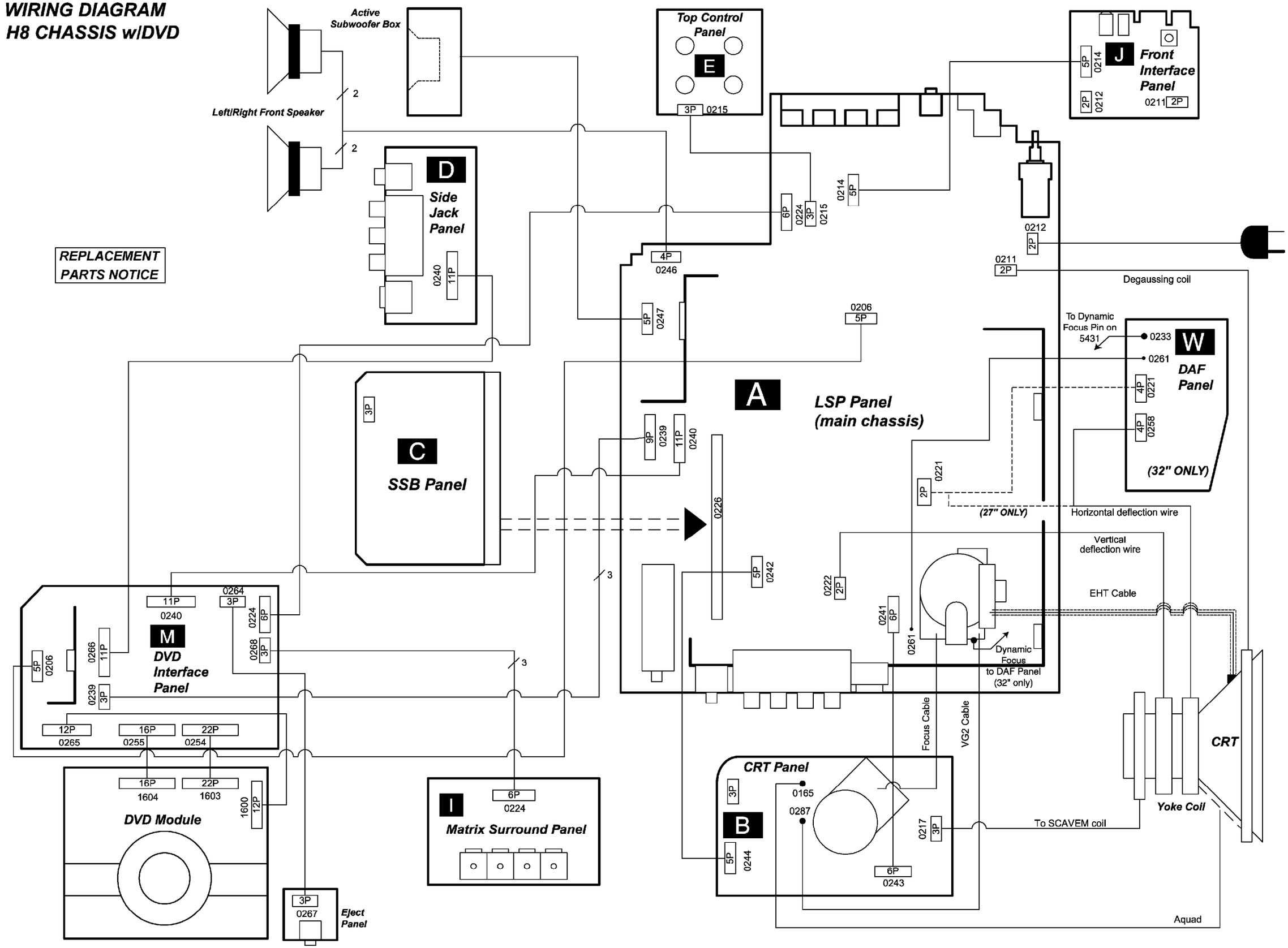
V38



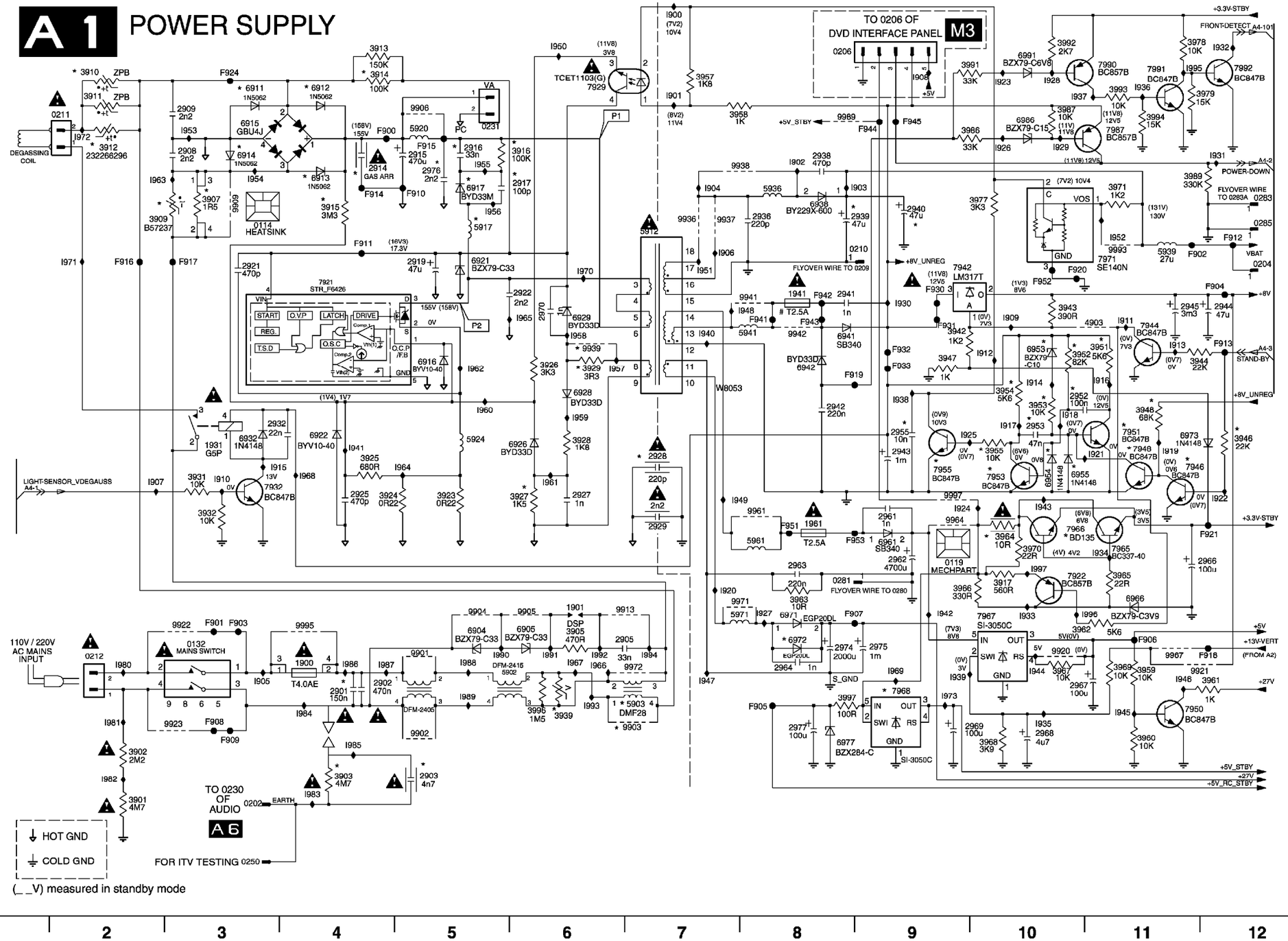
500mV / div
20.0µs / div

WIRING DIAGRAM H8 CHASSIS w/DVD

REPLACEMENT PARTS NOTICE

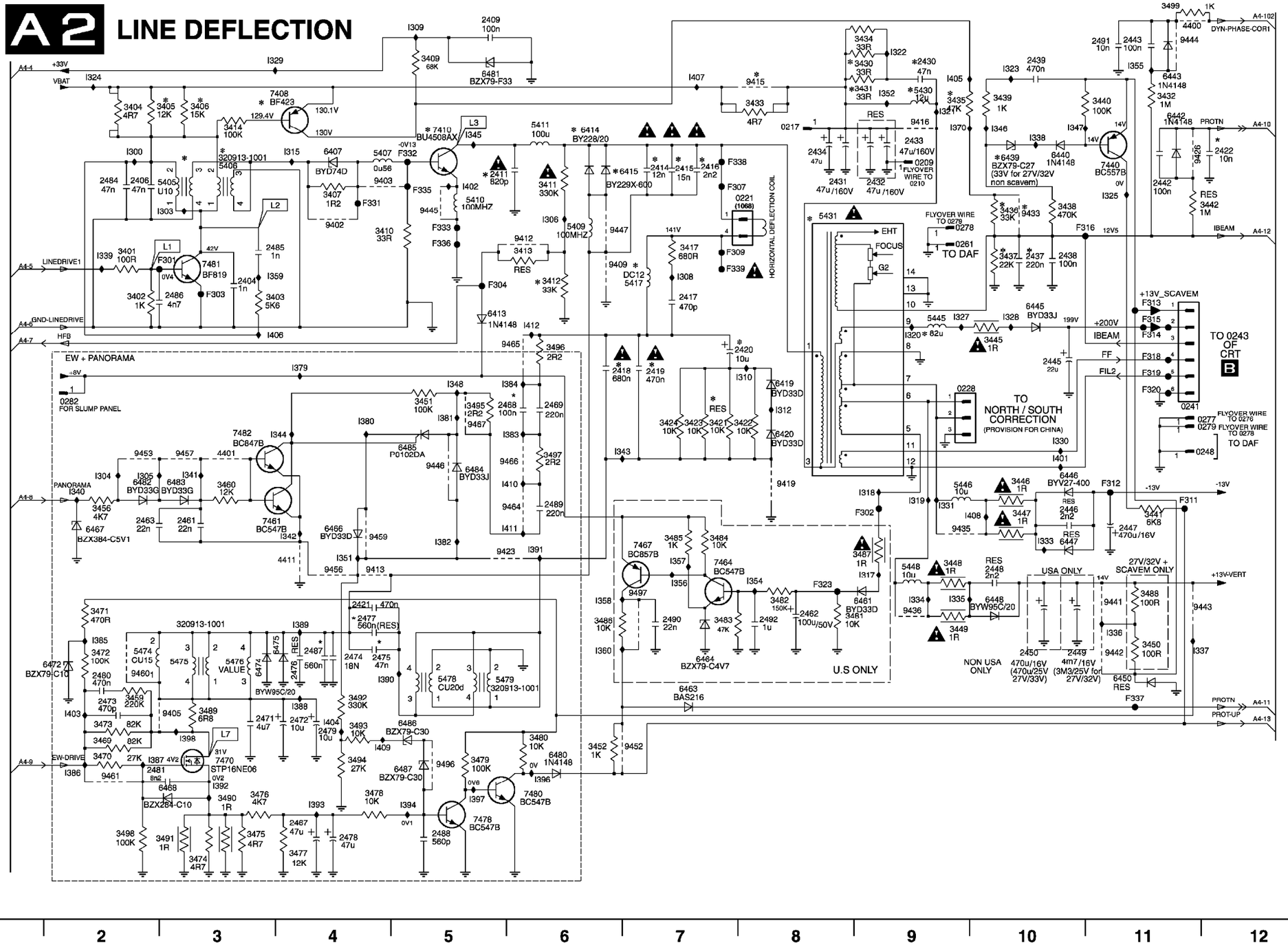


A 1 POWER SUPPLY



0114 C3	3959 F11	9936 B7	I949 E7
0119 E9	3960 G11	9937 B7	I950 A6
0132 F3	3961 F12	9938 B8	I951 C7
0202 G3	3962 F10	9939 D6	I952 C11
0204 C12	3963 F8	9941 C8	I953 B3
0206 A8	3964 E10	9942 C8	I954 B3
0210 C9	3965 F11	9961 E8	I955 B5
0211 B2	3966 F9	9964 E9	I956 B5
0212 F2	3967 F10	9967 F11	I957 D6
0231 B5	3968 G10	9971 F8	I958 C6
0250 H3	3969 F11	9972 F7	I959 D6
0281 F8	3970 E10	9989 B8	I960 D5
0283 B12	3971 B11	9993 C11	I961 E6
0285 B12	3977 B10	9995 F4	I962 D5
1900 F4	3978 A11	9997 E9	I963 B2
1901 F6	3979 A12	F900 B4	I964 E5
1931 D3	3986 B10	F901 F3	I965 C6
1941 C8	3987 A10	F902 C11	I966 F6
1961 E8	3989 B11	F903 F3	I967 F6
2901 G4	3991 A10	F904 C12	I968 E4
2902 F4	3992 A10	F905 G8	I969 F9
2903 G5	3993 A11	F906 F11	I970 C6
2905 F6	3994 B11	F907 F8	I971 C2
2908 B3	3996 G6	F908 G3	I972 B2
2909 A3	3997 G8	F909 G3	I973 G9
2914 B4	4903 C11	F910 B5	I980 F2
2915 B5	5902 F5	F911 C4	I981 G2
2916 B5	5903 G7	F912 C12	I982 G2
2917 B6	5912 C7	F913 D12	I983 G4
2919 C5	5917 B5	F914 B4	I984 G4
2921 C3	5920 B5	F915 B5	I985 G4
2922 C6	5924 D5	F916 C2	I986 F4
2925 E4	5936 B8	F917 C3	I987 F4
2927 E6	5939 C11	F918 F12	I988 F5
2928 E7	5941 C8	F919 D8	I989 G5
2929 E7	5961 E8	F920 C10	I990 F5
2932 D3	5971 F7	F921 E12	I991 F6
2936 B8	6904 F5	F924 A3	I992 F8
2938 B8	6905 F8	F930 C9	I993 G6
2939 B9	6911 A3	F931 C9	I994 F7
2940 B9	6912 A4	F932 D9	I995 A11
2941 C8	6913 B4	F933 D9	I996 F11
2942 D8	6914 B3	F941 C8	I997 E10
2943 D9	6915 B3	F942 C8	
2944 C12	6916 D5	F943 C8	
2945 C11	6917 B5	F944 B9	
2952 D10	6921 C5	F945 B9	
2953 D10	6922 D4	F951 E8	
2955 D9	6926 D6	F952 C10	
2961 E9	6928 D6	F953 E9	
2962 E9	6929 C6	I900 A7	
2963 E8	6932 D3	I901 A7	
2964 F8	6938 B8	I902 B8	
2966 E12	6941 C8	I903 B9	
2967 F10	6942 D8	I904 B7	
2968 G10	6953 D10	I905 F3	
2969 G10	6954 E10	I906 C7	
2970 C6	6955 E10	I907 E2	
2974 F8	6961 E9	I908 A9	
2975 F9	6966 F11	I909 C10	
2976 B5	6971 F8	I910 E3	
2977 G8	6972 F8	I911 C11	
3901 H2	6973 D11	I912 D10	
3902 G2	6977 G8	I913 D11	
3903 G4	6986 B10	I914 D10	
3905 F6	6991 A10	I915 E3	
3907 B3	7921 C4	I916 D11	
3909 B2	7922 F11	I917 D10	
3910 A2	7929 A6	I918 D10	
3911 A2	7932 E3	I919 D11	
3912 B2	7942 C9	I920 F7	
3913 A4	7944 C11	I921 E10	
3914 A4	7946 E12	I922 E12	
3915 B4	7948 D11	I923 A10	
3916 B6	7950 G11	I924 E9	
3917 F10	7951 D11	I925 D9	
3923 E5	7953 E10	I926 B10	
3924 E4	7955 E9	I927 F8	
3925 D4	7965 E11	I928 A10	
3926 D6	7966 E10	I929 B10	
3927 E6	7967 F10	I930 C9	
3928 D6	7968 G9	I931 B12	
3929 D6	7971 C11	I932 A12	
3931 E3	7987 B11	I933 F10	
3932 E3	7990 A11	I934 E11	
3939 G6	7991 A11	I935 G10	
3942 C9	7992 A12	I936 A11	
3943 C10	9901 F5	I937 A10	
3944 D11	9902 G5	I938 D9	
3946 D12	9903 G7	I939 G9	
3947 D9	9904 F5	I940 C7	
3948 D11	9905 F6	I941 D4	
3951 D11	9906 B5	I942 F9	
3952 D10	9909 B3	I943 E10	
3953 D10	9913 F7	I944 F10	
3954 D10	9920 F10	I945 G11	
3955 D10	9921 F11	I946 F11	
3957 A7	9922 F3	I947 G7	
3958 B7	9923 G3	I948 C8	

A2 LINE DEFLECTION

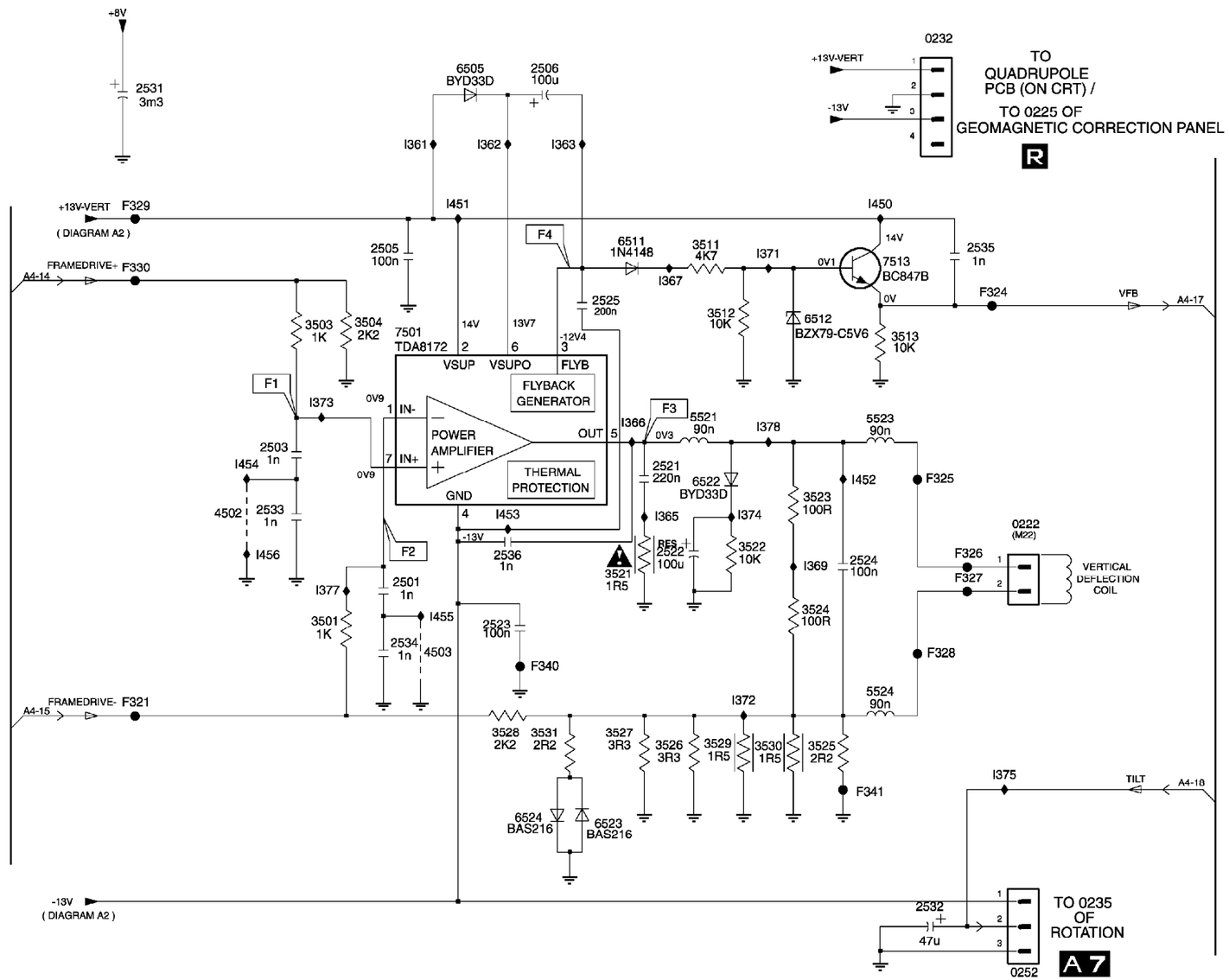


0209 B9	3446 E10	7467 E7	I343 D6
0217 B8	3447 E10	7470 G3	I344 D4
0221 B7	3448 E9	7478 H5	I345 B5
0228 D9	3449 F9	7480 G6	I346 B10
0241 D11	3450 F11	7481 C3	I347 B10
0248 D12	3451 D5	7482 D3	I348 D5
0261 C10	3452 G6	9402 C4	I351 E4
0277 D12	3456 E2	9403 B4	I352 A9
0278 C10	3459 G2	9405 G3	I354 F8
0279 D12	3460 E3	9409 C6	I355 A11
0282 D2	3469 G2	9412 C6	I356 F7
2404 C3	3470 G2	9413 F4	I357 E7
2406 B2	3471 F2	9415 A8	I358 F6
2409 A5	3472 F2	9416 B9	I359 C3
2411 B5	3473 G2	9419 E8	I360 F6
2414 B7	3474 H3	9423 E5	I370 B9
2415 B7	3475 H3	9426 D11	I379 D4
2416 B7	3475 G3	9433 B10	I380 D4
2417 C7	3477 H4	9435 E9	I381 D5
2418 D6	3478 G4	9436 F9	I382 E5
2419 D7	3479 G5	9441 F11	I383 D6
2420 D8	3480 G5	9442 F11	I384 D6
2421 F4	3481 F9	9443 F12	I385 F2
2422 B12	3482 F8	9444 A11	I386 G2
2430 A9	3483 F7	9445 B5	I387 G2
2431 B8	3484 E7	9446 E5	I388 G4
2432 B9	3485 E7	9447 C6	I389 F4
2433 B9	3486 F6	9452 G7	I390 F4
2434 B8	3487 E9	9453 E2	I391 E6
2437 C10	3488 F11	9456 F4	I392 G3
2438 C10	3489 G3	9457 E3	I393 H4
2439 A10	3490 G3	9459 E4	I394 H5
2442 B11	3491 H3	9460 F2	I396 G6
2443 A11	3492 G4	9461 G2	I397 G5
2445 D10	3493 G4	9464 E6	I398 G3
2446 E10	3494 G4	9465 D6	I401 E10
2447 E11	3495 D5	9466 E6	I402 B5
2448 E10	3496 D6	9467 D5	I403 G2
2449 F10	3497 D6	9496 G5	I404 G4
2450 F10	3498 H2	9497 F7	I405 A9
2461 E3	3499 A11	F301 C3	I406 C3
2462 F8	4400 A11	F302 E9	I407 A7
2463 E2	4401 E3	F303 C3	I408 E10
2467 H4	4411 E4	F304 C5	I409 G4
2468 D6	5405 B3	F307 B7	I410 E6
2469 D6	5406 B3	F309 C7	I411 E6
2471 G3	5407 B4	F311 E11	I412 C6
2472 G4	5409 C6	F312 E11	
2473 G2	5410 B5	F313 C11	
2474 F4	5411 B6	F314 C11	
2475 F4	5417 C7	F315 C11	
2476 F4	5430 A9	F316 C10	
2477 F4	5431 B8	F318 D11	
2478 H4	5445 C9	F319 D11	
2479 G4	5446 E9	F320 D11	
2480 F2	5448 E9	F323 F8	
2481 G2	5474 F2	F331 B4	
2484 B2	5475 F3	F332 B5	
2485 C3	5476 F3	F333 C5	
2486 C3	5478 F5	F335 B5	
2487 F4	5479 F5	F336 C5	
2488 H5	6407 B4	F337 G11	
2489 E6	6413 C5	F338 B7	
2490 F7	6414 B6	F339 C7	
2491 A11	6415 B7	I300 B2	
2492 F8	6419 D8	I303 B3	
3401 C2	6420 D8	I304 E2	
3402 C2	6439 B10	I305 E2	
3403 C3	6440 B10	I306 B6	
3404 A2	6442 B11	I308 C7	
3405 A3	6443 A11	I309 A5	
3406 A3	6445 C10	I310 D8	
3407 B4	6446 E10	I312 D8	
3409 A5	6447 E10	I315 B4	
3410 C4	6448 F10	I317 F9	
3411 B6	6450 F11	I318 E9	
3412 C6	6461 F9	I319 E9	
3413 C6	6463 F7	I320 C9	
3414 B3	6464 F7	I321 B9	
3417 C7	6466 E4	I322 A9	
3421 D7	6467 E2	I323 A10	
3422 D8	6468 G3	I324 A2	
3423 D7	6472 F2	I325 B11	
3424 D7	6474 F3	I327 C9	
3430 A9	6475 F4	I328 C10	
3431 A9	6480 G6	I329 A3	
3432 A11	6481 A5	I330 D10	
3433 A8	6482 E2	I331 E9	
3434 A9	6483 E3	I333 E10	
3435 A9	6484 E5	I334 F9	
3436 B10	6485 D5	I335 F9	
3437 C10	6486 G5	I336 F11	
3438 B10	6487 G5	I337 F11	
3439 A10	7408 A3	I338 B10	
3440 A11	7410 B5	I339 C2	
3441 E11	7440 B11	I340 E2	
3442 B12	7461 E3	I341 E3	
3445 D10	7464 E7	I342 E4	

A3 FRAME DEFLECTION

DIVERSITY TABLE

ITEM NO	27V/32V/35V/29RF/34RF	24BLDW/28BLDW/28BLSW/32BLSW	29"SF28RFW/32RFW
3525	2R2	4R7	3R3
3526	3R3	4R7	3R3
3527	3R3	3R3	3R3



0222 D9
0232 B9
0252 G9
2501 E6
2503 D5
2505 C6
2506 B6
2521 D7
2522 D7
2523 E6
2524 E8
2525 C7
2531 B4
2532 G9
2533 D5
2534 E6
2535 C9
2536 E6
3501 E5
3503 C5
3504 C5
3511 C7
3512 C8
3513 C9
3521 E7
3522 D8
3523 D8
3524 E8
3525 F8
3526 F7
3527 F7
3528 F6
3529 F7
3530 F8
3531 F6
4502 D5
4503 E6
5521 D7
5523 D8
5524 E8
6505 B6
6511 C7
6512 C8
6522 D7
6523 F7
6524 F6
7501 C6
7513 C8
F321 E4
F324 C9
F325 D9
F326 E9
F327 E9
F328 E9
F329 C4
F330 C4
F340 E6
F341 F8
I361 B6
I362 B6
I363 B7
I365 D7
I366 D7
I367 C7
I369 E8
I371 C8
I372 E8
I373 D5
I374 D8
I375 F9
I377 E5
I378 D8
I450 C8
I451 C6
I452 D8
I453 D6
I454 D5
I455 E6
I456 E5

A4 SSP-TUNER

TO 0226
OF SSB-CONNECTOR
C6

0226
80 PINS
TO SSB

A5-59 B-SC1-IN_U-IN
A5-60 R-SC1_V-IN
GND-RGB-SC1_YUV
A5-61 C_SC2_SVHS-IN
A5-62 CVBS-SC2_MON-OUT
A5-63 CVBS_TER_OUT
A4-19 IF-TER
A4-20 AGC
GND-PIP
A5-99 SEL-SVHS-RR_STATUS2_1
A4-21 CUTOFF
A4-22 B-CRT
A4-23 R-CRT
A2-8 GND-LINDRIVE
A3-15 FRAMEDRIVE-
A2-9 EW-DRIVE
A4-24 EHT-INFO
A3-18 TILT
A4-25 VFB
A4-26 HFB
+3.3V-STBY
+8V
+5V
A4-27 / A4-28 SCL
A4-30 SCL-2
SOUND-ENABLE
A6-31
A5-64 L-SC2_AV2-IN
L-SC2-OUT
GND-SCART_OUT
R_SC2_OUT
A5-67 R-SC1_AV-OUT
A5-68 Y-CVBS-FRONT-IN
A5-69 L-FRONT-IN
HEADPHONE-L
A6-33
A5-70 L-CL_VL-OUT
GND-AUDIO-OUT
A6-34 AUDIO-C
A6-35 AUDIO-L
A4-103 ON-OFF-LED
A4-37 KEYBOARD

G-SC1-IN_Y-IN A5-71
FBL-SC1-IN A5-72
Y-CVBS-SC2_AV2-IN A5-73
GND-CVBS-IN
CVBS-SC1_AV1-IN A5-74
GND-CVBS-OUT
STATUS1_PIP-AFT_PIP-50-60HZ A4-75
GND-SSP
0283B RT-01T
SDA A4-43 / A4-44 / A7-45
SDA-2 A4-46
STAND-BY A1-3 / A6-54
L-SC1_AV1-IN A5-49
GND-SCART_IN
L-SC1_AV-OUT A5-76
R-SC2_AV2-IN A5-77
R-SC1_AV1-IN A5-78
FRONT-DETECT A4-79 / A5-83
C-FRONT-IN A5-80
R-FRONT-IN A5-81
R-CL_VL-OUT A5-82
5205 120u 9245
RC5 A4-55
LIGHT-SENSOR_VDEGAUSS A1-1

GND-IF A4-38
CVBS-PIP_TUN1-2-CVBS-IN A5-39
COMM-LINE A5-40
GND-RGB-CRT A4-41
G-CRT A4-42
LINEDRIVE1 A2-5
FRAMEDRIVE+ A3-14
SC A4-48
DYN-PHASE-COR A4-47
PROTN A2-10 / A2-11 / A4-57
PANORAMA A2-8
HEADPHONE-R A6-50
AUDIO-SURR A6-51
AUDIO-SW A6-52
AUDIO-R A6-53

1225 UV1300
MT
NC
AS SCL SDA +5 ADC
F241
F236 F237
3268 47R
3267 47R
RES 2268 RES 2267
2261 220u
2262 1n
I1 I2 I3 I201 I202 I203
5262 12u
5261 5u6
F238
6264 BAS216
BAS216 6265
3263 3K9
3264 10K
2265 100u
2266 47n
F239 GND-IF A4-38
F240 IF-TER A4-19
AGC A4-20 I204
SCL A4-27
SDA A4-43
0255 4262 4274 4261 I205
F3 OR L2
TO 0201 OF I/O PROCESSING (DVD)
TO 0201 OF PIP PANEL
0201
SDA
SCL
F242
VFB
HFB-SC
+5V
+8V
+33V
6267 BZX284-C6V8
6268 BZX284-C6V8
0229
TO COMPAIR (SERVICE)

A4-21 CUTOFF
A4-41 GND-RGB-CRT
A4-22 B-CRT
A4-42 G-CRT
A4-23 R-CRT
F230 F231 F232 F233
3255 47R
3256 47R
3257 47R
0242
TO 0242 OF CRT B
BAS216 6274
BAS216 6276
4218
I208
6275 BAS216
BAS216 6272
BC857B 7277
3278 270R
6266 BAS216
I210 3282 47K
6238 BAS216
I211 POWER-DOWN A1-2
2284 100u
I212
4268
4271
+8V
12V3
0253
0254
A4-57 PROTN
A2-10 DYN-PHASE-COR1
A4-47 DYN-PHASE-COR
A4-25 VFB
A4-48 SC
3283 82K
I213
4273
4267
2282 47n
BC847B 7280
I214 3280 33K 2280 100p
2281 15p
I215
HFB A2-7
VFB A3-17
IBEAM A2-12
A2-13
PROTUP
TO DEFLECTION
EHT-INFO A4-24
I216
6271 BAS216
3271 47K
6279 BZX284-C
2271 1u
3274 ##180K
3272 2K2
BC857B 7273
I219
6273 BAS216
I220
3273 22K
I218
3281 4K7
2248 4n7
0239A
F234 F235
3277 100R
4264
7276 BC847B
I221
3276 2K2
2276 1n
0V6
0V
3V5
3V3
1V8
F243 F244
A4-30 SCL-2
A4-48 SDA-2
A4-58 SEL-SVHS-RR_STATUS2
A5-40 COMM-LINE
A4-37 KEYBOARD
A4-103 ON-OFF-LED
A4-55 RC5
A4-26 HFB
A4-28 SCL
A4-44 SDA
A4-79 FRONT-DETECT
STATUS1_PIP-AFT_PIP-50-60HZ A4-75
A2-4
3286 1K8
9261
9262
SERVICE
3259 4K7
3265 47K
3266 4K7
4265
3258 10K
I223
I222
3269 10K
7265 BC847B
I224
7274 BC847B
4266
0239
PINS 5, 6, & 7 TO M2 DVD INTERFACE
A7-88
A7-36
A7-56
A7-89

0201 D6
0226 G3
0229 F6
0239 E12
0239A C12
0242 A12
0253 B12
0254 B12
0255 C6
0283B D4
1225 B6
2248 C11
2261 D7
2262 D7
2265 D8
2266 D8
2267 D6
2268 D6
2271 D10
2276 E11
2280 C11
2281 C11
2282 C10
2284 B12
3255 A11
3256 A11
3257 A11
3258 F12
3259 F12
3263 C8
3264 D8
3265 F11
3266 F11
3267 D6
3268 C6
3269 G10
3271 C10
3272 D10
3273 E10
3274 D10
3276 E11
3277 D11
3278 B10
3280 C11
3281 C10
3282 B11
3283 C10
3286 F10
4218 B9
4261 C7
4262 C6
4263 D10
4264 D11
4265 F11
4266 G10
4267 C10
4268 B12
4271 B10
4273 C10
4274 C6
5205 G4
5261 B8
5262 A8
6238 B11
6264 C8
6265 D8
6266 B11
6267 F6
6268 G6
6271 C9
6272 B9
6273 E10
6274 B10
6275 B10
6276 B10
6279 D9
7265 G11
7273 E9
7274 G12
7276 D11
7277 B11
7280 C11
9245 G4
9261 F11
9262 F11
F230 A11
F231 A10
F232 A10
F233 A10
F234 D12
F235 D12
F236 D6
F237 D6
F238 C7
F239 C8
F240 C8
F241 C6
F242 E7
F243 E11
F244 E10
I201 D6
I202 D6
I203 C7
I204 D8
I205 A11
I206 A11
I207 A11
I208 B10
I210 B11
I211 B11
I212 B12
I213 C10
I214 C11
I215 C11
I216 D9
I218 C10
I219 E10
I220 D10
I221 D11
I222 G11
I223 G11
I224 G11

A5 SSP_CINCH

TO 0200 OF PIP PANEL L 2 OR
TO 0200 OF DW PANEL F 3

TO 0236 / 0272 OF PIP PANEL L 2 OR
TO 0236 / 0272 OF DW PANEL F 3

0200 0236 0272

1262-L YKC21-2921 V 21 24
MONITOR OUT 1262-K YKC21-2921 L 20 23
1262-J YKC21-2921 R 19 22
1262-I YKC21-2921 15 18
1262-H YKC21-2921 14 17
1262-G YKC21-2921 13 16

I240 1211 3223 68R 3224 1K 2225 22p F201 BC847B 7224 3225 1K
I241 1204 3206 150R 2206 330p 3207 220K
I242 1202 3201 150R 2201 330p 3202 220K
I243 1209 3218 75R 3219 100R 2219 22p 9201
I244
I245 1206 3211 75R 3212 100R UCVI 2211 22p 9202
I246 1208 3216 75R 3217 100R VCVI 2217 22p 9203

3204 3205 3206

Y 1265-I YKC21-2388
U 1265-H YKC21-2388
V 1265-G YKC21-2388

6201 BZX284-C6V8
6202 BZX284-C6V8
6203 BZX284-C6V8
6204 BZX284-C6V8

F222

TO 0208 OF GUIDE PLUS K 1
TO 0207 OF IF-VIDEO-SYNC (DW) F 4

0208 0207

CVBS-SC2_MON-OUT A4-62 F221
L-SC1_AV-OUT A4-76 F202
R-SC1_AV-OUT A4-67 F203
G-SC1-IN_Y-IN A4-71 I264 F214
B-SC1-IN_U-IN A4-59 F205
R-SC1_V-IN A4-60 F206
A4-61 C-SC2_SVHS-IN F215

CVBS-PIP_TUN1-2-CVBS-IN A4-39 I263
A4-63 CVBS_TER_OUT 4254 F212
A4-77 R-SC2_AV2-IN F213
A4-64 L-SC2_AV2-IN F214

I258 3234 47K 2233 330p 3233 1K 1214
I259 3239 47K 2239 330p 3238 1K 1216

AV2
YKC21-2921 1262-A 4 1 4 R 1265-A YKC21-2388
YKC21-2921 1262-B 5 2 5 L 1265-B YKC21-2388
YKC21-2921 1262-C 6 3 6 V 1265-C YKC21-2388
1219

I260 3244 100R 2244 22p 3243 75R 1217
6207 BZX284-C6V8
6208 BZX284-C6V8
SVHS IN
YKF51-5347 1264-B
YKF51-5347 1264-A

AV1
V 1265-F YKC21-2388 9 12
L 1265-E YKC21-2388 8 11
R 1265-D YKC21-2388 7 10
1262-F YKC21-2921 9 12
1262-E YKC21-2921 8 11
1262-D YKC21-2921 7 10

6205 BZX284-C6V8
6206 BZX284-C6V8
I251 1212 3226 75R 3227 100R 2227 22p F207
I252 1205 3208 1K
I253 2208 330p 3209 47K 4272 0203
I254 1203 3203 1K
I255 2203 330p 3204 47K 0205 4269 F209
DVD INTERFACE

CVBS-SC1_AV1-IN 4252 A4-74
A4-73 Y-CVBS-SC2_AV2-IN 4253 F216
A4-62 4250 CVBS-SC2_MON-OUT
L-SC1_AV1-IN A4-49
A4-99 SEL-SVHS-RR_STATUS2 5206 4280 F217
FBL-SC1-IN A4-72
R-SC1_AV1-IN A4-78
A4-82 R-CL_VL-OUT F218
A4-70 L-CL_VL-OUT F219
A4-66 Y-CVBS-FRONT-IN 5203
A4-80 C-FRONT-IN 5204 100MHZ
A4-69 L-FRONT-IN
A4-83
A4-81
COMM-LINE A4-40 F210

+5V 3241 10K
I261 3249 100R 2249 22p 3248 75R 1218
I262 SEL-SVHS-RR_STATUS2_1 2242 330p 3242 1K

2246 1n
2247 100p
2245 100p
R-FRONT-IN
FRONT-DETECT

0213
TO 0213 OF GUIDE PLUS K 1
3215 100R
RES 3228 1K
F220
4228 1201 7229 BC847B 3229 10K RES
1263 YKB21-5101A
2224 47u
+8V
3247 10R I257
5201 22u
5202 22u
A6-84 HP-OUT-L
A6-85 HP-OUT-R

0216 TO MULTIMEDIA (INTERFACE NOT DEFINED YET)
0274 PROVISION FOR FLYOVER WIRE TO 2726 PIN 2
0240 TO 0240 OF SIDE IO D
0220 TO MULTIMEDIA (INTERFACE NOT DEFINED YET)
0219 GEMSTAR

0200 A7	4250 E7
0203 E5	4252 E6
0205 E5	4253 E7
0207 D5	4254 B7
0208 D5	4269 F5
0213 F2	4272 E5
0216 G6	4280 E8
0219 G10	5201 H4
0220 G9	5202 H4
0236 A9	5203 F7
0240 G7	5204 F7
0272 A9	5206 E8
0274 G6	6201 D2
1201 G3	6202 D2
1202 B3	6203 D2
1203 F3	6204 D2
1204 B3	6205 E3
1205 E3	6206 F3
1206 C3	6207 D10
1208 D3	6208 D10
1209 C3	7224 A5
1211 A3	7229 H3
1212 E3	9201 C5
1214 B10	9202 C5
1216 C10	9203 D5
1217 D10	9204 B3
1218 E10	9205 B3
1219 C10	9206 B3
1262-A B11	F201 A4
1262-B C11	F202 B6
1262-C C11	F203 B6
1262-D F2	F205 C6
1262-E E2	F206 D6
1262-F E2	F207 E5
1262-G C2	F208 E5
1262-H C2	F209 F5
1262-I B2	F210 F5
1262-J B2	F212 B8
1262-K B2	F213 B8
1262-L A2	F214 C8
1263 H2	F215 D8
1264-A E11	F216 E8
1264-B E11	F217 E7
1265-A B12	F218 F8
1265-B C12	F219 F8
1265-C C12	F220 G3
1265-D F1	F221 A6
1265-E E1	F222 D3
1265-F E1	I240 A3
1265-G C1	I241 B3
1265-H C1	I242 B3
1265-I C1	I243 C3
2201 B4	I244 C4
2203 F4	I245 C3
2206 B4	I246 D3
2208 E4	I251 E3
2211 C4	I252 E3
2217 D4	I253 E4
2219 C4	I254 F3
2224 G4	I255 F4
2225 A4	I257 H4
2227 E4	I258 B10
2233 B9	I259 C10
2239 C9	I260 D10
2242 E10	I261 E10
2244 D9	I262 E10
2245 F7	I263 B8
2246 F8	I264 C6
2247 F8	
2249 E9	
3201 B4	
3202 B4	
3203 F3	
3204 F4	
3206 B4	
3207 B4	
3208 E3	
3209 E4	
3211 C3	
3212 C4	
3215 F4	
3216 D3	
3217 D3	
3218 C3	
3219 C4	
3223 A4	
3224 A4	
3225 A5	
3226 E3	
3227 E4	
3228 G4	
3229 G4	
3233 B10	
3234 B9	
3238 C10	
3239 C9	
3241 E8	
3242 E10	
3243 D10	
3244 D9	
3247 H4	
3248 E10	
3249 E9	
4228 G3	

A6 AUDIO

HEADPHONE AMPLIFIER

TO 0202 OF POWER SUPPLY A1

0230 I748

3712 8K2

2714 1n

7703-A TDA1308T

I708

F701

2715 100u

A5

I709

I710

+5V

A4-33 HEADPHONE-L

F709

4701

I703

I741

2711 470n

3722 2K7

I707

3714 2K7

I742

470n 2725

4702

I705

3715 3K3

3723 3K3

2713 100n

2712 100u

+5V_GND

2726 100u

0275 PROVISION FOR FLYOVER WIRE TO 0240 PIN 8

F702

7703-B TDA1308T

A4-50 HEADPHONE-R

F710

I711

4703

I712

I713

2716 470n

3719 2K7

I714

I716

2718 100u

A6

2717 1n

3716 8K2

4704

SOUND AMPLIFIER

HP-OUT-L → A5-84, A7-86

HP-OUT-R → A5-85, A7-87

3708 100K

6701 1N4148

I729

F703

I728

3709 220R

7702 AN5277

2708 1u

3721 100K

7710 BC847B

I701

3732 100K

7704 BC847B

3733 560R

ATT.

ATT. CON

RIPPLE FILTER

NC1 CH1I RF GNDI CH2I NC2 CH2O MUTE GNDO VCC STBY CH1O

2722

2701 2u2

2n2 3724 5K6

F705

A1

A2

A4

A3

I731

2702 100u

3701 4K7

2719 1n

2723

2703 2u2

I732

2n2 3725 5K6

F706

3702 4K7

2720 1n

2729 22n

2730 22n

2704 1m0

I736

S_GND

I737

3735 4R7

I739

2709 1m0

3734 4R7

I738

F704

I745

2727 22n

I746

2728 22n

S_GND

I747

2706 100n

2707 470u

0246

SPK-L

SPK-GND

SPK-R

F716

3704 56K

I733

3705 1K8

F708

I734

7701 BC847B

3706 10K

3707 10K

I735

2705 1u

3736 1R5

3737 1R5

F707

S_GND

9703

5701 82u

0247

S_GND

+27V

SOUND-ENABLE

AUDIO-SW

I722

5702 120u

9706

2734 68n

2736 68n

2735 68n

4718

TO SUBWOOFER BOX

POWER-DOWN

A4-35 AUDIO-L

F711

3727 10R

I718

A4-53 AUDIO-R

F712

I723

3728 10R

I719

+27V

A4-30 SOUND-ENABLE

F713

A4-52 AUDIO-SW

3726 10R

A4-54 STAND-BY

F714

A1-100 POWER-DOWN

3730 27K

I744

6V2

BC857B 7711

3731 27K

A4-34 AUDIO-C

A4-51 AUDIO-SURR

0225

PROVISION FOR DOLBY PROLOGIC

2731 1u

2732 1u

I717

I724

3710

3711

3K9

3K9

I725

7712 BC857B

3713 1K5

3717 1K5

I726

2733 10u

3720 1K

3703 2K2

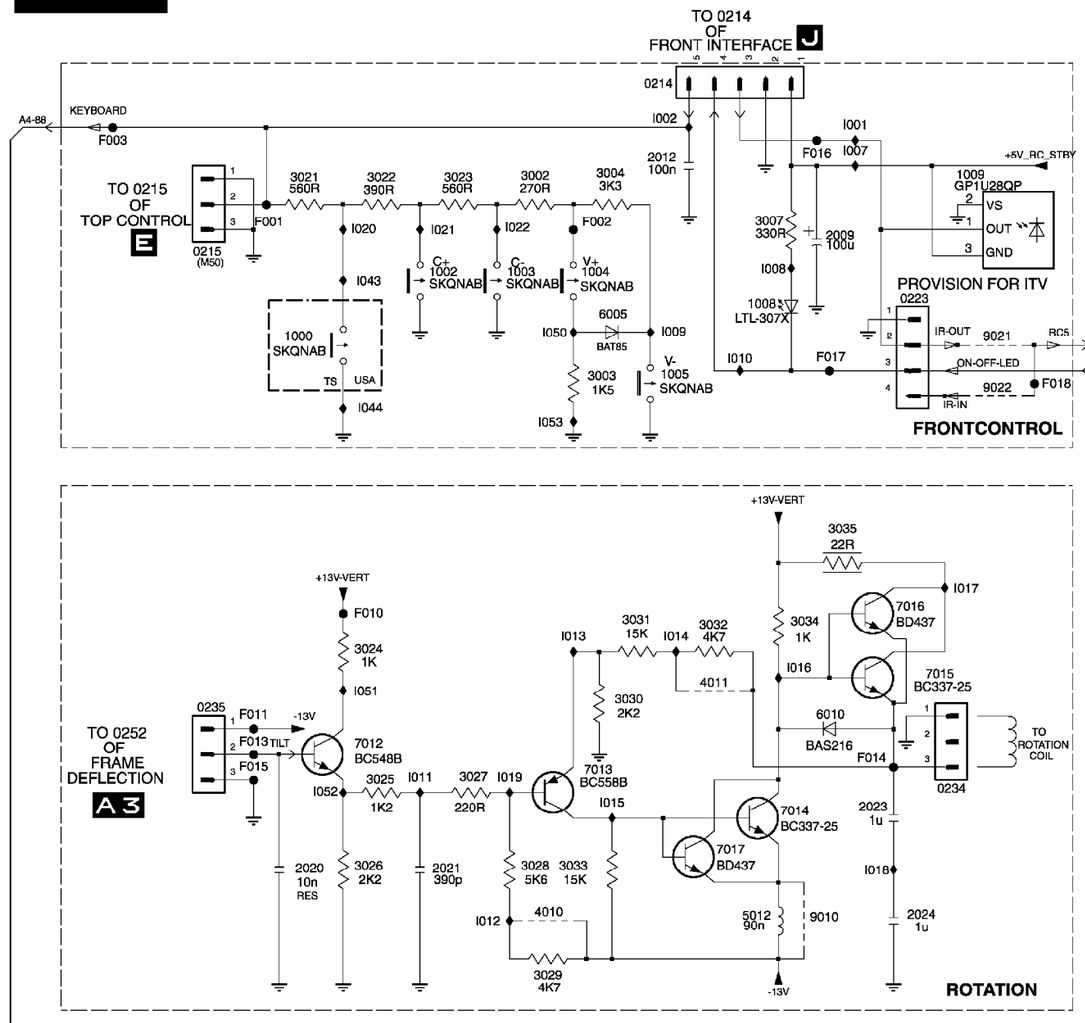
9718

F715

S_GND

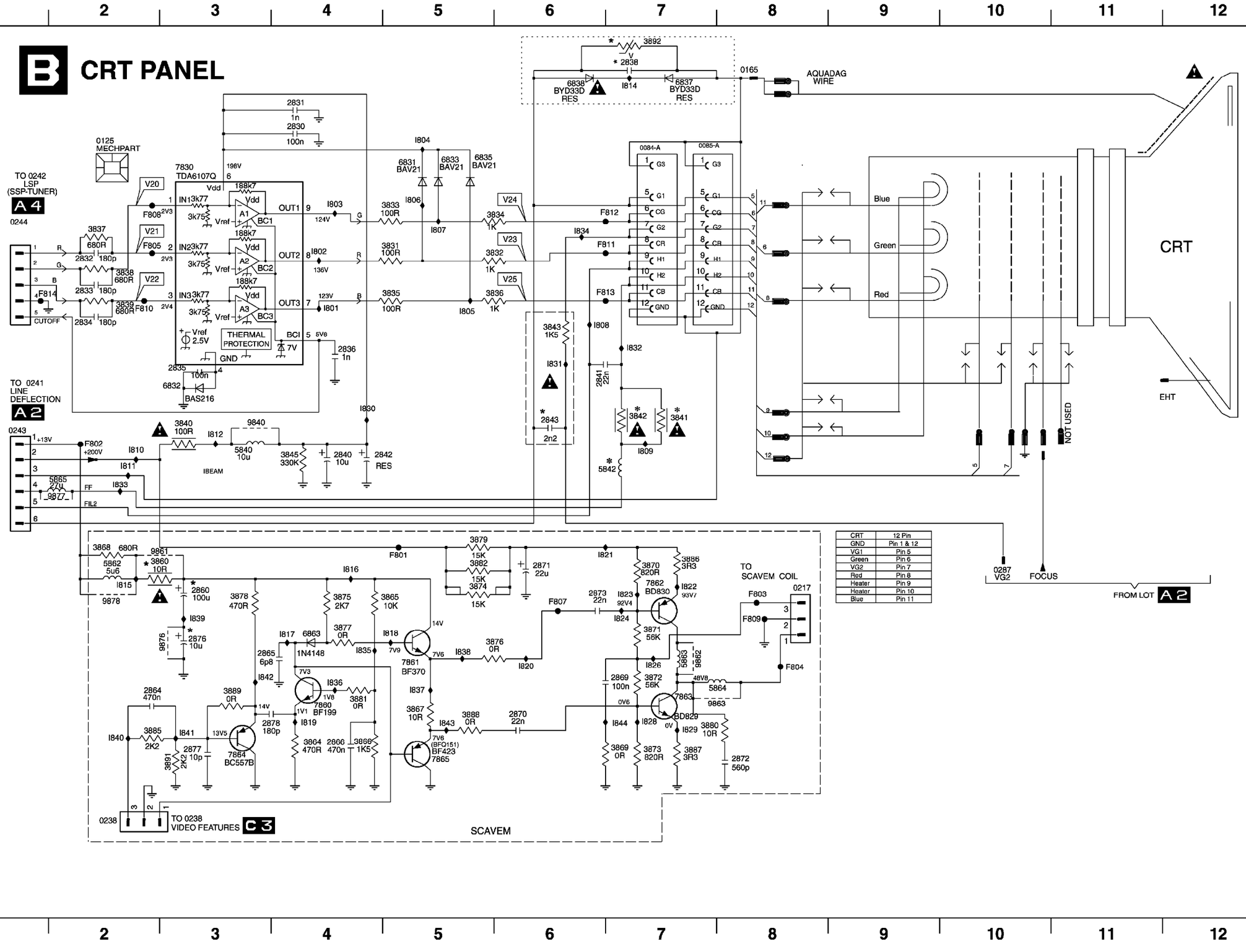
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0230 A2
0246 D11
0247 F11
0275 D5
2701 C7
2702 D8
2703 D7
2704 D9
2705 F9
2706 D11
2707 D11
2708 B8
2709 D10
2711 B3
2712 B5
2713 B5
2714 B4
2715 B5
2716 E3
2717 E4
2718 D5
2719 D8
2720 E8
2722 C7
2723 D7
2724 C3
2725 C3
2726 C5
2727 D10
2728 E10
2729 D9
2730 E9
2731 G7
2732 G7
2733 G8
2734 G11
2735 G10
2736 G11
3701 D8
3702 E8
3703 G10
3704 E7
3705 E8
3706 E7
3707 F8
3708 B8
3709 B7
3710 G7
3711 G7
3712 B4
3713 G8
3714 C3
3715 C5
3716 E4
3717 G9
3718 D3
3719 E3
3720 G9
3721 B6
3722 B3
3723 C5
3724 C7
3725 D7
3726 F2
3727 F2
3728 F2
3730 G4
3731 G4
3732 C6
3733 C7
3734 D10
3735 D9
3736 F6
3737 F6
4701 B2
4702 C3
4703 D2
4704 E3
4718 G11
5701 F10
5702 G10
6701 B8
7701 E8
7702 B8
7703-A B4
7703-B D4
7704 C7
7710 B7
7711 G4
7712 G8
9703 F10
9706 G10
9718 H2
F701 A5
F702 D5
F703 B8
F704 D10
F705 C8
F706 D8
F707 F10
F708 E9
F709 B2
F710 E2
F711 F2
F712 F2
F713 F2
F714 G2
F715 H2
F716 E11
I701 C7
I702 B2
I703 B2
I705 C2
I707 B4
I708 A5
I709 A5
I710 B5
I711 D2
I712 D3
I713 D3
I714 D4
I716 D5
I717 G7
I718 F3
I719 F3
I722 F11
I723 F2
I724 G7
I725 G8
I726 G9
I728 B7
I729 B8
I731 D8
I732 D7
I733 E8
I734 E8
I735 E9
I736 E9
I737 D9
I738 D10
I739 D10
I741 B3
I742 C3
I743 D3
I744 G4
I745 D10
I746 E10
I747 C11
I748 A2

