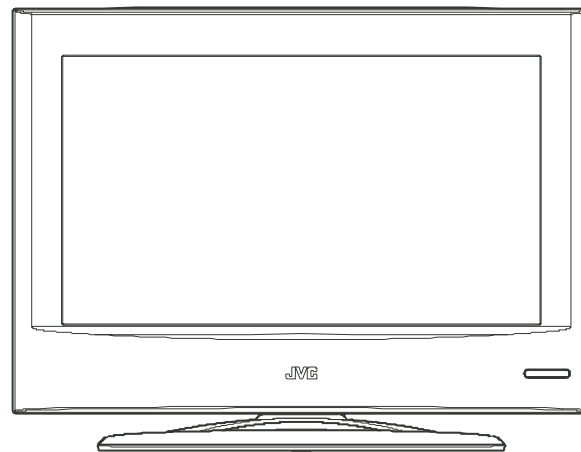


JVC

SERVICE MANUAL

INTEGRATED DIGITAL WIDE LCD PANEL TELEVISION

LT-20DA6SSP



InterArt

DVB
Digital Video
Broadcasting

**LT-20DA6SSP is the model which destination was changed based on LT-20DA6SK.
Therefore, this service manual describes only the items which differ from those of the LT-20DA6SK service manual.
For details other than those described in this manual, please refer to the LT-20DA6SK service manuals (No.YA354, 2005/11).**

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SPECIFICATION

Items		Contents
Dimensions (W × H × D)		53.7cm × 41.4cm × 21.4cm [Included stand] 53.7cm × 37.7cm × 9.7cm [TV only]
Mass		6.5kg [Included stand] 5.5kg [TV only]
Power Input	ADAPTER TV	AC100 - 240V, 50Hz DC24V
Power Consumption		80W (Standby: 3.0W)
TV RF System	Analog Digital	CCIR (B/G, I, D/K, L) DVB-T
Colour System		PAL, SECAM, NTSC 3.58/4.43 [EXT only]
Stereo System		NICAM (B/G, I, D/K, L), A2 (B/G, D/K)
Receiving Frequency	Analog Digital CATV	VHF: 46.25 MHz - 470 MHz UHF: 470 MHz - 862.25 MHz UHF: 474 MHz - 858 MHz S1 - S20 / S21 - S41
Intermediate Frequency	VIF SIF	38.9 MHz (B/G, I, D/K, L) 33.4 MHz (5.5 MHz: B/G) 32.9 MHz (6.0 MHz: I) 32.4 MHz (6.5 MHz: D/K, L)
Colour Sub Carrier Frequency	PAL SECAM NTSC	4.43 MHz 4.40625 MHz / 4.25MHz 3.58 MHz / 4.43 MHz
Teletext System	Analog Digital	TOP, FLOF (Fastext level 2.5), WST(World Standard system) Digital Teletext (VBI insertion)
LCD panel		20V-inch wide aspect (16:9)
Screen Size		Diagonal : 50.9cm (H:44.3cm × V:24.9cm)
Display Pixels		Horizontal : 1366 dots × Vertical : 768 dots (W-XGA)
Audio Power Output		5W + 5W(10% THD)
Speaker		3.0cm × 10.0cm oval type × 2
Aerial terminal (VHF/UHF)		EU-type connector, 75Ω unbalanced, coaxial
EXT-1 / EXT-2 (Input / Output)		21-pin Euro connector (SCART socket) × 2
EXT-3(Input)	Component Video 625p / 525p / 625i / 525i Audio	RCA pin jack × 3 Y : 1V (p-p), Positive (Negative sync provided), 75 Ω Cb/Cr : 0.7V(p-p), 75 Ω 500mV(rms) (-4dBs), high impedance, RCA pin jack × 2
EXT-4 (Input)	S-Video Video Audio	Mini-DIN 4 pin × 1 Y: 1V (p-p), Positive (Negative sync provided), 75 Ω C: 0.286V (p-p) (Burst signal), 75 Ω 1V (p-p), Positive (Negative sync provided), 75 Ω, RCA pin jack × 1 500mV (rms), High impedance, RCA pin jack × 2
PC (RGB) Input		D-sub 15pin × 1 R/G/B : 0.7V (p-p), 75Ω HD / VD : 1V (p-p) to 5V (p-p), high impedance < Available signal > Horizontal : 30kHz - 69kHz Vertical : 50Hz - 75Hz [Resolution : 640 pixels × 400 pixels,640 pixels × 480 pixels(VGA), 720 pixels × 400 pixels, 800 pixels × 600 pixels(SVGA), 1024 pixels × 768 pixels(XGA), 1360 pixels × 768 pixels]
PC AUDIO Input		3.5mm stereo mini jack × 1
Audio Output	Analog Digital	500mV (rms), Low impedance, RCA pin jack × 2 AC3 compatible, RCA pin jack × 1
Headphone		3.5mm stereo mini jack × 1
Card Slot		CAM(Conditional Access Module) × 1
Remote Control Unit		RM-C1897S (AA/R6 dry cell battery × 2)