A7 FRONT CONTROL / ROTATION / NV CLOCK / HEADPHONE



0214 B5
0215 B2
0223 C6
0224 C8
0234 E6
0235 E2
1000 C3
1002 C4
1003 C4
1004 C4
1005 C5
1008 C5
1009 B7
1011 B10
1020 F9
1021 E8
1022 F9
2009 B6
2011 C9
2012 B5
2014 C9
2020 F3
2021 F4
2023 F6
2024 F6
2081 F10
2082 F10
3002 B4
3003 C5
3004 B5
3007 B5
3011 B9
3012 C9
3013 C9
3014 C9
3021 B3
3022 B3
3023 B4
3024 E3
3025 E3
3026 F3
3027 E4
3028 F4
3029 F4
3030 E5
3031 D5
3032 E5
3033 F4
3034 D6
3035 D6
3036 H2
3037 C9
3038 C9
3039 D9
3040 D9
3081 F9
3082 F10
3083 E10
4010 F4
4011 E5
5001 E10
5002 F10
5011 B9
5012 F5
6005 C5
6010 E6
6011 B9
7011 C10
7012 E3
7013 E4
7014 F6
7015 E6
7016 D6
7017 F5
9010 F6
9021 C7
9022 C7
F001 B3
F002 B4
F003 B2
F005 H1
F006 H2
F010 D3
F011 E3
F013 E3
F014 E6
F015 E3
F016 B6
F017 C6
F018 C7
I001 B6
I002 B5
I003 E9
I004 E9
I005 F9
I007 B6
I008 C5
I009 C5
I010 C5
I011 E3
I012 F4
I013 E4
I014 E5
I015 F5
I016 E6
I017 D7
I018 F6
I019 E4
I020 B3
I021 B4
I022 B4
I023 D9
I030 B8
I031 C11
I032 B9
I033 B10
I034 C10
I035 B9
I036 C9
I037 C10
I038 C9
I039 C10
I041 E9
I042 E11
I043 C3
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I053 C4
I054 D8
I055 D8
I056 D9
S754 F9

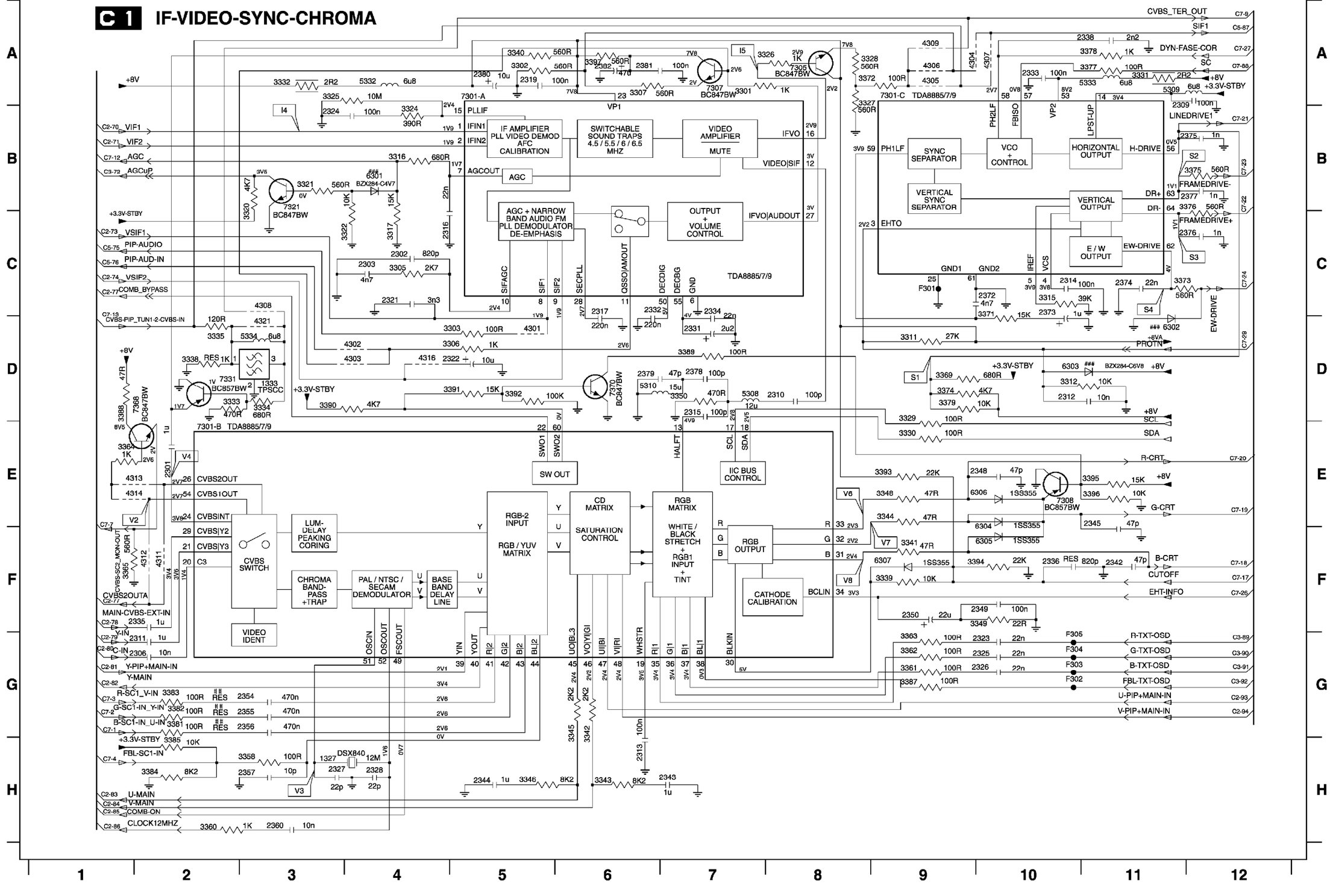
B CRT PANEL



CRT	12 Pin
GND	Pin 1 & 12
VG1	Pin 5
Green	Pin 6
VG2	Pin 7
Red	Pin 8
Heater	Pin 9
Heater	Pin 10
Blue	Pin 11

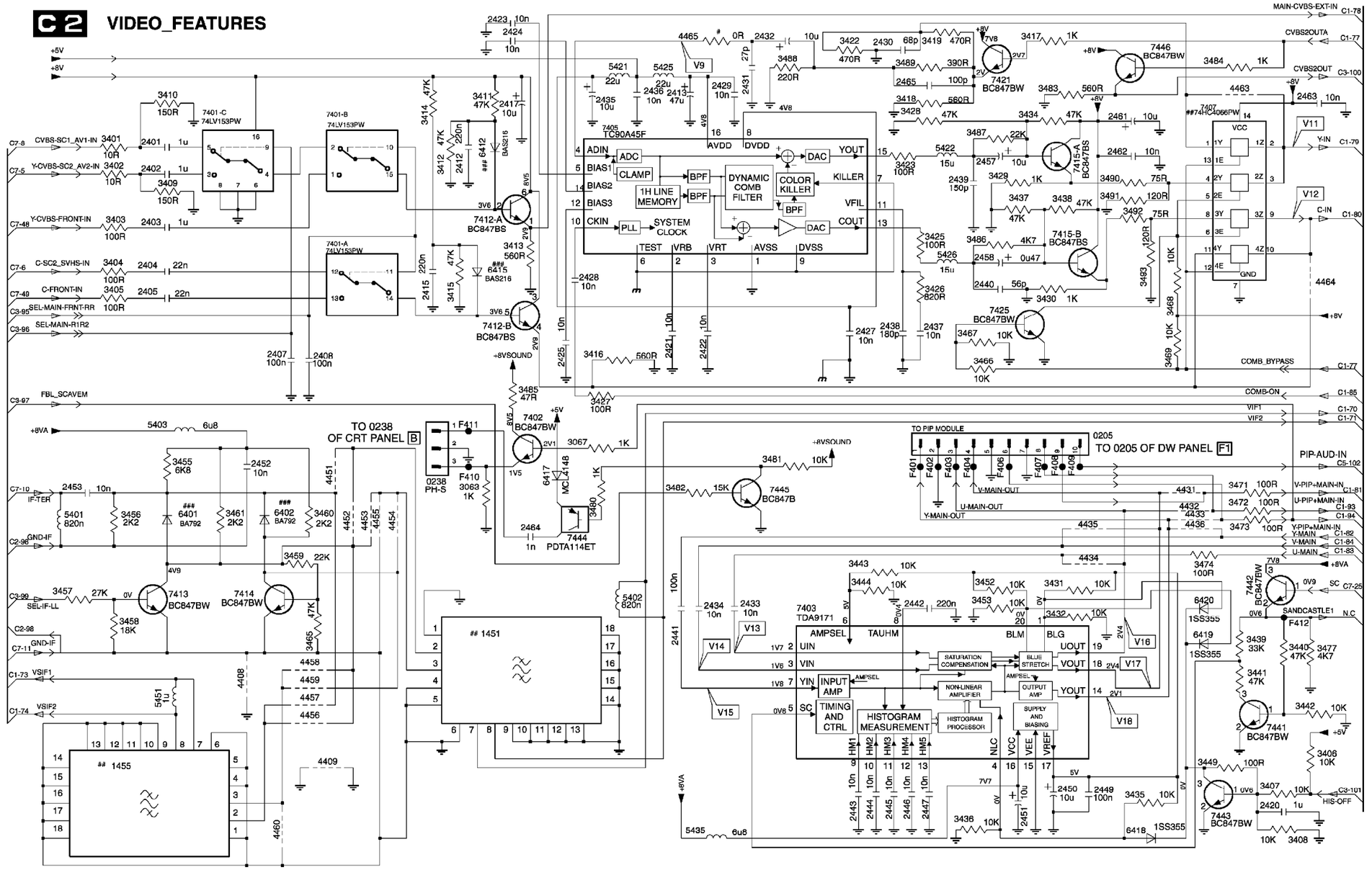
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0085-A B8 9877 E2
0125 B2 9878 F2
0165 A8 F801 E5
0217 F8 F802 D2
0238 H2 F803 F8
0243 D1 F804 F8
0244 B1 F805 B2
0287 E10 F807 F6
2830 A4 F808 B2
2831 A4 F809 F8
2832 C2 F810 C2
2833 C2 F811 B7
2834 C2 F812 B7
2835 D3 F813 C6
2836 C4 F814 C1
2838 A7 I801 C4
2840 D4 I802 C4
2841 D6 I803 B4
2842 D5 I804 B5
2843 D6 I805 C5
2860 F3 I806 B5
2864 F2 I807 B5
2865 F3 I808 C6
2866 G4 I809 D7
2869 F7 I810 D2
2870 G6 I811 D2
2871 E6 I812 D3
2872 G8 I814 A7
2873 F6 I815 F2
2876 F3 I816 E4
2877 G3 I817 F4
2878 G3 I818 F5
3831 B5 I819 G4
3832 C6 I820 F6
3833 B5 I821 E6
3834 B6 I822 F7
3835 C5 I823 F7
3836 C6 I824 F7
3837 B2 I826 F7
3838 C2 I828 G7
3839 C2 I829 G7
3840 D3 I830 D4
3841 D7 I831 D6
3842 D7 I832 C7
3843 C6 I833 E2
3845 D4 I834 B6
3860 E2 I835 F4
3864 G4 I836 F4
3865 F5 I837 F5
3866 G4 I838 F5
3867 G5 I839 F3
3868 E2 I840 G2
3869 G7 I841 G3
3870 E7 I842 F3
3871 F7 I843 G5
3872 F7 I844 G7
3873 G7
3874 F5
3875 F4
3876 F6
3877 F4
3878 F3
3879 E5
3880 G7
3881 G4
3882 E5
3885 G2
3886 E7
3887 G7
3888 G5
3889 F3
3891 G3
3892 A7
5840 D3
5842 D7
5862 E2
5863 F7
5864 F8
5865 E2
6831 B5
6832 D3
6833 B5
6835 B5
6837 A7
6838 A6
6863 F4
7830 B3
7860 G4
7861 F5
7862 E7
7863 G7
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7865 G5
9840 D3
9861 E2
9862 F7
9863 G7

C 1 IF-VIDEO-SYNC-CHROMA



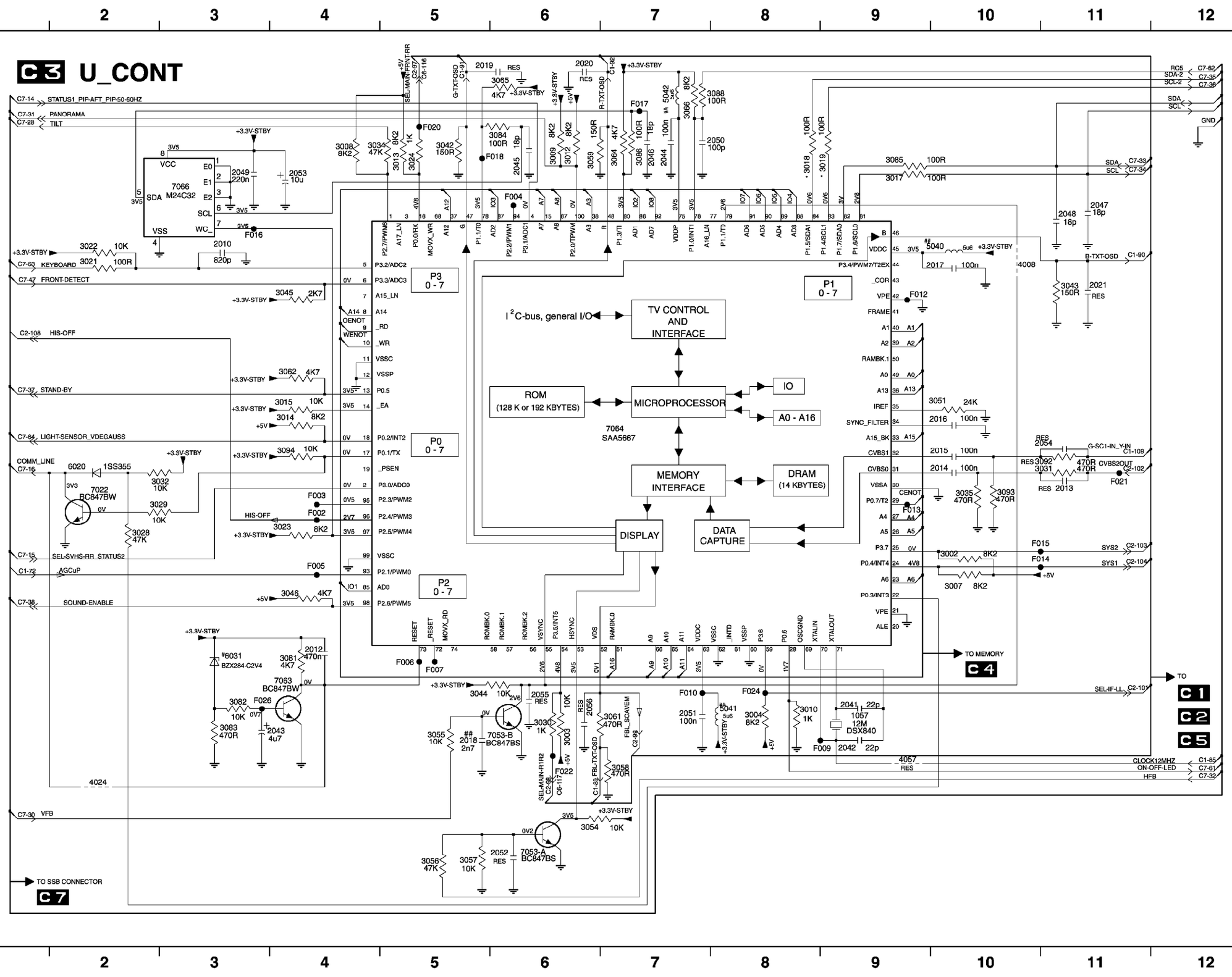
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2309 B11	3377 A11
2310 D8	3378 A11
2311 G2	3379 D9
2312 D10	3381 G2
2313 H6	3382 G2
2314 C10	3383 G2
2315 D7	3384 H2
2316 C4	3385 G2
2317 C6	3387 G9
2319 A5	3388 D1
2321 C4	3389 D7
2322 D5	3390 D3
2323 G10	3391 D5
2324 B3	3392 D5
2325 G10	3393 E9
2326 G10	3394 F9
2327 H3	3395 E11
2328 H4	3396 E11
2331 D7	3397 A6
2332 C6	4301 D5
2333 A10	4302 D4
2334 C7	4303 D4
2335 F2	4304 A9
2336 F10	4305 A9
2338 A11	4306 A9
2342 F11	4307 A10
2343 H7	4308 C3
2344 H5	4309 A9
2345 E11	4311 F2
2348 E10	4312 F2
2349 F10	4313 E1
2350 F9	4314 E1
2354 G3	4316 D4
2355 G3	4321 D3
2356 G3	5308 D7
2357 H3	5309 A11
2360 H3	5310 D6
2372 C10	5332 A4
2373 C10	5333 A11
2374 C11	5334 D3
2375 B12	6301 B4
2376 C12	6302 D11
2377 B12	6303 D10
2378 D7	6304 E10
2379 D6	6305 F10
2380 A5	6306 E10
2381 A6	6307 F9
2382 A6	7301-A A5
3301 A7	7301-B E2
3302 A5	7301-C A9
3303 D5	7305 A8
3305 C4	7307 A7
3306 D5	7308 E10
3307 A6	7321 B3
3311 D9	7331 D2
3312 D10	7368 D1
3315 C10	7370 D6
3316 B4	F301 C9
3317 C4	F302 G10
3320 C3	F303 G10
3321 B3	F304 G10
3322 C3	F305 G10
3324 B4	
3325 A3	
3326 A8	
3327 A8	
3328 A8	
3329 D9	
3330 E9	
3331 A11	
3332 A3	
3333 D2	
3334 D3	
3335 D2	
3338 D2	
3339 F9	
3340 A5	
3341 F9	
3342 G6	
3343 H6	
3344 E9	
3345 G6	
3346 H5	
3348 E9	
3349 F10	
3350 D7	
3358 H3	
3360 H2	
3361 G9	
3362 G9	
3363 G9	
3364 E1	
3365 F1	
3369 D9	

C2 VIDEO_FEATURES



0205 D10
0238 D5
1451 F5
1455 G2
2401 B2
2402 B2
2403 B2
2404 C2
2405 C2
2407 C3
2408 C4
2412 B5
2413 A7
2415 C4
2417 A5
2420 G11
2421 C6
2422 C7
2423 A5
2424 A5
2425 C6
2427 C8
2428 C6
2429 A7
2430 A8
2431 A7
2432 A7
2433 E7
2434 E7
2435 A6
2436 A6
2437 C9
2438 C8
2439 B9
2440 C9
2441 F6
2442 E8
2443 G8
2444 G8
2445 G8
2446 G8
2447 G9
2449 G10
2450 G10
2451 G9
2452 D3
2453 D2
2457 B9
2458 C9
2461 A10
2462 B10
2463 A12
2464 E5
2465 A8
3063 D5
3067 D6
3401 B2
3402 B2
3403 B2
3404 C2
3405 C2
3406 G12
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3410 A2
3411 A5
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3413 B5
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3415 C5
3416 C6
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3418 A8
3419 A9
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3423 B8
3425 B9
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3455 D3
3456 E2
3457 E2
3458 F2
3459 E3
3460 E4
3461 E3
3465 F4
3466 C9
3467 C9
3468 C10
3469 C10
3471 D11
3472 E11
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3481 D7
3482 D7
3483 A10
3484 A11
3485 D5
3486 B9
3487 B9
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3490 B10
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4464 C12
4465 A7
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5403 D2
5421 A6
5422 B9
5425 A6
5426 C9
5435 G7
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6402 E3
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6415 C5
6417 D5
6418 G10
6419 F11
6420 E11
7401 A3
7402 D5
7403 E8
7405 B6
7407 A11
7412-A B5
7412-B C5
7413 E2
7414 E3
7415-A B10
7415-B B10
7421 A9
7425 C9
7441 F11
7442 E11
7443 G11
7444 E6
7445 D7
7446 A11
F401 D8
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F407 D9
F408 D10
F409 D10
F410 D5
F411 D5
F412 F12

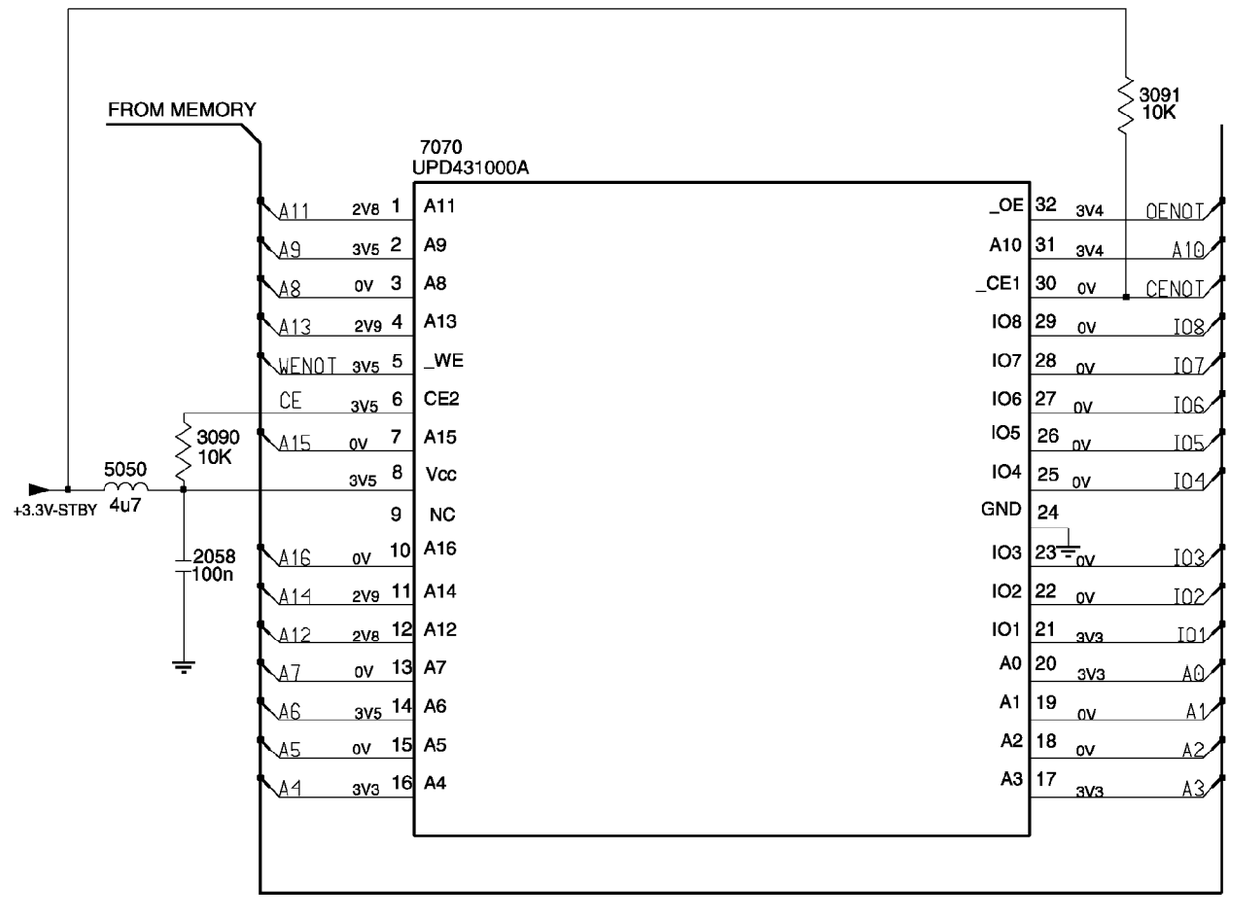
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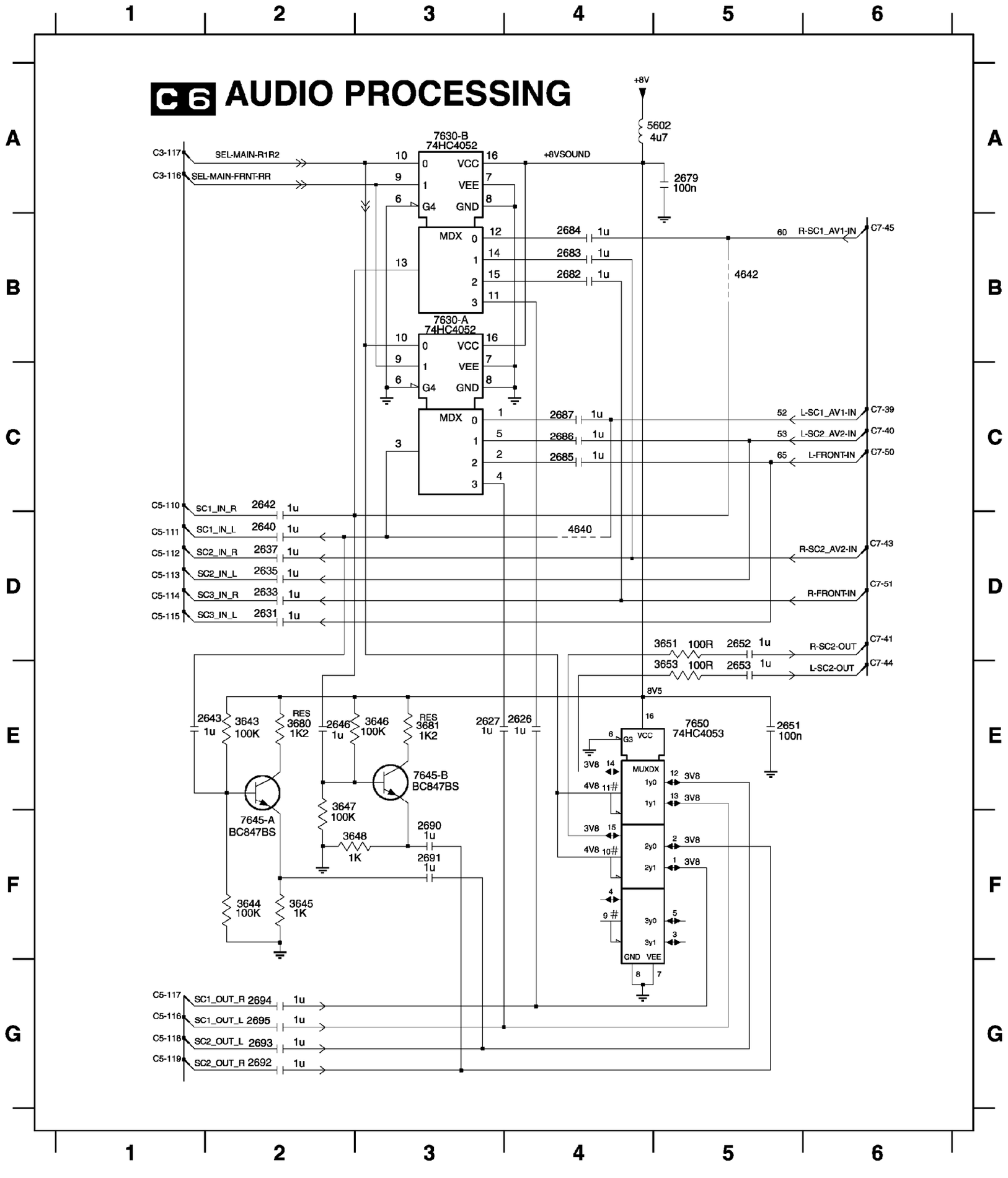


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2010 D3	F012 C9
2012 F4	F013 E9
2013 E11	F014 E10
2014 D10	F015 E10
2015 D10	F016 B3
2016 D10	F017 A7
2017 B10	F018 A5
2018 G5	F020 A5
2019 A5	F021 D11
2020 A6	F022 G6
2021 C11	F024 F8
2041 G9	F026 F3
2042 G9	
2043 G4	
2044 B7	
2045 B6	
2046 B7	
2047 B11	
2048 B11	
2049 B3	
2050 B8	
2051 G7	
2052 H6	
2053 B4	
2054 D11	
2055 F6	
2056 G6	
3002 E10	
3003 G6	
3004 G8	
3007 E10	
3008 B4	
3009 B6	
3010 G8	
3012 A6	
3013 B5	
3014 D4	
3015 B4	
3017 B9	
3018 B8	
3019 B9	
3021 D2	
3022 D2	
3023 E4	
3024 B5	
3028 D2	
3029 E2	
3030 G6	
3031 D11	
3032 D3	
3034 B5	
3035 E10	
3042 B5	
3043 C11	
3044 F5	
3045 D4	
3046 E4	
3051 D10	
3054 H6	
3055 G5	
3056 H5	
3057 H5	
3058 G7	
3059 B6	
3061 G7	
3062 C4	
3064 B7	
3065 A6	
3066 A7	
3081 F4	
3082 F3	
3083 G3	
3084 A6	
3085 B9	
3086 B7	
3088 A7	
3092 D11	
3093 E10	
3094 D4	
4008 B10	
4024 G2	
4057 G9	
5040 B10	
5041 G8	
5042 A7	
6020 D2	
6031 F3	
7022 E2	
7053-A H6	
7053-B G5	
7063 F4	
7064 D7	
7066 B3	
F002 E4	
F003 E4	
F004 B6	
F005 E4	
F006 F5	
F007 F5	
F009 G9	

2058 D2
3090 D2
3091 C6
5050 D2
7070 C3

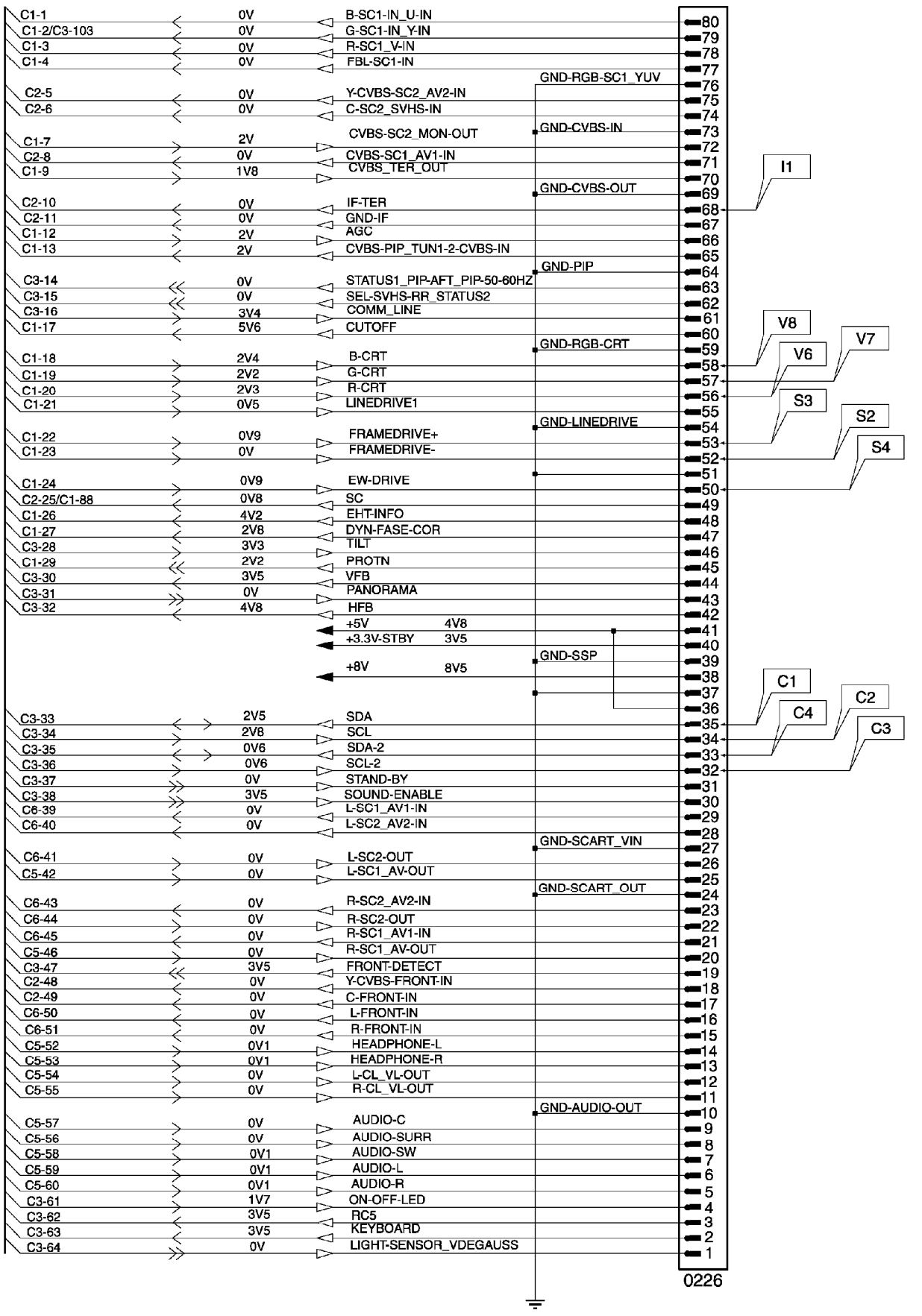
C4 MEMORY



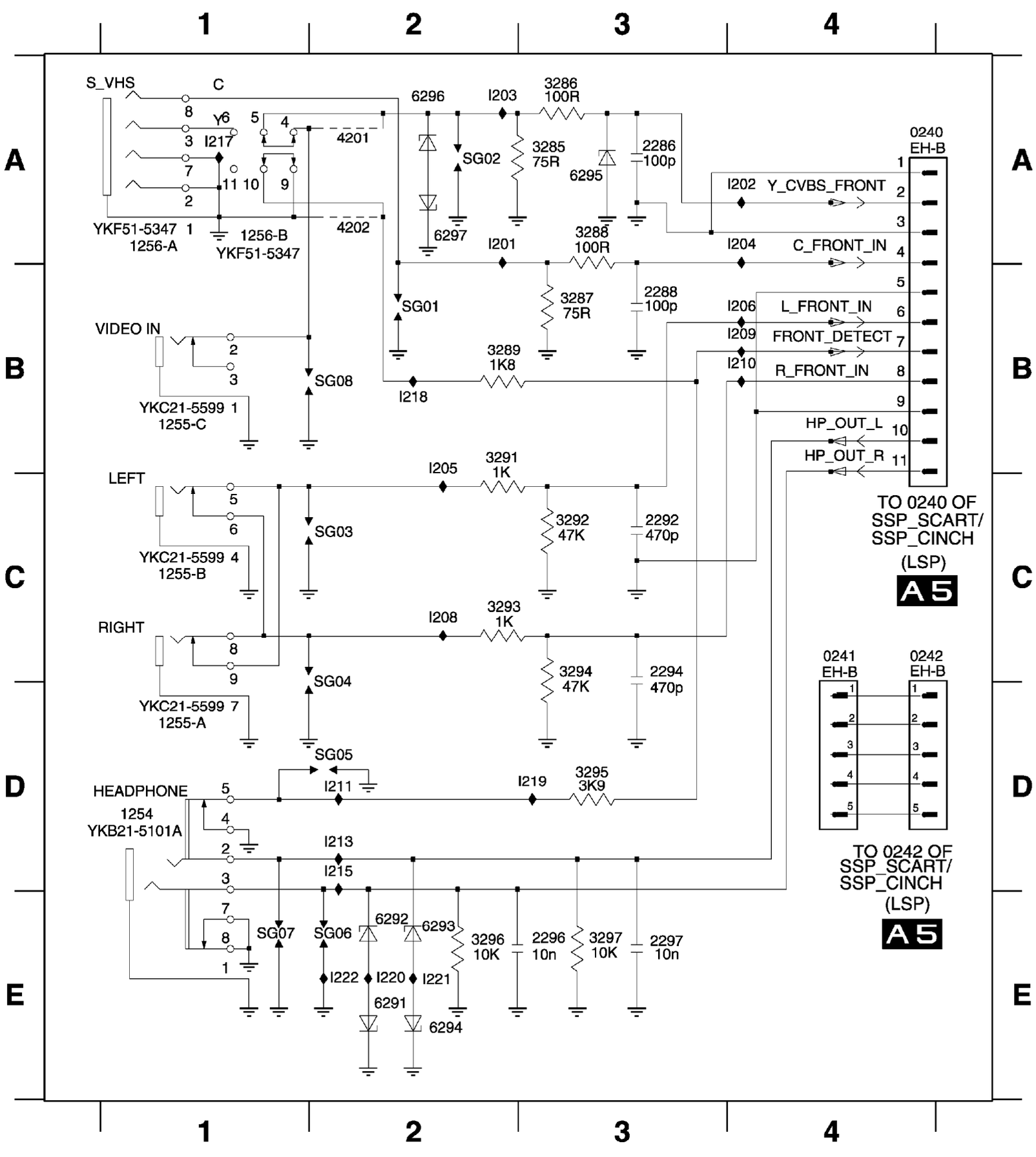


2626 F4
2627 F3
2631 D2
2633 D2
2635 D2
2637 D2
2640 D2
2642 C2
2643 E1
2646 E2
2651 E5
2652 D5
2653 E5
2679 A5
2682 B4
2683 B4
2684 B4
2685 C4
2686 C4
2687 C4
2690 F3
2691 F3
2692 G2
2693 G2
2694 G2
2695 G2
3643 E2
3644 F2
3645 F2
3646 E3
3647 E2
3648 F2
3651 D5
3653 E5
3680 E2
3681 E3
4640 D4
4642 B5
5602 A5
7630-A B3
7630-B A3
7645-A F2
7645-B E3
7650 E5

C7 SSB_CONNECTOR

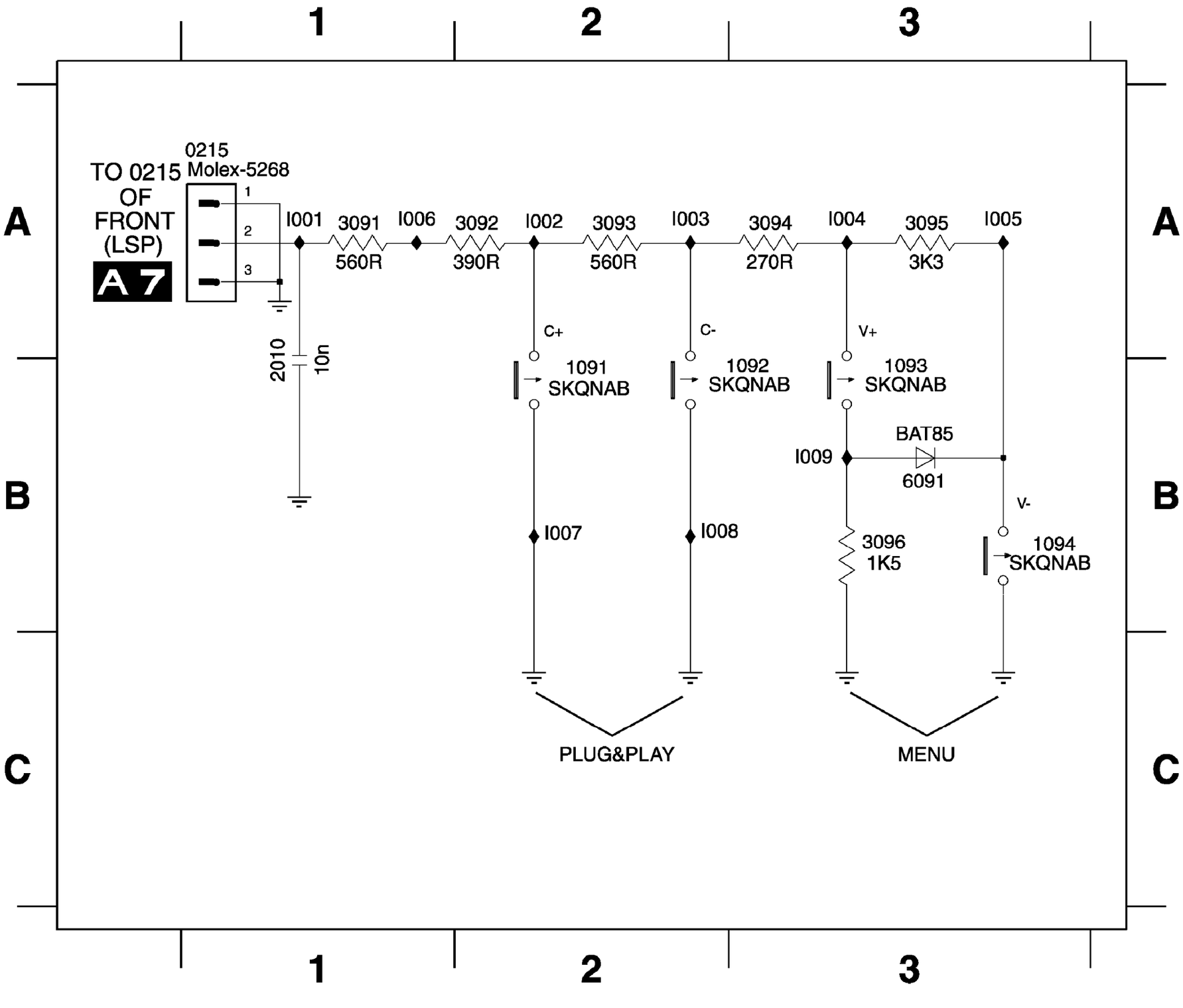


D SIDE JACK PANEL

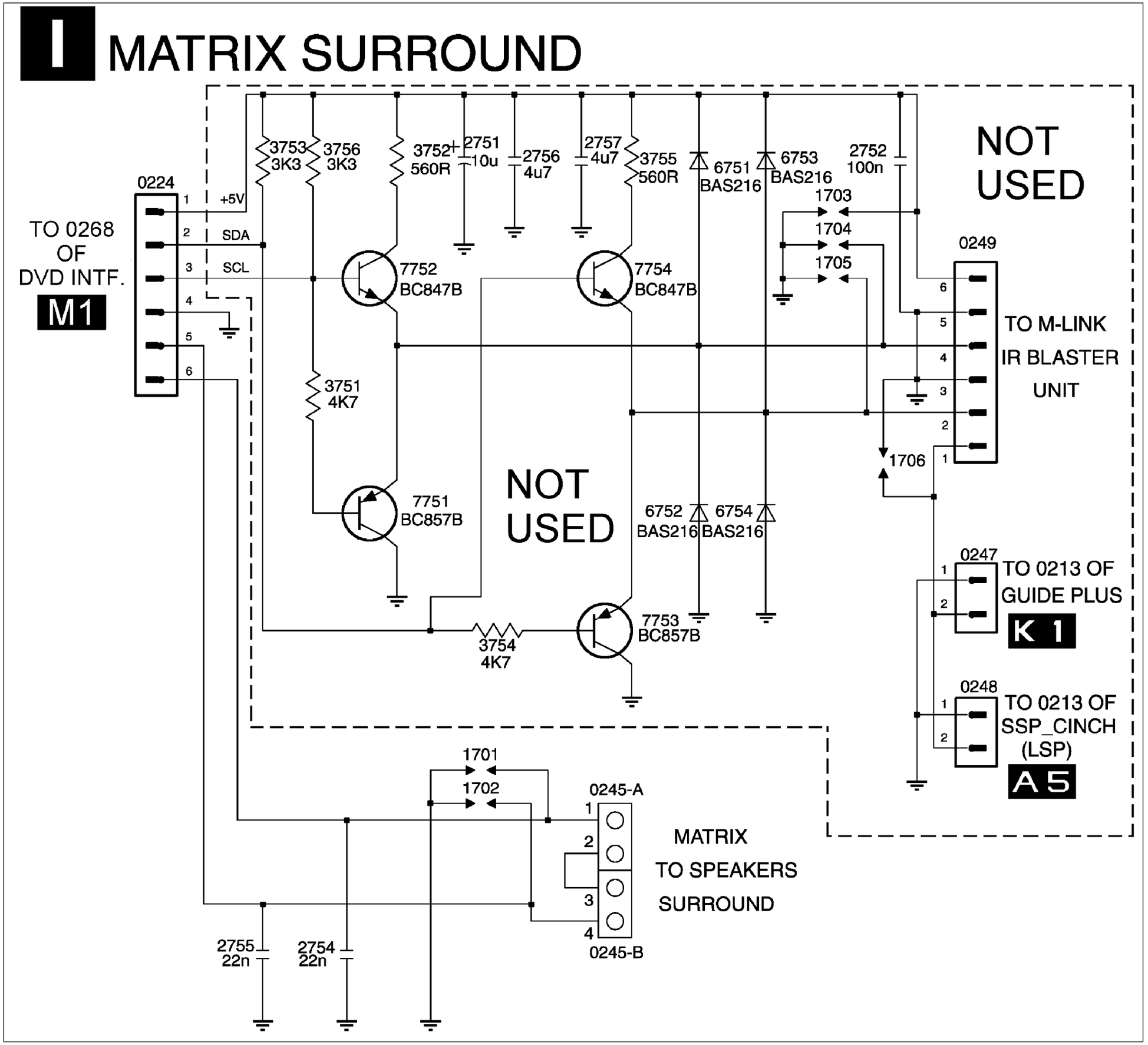


0240 A4
0241 C4
0242 C4
1254 D1
1255-A D1
1255-B C1
1255-C B1
1256-A A1
1256-B A1
2286 A3
2288 B3
2292 C3
2294 C3
2296 E3
2297 E3
3285 A3
3286 A3
3287 B3
3288 A3
3289 B2
3291 B2
3292 C3
3293 C2
3294 C3
3295 D3
3296 E2
3297 E3
4201 A2
4202 A2
6291 E2
6292 E2
6293 E2
6294 E2
6295 A3
6296 A2
6297 A2
I201 A2
I202 A4
I203 A2
I204 A4
I205 B2
I206 B4
I208 C2
I209 B4
I210 B4
I211 D2
I213 D2
I215 D2
I217 A1
I218 B2
I219 D3
I220 E2
I221 E2
I222 E2
SG01 B2
SG02 A2
SG03 C2
SG04 D2
SG05 D2
SG06 E2
SG07 E1
SG08 B2

TOP CONTROL PANEL

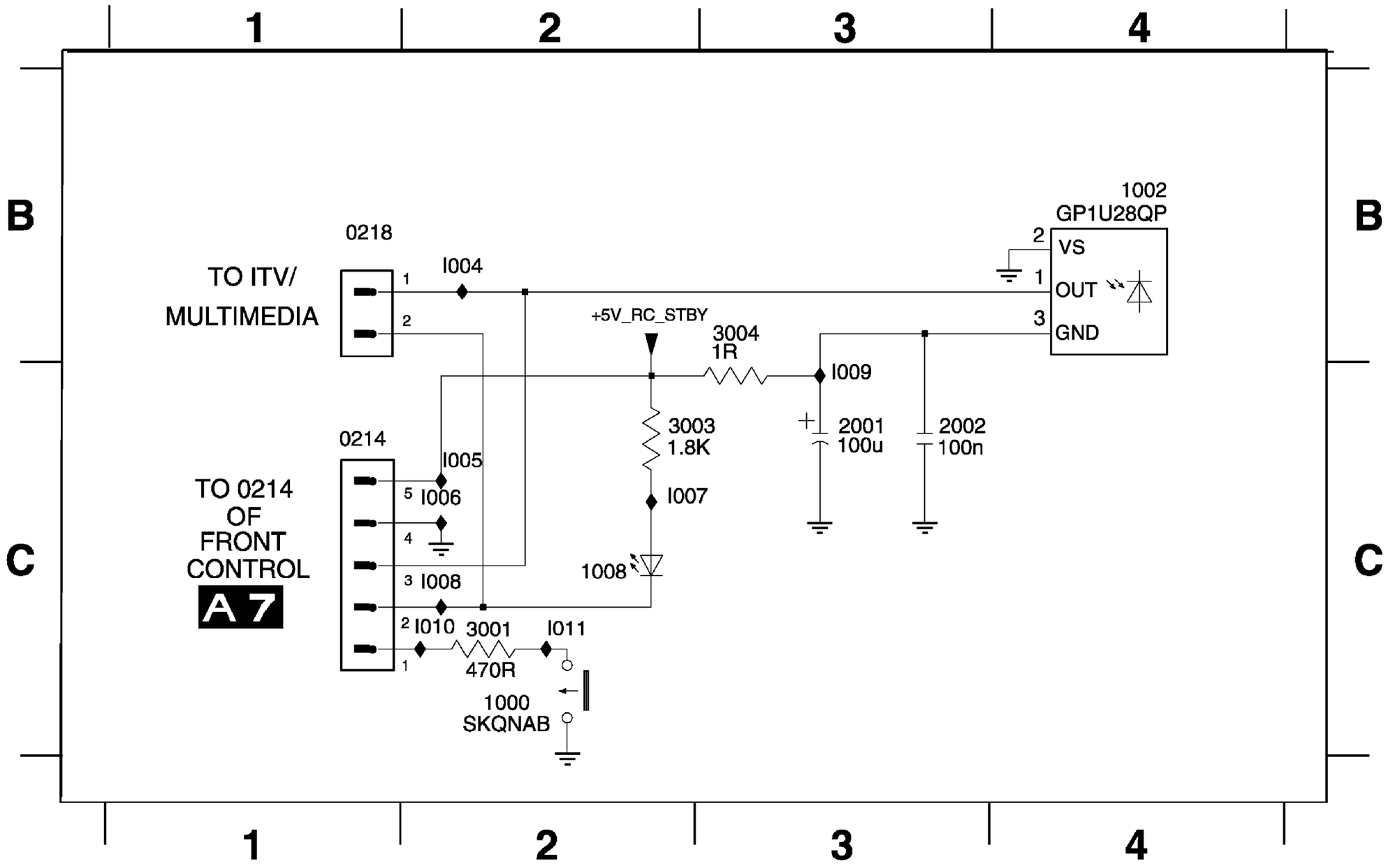


0215 A1
1091 B2
1092 A3
1093 A3
1094 B3
2010 B1
3091 A1
3092 A2
3093 A2
3094 A3
3095 A3
3096 B3
6091 B3
I001 A1
I002 A2
I003 A2
I004 A3
I005 A3
I006 A1
I007 B2
I008 B2
I009 B3


I MATRIX SURROUND
TO 0268 OF DVD INTF.
M1
0224
1 +5V
2 SDA
3 SCL
4
5
6
3753 3K3
3756 3K3
3752 560R
2751 10u
2756 4u7
2757 4u7
3755 560R
6751 BAS216
6753 BAS216
2752 100n
NOT USED
1703
1704
1705
0249
7752 BC847B
7754 BC847B
3751 4K7
7751 BC857B
NOT USED
6752 BAS216
6754 BAS216
7753 BC857B
3754 4K7
1706
TO M-LINK IR BLASTER UNIT
0247
TO 0213 OF GUIDE PLUS
K 1
0248
TO 0213 OF SSP_CINCH (LSP)
A 5
1701
1702
0245-A
MATRIX TO SPEAKERS SURROUND
0245-B
2755 22n
2754 22n

J FRONT INTERFACE PANEL

0214 C1
0218 B1
1000 C2
1002 B4
1008 C2
2001 C3
2002 C3
3001 C2
3003 C2
3004 B3
3008 B2
I003 B2
I004 B2
I005 C2
I006 C2
I007 C2
I008 C2
I009 C3
I010 C2
I011 C2



M 1 AUDIO

FROM DVD ENGINE

0254

GND_AC3

7130 UDA1328T

DIGITAL INTERFACE

CONTROL INTERFACE

BCK, WS, DI12, DI34, DI56, TST1, SYSCLK, NC, VOL/MUTE/DEEMPH, INTERPOL FILTER, NOISE SHAPER, DAC S, VDDD, VSSD, VDDA, VSSA, VREFA, STATIC, MUTE, DEEM1, DEEM0, L3CLK, L3DATA, L3MODE, TST2, DS, VO1P, VO1N, VO3, VO5, VO2P, VO2N, VO4, VO6

7131 BC817-25

7134-A MC33078

7134-B MC33078

7146 BC817-25

7147 BC817-25

7120-A HEF4053BT

7120-B HEF4053BT

7120-C HEF4053BT

7150 PCF8574AT

INTERRUPT LOGIC

LP FILTER

INPUT FILTER

I²C BUS CONTROL

SHIFT REGISTER

8 BIT I/O PORTS

POWER-ON RESET

7162 BC847B

7100 GP1F32T

DRIVER

OPTICAL OUT

COAXIAL OUT

5100 7CHA

1100 YKC21-3416

TO/FROM 0224 OF MAIN CHASSIS

FOR USA ONLY

TO MATRIX SURROUND PANEL

0268

TO 0267 OF EJECT BOARD M 4

EH-B

@	3130	5129	2129
LATAM,USA	-	5u6	15p
A/P	47R	-	-

* DC VOLTAGES MEASURED IN DVD MODE WITHOUT DISK LOADED.
* WAVEFORMS TAKEN WITH 1kHz TONE FROM TEST DISC.

* FOR LATAM & USA ONLY

0224 E2
0254 A2
0264 G8
0268 G2
1100 G12
1121 F10
1122 G11
2100 E10
2101 G10
2102 F10
2103 G11
2104 G11
2120 A11
2121 B10
2122 C10
2129 C3
2130 A4
2131 D4
2132 D5
2133 D5
2134 A8
2135 B8
2138 A7
2139 C8
2140 B9
2143 C7
2144 D8
2145 C9
2150 F3
2152 E3
2155 H6
2156 H6
2159 G8
2160 A2
2161 A2
2162 B2
2163 B2
2164 B2
2165 B2
2166 B2
2167 C2
2168 D2
2169 D2
2170 C2
2171 C2
2172 C2
2173 D2
2174 D2
2175 D2
3100 F9
3101 F9
3102 F11
3123 B10
3124 B10
3125 C10
3126 C10
3130 B3
3131 B6
3132 B6
3136 B7
3137 B7
3138 A7
3139 B8
3141 C7
3142 D7
3143 C7
3144 D8
3146 B8
3147 D8
3150 E2
3151 F2
3152 E3
3155 F6
3156 F6
3157 F6
3158 F7
3159 F7
3160 F7
3161 F7
3162 F7
3163 F8
4140 B8
4141 C8
4145 D8
4146 C8
5100 F10
5129 C3
5161 A2
7100 E10
7120-A B11
7120-B C11
7120-C D11
7130 A4
7131 A5
7134-A B8
7134-B C8
7146 B9
7147 D9
7150 E3
7162 F8

M2 VIDEO

FROM DVD ENGINE

0255

2260 RES
2261 RES
2262 RES
2263 100n -5V
2264 100n +12V_STDBY
2265 100n +5VSTDBY
2266 RES +3V3
C_DVD — 2267 RES
Y_DVD — 2268 RES
V27
V28

3269 RES 2269 RES
3270 RES 2270 RES

+5VSTDBY +5VSTDBY
3230 2K2
3231 2K2
5V1
5V

SDA_2
SCL_2
0239
TO/FROM 0239 OF MAIN CHASSIS
A4

7230 BC847B
7231 BC847B
3233 10K
3234 10K

+5V
3200 270R
3201 100R
4V3
7201 BC857B
V30
3V4
7200 BC847B
0V
V29
-0V6
3202 100R
7202 BC847B
V31
2V7
3208 75R
C_DVD_IN M2-25
3209 75R
3203 6K8
3204 820R
3205 4K7
3206 680R
3207 2K2
2200 100n
2201 100n
-5V

+12V_STDBY
2220 100n
12V

IIC_DISABLE_DATA M1-35
IIC_DISABLE_CLK M1-34
M2-25 C_DVD_IN
M2-22 C_FRONT_IN
V32
7220-A 16
HEF4053BT Vdd
12 Y0 S1 11
13 Y1 Z 14
Vss Vee E
8 7 6
SEL_DVD_AV M1-17
C_AV3_OUT M2-24
V33

V37
7220-B 16
HEF4053BT Vdd
M2-26 Y_DVD_IN 2 Y0 S0 10
M2-21 Y_FRONT_IN 1 Y1 Z 15
Vss Vee E
8 7 6
Y_AV3_OUT M2-23
V38

7220-C 16
HEF4053BT Vdd
5 Y0 S 9
3 Y1 Z 4
Vss Vee E
8 7 6

0266
TO/FROM 0240 OF SIDE AV D

Y_FRONT_IN M2-21
C_FRONT_IN M2-22
L_FRONT_IN M1-14
FRONT_DETECT
2238 RES
R_FRONT_IN M1-16
2239 RES
2240 RES

TO/FROM 0240 OF MAIN CHASSIS A5

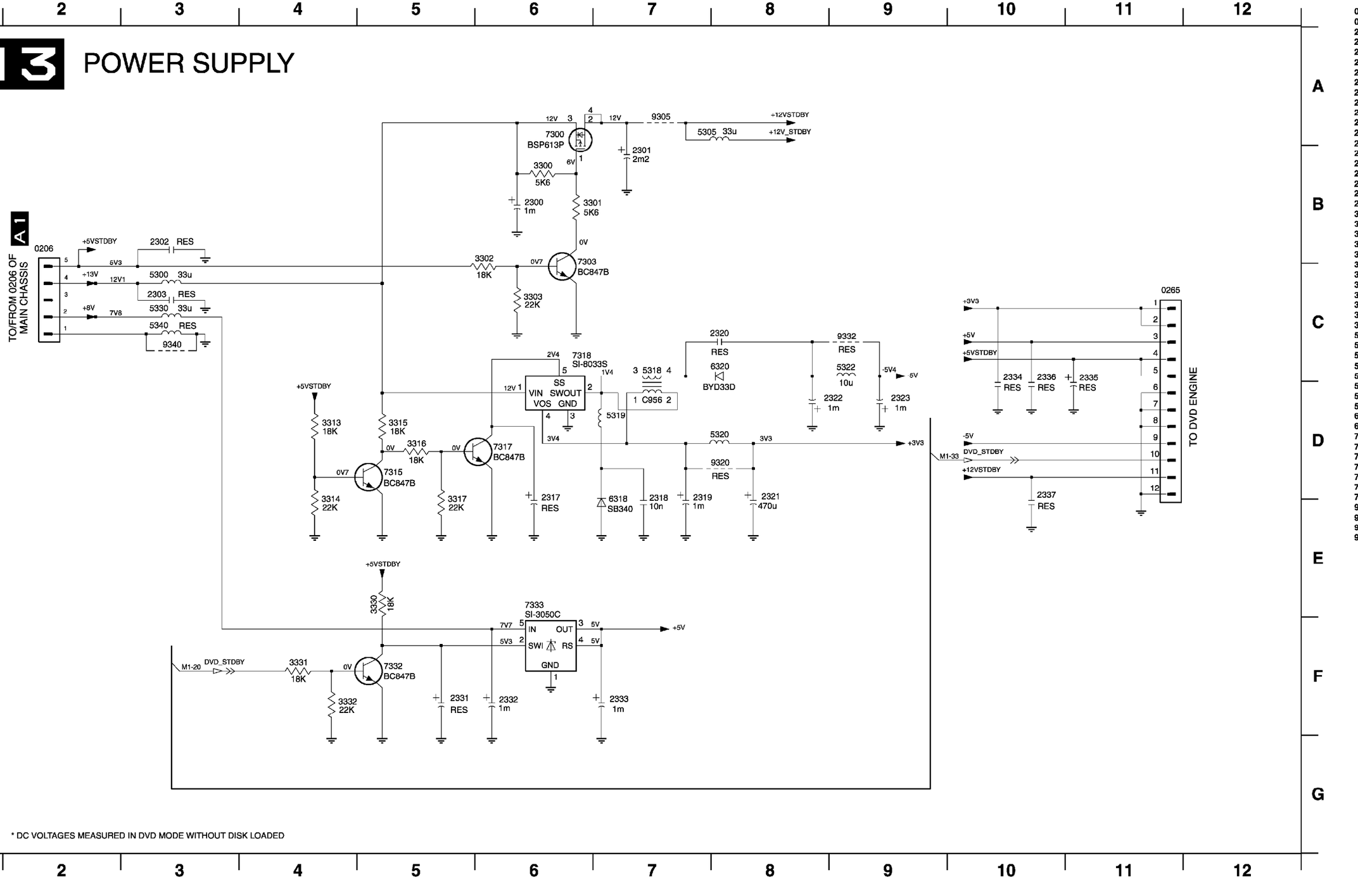
0240
V38
Y_AV3_OUT M2-23
2232 RES
V33
C_AV3_OUT M2-24
2233 RES
A17
L_AV3_OUT M1-18
2234 RES
A22
R_AV3_OUT M1-19
2235 RES
HP_OUT_L
HP_OUT_R

3210 270R
3211 100R
4V3
7211 BC857B
V35
2V6
7210 BC847B
-0V3
V34
-1V
3212 100R
7212 BC847B
V36
1V9
3218 100R
Y_DVD_IN M2-26
3219 75R
3213 6K8
3214 820R
3215 4K7
3216 680R
3217 2K2
2211 100n
2216 100n

* DC VOLTAGES MEASURED IN DVD MODE WITHOUT DISK LOADED.
* WAVEFORMS TAKEN WITH NTSC COLORBAR PATTERN TEST DISC WITH 1 kHz TONE GENERATOR.

0239 B9
0240 F2
0255 A2
0266 D2
2200 C6
2201 E6
2211 E6
2216 G6
2220 C9
2232 F3
2233 G3
2234 G3
2235 G3
2238 E3
2239 E3
2240 F3
2260 B3
2261 B3
2262 B3
2263 B3
2264 C3
2265 C3
2266 C3
2267 D3
2268 D3
2269 B4
2270 C4
3200 C5
3201 C5
3202 C6
3203 D5
3204 D6
3205 D5
3206 D6
3207 D7
3208 D7
3209 D7
3210 E5
3211 E5
3212 F6
3213 F5
3214 F6
3215 G5
3216 G6
3217 G7
3218 F7
3219 F7
3230 A8
3231 A8
3233 B7
3234 B7
3269 B4
3270 C4
7200 C5
7201 C6
7202 C6
7210 F5
7211 E6
7212 F6
7220-A C9
7220-B D9
7220-C E9
7230 B7
7231 B7

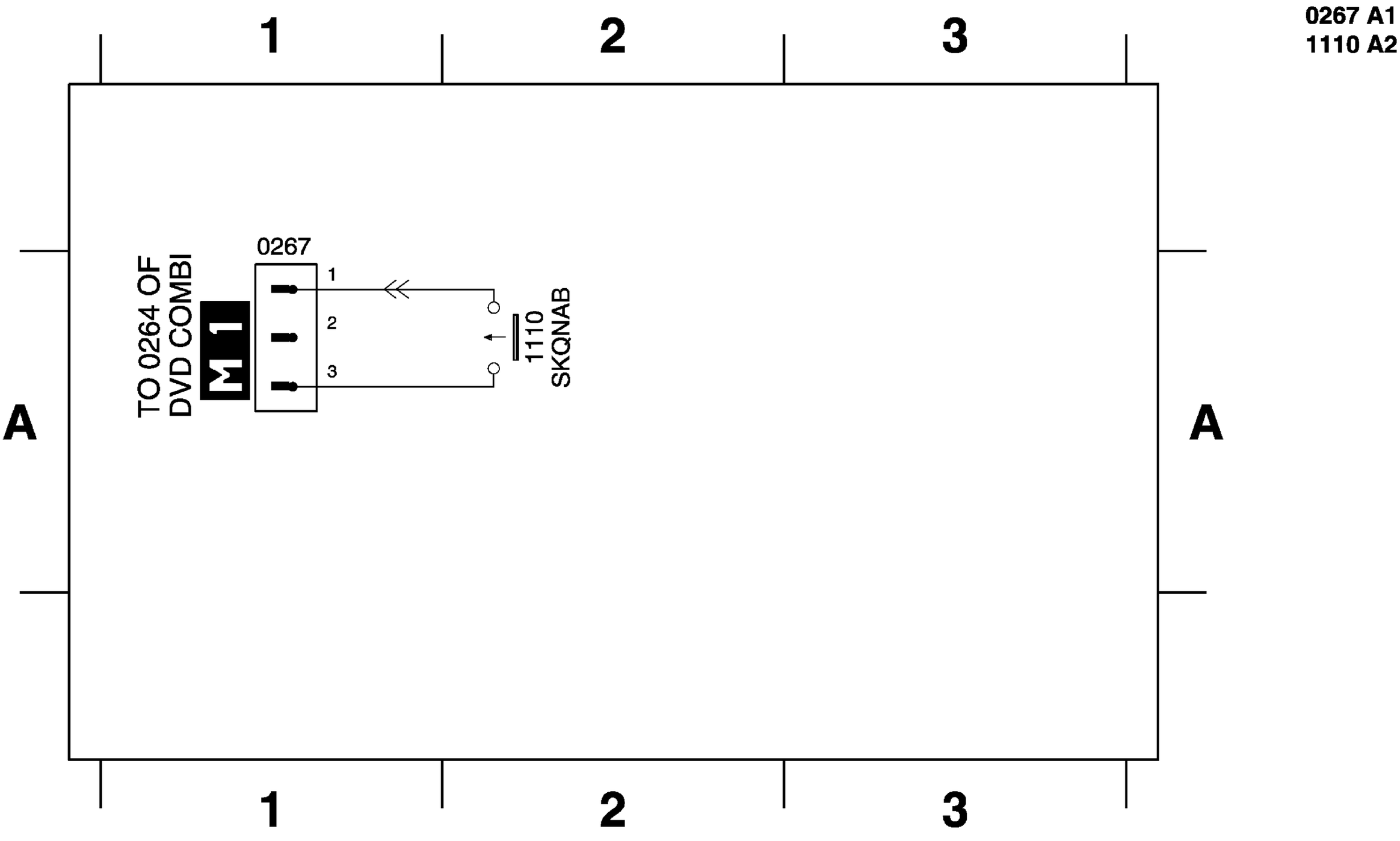
M3 POWER SUPPLY



0206 B2
0265 C11
2300 B6
2301 B7
2302 B3
2303 C3
2317 D6
2318 E7
2319 D7
2320 C8
2321 D8
2322 D9
2323 D9
2331 F5
2332 F6
2333 F7
2334 C10
2335 C11
2336 C10
2337 D10
3300 B6
3301 B6
3302 B6
3303 C6
3313 D4
3314 D4
3315 D5
3316 D5
3317 D5
3330 E5
3331 F4
3332 F4
5300 C3
5305 A7
5318 C7
5319 D7
5320 D8
5322 C9
5330 C3
5340 C3
6318 E7
6320 C8
7300 A6
7303 C6
7315 D5
7317 D6
7318 C6
7332 F5
7333 E6
9305 A7
9320 D8
9332 C9
9340 C3

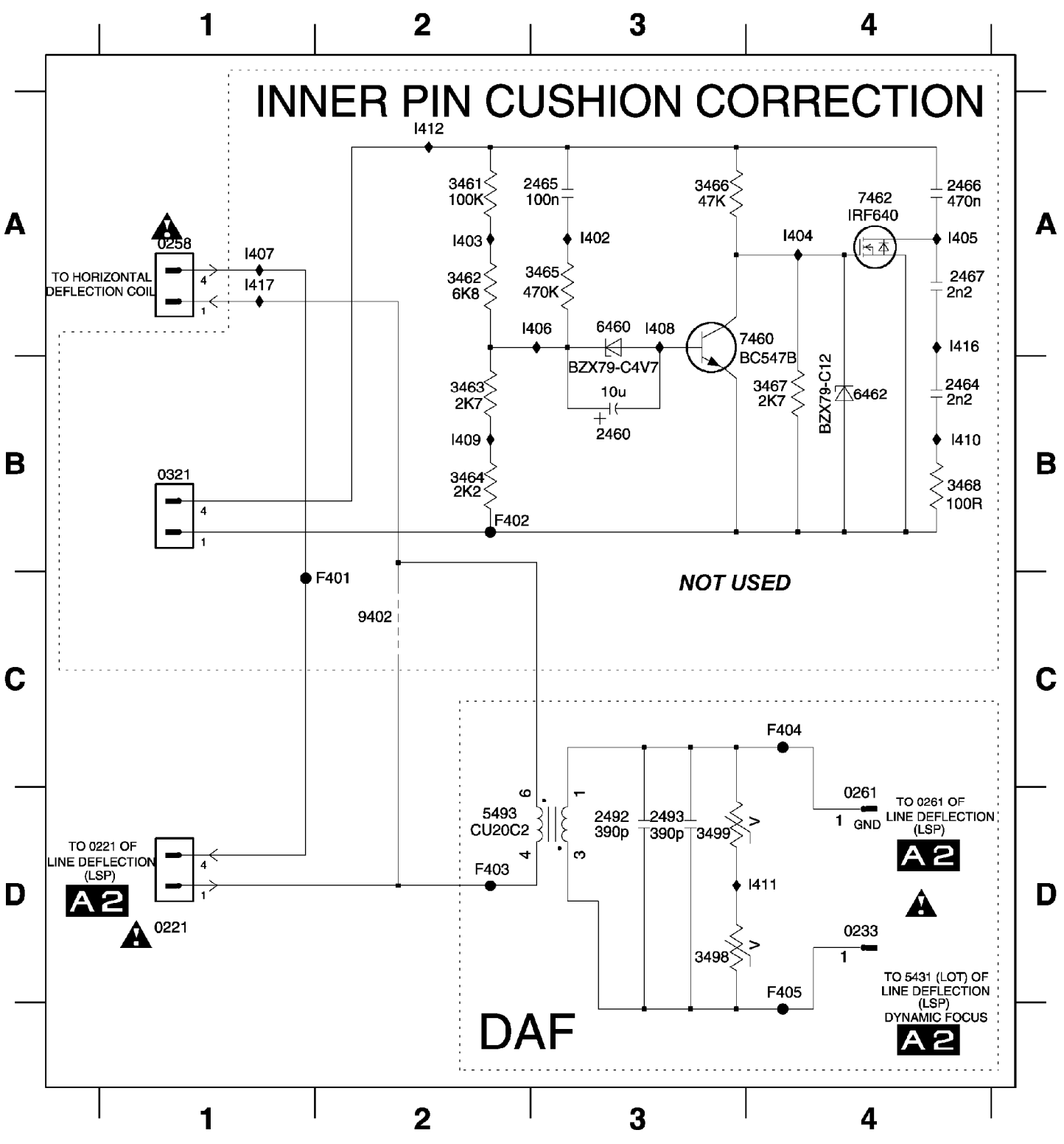
* DC VOLTAGES MEASURED IN DVD MODE WITHOUT DISK LOADED

M4 EJECT BUTTON

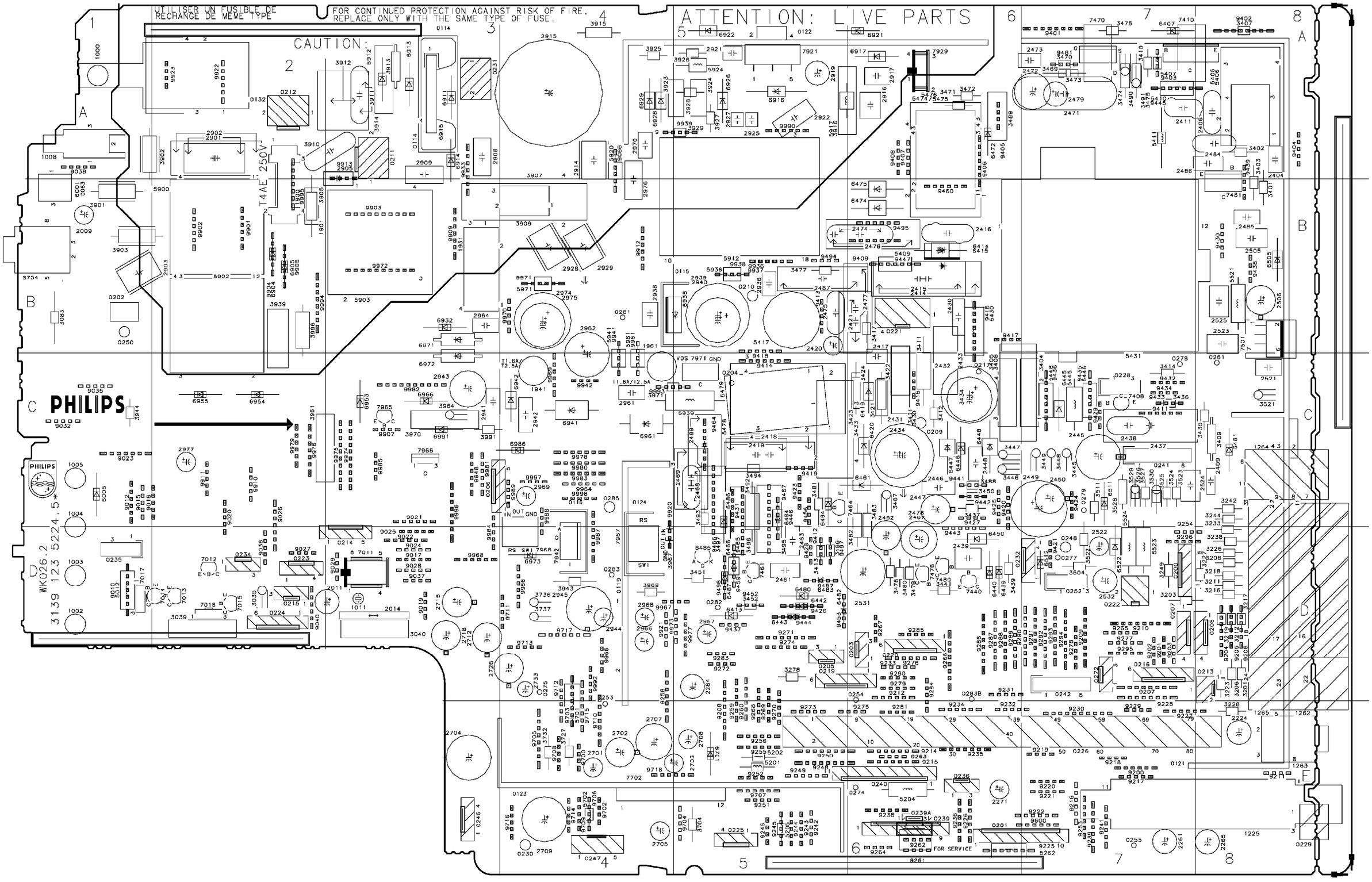


W DAF PANEL & INNER PIN CUSHION CORRECTION

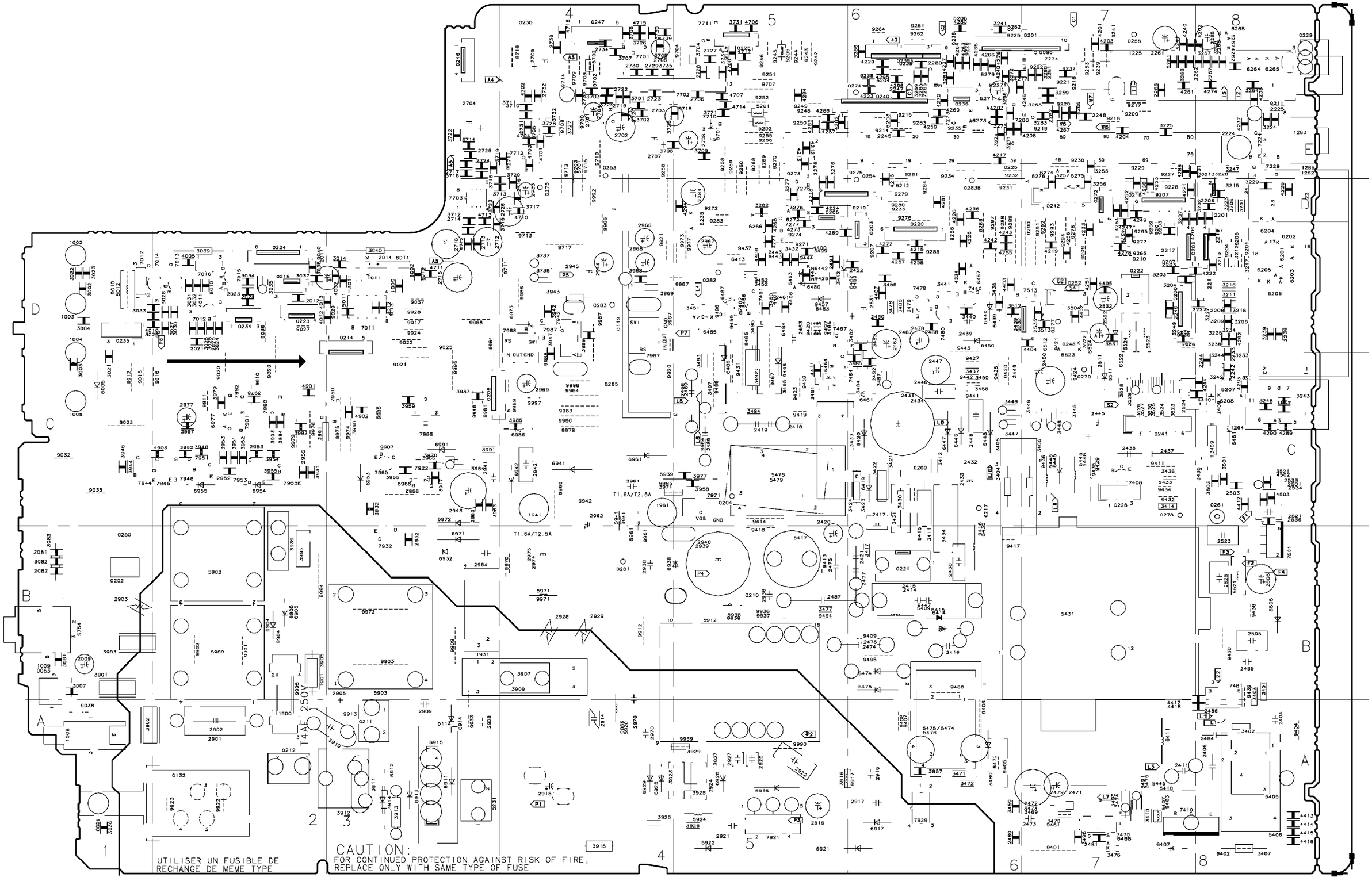
0221 D1	0321 B1	2466 A4	3461 A2	3465 A3	3498 D3	6462 B4	F401 B1	F405 D4	I405 A4	I409 B2	I416 A4
0233 D4	2460 B3	2467 A4	3462 A2	3466 A3	3499 D3	7460 A3	F402 B2	I402 A3	I406 A3	I410 B4	I417 A1
0258 A1	2464 B4	2492 D3	3463 B2	3467 B4	5493 D2	7462 A4	F403 D2	I403 A2	I407 A1	I411 D4	
0261 D4	2465 A3	2493 D3	3464 B2	3468 B4	6460 A3	9402 C2	F404 C4	I404 A4	I408 A3	I412 A2	

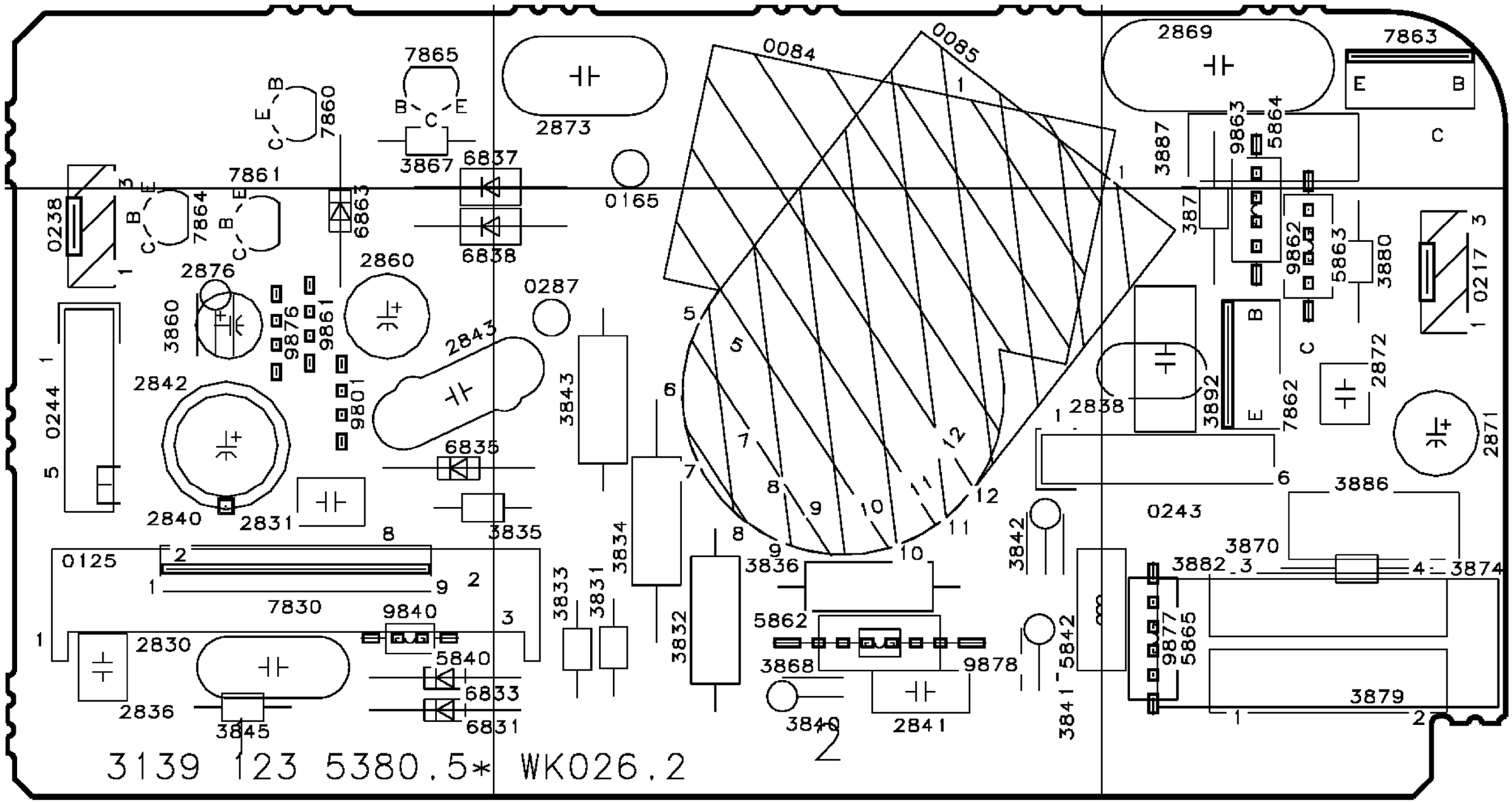


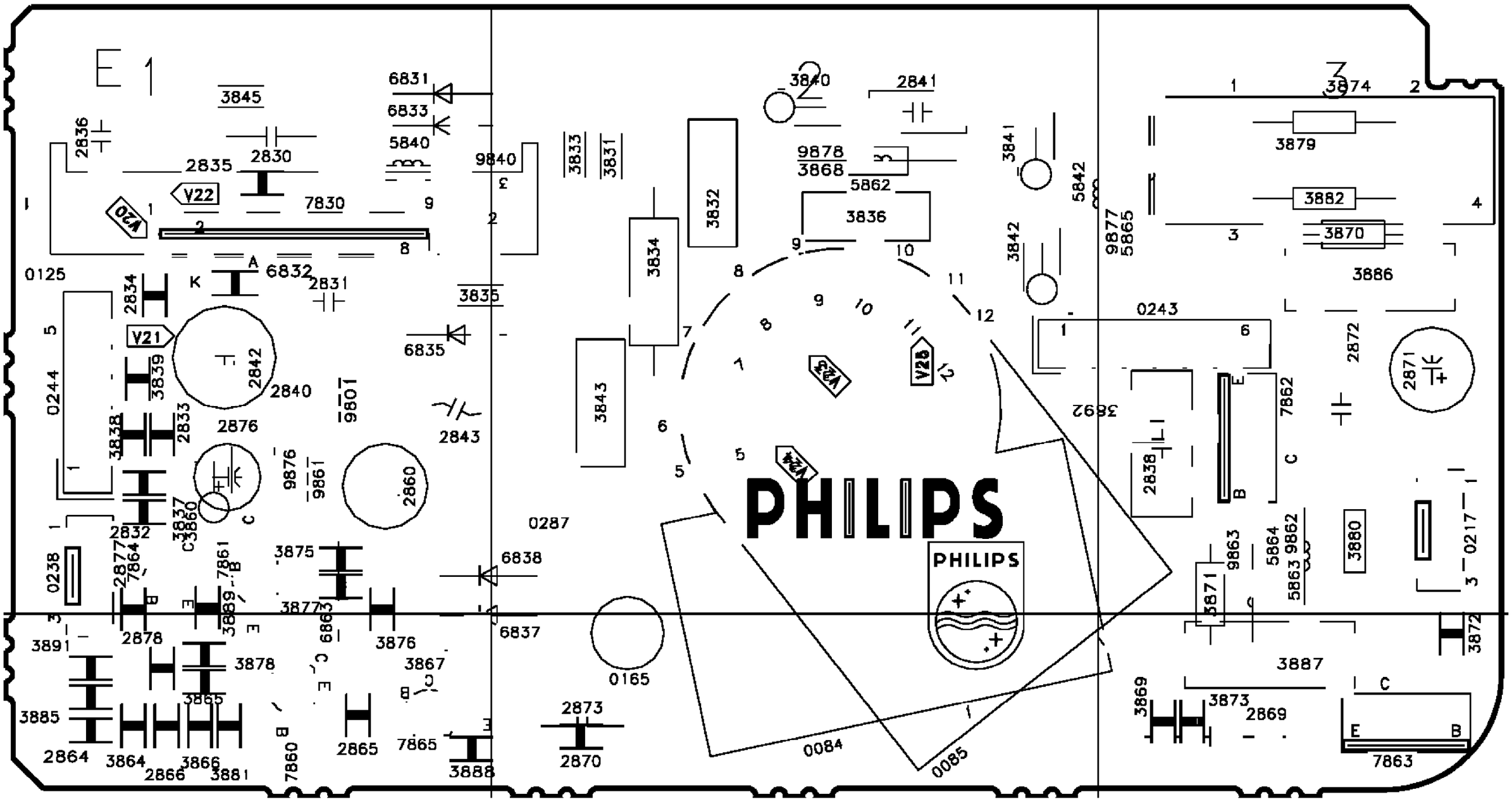
All Models (7619) - LSP Panel PCB [A]: Top View



All Models (7619) - LSP Panel PCB [A]: Bottom View



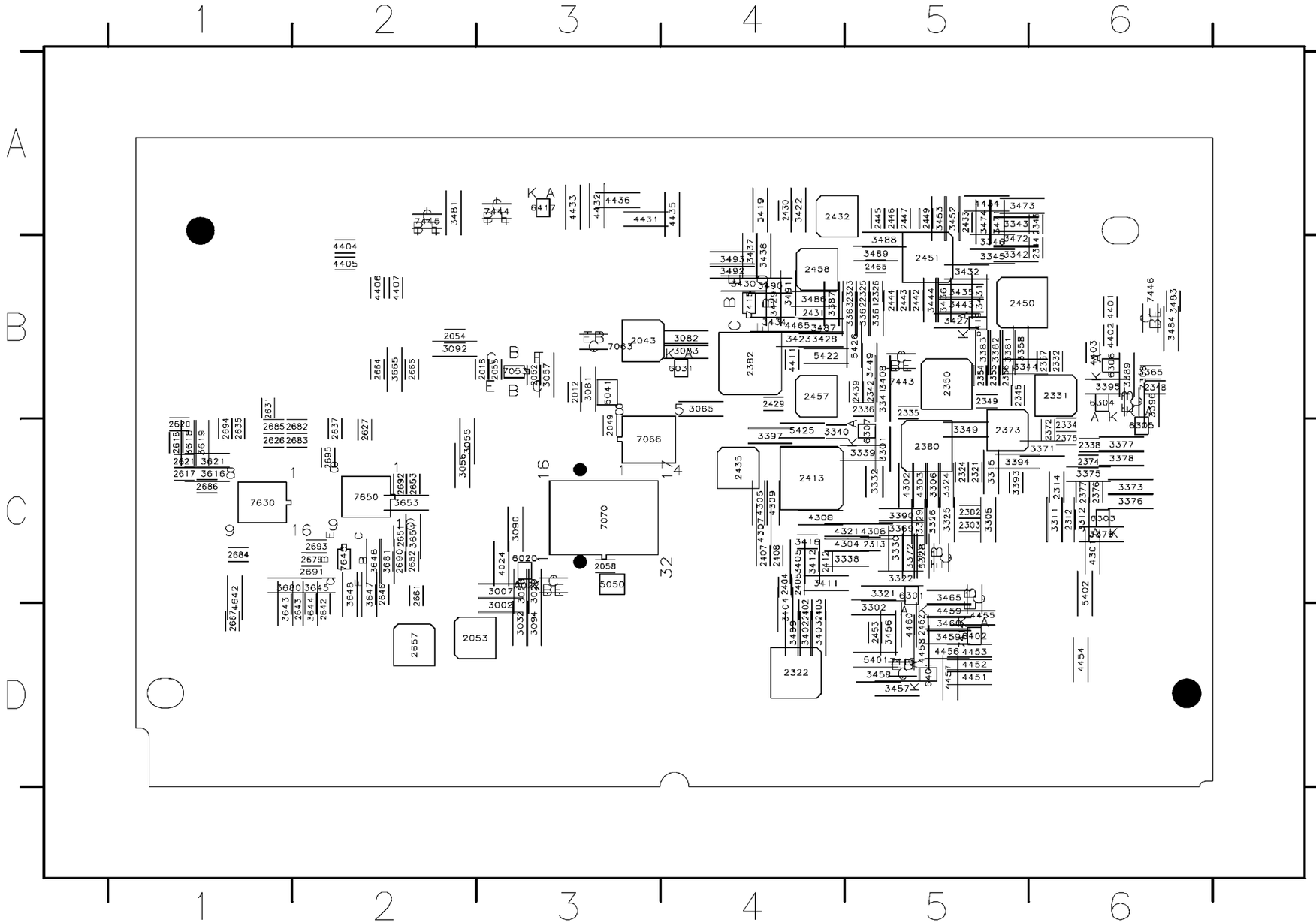

7865
7860
7861
7864
6863
6837
6838
3867
2873
0165
0084
0085
2869
7863
3887
9863
5864
9862
5863
3880
0217
0238
2876
3860
9876
9861
2860
0287
2843
2842
9801
6835
2840
2831
3835
0244
0125
7830
9840
2830
5840
6833
6831
2836
3845
3843
3834
3833
3831
3832
3836
5862
3868
9878
3840
2841
3842
5842
3841
3892
7862
2838
2872
2871
3886
0243
3870
3882_3
3874
9877
5865
3879
3139 123 5380.5* WK026.2


E 1
3
2
3845
6831
6833
5840
9840
2836
2835
2830
Y22
Y20
7830
3833
3831
3832
3840
2841
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3868
5862
3836
3841
5842
3842
9877
5865
3874
3879
3882
3870
3886
0125
2834
K
6832
2831
3835
Y21
2842
2840
6835
3834
0243
3839
0244
9801
2876
2843
3843
Y23
Y25
Y24
3892
2838
7862
2872
2871
3838
2833
9876
9861
2860
3837
3860
2832
0287
6838
3875
3877
6863
3876
6837
0238
2877
7864
7861
3869
2878
3891
3878
3867
0165
3887
3869
3873
2869
3885
3865
2873
2870
2864
3864
3866
2866
3881
2865
7865
3888
7860
7863
3880
9863
5864
5863
9862
3871
3872
0217
0084
0085
PHILIPS
PHILIPS

All Models (7619) - SSB Panel PCB [C]: Top View

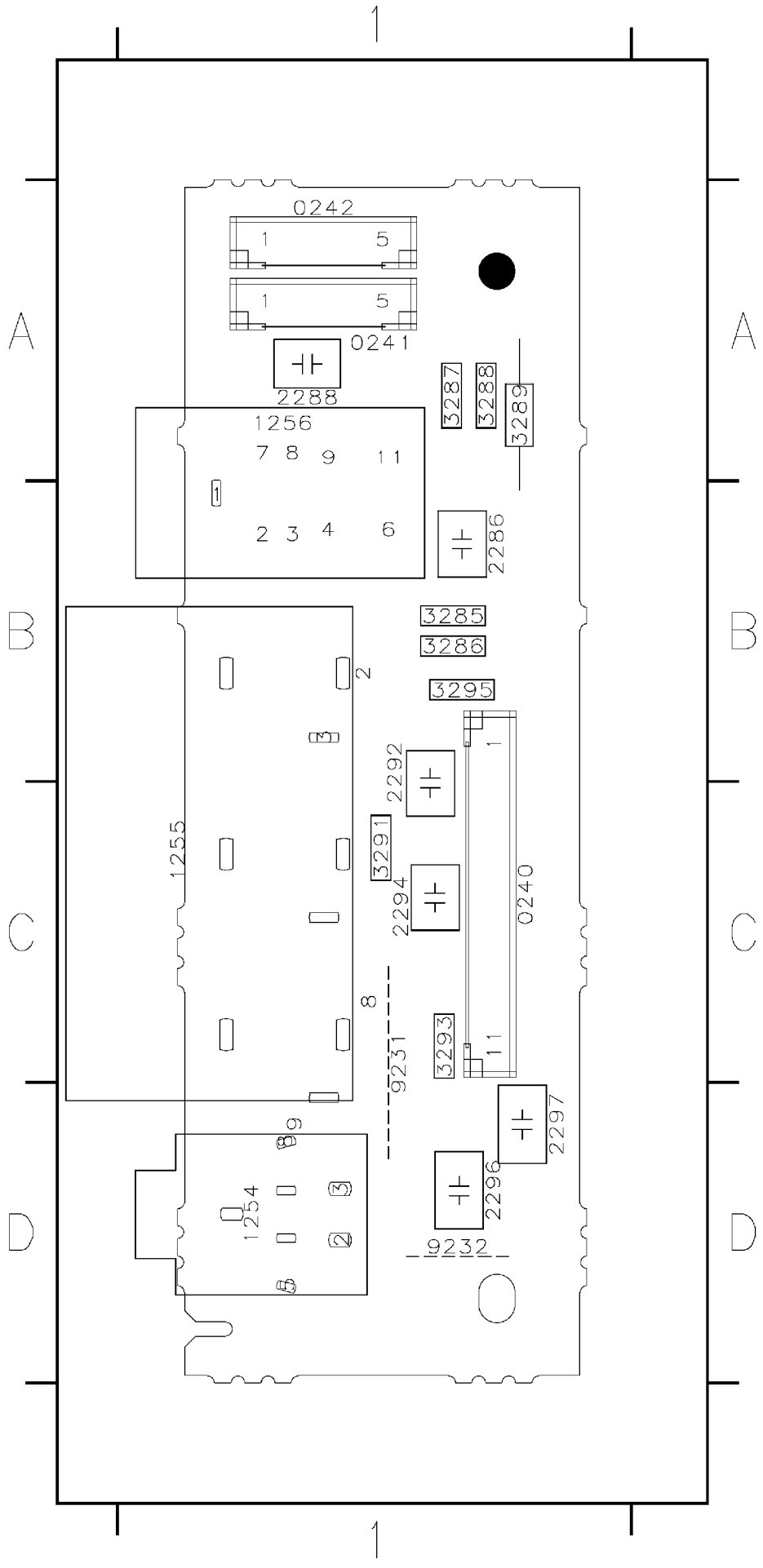
0205 A4
0226 D3
0238 A5
1057 B4
1327 B1
1333 C3
1451 D1
1455 D2
1630 C5
2010 C4
2013 C5
2014 C4
2015 C4
2016 C4
2017 C5
2019 B4
2020 B4
2021 B5
2041 B4
2042 B4
2044 B4
2045 C3
2046 C3
2047 D3
2048 D3
2050 B3
2051 C4
2056 C4
2301 B3
2306 B3
2309 C2
2310 C2
2311 B2
2315 C2
2316 C1
2317 C2
2319 C2
2327 B1
2328 B1
2333 B1
2360 B1
2378 D2
2379 C2
2381 C3
2401 D3
2415 C3
2417 D3
2420 B2
2421 B3
2422 B3
2423 B3
2424 B3
2425 B3
2427 B3
2428 B2
2434 B2
2436 C3
2437 B2
2438 B3
2440 B3
2441 B2
2461 A3
2462 A3
2463 A3
2464 B4
2601 C5
2602 D5
2606 D6
2607 D6
2610 C5
2611 C6
2612 C6
2613 C6
2614 C6
2619 C6
2622 C6
2623 B6
2624 C6
2625 C6
2628 B6
2629 B6
2632 C6
2633 C5
2634 B6
2636 B5
2638 B5
2639 B5
2640 B5
2641 B5
2655 C6
2656 C6
2662 B5
2663 C5
2665 B5
2667 C5
2675 C5
2676 C5
2678 B5
2680 C6
2681 C6
2696 B5
3003 C4
3004 B4
3008 D4
3009 C3
3010 D4
3012 D3
3013 C4
3014 D4
3015 D4
3017 C3
3018 C3
3019 C3
3021 D4
3022 D4
3023 C3
3024 D4
3030 B4
3031 C4
3034 D4
3035 C5
3042 B5
3043 C4
3044 B4
3045 D5
3046 D4
3051 C4
3054 B4
3058 B4
3059 B5
3061 B4
3062 D4
3063 B4
3064 C3
3066 B4
3067 A4
3084 C3
3085 C3
3086 C3
3088 B3
3091 D5
3093 C5
3303 C1
3307 C2
3316 C1
3317 C2
3320 C2
3327 C2
3331 C1
3333 C3
3334 C3
3335 C3
3348 B2
3350 C2
3360 B1
3364 B1
3374 C1
3384 D2
3385 D2
3388 B1
3391 C1
3392 C1
3401 D3
3406 C3
3407 B3
3410 D3
3413 C2
3414 C2
3415 C2
3417 B1
3418 B1
3425 B2
3426 B2
3439 B2
3440 A2
3441 B2
3442 B2
3455 D2
3461 D2
3466 A3
3467 A3
3468 A3
3469 B3
3477 B2
3480 A4
3482 B5
3485 A4
3601 D5
3602 D5
3606 D5
4008 B4
4057 B4
4311 C1
4312 B1
4313 C1
4314 B1
4316 D2
4317 B1
4318 B1
4319 C1
4320 D1
4324 C1
4408 C2
4409 D1
4410 B3
4463 B3
4464 B3
4640 D6
4643 C6
4644 C6
4684 B5
5040 C5
5042 B3
5308 C2
5309 C2
5310 D2
5332 C3
5333 B1
5334 C3
5403 D2
5421 C3
5435 A3
5451 D2
5601 D5
5602 D5
5625 B5
5665 B5
6302 C1
6412 C3
6415 C3
6418 B2
6420 B2
6605 D5
7064 C4
7301 B2
7307 C2
7321 C2
7331 C4
7368 B1
7370 B1
7401 C3
7402 B5
7403 A2
7405 B3
7407 B3
7412 C3
7421 B1
7425 B3
7441 A3
7442 A2
7651 C5