Design & specifications are subject to change without notice.

SECTION 1 PRECAUTION

Please refer to "LT-20DA6SK No.YA354" about this section except a written item.

1.1 SAFETY PRECAUTIONS

- (1) The design of this product contains special hardware, many circuits and components specially for safety purposes. For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits. Service should be performed by qualified personnel only.
- (2) Alterations of the design or circuitry of the products should not be made. Any design alterations or additions will void the manufacturer's warranty and will further relieve the manufacturer of responsibility for personal injury or property damage resulting therefrom.
- (3) Many electrical and mechanical parts in the products 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. Replacement parts which have these special safety characteristics are identified in the parts list of Service manual. **Electrical components having such features are identified by shading on the schematics and by (Δ) on the parts list in Service manual.** The use of a substitute replacement which does not have the same safety characteristics as the recommended replacement part shown in the parts list of Service manual may cause shock, fire, or other hazards.
- (4) **Don't short between the LIVE side ground and ISOLATED (NEUTRAL) side ground or EARTH side ground when repairing.**
Some model's power circuit is partly different in the GND. The difference of the GND is shown by the LIVE : ($\perp$) side GND, the ISOLATED (NEUTRAL) : ($\equiv$) side GND and EARTH : ($\oplus$) side GND.
Don't short between the LIVE side GND and ISOLATED (NEUTRAL) side GND or EARTH side GND and never measure the LIVE side GND and ISOLATED (NEUTRAL) side GND or EARTH side GND at the same time with a measuring apparatus (oscilloscope etc.). If above note will not be kept, a fuse or any parts will be broken.
- (5) When service is required, observe the original lead dress. Extra precaution should be given to assure correct lead dress in the high voltage circuit area. Where a short circuit has occurred, those components that indicate evidence of overheating should be replaced. Always use the manufacturer's replacement components.

- (6) **Isolation Check (Safety for Electrical Shock Hazard)**
After re-assembling the product, always perform an isolation check on the exposed metal parts of the cabinet (antenna terminals, video/audio input and output terminals, Control knobs, metal cabinet, screw heads, earphone jack, control shafts, etc.) to be sure the product is safe to operate without danger of electrical shock.

a) Dielectric Strength Test

The isolation between the AC primary circuit and all metal parts exposed to the user, particularly any exposed metal part having a return path to the chassis should withstand a voltage of 3000V AC (r.m.s.) for a period of one second. (. . . Withstand a voltage of 1100V AC (r.m.s.) to an appliance rated up to 120V, and 3000V AC (r.m.s.) to an appliance rated 200V or more, for a period of one second.) This method of test requires a test equipment not generally found in the service trade.

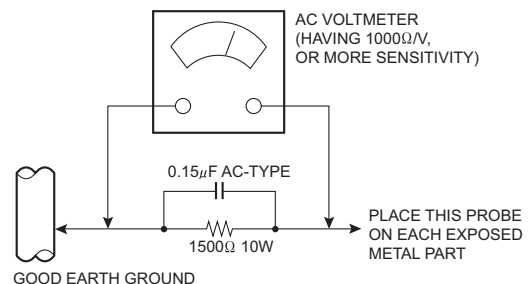
b) Leakage Current Check

Plug the AC line cord directly into the AC outlet (do not use a line isolation transformer during this check.). Using a "Leakage Current Tester", measure the leakage current from each exposed metal part of the cabinet, particularly any exposed metal part having a return path to the chassis, to a known good earth ground (water pipe, etc.). Any leakage current must not exceed 0.5mA AC (r.m.s.). However, in tropical area, this must not exceed 0.2mA AC (r.m.s.).

Alternate Check Method

Plug the AC line cord directly into the AC outlet (do not use a line isolation transformer during this check.). Use an AC voltmeter having 1000 Ω per volt or more sensitivity in the following manner. Connect a 1500 Ω 10W resistor paralleled by a 0.15 μ F AC-type capacitor between an exposed metal part and a known good earth ground (water pipe, etc.). Measure the AC voltage across the resistor with the AC voltmeter. Move the resistor connection to each exposed metal part, particularly any exposed metal part having a return path to the chassis, and measure the AC voltage across the resistor. Now, reverse the plug in the AC outlet and repeat each measurement. Any voltage measured must not exceed 0.75V AC (r.m.s.). This corresponds to 0.5mA AC (r.m.s.).

However, in tropical area, this must not exceed 0.3V AC (r.m.s.). This corresponds to 0.2mA AC (r.m.s.).



SECTION 2

SPECIFIC SERVICE INSTRUCTIONS

Please refer to "LT-20DA6SK No.YA354" about this section except a written item.

2.1 DIFFERENCE LIST

FEATURES

Item	Content	
	LT-20DA6SK	LT-20DA6SSP
TV RF System (Analog)	CCIR(I)	CCIR(B/G, I, D/K, L)
SECAM Colour System	NO	YES
Stereo System	NICAM(I)	NICAM(B/G, I, D/K, L), A2(B/G, D/K)
Digital Teletext System	MHEG 5 UK	Digital Teletext (VBI insertion)
Sub Woofer Out	USED	NOT USED
LCD Panel Contrast Ratio	400:1	800:1
LCD Panel Response Time	25ms	16ms
LCD Panel View Angle	H:176°, V:176°	H:170°, V:170°

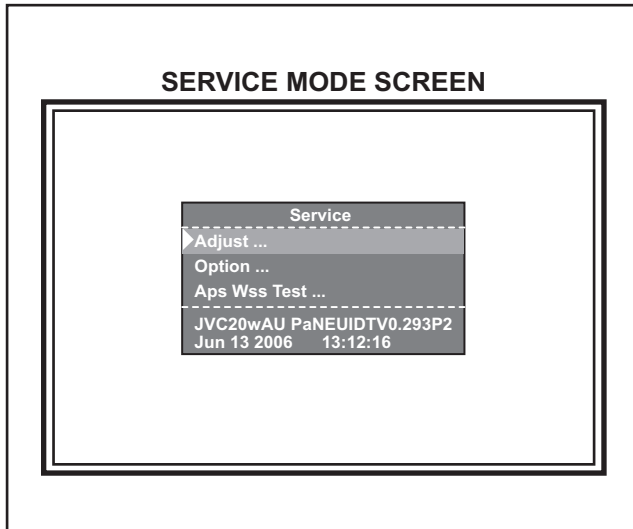
USING P.W. BOARD

P.W.B ASS'Y Name	LT-20DA6SK	LT-20DA6SSP
MAIN P.W.B	VE-20228287	VE-20267690
Remote Control Unit	VE-30034033 (RM-C1895)	VE-30044649 (RM-C1897S)

2.2 BASIC OPERATION OF SERVICE MODE

2.2.1 HOW TO ENTER THE SERVICE MODE

- (1) Press **[INFORMATION]** key and **[MUTING]** key on the remote control unit simultaneously to enter the SERVICE MODE SCREEN.