All Models (7619) - SSB Panel PCB [C]: Bottom View



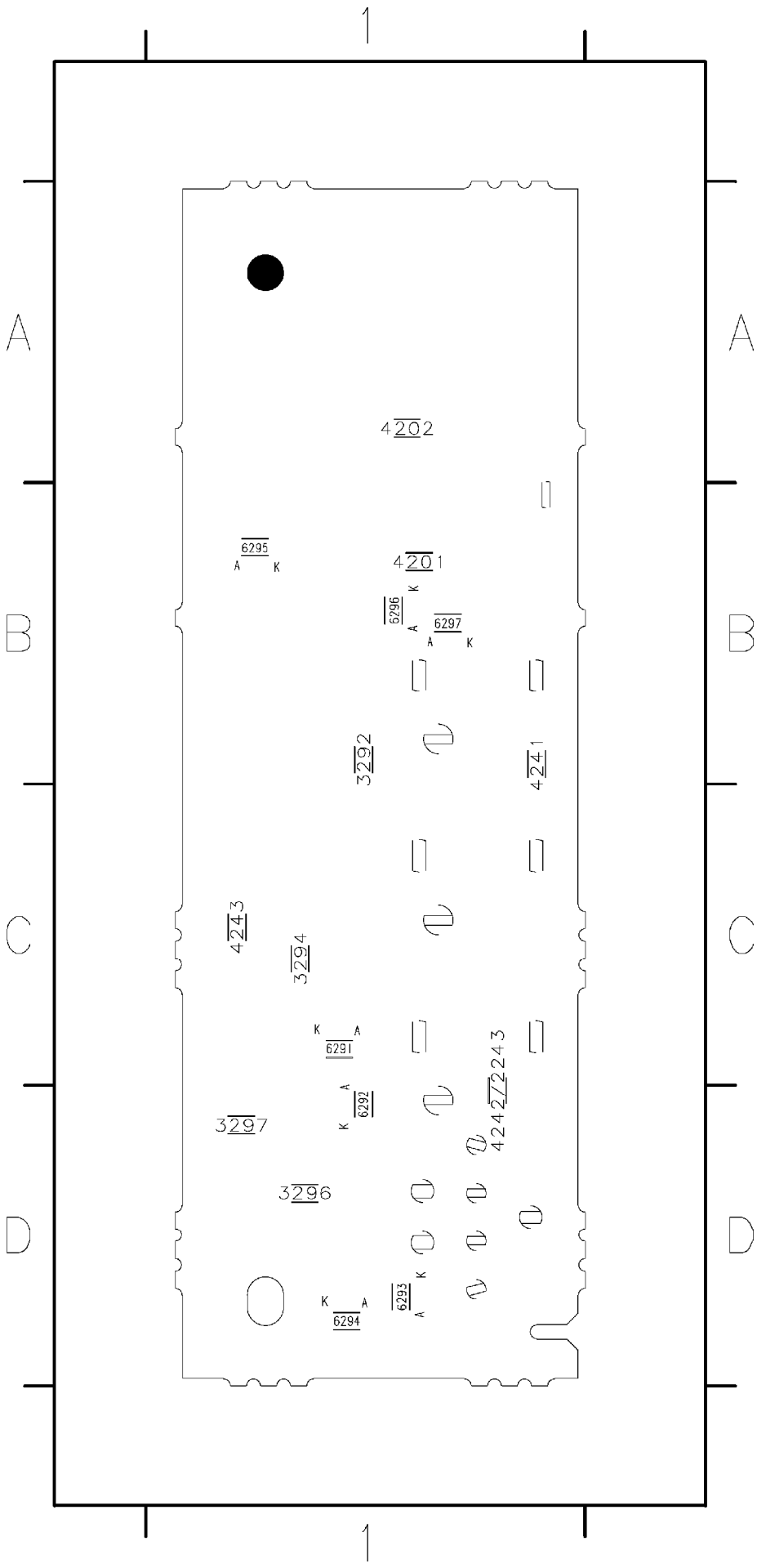
2012	B3	2323	B4	2350	B5	2405	C4	2446	A5	2631	B1	2684	C1	3056	C2	3321	C5	3345	B5	3379	C6	3647	C2	7308	C6
2018	B3	2324	C5	2354	B5	2407	C4	2447	A5	2635	B1	2685	C1	3057	B3	3322	C5	3346	B5	3381	B5	3648	C2	7413	D5
2043	B3	2325	B5	2355	B5	2408	C4	2449	A5	2637	B2	2686	C1	3065	C4	3324	C5	3349	C5	3382	B5	3651	C2	7414	D5
2049	C3	2326	B5	2356	B5	2412	C4	2450	B6	2642	D2	2687	D1	3081	C3	3325	C5	3358	B6	3383	B5	3653	C2	7415	B4
2052	B3	2331	B6	2357	B6	2413	C5	2451	A5	2643	D2	2690	C2	3082	B4	3326	C5	3361	B5	3387	B4	3665	B2	7443	B5
2053	D3	2332	B6	2372	C6	2429	B4	2452	D5	2646	C2	2691	C1	3083	B4	3328	C5	3362	B5	3389	B6	3680	C1	7444	A2
2054	B2	2334	C6	2373	C5	2430	A4	2453	D5	2651	C2	2692	C2	3090	C3	3329	C5	3363	B5	3390	C5	3681	C2	7445	A2
2055	B3	2335	B5	2374	C6	2431	B4	2457	B4	2652	C2	2693	C1	3092	B2	3330	C5	3365	B6	3393	C5	4024	C3	7446	B6
2058	C3	2336	B4	2375	C6	2432	A4	2458	B4	2653	C2	2694	B1	3094	D3	3332	C5	3369	C5	3394	C5	4301	C6	7630	C2
2302	C5	2338	C6	2376	C6	2433	A5	2465	B5	2657	D2	2695	C2	3301	C5	3338	C5	3371	C6	3395	B6	4302	C5	7645	C2
2303	C5	2342	B5	2377	C6	2435	C4	2617	C1	2661	C2	3002	D2	3302	D4	3339	C5	3372	C5	3396	B6	4303	C5	7650	C2
2312	C6	2343	A6	2380	C5	2439	B5	2618	C1	2664	B2	3007	C2	3305	C5	3340	C4	3373	C6	3397	C4	4304	C5		
2313	C5	2344	B6	2382	B4	2442	B5	2620	B1	2666	B2	3028	C3	3306	C5	3341	B5	3375	C6	3402	D4	4305	C4		
2314	C6	2345	B5	2402	D4	2443	B5	2621	C1	2679	C1	3029	D3	3311	C6	3342	B5	3376	C6	3403	D4	4306	C5		
2321	C5	2348	B6	2403	D4	2444	B5	2626	C1	2682	B2	3032	D3	3312	C6	3343	A5	3377	C6	3404	D4	4307	C4		
2322	D4	2349	B5	2404	C4	2445	A5	2627	C2	2683	C2	3055	C3	3315	C5	3344	B5	3378	C6	3405	C4	4308	C4		
																				3408	B5	4309	C4		
																				3409	D4	4321	C5		
																				3411	C5	4401	B6		
																				3412	C4	4402	B6		
																				3416	C4	4403	B6		
																				3419	A4	4404	A2		
																				3422	A4	4405	B2		
																				3423	B4	4406	B2		
																				3427	B5	4407	B2		
																				3428	B4	4411	B4		
																				3429	B4	4431	A3		
																				3430	B4	4432	A3		
																				3431	B5	4433	A3		
																				3432	B5	4434	A5		
																				3434	B4	4435	A4		
																				3435	B5	4436	A3		
																				3436	B5	4451	D5		
																				3437	A4	4452	D5		
																				3438	B4	4453	D5		
																				3443	B5	4454	D6		
																				3444	B5	4455	D5		
																				3449	B5	4456	D5		
																				3452	A5	4457	D5		
																				3453	A5	4458	D5		
																				3456	D5	4459	D5		
																				3457	D5	4460	D5		
																				3458	D5	4465	B4		
																				3459	D5	4642	C1		
																				3460	D5	5041	B3		
																				3465	C5	5050	C3		
																				3471	A5	5401	D5		
																				3472	B5	5402	D6		
																				3473	A5	5422	B4		
																				3474	A5	5425	C4		
																				3481	A2	5426	B4		
																				3483	B6	6020	C3		
																				3484	B6	6031	B3		
																				3486	B4	6301	C5		
																				3487	B4	6303	C6		
																				3488	B5	6304	B6		
																				3489	B5	6305	C6		
																				3490	B4	6306	B6		
																				3491	B4	6307	C5		
																				3492	B4	6401	D5		
																				3493	B4	6402	D5		
																				3616	C1	6417	A3		
																				3618	B1	6419	B5		
																				3619	B1	7022	C3		
																				3621	C1	7053	B3		
																				3643	D1	7063	B3		
																				3644	D2	7066	B3		
																				3645	C2	7070	C3		
																				3646	C2	7305	C5		

All Models (7619) - Side Jack Panel PCB [D]: Top View



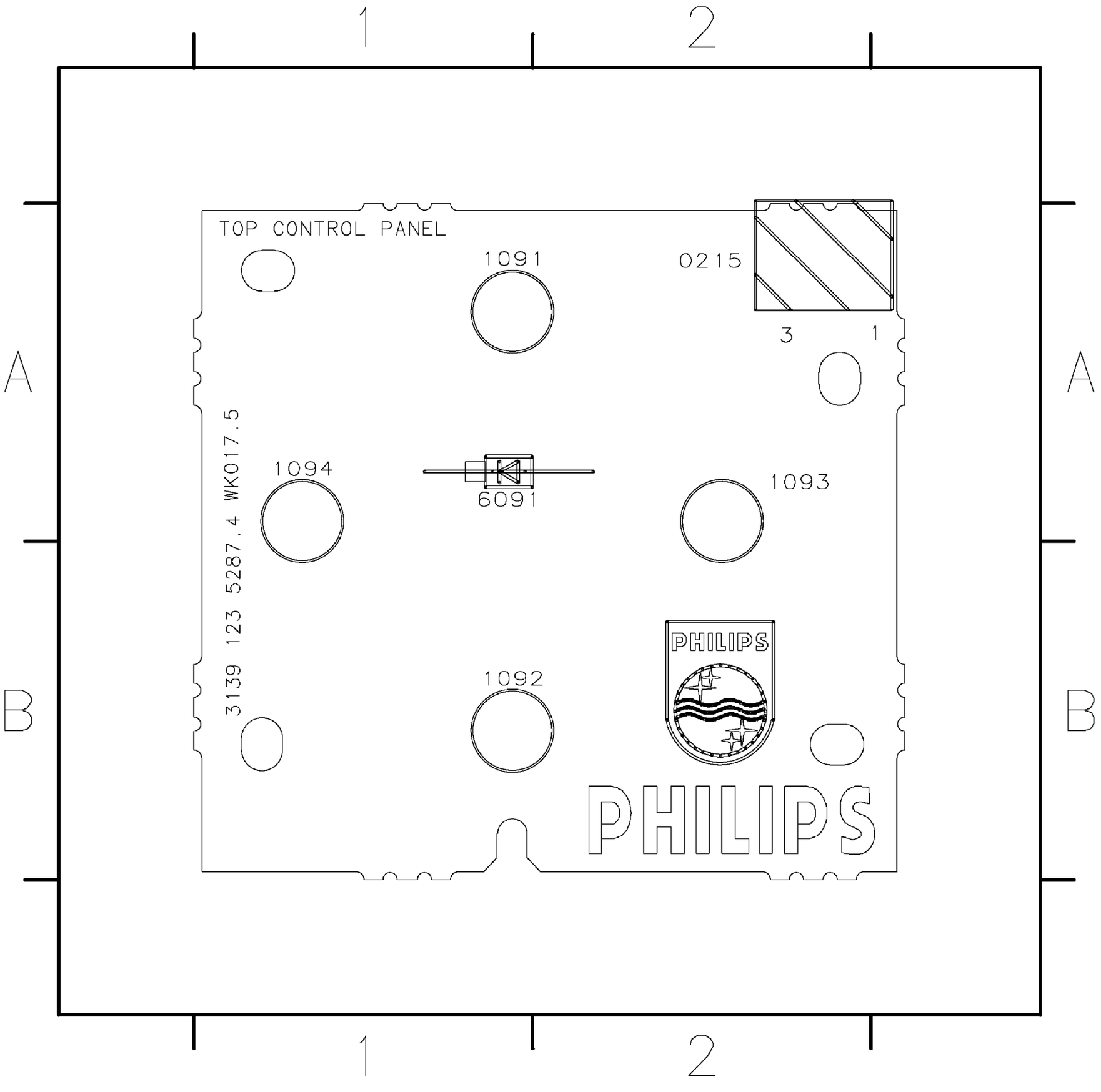
0240	C1
0241	A1
0242	A1
1254	D1
1255	C1
1256	A1
2286	B1
2288	A1
2292	B1
2294	C1
2296	D1
2297	D1
3285	B1
3286	B1
3287	A1
3288	A1
3289	A1
3291	C1
3293	C1
3295	B1
9231	C1
9232	D1

All Models (7619) - Side Jack Panel PCB [D]: Bottom View



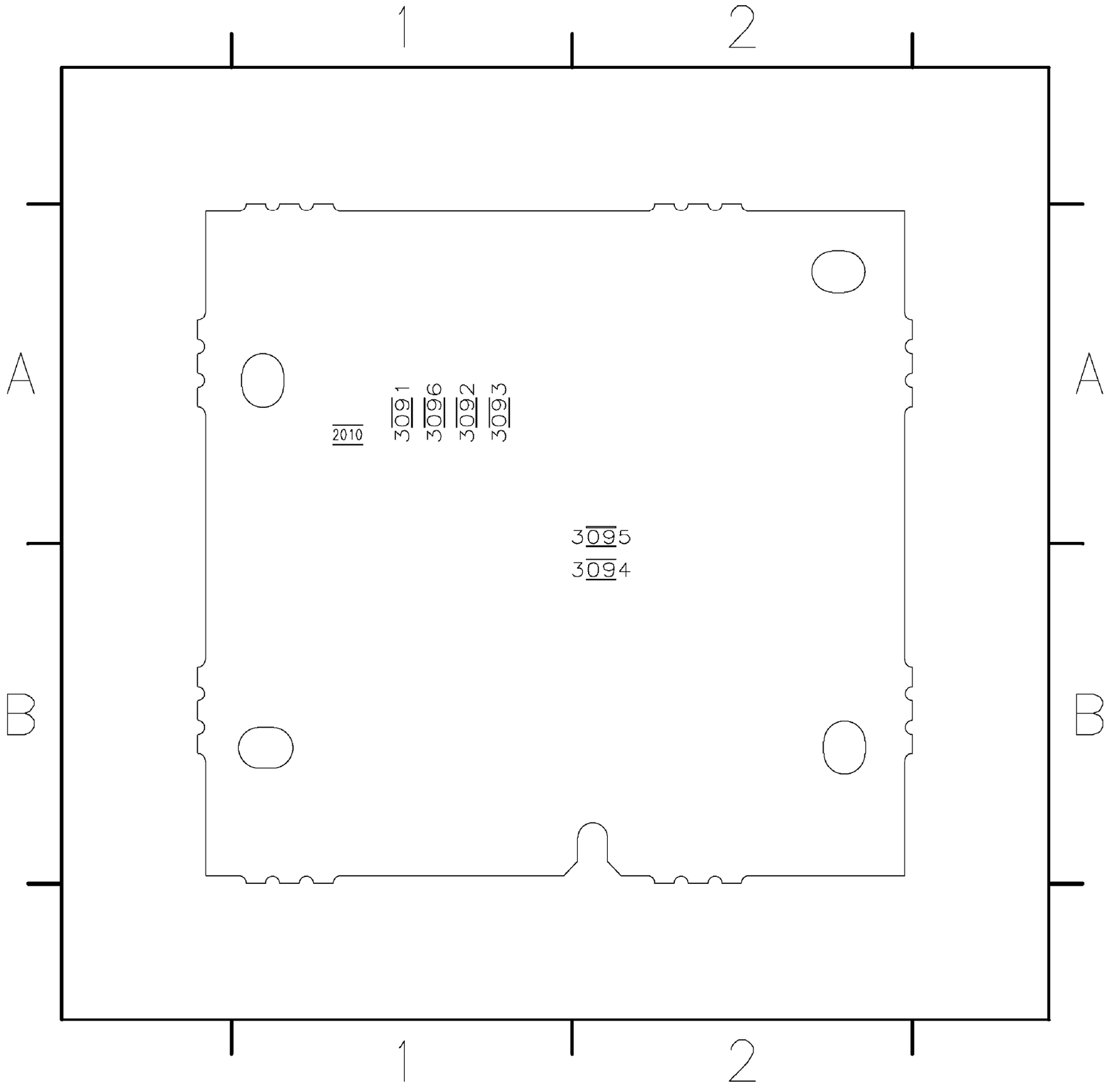
3292 B1
3294 C1
3296 D1
3297 D1
4201 B1
4202 A1
4241 B1
4242/2243 D1
4243 C1
6291 C1
6292 D1
6293 D1
6294 D1
6295 B1
6296 B1
6297 B1

All Models (7619) - Top Control Panel PCB [E]: Top View



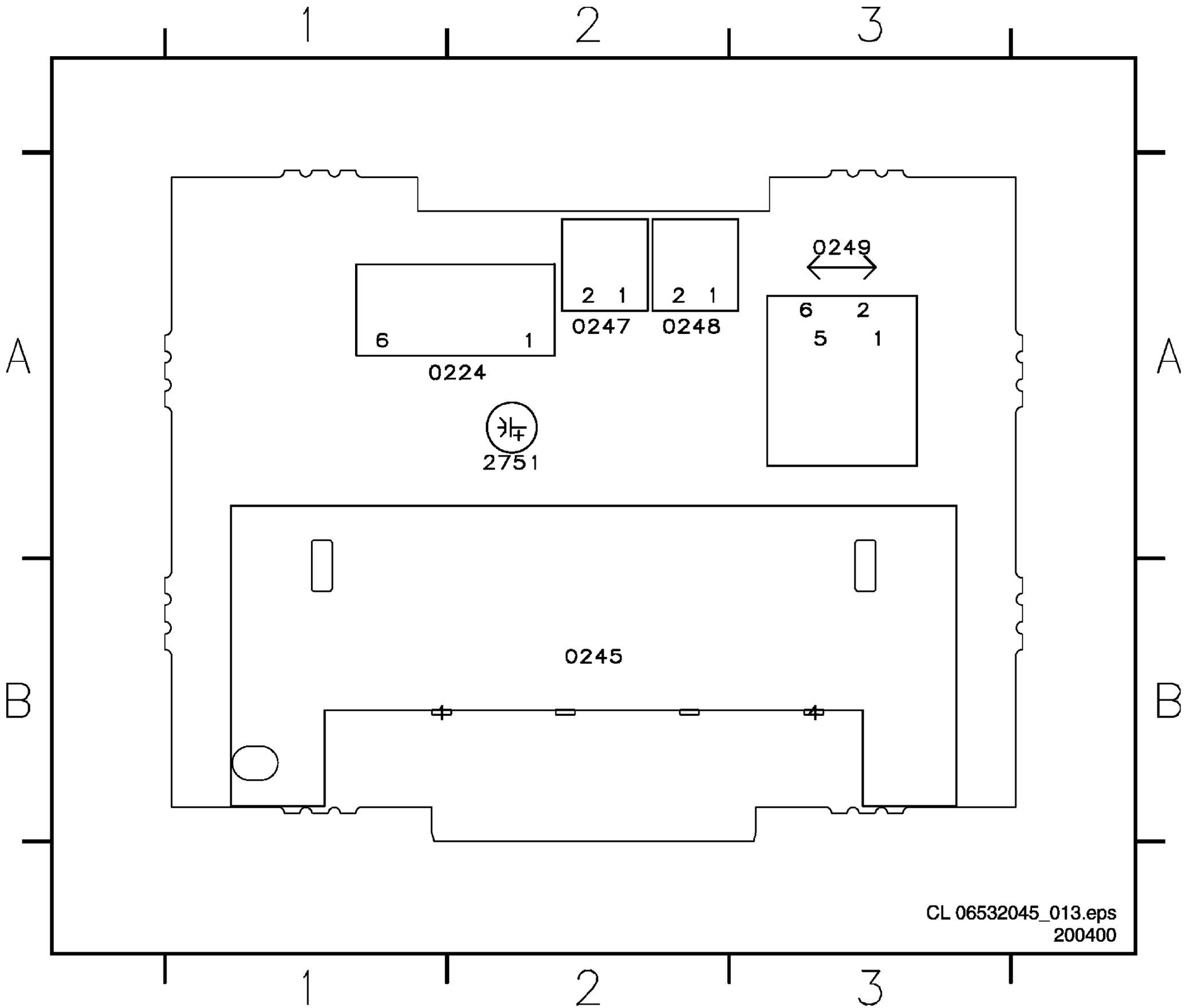
0215 A2
1091 A1
1092 B1
1093 A2
1094 A1
6091 A1

All Models (7619) - Top Control Panel PCB [E]: Bottom View

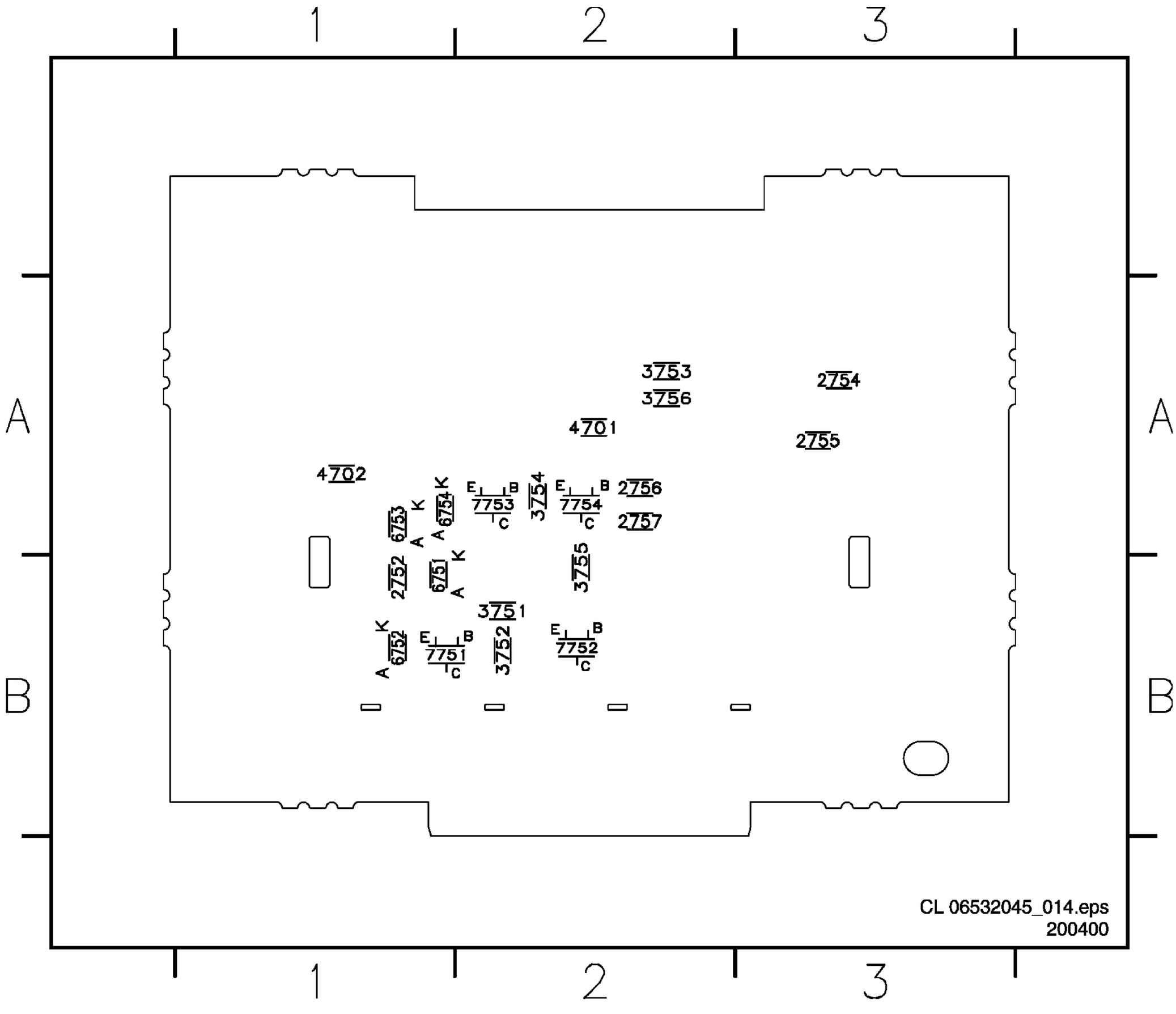


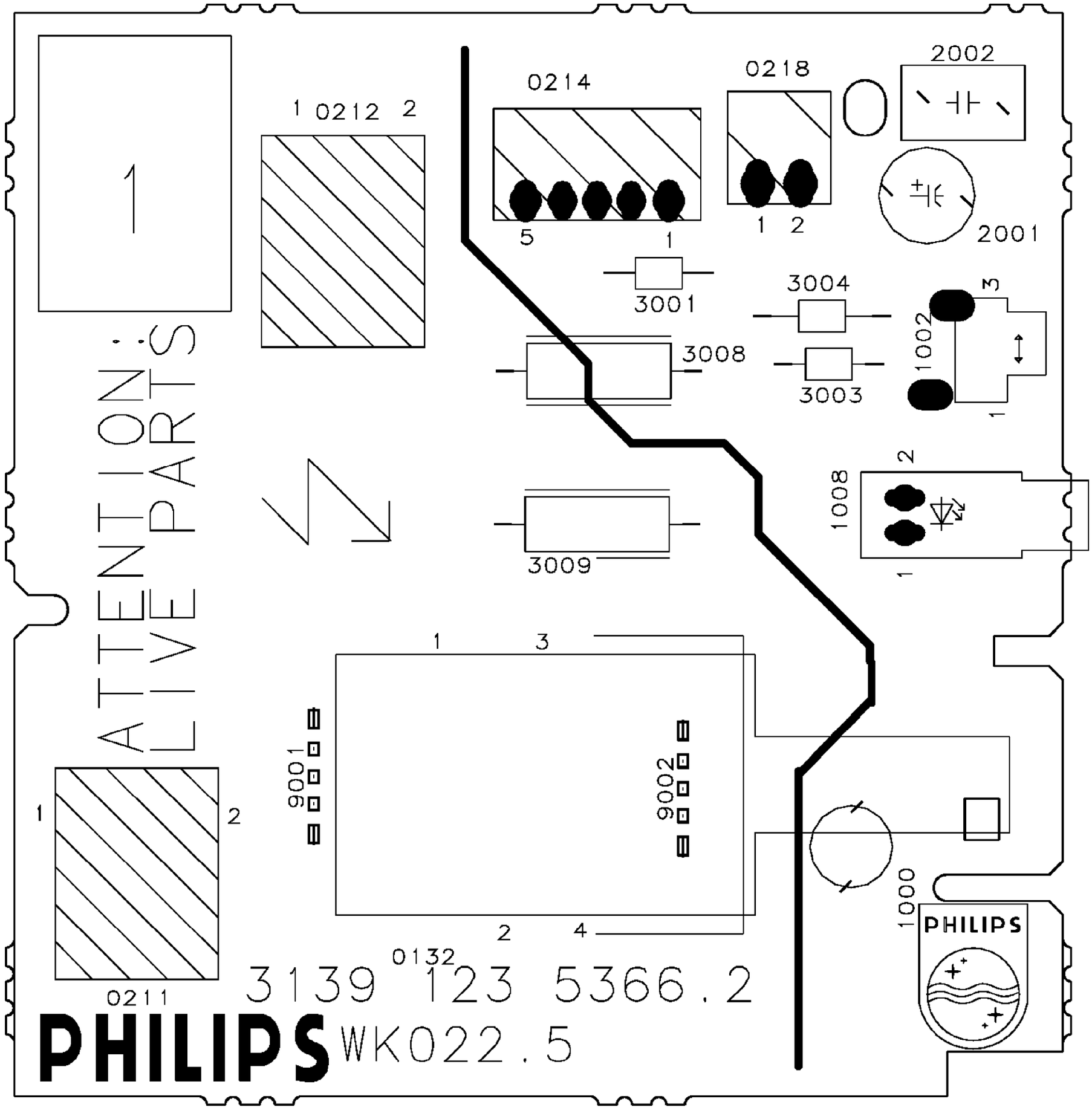
3091 A1
3092 A1
3093 A1
3094 B2
3095 A2
3096 A1

All Models (7619) - Matrix Surround Panel PCB [I]: Top View

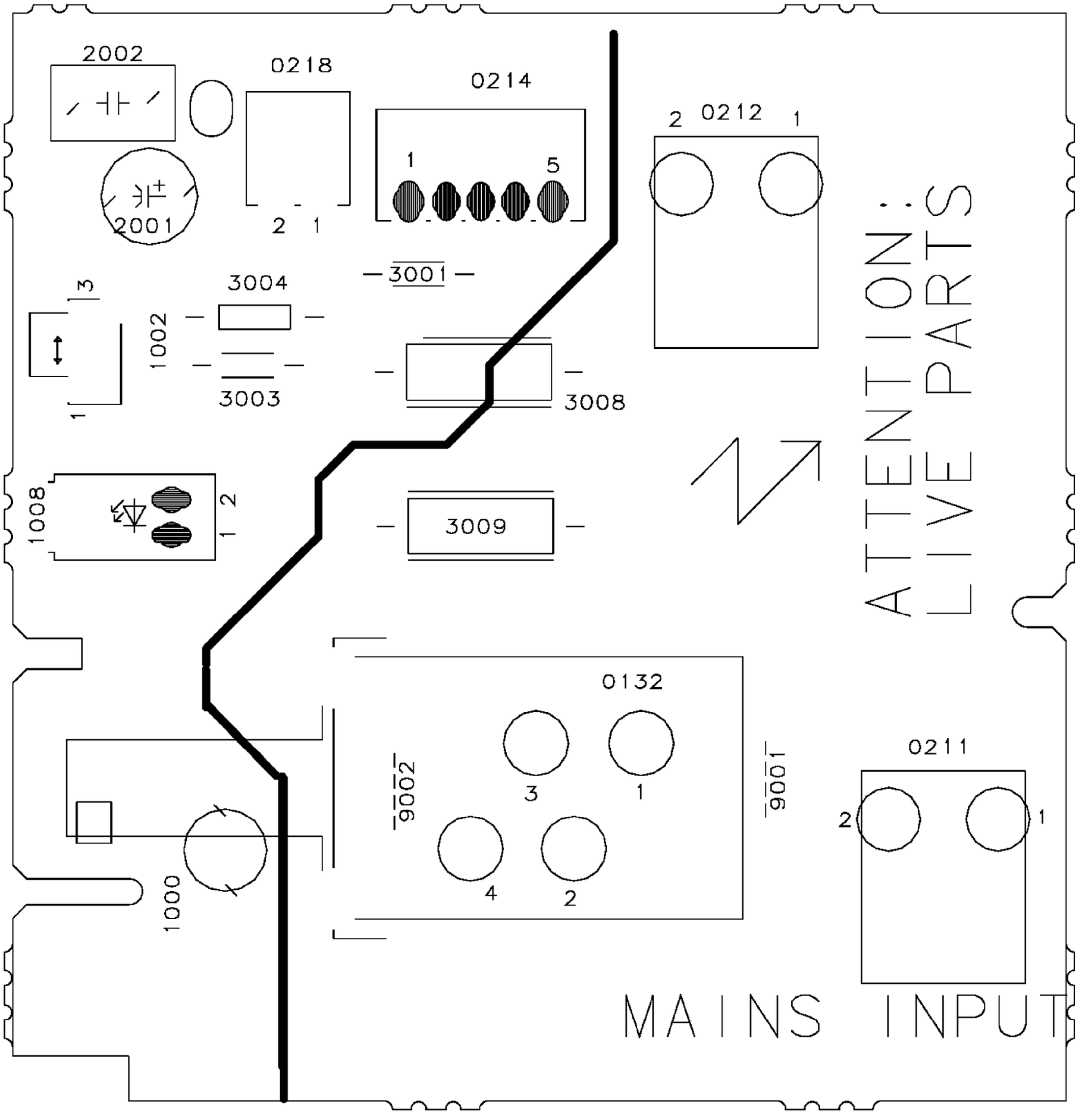


All Models (7619) - Matrix Surround Panel PCB [I]: Bottom View

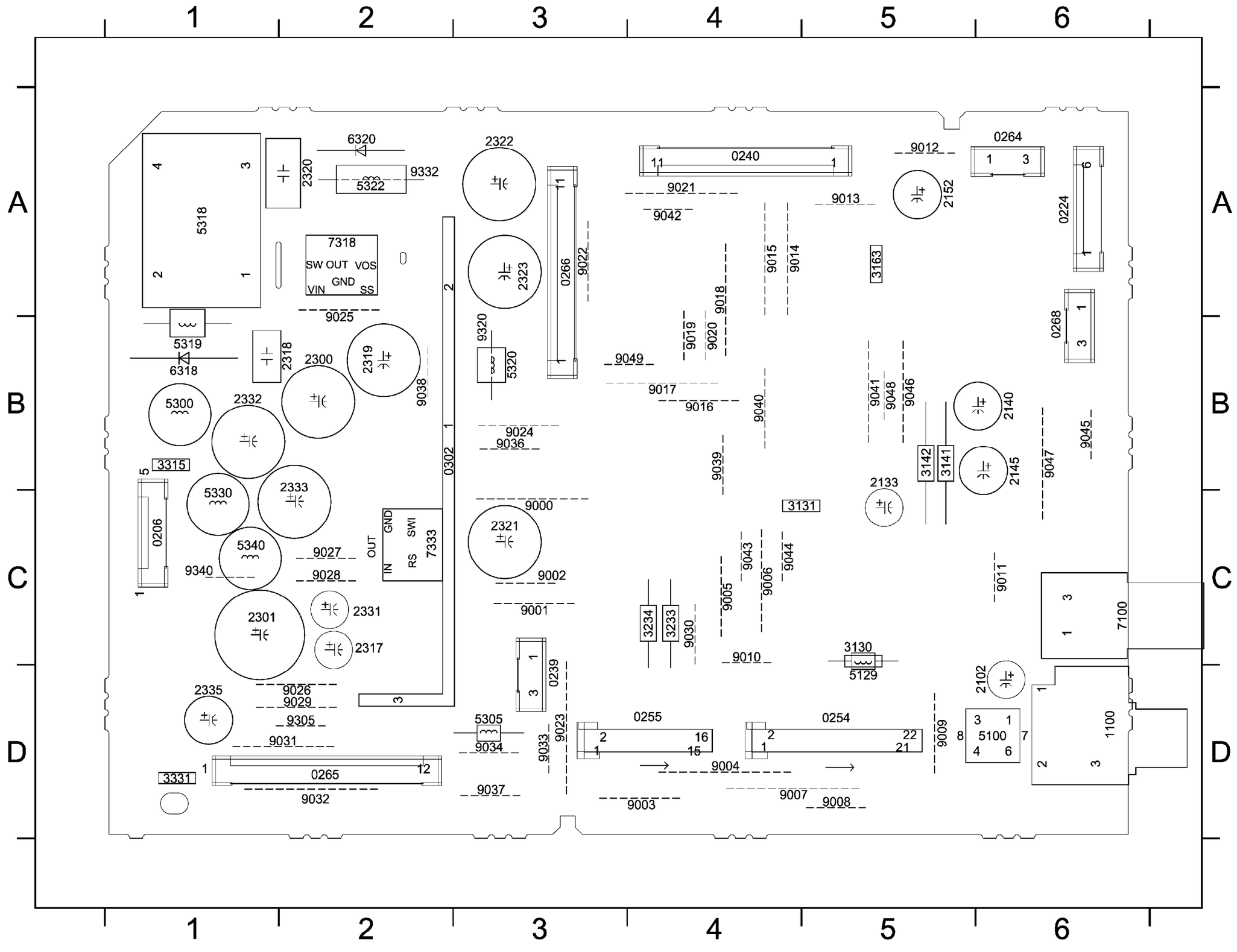



1
1 0212 2
0214
5
1
0218
1 2
2002
2001
3001
3004
3003
3008
1002
3
1
3009
1008
2
1
1
3
9001
9002
2
4
1000
PHILIPS
1 2
0211
0132
3139 123 5366.2
PHILIPS WK022.5

All Models (7619) - Front Interface Panel PCB [J]: Bottom View

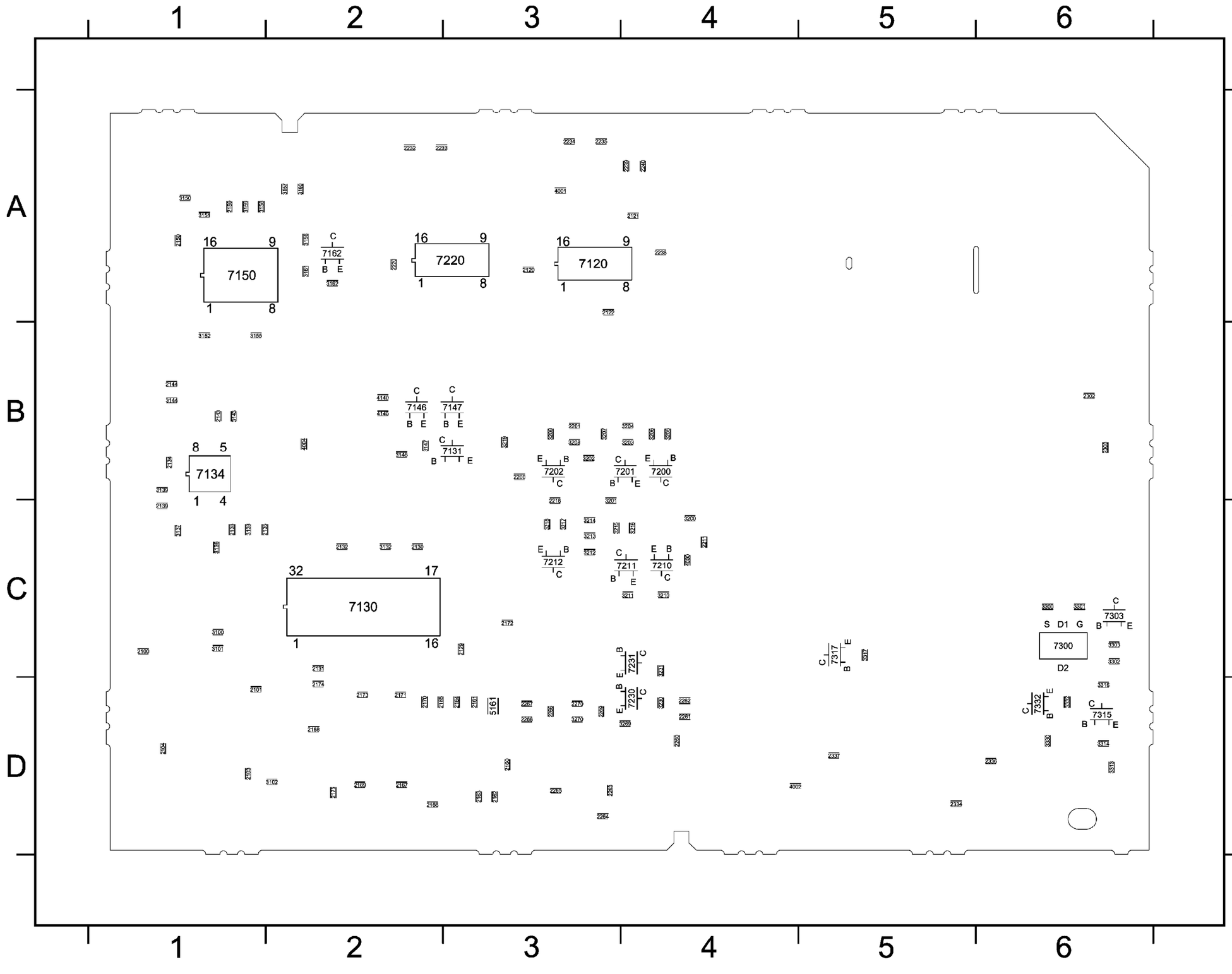


All Models (7619) - DVD Interface Panel PCB [M]: Top View



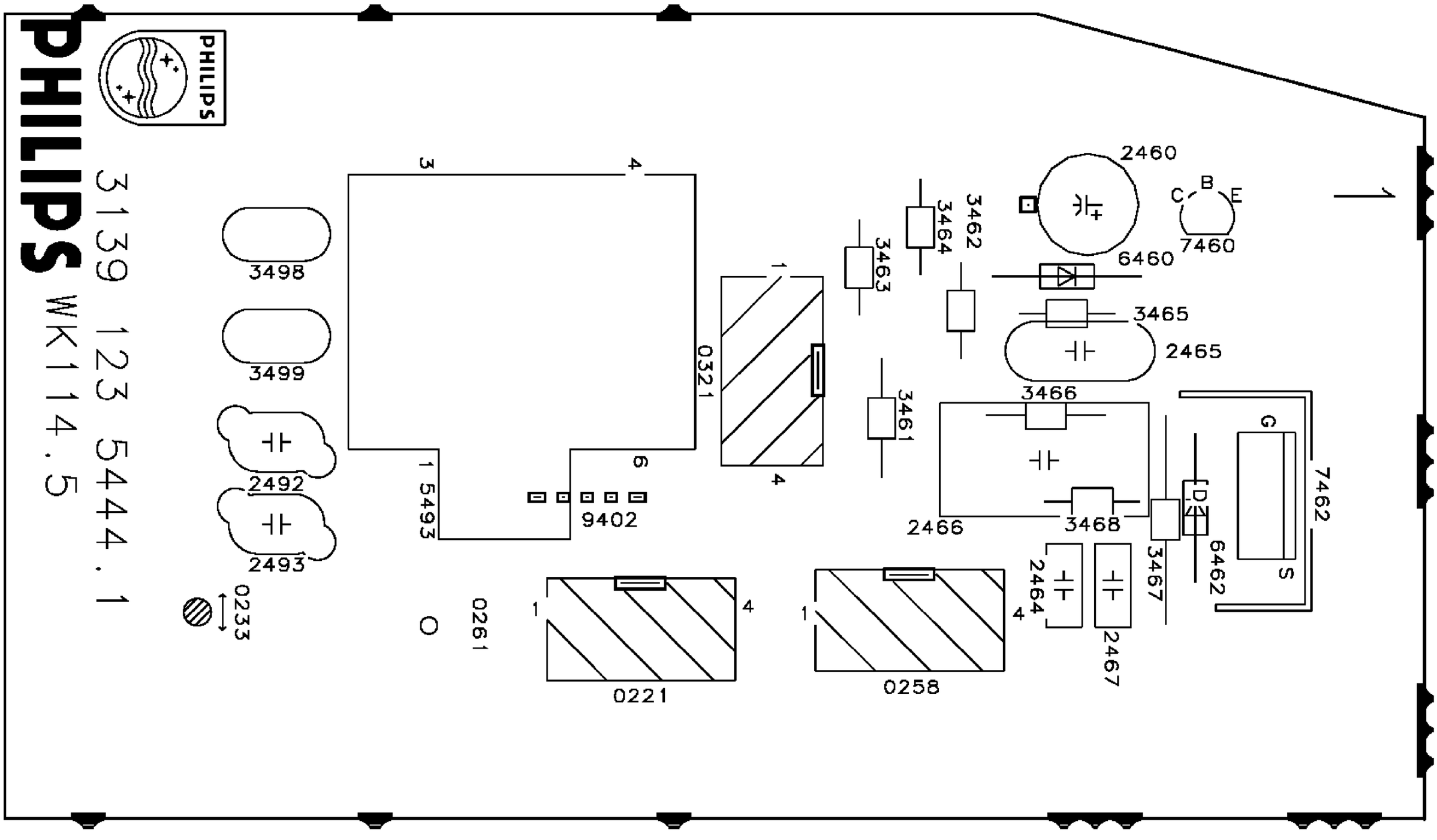
0206	C1	9009	D5
0224	A6	9010	C4
0239	D3	9011	C6
0240	A4	9012	A5
0254	D5	9013	A5
0255	D4	9014	A4
0264	A6	9015	A4
0265	D2	9016	B4
0266	A3	9017	B4
0268	B6	9018	A4
0302	B2	9019	B4
1100	D6	9020	B4
2102	D6	9021	A4
2133	B5	9022	A3
2140	B6	9023	D3
2145	B6	9024	B3
2152	A5	9025	A2
2300	B2	9026	D2
2301	C1	9027	C2
2317	C2	9028	C2
2318	B2	9029	D2
2319	B2	9030	C4
2320	A2	9031	D2
2321	C3	9032	D2
2322	A3	9033	D3
2323	A3	9034	D3
2331	C2	9036	B3
2332	B1	9037	D3
2333	B2	9038	B2
2335	D1	9039	B4
3130	C5	9040	B4
3131	C4	9041	B5
3141	B5	9042	A4
3142	B5	9043	C4
3163	A5	9044	C4
3233	C4	9045	B6
3234	C4	9046	B5
3315	B1	9047	B6
3331	D1	9048	B5
5100	D6	9049	B4
5129	D5	9305	D2
5300	B1	9320	B3
5305	D3	9332	A2
5318	A1	9340	C1
5319	B1		
5320	B3		
5322	A2		
5330	C1		
5340	C1		
6318	B1		
6320	A2		
7100	C6		
7318	A2		
7333	C2		
9000	C3		
9001	C3		
9002	C3		
9003	D4		
9004	D4		
9005	C4		
9006	C4		
9007	D4		
9008	D5		

All Models (7619) - DVD Interface Panel PCB [M]: Bottom View

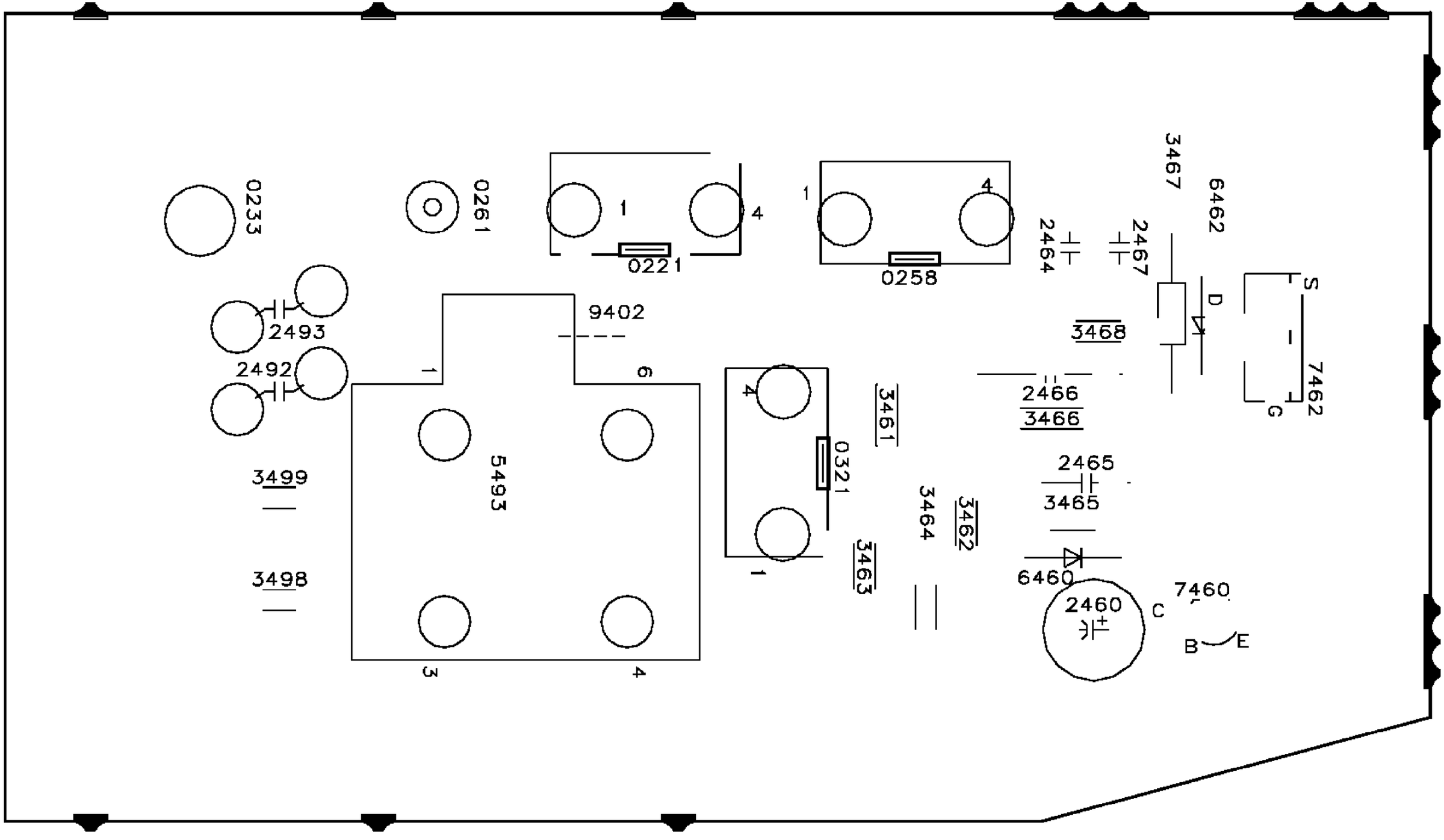


2100	C1	3102	D2	7134	B1
2101	D1	3132	C2	7146	B2
2103	D1	3136	C1	7147	B3
2104	D1	3137	C1	7150	A1
2120	A3	3138	C1	7162	A2
2121	A4	3139	B1	7200	B4
2122	A3	3143	B1	7201	B4
2129	C3	3144	B1	7202	B3
2130	C2	3146	B2	7210	C4
2131	C2	3147	B2	7211	C4
2132	C2	3150	A1	7212	C3
2134	B1	3151	A1	7220	A3
2135	C1	3152	B1	7230	D4
2138	C1	3155	B1	7231	C4
2139	C1	3156	A2	7300	C6
2143	B1	3157	A2	7303	C6
2144	B1	3158	A1	7315	D6
2150	A1	3159	A1	7317	C5
2159	A1	3160	A2	7332	D6
2160	D3	3161	A2		
2161	D3	3162	A2		
2162	D3	3200	C4		
2163	D3	3201	C3		
2164	D3	3202	B3		
2165	D2	3203	B4		
2166	D2	3204	B4		
2167	D2	3205	B4		
2168	D2	3206	B4		
2169	D2	3207	B3		
2170	D2	3208	B3		
2171	D2	3209	B3		
2172	C3	3210	C4		
2173	D2	3211	C4		
2174	D2	3212	C3		
2175	D2	3213	C3		
2200	B3	3214	C3		
2201	B3	3215	C3		
2211	C4	3216	C4		
2216	C3	3217	C3		
2220	A2	3218	C3		
2232	A2	3219	B3		
2233	A2	3230	D4		
2234	A3	3231	C4		
2235	A3	3269	D4		
2238	A4	3270	D3		
2239	A4	3300	C6		
2240	A4	3301	C6		
2260	D4	3302	C6		
2261	D4	3303	C6		
2262	D4	3313	D6		
2263	D3	3314	D6		
2264	D3	3316	D6		
2265	D3	3317	C5		
2266	D3	3330	D6		
2267	D3	3332	D6		
2268	D3	4000	C4		
2269	D3	4001	A3		
2270	D3	4002	D4		
2302	B6	4004	B2		
2303	B6	4140	B2		
2334	D5	4145	B2		
2336	D6	5161	D3		
2337	D5	7120	A3		
3100	C1	7130	C2		
3101	C1	7131	B3		