2.2.2 HOW TO EXIT THE SERVICE MODE

Press the **[MENU]** key to exit the Service mode.

2.2.3 CHANGE AND MEMORY OF SETTING VALUE

■ SELECTION OF SETTING MENU & ITEM

- **[FUNCTION ▲/▼]** key : Select the SETTING MENU & ITEM
- **[OK]** key : Decision the SETTING MENU & ITEM

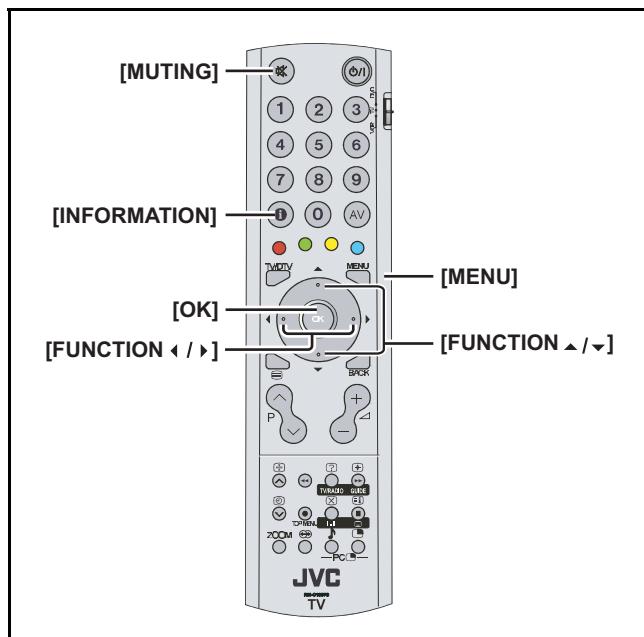
■ CHANGE OF SETTING VALUE (DATA)

- **[FUNCTION ◀/▶]** key.

■ MEMORY OF SETTING VALUE (DATA)

The setting value will be stored automatically when release the REMOTE CONTROL UNIT keys

2.2.4 SERVICE MODE SELECT KEY LOCATION



2.2.5 SERVICE MODE SETTING ITEMS

Setting menu	Setting items	Contents
Adjust	Group	----
	Mode	----
	Col Temp	----
	Contrast	----
	Brightness	----
	Colour	----
	Sharpness	----
	Red	----
	Green	----
	Blue	----
	Aps Volume	----
Option 1	First APS	If ON, TV starts with APS menu at Start-up
	FM Prs Avl On	Adjusts the FM Prescaler value, when Automatic Volume Levelling is On
	Nicam Prs Avl On	Adjusts the Nicam Prescaler value, when Automatic Volume Levelling is On
	Scart Prs Avl On	Adjusts the Scart Volume value, when Automatic Volume Levelling is On
	Scart Volume Avl On	Adjusts the Scart Volume value, when Automatic Volume Levelling is On
	FM Prs Avl Off	Adjusts the FM Prescaler value, when Automatic Volume Levelling is Off
	Nicam Prs Avl Off	Adjusts the Nicam Prescaler value, when Automatic Volume Levelling is Off
	Scart Prs Avl Off	Adjusts the Scart Prescaler value, when Automatic Volume Levelling is Off
	Scart Volume Avl Off	Adjusts the Scart Volume value, when Automatic Volume Levelling is On
	Avl	Enable/disable Automatic Volume Levelling System
Option 2	Sound	----
	Carrier	----
	LDLY	----
	AGC	----
	Other	----
Aps Wss Test	MAD	----
	Programme	----
	VPS	----
	Pdc Format 1	----
	Pdc Format 2	----
	Name	----
	WSS	----

SECTION 3 DISASSEMBLY

Please refer to "LT-20DA6SK No.YA354" about this section except a written item.

3.1 MEMORY IC REPLACEMENT

- This model uses the memory IC.
- This memory IC stores data for proper operation of the video and drive circuits.
- When replacing, be sure to use an IC containing this (initial value) data.