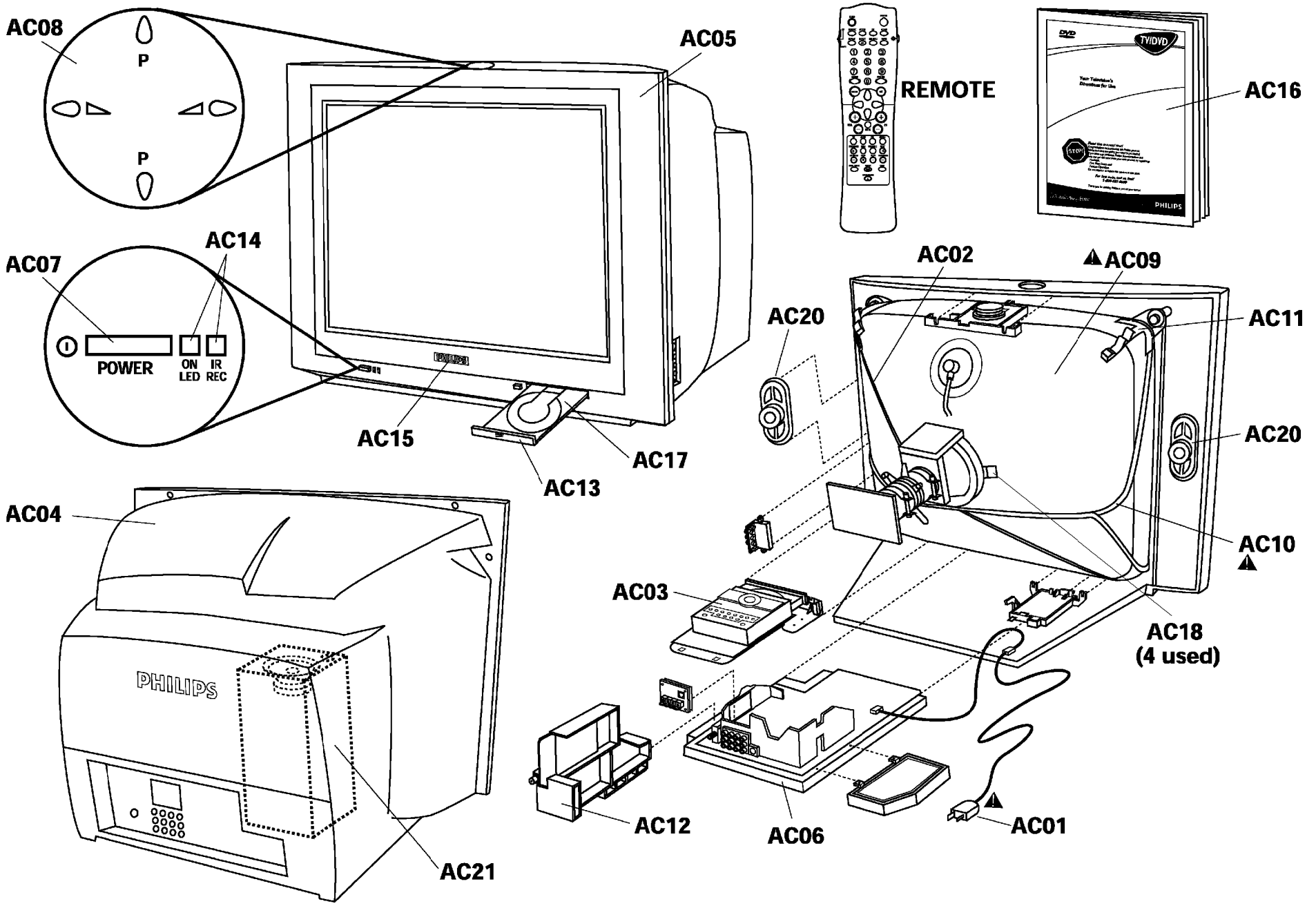
DAF Panel (Top View)



DAF Panel (Bottom View)



EXPLODED VIEW: H8 Chassis w/DVD



MAIN CABINET EXPLODED VIEW

27DV60S121 - Manual no. 7619

LSP PANEL PARTS - 27"

	CBA	LSP Panel Assembly - 27"	3121 238 00021
	0114	Heatsink	3139 121 61782
	0115	Heatsink, Transistor	3139 121 26891
	0116	Heatsink, Transistor	3139 121 26891
	0121	Heatsink	3139 121 62082
	0122	Heatsink, (Anodized)	3139 121 62221
	0123	Heatsink, Audio.	3139 121 62091
	0124	Heatsink 5V10.	3139 121 61732
	0127	Socket, Fuse Holder.	3122 358 71251
	0130	Insulating Plate, IC	3139 123 21451
	0136	Spring	3122 121 24786
	0137	Spring, For Deflection Heatsink IC	3104 301 22172
	0138	Spring, For Deflection Heatsink IC	3104 301 22172
	0139	IC Spring.	3104 301 22081
	0140	Spring, For Deflection Heatsink IC	3104 301 22172
	0144	Spring, For Deflection Heatsink IC	3104 301 22172
	0152	Cable Harness, 5 Pin to 5 Pin.	3139 131 01501
	0153	Cable Harness, 6 Pin to 6 Pin.	3139 131 01491
	0160	Wire Assembly, Sub-Woofer.	3139 131 00491
	0188	Heatsink Clamp Bracket	3122 224 04242
	0189	Bracket for Deflection Heatsink.	3139 124 31251
	0200	5 Pin Connector.	2422 025 12481
	0201	10 Pin Connector	2422 025 12484
	0206	5 Pin Connector.	2422 025 12481
	0207	4 Pin Board Connector.	2422 025 12479
	0208	4 Pin Board Connector.	2422 025 12479
S	0211	2 Pin Connector.	2422 025 15396
S	0212	2 Pin Connector.	2422 025 15395
	0213	Connector, 2 Pin	2412 020 00724
	0214	5 Pin Connector.	2422 025 12481
	0216	6 Pin Connector.	2422 025 12482
	0221	4 Pin Connector.	2422 025 15503
	0222	2 Pin Connector.	2422 025 10646
	0224	6 Pin Connector.	2422 025 12482
	0226	80 Pin Connector	2422 025 16599
	0229	3 Pin Connector.	2422 025 16601
	0236	3 Pin Connector.	2412 020 00725
	0239	9 Pin Connector.	2422 025 11243
	0240	11 Pin Connector	2422 025 12485
	0241	6 Pin Connector.	2422 025 04854
	0242	5 Pin Board Connector.	2422 025 04853
	0246	4 Pin Board Connector.	2422 025 12479
	0247	5 Pin Connector.	2422 025 12481
	0260	Cable Harness, 11 Pin to 11 Pin.	3139 131 00731
	0272	3 Pin Connector.	2422 025 16382
	0285	Wire Assembly, Speaker	3139 131 00481
	1225	Tuner.	2422 542 90057
	1262	Socket, Cinch, 9 Pin	2422 026 05211
	1263	Headphone Jack	2422 026 04747
	1264	10 Pin Socket.	2422 026 04926
S	1900	Fuse, 4 Amp, 250 Volt.	2422 086 10905
S	1901	300 V Surge Protector.	2422 549 43073
S	1931	Relay 12V, G5P-1	2422 132 07317
S	1941	Fuse, 2.5 Amp, 250 V, IEC.	2422 086 10784
S	1961	Fuse, 2.5 Amp, 250 V, IEC.	2422 086 10784
	2012	0.1uF., 16 Volt, Ceramic	3198 017 01040
	2201	330pF., 50 Volt, NP0, Ceramic.	3198 016 03310
	2203	330pF., 50 Volt, NP0, Ceramic.	3198 016 03310
	2206	330pF., 50 Volt, NP0, Ceramic.	3198 016 03310
	2208	330pF., 50 Volt, NP0, Ceramic.	3198 016 03310
	2211	22pF., 50 Volt, NP0, Ceramic	3198 016 02290
	2217	22pF., 50 Volt, NP0, Ceramic	3198 016 02290
	2219	22pF., 50 Volt, NP0, Ceramic	3198 016 02290
	2224	47uF, 20%, 16V, Electrolytic	3198 028 24790
	2225	22pF., 50 Volt, NP0, Ceramic	3198 016 02290
	2227	220pF., 50 Volt, NP0, Ceramic.	3198 016 02210
	2233	330pF., 50 Volt, NP0, Ceramic.	3198 016 03310
	2239	330pF., 50 Volt, NP0, Ceramic.	3198 016 03310
	2242	330pF., 50 Volt, NP0, Ceramic.	3198 016 03310
	2244	22pF., 50 Volt, NP0, Ceramic	3198 016 02290
	2249	220pF., 50 Volt, NP0, Ceramic.	3198 016 02210
	2261	220uF, 10V, Electrolytic	3198 025 12210
	2262	1000pF., 50 Volt, Ceramic.	3198 017 01020
	2265	100uF., 20%, 25V, Electrolytic	3198 025 31010
	2266	47 nF, 10%, 50V, Ceramic	2238 580 15645
	2271	1.0uF., 20%, 50V, Electrolytic	3198 025 51080
	2276	1000pF., 50 Volt, NP0, Ceramic	3198 016 01020
	2280	100pF., 50 Volt, NP0, Ceramic.	3198 016 01010
	2281	220pF., 50 Volt, NP0, Ceramic.	3198 016 02210
	2282	0.047uF., 25 Volt, Ceramic	3198 023 04730
	2404	470pF, 500V, Ceramic	3198 019 44710
	2406	0.047uF, 10%, 250 V, Metalized Polyester.	2222 368 90176
	2409	0.1uF., 10%, 50 Volt, Polyester.	3198 014 01040
	2411	390pF, 10%, 2KV, Ceramic	2020 558 90482
	2415	0.012uF., 1.6kV, Metalized Polypropylene.	2222 375 90156
	2416	390pF, 10%, 2KV, Ceramic	2020 558 90482
	2417	470pF, 500V, Ceramic	3198 019 44710
	2419	0.36uF., 250V, Metalized Polypropylen	2222 479 90019
	2420	Electrolytic VZ 160V 2U2, 20%.	2020 021 91361
	2422	0.047uF., 25 Volt, Ceramic	3198 023 04730
	2430	0.015uF, 10%, 50V, Polyester.	3198 014 01530
	2434	Electrolytic YXF 160V 47U, 20%	2020 021 91543
	2437	0.22uF., 250V, Polyester	2222 347 90217
	2439	0.47uF., 10%, 50 Volt, Polyester	3198 014 04740
	2442	0.1uF., 25V, Ceramic	3198 023 21040
	2445	Electrolytic YK 250V 22U, 20%.	2020 012 93596
	2447	470uF., 20%, 16V, Electrolytic	3198 025 24710
	2449	470uF., 20%, 25V, Electrolytic	3198 026 34710
	2462	100uF., 20%, 50V, Electrolytic	3198 025 51010
	2471	4.7uF., 100V, Metalized Polyester.	2222 368 90178
	2473	470pF, 500V, Ceramic	3198 019 44710
	2474	Capacitor, Polyester 347 400V 27N, 10	2222 347 90232
	2478	47uF., 20%, 25V, Electrolytic.	2020 021 90586
	2484	0.047uF, 10%, 250 V, Metalized Polyester.	2222 368 90176
S	2485	2200pF., 10%, 500V, Ceramic.	3198 019 42220
	2490	0.022uF., 50 Volt, Ceramic	3198 017 22230
	2492	1uF., 16V, Ceramic	3198 017 21050
	2501	1800pF., 10%, 50 V, Ceramic.	2238 580 15626
	2503	1800pF., 10%, 50 V, Ceramic.	2238 580 15626
	2505	0.1uF., 10%, 50 Volt, Polyester.	3198 014 01040
	2506	100uF, 20%, 50V, Electrolytic.	2020 021 90587
	2521	0.22uF., 10%, 50 Volt, Polyester	3198 014 02240
	2522	0.47uF., 20%, 50V, Electrolytic.	3198 025 54770
	2523	0.1uF., 10%, 50 Volt, Polyester.	3198 014 01040
	2524	0.1uF., 10%, 50 Volt, Polyester.	3198 014 01040
	2531	Electrolytic 16V 3300U, 20%.	3198 026 23320
	2536	1000pF., 10%, 100 V, Ceramic	2238 600 56623
	2701	0.1uF., 10%, 50 Volt, Polyester.	3198 014 01040
	2702	100uF, 20%, 50V, Electrolytic.	2020 021 90587
	2703	0.1uF., 10%, 50 Volt, Polyester.	3198 014 01040
	2704	1000uF., 35V, Polyester.	2020 021 91106
	2705	1.0uF., 20%, 50V, Electrolytic	3198 025 51080
	2706	100 nF, +80/-20%, 50 V, Ceramic.	2020 552 95499
	2707	470uF., 35V, Electrolytic.	3198 026 44710
	2708	1.0uF., 20%, 50V, Electrolytic	3198 025 51080
	2709	1000uF., 35V, Polyester.	2020 021 91106
	2711	0.1uF., 25V, Ceramic	3198 023 21040
	2712	100uF., 20%, 50V, Electrolytic	3198 025 51010
	2713	100 nF, +80/-20%, 50 V, Ceramic.	2020 552 95499
	2714	100pF., 50 Volt, NP0, Ceramic.	3198 016 01010
	2715	470uF., 20%, 16V, Electrolytic	3198 025 24710
	2716	0.1uF., 25V, Ceramic	3198 023 21040
	2717	100pF., 50 Volt, NP0, Ceramic.	3198 016 01010
	2718	470uF., 20%, 16V, Electrolytic	3198 025 24710
	2722	0.01uF., 50 Volt, Ceramic	3198 017 01030
	2723	0.01uF., 50 Volt, Ceramic	3198 017 01030
	2726	100uF., 20%, 50V, Electrolytic	3198 025 51010
	2727	0.022uF., 50 Volt, Ceramic.	3198 017 02230
	2728	0.022uF., 50 Volt, Ceramic.	3198 017 02230
	2729	0.022uF., 50 Volt, Ceramic.	3198 017 02230
	2730	0.022uF., 50 Volt, Ceramic.	3198 017 02230
	2731	1uF., 16V, Ceramic	3198 017 21050
	2732	1uF., 16V, Ceramic	3198 017 21050
	2733	10uF., 20%, 16V, Electrolytic.	3198 028 21090
	2734	47 nF, 10%, 50V, Ceramic	2238 580 15645
	2735	47 nF, 10%, 50V, Ceramic	2238 580 15645
	2736	47 nF, 10%, 50V, Ceramic	2238 580 15645
S	2902	0.47uF, 20%, 275 V, Metalized Polypropylene	2222 336 29148
	2908	2200pF., 1kV, Ceramic.	3198 019 52220
	2909	2200pF., 1kV, Ceramic.	3198 019 52220
	2915	470uF, 20%, 200V, Electrolytic	2020 024 90626
	2919	47uF, 20%, 50V, Electrolytic	2020 021 90854
	2921	470pF., 10%, 50V, Ceramic.	3198 019 14710
S	2922	Capacitor, Ceramic, 2.2 nF, 10%, 2KV	2020 558 90559
	2925	470pF., 10%, 50V, Ceramic.	3198 019 14710
	2927	1000pF., 10%, 50 Volt, Polyester	3198 014 01020
S	2929	Ceramic, Safety, 2.2nF, 20%, 250V.	2020 554 90127
	2932	0.022uF., 50 Volt, Ceramic.	3198 017 02230
	2936	220pF., 10%, 1KV, Ceramic.	3198 019 62210
	2938	470pF., 10%, 1KV, Ceramic.	3198 019 64710
	2939	47uF, 20%, 160V, Electrolytic.	2020 021 91358
	2941	1000pF, 500V, Ceramic.	3198 019 41020
	2942	0.22uF., 10%, 50 Volt, Polyester	3198 014 02240
	2943	Electrolytic 16V 3300U, 20%.	3198 026 23320
	2945	1000uF, 20%, 16V, Electrolytic	3198 026 21020
	2961	1000pF, 500V, Ceramic.	3198 019 41020
	2962	4700uF, 10V, 20%, Electrolytic	2020 021 91501
	2963	0.22uF., 10%, 16V, Ceramic	2238 780 15654
	2964	1000pF, 500V, Ceramic.	3198 019 41020
	2966	100uF., 20%, 10V, Electrolytic	3198 025 11010
	2967	100uF., 20%, 10V, Electrolytic	3198 025 11010
	2970	1000pF, 50 Volt, Ceramic.	3198 019 11020
	2974	Electrolytic 35V 2200U, 20%.	3198 026 42220
	2977	100uF., 20%, 10V, Electrolytic	3198 025 11010
	3037	1.8k, 5%	3198 021 51820
	3038	1.8k, 5%	3198 021 51820
S	3039	Resistor, Power 3W 10R, 5%	3198 012 31090
S	3040	Resistor, Power 3W 10R, 5%	3198 012 31090
	3201	150 ohm, 5%, 1/6 W, Carbon	3198 011 01510

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27DV60S121 (continued)

	3202	220k, 5%	3198 021 52240		3488	100 ohm, 5%, 1/6 W, Carbon	3198 011 01010
	3203	1k, 5%, 1/6 W, Carbon.	3198 011 01020	S	3489	Power Resistor, 6.8 ohm, 5%, 2 W	3198 012 26880
	3204	47k, 5%.	3198 021 54730	S	3490	Fusible Resistor, 4.7 ohms, 5%	2306 204 03478
	3206	150 ohm, 5%, 1/6 W, Carbon	3198 011 01510	S	3491	Fusible Resistor, 4.7 ohms, 5%	2306 204 03478
	3207	220k, 5%	3198 021 52240		3501	1k, 5%	3198 021 51020
	3208	1k, 5%, 1/6 W, Carbon.	3198 011 01020		3503	1k, 5%	3198 021 51020
	3209	47k, 5%.	3198 021 54730		3504	2.2k, 5%, 1/6 W, Carbon.	3198 011 02220
	3223	68 ohm, 5%, 1/6W, Carbon	3198 011 06890		3511	4.7k, 5%, 1/4W, Carbon Film.	3198 011 04720
	3224	1k, 5%	3198 021 51020		3512	10k, 5%.	3198 021 51030
	3225	1k, 5%	3198 021 51020		3513	10k, 5%.	3198 021 51030
	3226	75 ohm, 5%, 1/6 W, Carbon.	3198 011 07590	S	3521	1.5 ohm, 5%, Fusible resistor.	2306 204 03158
	3227	10 ohm, 5%, 1/4W, Carbon Film.	3198 011 01090		3522	1M ohm, 5%, 1/6W, Carbon	3198 011 01050
	3233	1k, 5%, 1/6 W, Carbon.	3198 011 01020		3523	100 ohm, 5%, 1/6 W, Carbon	3198 011 01010
	3234	47k, 5%.	3198 021 54730		3524	100 ohm, 5%, 1/6 W, Carbon	3198 011 01010
	3238	1k, 5%, 1/6 W, Carbon.	3198 011 01020		3526	Resistor, Metal Film PR01 S 100K, 5%	2120 101 74338
	3239	47k, 5%.	3198 021 54730		3527	Resistor, Metal Film PR01 S 100K, 5%	2120 101 74338
	3241	10k, 5%.	3198 021 51030		3528	2.2k, 5%, 1/6 W, Carbon.	3198 011 02220
	3242	1k, 5%, 1/6 W, Carbon.	3198 011 01020	S	3530	Fusible Resistor, 2.2 ohms, 5%	2306 204 03228
	3243	75ohm, 5%.	3198 021 57590		3701	4.7k, 5%	3198 021 54720
	3244	100 ohm, 5%, 1/6 W, Carbon	3198 011 01010		3702	4.7k, 5%	3198 021 54720
S	3247	Resistor, Fuseable 1206 10R, 5%.	2322 750 61009		3704	56k, 5%, 1/6W, Carbon Film	3198 011 05630
	3248	75ohm, 5%.	3198 021 57590		3705	1.8k, 5%	3198 021 51820
	3249	10 ohm, 5%, 1/4W, Carbon Film.	3198 011 01090		3706	10k, 5%.	3198 021 51030
	3255	47 ohm, 5%	3198 021 54790		3707	10k, 5%.	3198 021 51030
	3256	47 ohm, 5%	3198 021 54790		3708	100k, 5%	3198 021 51040
	3257	47 ohm, 5%	3198 021 54790		3709	220 ohm 5%	3198 021 52210
	3258	10k, 5%.	3198 021 51030		3710	10k, 5%.	3198 021 51030
	3259	4.7k, 5%	3198 021 54720		3711	10k, 5%.	3198 021 51030
	3263	2.2k, 5%	3198 021 52220		3712	8.2k, 5%	3198 021 58220
	3264	Jumper, 0 ohm.	3198 021 90020		3713	22k, 5%.	3198 021 52230
	3265	47k, 5%.	3198 021 54730		3715	3.3k, 5%	3198 021 53320
	3266	4.7k, 5%	3198 021 54720		3716	8.2k, 5%	3198 021 58220
	3267	10 ohm, 5%	3198 021 51090		3717	2.7k, 5%	3198 021 52720
	3268	10 ohm, 5%	3198 021 51090		3719	2.7k, 5%	3198 021 52720
	3269	10k, 5%.	3198 021 51030		3720	3.3k, 5%	3198 021 53320
	3271	33k, 5%.	3198 021 53330		3721	100k, 5%	3198 021 51040
	3272	10k, 5%.	3198 021 51030		3722	2.7k, 5%	3198 021 52720
	3273	22k, 5%.	3198 021 52230		3723	3.3k, 5%	3198 021 53320
	3274	150k, 5%	3198 021 51540		3724	5.6k, 5%	3198 021 55620
	3276	10k, 5%.	3198 021 51030		3725	5.6k, 5%	3198 021 55620
	3277	100 ohm, 5%.	3198 021 51010		3727	1.2k, 5%, 1/6W, Carbon Film	3198 011 01220
	3278	220 ohm, 5%, 1/6 W, Carbon	3198 011 02210		3728	1.2k, 5%	3198 021 51220
	3280	33k, 5%.	3198 021 53330		3730	27k, 5%.	3198 021 52730
	3281	4.7k, 5%	3198 021 54720		3731	27k, 5%.	3198 021 52730
	3282	47k, 5%.	3198 021 54730		3732	100k, 5%, 1/6 W, Carbon.	3198 011 01040
	3283	1 Meg, 5%.	3198 021 51050		3733	560 ohm, 5%.	3198 021 55610
	3286	1.8k, 5%	3198 021 51820		3734	4.7 ohm, 5%.	3198 021 54780
	3401	100 ohm, 5%, 1/6 W, Carbon	3198 011 01010		3735	4.7 ohm, 5%.	3198 021 54780
	3402	1k, 5%, 1/6 W, Carbon.	3198 011 01020	S	3736	Fusible Resistor, 1 ohm, 5%.	2306 204 03108
	3403	5.6k, 5%, 1/6 W, Carbon.	3198 011 05620	S	3737	Fusible Resistor, 1 ohm, 5%.	2306 204 03108
S	3405	Resistor, Power, 4.7K ohm, 5%, 5W, Metal Oxide.	2322 257 41472	S	3901	4.7 Meg, 5%, Metalized Glass	2322 242 13475
				S	3902	2.2 Meg ohm, 5%, 1/2W, Metalized Glas	2322 242 13225
S	3409	33k, 1W, +100%/-0% Power Resistor.	3198 012 13330	S	3911	PTC, 3 ohm, +30/-20%, 120V	2120 661 00025
	3410	33 ohm, 5%, 1/6W, Carbon	3198 011 03390	S	3913	Resistor, Power 1W S 100K, 5%.	3198 012 11040
	3411	330k, 5%, 1/2W, Metalized Glass.	2322 242 13334		3917	560 ohm, 5%.	3198 021 55610
	3412	100k, 5%, 1/6 W, Carbon.	3198 011 01040		3923	Resistor, Power, 0.22 ohm, 5%, 1W.	3198 012 12270
	3414	100k, 5%, 1/6 W, Carbon.	3198 011 01040		3924	Resistor, Power, 0.22 ohm, 5%, 1W.	3198 012 12270
	3417	680 ohm, 5%, 1/4W, Carbon Film	3198 011 06810		3925	680 ohm, 5%, 1/4W, Carbon Film	3198 011 06810
S	3421	Resistor, Power 2W 22K, 5%	3198 012 22230		3926	3.3k, 5%, 1/6 W, Carbon.	3198 011 03320
S	3423	Resistor, Power 2W 22K, 5%	3198 012 22230		3928	1.8k, 5%, 1/4W, Carbon Film.	3198 011 01820
S	3430	Power Resistor, 33 ohm, 5%, 3 W.	3198 012 33390		3931	10k, 5%.	3198 021 51030
S	3434	Power Resistor, 33 ohm, 5%, 3 W.	3198 012 33390		3932	10k, 5%.	3198 021 51030
	3435	Resistor, Carbon Film 1/6W 39K, 5%	3198 011 03930		3942	1.2k, 1%, Resistor RC12H	2322 734 61202
	3436	Resistor, Carbon Film 1/6W 39K, 5%	3198 011 03930		3943	390 ohm, 5%, 1/6 W, Carbon	3198 011 03910
	3437	22k, 5%, 1/4W, Carbon Film	3198 011 02230		3944	22k, 5%, 1/4W, Carbon Film	3198 011 02230
	3438	470k, 5%	3198 021 54740		3947	1k, 1%, 1/10W, Metal Film.	2322 734 61002
	3439	1k, 5%, 1/6 W, Carbon.	3198 011 01020		3957	1.8k, 5%	3198 021 51820
	3440	100k, 5%	3198 021 51040		3958	1k, 5%	3198 021 51020
	3441	6.8k, 5%, 1/6 W, Carbon.	3198 011 06820		3959	10k, 5%.	3198 021 51030
	3442	560K ohm, 1%	2322 734 65604	S	3961	Resistor, Power 3W 1K, 5%.	3198 012 31020
S	3445	1 ohm, 5%, Fusible Resistor.	2306 207 03108		3962	5.6k, 5%	3198 021 55620
S	3446	1 ohm, 5%, Fusible Resistor.	2306 207 03108		3963	10 ohm, 5%	3198 021 51090
S	3447	1 ohm, 5%, Fusible Resistor.	2306 207 03108		3965	Resistor, 22R, 5%.	3198 021 52290
S	3448	1 ohm, 5%, Fusible Resistor.	2306 207 03108		3966	680 ohm, 5%.	3198 021 56810
S	3449	1 ohm, 5%, Fusible Resistor.	2306 207 03108		3967	330 ohm, 5%, 1/6W, Carbon.	3198 011 03310
	3450	100 ohm, 5%, 1/6 W, Carbon	3198 011 01010		3968	3.9k, 5%	3198 021 53920
	3452	22k, 5%, 1/4W, Carbon Film	3198 011 02230		3969	10k, 5%, 1/6 W, Carbon	3198 011 01030
	3470	1k, 5%, 1/6 W, Carbon.	3198 011 01020	S	3970	Power Resistor, 22 ohm, 5%, 3 W.	3198 012 32290
	3471	470 ohm, 5% 1/6 W, Carbon.	3198 011 04710		3977	2.7k, 5%	3198 021 52720
	3472	100k, 5%, 1/6 W, Carbon.	3198 011 01040		3978	10k, 5%.	3198 021 51030
	3473	82k, 5%, 1/6 W, Carbon	3198 011 08230		3979	15k, 5%.	3198 021 51530
	3476	4.7k, 5%, 1/4W, Carbon Film.	3198 011 04720		3986	33k, 5%.	3198 021 53330
	3477	12k, 5%, 1/6 W, Carbon	3198 011 01230		3987	10k, 5%.	3198 021 51030
	3478	10k, 5%, 1/6 W, Carbon	3198 011 01030		3989	330k, 5%	3198 021 53340
	3479	100k, 5%, 1/6 W, Carbon.	3198 011 01040		3991	22k, 5%, 1/4W, Carbon Film	3198 011 02230
	3480	10k, 5%, 1/6 W, Carbon	3198 011 01030		3992	10k, 5%.	3198 021 51030
	3481	10k, 5%, 1/6 W, Carbon	3198 011 01030		3993	10k, 5%.	3198 021 51030
	3482	10K, 1%, Metal Film.	2322 156 21003		3994	15k, 5%.	3198 021 51530
	3483	3.3k, 1%, Metal Film	2322 156 23302		3996	1.5 Meg, 5%, Metalized Glass	2322 242 13155
	3484	10k, 5%.	3198 021 51030		3997	100 ohm, 5%.	3198 021 51010
	3485	1k, 5%	3198 021 51020		4012	Jumper, 0 ohm.	3198 021 90020
S	3487	1 ohm, 5%, Fusible Resistor.	2306 207 03108		4013	Jumper, 0 ohm.	3198 021 90020

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4201	Jumper, 0 ohm.	3198 021 90020		4710	Jumper, 0 ohm.	3198 021 90020	
4202	Jumper, 0 ohm.	3198 021 90020		4711	Jumper, 0 ohm.	3198 021 90020	
4203	Jumper, 0 ohm.	3198 021 90020		4712	Jumper, 0 ohm.	3198 021 90020	
4204	Jumper, 0 ohm.	3198 021 90020		4713	Jumper, 0 ohm.	3198 021 90020	
4206	Jumper, 0 ohm.	3198 021 90020		4714	Jumper, 0 ohm.	3198 021 90020	
4207	Jumper, 0 ohm.	3198 021 90020		4715	Jumper, 0 ohm.	3198 021 90020	
4208	Jumper, 0 ohm.	3198 021 90020		4716	Jumper, 0 ohm.	3198 021 90020	
4209	Jumper, 0 ohm.	3198 021 90020		4717	Jumper, 0 ohm.	3198 021 90020	
4212	Jumper, 0 ohm.	3198 021 90020		4718	Jumper, 0 ohm.	3198 021 90020	
4213	Jumper, 0 ohm.	3198 021 90020		4901	Jumper, 0 ohm.	3198 021 90020	
4215	Jumper, 0 ohm.	3198 021 90020		4902	Jumper, 0 ohm.	3198 021 90020	
4216	Jumper, 0 ohm.	3198 021 90020		4903	Jumper, 0 ohm.	3198 021 90020	
4217	Jumper, 0 ohm.	3198 021 90020		5201	Inductor, SPT0203 22uH, 5%	3198 018 12290	
4219	Jumper, 0 ohm.	3198 021 90020		5202	Inductor, SPT0203 22uH, 5%	3198 018 12290	
4220	Jumper, 0 ohm.	3198 021 90020		5203	Jumper, 0 ohm.	3198 021 90020	
4221	Jumper, 0 ohm.	3198 021 90020		5204	Wire, Jumper	0322 179 00003	
4222	Jumper, 0 ohm.	3198 021 90020		5261	Inductor, Fixed 5U6, 10%	3198 018 35680	
4223	Jumper, 0 ohm.	3198 021 90020		5262	12uH., Fixed Coil.	3198 018 21290	
4224	Jumper, 0 ohm.	3198 021 90020		5406	Transformer, SIG DRIVER.	3128 138 33340	
4225	Jumper, 0 ohm.	3198 021 90020		5409	Fixed Inductor, 100MHz, 80 ohm . . .	3198 018 90020	
4226	Jumper, 0 ohm.	3198 021 90020		5411	Fixed Inductor, 100MHz, 80 ohm . . .	3198 018 90020	
4227	Jumper, 0 ohm.	3198 021 90020		5417	Inductor Drum.	3128 138 53181	
4228	Jumper, 0 ohm.	3198 021 90020		5430	Inductor SPT0508 22uH., 5%	2422 535 95365	
4231	Jumper, 0 ohm.	3198 021 90020	S	5431	Transformer, Power Slot.	3128 138 21051	
4232	Jumper, 0 ohm.	3198 021 90020		5445	Fixed Inductor 27uH., 10%.	3198 018 22790	
4233	Jumper, 0 ohm.	3198 021 90020		5446	Fixed Inductor, 12uH, 5%, SPT0508. .	2422 535 95598	
4234	Jumper, 0 ohm.	3198 021 90020		5448	Fixed Inductor, 12uH, 5%, SPT0508. .	2422 535 95598	
4236	Jumper, 0 ohm.	3198 021 90020		5475	Fixed Choke.	3128 138 37021	
4240	Jumper, 0 ohm.	3198 021 90020		5521	Ferrite Bead	2422 535 95444	
4241	Jumper, 0 ohm.	3198 021 90020		5523	Ferrite Bead	2422 535 95444	
4242	Jumper, 0 ohm.	3198 021 90020		5524	Ferrite Bead	2422 535 95444	
4243	Jumper, 0 ohm.	3198 021 90020		5701	Fixed Inductor 82uH., 20%.	3198 018 28290	
4244	Jumper, 0 ohm.	3198 021 90020		5702	Inductor, Fixed, 100 uH, 5%.	3198 018 11010	
4245	Jumper, 0 ohm.	3198 021 90020		5902	Line Filter DMF2405H60B.	2422 549 43432	
4246	Jumper, 0 ohm.	3198 021 90020	S	5912	Transformer.	2422 531 02374	
4247	Jumper, 0 ohm.	3198 021 90020		5920	Fixed Inductor Bead, 100MHz, 50 ohm.	3198 018 90010	
4248	Jumper, 0 ohm.	3198 021 90020		5924	Fixed Inductor Bead, 100MHz, 50 ohm.	3198 018 90010	
4249	Jumper, 0 ohm.	3198 021 90020		5936	Fixed Inductor Bead, 100MHz, 50 ohm.	3198 018 90010	
4250	Jumper, 0 ohm.	3198 021 90020		5939	Fixed Inductor, 27uH., 5%, SPT0508 .	2422 535 95366	
4252	Jumper, 0 ohm.	3198 021 90020		5941	Fixed Inductor Bead, 100MHz, 50 ohm.	3198 018 90010	
4253	Jumper, 0 ohm.	3198 021 90020		5961	Fixed Inductor Bead, 100MHz, 50 ohm.	3198 018 90010	
4254	Jumper, 0 ohm.	3198 021 90020		5971	Fixed Inductor Bead, 100MHz, 50 ohm.	3198 018 90010	
4255	Jumper, 0 ohm.	3198 021 90020		6201	Diode, Regulator, BZX384-C12	3198 020 51290	
4256	Jumper, 0 ohm.	3198 021 90020		6202	Diode, Regulator, BZX384-C12	3198 020 51290	
4257	Jumper, 0 ohm.	3198 021 90020		6203	Diode, Regulator, BZX384-C12	3198 020 51290	
4258	Jumper, 0 ohm.	3198 021 90020		6204	Diode, Regulator, BZX384-C12	3198 020 51290	
4259	Jumper, 0 ohm.	3198 021 90020		6205	Diode, Regulator, BZX384-C12	3198 020 51290	
4260	Jumper, 0 ohm.	3198 021 90020		6206	Diode, Regulator, BZX384-C12	3198 020 51290	
4261	Jumper, 0 ohm.	3198 021 90020		6207	Diode, Regulator, BZX384-C12	3198 020 51290	
4263	Jumper, 0 ohm.	3198 021 90020		6208	Diode, Regulator, BZX384-C12	3198 020 51290	
4265	Jumper, 0 ohm.	3198 021 90020		6266	Diode, Signal, BAS316.	3198 010 10630	
4269	Jumper, 0 ohm.	3198 021 90020		6267	Diode, Regulator, BZX384-C, 8.2 Volt	3198 020 58280	
4270	Jumper, 0 ohm.	3198 021 90020		6268	Diode, Regulator, BZX384-C, 8.2 Volt	3198 020 58280	
4271	Jumper, 0 ohm.	3198 021 90020		6271	Diode, Signal, BAS316.	3198 010 10630	
4272	Jumper, 0 ohm.	3198 021 90020		6273	Diode, Signal, BAS316.	3198 010 10630	
4273	Jumper, 0 ohm.	3198 021 90020		6274	Diode, Signal, BAS316.	3198 010 10630	
4274	Jumper, 0 ohm.	3198 021 90020		6275	Diode, Signal, BAS316.	3198 010 10630	
4276	Jumper, 0 ohm.	3198 021 90020		6276	Diode, Signal, BAS316.	3198 010 10630	
4277	Jumper, 0 ohm.	3198 021 90020		6279	Diode, Regulator, BZX384-C5V6. . . .	3198 020 55680	
4278	Jumper, 0 ohm.	3198 021 90020		6413	Diode, Signal, 1N4148.	3198 010 10010	
4279	Jumper, 0 ohm.	3198 021 90020		6414	Diode, Rectifier, BY328/20	9340 347 60112	
4281	Jumper, 0 ohm.	3198 021 90020		6419	Diode, Rectifier, BYD 33D.	9337 234 00133	
4282	Jumper, 0 ohm.	3198 021 90020		6420	Diode, Rectifier, BYD 33D.	9337 234 00133	
4284	Jumper, 0 ohm.	3198 021 90020		6439	Diode, Regulator, BZX79-C27, 27 Volt	3198 010 22790	
4285	Jumper, 0 ohm.	3198 021 90020		6440	Diode, Signal, 1N4148.	3198 010 10010	
4286	Jumper, 0 ohm.	3198 021 90020		6442	Diode, Signal, 1N4148.	3198 010 10010	
4287	Jumper, 0 ohm.	3198 021 90020		6445	Diode, Rectifier, BYD 33J	9337 234 20133	
4288	Jumper, 0 ohm.	3198 021 90020		6447	Diode BYW95C/20.	9336 215 90112	
4291	Jumper, 0 ohm.	3198 021 90020		6448	Diode BYW95C/20.	9336 215 90112	
4292	Jumper, 0 ohm.	3198 021 90020		6461	Diode, Rectifier, BYD 33D.	9337 234 00133	
4293	Jumper, 0 ohm.	3198 021 90020		6463	Diode, Signal, BAS216.	9340 255 30115	
4294	Jumper, 0 ohm.	3198 021 90020		6464	Diode, Regulator, BZX79-B6V2, 6.2 Vol	9331 668 30133	
4295	Jumper, 0 ohm.	3198 021 90020		6468	DIO REG SM BZX384-C10 COL R . . .	3198 020 51090	
4296	Jumper, 0 ohm.	3198 021 90020		6472	Diode, Regulator, BZX79-C10, 10 Volt	3198 010 21090	
4400	Jumper, 0 ohm.	3198 021 90020		6474	Diode, Rectifier, BYW95C-24.	9340 559 53112	
4402	Jumper, 0 ohm.	3198 021 90020		6480	Diode, Signal, 1N4148.	3198 010 10010	
4403	Jumper, 0 ohm.	3198 021 90020		6481	Diode, Signal, BZX79-B33	3198 010 53390	
4404	Jumper, 0 ohm.	3198 021 90020		6505	Diode, Rectifier, BYD 33D.	9337 234 00133	
4405	Jumper, 0 ohm.	3198 021 90020		6511	Diode, Signal, 1N4148.	3198 010 10010	
4406	Jumper, 0 ohm.	3198 021 90020		6512	Diode, Regulator BZX79-C, 5.6 Volt .	3198 010 25680	
4407	Jumper, 0 ohm.	3198 021 90020		6522	Diode, Rectifier, BYD 33D.	9337 234 00133	
4408	Jumper, 0 ohm.	3198 021 90020		6701	Diode, Signal, 1N4148.	3198 010 10010	
4410	Jumper, 0 ohm.	3198 021 90020		6915	Bridge Rectifier, GBU4JL-7002. . . .	9322 132 55667	
4412	Jumper, 0 ohm.	3198 021 90020		6916	Diode.	9337 432 70133	
4502	Jumper, 0 ohm.	3198 021 90020		6921	Diode, Regulator, BZX79-C33, 33 Volt	3198 010 23390	
4503	Jumper, 0 ohm.	3198 021 90020		6926	Diode, Rectifier, BYD 33D.	9337 234 00133	
4702	Jumper, 0 ohm.	3198 021 90020		6928	Diode, Rectifier, BYD 33D.	9337 234 00133	
4704	Jumper, 0 ohm.	3198 021 90020		6929	Diode, Rectifier, BYD 33D.	9337 234 00133	
4706	Jumper, 0 ohm.	3198 021 90020		6932	Diode, Signal, 1N4148.	3198 010 10010	
4707	Jumper, 0 ohm.	3198 021 90020		6938	Diode, Rectifier, BT229X-600	9340 380 20127	
4708	Jumper, 0 ohm.	3198 021 90020		6941	Diode, Rectifier, SB560L-7000. . . .	9322 136 58682	
4709	Jumper, 0 ohm.	3198 021 90020		6942	Diode, Rectifier, BYD 33D.	9337 234 00133	

S = Safety Part   Be sure to use exact replacement part.

27DV60S121 (continued)

6961	Diode, Rectifier, SB560L-7000. . . .	9322 136 58682	
6966	Diode, Regulator, BZX79-B3V9. . . .	3198 010 53980	
6971	Diode, Rectifier, EGP20DL-5300 . . .	9322 100 13682	
6973	Diode, Signal, 1N4148.	3198 010 10010	
6977	Diode, Regulator, BZX384-C5V1. . . .	3198 020 55180	
6986	Diode, Regulator BZX79-C15, 15V. . .	3198 010 21590	
6991	Diode, Regulator, BZX79-C8V2, 8.2 Volt.	3198 010 28280	
7224	Transistor, Signal, BC847B	3198 010 42030	
7265	Transistor, Signal, BC847B	3198 010 42030	
7273	Transistor, Signal, BC857B	3198 010 42150	
7274	Transistor, Signal, BC847B	3198 010 42030	
7276	Transistor, Signal, BC847B	3198 010 42030	
7277	Transistor, Signal, BC857B	3198 010 42150	
7280	Transistor, Signal, BC847B	3198 010 42030	
7408	Transistor, Signal BF423	3198 020 43020	
7410	Transistor, Power, BU4522AX.	9340 547 93127	
7440	Transistor, Signal, BC557B	3198 020 40110	
7464	Transistor, Signal, BC547B	3198 020 40030	
7467	Transistor, Signal, BC857B	3198 010 42150	
7470	Transistor	9322 123 96687	
7478	Transistor, Signal, BC547B	3198 020 40030	
7480	Transistor, Signal, BC547B	3198 020 40030	
7481	Transistor BF819	9335 354 50127	
7501	IC TDA8172	9339 229 40682	
7513	Transistor, Signal, BC847B	3198 010 42030	
7701	Transistor, Signal, BC847B	3198 010 42030	
7702	IC, N5277.	9322 148 81667	
7703	IC TDA1308T/N1	9350 721 10115	
7704	Transistor, Signal, BC847B	3198 010 42030	
7710	Transistor, Signal, BC847B	3198 010 42030	
7711	Transistor, Signal, BC857B	3198 010 42150	
7712	Transistor, Signal, BC857B	3198 010 42150	
7921	IC STR-F6426	9322 140 37682	
7922	Transistor, Signal, BC857B	3198 010 42150	
S 7929	Opto Coupler TCET1103.	9322 140 14667	
7932	Transistor, Signal, BC847B	3198 010 42030	
S 7942	IC LM317T.	9337 220 80682	
7944	Transistor, Signal, BC847B	3198 010 42030	
7950	Transistor, Signal, BC847B	3198 010 42030	
7965	Transistor, Signal, BC337-40	9331 796 00126	
7967	IC SI-3050C.	9322 137 01682	
7971	IC SE130N.	9322 116 23682	
7987	Transistor, Signal, BC857B	3198 010 42150	
7990	Transistor, Signal, BC857B	3198 010 42150	
7991	Transistor, Signal, BC847B	3198 010 42030	
7992	Transistor, Signal, BC847B	3198 010 42030	
9012	Wire, Jumper	0322 179 00003	
9015	Wire, Jumper	0322 179 00003	
9016	Wire, Jumper	0322 179 00003	
9017	Wire, Jumper	0322 179 00003	
9019	Wire, Jumper	0322 179 00003	
9020	Wire, Jumper	0322 179 00003	
9021	Wire, Jumper	0322 179 00003	
9023	Wire, Jumper	0322 179 00003	
9025	Wire, Jumper	0322 179 00003	
9026	Wire, Jumper	0322 179 00003	
9027	Wire, Jumper	0322 179 00003	
9028	Wire, Jumper	0322 179 00003	
9029	Wire, Jumper	0322 179 00003	
9032	Wire, Jumper	0322 179 00003	
9035	Wire, Jumper	0322 179 00003	
9037	Wire, Jumper	0322 179 00003	
9040	Wire, Jumper	0322 179 00003	
9200	Wire, Jumper	0322 179 00003	
9201	Wire, Jumper	0322 179 00003	
9202	Wire, Jumper	0322 179 00003	
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9219	Wire, Jumper	0322 179 00003	
9220	Wire, Jumper	0322 179 00003	
9221	Wire, Jumper	0322 179 00003	
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9231	Wire, Jumper	0322 179 00003	
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9280	Wire, Jumper	0322 179 00003	
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9292	Wire, Jumper	0322 179 00003	
9293	Wire, Jumper	0322 179 00003	
9294	Wire, Jumper	0322 179 00003	
9295	Wire, Jumper	0322 179 00003	
9296	Wire, Jumper	0322 179 00003	
9401	Wire, Jumper	0322 179 00003	
9402	Wire, Jumper	0322 179 00003	
9403	Wire, Jumper	0322 179 00003	
9404	Wire, Jumper	0322 179 00003	
9406	Wire, Jumper	0322 179 00003	
9407	Wire, Jumper	0322 179 00003	
9408	Wire, Jumper	0322 179 00003	
9411	Wire, Jumper	0322 179 00003	
9412	Wire, Jumper	0322 179 00003	
9413	Wire, Jumper	0322 179 00003	
9414	Wire, Jumper	0322 179 00003	
9415	Wire, Jumper	0322 179 00003	
9417	Wire, Jumper	0322 179 00003	
9418	Wire, Jumper	0322 179 00003	
9420	Wire, Jumper	0322 179 00003	
9421	Wire, Jumper	0322 179 00003	
9423	Wire, Jumper	0322 179 00003	
9424	Wire, Jumper	0322 179 00003	
9425	Wire, Jumper	0322 179 00003	
9427	Wire, Jumper	0322 179 00003	
9428	Wire, Jumper	0322 179 00003	
9429	Wire, Jumper	0322 179 00003	
9430	Wire, Jumper	0322 179 00003	
9431	Wire, Jumper	0322 179 00003	
9432	Wire, Jumper	0322 179 00003	
9434	Wire, Jumper	0322 179 00003	
9437	Wire, Jumper	0322 179 00003	
9438	Wire, Jumper	0322 179 00003	
9439	Wire, Jumper	0322 179 00003	
9443	Wire, Jumper	0322 179 00003	
9445	Wire, Jumper	0322 179 00003	
9494	Wire, Jumper	0322 179 00003	
9495	Wire, Jumper	0322 179 00003	

S = Safety Part Be sure to use exact replacement part.