3.1.1 SETTINGS OF FACTORY SHIPMENT

3.1.1.1 BUTTON OPERATION

Setting item	Setting position
POWER	Off
TV/AV	TV

3.1.1.2 REMOTE CONTROL DIRECT OPERATION

Setting item	Setting position
ZOOM	AUTO

3.1.1.3 REMOTE CONTROL MENU OPERATION

(1) PICTURE

Setting item	Setting position
MODE	Bright
Colour Temp.	Cool
Nolse Red.	Minimum

(4) Install [TV MODE]

Setting item	Setting position
Colour System	Auto
Decorder(EXT-2)	Off
VCR	Off

(2) SOUND

Setting item	Setting position
Hyper Sound	Off
Sound Mode	Mono

(5) Install [EXT MODE]

Setting item	Setting position
Colour System	Auto
VCR	Off

(3) FEATURES

Setting item	Setting position
Sleep Timer	Off
Child Lock	Off
Language	English
EXT-2 Output	TV
Blue Back	Off

SECTION 4 ADJUSTMENT

This service manual does not describe ADJUSTMENT.

SECTION 5 TROUBLESHOOTING

This service manual does not describe TROUBLESHOOTING.

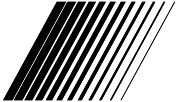
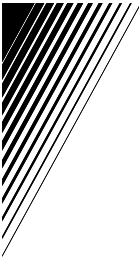


Victor Company of Japan, Limited
Display Category 12, 3-chome, Moriya-cho, Kanagawa-ku, Yokohama-city, Kanagawa-prefecture, 221-8528, Japan

(No.YA354B)



Printed in Japan
VPT



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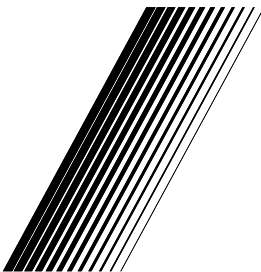
LT-20DA6SSP

INTEGRATED DIGITAL WIDE LCD PANEL TV

INSTRUCTIONS

TV CON PANEL LCD PANORÁMICA

MANUAL DE INSTRUCCIONES



DVB
Digital Video
Broadcasting

Trade Mark of the DVB Digital Video Broadcasting
Project (1991 to 1996) Number: 4138

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For your safety

This equipment has been designed and manufactured to meet international safety standards but, like any electrical equipment, care must be taken if you are to obtain the best results and safety is to be assured. So, please read the points below for your own safety. They are of a general nature, intended to help you with all your electronic consumer products and some points may not apply to the goods you have just purchased.

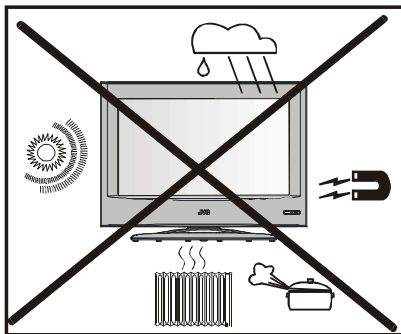
Some “DOs” and “DON'Ts” for you

Air Circulation...

Leave at least 10cm clearance around the television to allow adequate ventilation. This will prevent the TV from overheating and consequential possible damage to the TV. Dusty places should also be avoided.

Heat Damage...

Damage may occur if you leave the TV in direct sunlight or near a heater. Avoid places subject to extremely high temperatures or humidity, or locations where the temperature is likely to fall below 5°C (41°F).



Mains Supply...

The mains supply required for this equipment is **100 -240 AC, 50 Hz**. Never connect to a DC supply or any other power source. DO ensure that the TV is not standing on the mains lead. DO NOT cut off the mains plug from this equipment, this incorporates a special Radio Interference Filter, the removal of which will impair its performance.

Hot / Moderate Climate Conditions

This device is suitable for working in hot and moderate climate conditions.

IF IN DOUBT PLEASE CONSULT A COMPETENT ELECTRICIAN.

DO...

DO read the operating instructions before you attempt to use the equipment.