27DV60S121 (continued)

9497	Wire, Jumper	0322 179 00003
9600	Wire, Jumper	0322 179 00003
9700	Wire, Jumper	0322 179 00003
9702	Wire, Jumper	0322 179 00003
9704	Wire, Jumper	0322 179 00003
9705	Wire, Jumper	0322 179 00003
9707	Wire, Jumper	0322 179 00003
9708	Wire, Jumper	0322 179 00003
9709	Wire, Jumper	0322 179 00003
9710	Wire, Jumper	0322 179 00003
9711	Wire, Jumper	0322 179 00003
9712	Wire, Jumper	0322 179 00003
9713	Wire, Jumper	0322 179 00003
9714	Wire, Jumper	0322 179 00003
9715	Wire, Jumper	0322 179 00003
9716	Wire, Jumper	0322 179 00003
9717	Wire, Jumper	0322 179 00003
9718	Wire, Jumper	0322 179 00003
9901	Wire, Jumper	0322 179 00003
9902	Wire, Jumper	0322 179 00003
9903	Wire, Jumper	0322 179 00003
9904	Wire, Jumper	0322 179 00003
9905	Wire, Jumper	0322 179 00003
9907	Wire, Jumper	0322 179 00003
9909	Wire, Jumper	0322 179 00003
9910	Wire, Jumper	0322 179 00003
9911	Wire, Jumper	0322 179 00003
9912	Wire, Jumper	0322 179 00003
9913	Wire, Jumper	0322 179 00003
9921	Wire, Jumper	0322 179 00003
9922	Wire, Jumper	0322 179 00003
9923	Wire, Jumper	0322 179 00003
9933	Wire, Jumper	0322 179 00003
9937	Wire, Jumper	0322 179 00003
9939	Wire, Jumper	0322 179 00003
9948	Wire, Jumper	0322 179 00003
9964	Wire, Jumper	0322 179 00003
9966	Wire, Jumper	0322 179 00003
9970	Wire, Jumper	0322 179 00003
9972	Wire, Jumper	0322 179 00003
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9979	Wire, Jumper	0322 179 00003
9980	Wire, Jumper	0322 179 00003
9981	Wire, Jumper	0322 179 00003
9982	Wire, Jumper	0322 179 00003
9983	Wire, Jumper	0322 179 00003
9985	Wire, Jumper	0322 179 00003
9986	Wire, Jumper	0322 179 00003
9987	Wire, Jumper	0322 179 00003
9990	Wire, Jumper	0322 179 00003
9992	Wire, Jumper	0322 179 00003
9993	Wire, Jumper	0322 179 00003
9994	Wire, Jumper	0322 179 00003
9996	Wire, Jumper	0322 179 00003
9997	Wire, Jumper	0322 179 00003
9998	Wire, Jumper	0322 179 00003

CRT PANEL PARTS - 27"

CBA	CRT Panel Assembly - 27"	3139 127 27161
0084	9 Pin CRT Connector.	2422 500 80053
0125	Heatsink, (Use Heatsink Compound).	3139 121 26731
0141	IC Spring.	3135 011 00711
0165	Terminal Assembly.	3139 131 01291
0217	3 Pin Connector.	2412 020 00725
0243	6 Pin Connector.	2422 025 12482
0244	5 Pin Connector.	2422 025 12481
2831	3300pF, 500V, Ceramic.	3198 019 43320
2835	0.1uF., 25V, Ceramic	3198 023 21040
2836	1000pF., 10%, 50 Volt, Polyester	3198 014 01020
2860	100uF., 20%, 25V, Electrolytic	3198 025 31010
2861	22pF., 50 Volt, NP0, Ceramic	3198 016 02290
2862	18pF., 50 Volt, NP0, Ceramic	3198 016 01890
2863	15pF., 50 Volt, NP0, Ceramic	3198 016 01590
2864	0.47uF., 10%, 50 Volt, Polyester	3198 014 04740
2866	0.47uF., 16 Volt, Ceramic.	3198 017 24740
2867	820pF., 50 Volt, NP0, Ceramic.	3198 016 08210
2868	100pF., 50 Volt, NP0, Ceramic.	3198 016 01010
2870	0.022uF., 50 Volt, Ceramic.	3198 017 02230
2871	22uF., 100V, Electrolytic.	3198 025 72290
2872	470pF, 500V, Ceramic	3198 019 44710
2874	56pF., 50 Volt, NP0, Ceramic	3198 016 05690
2876	10uF., 20%, 50V, Electrolytic.	3198 025 51090
2877	Jumper 0.05 ohm.	3198 021 90020
3831	100 ohm, 5%, 1/6 W, Carbon	3198 011 01010
3832	1k, 20%, 1/2W, Carbon Composition.	3198 013 01020
3833	100 ohm, 5%, 1/6 W, Carbon	3198 011 01010
3834	1k, 20%, 1/2W, Carbon Composition.	3198 013 01020
3835	100 ohm, 5%, 1/6 W, Carbon	3198 011 01010
3836	1k, 20%, 1/2W, Carbon Composition.	3198 013 01020
3837	Jumper 0.05 ohm.	3198 021 90020
3838	Jumper 0.05 ohm.	3198 021 90020
3839	Jumper 0.05 ohm.	3198 021 90020
S 3840	Fusible Resistor, 100 ohm, 5%.	2306 204 03101
S 3841	Fusible Resistor, 1 ohm, 5%.	2306 204 03108
S 3842	Fusible Resistor, 1 ohm, 5%.	2306 204 03108
S 3843	1.5k, 20%, 1/2W, Carbon Composition.	3198 013 01520
3845	330k, 5%, 1/4W, Carbon Film.	3198 011 03340
3861	3.3k, 5%	3198 021 53320
3862	3.3k, 5%	3198 021 53320
3863	3.3k, 5%	3198 021 53320
3864	560 ohm, 5%.	3198 021 55610
3865	18k, 5%.	3198 021 51830
3866	2.2k, 5%	3198 021 52220
3869	10 ohm, 5%	3198 021 51090
3870	820 ohm, 5%.	3198 021 58210
3871	56k, 5%.	3198 021 55630
3872	56k, 5%.	3198 021 55630
3873	820 ohm, 5%.	3198 021 58210
3875	5.6k, 5%	3198 021 55620
3876	10 ohm, 5%	3198 021 51090
3877	100 ohm, 5%.	3198 021 51010
3878	470 ohm, 5%.	3198 021 54710
3880	47 ohm, 5%, 1/6 W, Carbon.	3198 011 04790
3881	Jumper 0.05 ohm.	3198 021 90020
3882	220 ohm, 5%, 1/6 W, Carbon	3198 011 02210
3886	560 ohm, 5%.	3198 021 55610
3888	560 ohm, 5%.	3198 021 55610
3890	560 ohm, 5%.	3198 021 55610
3893	Wire, Jumper	0322 179 00003
3896	Wire, Jumper	0322 179 00003
4801	Jumper 0.05 ohm.	3198 021 90020
5842	Inductor, Fixed SPT0508 39U, 5%.	2422 535 95596
5860	Inductor 100uH 60ohm	2422 535 96559
5861	Inductor 100uH 60ohm	2422 535 96559
5862	Fixed Inductor 5.6uH., 10%	3198 018 25680
6831	Diode, Signal, BAV21	3198 010 10070
6832	Diode, Signal, BAS316.	3198 010 10630
6833	Diode, Signal, BAV21	3198 010 10070
6835	Diode, Signal, BAV21	3198 010 10070
S 5886	Diode, Regulator BZD23-C24	9337 534 80133
S 6838	Diode, Regulator BZD23-C24	9337 534 80133
6861	Diode, Signal, BAS316.	3198 010 10630
6862	Diode, Signal, BAS316.	3198 010 10630
6867	Diode, Signal, 1N4148.	3198 010 10010
6868	Diode, Signal, 1N4148.	3198 010 10010
6869	Zener Diode, 3.9V.	3198 010 23980
7860	Transistor BF199	9330 634 20126
7861	Transistor, Signal	9335 447 20126
9801	Wire, Jumper	0322 179 00003
9802	Wire, Jumper	0322 179 00003
9803	Wire, Jumper	0322 179 00003
9821	Wire, Jumper	0322 179 00003
9822	Wire, Jumper	0322 179 00003
9823	Wire, Jumper	0322 179 00003
9824	Wire, Jumper	0322 179 00003
9840	Wire, Jumper	0322 179 00003
9861	Wire, Jumper	0322 179 00003
9877	Wire, Jumper	0322 179 00003
2830	0.1uF, 10%, 250V, Metalized Polyester	2222 368 90177
2840	10uF, 20%, 250 Volt, Electrolytic.	2020 012 93495
S 2843	2.2nF, 10%, 2KV, Ceramic	2020 558 90559
2869	0.1uF., 100V, Electrolytic	2222 347 90224
2873	0.022uF., 10%, 250V, Electrolytic.	2222 347 90225
S 3874	Resistor, Pwr, 8.2K ohm, 5%, 5W, Metal Oxide.	2322 257 41822
5886	Delay Line, 200 ns, SDL-4297	2722 122 00252
5888	Delay Line, 200 ns, SDL-4297	2722 122 00252
5890	Delay Line, 200 ns, SDL-4297	2722 122 00252
7830	IC TDA6107Q/N2	9352 576 50112
7862	Power Transistor	9334 507 70127
7863	Power Transistor	9334 507 60127

SSB PANEL PARTS

CBA	SSB Panel Assembly	3139 178 82101
1057	Crystal Resonator, 12MHZ 20P DSX840 R	2422 543 01095
1327	Crystal Resonator, 12MHZ 20P DSX840 R	2422 543 01095
1451	S.A.W. Filter, 45.75MHz, OFWM1967L R	2422 549 44377
1630	Crystal Resonator, 18M432 12P DSX840	2422 543 01059
2010	820pF 25V.	3198 016 38210
2014	1uF +80/-20% 10V	3198 017 41050
2015	1uF +80/-20% 10V	3198 017 41050
2016	Capacitor, Ceramic X7R 16V 100N.	3198 017 31040
2017	Capacitor, Ceramic X7R 16V 100N.	3198 017 31040
2018	Capacitor, Ceramic X7R 50V2N2.	3198 017 32220
2041	22pF., 50 V, NPO, Ceramic.	3198 016 32290
2042	22pF., 50 V, NPO, Ceramic.	3198 016 32290
2043	4.7uF., 35V, 20%, Electrolytic	3198 030 74780
2044	Capacitor, Ceramic X7R 16V 100N.	3198 017 31040
2045	Ceramic NP0 50V 18P.	3198 016 31890

S = Safety Part Be sure to use exact replacement part.

27DV60S121 (continued)

2046	Ceramic NP0 50V 18P.	3198 016 31890
2049	Capacitor, Ceramic Y5V 16V 220N. . .	3198 017 42240
2050	Ceramic NP0 50V 100P	3198 016 31010
2051	Capacitor, Ceramic X7R 16V 100N. . .	3198 017 31040
2053	Electrolytic 16V 10U, 20%.	3198 030 41090
2301	1uF +80/-20% 10V	3198 017 41050
2302	Ceramic NP0 50V 330P	3198 016 33310
2303	Capacitor, Ceramic X7R 50V 4N7 . . .	3198 017 34720
2306	Capacitor, Ceramic Y5V 50V 10N . . .	3198 017 41030
2309	Capacitor, Ceramic Y5V 25V 100N. . .	3198 023 41040
2311	1uF +80/-20% 10V	3198 017 41050
2312	Capacitor, Ceramic X7R 50V 10N . . .	3198 017 31030
2313	Capacitor, Ceramic X7R 16V 100N. . .	3198 017 31040
2314	Capacitor, Polypropylene 16V 100N, 5	2020 319 90005
2316	Capacitor, Ceramic X7R 25V 22N . . .	3198 017 32230
2317	Capacitor, Ceramic Y5V 16V 220N. . .	3198 017 42240
2319	Capacitor, Ceramic Y5V 25V 100N. . .	3198 023 41040
2321	Capacitor, Ceramic X7R 50V 4N7 . . .	3198 017 34720
2322	Electrolytic 16V 10U, 20%.	3198 030 41090
2323	22nF 50V	3198 017 42230
2324	Capacitor, Ceramic Y5V 25V 100N. . .	3198 023 41040
2325	22nF 50V	3198 017 42230
2326	22nF 50V	3198 017 42230
2327	Ceramic NP0 50V 33P.	3198 016 33390
2328	Ceramic NP0 50V 33P.	3198 016 33390
2332	Capacitor, Ceramic Y5V 16V 220N. . .	3198 017 42240
2333	Capacitor, Ceramic Y5V 25V 100N. . .	3198 023 41040
2334	Capacitor, Ceramic X7R 16V 100N. . .	3198 017 31040
2335	1uF +80/-20% 10V	3198 017 41050
2338	Capacitor, Ceramic X7R 50V2N2. . . .	3198 017 32220
2342	Ceramic NP0 50V 15P.	3198 016 31590
2345	Ceramic NP0 50V 15P.	3198 016 31590
2348	Ceramic NP0 50V 15P.	3198 016 31590
2350	4.7uF., 35V, 20%, Electrolytic . . .	3198 030 74780
2354	470nF 10V.	3198 017 44740
2355	470nF 10V.	3198 017 44740
2356	470nF 10V.	3198 017 44740
2357	Ceramic NP0 50V 10P.	3198 016 31090
2372	Capacitor, Ceramic X7R 50V 4N7 . . .	3198 017 34720
2373	Electrolytic 50V 1U, 20%	3198 030 81080
2374	Capacitor, Ceramic X7R 25V 22N . . .	3198 017 32230
2375	1nF 5% 25V	3198 016 31020
2376	1nF 5% 25V	3198 016 31020
2377	1nF 5% 25V	3198 016 31020
2380	Electrolytic 16V 10U, 20%.	3198 030 41090
2381	Capacitor, Ceramic Y5V 25V 100N. . .	3198 023 41040
2382	Electrolytic 16V 47U, 20%.	3198 030 44790
2401	1uF +80/-20% 10V	3198 017 41050
2402	1uF +80/-20% 10V	3198 017 41050
2403	1uF +80/-20% 10V	3198 017 41050
2404	Capacitor, Ceramic X7R 25V 22N . . .	3198 017 32230
2405	Capacitor, Ceramic X7R 25V 22N . . .	3198 017 32230
2407	Capacitor, Ceramic X7R 16V 100N. . .	3198 017 31040
2408	Capacitor, Ceramic X7R 16V 100N. . .	3198 017 31040
2412	Capacitor, Ceramic Y5V 16V 220N. . .	3198 017 42240
2413	Electrolytic 16V 47U, 20%.	3198 030 44790
2415	Capacitor, Ceramic Y5V 16V 220N. . .	3198 017 42240
2417	Electrolytic 16V 10U, 20%.	3198 030 41090
2420	Ceramic NP0 50V 100P	3198 016 31010
2421	Capacitor, Ceramic Y5V 50V 10N . . .	3198 017 41030
2422	Capacitor, Ceramic Y5V 50V 10N . . .	3198 017 41030
2423	Capacitor, Ceramic Y5V 50V 10N . . .	3198 017 41030
2424	Capacitor, Ceramic Y5V 50V 10N . . .	3198 017 41030
2425	Capacitor, Ceramic Y5V 50V 10N . . .	3198 017 41030
2427	Capacitor, Ceramic Y5V 50V 10N . . .	3198 017 41030
2428	Capacitor, Ceramic Y5V 50V 10N . . .	3198 017 41030
2429	Capacitor, Ceramic Y5V 50V 10N . . .	3198 017 41030
2430	Ceramic NP0 50V 68P.	3198 016 36890
2431	Ceramic NP0 50V 27P.	3198 016 32790
2432	Electrolytic 16V 10U, 20%.	3198 030 41090
2433	Capacitor, Ceramic X7R 50V 10N . . .	3198 017 31030
2434	Capacitor, Ceramic X7R 50V 10N . . .	3198 017 31030
2435	Electrolytic 16V 10U, 20%.	3198 030 41090
2437	Capacitor, Ceramic Y5V 50V 10N . . .	3198 017 41030
2438	Ceramic NP0 50V 180P	3198 016 31810
2439	Ceramic NP0 50V 150P	3198 016 31510
2440	Ceramic NP0 50V 56P.	3198 016 35690
2441	Capacitor, Ceramic X7R 16V 100N. . .	3198 017 31040
2442	Capacitor, Ceramic Y5V 16V 220N. . .	3198 017 42240
2443	Capacitor, Ceramic X7R 50V 10N . . .	3198 017 31030
2444	Capacitor, Ceramic X7R 50V 10N . . .	3198 017 31030
2445	Capacitor, Ceramic X7R 50V 10N . . .	3198 017 31030
2446	Capacitor, Ceramic X7R 50V 10N . . .	3198 017 31030
2447	Capacitor, Ceramic X7R 50V 10N . . .	3198 017 31030
2449	Capacitor, Ceramic X7R 16V 100N. . .	3198 017 31040
2450	Electrolytic 16V 10U, 20%.	3198 030 41090
2451	Electrolytic 16V 10U, 20%.	3198 030 41090
2453	Capacitor, Ceramic X7R 50V 10N . . .	3198 017 31030
2457	Electrolytic 16V 10U, 20%.	3198 030 41090
2458	Electrolytic 50V 1U, 20%	3198 030 81080
2461	Electrolytic 16V 10U, 20%.	3198 030 41090
2462	Capacitor, Ceramic Y5V 50V 10N . . .	3198 017 41030
2463	Capacitor, Ceramic Y5V 50V 10N . . .	3198 017 41030
2601	Ceramic NP0 50V 470P	3198 016 34710
2602	Capacitor, Ceramic X7R 16V 100N. . .	3198 017 31040
2606	Electrolytic 16V 10U, 20%.	3198 030 41090
2607	Capacitor, Ceramic Y5V 16V 220N. . .	3198 017 42240
2612	Capacitor, Ceramic X7R 50V 1N. . . .	3198 017 31020
2613	Capacitor, Ceramic X7R 50V 1N. . . .	3198 017 31020
2619	Capacitor, Ceramic X7R 50V 4N7 . . .	3198 017 34720
2620	1uF +80/-20% 10V	3198 017 41050
2621	1uF +80/-20% 10V	3198 017 41050
2623	Electrolytic 16V 10U, 20%.	3198 030 41090
2624	Capacitor, Ceramic X7R 16V 100N. . .	3198 017 31040
2625	Electrolytic 16V 22U, 20%.	3198 030 42290
2628	Capacitor, Ceramic X7R 16V 100N. . .	3198 017 31040
2629	Electrolytic 16V 10U, 20%.	3198 030 41090
2635	1uF +80/-20% 10V	3198 017 41050
2636	330pF., 50V, Ceramic	3198 017 33310
2637	1uF +80/-20% 10V	3198 017 41050
2638	330pF., 50V, Ceramic	3198 017 33310
2639	330pF., 50V, Ceramic	3198 017 33310
2640	1uF +80/-20% 10V	3198 017 41050
2641	330pF., 50V, Ceramic	3198 017 33310
2642	1uF +80/-20% 10V	3198 017 41050
2655	Capacitor, Ceramic X7R 50V 4N7 . . .	3198 017 34720
2657	Electrolytic 16V 10U, 20%.	3198 030 41090
2661	Capacitor, Ceramic X7R 16V 100N. . .	3198 017 31040
2662	10uF, 20%, 16V, Electrolytic	3198 030 41090
2663	47pF, 50V, NPO, Ceramic.	3198 016 34790
2664	56pF, 50V, NPO, Ceramic.	3198 016 35690
2665	27pF, 50V, NPO, Ceramic.	3198 016 32790
2666	180pf, 50V, NPO, Ceramic	3198 016 31810
2667	15pF, 50V, NPO, Ceramic.	3198 016 31590
2675	3.3pF, 50V, NPO, Ceramic	3198 016 33380
2676	3.3pF, 50V, NPO, Ceramic	3198 016 33380
2678	1uF +80/-20% 10V	3198 017 41050
2679	100nF, 16V, Ceramic.	3198 017 31040
2682	1uF +80/-20% 10V	3198 017 41050
2683	1uF +80/-20% 10V	3198 017 41050
2684	1uF +80/-20% 10V	3198 017 41050
2685	1uF +80/-20% 10V	3198 017 41050
2686	1uF +80/-20% 10V	3198 017 41050
2687	1uF +80/-20% 10V	3198 017 41050
3002	Resistor, 8K2, 5%.	3198 021 38220
3003	Resistor, 10K, 5%.	3198 021 31030
3004	Resistor, 8K2, 5%.	3198 021 38220
3007	Resistor, 8K2, 5%.	3198 021 38220
3008	Resistor, 8K2, 5%.	3198 021 38220
3009	Resistor, 8K2, 5%.	3198 021 38220
3013	Resistor, 8K2, 5%.	3198 021 38220
3014	Resistor, 8K2, 5%.	3198 021 38220
3015	Resistor, 10K, 5%.	3198 021 31030
3017	Resistor, 100R, 5%	3198 021 31010
3018	Resistor, 100R, 5%	3198 021 31010
3019	Resistor, 100R, 5%	3198 021 31010
3021	Resistor, 100R, 5%	3198 021 31010
3022	Resistor, 2K2, 5%.	3198 021 32220
3023	Resistor, 8K2, 5%.	3198 021 38220
3024	Resistor, 1K, 5%	3198 021 31020
3030	Resistor, 1K, 5%	3198 021 31020
3031	Resistor, 470R, 5%	3198 021 34710
3034	Resistor, 47K, 5%.	3198 021 34730
3035	Resistor, 470R, 5%	3198 021 34710
3042	Resistor, 100R, 5%	3198 021 31010
3043	Resistor, 100R, 5%	3198 021 31010
3044	Resistor, 10K, 5%.	3198 021 31030
3045	Resistor, 2K7, 5%.	3198 021 32720
3046	Resistor, 4K7, 5%.	3198 021 34720
3051	Resistor, 24K, 1%.	2322 704 62403
3054	Resistor, 10K, 5%.	3198 021 31030
3055	Resistor, 10K, 5%.	3198 021 31030
3056	Resistor, 47K, 5%.	3198 021 34730
3057	Resistor, 10K, 5%.	3198 021 31030
3058	Resistor, 470R, 5%	3198 021 34710
3059	Resistor, 100R, 5%	3198 021 31010
3061	Resistor, 470R, 5%	3198 021 34710
3062	Resistor, 4K7, 5%.	3198 021 34720
3064	Resistor, 4K7, 5%.	3198 021 34720
3065	Resistor, 4K7, 5%.	3198 021 34720
3066	Resistor, 8K2, 5%.	3198 021 38220
3081	Resistor, 4K7, 5%.	3198 021 34720
3082	Resistor, 10K, 5%.	3198 021 31030
3083	Resistor, 470R, 5%	3198 021 34710
3084	Resistor, 100R, 5%	3198 021 31010
3085	Resistor, 100R, 5%	3198 021 31010
3086	Resistor, 100R, 5%	3198 021 31010
3088	Resistor, 100R, 5%	3198 021 31010
3092	Resistor, 100R, 5%	3198 021 31010
3301	Resistor, 1K, 5%	3198 021 31020
3302	Resistor, 560R, 5%	3198 021 35610
3305	Resistor, 3K9, 5%.	3198 021 33920
3307	Resistor, 390R, 5%	3198 021 33910
3311	Resistor, 27K, 5%.	3198 021 32730

S = Safety Part Be sure to use exact replacement part.

27DV60S121 (continued)

3312	Resistor, 10K, 5%.	3198 021 31030
3315	Resistor, 39K, 5%.	3198 021 33930
3316	Resistor, 220R, 5%	3198 021 32210
3324	Resistor, 390R, 5%	3198 021 33910
3326	Resistor, 1K, 5%	3198 021 31020
3327	Resistor, 560R, 5%	3198 021 35610
3328	Resistor, 390R, 5%	3198 021 33910
3329	Resistor, 100R, 5%	3198 021 31010
3330	Resistor, 100R, 5%	3198 021 31010
3331	Resistor, Fusible, 2.2 ohm, 5%	2322 750 62208
3332	Resistor, Fusible, 2.2 ohm, 5%	2322 750 62208
3333	Resistor, 1K, 5%	3198 021 31020
3334	Jumper, .05 ohm.	3198 021 90030
3339	Resistor, 10K, 5%.	3198 021 31030
3340	560 ohm, 5%,	3198 021 55610
3341	Resistor, 150R, 5%	3198 021 31510
3342	Jumper, .05 ohm.	3198 021 90030
3344	Resistor, 150R, 5%	3198 021 31510
3345	Jumper, .05 ohm.	3198 021 90030
3348	Resistor, 150R, 5%	3198 021 31510
3349	Jumper, .05 ohm.	3198 021 90030
3358	Resistor, 100R, 5%	3198 021 31010
3361	Resistor, 100R, 5%	3198 021 31010
3362	Resistor, 100R, 5%	3198 021 31010
3363	Resistor, 100R, 5%	3198 021 31010
3364	Resistor, 1K, 5%	3198 021 31020
3365	560 ohm, 5%,	3198 021 55610
3371	Resistor, 15K, 5%.	3198 021 31530
3372	Resistor, 10R, 5%.	3198 021 31090
3373	Resistor, 100R, 5%	3198 021 31010
3374	Resistor, 3K3, 5%.	3198 021 33320
3375	Resistor, 1K, 5%	3198 021 31020
3376	Resistor, 1K, 5%	3198 021 31020
3377	Resistor, 100R, 5%	3198 021 31010
3378	Resistor, 1K, 5%	3198 021 31020
3381	Resistor, 100R, 5%	3198 021 31010
3382	Resistor, 100R, 5%	3198 021 31010
3383	Resistor, 100R, 5%	3198 021 31010
3384	Resistor, 8K2, 5%.	3198 021 38220
3385	Resistor, 10K, 5%.	3198 021 31030
3387	Resistor, 100R, 5%	3198 021 31010
3388	Resistor, 47R, 5%.	3198 021 34790
3393	Resistor, 27k, 5%.	3198 021 52730
3394	Resistor, 18K ohm, 5%.	3198 021 31830
3397	Resistor, 10R, 5%.	3198 021 31090
3401	Resistor, 100R, 5%	3198 021 31010
3402	Resistor, 100R, 5%	3198 021 31010
3403	Resistor, 100R, 5%	3198 021 31010
3404	Resistor, 100R, 5%	3198 021 31010
3405	Resistor, 100R, 5%	3198 021 31010
3406	Resistor, 10K, 5%.	3198 021 31030
3407	Resistor, 10K, 5%.	3198 021 31030
3408	Resistor, 10K, 5%.	3198 021 31030
3411	Resistor, 1K5, 5%.	3198 021 31520
3412	Resistor, 1K5, 5%.	3198 021 31520
3413	Resistor, 560 ohm, 5%.	3198 021 55610
3414	Resistor, 1K5, 5%.	3198 021 31520
3415	Resistor, 1K5, 5%.	3198 021 31520
3416	Resistor, 560 ohm, 5%.	3198 021 55610
3417	Resistor, 1K, 5%	3198 021 31020
3418	Resistor, 560 ohm, 5%.	3198 021 55610
3419	Resistor, 470R, 5%	3198 021 34710
3422	Resistor, 470R, 5%	3198 021 34710
3423	Resistor, 100R, 5%	3198 021 31010
3424	Resistor, 4K7, 5%.	3198 021 34720
3425	Resistor, 100R, 5%	3198 021 31010
3426	Resistor, 820R, 5%	3198 021 38210
3427	Resistor, 100R, 5%	3198 021 31010
3428	Resistor, 47K, 5%.	3198 021 34730
3429	Resistor, 1K, 5%	3198 021 31020
3430	Resistor, 1K, 5%	3198 021 31020
3431	Resistor, 22K, 5%.	3198 021 32230
3432	Resistor, 22K, 5%.	3198 021 32230
3434	Resistor, 47K, 5%.	3198 021 34730
3435	Resistor, 18K ohm, 5%.	3198 021 31830
3436	Resistor, 15K, 5%.	3198 021 31530
3437	Resistor, 47K, 5%.	3198 021 34730
3438	Resistor, 47K, 5%.	3198 021 34730
3439	Resistor, 10K, 5%.	3198 021 31030
3443	Jumper, .05 ohm.	3198 021 90030
3444	Resistor, 220K ohm, 5%	3198 021 32240
3452	Resistor, 22K, 5%.	3198 021 32230
3453	Resistor, 18K ohm, 5%.	3198 021 31830
3466	Resistor, 10K, 5%.	3198 021 31030
3467	Resistor, 10K, 5%.	3198 021 31030
3468	Resistor, 10K, 5%.	3198 021 31030
3471	Jumper, .05 ohm.	3198 021 90030
3472	Jumper, .05 ohm.	3198 021 90030
3473	Jumper, .05 ohm.	3198 021 90030
3474	Jumper, .05 ohm.	3198 021 90030
3477	Resistor, 4K7, 5%.	3198 021 34720
3478	Resistor, 10R, 5%.	3198 021 31090
3483	Resistor, 560 ohm, 5%.	3198 021 55610
3484	Resistor, 1K, 5%	3198 021 31020
3488	Resistor, 220R, 5%	3198 021 32210
3489	Resistor, 390R, 5%	3198 021 33910
3490	Resistor, 390R, 5%	3198 021 33910
3491	Resistor, 820R, 5%	3198 021 38210
3492	Resistor, 560R, 5%	3198 021 35610
3493	Resistor, 390R, 5%	3198 021 33910
3601	Resistor, 100R, 5%	3198 021 31010
3602	Resistor, 100R, 5%	3198 021 31010
3606	Resistor, 27K, 5%.	3198 021 32730
3619	Resistor, 100R, 5%	3198 021 31010
3621	Resistor, 100R, 5%	3198 021 31010
3665	Resistor, 2K2, 5%.	3198 021 32220
4008	Jumper, 0 ohm.	3198 021 90030
4304	Jumper, 0 ohm.	3198 021 90030
4308	Jumper, 0 ohm.	3198 021 90030
4309	Jumper, 0 ohm.	3198 021 90030
4312	Jumper, 0 ohm.	3198 021 90030
4313	Jumper, 0 ohm.	3198 021 90030
4316	Jumper, 0 ohm.	3198 021 90030
4317	Jumper, 0 ohm.	3198 021 90020
4318	Jumper, 0 ohm.	3198 021 90020
4319	Jumper, 0 ohm.	3198 021 90020
4320	Jumper, 0 ohm.	3198 021 90020
4401	Jumper, 0 ohm.	3198 021 90020
4402	Jumper, 0 ohm.	3198 021 90020
4403	Jumper, 0 ohm.	3198 021 90020
4410	Jumper, 0 ohm.	3198 021 90020
4411	Jumper, 0 ohm.	3198 021 90020
4431	Jumper, 0 ohm.	3198 021 90030
4432	Jumper, 0 ohm.	3198 021 90030
4433	Jumper, 0 ohm.	3198 021 90030
4451	Jumper, 0 ohm.	3198 021 90030
4455	Jumper, 0 ohm.	3198 021 90030
4465	Jumper, 0 ohm.	3198 021 90030
4684	Jumper, 0 ohm.	3198 021 90030
5040	Inductor, Fixed 4U7, 5%.	3198 018 64780
5041	Inductor, Fixed 4U7, 5%.	3198 018 64780
5042	Inductor, Fixed 4U7, 5%.	3198 018 64780
5309	Inductor, Fixed 6U8, 5%.	3198 018 66880
5332	Inductor, Fixed 6U8, 5%.	3198 018 66880
5333	Inductor, Fixed 6U8, 5%.	3198 018 66880
5401	Fixed Inductor 0.8uH	3198 018 38270
5421	Inductor, Fixed 22U, 20%	3198 018 32290
5422	Inductor, Fixed 15U, 20%	3198 018 31590
5425	Inductor, Fixed 22U, 20%	3198 018 32290
5426	Inductor, Fixed 15U, 20%	3198 018 31590
5435	Inductor, Fixed 6U8, 5%.	3198 018 66880
5601	Inductor, Fixed 1U, 5%	3198 018 61080
5602	Inductor, Fixed 4U7, 5%.	3198 018 64780
5625	Inductor, Fixed 1U, 5%	3198 018 61080
5665	Inductor, Fixed 15U, 5%.	3198 018 61590
6031	Diode, Regulator UDZ2.4B	9322 131 13685
6302	Diode, Regulator, BZX384-C, 8.2 Volt	3198 020 58280
6303	Diode, Regulator, BZX384-C, 6.8 Volt	3198 020 56880
6412	Diode, Signal, BAS316.	3198 010 10630
6415	Diode, Signal, BAS316.	3198 010 10630
6418	Diode, Signal, BAS316.	3198 010 10630
6419	Diode, Signal, BAS316.	3198 010 10630
6420	Diode, Signal, BAS316.	3198 010 10630
6605	Diode, Signal, BAS316.	3198 010 10630
7053	Transistor, Signal BC847BS	9340 425 20115
7063	Transistor, Signal BC857BW	3198 010 42310
7064	IC, Micro, Cluster DVD2US1, v1.0, SAA 5667	4835 310 57609
7066	IC M24C32-WMN6	9322 124 74668
7301	IC TDA8887H/N1	9352 638 72557
7305	Transistor, Signal BC857BW	3198 010 42310
7307	Transistor, Signal BC857BW	3198 010 42310
7331	Transistor, Signal BC857BW	3198 010 42320
7368	Transistor, Signal BC857BW	3198 010 42310
7401	IC 74HC4053PW.	9351 869 40118
7403	IC TDA9171T/N1	9352 632 26118
7405	IC TC90A45F.	9322 144 38668
7407	IC 74HC4066PW.	9351 750 00118
7412	Transistor, Signal BC847BS	9340 425 20115
7415	Transistor, Signal BC847BS	9340 425 20115
7421	Transistor, Signal BC857BW	3198 010 42310
7425	Transistor, Signal BC857BW	3198 010 42310
7442	Transistor, Signal BC857BW	3198 010 42310
7443	Transistor, Signal BC857BW	3198 010 42310
7446	Transistor, Signal BC857BW	3198 010 42310
7630	IC 74HC4052PW.	9351 874 90118
7651	IC MSP3435G-FH-B5.	9322 143 55671

FRONT INTERFACE PANEL PARTS

CBA	Front Interface Panel Assembly	3139 178 65661
0157	Cable, 5 Pin to 5 Pin.	3139 131 01251
0187	Front Interface Bracket.	3139 124 32891
0214	5 Pin Board Connector.	2422 025 06353
1002	IR Receiver, TSOP1836UH3VL	9322 127 54667

S = Safety Part Be sure to use exact replacement part.

27DV60S121 (continued)

1008	LED, VS LTL-10224WHCR	9322 050 99682
1000	Tactile Switch	2422 128 02742
2001	100uF., 20%, 25V, Electrolytic	3198 025 31010
2002	0.01uF., 50 Volt, Ceramic.	3198 019 21030
3001	470 ohm, 5% 1/6 W, Carbon.	3198 011 04710
3003	1.8k, 5%, 1/4W, Carbon Film.	3198 011 01820
3004	1 ohm, 5%, 1/6W, Carbon Film.	3198 011 01080

MATRIX SURROUND PANEL PARTS

CBA	Matrix Surround Sound Panel Assembly	3139 178 80231
0028	Matrix Bracket, W/O MLink Assembly	3139 137 98781
0167	Cable, 3 Pin to 3 Pin.	3139 131 01172
0224	6 Pin Board Connector.	2422 025 10738
0245	4 Pin Connector.	2422 015 19364
2754	0.01uF., 50 Volt, Ceramic	3198 017 01030
2755	0.01uF., 50 Volt, Ceramic	3198 017 01030

SIDE JACK PANEL PARTS

CBA	Side Jack Panel Assembly	3139 178 67911
0240	11 Pin Connector	2422 025 12485
0306	Bracket, Side A/V Panel.	3139 124 32801
1254	Headphone Jack	2422 026 04747
1255	Audio/Video Jack	2422 026 05026
1256	10 Pin Socket.	2422 026 04926
2286	150pF., 10%, 50V, Ceramic.	3198 019 11510
2288	150pF., 10%, 50V, Ceramic.	3198 019 11510
2292	470pF., 10%, 50V, Ceramic.	3198 019 14710
2294	470pF., 10%, 50V, Ceramic.	3198 019 14710
2296	4700pF., 50 V, Ceramic	3198 019 24720
2297	4700pF., 50 V, Ceramic	3198 019 24720
3285	75 ohm, 5%, 1/6 W, Carbon.	3198 011 07590
3286	10 ohm, 5%, 1/4W, Carbon Film.	3198 011 01090
3287	75 ohm, 5%, 1/6 W, Carbon.	3198 011 07590
3288	10 ohm, 5%, 1/4W, Carbon Film.	3198 011 01090
3289	1.8k, 5%, 1/4W, Carbon Film.	3198 011 01820
3291	1k, 5%, 1/6 W, Carbon.	3198 011 01020
3293	1k, 5%, 1/6 W, Carbon.	3198 011 01020
3295	3.9k, 5%, 1/6W, Carbon	3198 011 03920
9231	Wire, Jumper	0322 179 00003
9232	Wire, Jumper	0322 179 00003
3292	47k, 5%.	3198 021 54730
3294	47k, 5%.	3198 021 54730
3296	10k, 5%.	3198 021 51030
3297	10k, 5%.	3198 021 51030
4241	Jumper 0.05 ohm.	3198 021 90020
4243	Jumper 0.05 ohm.	3198 021 90020
6291	Diode, Regulator, BZX384-C12	3198 020 51290
6292	Diode, Regulator, BZX384-C12	3198 020 51290
6293	Diode, Regulator, BZX384-C12	3198 020 51290
6294	Diode, Regulator, BZX384-C12	3198 020 51290
6296	Diode, Regulator, BZM55-C12.	9322 129 41685
6297	Diode, Regulator, BZM55-C12.	9322 129 41685

TOP CONTROL PANEL PARTS

CBA	Top Control Panel Assembly	3139 178 60461
0027	Bracket, Top Control	3139 124 33941
0030	Rubber, Top Control.	3139 124 30391
0158	Cable, 3 Pin to 3 Pin.	3139 131 01711
0215	3 Pin Connector.	2422 025 09191
0342	Cover, Top Control	3139 124 31131
1091	Tactile Switch	2422 128 02742
1092	Tactile Switch	2422 128 02742
1093	Tactile Switch	2422 128 02742
1094	Tactile Switch	2422 128 02742
3091	Resistor, 560 ohm, 5%.	3198 021 55610
3092	Resistor, 390 ohm, 5%.	3198 021 53910
3093	Resistor, 560 ohm, 5%.	3198 021 55610
3094	Resistor, 270 ohm, 5%.	3198 021 52710
3095	Resistor, 3.3k, 5%	3198 021 53320
3096	Resistor, 1.5k, 5%	3198 021 51520
6091	Diode, Signal, BAT85	9336 247 60133

DVD INTERFACE PANEL PARTS

CBA	DVD Interface Panel Assembly	3121 238 00061
0198	Flex Cable, Foil, 22 Pin to 22 Pin	3139 131 01951
0199	Flex Cable, Foil, 16 Pin to 16 Pin	3139 131 01162
0018	Button, Eject, (Assembly) DVD.	3139 137 97661
0020	Interface Bracket, DVD	3139 124 33571
0136	IC, Spring	3135 011 01041
0169	Cable, 5 Pin to 5 Pin.	3139 131 01641
0173	Cable, 11 Pin to 11 Pin.	3139 131 00731
0194	Cable, 6 Pin to 6 Pin.	3139 110 38961
0195	Cable, 3 Pin to 3 Pin.	3139 131 01181
0197	Wire Assembly.	3139 131 00461
0206	5 Pin Connector.	2422 025 15848
0224	6 Pin Connector.	2422 025 12482
0239	3 Pin Connector.	2412 020 00725
0240	11 Pin Connector	2422 025 12485
0254	Connector, 22 Pin.	2422 025 16526
0255	Connector, 16 Pin.	2422 025 16525
0264	3 Pin Connector.	2412 020 00725
0265	Connector, 12 Pin.	2422 025 08333
0266	11 Pin Connector	2422 025 12485
0267	3 Pin Connector.	2422 025 09191
0268	3 Pin Connector.	2412 020 00725
0302	Heatsink 5V10.	3139 121 61732
0303	Heatsink, Diode.	3139 121 62151
1110	Tactile Switch	2422 128 02742
2100	0.1uF., 25V, Ceramic	3198 023 21040
2101	47pF., 50 Volt, NP0, Ceramic	3198 016 04790
2102	10uF., 20%, 50V, Electrolytic.	3198 025 51090
2103	47pF., 50 Volt, NP0, Ceramic	3198 016 04790
2104	0.1uF., 25V, Ceramic	3198 023 21040
2120	0.1uF., 25V, Ceramic	3198 023 21040
2121	1uF., 16V, Ceramic	3198 017 21050
2122	1uF., 16V, Ceramic	3198 017 21050
2129	15pF., 50 Volt, NP0, Ceramic	3198 016 01590
2130	0.1uF., 25V, Ceramic	3198 023 21040
2131	0.1uF., 25V, Ceramic	3198 023 21040
2132	0.1uF., 25V, Ceramic	3198 023 21040
2133	47uF., 20%, 25V, Electrolytic.	3198 025 34790
2134	0.1uF., 25V, Ceramic	3198 023 21040
2135	0.1uF., 25V, Ceramic	3198 023 21040
2138	100pF., 50 Volt, NP0, Ceramic.	3198 016 01010
2139	100pF., 50 Volt, NP0, Ceramic.	3198 016 01010
2140	100uF., 20%, 25V, Electrolytic	3198 025 31010
2143	100pF., 50 Volt, NP0, Ceramic.	3198 016 01010
2144	100pF., 50 Volt, NP0, Ceramic.	3198 016 01010
2145	100uF., 20%, 25V, Electrolytic	3198 025 31010
2150	0.1uF., 25V, Ceramic	3198 023 21040
2152	470uF., 20%, 16V, Electrolytic	3198 025 24710
2160	0.01uF., 50 Volt, Ceramic	3198 017 01030
2161	0.01uF., 50 Volt, Ceramic	3198 017 01030
2165	0.01uF., 50 Volt, Ceramic	3198 017 01030
2166	0.1uF., 16 Volt, Ceramic	3198 017 01040
2167	0.1uF., 16 Volt, Ceramic	3198 017 01040
2168	0.01uF., 50 Volt, Ceramic	3198 017 01030
2169	0.01uF., 50 Volt, Ceramic	3198 017 01030
2170	100pF., 50 Volt, NP0, Ceramic.	3198 016 01010
2200	0.1uF., 25V, Ceramic	3198 023 21040
2201	0.1uF., 25V, Ceramic	3198 023 21040
2211	0.1uF., 25V, Ceramic	3198 023 21040
2216	0.1uF., 25V, Ceramic	3198 023 21040
2220	0.1uF., 25V, Ceramic	3198 023 21040
2263	0.1uF., 16 Volt, Ceramic	3198 017 01040
2264	0.1uF., 16 Volt, Ceramic	3198 017 01040
2265	0.1uF., 16 Volt, Ceramic	3198 017 01040
2266	0.1uF., 16 Volt, Ceramic	3198 017 01040
2318	0.01uF., 50 Volt, Ceramic.	3198 019 21030
3100	100 ohm, 5%.	3198 021 51010
3101	100 ohm, 5%.	3198 021 51010
3102	68 ohm, 5%	3198 021 56890
3131	2.2k, 5%, 1/6 W, Carbon.	3198 011 02220
3132	5.6k, 5%	3198 021 55620
3136	10k, 5%.	3198 021 51030
3137	10k, 5%.	3198 021 51030
3138	10k, 5%.	3198 021 51030
3139	8.2k, 5%	3198 021 58220
3141	10k, 5%, 1/6 W, Carbon	3198 011 01030
3142	10k, 5%, 1/6 W, Carbon	3198 011 01030
3143	10k, 5%.	3198 021 51030
3144	8.2k, 5%	3198 021 58220
3146	2.2k, 5%	3198 021 52220
3147	2.2k, 5%	3198 021 52220
3150	100 ohm, 5%.	3198 021 51010
3151	100 ohm, 5%.	3198 021 51010
3152	15k, 5%.	3198 021 51530
3155	1k, 5%	3198 021 51020
3156	1k, 5%	3198 021 51020
3157	15k, 5%.	3198 021 51530
3158	15k, 5%.	3198 021 51530
3159	15k, 5%.	3198 021 51530
3160	470 ohm, 5%.	3198 021 54710
3161	18k, 5%.	3198 021 51830
3162	22k, 5%.	3198 021 52230
3163	10k, 5%, 1/6 W, Carbon	3198 011 01030
3200	270 ohm, 5%.	3198 021 52710
3201	100 ohm, 5%.	3198 021 51010
3202	100 ohm, 5%.	3198 021 51010
3203	6.8k, 5%	3198 021 56820
3204	820 ohm, 5%.	3198 021 58210
3205	4.7k, 5%	3198 021 54720
3206	680 ohm, 5%.	3198 021 56810
3207	2.2k, 5%	3198 021 52220
3208	75ohm, 5%.	3198 021 57590
3209	75ohm, 5%.	3198 021 57590
3210	270 ohm, 5%.	3198 021 52710
3211	100 ohm, 5%.	3198 021 51010
3212	100 ohm, 5%.	3198 021 51010
3213	6.8k, 5%	3198 021 56820
3214	820 ohm, 5%.	3198 021 58210
3215	4.7k, 5%	3198 021 54720
3216	680 ohm, 5%.	3198 021 56810
3217	2.2k, 5%	3198 021 52220

S = Safety Part Be sure to use exact replacement part.

27DV60S121 (continued)

3218	100 ohm, 5%.	3198 021 51010
3219	75ohm, 5%.	3198 021 57590
3230	2.2k, 5%	3198 021 52220
3231	2.2k, 5%	3198 021 52220
3233	10k, 5%, 1/6 W, Carbon	3198 011 01030
3234	10k, 5%, 1/6 W, Carbon	3198 011 01030
3300	5.6k, 5%	3198 021 55620
3301	5.6k, 5%	3198 021 55620
3302	18k, 5%.	3198 021 51830
3303	22k, 5%.	3198 021 52230
3313	18k, 5%.	3198 021 51830
3314	22k, 5%.	3198 021 52230
3315	18k, 5%, 1/6W, Carbon.	3198 011 01830
3316	18k, 5%.	3198 021 51830
3317	22k, 5%.	3198 021 52230
3330	18k, 5%.	3198 021 51830
3331	18k, 5%, 1/6W, Carbon.	3198 011 01830
3332	22k, 5%.	3198 021 52230
4000	Jumper 0.05 ohm.	3198 021 90020
4001	Jumper 0.05 ohm.	3198 021 90020
4002	Jumper 0.05 ohm.	3198 021 90020
4004	Jumper 0.05 ohm.	3198 021 90020
4140	Jumper 0.05 ohm.	3198 021 90020
4145	Jumper 0.05 ohm.	3198 021 90020
5129	Fixed Inductor, 5.6uH., 5%	3198 018 15680
5161	Fixed Inductor, 4.7uH., 10%.	3198 018 34780
5300	Fixed Inductor, 33uH, 10%.	3198 018 73390
5305	Inductor, SPT0203 33uH., 5%.	3198 018 13390
5319	Fixed Inductor Bead, 100MHz, 50 ohm.	3198 018 90010
5320	Fixed Inductor Bead, 100MHz, 50 ohm.	3198 018 90010
5322	Fixed Inductor, 10uH., 10%	3198 018 21090
5330	Fixed Inductor, 33uH, 10%.	3198 018 73390
6320	Diode, Rectifier, BYD 33D.	9337 234 00133
7120	IC, HEF4053BT	9333 729 60653
7130	IC, UDA1328T/N1.	9352 616 17118
7131	Transistor	3198 010 43230
7134	IC, MC33078D	9322 010 11668
7146	Transistor	3198 010 43230
7147	Transistor	3198 010 43230
7150	IC, PCF8574AT.	9338 516 60118
7162	Transistor, Signal, BC847B	3198 010 42030
7200	Transistor, Signal, BC847B	3198 010 42030
7201	Transistor, Signal, BC857B	3198 010 42150
7202	Transistor, Signal, BC847B	3198 010 42030
7210	Transistor, Signal, BC847B	3198 010 42030
7211	Transistor, Signal, BC857B	3198 010 42150
7212	Transistor, Signal, BC847B	3198 010 42030
7220	IC, HEF4053BT	9333 729 60653
7230	Transistor, Signal, BC847B	3198 010 42030
7231	Transistor, Signal, BC847B	3198 010 42030
7300	FET, Power, BSP613P.	9322 160 98685
7303	Transistor, Signal, BC847B	3198 010 42030
7315	Transistor, Signal, BC847B	3198 010 42030
7317	Transistor, Signal, BC847B	3198 010 42030
7332	Transistor, Signal, BC847B	3198 010 42030
9000	Wire, Jumper	0322 179 00003
9001	Wire, Jumper	0322 179 00003
9002	Wire, Jumper	0322 179 00003
9003	Wire, Jumper	0322 179 00003
9004	Wire, Jumper	0322 179 00003
9005	Wire, Jumper	0322 179 00003
9006	Wire, Jumper	0322 179 00003
9007	Wire, Jumper	0322 179 00003
9008	Wire, Jumper	0322 179 00003
9009	Wire, Jumper	0322 179 00003
9010	Wire, Jumper	0322 179 00003
9011	Wire, Jumper	0322 179 00003
9012	Wire, Jumper	0322 179 00003
9013	Wire, Jumper	0322 179 00003
9014	Wire, Jumper	0322 179 00003
9015	Wire, Jumper	0322 179 00003
9016	Wire, Jumper	0322 179 00003
9017	Wire, Jumper	0322 179 00003
9018	Wire, Jumper	0322 179 00003
9019	Wire, Jumper	0322 179 00003
9020	Wire, Jumper	0322 179 00003
9021	Wire, Jumper	0322 179 00003
9022	Wire, Jumper	0322 179 00003
9023	Wire, Jumper	0322 179 00003
9024	Wire, Jumper	0322 179 00003
9025	Wire, Jumper	0322 179 00003
9026	Wire, Jumper	0322 179 00003
9027	Wire, Jumper	0322 179 00003
9028	Wire, Jumper	0322 179 00003
9029	Wire, Jumper	0322 179 00003
9030	Wire, Jumper	0322 179 00003
9031	Wire, Jumper	0322 179 00003
9032	Wire, Jumper	0322 179 00003
9033	Wire, Jumper	0322 179 00003
9034	Wire, Jumper	0322 179 00003
9036	Wire, Jumper	0322 179 00003
9037	Wire, Jumper	0322 179 00003
9038	Wire, Jumper	0322 179 00003
9039	Wire, Jumper	0322 179 00003
9040	Wire, Jumper	0322 179 00003
9041	Wire, Jumper	0322 179 00003
9042	Wire, Jumper	0322 179 00003
9043	Wire, Jumper	0322 179 00003
9044	Wire, Jumper	0322 179 00003
9045	Wire, Jumper	0322 179 00003
9046	Wire, Jumper	0322 179 00003
9047	Wire, Jumper	0322 179 00003
9048	Wire, Jumper	0322 179 00003
9049	Wire, Jumper	0322 179 00003
9305	Wire, Jumper	0322 179 00003
9340	Wire, Jumper	0322 179 00003
1100	Connector, Cinch, 1 Pin.	2422 026 04425
2300	1000uF., 25V, Electrolytic	3198 026 31020
2301	2200uF, 16V, 20%, Electrolytic	3198 026 22220
2319	1000uF., 25V, Electrolytic	3198 026 31020
2321	1000uF., 25V, Electrolytic	3198 026 31020
2322	1000uF., 25V, Electrolytic	3198 026 31020
2323	1000uF., 25V, Electrolytic	3198 026 31020
2332	1000uF., 25V, Electrolytic	3198 026 31020
2333	1000uF., 25V, Electrolytic	3198 026 31020
5000	Ferrite, Ceramic	4330 030 36981
5100	Inductor, Variable, 100uF, 10%	2422 549 41663
5318	Transformer, C956-01 Y	2422 531 98024
6318	Diode Rectifier.	9322 128 18682
7100	IC, GP1FA550TZ L	9322 155 28667
7318	IC, SI-8033S(LF1113)	9322 160 18682
7333	IC SI-3050C.	9322 137 01682

27DV60 S121 Cabinet Parts

	27DV60 S121 Cabinet Parts	
AC03	ASD-1 DVD PLAYER ASSEMBLY.	3139 248 70661
AC05	Cabinet Front, 27DV60.	3139 137 81771
AC15	Nameplate.	3111 250 00571
AC14	Light Guide.	3139 124 33811
AC07	Power Button Cover	3139 124 32921
AC19	Power Button Shaft (Not Shown)	3139 124 32791
AC08	Rubber, Top Control.	3139 124 30391
AC20	Speaker, 16 ohm, 5 Watt (2 used)	3139 128 76071
AC13	DVD Door Assembly, 27.	3121 237 52481
AC17	DVD Disc Tray.	3139 194 00270
AC22	Shield, Top, DVD (Not Shown)	3139 121 27071
AC23	Plate, Bottom, DVD (Not Shown)	3139 123 21522
AC16	Operators Manual, 27DV60S	3121 235 20371
AC04	Cabinet, Back, for 27DV60S	3139 124 34181
S AC01	AC Power Cord.	3135 010 03831
AC24	Spring, f/DAG Braid (Not Shown).	3139 121 26231
AC12	Bracket f/DVD Interface Panel.	3139 124 33571
AC02	DAG Braid, 27"	3135 010 05221
AC11	Degaussing Coil Holder	3139 124 31122
REMOTE	Remote Control, RCAU013SLV	3139 128 76391
S AC09	CRT, 68QCP891X001(Yoke & Conv. Asm. are part of the CRT).	9322 142 09682
AC25	1.5V Battery for Remote (2 Pack - Not Shown)	9299 000 10137
S AC10	Coil, Degaussing, 27".	2422 549 44675
AC21	Subwoofer, 10 Watt	3139 128 75771
AC06	Chassis Frame.	3139 124 32562

S = Safety Part Be sure to use exact replacement part.

32DV60S127 - Manual no. 7619

LSP PANEL PARTS - 32"

	CBA	LSP Panel Assembly - 32"	3121 238 00041
	0098	Family Board, Main W/ CRT Panel.	3139 123 52235
	0114	Heatsink	3139 121 61782
	0115	Heatsink, Transistor	3139 121 26891
	0116	Heatsink, Transistor	3139 121 26891
	0121	Heatsink	3139 121 62071
	0122	Heatsink, (Anodized)	3139 121 62221
	0123	Heatsink, Audio.	3139 121 62091
	0124	Heatsink 5V10.	3139 121 61732
	0127	Socket, Fuse Holder.	3122 358 71251
	0130	Insulating Plate, IC	3139 123 21451
	0136	IC, Spring	3135 011 01041
	0137	IC, Spring	3135 011 02331
	0138	IC, Spring	3135 011 02331
	0139	IC, Spring	3135 011 00711
	0140	IC, Spring	3135 011 02331
	0144	IC, Spring	3135 011 02331
	0152	Cable Harness, 5 Pin to 5 Pin.	3139 131 01501
	0153	Cable Harness, 6 Pin to 6 Pin.	3139 131 01491
	0160	Wire Assembly, Sub-Woofer.	3139 131 00491
	0173	Cable 3 Pin to 3 Pin	3139 131 01721
	0181	Cable, 1 Pin to 1 Pin, To DAF Panel.	3139 131 01511
	0188	Heatsink Clamp Bracket	3122 224 04242
	0189	Bracket for Deflection Heatsink.	3139 124 31251
	0206	5 Pin Connector.	2422 025 15848
S	0211	2 Pin Connector.	2422 025 15396
S	0212	2 Pin Connector.	2422 025 15395
	0214	5 Pin Connector.	2422 025 12481
	0215	3 Pin Connector.	2422 025 16382
	0221	4 Pin Connector.	2422 025 15503
	0222	2 Pin Connector.	2422 025 10646
	0224	6 Pin Connector.	2422 025 12482
	0226	80 Pin Connector	2422 025 16599
	0229	3 Pin Connector.	2422 025 16601
	0234	3 Pin Connector.	2412 020 00725
	0235	3 Pin Connector.	2422 025 04851
	0239	9 Pin Connector.	2422 025 11243
	0240	11 Pin Connector	2422 025 12485
	0241	6 Pin Connector.	2422 025 04854
	0242	5 Pin Board Connector.	2422 025 04853
	0246	4 Pin Board Connector.	2422 025 12479
	0247	5 Pin Connector.	2422 025 12481
	0252	3 Pin Connector.	2422 025 04851
	0260	Cable Harness, 11 Pin to 11 Pin.	3139 110 39471
	1001	Tuner.	2422 542 90057
	1262	Socket, Cinch, 9 Pin	2422 026 05211
	1264	10 Pin Socket.	2422 026 04926
S	1900	Fuse, 4 Amp, 250 Volt.	2422 086 10905
S	1931	Relay, 1 Pin, 12 Volt, 5 Amp	2422 132 07444
	2406	0.047uF, 10%, 250 V, Metalized Polyester.	2222 368 90176
S	2411	Capacitor, Ceramic, 1nF, 10%, 2KV.	2020 558 90487
	2415	11nF, 1.6KV, 5%, Metalized Polypropylene.	2020 301 90251
	2416	1500pF, 10%, 2kV, Ceramic.	2020 558 90489
	2419	0.43uF, 5%, 250V, Metalized Polypropylene	2222 479 90022
	2434	Electrolytic YXF 160V 47U, 20%	2020 021 91543
	2437	0.22uF., 250V, Polyester	2222 347 90217
	2445	Electrolytic YK 250V 22U, 20%.	2020 012 93596
	2471	4.7uF., 100V, Metalized Polyester.	2222 368 90178
	2474	Capacitor, Polyester 347 400V 27N, 10	2222 347 90232
	2484	0.047uF, 10%, 250 V, Metalized Polyester.	2222 368 90176
	2531	Electrolytic 16V 3300U, 20%.	3198 026 23320
	2704	1000uF., 35V, Polyester.	2020 021 91106
	2707	1000uF., 35V, Electrolytic	3198 026 41020
	2709	1000uF., 35V, Polyester.	2020 021 91106
	2902	470nF, 275V, 20%, Metalized Polypropylene	2022 330 00018
	2915	470uF, 20% , 200V, Electrolytic.	2020 024 90647
S	2922	Capacitor, Ceramic, 2.2 nF, 10%, 2KV	2020 558 90559
S	2929	2.2nF, 20%, 250V, Ceramic, Safety.	2020 554 90127
	2939	47uF, 20%, 160V, Electrolytic.	2020 021 91358
	2943	Electrolytic 16V 3300U, 20%.	3198 026 23320
	2945	1000uF, 20%, 16V, Electrolytic	3198 026 21020
	2962	4700uF, 10V, 20%, Electrolytic	2020 021 91501
	2974	Electrolytic 35V 2200U, 20%.	3198 026 42220
S	3039	Resistor, Power 3W 10R, 5%	3198 012 31090
S	3040	Resistor, Power 3W 10R, 5%	3198 012 31090
S	3405	Resistor, Power, 4.7K ohm, 5%, 5W, Metal Oxide.	2322 257 41472
S	3409	33k, 1W, +100%/-0% Power Resistor.	3198 012 13330
S	3421	Resistor, Power 2W 22K, 5%	3198 012 22230
S	3423	Resistor, Power 2W 22K, 5%	3198 012 22230
S	3430	Power Resistor, 22 ohm, 5%, 3 W.	3198 012 32290
S	3434	Power Resistor, 22 ohm, 5%, 3 W.	3198 012 32290
S	3489	Power Resistor, 6.8 ohm, 5%, 2 W	3198 012 26880
S	3911	PTC, 3 ohm, +30/-20%, 120V	2120 661 00025
S	3913	Resistor, Power 1W S 100K, 5%.	3198 012 11040
S	3923	Resistor, Power, 0.22 ohm, 5%, 1W.	3198 012 12270
S	3924	Resistor, Power, 0.22 ohm, 5%, 1W.	3198 012 12270
S	3961	Resistor, Power 3W 1K, 5%.	3198 012 31020
S	3970	Power Resistor, 22 ohm, 5%, 3 W.	3198 012 32290
	5406	Transformer, Signal Driver, C925-01 Y	2422 535 91022
	5417	Coil, Linear Correction, C910-01 Y	2422 535 91031
	5431	Transformer, Slot, OV2076.	3128 138 21582
	5475	Coil, Choke, 450uH, C908-01 Y.	2422 535 91019
	5902	Line Filter DMF2405H60B.	2422 549 43432
S	5912	Transformer.	2422 531 02374
	6414	Diode, Rectifier, BY328/20	9340 347 60112
	6447	Diode, Rectifier, BYW76-RAS15/10.	9322 127 32682
	6448	Diode BYW95C/20.	9336 215 90112
	6474	Diode, Rectifier, BYW76-RAS15/10.	9322 127 32682
	6915	Bridge Rectifier, GBU4JL-7002.	9322 132 55667
	6938	Diode, Rectifier, BT229X-600	9340 380 20127
	6941	Diode, Rectifier, SB560L-7000.	9322 136 58682
	6961	Diode, Rectifier, SB560L-7000.	9322 136 58682
	6971	Diode, Rectifier, EGP20DL-5300	9322 100 13682
	7410	Transistor, Power, BU4522AX.	9340 547 93127
	7470	Transistor	9322 123 96687
	7481	Transistor BF819	9335 354 50127
	7501	IC, TDA8172.	9339 229 40682
	7702	IC, N5277.	9322 148 81667
	7921	IC, STR-F6426.	9322 140 37682
S	7929	Opto Coupler TCET1103.	9322 140 14667
S	7942	IC, LM317T	9337 220 80682
	7967	IC, SI-3050C	9322 137 01682
	7971	IC, SE130N	9322 116 23682
S	1901	300 V Surge Protector.	2422 549 43073
S	1941	Fuse, 2.5 Amp, 250 V, IEC.	2422 086 10784
S	1961	Fuse, 2.5 Amp, 250 V, IEC.	2422 086 10784
	2012	0.1uF., 16 Volt, Ceramic	3198 017 01040
	2020	0.01uF., 50 Volt, Ceramic	3198 017 01030
	2021	390pF., 50 Volt, NP0, Ceramic.	3198 016 03910
	2023	1uF., 16V, Ceramic	3198 017 21050
	2024	1uF., 16V, Ceramic	3198 017 21050
	2201	330pF., 50 Volt, NP0, Ceramic.	3198 016 03310
	2203	330pF., 50 Volt, NP0, Ceramic.	3198 016 03310
	2206	330pF., 50 Volt, NP0, Ceramic.	3198 016 03310
	2208	330pF., 50 Volt, NP0, Ceramic.	3198 016 03310
	2211	22pF., 50 Volt, NP0, Ceramic	3198 016 02290
	2217	22pF., 50 Volt, NP0, Ceramic	3198 016 02290
	2219	22pF., 50 Volt, NP0, Ceramic	3198 016 02290
	2224	47uF, 20%, 16V, Electrolytic	3198 028 24790
	2225	22pF., 50 Volt, NP0, Ceramic	3198 016 02290
	2227	220pF., 50 Volt, NP0, Ceramic.	3198 016 02210
	2233	330pF., 50 Volt, NP0, Ceramic.	3198 016 03310
	2239	330pF., 50 Volt, NP0, Ceramic.	3198 016 03310
	2242	330pF., 50 Volt, NP0, Ceramic.	3198 016 03310
	2244	22pF., 50 Volt, NP0, Ceramic	3198 016 02290
	2249	220pF., 50 Volt, NP0, Ceramic.	3198 016 02210
	2261	220uF, 10V, Electrolytic	3198 025 12210
	2262	1000pF., 50 Volt, Ceramic.	3198 017 01020
	2265	100uF., 20%, 25V, Electrolytic	3198 025 31010
	2266	47 nF, 10%, 50V, Ceramic	2238 580 15645
	2271	1.0uF., 20%, 50V, Electrolytic	3198 025 51080
	2276	1000pF., 50 Volt, NP0, Ceramic	3198 016 01020
	2280	100pF., 50 Volt, NP0, Ceramic.	3198 016 01010
	2281	220pF., 50 Volt, NP0, Ceramic.	3198 016 02210
	2282	0.047uF., 25 Volt, Ceramic	3198 023 04730
	2404	470pF, 500V, Ceramic	3198 019 44710
	2409	0.1uF., 10%, 50 Volt, Polyester.	3198 014 01040
	2417	470pF, 500V, Ceramic	3198 019 44710
	2420	2.2uF., 20%, 160V, Electrolytic.	2020 021 91361
	2422	0.1uF., 25V, Ceramic	3198 023 21040
	2430	0.015uF, 10%, 50V, Polyester.	3198 014 01530
	2439	0.47uF., 10%, 50 Volt, Polyester	3198 014 04740
	2442	0.1uF., 25V, Ceramic	3198 023 21040
	2447	470uF., 20%, 16V, Electrolytic	3198 025 24710
	2450	470uF., 20%, 16V, Electrolytic	3198 025 24710
	2462	100uF., 20%, 50V, Electrolytic	3198 025 51010
	2473	470pF, 500V, Ceramic	3198 019 44710
	2478	47uF., 20%, 25V, Electrolytic.	2020 021 90586
S	2485	2200pF., 10%, 500V, Ceramic.	3198 019 42220
	2490	0.022uF., 50 Volt, Ceramic	3198 017 22230
	2492	1uF., 16V, Ceramic	3198 017 21050
	2501	3300pF., 50 Volt, Ceramic	3198 017 03320
	2503	3300pF., 50 Volt, Ceramic	3198 017 03320
	2505	0.1uF., 10%, 50 Volt, Polyester.	3198 014 01040
	2506	100uF, 20%, 50V, Electrolytic.	2020 021 90587
	2521	0.22uF., 10%, 50 Volt, Polyester	3198 014 02240
	2522	1.0uF., 20%, 50V, Electrolytic	3198 025 51080
	2523	0.1uF., 10%, 50 Volt, Polyester.	3198 014 01040
	2524	0.1uF., 10%, 50 Volt, Polyester.	3198 014 01040
	2532	1.0uF., 20%, 50V, Electrolytic	3198 025 51080
	2533	3300pF., 50 Volt, Ceramic	3198 017 03320
	2534	3300pF., 50 Volt, Ceramic	3198 017 03320
	2536	1000pF., 10%, 100 V, Ceramic	2238 600 56623
	2701	0.1uF., 10%, 50 Volt, Polyester.	3198 014 01040
	2702	100uF, 20%, 50V, Electrolytic.	2020 021 90587
	2703	0.1uF., 10%, 50 Volt, Polyester.	3198 014 01040
	2705	1.0uF., 20%, 50V, Electrolytic	3198 025 51080

S = Safety Part Be sure to use exact replacement part.

32DV60S127 (continued)

2706	100 nF, +80/-20%, 50 V, Ceramic. . .	2020 552 95499		3272	10k, 5%.	3198 021 51030	
2708	1.0uF., 20%, 50V, Electrolytic . . .	3198 025 51080		3273	22k, 5%.	3198 021 52230	
2711	0.1uF., 25V, Ceramic	3198 023 21040		3274	150k, 5%	3198 021 51540	
2712	100uF., 20%, 50V, Electrolytic . . .	3198 025 51010		3276	10k, 5%.	3198 021 51030	
2713	100 nF, +80/-20%, 50 V, Ceramic. . .	2020 552 95499		3277	100 ohm, 5%.	3198 021 51010	
2714	100pF., 50 Volt, NP0, Ceramic. . . .	3198 016 01010		3278	220 ohm, 5%, 1/6 W, Carbon	3198 011 02210	
2715	470uF., 20%, 16V, Electrolytic . . .	3198 025 24710		3280	33k, 5%.	3198 021 53330	
2716	0.1uF., 25V, Ceramic	3198 023 21040		3281	4.7k, 5%	3198 021 54720	
2717	100pF., 50 Volt, NP0, Ceramic. . . .	3198 016 01010		3282	47k, 5%.	3198 021 54730	
2718	470uF., 20%, 16V, Electrolytic . . .	3198 025 24710		3283	100k, 5%	3198 021 51040	
2722	0.01uF., 50 Volt, Ceramic	3198 017 01030		3286	1.8k, 5%	3198 021 51820	
2723	0.01uF., 50 Volt, Ceramic	3198 017 01030		3401	100 ohm, 5%, 1/6 W, Carbon	3198 011 01010	
2726	100uF., 20%, 50V, Electrolytic . . .	3198 025 51010		3402	1k, 5%, 1/6 W, Carbon.	3198 011 01020	
2727	0.022uF., 50 Volt, Ceramic.	3198 017 02230		3403	3.3k, 5%, 1/6 W, Carbon.	3198 011 03320	
2728	0.022uF., 50 Volt, Ceramic.	3198 017 02230		3410	33 ohm, 5%, 1/6W, Carbon	3198 011 03390	
2729	0.022uF., 50 Volt, Ceramic.	3198 017 02230		3411	330k, 5%, 1/2W, Metalized Glass. . .	2322 242 13334	
2730	0.022uF., 50 Volt, Ceramic.	3198 017 02230		3412	100k, 5%, 1/6 W, Carbon.	3198 011 01040	
2731	1uF., 16V, Ceramic	3198 017 21050		3414	100k, 5%, 1/6 W, Carbon.	3198 011 01040	
2732	1uF., 16V, Ceramic	3198 017 21050		3417	680 ohm, 5%, 1/4W, Carbon Film . . .	3198 011 06810	
2733	10uF., 20%, 16V, Electrolytic. . . .	3198 028 21090		3435	Resistor, Carbon Film 1/6W 39K, 5% .	3198 011 03930	
2734	47 nF, 10%, 50V, Ceramic	2238 580 15645		3436	33k, 5%, 1/6W, Carbon.	3198 011 03330	
2735	47 nF, 10%, 50V, Ceramic	2238 580 15645		3437	22k, 5%, 1/4W, Carbon Film	3198 011 02230	
2736	47 nF, 10%, 50V, Ceramic	2238 580 15645		3438	470k, 5%	3198 021 54740	
2908	2200pF., 1kV, Ceramic.	3198 019 52220		3439	1k, 5%, 1/6 W, Carbon.	3198 011 01020	
2909	2200pF., 1kV, Ceramic.	3198 019 52220		3440	100k, 5%	3198 021 51040	
2919	47uF, 20%, 50V, Electrolytic	2020 021 90854		3441	6.8k, 5%, 1/6 W, Carbon.	3198 011 06820	
2921	470pF., 10%, 50V, Ceramic.	3198 019 14710		3442	560K ohm, 1%	2322 734 65604	
2925	470pF., 10%, 50V, Ceramic.	3198 019 14710	S	3445	1 ohm, 5%, Fusible Resistor.	2306 207 03108	
2927	1000pF., 10%, 50 Volt, Polyester . .	3198 014 01020	S	3446	1 ohm, 5%, Fusible Resistor.	2306 207 03108	
2932	0.022uF., 50 Volt, Ceramic.	3198 017 02230	S	3447	1 ohm, 5%, Fusible Resistor.	2306 207 03108	
2936	220pF., 10%, 1KV, Ceramic.	3198 019 62210	S	3448	1 ohm, 5%, Fusible Resistor.	2306 207 03108	
2938	470pF., 10%, 1KV, Ceramic.	3198 019 64710	S	3449	1 ohm, 5%, Fusible Resistor.	2306 207 03108	
2941	1000pF, 500V, Ceramic.	3198 019 41020		3452	22k, 5%, 1/4W, Carbon Film	3198 011 02230	
2942	0.22uF., 10%, 50 Volt, Polyester . .	3198 014 02240		3470	1k, 5%, 1/6 W, Carbon.	3198 011 01020	
2961	1000pF, 500V, Ceramic.	3198 019 41020		3471	470 ohm, 5% 1/6 W, Carbon.	3198 011 04710	
2963	0.22uF., 10%, 16V, Ceramic	2238 780 15654		3472	100k, 5%, 1/6 W, Carbon.	3198 011 01040	
2964	1000pF, 500V, Ceramic.	3198 019 41020		3473	82k, 5%, 1/6 W, Carbon	3198 011 08230	
2966	100uF., 20%, 10V, Electrolytic . . .	3198 025 11010		3476	4.7k, 5%, 1/4W, Carbon Film.	3198 011 04720	
2967	100uF., 20%, 10V, Electrolytic . . .	3198 025 11010		3477	12k, 5%, 1/6 W, Carbon	3198 011 01230	
2970	1000pF, 50 Volt, Ceramic.	3198 019 11020		3478	10k, 5%, 1/6 W, Carbon	3198 011 01030	
2977	100uF., 20%, 10V, Electrolytic . . .	3198 025 11010		3479	100k, 5%, 1/6 W, Carbon.	3198 011 01040	
3024	1k, 5%	3198 021 51020		3480	10k, 5%, 1/6 W, Carbon	3198 011 01030	
3025	390 ohm, 5%.	3198 021 53910		3481	10k, 5%, 1/6 W, Carbon	3198 011 01030	
3026	2.2k, 5%	3198 021 52220		3482	10K, 1%, Metal Film.	2322 156 21003	
3027	390 ohm, 5%.	3198 021 53910		3483	3.3k, 1%, Metal Film	2322 156 23302	
3028	5.6k, 5%	3198 021 55620		3484	10k, 5%.	3198 021 51030	
3029	4.7k, 5%	3198 021 54720		3485	1k, 5%	3198 021 51020	
3030	1.2k, 5%	3198 021 51220	S	3487	1 ohm, 5%, Fusible Resistor.	2306 207 03108	
3031	15k, 5%.	3198 021 51530	S	3490	Fusible Resistor, 4.7 ohms, 5% . . .	2306 204 03478	
3032	4.7k, 5%	3198 021 54720	S	3491	Fusible Resistor, 4.7 ohms, 5% . . .	2306 204 03478	
3033	15k, 5%.	3198 021 51530		3501	1k, 5%	3198 021 51020	
3034	10k, 5%.	3198 021 51030		3503	1k, 5%	3198 021 51020	
S 3035	22 ohm, 5%, 1/3W, Metal Film	2306 204 03229		3504	2.2k, 5%, 1/6 W, Carbon.	3198 011 02220	
3037	1.8k, 5%	3198 021 51820		3511	4.7k, 5%, 1/4W, Carbon Film.	3198 011 04720	
3038	1.8k, 5%	3198 021 51820		3512	10k, 5%.	3198 021 51030	
3201	150 ohm, 5%, 1/6 W, Carbon	3198 011 01510		3513	10k, 5%.	3198 021 51030	
3202	220k, 5%	3198 021 52240	S	3521	1.5 ohm, 5%, Fusible Resistor. . . .	2306 204 03158	
3203	1k, 5%, 1/6 W, Carbon.	3198 011 01020		3522	1M ohm, 5%, 1/6W, Carbon	3198 011 01050	
3204	47k, 5%.	3198 021 54730		3523	100 ohm, 5%, 1/6 W, Carbon	3198 011 01010	
3206	150 ohm, 5%, 1/6 W, Carbon	3198 011 01510		3524	100 ohm, 5%, 1/6 W, Carbon	3198 011 01010	
3207	220k, 5%	3198 021 52240		3526	Resistor, 100k ohm, 5%, Metal Film .	2120 101 74338	
3208	1k, 5%, 1/6 W, Carbon.	3198 011 01020		3527	Resistor, 100k ohm, 5%, Metal Film .	2120 101 74338	
3209	47k, 5%.	3198 021 54730		3528	2.2k, 5%, 1/6 W, Carbon.	3198 011 02220	
3223	68 ohm, 5%, 1/6W, Carbon	3198 011 06890	S	3530	Fusible Resistor, 2.2 ohms, 5% . . .	2306 204 03228	
3224	1k, 5%	3198 021 51020		3701	4.7k, 5%	3198 021 54720	
3225	1k, 5%	3198 021 51020		3702	4.7k, 5%	3198 021 54720	
3226	75 ohm, 5%, 1/6 W, Carbon.	3198 011 07590		3704	56k, 5%, 1/6W, Carbon Film	3198 011 05630	
3227	10 ohm, 5%, 1/4W, Carbon Film. . . .	3198 011 01090		3705	1.8k, 5%	3198 021 51820	
3233	1k, 5%, 1/6 W, Carbon.	3198 011 01020		3706	10k, 5%.	3198 021 51030	
3234	47k, 5%.	3198 021 54730		3707	10k, 5%.	3198 021 51030	
3238	1k, 5%, 1/6 W, Carbon.	3198 011 01020		3708	100k, 5%	3198 021 51040	
3239	47k, 5%.	3198 021 54730		3709	220 ohm 5%	3198 021 52210	
3241	10k, 5%.	3198 021 51030		3710	10k, 5%.	3198 021 51030	
3242	1k, 5%, 1/6 W, Carbon.	3198 011 01020		3711	10k, 5%.	3198 021 51030	
3243	75ohm, 5%.	3198 021 57590		3712	8.2k, 5%	3198 021 58220	
3244	100 ohm, 5%, 1/6 W, Carbon	3198 011 01010		3713	22k, 5%.	3198 021 52230	
S 3247	Resistor, Fusible 10 ohm, 5%	2322 750 61009		3715	3.3k, 5%	3198 021 53320	
3248	75ohm, 5%.	3198 021 57590		3716	8.2k, 5%	3198 021 58220	
3249	10 ohm, 5%, 1/4W, Carbon Film. . . .	3198 011 01090		3717	2.7k, 5%	3198 021 52720	
3255	47 ohm, 5%	3198 021 54790		3719	2.7k, 5%	3198 021 52720	
3256	47 ohm, 5%	3198 021 54790		3720	3.3k, 5%	3198 021 53320	
3257	47 ohm, 5%	3198 021 54790		3721	100k, 5%	3198 021 51040	
3258	10k, 5%.	3198 021 51030		3722	2.7k, 5%	3198 021 52720	
3259	4.7k, 5%	3198 021 54720		3723	3.3k, 5%	3198 021 53320	
3263	2.2k, 5%	3198 021 52220		3724	5.6k, 5%	3198 021 55620	
3264	Jumper, 0 ohm.	3198 021 90020		3725	5.6k, 5%	3198 021 55620	
3265	47k, 5%.	3198 021 54730		3727	1.2k, 5%, 1/6W, Carbon Film	3198 011 01220	
3266	4.7k, 5%	3198 021 54720		3728	1.2k, 5%	3198 021 51220	
3267	10 ohm, 5%	3198 021 51090		3730	27k, 5%.	3198 021 52730	
3268	10 ohm, 5%	3198 021 51090		3731	27k, 5%.	3198 021 52730	
3269	10k, 5%.	3198 021 51030		3732	100k, 5%, 1/6 W, Carbon.	3198 011 01040	
3271	33k, 5%.	3198 021 53330		3733	560 ohm, 5%.	3198 021 55610	

S = Safety Part Be sure to use exact replacement part.

32DV60S127 (continued)

3734	4.7 ohm, 5%.	3198 021 54780	
3735	4.7 ohm, 5%.	3198 021 54780	
S 3736	Fusible Resistor, 1 ohm, 5%.	2306 204 03108	
S 3737	Fusible Resistor, 1 ohm, 5%.	2306 204 03108	
S 3901	4.7 Meg, 5%, Metalized Glass	2322 242 13475	
S 3902	2.2 Meg ohm, 5%, 1/2W, Metalized Gla	2322 242 13225	
3917	560 ohm, 5%.	3198 021 55610	
3925	680 ohm, 5%, 1/4W, Carbon Film	3198 011 06810	
3926	3.3k, 5%, 1/6 W, Carbon.	3198 011 03320	
3928	1.8k, 5%, 1/4W, Carbon Film.	3198 011 01820	
3931	10k, 5%.	3198 021 51030	
3932	10k, 5%.	3198 021 51030	
3942	1.2k, 1%, Resistor RC12H	2322 734 61202	
3943	390 ohm, 5%, 1/6 W, Carbon	3198 011 03910	
3944	22k, 5%, 1/4W, Carbon Film	3198 011 02230	
3947	1k, 1%, 1/10W, Metal Film.	2322 734 61002	
3957	1.8k, 5%	3198 021 51820	
3958	1k, 5%	3198 021 51020	
3959	10k, 5%.	3198 021 51030	
3962	5.6k, 5%	3198 021 55620	
3963	10 ohm, 5%	3198 021 51090	
3965	Resistor, 22R, 5%.	3198 021 52290	
3966	680 ohm, 5%.	3198 021 56810	
3967	330 ohm, 5%, 1/6W, Carbon.	3198 011 03310	
3968	3.9k, 5%	3198 021 53920	
3969	10k, 5%, 1/6 W, Carbon	3198 011 01030	
3977	2.7k, 5%	3198 021 52720	
3978	10k, 5%.	3198 021 51030	
3979	15k, 5%.	3198 021 51530	
3986	33k, 5%.	3198 021 53330	
3987	10k, 5%.	3198 021 51030	
3989	330k, 5%	3198 021 53340	
3991	22k, 5%, 1/4W, Carbon Film	3198 011 02230	
3992	10k, 5%.	3198 021 51030	
3993	10k, 5%.	3198 021 51030	
3994	15k, 5%.	3198 021 51530	
3996	1.5 Meg, 5%, Metalized Glass	2322 242 13155	
3997	100 ohm, 5%.	3198 021 51010	
4005	Jumper, 0 ohm.	3198 021 90020	
4010	Jumper, 0 ohm.	3198 021 90020	
4011	Jumper, 0 ohm.	3198 021 90020	
4012	Jumper, 0 ohm.	3198 021 90020	
4013	Jumper, 0 ohm.	3198 021 90020	
4201	Jumper, 0 ohm.	3198 021 90020	
4202	Jumper, 0 ohm.	3198 021 90020	
4203	Jumper, 0 ohm.	3198 021 90020	
4204	Jumper, 0 ohm.	3198 021 90020	
4206	Jumper, 0 ohm.	3198 021 90020	
4207	Jumper, 0 ohm.	3198 021 90020	
4208	Jumper, 0 ohm.	3198 021 90020	
4209	Jumper, 0 ohm.	3198 021 90020	
4212	Jumper, 0 ohm.	3198 021 90020	
4213	Jumper, 0 ohm.	3198 021 90020	
4215	Jumper, 0 ohm.	3198 021 90020	
4216	Jumper, 0 ohm.	3198 021 90020	
4217	Jumper, 0 ohm.	3198 021 90020	
4219	Jumper, 0 ohm.	3198 021 90020	
4220	Jumper, 0 ohm.	3198 021 90020	
4221	Jumper, 0 ohm.	3198 021 90020	
4222	Jumper, 0 ohm.	3198 021 90020	
4223	Jumper, 0 ohm.	3198 021 90020	
4224	Jumper, 0 ohm.	3198 021 90020	
4225	Jumper, 0 ohm.	3198 021 90020	
4226	Jumper, 0 ohm.	3198 021 90020	
4227	Jumper, 0 ohm.	3198 021 90020	
4228	Jumper, 0 ohm.	3198 021 90020	
4231	Jumper, 0 ohm.	3198 021 90020	
4232	Jumper, 0 ohm.	3198 021 90020	
4233	Jumper, 0 ohm.	3198 021 90020	
4234	Jumper, 0 ohm.	3198 021 90020	
4236	Jumper, 0 ohm.	3198 021 90020	
4240	Jumper, 0 ohm.	3198 021 90020	
4241	Jumper, 0 ohm.	3198 021 90020	
4242	Jumper, 0 ohm.	3198 021 90020	
4243	Jumper, 0 ohm.	3198 021 90020	
4244	Jumper, 0 ohm.	3198 021 90020	
4245	Jumper, 0 ohm.	3198 021 90020	
4246	Jumper, 0 ohm.	3198 021 90020	
4247	Jumper, 0 ohm.	3198 021 90020	
4248	Jumper, 0 ohm.	3198 021 90020	
4249	Jumper, 0 ohm.	3198 021 90020	
4250	Jumper, 0 ohm.	3198 021 90020	
4252	Jumper, 0 ohm.	3198 021 90020	
4253	Jumper, 0 ohm.	3198 021 90020	
4254	Jumper, 0 ohm.	3198 021 90020	
4255	Jumper, 0 ohm.	3198 021 90020	
4256	Jumper, 0 ohm.	3198 021 90020	
4257	Jumper, 0 ohm.	3198 021 90020	
4258	Jumper, 0 ohm.	3198 021 90020	
4259	Jumper, 0 ohm.	3198 021 90020	
4260	Jumper, 0 ohm.	3198 021 90020	
4261	Jumper, 0 ohm.	3198 021 90020	
4263	Jumper, 0 ohm.	3198 021 90020	
4265	Jumper, 0 ohm.	3198 021 90020	
4269	Jumper, 0 ohm.	3198 021 90020	
4270	Jumper, 0 ohm.	3198 021 90020	
4271	Jumper, 0 ohm.	3198 021 90020	
4272	Jumper, 0 ohm.	3198 021 90020	
4273	Jumper, 0 ohm.	3198 021 90020	
4274	Jumper, 0 ohm.	3198 021 90020	
4276	Jumper, 0 ohm.	3198 021 90020	
4277	Jumper, 0 ohm.	3198 021 90020	
4278	Jumper, 0 ohm.	3198 021 90020	
4279	Jumper, 0 ohm.	3198 021 90020	
4281	Jumper, 0 ohm.	3198 021 90020	
4282	Jumper, 0 ohm.	3198 021 90020	
4284	Jumper, 0 ohm.	3198 021 90020	
4285	Jumper, 0 ohm.	3198 021 90020	
4286	Jumper, 0 ohm.	3198 021 90020	
4287	Jumper, 0 ohm.	3198 021 90020	
4288	Jumper, 0 ohm.	3198 021 90020	
4291	Jumper, 0 ohm.	3198 021 90020	
4292	Jumper, 0 ohm.	3198 021 90020	
4293	Jumper, 0 ohm.	3198 021 90020	
4294	Jumper, 0 ohm.	3198 021 90020	
4295	Jumper, 0 ohm.	3198 021 90020	
4296	Jumper, 0 ohm.	3198 021 90020	
4400	Jumper, 0 ohm.	3198 021 90020	
4402	Jumper, 0 ohm.	3198 021 90020	
4403	Jumper, 0 ohm.	3198 021 90020	
4404	Jumper, 0 ohm.	3198 021 90020	
4405	Jumper, 0 ohm.	3198 021 90020	
4406	Jumper, 0 ohm.	3198 021 90020	
4407	Jumper, 0 ohm.	3198 021 90020	
4408	Jumper, 0 ohm.	3198 021 90020	
4410	Jumper, 0 ohm.	3198 021 90020	
4412	Jumper, 0 ohm.	3198 021 90020	
4702	Jumper, 0 ohm.	3198 021 90020	
4704	Jumper, 0 ohm.	3198 021 90020	
4706	Jumper, 0 ohm.	3198 021 90020	
4707	Jumper, 0 ohm.	3198 021 90020	
4708	Jumper, 0 ohm.	3198 021 90020	
4709	Jumper, 0 ohm.	3198 021 90020	
4710	Jumper, 0 ohm.	3198 021 90020	
4711	Jumper, 0 ohm.	3198 021 90020	
4712	Jumper, 0 ohm.	3198 021 90020	
4713	Jumper, 0 ohm.	3198 021 90020	
4714	Jumper, 0 ohm.	3198 021 90020	
4715	Jumper, 0 ohm.	3198 021 90020	
4716	Jumper, 0 ohm.	3198 021 90020	
4717	Jumper, 0 ohm.	3198 021 90020	
4718	Jumper, 0 ohm.	3198 021 90020	
4901	Jumper, 0 ohm.	3198 021 90020	
4902	Jumper, 0 ohm.	3198 021 90020	
4903	Jumper, 0 ohm.	3198 021 90020	
5012	Ferrite Bead	2422 535 95444	
5201	Inductor, SPT0203 22uH, 5%	3198 018 12290	
5202	Inductor, SPT0203 22uH, 5%	3198 018 12290	
5203	Jumper, 0 ohm.	3198 021 90020	
5204	Wire, Jumper	0322 179 00003	
5261	Inductor, Fixed 5U6, 10%	3198 018 35680	
5262	12uH., Fixed Coil.	3198 018 21290	
5409	Fixed Inductor, 100MHz, 80 ohm	3198 018 90020	
5411	Fixed Inductor, 100MHz, 80 ohm	3198 018 90020	
5430	Inductor SPT0508 22uH., 5%	2422 535 95365	
5445	Fixed Inductor 27uH., 10%.	3198 018 22790	
5446	Fixed Inductor, 12uH, 5%, SPT0508.	2422 535 95598	
5448	Fixed Inductor, 12uH, 5%, SPT0508.	2422 535 95598	
5521	Ferrite Bead	2422 535 95444	
5523	Ferrite Bead	2422 535 95444	
5524	Ferrite Bead	2422 535 95444	
5701	Fixed Inductor 82uH., 20%.	3198 018 28290	
5702	Inductor, Fixed, 100 uH, 5%.	3198 018 11010	
5920	Fixed Inductor Bead, 100MHz, 50 ohm.	3198 018 90010	
5924	Fixed Inductor Bead, 100MHz, 50 ohm.	3198 018 90010	
5936	Fixed Inductor Bead, 100MHz, 50 ohm.	3198 018 90010	
5939	Fixed Inductor, 27uH., 5%, SPT0508	2422 535 95366	
5941	Fixed Inductor Bead, 100MHz, 50 ohm.	3198 018 90010	
5961	Fixed Inductor Bead, 100MHz, 50 ohm.	3198 018 90010	
5971	Fixed Inductor Bead, 100MHz, 50 ohm.	3198 018 90010	
6010	Diode, Signal, BAS316.	3198 010 10630	
6201	Diode, Regulator, BZX384-C12	3198 020 51290	
6202	Diode, Regulator, BZX384-C12	3198 020 51290	
6203	Diode, Regulator, BZX384-C12	3198 020 51290	
6204	Diode, Regulator, BZX384-C12	3198 020 51290	
6205	Diode, Regulator, BZX384-C12	3198 020 51290	
6206	Diode, Regulator, BZX384-C12	3198 020 51290	
6207	Diode, Regulator, BZX384-C12	3198 020 51290	
6208	Diode, Regulator, BZX384-C12	3198 020 51290	
6266	Diode, Signal, BAS316.	3198 010 10630	
6267	Diode, Regulator, BZX384-C, 8.2 Volt	3198 020 58280	
6268	Diode, Regulator, BZX384-C, 8.2 Volt	3198 020 58280	
6271	Diode, Signal, BAS316.	3198 010 10630	
6273	Diode, Signal, BAS316.	3198 010 10630	

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32DV60S127 (continued)

6274	Diode, Signal, BAS316.	3198 010 10630
6275	Diode, Signal, BAS316.	3198 010 10630
6276	Diode, Signal, BAS316.	3198 010 10630
6279	Diode, Regulator, BZX384-C5V6. . . .	3198 020 55680
6413	Diode, Signal, 1N4148.	3198 010 10010
6419	Diode, Rectifier, BYT42D	9322 126 69673
6420	Diode, Rectifier, BYD 33D.	9337 234 00133
6439	Diode, Regulator, BZX79-C27, 27 Volt	3198 010 22790
6440	Diode, Signal, 1N4148.	3198 010 10010
6442	Diode, Signal, 1N4148.	3198 010 10010
6445	Diode, Rectifier, BYT42J	9322 126 70673
6461	Diode, Rectifier, BYD 33D.	9337 234 00133
6463	Diode, Signal, BAS316.	3198 010 10630
6464	Diode, Regulator, BZX79-B6V2, 6.2V .	9331 668 30133
6468	Diode, Regulator, BZX384-C10	3198 020 51090
6472	Diode, Regulator, BZX79-C10, 10 Volt	3198 010 21090
6480	Diode, Signal, 1N4148.	3198 010 10010
6481	Diode, Signal, BZX79-B33	3198 010 53390
6505	Diode, Rectifier, BYD 33D.	9337 234 00133
6511	Diode, Signal, 1N4148.	3198 010 10010
6512	Diode, Regulator BZX79-C, 5.6 Volt .	3198 010 25680
6522	Diode, Rectifier, BYD 33D.	9337 234 00133
6701	Diode, Signal, 1N4148.	3198 010 10010
6916	Diode.	9337 432 70133
6921	Diode, Regulator, BZX79-C33, 33 Volt	3198 010 23390
6926	Diode, Rectifier, BYD 33D.	9337 234 00133
6928	Diode, Rectifier, BYD 33D.	9337 234 00133
6929	Diode, Rectifier, BYD 33D.	9337 234 00133
6932	Diode, Signal, 1N4148.	3198 010 10010
6942	Diode, Rectifier, BYD 33D.	9337 234 00133
6966	Diode, Regulator, BZX79-B3V9. . . .	3198 010 53980
6973	Diode, Signal, 1N4148.	3198 010 10010
6977	Diode, Regulator, BZX384-C5V1. . . .	3198 020 55180
6986	Diode, Regulator BZX79-C15, 15V. . .	3198 010 21590
6991	Diode, Regulator, BZX79-C8V2, 8.2V .	3198 010 28280
7012	Transistor, Signal, BC547B	3198 020 40030
7013	Transistor, Signal, BC557B	3198 020 40110
7014	Transistor, Signal, BC337-25. . . .	3198 020 43530
7015	Transistor, Signal, BC337-25. . . .	3198 020 43530
7224	Transistor, Signal, BC847B	3198 010 42030
7265	Transistor, Signal, BC847B	3198 010 42030
7273	Transistor, Signal, BC857B	3198 010 42150
7274	Transistor, Signal, BC847B	3198 010 42030
7276	Transistor, Signal, BC847B	3198 010 42030
7277	Transistor, Signal, BC857B	3198 010 42150
7280	Transistor, Signal, BC847B	3198 010 42030
7408	Transistor, Signal BF423	3198 020 43020
7440	Transistor, Signal, BC557B	3198 020 40110
7464	Transistor, Signal, BC547B	3198 020 40030
7467	Transistor, Signal, BC857B	3198 010 42150
7478	Transistor, Signal, BC547B	3198 020 40030
7480	Transistor, Signal, BC547B	3198 020 40030
7513	Transistor, Signal, BC847B	3198 010 42030
7701	Transistor, Signal, BC847B	3198 010 42030
7703	IC, TDA1308T/N1.	9350 721 10115
7704	Transistor, Signal, BC847B	3198 010 42030
7710	Transistor, Signal, BC847B	3198 010 42030
7711	Transistor, Signal, BC857B	3198 010 42150
7712	Transistor, Signal, BC857B	3198 010 42150
7922	Transistor, Signal, BC857B	3198 010 42150
7932	Transistor, Signal, BC847B	3198 010 42030
7944	Transistor, Signal, BC847B	3198 010 42030
7950	Transistor, Signal, BC847B	3198 010 42030
7965	Transistor, Signal, BC337-40	9331 796 00126
7987	Transistor, Signal, BC857B	3198 010 42150
7990	Transistor, Signal, BC857B	3198 010 42150
7991	Transistor, Signal, BC847B	3198 010 42030
7992	Transistor, Signal, BC847B	3198 010 42030
9012	Wire, Jumper	0322 179 00003
9015	Wire, Jumper	0322 179 00003
9016	Wire, Jumper	0322 179 00003
9017	Wire, Jumper	0322 179 00003
9019	Wire, Jumper	0322 179 00003
9020	Wire, Jumper	0322 179 00003
9021	Wire, Jumper	0322 179 00003
9023	Wire, Jumper	0322 179 00003
9025	Wire, Jumper	0322 179 00003
9026	Wire, Jumper	0322 179 00003
9027	Wire, Jumper	0322 179 00003
9028	Wire, Jumper	0322 179 00003
9029	Wire, Jumper	0322 179 00003
9032	Wire, Jumper	0322 179 00003
9035	Wire, Jumper	0322 179 00003
9037	Wire, Jumper	0322 179 00003
9040	Wire, Jumper	0322 179 00003
9200	Wire, Jumper	0322 179 00003
9201	Wire, Jumper	0322 179 00003
9202	Wire, Jumper	0322 179 00003
9203	Wire, Jumper	0322 179 00003
9204	Wire, Jumper	0322 179 00003
9205	Wire, Jumper	0322 179 00003
9206	Wire, Jumper	0322 179 00003
9207	Wire, Jumper	0322 179 00003
9208	Wire, Jumper	0322 179 00003
9209	Wire, Jumper	0322 179 00003
9210	Wire, Jumper	0322 179 00003
9211	Wire, Jumper	0322 179 00003
9212	Wire, Jumper	0322 179 00003
9214	Wire, Jumper	0322 179 00003
9215	Wire, Jumper	0322 179 00003
9216	Wire, Jumper	0322 179 00003
9217	Wire, Jumper	0322 179 00003
9218	Wire, Jumper	0322 179 00003
9219	Wire, Jumper	0322 179 00003
9220	Wire, Jumper	0322 179 00003
9221	Wire, Jumper	0322 179 00003
9222	Wire, Jumper	0322 179 00003
9226	Wire, Jumper	0322 179 00003
9227	Wire, Jumper	0322 179 00003
9228	Wire, Jumper	0322 179 00003
9229	Wire, Jumper	0322 179 00003
9230	Wire, Jumper	0322 179 00003
9231	Wire, Jumper	0322 179 00003
9232	Wire, Jumper	0322 179 00003
9233	Wire, Jumper	0322 179 00003
9234	Wire, Jumper	0322 179 00003
9235	Wire, Jumper	0322 179 00003
9236	Wire, Jumper	0322 179 00003
9238	Wire, Jumper	0322 179 00003
9239	Wire, Jumper	0322 179 00003
9241	Wire, Jumper	0322 179 00003
9242	Wire, Jumper	0322 179 00003
9243	Wire, Jumper	0322 179 00003
9244	Wire, Jumper	0322 179 00003
9245	Wire, Jumper	0322 179 00003
9246	Wire, Jumper	0322 179 00003
9248	Wire, Jumper	0322 179 00003
9249	Wire, Jumper	0322 179 00003
9250	Wire, Jumper	0322 179 00003
9251	Wire, Jumper	0322 179 00003
9252	Wire, Jumper	0322 179 00003
9253	Wire, Jumper	0322 179 00003
9254	Wire, Jumper	0322 179 00003
9255	Wire, Jumper	0322 179 00003
9256	Wire, Jumper	0322 179 00003
9258	Wire, Jumper	0322 179 00003
9259	Wire, Jumper	0322 179 00003
9260	Wire, Jumper	0322 179 00003
9261	Wire, Jumper	0322 179 00003
9262	Wire, Jumper	0322 179 00003
9263	Wire, Jumper	0322 179 00003
9264	Wire, Jumper	0322 179 00003
9265	Wire, Jumper	0322 179 00003
9266	Wire, Jumper	0322 179 00003
9267	Wire, Jumper	0322 179 00003
9268	Wire, Jumper	0322 179 00003
9269	Wire, Jumper	0322 179 00003
9270	Wire, Jumper	0322 179 00003
9271	Wire, Jumper	0322 179 00003
9272	Wire, Jumper	0322 179 00003
9273	Wire, Jumper	0322 179 00003
9274	Wire, Jumper	0322 179 00003
9275	Wire, Jumper	0322 179 00003
9276	Wire, Jumper	0322 179 00003
9277	Wire, Jumper	0322 179 00003
9278	Wire, Jumper	0322 179 00003
9279	Wire, Jumper	0322 179 00003
9280	Wire, Jumper	0322 179 00003
9281	Wire, Jumper	0322 179 00003
9283	Wire, Jumper	0322 179 00003
9284	Wire, Jumper	0322 179 00003
9285	Wire, Jumper	0322 179 00003
9286	Wire, Jumper	0322 179 00003
9287	Wire, Jumper	0322 179 00003
9288	Wire, Jumper	0322 179 00003
9289	Wire, Jumper	0322 179 00003
9290	Wire, Jumper	0322 179 00003
9291	Wire, Jumper	0322 179 00003
9292	Wire, Jumper	0322 179 00003
9293	Wire, Jumper	0322 179 00003
9294	Wire, Jumper	0322 179 00003
9295	Wire, Jumper	0322 179 00003
9296	Wire, Jumper	0322 179 00003
9401	Wire, Jumper	0322 179 00003
9402	Wire, Jumper	0322 179 00003
9403	Wire, Jumper	0322 179 00003
9404	Wire, Jumper	0322 179 00003
9406	Wire, Jumper	0322 179 00003
9407	Wire, Jumper	0322 179 00003
9408	Wire, Jumper	0322 179 00003
9411	Wire, Jumper	0322 179 00003
9412	Wire, Jumper	0322 179 00003
9413	Wire, Jumper	0322 179 00003
9414	Wire, Jumper	0322 179 00003

S = Safety Part Be sure to use exact replacement part.

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9415	Wire, Jumper	0322 179 00003
9417	Wire, Jumper	0322 179 00003
9418	Wire, Jumper	0322 179 00003
9420	Wire, Jumper	0322 179 00003
9421	Wire, Jumper	0322 179 00003
9423	Wire, Jumper	0322 179 00003
9424	Wire, Jumper	0322 179 00003
9425	Wire, Jumper	0322 179 00003
9427	Wire, Jumper	0322 179 00003
9428	Wire, Jumper	0322 179 00003
9429	Wire, Jumper	0322 179 00003
9430	Wire, Jumper	0322 179 00003
9431	Wire, Jumper	0322 179 00003
9432	Wire, Jumper	0322 179 00003
9434	Wire, Jumper	0322 179 00003
9437	Wire, Jumper	0322 179 00003
9438	Wire, Jumper	0322 179 00003
9439	Wire, Jumper	0322 179 00003
9441	Wire, Jumper	0322 179 00003
9442	Wire, Jumper	0322 179 00003
9443	Wire, Jumper	0322 179 00003
9445	Wire, Jumper	0322 179 00003
9494	Wire, Jumper	0322 179 00003
9495	Wire, Jumper	0322 179 00003
9497	Wire, Jumper	0322 179 00003
9600	Wire, Jumper	0322 179 00003
9700	Wire, Jumper	0322 179 00003
9702	Wire, Jumper	0322 179 00003
9704	Wire, Jumper	0322 179 00003
9705	Wire, Jumper	0322 179 00003
9707	Wire, Jumper	0322 179 00003
9708	Wire, Jumper	0322 179 00003
9709	Wire, Jumper	0322 179 00003
9710	Wire, Jumper	0322 179 00003
9711	Wire, Jumper	0322 179 00003
9712	Wire, Jumper	0322 179 00003
9713	Wire, Jumper	0322 179 00003
9714	Wire, Jumper	0322 179 00003
9715	Wire, Jumper	0322 179 00003
9716	Wire, Jumper	0322 179 00003
9717	Wire, Jumper	0322 179 00003
9718	Wire, Jumper	0322 179 00003
9901	Wire, Jumper	0322 179 00003
9902	Wire, Jumper	0322 179 00003
9903	Wire, Jumper	0322 179 00003
9904	Wire, Jumper	0322 179 00003
9905	Wire, Jumper	0322 179 00003
9907	Wire, Jumper	0322 179 00003
9909	Wire, Jumper	0322 179 00003
9910	Wire, Jumper	0322 179 00003
9911	Wire, Jumper	0322 179 00003
9912	Wire, Jumper	0322 179 00003
9913	Wire, Jumper	0322 179 00003
9921	Wire, Jumper	0322 179 00003
9922	Wire, Jumper	0322 179 00003
9923	Wire, Jumper	0322 179 00003
9933	Wire, Jumper	0322 179 00003
9937	Wire, Jumper	0322 179 00003
9939	Wire, Jumper	0322 179 00003
9948	Wire, Jumper	0322 179 00003
9964	Wire, Jumper	0322 179 00003
9966	Wire, Jumper	0322 179 00003
9970	Wire, Jumper	0322 179 00003
9972	Wire, Jumper	0322 179 00003
9973	Wire, Jumper	0322 179 00003
9974	Wire, Jumper	0322 179 00003
9975	Wire, Jumper	0322 179 00003
9976	Wire, Jumper	0322 179 00003
9977	Wire, Jumper	0322 179 00003
9978	Wire, Jumper	0322 179 00003
9979	Wire, Jumper	0322 179 00003
9980	Wire, Jumper	0322 179 00003
9981	Wire, Jumper	0322 179 00003
9982	Wire, Jumper	0322 179 00003
9983	Wire, Jumper	0322 179 00003
9985	Wire, Jumper	0322 179 00003
9986	Wire, Jumper	0322 179 00003
9987	Wire, Jumper	0322 179 00003
9990	Wire, Jumper	0322 179 00003
9992	Wire, Jumper	0322 179 00003
9993	Wire, Jumper	0322 179 00003
9994	Wire, Jumper	0322 179 00003
9996	Wire, Jumper	0322 179 00003
9997	Wire, Jumper	0322 179 00003
9998	Wire, Jumper	0322 179 00003

CRT PANEL PARTS - 32"

CBA	CRT Panel Assembly - 32"	3139 137 25691
0085	Socket, CRT N-Neck	2422 500 80069
0125	Heatsink, (Use Heatsink Compound).	3139 121 26731
0141	IC Spring.	3135 011 00711
0165	Terminal Assembly.	3139 131 01291

0217	3 Pin Connector.	2412 020 00725
0243	6 Pin Connector.	2422 025 12482
0244	5 Pin Connector.	2422 025 12481
2831	3300pF, 500V, Ceramic.	3198 019 43320
2835	0.1uF., 25V, Ceramic	3198 023 21040
2836	1000pF., 10%, 50 Volt, Polyester	3198 014 01020
2860	100uF., 20%, 25V, Electrolytic	3198 025 31010
2861	22pF., 50 Volt, NP0, Ceramic	3198 016 02290
2862	18pF., 50 Volt, NP0, Ceramic	3198 016 01890
2863	15pF., 50 Volt, NP0, Ceramic	3198 016 01590
2864	0.47uF., 10%, 50 Volt, Polyester	3198 014 04740
2865	15pF., 50 Volt, NP0, Ceramic	3198 016 01590
2866	0.47uF., 16 Volt, Ceramic.	3198 017 24740
2867	680pF., 5%, 50V, Ceramic	3198 016 06810
2868	100pF., 50 Volt, NP0, Ceramic.	3198 016 01010
2870	0.022uF., 50 Volt, Ceramic.	3198 017 02230
2871	22uF., 100V, Electrolytic.	3198 025 72290
2872	470pF, 500V, Ceramic	3198 019 44710
2874	56pF., 50 Volt, NP0, Ceramic	3198 016 05690
2877	Jumper 0.05 ohm,	3198 021 90020
3831	100 ohm, 5%, 1/6 W, Carbon	3198 011 01010
3832	1k, 20%, 1/2W, Carbon Composition.	3198 013 01020
3833	100 ohm, 5%, 1/6 W, Carbon	3198 011 01010
3834	1k, 20%, 1/2W, Carbon Composition.	3198 013 01020
3835	100 ohm, 5%, 1/6 W, Carbon	3198 011 01010
3836	1k, 20%, 1/2W, Carbon Composition.	3198 013 01020
3837	Jumper 0.05 ohm,	3198 021 90020
3838	Jumper 0.05 ohm,	3198 021 90020
3839	Jumper 0.05 ohm,	3198 021 90020
S 3840	Fusible Resistor, 100 ohm, 5%.	2306 204 03101
S 3841	Fusible Resistor, 2.2 ohms, 5%	2306 204 03228
S 3842	Fusible Resistor, 2.2 ohms, 5%	2306 204 03228
S 3843	1.5k, 20%, 1/2W, Carbon Composition.	3198 013 01520
3845	330k, 5%, 1/4W, Carbon Film.	3198 011 03340
S 3860	Fusible Resistor, 10 ohm, 5%	2306 204 03109
3861	2.7k, 5%,	3198 021 52720
3862	2.7k, 5%,	3198 021 52720
3863	2.7k, 5%,	3198 021 52720
3864	330 ohm 5%,	3198 021 53310
3865	18k, 5%,	3198 021 51830
3866	3.3k, 5%,	3198 021 53320
3869	10 ohm, 5%	3198 021 51090
3870	820 ohm, 5%.	3198 021 58210
3871	56k, 5%.	3198 021 55630
3872	56k, 5%.	3198 021 55630
3873	820 ohm, 5%.	3198 021 58210
3875	2.2k, 5%,	3198 021 52220
3876	10 ohm, 5%	3198 021 51090
3877	100 ohm, 5%.	3198 021 51010
3878	470 ohm, 5%,	3198 021 54710
3880	47 ohm, 5%, 1/6 W, Carbon.	3198 011 04790
3881	Jumper 0.05 ohm,	3198 021 90020
3882	220 ohm, 5%, 1/6 W, Carbon	3198 011 02210
3886	560 ohm, 5%,	3198 021 55610
3888	560 ohm, 5%,	3198 021 55610
3890	560 ohm, 5%,	3198 021 55610
3893	Wire, Jumper	0322 179 00003
3896	Wire, Jumper	0322 179 00003
4801	Jumper 0.05 ohm,	3198 021 90020
5842	Coil, 56uH., 5%.	2422 535 95597
5860	Inductor 100uH 60ohm	2422 535 96559
5861	Inductor 100uH 60ohm	2422 535 96559
5862	Fixed Inductor 5.6uH., 10%	3198 018 25680
6831	Diode, Signal, BAV21	3198 010 10070
6832	Diode, Signal, BAS216.	9340 255 30115
6833	Diode, Signal, BAV21	3198 010 10070
6835	Diode, Signal, BAV21	3198 010 10070
6837	Diode, Regulator BZD23-C24	9337 534 80133
S 6838	Diode, Regulator BZD23-C24	9337 534 80133
6861	Diode, Signal, BAS316.	3198 010 10630
6862	Diode, Signal, BAS316.	3198 010 10630
6867	Diode, Signal, 1N4148.	3198 010 10010
6868	Diode, Signal, 1N4148.	3198 010 10010
6869	Zener Diode, 3.9V.	3198 010 23980
7860	Transistor BF199	9330 634 20126
7861	Transistor, Signal	9335 447 20126
9801	Wire, Jumper	0322 179 00003
9802	Wire, Jumper	0322 179 00003
9803	Wire, Jumper	0322 179 00003
9821	Wire, Jumper	0322 179 00003
9822	Wire, Jumper	0322 179 00003
9823	Wire, Jumper	0322 179 00003
9824	Wire, Jumper	0322 179 00003
9840	Wire, Jumper	0322 179 00003
9876	Wire, Jumper	0322 179 00003
9877	Wire, Jumper	0322 179 00003
2830	0.1uF, 10%, 250V, Metalized Polyester	2222 368 90177
2840	10uF, 20%, 250 Volt, Electrolytic.	2020 012 93495
S 2843	Capacitor, Ceramic, 2KV, 2N2, 10%.	2020 558 90559
2869	0.1uF., 100V, Electrolytic	2222 347 90224
2873	0.022uF., 10%, 250V, Electrolytic.	2222 347 90225
S 3874	Resistor, Power, 8.2K ohm, 5%, 5W.	2322 257 41822

S = Safety Part Be sure to use exact replacement part.

32DV60S127 (continued)

5886	Delay Line, 160 ns, SDL-4893	2722 122 00333
5888	Delay Line, 160 ns, SDL-4893	2722 122 00333
5890	Delay Line, 160 ns, SDL-4893	2722 122 00333
7830	IC TDA6107Q/N2	9352 576 50112
7862	Power Transistor	9334 507 70127
7863	Power Transistor	9334 507 60127

DAF PANEL PARTS - 32"

CBA	DAF Panel Assembly - 32"	3139 137 24481
0180	Cable, To connector 0221 on LSP Panel	3139 131 00761
S 0221	4 Pin Connector.	2422 025 15503
S 0258	4 Pin Connector.	2422 025 15503
2492	390pF, 10%, 2KV, Ceramic	2020 558 90482
2493	390pF, 10%, 2KV, Ceramic	2020 558 90482
S 3498	VDR , DC, 1mA/423V (MAX 750V). . . .	2322 592 13017
S 3499	VDR , DC, 1mA/423V (MAX 750V). . . .	2322 592 13017
5493	Transformer, DAF, Signal	3128 138 34581
9401	Wire, Jumper	0322 179 00003

SSB PANEL PARTS

CBA	SSB Panel Assembly	3139 178 82101
1057	Crystal Resonator, 12MHZ 20P DSX840 R	2422 543 01095
1327	Crystal Resonator, 12MHZ 20P DSX840 R	2422 543 01095
1451	S.A.W. Filter, 45.75MHz, OFWM1967L R	2422 549 44377
1630	Crystal Resonator, 18M432 12P DSX840	2422 543 01059
2010	820pF 25V.	3198 016 38210
2014	1uF +80/-20% 10V	3198 017 41050
2015	1uF +80/-20% 10V	3198 017 41050
2016	Capacitor, Ceramic X7R 16V 100N. . .	3198 017 31040
2017	Capacitor, Ceramic X7R 16V 100N. . .	3198 017 31040
2018	Capacitor, Ceramic X7R 50V2N2. . . .	3198 017 32220
2041	22pF., 50 V, NPO, Ceramic.	3198 016 32290
2042	22pF., 50 V, NPO, Ceramic.	3198 016 32290
2043	4.7uF., 35V, 20%, Electrolytic . . .	3198 030 74780
2044	Capacitor, Ceramic X7R 16V 100N. . .	3198 017 31040
2045	Ceramic NP0 50V 18P.	3198 016 31890
2046	Ceramic NP0 50V 18P.	3198 016 31890
2049	Capacitor, Ceramic Y5V 16V 220N. . .	3198 017 42240
2050	Ceramic NP0 50V 100P	3198 016 31010
2051	Capacitor, Ceramic X7R 16V 100N. . .	3198 017 31040
2053	Electrolytic 16V 10U, 20%.	3198 030 41090
2301	1uF +80/-20% 10V	3198 017 41050
2302	Ceramic NP0 50V 330P	3198 016 33310
2303	Capacitor, Ceramic X7R 50V 4N7 . . .	3198 017 34720
2306	Capacitor, Ceramic Y5V 50V 10N . . .	3198 017 41030
2309	Capacitor, Ceramic Y5V 25V 100N. . .	3198 023 41040
2311	1uF +80/-20% 10V	3198 017 41050
2312	Capacitor, Ceramic X7R 50V 10N . . .	3198 017 31030
2313	Capacitor, Ceramic X7R 16V 100N. . .	3198 017 31040
2314	Capacitor, Polypropylene 16V 100N, 5	2020 319 90005
2316	Capacitor, Ceramic X7R 25V 22N . . .	3198 017 32230
2317	Capacitor, Ceramic Y5V 16V 220N. . .	3198 017 42240
2319	Capacitor, Ceramic Y5V 25V 100N. . .	3198 023 41040
2321	Capacitor, Ceramic X7R 50V 4N7 . . .	3198 017 34720
2322	Electrolytic 16V 10U, 20%.	3198 030 41090
2323	22nF 50V	3198 017 42230
2324	Capacitor, Ceramic Y5V 25V 100N. . .	3198 023 41040
2325	22nF 50V	3198 017 42230
2326	22nF 50V	3198 017 42230
2327	Ceramic NP0 50V 33P.	3198 016 33390
2328	Ceramic NP0 50V 33P.	3198 016 33390
2332	Capacitor, Ceramic Y5V 16V 220N. . .	3198 017 42240
2333	Capacitor, Ceramic Y5V 25V 100N. . .	3198 023 41040
2334	Capacitor, Ceramic X7R 16V 100N. . .	3198 017 31040
2335	1uF +80/-20% 10V	3198 017 41050
2338	Capacitor, Ceramic X7R 50V2N2. . . .	3198 017 32220
2342	Ceramic NP0 50V 15P.	3198 016 31590
2345	Ceramic NP0 50V 15P.	3198 016 31590
2348	Ceramic NP0 50V 15P.	3198 016 31590
2350	4.7uF., 35V, 20%, Electrolytic . . .	3198 030 74780
2354	470nF 10V.	3198 017 44740
2355	470nF 10V.	3198 017 44740
2356	470nF 10V.	3198 017 44740
2357	Ceramic NP0 50V 10P.	3198 016 31090
2372	Capacitor, Ceramic X7R 50V 4N7 . . .	3198 017 34720
2373	Electrolytic 50V 1U, 20%	3198 030 81080
2374	Capacitor, Ceramic X7R 25V 22N . . .	3198 017 32230
2375	1nF 5% 25V	3198 016 31020
2376	1nF 5% 25V	3198 016 31020
2377	1nF 5% 25V	3198 016 31020
2380	Electrolytic 16V 10U, 20%.	3198 030 41090
2381	Capacitor, Ceramic Y5V 25V 100N. . .	3198 023 41040
2382	Electrolytic 16V 47U, 20%.	3198 030 44790
2401	1uF +80/-20% 10V	3198 017 41050
2402	1uF +80/-20% 10V	3198 017 41050
2403	1uF +80/-20% 10V	3198 017 41050
2404	Capacitor, Ceramic X7R 25V 22N . . .	3198 017 32230
2405	Capacitor, Ceramic X7R 25V 22N . . .	3198 017 32230
2407	Capacitor, Ceramic X7R 16V 100N. . .	3198 017 31040
2408	Capacitor, Ceramic X7R 16V 100N. . .	3198 017 31040
2412	Capacitor, Ceramic Y5V 16V 220N. . .	3198 017 42240
2413	Electrolytic 16V 47U, 20%.	3198 030 44790
2415	Capacitor, Ceramic Y5V 16V 220N. . .	3198 017 42240
2417	Electrolytic 16V 10U, 20%.	3198 030 41090
2420	Ceramic NP0 50V 100P	3198 016 31010
2421	Capacitor, Ceramic Y5V 50V 10N . . .	3198 017 41030
2422	Capacitor, Ceramic Y5V 50V 10N . . .	3198 017 41030
2423	Capacitor, Ceramic Y5V 50V 10N . . .	3198 017 41030
2424	Capacitor, Ceramic Y5V 50V 10N . . .	3198 017 41030
2425	Capacitor, Ceramic Y5V 50V 10N . . .	3198 017 41030
2427	Capacitor, Ceramic Y5V 50V 10N . . .	3198 017 41030
2428	Capacitor, Ceramic Y5V 50V 10N . . .	3198 017 41030
2429	Capacitor, Ceramic Y5V 50V 10N . . .	3198 017 41030
2430	Ceramic NP0 50V 68P.	3198 016 36890
2431	Ceramic NP0 50V 27P.	3198 016 32790
2432	Electrolytic 16V 10U, 20%.	3198 030 41090
2433	Capacitor, Ceramic X7R 50V 10N . . .	3198 017 31030
2434	Capacitor, Ceramic X7R 50V 10N . . .	3198 017 31030
2435	Electrolytic 16V 10U, 20%.	3198 030 41090
2437	Capacitor, Ceramic Y5V 50V 10N . . .	3198 017 41030
2438	Ceramic NP0 50V 180P	3198 016 31810
2439	Ceramic NP0 50V 150P	3198 016 31510
2440	Ceramic NP0 50V 56P.	3198 016 35690
2441	Capacitor, Ceramic X7R 16V 100N. . .	3198 017 31040
2442	Capacitor, Ceramic Y5V 16V 220N. . .	3198 017 42240
2443	Capacitor, Ceramic X7R 50V 10N . . .	3198 017 31030
2444	Capacitor, Ceramic X7R 50V 10N . . .	3198 017 31030
2445	Capacitor, Ceramic X7R 50V 10N . . .	3198 017 31030
2446	Capacitor, Ceramic X7R 50V 10N . . .	3198 017 31030
2447	Capacitor, Ceramic X7R 50V 10N . . .	3198 017 31030
2449	Capacitor, Ceramic X7R 16V 100N. . .	3198 017 31040
2450	Electrolytic 16V 10U, 20%.	3198 030 41090
2451	Electrolytic 16V 10U, 20%.	3198 030 41090
2453	Capacitor, Ceramic X7R 50V 10N . . .	3198 017 31030
2457	Electrolytic 16V 10U, 20%.	3198 030 41090
2458	Electrolytic 50V 1U, 20%	3198 030 81080
2461	Electrolytic 16V 10U, 20%.	3198 030 41090
2462	Capacitor, Ceramic Y5V 50V 10N . . .	3198 017 41030
2463	Capacitor, Ceramic Y5V 50V 10N . . .	3198 017 41030
2601	Ceramic NP0 50V 470P	3198 016 34710
2602	Capacitor, Ceramic X7R 16V 100N. . .	3198 017 31040
2606	Electrolytic 16V 10U, 20%.	3198 030 41090
2607	Capacitor, Ceramic Y5V 16V 220N. . .	3198 017 42240
2612	Capacitor, Ceramic X7R 50V 1N. . . .	3198 017 31020
2613	Capacitor, Ceramic X7R 50V 1N. . . .	3198 017 31020
2619	Capacitor, Ceramic X7R 50V 4N7 . . .	3198 017 34720
2620	1uF +80/-20% 10V	3198 017 41050
2621	1uF +80/-20% 10V	3198 017 41050
2623	Electrolytic 16V 10U, 20%.	3198 030 41090
2624	Capacitor, Ceramic X7R 16V 100N. . .	3198 017 31040
2625	Electrolytic 16V 22U, 20%.	3198 030 42290
2628	Capacitor, Ceramic X7R 16V 100N. . .	3198 017 31040
2629	Electrolytic 16V 10U, 20%.	3198 030 41090
2635	1uF +80/-20% 10V	3198 017 41050
2636	330pF., 50V, Ceramic	3198 017 33310
2637	1uF +80/-20% 10V	3198 017 41050
2638	330pF., 50V, Ceramic	3198 017 33310
2639	330pF., 50V, Ceramic	3198 017 33310
2640	1uF +80/-20% 10V	3198 017 41050
2641	330pF., 50V, Ceramic	3198 017 33310
2642	1uF +80/-20% 10V	3198 017 41050
2655	Capacitor, Ceramic X7R 50V 4N7 . . .	3198 017 34720
2657	Electrolytic 16V 10U, 20%.	3198 030 41090
2661	Capacitor, Ceramic X7R 16V 100N. . .	3198 017 31040
2662	10uF, 20%, 16V, Electrolytic	3198 030 41090
2663	47pF, 50V, NPO, Ceramic.	3198 016 34790
2664	56pF, 50V, NPO, Ceramic.	3198 016 35690
2665	27pF, 50V, NPO, Ceramic.	3198 016 32790
2666	180pf, 50V, NPO, Ceramic	3198 016 31810
2667	15pF, 50V, NPO, Ceramic.	3198 016 31590
2675	3.3pF, 50V, NPO, Ceramic	3198 016 33380
2676	3.3pF, 50V, NPO, Ceramic	3198 016 33380
2678	1uF +80/-20% 10V	3198 017 41050
2679	100nF, 16V, Ceramic.	3198 017 31040
2682	1uF +80/-20% 10V	3198 017 41050
2683	1uF +80/-20% 10V	3198 017 41050
2684	1uF +80/-20% 10V	3198 017 41050
2685	1uF +80/-20% 10V	3198 017 41050
2686	1uF +80/-20% 10V	3198 017 41050
2687	1uF +80/-20% 10V	3198 017 41050
3002	Resistor, 8K2, 5%.	3198 021 38220
3003	Resistor, 10K, 5%.	3198 021 31030
3004	Resistor, 8K2, 5%.	3198 021 38220
3007	Resistor, 8K2, 5%.	3198 021 38220
3008	Resistor, 8K2, 5%.	3198 021 38220
3009	Resistor, 8K2, 5%.	3198 021 38220
3013	Resistor, 8K2, 5%.	3198 021 38220
3014	Resistor, 8K2, 5%.	3198 021 38220
3015	Resistor, 10K, 5%.	3198 021 31030
3017	Resistor, 100R, 5%	3198 021 31010
3018	Resistor, 100R, 5%	3198 021 31010
3019	Resistor, 100R, 5%	3198 021 31010
3021	Resistor, 100R, 5%	3198 021 31010
3022	Resistor, 2K2, 5%.	3198 021 32220

S = Safety Part Be sure to use exact replacement part.

32DV60S127 (continued)

3023	Resistor, 8K2, 5%.	3198 021 38220
3024	Resistor, 1K, 5%	3198 021 31020
3030	Resistor, 1K, 5%	3198 021 31020
3031	Resistor, 470R, 5%	3198 021 34710
3034	Resistor, 47K, 5%.	3198 021 34730
3035	Resistor, 470R, 5%	3198 021 34710
3042	Resistor, 100R, 5%	3198 021 31010
3043	Resistor, 100R, 5%	3198 021 31010
3044	Resistor, 10K, 5%.	3198 021 31030
3045	Resistor, 2K7, 5%.	3198 021 32720
3046	Resistor, 4K7, 5%.	3198 021 34720
3051	Resistor, 24K, 1%.	2322 704 62403
3054	Resistor, 10K, 5%.	3198 021 31030
3055	Resistor, 10K, 5%.	3198 021 31030
3056	Resistor, 47K, 5%.	3198 021 34730
3057	Resistor, 10K, 5%.	3198 021 31030
3058	Resistor, 470R, 5%	3198 021 34710
3059	Resistor, 100R, 5%	3198 021 31010
3061	Resistor, 470R, 5%	3198 021 34710
3062	Resistor, 4K7, 5%.	3198 021 34720
3064	Resistor, 4K7, 5%.	3198 021 34720
3065	Resistor, 4K7, 5%.	3198 021 34720
3066	Resistor, 8K2, 5%.	3198 021 38220
3081	Resistor, 4K7, 5%.	3198 021 34720
3082	Resistor, 10K, 5%.	3198 021 31030
3083	Resistor, 470R, 5%	3198 021 34710
3084	Resistor, 100R, 5%	3198 021 31010
3085	Resistor, 100R, 5%	3198 021 31010
3086	Resistor, 100R, 5%	3198 021 31010
3088	Resistor, 100R, 5%	3198 021 31010
3092	Resistor, 100R, 5%	3198 021 31010
3301	Resistor, 1K, 5%	3198 021 31020
3302	Resistor, 560R, 5%	3198 021 35610
3305	Resistor, 3K9, 5%.	3198 021 33920
3307	Resistor, 390R, 5%	3198 021 33910
3311	Resistor, 27K, 5%.	3198 021 32730
3312	Resistor, 10K, 5%.	3198 021 31030
3315	Resistor, 39K, 5%.	3198 021 33930
3316	Resistor, 220R, 5%	3198 021 32210
3324	Resistor, 390R, 5%	3198 021 33910
3326	Resistor, 1K, 5%	3198 021 31020
3327	Resistor, 560R, 5%	3198 021 35610
3328	Resistor, 390R, 5%	3198 021 33910
3329	Resistor, 100R, 5%	3198 021 31010
3330	Resistor, 100R, 5%	3198 021 31010
3331	Resistor, Fusible, 2.2 ohm, 5%	2322 750 62208
3332	Resistor, Fusible, 2.2 ohm, 5%	2322 750 62208
3333	Resistor, 1K, 5%	3198 021 31020
3334	Jumper, .05 ohm.	3198 021 90030
3339	Resistor, 10K, 5%.	3198 021 31030
3340	560 ohm, 5%,	3198 021 55610
3341	Resistor, 150R, 5%	3198 021 31510
3342	Jumper, .05 ohm.	3198 021 90030
3344	Resistor, 150R, 5%	3198 021 31510
3345	Jumper, .05 ohm.	3198 021 90030
3348	Resistor, 150R, 5%	3198 021 31510
3349	Jumper, .05 ohm.	3198 021 90030
3358	Resistor, 100R, 5%	3198 021 31010
3361	Resistor, 100R, 5%	3198 021 31010
3362	Resistor, 100R, 5%	3198 021 31010
3363	Resistor, 100R, 5%	3198 021 31010
3364	Resistor, 1K, 5%	3198 021 31020
3365	560 ohm, 5%,	3198 021 55610
3371	Resistor, 15K, 5%.	3198 021 31530
3372	Resistor, 10R, 5%.	3198 021 31090
3373	Resistor, 100R, 5%	3198 021 31010
3374	Resistor, 3K3, 5%.	3198 021 33320
3375	Resistor, 1K, 5%	3198 021 31020
3376	Resistor, 1K, 5%	3198 021 31020
3377	Resistor, 100R, 5%	3198 021 31010
3378	Resistor, 1K, 5%	3198 021 31020
3381	Resistor, 100R, 5%	3198 021 31010
3382	Resistor, 100R, 5%	3198 021 31010
3383	Resistor, 100R, 5%	3198 021 31010
3384	Resistor, 8K2, 5%.	3198 021 38220
3385	Resistor, 10K, 5%.	3198 021 31030
3387	Resistor, 100R, 5%	3198 021 31010
3388	Resistor, 47R, 5%.	3198 021 34790
3393	Resistor, 27k, 5%.	3198 021 52730
3394	Resistor, 18K ohm, 5%.	3198 021 31830
3397	Resistor, 10R, 5%.	3198 021 31090
3401	Resistor, 100R, 5%	3198 021 31010
3402	Resistor, 100R, 5%	3198 021 31010
3403	Resistor, 100R, 5%	3198 021 31010
3404	Resistor, 100R, 5%	3198 021 31010
3405	Resistor, 100R, 5%	3198 021 31010
3406	Resistor, 10K, 5%.	3198 021 31030
3407	Resistor, 10K, 5%.	3198 021 31030
3408	Resistor, 10K, 5%.	3198 021 31030
3411	Resistor, 1K5, 5%.	3198 021 31520
3412	Resistor, 1K5, 5%.	3198 021 31520
3413	Resistor, 560 ohm, 5%.	3198 021 55610
3414	Resistor, 1K5, 5%.	3198 021 31520
3415	Resistor, 1K5, 5%.	3198 021 31520
3416	Resistor, 560 ohm, 5%.	3198 021 55610
3417	Resistor, 1K, 5%	3198 021 31020
3418	Resistor, 560 ohm, 5%.	3198 021 55610
3419	Resistor, 470R, 5%	3198 021 34710
3422	Resistor, 470R, 5%	3198 021 34710
3423	Resistor, 100R, 5%	3198 021 31010
3424	Resistor, 4K7, 5%.	3198 021 34720
3425	Resistor, 100R, 5%	3198 021 31010
3426	Resistor, 820R, 5%	3198 021 38210
3427	Resistor, 100R, 5%	3198 021 31010
3428	Resistor, 47K, 5%.	3198 021 34730
3429	Resistor, 1K, 5%	3198 021 31020
3430	Resistor, 1K, 5%	3198 021 31020
3431	Resistor, 22K, 5%.	3198 021 32230
3432	Resistor, 22K, 5%.	3198 021 32230
3434	Resistor, 47K, 5%.	3198 021 34730
3435	Resistor, 18K ohm, 5%.	3198 021 31830
3436	Resistor, 15K, 5%.	3198 021 31530
3437	Resistor, 47K, 5%.	3198 021 34730
3438	Resistor, 47K, 5%.	3198 021 34730
3439	Resistor, 10K, 5%.	3198 021 31030
3443	Jumper, .05 ohm.	3198 021 90030
3444	Resistor, 220K ohm, 5%	3198 021 32240
3452	Resistor, 22K, 5%.	3198 021 32230
3453	Resistor, 18K ohm, 5%.	3198 021 31830
3466	Resistor, 10K, 5%.	3198 021 31030
3467	Resistor, 10K, 5%.	3198 021 31030
3468	Resistor, 10K, 5%.	3198 021 31030
3471	Jumper, .05 ohm.	3198 021 90030
3472	Jumper, .05 ohm.	3198 021 90030
3473	Jumper, .05 ohm.	3198 021 90030
3474	Jumper, .05 ohm.	3198 021 90030
3477	Resistor, 4K7, 5%.	3198 021 34720
3478	Resistor, 10R, 5%.	3198 021 31090
3483	Resistor, 560 ohm, 5%.	3198 021 55610
3484	Resistor, 1K, 5%	3198 021 31020
3488	Resistor, 220R, 5%	3198 021 32210
3489	Resistor, 390R, 5%	3198 021 33910
3490	Resistor, 390R, 5%	3198 021 33910
3491	Resistor, 820R, 5%	3198 021 38210
3492	Resistor, 560R, 5%	3198 021 35610
3493	Resistor, 390R, 5%	3198 021 33910
3601	Resistor, 100R, 5%	3198 021 31010
3602	Resistor, 100R, 5%	3198 021 31010
3606	Resistor, 27K, 5%.	3198 021 32730
3619	Resistor, 100R, 5%	3198 021 31010
3621	Resistor, 100R, 5%	3198 021 31010
3665	Resistor, 2K2, 5%.	3198 021 32220
4008	Jumper, 0 ohm.	3198 021 90030
4304	Jumper, 0 ohm.	3198 021 90030
4308	Jumper, 0 ohm.	3198 021 90030
4309	Jumper, 0 ohm.	3198 021 90030
4312	Jumper, 0 ohm.	3198 021 90030
4313	Jumper, 0 ohm.	3198 021 90030
4316	Jumper, 0 ohm.	3198 021 90030
4317	Jumper, 0 ohm.	3198 021 90020
4318	Jumper, 0 ohm.	3198 021 90020
4319	Jumper, 0 ohm.	3198 021 90020
4320	Jumper, 0 ohm.	3198 021 90020
4401	Jumper, 0 ohm.	3198 021 90020
4402	Jumper, 0 ohm.	3198 021 90020
4403	Jumper, 0 ohm.	3198 021 90020
4410	Jumper, 0 ohm.	3198 021 90020
4411	Jumper, 0 ohm.	3198 021 90020
4431	Jumper, 0 ohm.	3198 021 90030
4432	Jumper, 0 ohm.	3198 021 90030
4433	Jumper, 0 ohm.	3198 021 90030
4451	Jumper, 0 ohm.	3198 021 90030
4455	Jumper, 0 ohm.	3198 021 90030
4465	Jumper, 0 ohm.	3198 021 90030
4684	Jumper, 0 ohm.	3198 021 90030
5040	Inductor, Fixed 4U7, 5%.	3198 018 64780
5041	Inductor, Fixed 4U7, 5%.	3198 018 64780
5042	Inductor, Fixed 4U7, 5%.	3198 018 64780
5309	Inductor, Fixed 6U8, 5%.	3198 018 66880
5332	Inductor, Fixed 6U8, 5%.	3198 018 66880
5333	Inductor, Fixed 6U8, 5%.	3198 018 66880
5401	Fixed Inductor 0.8uH	3198 018 38270
5421	Inductor, Fixed 22U, 20%	3198 018 32290
5422	Inductor, Fixed 15U, 20%	3198 018 31590
5425	Inductor, Fixed 22U, 20%	3198 018 32290
5426	Inductor, Fixed 15U, 20%	3198 018 31590
5435	Inductor, Fixed 6U8, 5%.	3198 018 66880
5601	Inductor, Fixed 1U, 5%	3198 018 61080
5602	Inductor, Fixed 4U7, 5%.	3198 018 64780
5625	Inductor, Fixed 1U, 5%	3198 018 61080
5665	Inductor, Fixed 15U, 5%.	3198 018 61590
6031	Diode, Regulator UDZ2.4B	9322 131 13685
6302	Diode, Regulator, BZX384-C, 8.2 Volt	3198 020 58280
6303	Diode, Regulator, BZX384-C, 6.8 Volt	3198 020 56880

S = Safety Part Be sure to use exact replacement part.

32DV60S127 (continued)

6412	Diode, Signal, BAS316.	3198 010 10630
6415	Diode, Signal, BAS316.	3198 010 10630
6418	Diode, Signal, BAS316.	3198 010 10630
6419	Diode, Signal, BAS316.	3198 010 10630
6420	Diode, Signal, BAS316.	3198 010 10630
6605	Diode, Signal, BAS316.	3198 010 10630
7053	Transistor, Signal BC847BS	9340 425 20115
7063	Transistor, Signal BC857BW	3198 010 42310
7064	IC, Micro, Cluster DVD2US1, v1.0, SAA 5667	4835 310 57609
7066	IC M24C32-WMN6	9322 124 74668
7301	IC TDA8887H/N1	9352 638 72557
7305	Transistor, Signal BC857BW	3198 010 42310
7307	Transistor, Signal BC857BW	3198 010 42310
7331	Transistor, Signal BC857BW	3198 010 42320
7368	Transistor, Signal BC857BW	3198 010 42310
7401	IC 74HC4053PW.	9351 869 40118
7403	IC TDA9171T/N1	9352 632 26118
7405	IC TC90A45F.	9322 144 38668
7407	IC 74HC4066PW.	9351 750 00118
7412	Transistor, Signal BC847BS	9340 425 20115
7415	Transistor, Signal BC847BS	9340 425 20115
7421	Transistor, Signal BC857BW	3198 010 42310
7425	Transistor, Signal BC857BW	3198 010 42310
7442	Transistor, Signal BC857BW	3198 010 42310
7443	Transistor, Signal BC857BW	3198 010 42310
7446	Transistor, Signal BC857BW	3198 010 42310
7630	IC 74HC4052PW.	9351 874 90118
7651	IC MSP3435G-FH-B5.	9322 143 55671

FRONT INTERFACE PANEL PARTS

CBA	Front Interface Panel Assembly	3139 178 65661
0157	Cable, 5 Pin to 5 Pin.	3139 131 01251
0187	Front Interface Bracket.	3139 124 32891
0214	5 Pin Board Connector.	2422 025 06353
1002	IR Receiver, TSOP1836UH3VL	9322 127 54667
1008	LED, VS LTL-10224WHCR	9322 050 99682
1000	Tactile Switch	2422 128 02742
2001	100uF., 20%, 25V, Electrolytic	3198 025 31010
2002	0.01uF., 50 Volt, Ceramic.	3198 019 21030
3001	470 ohm, 5% 1/6 W, Carbon.	3198 011 04710
3003	1.8k, 5%, 1/4W, Carbon Film.	3198 011 01820
3004	1 ohm, 5%, 1/6W, Carbon Film.	3198 011 01080

MATRIX SURROUND PANEL PARTS

CBA	Matrix Surround Sound Panel Assembly	3139 178 80231
0028	Matrix Bracket, W/O MLink Assembly	3139 137 98781
0167	Cable, 3 Pin to 3 Pin.	3139 131 01172
0224	6 Pin Board Connector.	2422 025 10738
0245	4 Pin Connector.	2422 015 19364
2754	0.01uF., 50 Volt, Ceramic	3198 017 01030
2755	0.01uF., 50 Volt, Ceramic	3198 017 01030

SIDE JACK PANEL PARTS

CBA	Side Jack Panel Assembly	3139 178 67911
0240	11 Pin Connector	2422 025 12485
0306	Bracket, Side A/V Panel.	3139 124 32801
1254	Headphone Jack	2422 026 04747
1255	Audio/Video Jack	2422 026 05026
1256	10 Pin Socket.	2422 026 04926
2286	150pF., 10%, 50V, Ceramic.	3198 019 11510
2288	150pF., 10%, 50V, Ceramic.	3198 019 11510
2292	470pF., 10%, 50V, Ceramic.	3198 019 14710
2294	470pF., 10%, 50V, Ceramic.	3198 019 14710
2296	4700pF., 50 V, Ceramic	3198 019 24720
2297	4700pF., 50 V, Ceramic	3198 019 24720
3285	75 ohm, 5%, 1/6 W, Carbon.	3198 011 07590
3286	10 ohm, 5%, 1/4W, Carbon Film.	3198 011 01090
3287	75 ohm, 5%, 1/6 W, Carbon.	3198 011 07590
3288	10 ohm, 5%, 1/4W, Carbon Film.	3198 011 01090
3289	1.8k, 5%, 1/4W, Carbon Film.	3198 011 01820
3291	1k, 5%, 1/6 W, Carbon.	3198 011 01020
3293	1k, 5%, 1/6 W, Carbon.	3198 011 01020
3295	3.9k, 5%, 1/6W, Carbon	3198 011 03920
9231	Wire, Jumper	0322 179 00003
9232	Wire, Jumper	0322 179 00003
3292	47k, 5%.	3198 021 54730
3294	47k, 5%.	3198 021 54730
3296	10k, 5%.	3198 021 51030
3297	10k, 5%.	3198 021 51030
4241	Jumper 0.05 ohm.	3198 021 90020
4243	Jumper 0.05 ohm.	3198 021 90020
6291	Diode, Regulator, BZX384-C12	3198 020 51290
6292	Diode, Regulator, BZX384-C12	3198 020 51290
6293	Diode, Regulator, BZX384-C12	3198 020 51290
6294	Diode, Regulator, BZX384-C12	3198 020 51290
6296	Diode, Regulator, BZM55-C12.	9322 129 41685
6297	Diode, Regulator, BZM55-C12.	9322 129 41685

TOP CONTROL PANEL PARTS

CBA	Top Control Panel Assembly	3139 178 60461
0027	Bracket, Top Control	3139 124 33941
0030	Rubber, Top Control.	3139 124 30391
0158	Cable, 3 Pin to 3 Pin.	3139 131 01711
0215	3 Pin Connector.	2422 025 09191
0342	Cover, Top Control	3139 124 31131
1091	Tactile Switch	2422 128 02742
1092	Tactile Switch	2422 128 02742
1093	Tactile Switch	2422 128 02742
1094	Tactile Switch	2422 128 02742
3091	Resistor, 560 ohm, 5%.	3198 021 55610
3092	Resistor, 390 ohm, 5%.	3198 021 53910
3093	Resistor, 560 ohm, 5%.	3198 021 55610
3094	Resistor, 270 ohm, 5%.	3198 021 52710
3095	Resistor, 3.3k, 5%	3198 021 53320
3096	Resistor, 1.5k, 5%	3198 021 51520
6091	Diode, Signal, BAT85	9336 247 60133

DVD INTERFACE PANEL PARTS

CBA	DVD Interface Panel Assembly	3121 238 00061
0198	Flex Cable, Foil, 22 Pin to 22 Pin	3139 131 01951
0199	Flex Cable, Foil, 16 Pin to 16 Pin	3139 131 01162
0018	Button, Eject, (Assembly) DVD.	3139 137 97661
0020	Interface Bracket, DVD	3139 124 33571
0136	IC, Spring	3135 011 01041
0169	Cable, 5 Pin to 5 Pin.	3139 131 01641
0173	Cable, 11 Pin to 11 Pin.	3139 131 00731
0194	Cable, 6 Pin to 6 Pin.	3139 110 38961
0195	Cable, 3 Pin to 3 Pin.	3139 131 01181
0197	Wire Assembly.	3139 131 00461
0206	5 Pin Connector.	2422 025 15848
0224	6 Pin Connector.	2422 025 12482
0239	3 Pin Connector.	2412 020 00725
0240	11 Pin Connector	2422 025 12485
0254	Connector, 22 Pin.	2422 025 16526
0255	Connector, 16 Pin.	2422 025 16525
0264	3 Pin Connector.	2412 020 00725
0265	Connector, 12 Pin.	2422 025 08333
0266	11 Pin Connector	2422 025 12485
0267	3 Pin Connector.	2422 025 09191
0268	3 Pin Connector.	2412 020 00725
0302	Heatsink 5V10.	3139 121 61732
0303	Heatsink, Diode.	3139 121 62151
1110	Tactile Switch	2422 128 02742
2100	0.1uF., 25V, Ceramic	3198 023 21040
2101	47pF., 50 Volt, NP0, Ceramic	3198 016 04790
2102	10uF., 20%, 50V, Electrolytic.	3198 025 51090
2103	47pF., 50 Volt, NP0, Ceramic	3198 016 04790
2104	0.1uF., 25V, Ceramic	3198 023 21040
2120	0.1uF., 25V, Ceramic	3198 023 21040
2121	1uF., 16V, Ceramic	3198 017 21050
2122	1uF., 16V, Ceramic	3198 017 21050
2129	15pF., 50 Volt, NP0, Ceramic	3198 016 01590
2130	0.1uF., 25V, Ceramic	3198 023 21040
2131	0.1uF., 25V, Ceramic	3198 023 21040
2132	0.1uF., 25V, Ceramic	3198 023 21040
2133	47uF., 20%, 25V, Electrolytic.	3198 025 34790
2134	0.1uF., 25V, Ceramic	3198 023 21040
2135	0.1uF., 25V, Ceramic	3198 023 21040
2138	100pF., 50 Volt, NP0, Ceramic.	3198 016 01010
2139	100pF., 50 Volt, NP0, Ceramic.	3198 016 01010
2140	100uF., 20%, 25V, Electrolytic	3198 025 31010
2143	100pF., 50 Volt, NP0, Ceramic.	3198 016 01010
2144	100pF., 50 Volt, NP0, Ceramic.	3198 016 01010
2145	100uF., 20%, 25V, Electrolytic	3198 025 31010
2150	0.1uF., 25V, Ceramic	3198 023 21040
2152	470uF., 20%, 16V, Electrolytic	3198 025 24710
2160	0.01uF., 50 Volt, Ceramic	3198 017 01030
2161	0.01uF., 50 Volt, Ceramic	3198 017 01030
2165	0.01uF., 50 Volt, Ceramic	3198 017 01030
2166	0.1uF., 16 Volt, Ceramic	3198 017 01040
2167	0.1uF., 16 Volt, Ceramic	3198 017 01040
2168	0.01uF., 50 Volt, Ceramic	3198 017 01030
2169	0.01uF., 50 Volt, Ceramic	3198 017 01030
2170	100pF., 50 Volt, NP0, Ceramic.	3198 016 01010
2200	0.1uF., 25V, Ceramic	3198 023 21040
2201	0.1uF., 25V, Ceramic	3198 023 21040
2211	0.1uF., 25V, Ceramic	3198 023 21040
2216	0.1uF., 25V, Ceramic	3198 023 21040
2220	0.1uF., 25V, Ceramic	3198 023 21040
2263	0.1uF., 16 Volt, Ceramic	3198 017 01040
2264	0.1uF., 16 Volt, Ceramic	3198 017 01040
2265	0.1uF., 16 Volt, Ceramic	3198 017 01040
2266	0.1uF., 16 Volt, Ceramic	3198 017 01040
2318	0.01uF., 50 Volt, Ceramic.	3198 019 21030
3100	100 ohm, 5%.	3198 021 51010
3101	100 ohm, 5%.	3198 021 51010
3102	68 ohm, 5%	3198 021 56890
3131	2.2k, 5%, 1/6 W, Carbon.	3198 011 02220
3132	5.6k, 5%	3198 021 55620
3136	10k, 5%.	3198 021 51030
3137	10k, 5%.	3198 021 51030
3138	10k, 5%.	3198 021 51030
3139	8.2k, 5%	3198 021 58220

S = Safety Part Be sure to use exact replacement part.

32DV60S127 (continued)

3141	10k, 5%, 1/6 W, Carbon	3198 011 01030
3142	10k, 5%, 1/6 W, Carbon	3198 011 01030
3143	10k, 5%	3198 021 51030
3144	8.2k, 5%	3198 021 58220
3146	2.2k, 5%	3198 021 52220
3147	2.2k, 5%	3198 021 52220
3150	100 ohm, 5%	3198 021 51010
3151	100 ohm, 5%	3198 021 51010
3152	15k, 5%	3198 021 51530
3155	1k, 5%	3198 021 51020
3156	1k, 5%	3198 021 51020
3157	15k, 5%	3198 021 51530
3158	15k, 5%	3198 021 51530
3159	15k, 5%	3198 021 51530
3160	470 ohm, 5%	3198 021 54710
3161	18k, 5%	3198 021 51830
3162	22k, 5%	3198 021 52230
3163	10k, 5%, 1/6 W, Carbon	3198 011 01030
3200	270 ohm, 5%	3198 021 52710
3201	100 ohm, 5%	3198 021 51010
3202	100 ohm, 5%	3198 021 51010
3203	6.8k, 5%	3198 021 56820
3204	820 ohm, 5%	3198 021 58210
3205	4.7k, 5%	3198 021 54720
3206	680 ohm, 5%	3198 021 56810
3207	2.2k, 5%	3198 021 52220
3208	75ohm, 5%	3198 021 57590
3209	75ohm, 5%	3198 021 57590
3210	270 ohm, 5%	3198 021 52710
3211	100 ohm, 5%	3198 021 51010
3212	100 ohm, 5%	3198 021 51010
3213	6.8k, 5%	3198 021 56820
3214	820 ohm, 5%	3198 021 58210
3215	4.7k, 5%	3198 021 54720
3216	680 ohm, 5%	3198 021 56810
3217	2.2k, 5%	3198 021 52220
3218	100 ohm, 5%	3198 021 51010
3219	75ohm, 5%	3198 021 57590
3230	2.2k, 5%	3198 021 52220
3231	2.2k, 5%	3198 021 52220
3233	10k, 5%, 1/6 W, Carbon	3198 011 01030
3234	10k, 5%, 1/6 W, Carbon	3198 011 01030
3300	5.6k, 5%	3198 021 55620
3301	5.6k, 5%	3198 021 55620
3302	18k, 5%	3198 021 51830
3303	22k, 5%	3198 021 52230
3313	18k, 5%	3198 021 51830
3314	22k, 5%	3198 021 52230
3315	18k, 5%, 1/6W, Carbon	3198 011 01830
3316	18k, 5%	3198 021 51830
3317	22k, 5%	3198 021 52230
3330	18k, 5%	3198 021 51830
3331	18k, 5%, 1/6W, Carbon	3198 011 01830
3332	22k, 5%	3198 021 52230
4000	Jumper 0.05 ohm	3198 021 90020
4001	Jumper 0.05 ohm	3198 021 90020
4002	Jumper 0.05 ohm	3198 021 90020
4004	Jumper 0.05 ohm	3198 021 90020
4140	Jumper 0.05 ohm	3198 021 90020
4145	Jumper 0.05 ohm	3198 021 90020
5129	Fixed Inductor, 5.6uH., 5%	3198 018 15680
5161	Fixed Inductor, 4.7uH., 10%	3198 018 34780
5300	Fixed Inductor, 33uH, 10%	3198 018 73390
5305	Inductor, SPT0203 33uH., 5%	3198 018 13390
5319	Fixed Inductor Bead, 100MHz, 50 ohm	3198 018 90010
5320	Fixed Inductor Bead, 100MHz, 50 ohm	3198 018 90010
5322	Fixed Inductor, 10uH., 10%	3198 018 21090
5330	Fixed Inductor, 33uH, 10%	3198 018 73390
6320	Diode, Rectifier, BYD 33D	9337 234 00133
7120	IC, HEF4053BT	9333 729 60653
7130	IC, UDA1328T/N1	9352 616 17118
7131	Transistor	3198 010 43230
7134	IC, MC33078D	9322 010 11668
7146	Transistor	3198 010 43230
7147	Transistor	3198 010 43230
7150	IC, PCF8574AT	9338 516 60118
7162	Transistor, Signal, BC847B	3198 010 42030
7200	Transistor, Signal, BC847B	3198 010 42030
7201	Transistor, Signal, BC857B	3198 010 42150
7202	Transistor, Signal, BC847B	3198 010 42030
7210	Transistor, Signal, BC847B	3198 010 42030
7211	Transistor, Signal, BC857B	3198 010 42150
7212	Transistor, Signal, BC847B	3198 010 42030
7220	IC, HEF4053BT	9333 729 60653
7230	Transistor, Signal, BC847B	3198 010 42030
7231	Transistor, Signal, BC847B	3198 010 42030
7300	FET, Power, BSP613P	9322 160 98685
7303	Transistor, Signal, BC847B	3198 010 42030
7315	Transistor, Signal, BC847B	3198 010 42030
7317	Transistor, Signal, BC847B	3198 010 42030
7332	Transistor, Signal, BC847B	3198 010 42030
9000	Wire, Jumper	0322 179 00003
9001	Wire, Jumper	0322 179 00003
9002	Wire, Jumper	0322 179 00003
9003	Wire, Jumper	0322 179 00003
9004	Wire, Jumper	0322 179 00003
9005	Wire, Jumper	0322 179 00003
9006	Wire, Jumper	0322 179 00003
9007	Wire, Jumper	0322 179 00003
9008	Wire, Jumper	0322 179 00003
9009	Wire, Jumper	0322 179 00003
9010	Wire, Jumper	0322 179 00003
9011	Wire, Jumper	0322 179 00003
9012	Wire, Jumper	0322 179 00003
9013	Wire, Jumper	0322 179 00003
9014	Wire, Jumper	0322 179 00003
9015	Wire, Jumper	0322 179 00003
9016	Wire, Jumper	0322 179 00003
9017	Wire, Jumper	0322 179 00003
9018	Wire, Jumper	0322 179 00003
9019	Wire, Jumper	0322 179 00003
9020	Wire, Jumper	0322 179 00003
9021	Wire, Jumper	0322 179 00003
9022	Wire, Jumper	0322 179 00003
9023	Wire, Jumper	0322 179 00003
9024	Wire, Jumper	0322 179 00003
9025	Wire, Jumper	0322 179 00003
9026	Wire, Jumper	0322 179 00003
9027	Wire, Jumper	0322 179 00003
9028	Wire, Jumper	0322 179 00003
9029	Wire, Jumper	0322 179 00003
9030	Wire, Jumper	0322 179 00003
9031	Wire, Jumper	0322 179 00003
9032	Wire, Jumper	0322 179 00003
9033	Wire, Jumper	0322 179 00003
9034	Wire, Jumper	0322 179 00003
9036	Wire, Jumper	0322 179 00003
9037	Wire, Jumper	0322 179 00003
9038	Wire, Jumper	0322 179 00003
9039	Wire, Jumper	0322 179 00003
9040	Wire, Jumper	0322 179 00003
9041	Wire, Jumper	0322 179 00003
9042	Wire, Jumper	0322 179 00003
9043	Wire, Jumper	0322 179 00003
9044	Wire, Jumper	0322 179 00003
9045	Wire, Jumper	0322 179 00003
9046	Wire, Jumper	0322 179 00003
9047	Wire, Jumper	0322 179 00003
9048	Wire, Jumper	0322 179 00003
9049	Wire, Jumper	0322 179 00003
9305	Wire, Jumper	0322 179 00003
9340	Wire, Jumper	0322 179 00003
1100	Connector, Cinch, 1 Pin	2422 026 04425
2300	1000uF., 25V, Electrolytic	3198 026 31020
2301	2200uF, 16V, 20%, Electrolytic	3198 026 22220
2319	1000uF., 25V, Electrolytic	3198 026 31020
2321	1000uF., 25V, Electrolytic	3198 026 31020
2322	1000uF., 25V, Electrolytic	3198 026 31020
2323	1000uF., 25V, Electrolytic	3198 026 31020
2332	1000uF., 25V, Electrolytic	3198 026 31020
2333	1000uF., 25V, Electrolytic	3198 026 31020
5000	Ferrite, Ceramic	4330 030 36981
5100	Inductor, Variable, 100uF, 10%	2422 549 41663
5318	Transformer, C956-01 Y	2422 531 98024
6318	Diode Rectifier	9322 128 18682
7100	IC, GP1FA550TZ L	9322 155 28667
7318	IC, SI-8033S(LF1113)	9322 160 18682
7333	IC SI-3050C	9322 137 01682

27DV60 S121 Cabinet Parts

AC18	Yoke Wedges (4 used)	3135 013 00311

32DV60 Cabinet Parts

	32DV60 Cabinet Parts	
AC03	ASD-1 DVD PLAYER ASSEMBLY	3139 248 70661
AC05	Cabinet, Front, 32DV60S	3139 137 76091
AC15	Nameplate, PHILIPS	3141 050 00151
AC14	Light Guide	3139 124 30411
AC07	Power Button Cover	3139 124 32921
AC19	Power Button Shaft (Not Shown)	3139 124 32791
AC08	Top Control Button, Rubber	3139 124 30391
AC20	Speaker, 16 ohm, 5 Watt (2 used)	3139 128 76051
AC06	Chassis Frame	3139 124 32562
AC13	DVD Door Assembly	3121 237 52471
AC17	DVD Disc Tray	3139 194 00270
AC16	Operators Manual, 32DV60	3121 235 20381
AC22	Shield, Top, DVD (Not Shown)	3139 121 27071
AC23	Plate, Bottom, DVD (Not Shown)	3139 123 21522
AC04	Cabinet Back, 32DV60S	3139 124 33791
S AC01	AC Power Cord	3135 010 03831
AC18	Yoke Wedges (4 used)	3135 013 00311
AC24	Spring, DAG Braid (Not Shown)	3139 121 26231
AC12	Bracket f/DVD Interface Panel	3139 124 33571
AC26	Bracket, DAF Panel	3139 124 25402

S = Safety Part Be sure to use exact replacement part.

32DV60S127 (continued)

AC11	Degaussing Coil Holder (4 used). . .	3139 124 32811
S AC09	CRT, A80LTM350X10 (Yoke & Conv. Asm. are part of CRT)	9322 169 15682
AC25	1.5V Battery for Remote (2 Pack) . .	9299 000 10137
REMOTE	Remote Control, RCAU013SLV	3139 128 76391
AC10	Coil, Degaussing, 32".	2422 549 44676

S = Safety Part Be sure to use exact replacement part.