DO ensure that all electrical connections (including the mains plug, extension leads and inter-connections between pieces of equipment) are properly made and in accordance with the manufacturers' instructions.

Switch off and withdraw the mains plug before making or changing connections.

DO consult your dealer if you are ever in doubt about the installation, operation or safety of your equipment.

DO be careful with glass panels or doors on equipment.

DO NOT...

DON'T remove any fixed cover as this may expose dangerous voltages.

DON'T obstruct the ventilation openings of the equipment with items such as newspapers, table-cloths, curtains etc. Overheating will cause damage and shorten the life of the equipment.

DON'T allow electrical equipment to be exposed to dripping or splashing or objects filled with liquids, such as vases, to be placed on the equipment.

DON'T place hot objects or naked flame sources, such as lighted candles or night-lights on, or close to the equipment. High temperatures can melt plastic and lead to fires.

DON'T use makeshift stands and NEVER fix legs with wood screws. To ensure complete safety, always fit the manufacturer's approved stand or legs with the fixings provided according to the instructions.

DON'T listen to headphones at high volume, as such use can permanently damage your hearing.

DON'T leave equipment switched on when it is unattended, unless it is specifically stated that it is designed for unattended operation or has a standby mode. Switch off using the switch on the equipment and make sure your family know how to do this. Special arrangements may need to be made for infirm or handicapped people.

DON'T continue to operate the equipment if you are in any doubt about it working normally, or it is damaged in any way – switch off, withdraw the mains plug and consult your dealer.

DON'T put the empty batteries into garbage instead of recycle bin to reduce harmful effects to the environment.

ABOVE ALL – NEVER let anyone, especially children, push anything into holes, slots or any other openings in the case – this could result in a fatal electric shock.

NEVER guess or take chances with electrical equipment of any kind – it is better to be safe than sorry.

To fully disconnect the TV, switch off the mains socket and remove the Power plug.

Safety Precautions for Power adapter

- Be careful! May become hot.
- For indoor and dry location use only.
- Risk of electric shock.
- Shock hazard, do not open.
- Keep all power adapters away from any other heat source.
- Always use power adapter(s) well-ventilated area.

*** Cold cathode fluorescent lamp in LCD PANEL contains a small amount of mercury, please follow local ordinances or regulations for disposal.*

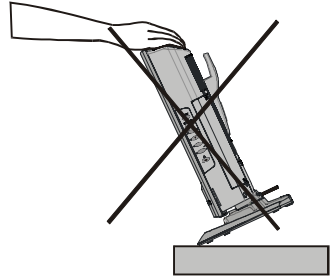
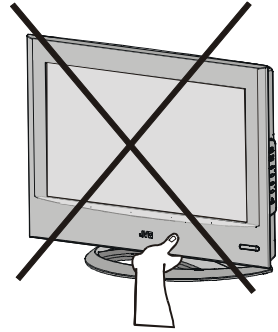
"The LCD panel is very high technology product with about a million thin film transistors, giving you fine picture details. Occasionally, a few non-active pixels may appear on the screen as a fixed point of blue, green or red. Please note that this does not affect the performance of your product." Please note that certain light guns used with games consoles may not work on this product.

Warning:

This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

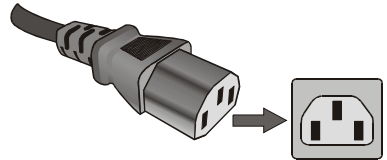
WARNING

- Fingers may be trapped under the TV causing injuries. Hold the TV at the bottom in the middle, and do not allow it to tilt up or down.
- The TV may fall causing injuries. Hold the bottom of the stand with your hand and tilt the TV up and down.
- Do not allow children to hang from the TV, place their elbows on the TV or lean against the TV. Doing so may cause the TV to fall over and lead to injuries.



CAUTION:

- To avoid electric shock or damage to the unit, first firmly insert the small end of the power cord into the AC Adapter unit it is no longer wobbly, and then plug the larger end of power cord into an AC outlet.



Where to install

WARNING

- When you install the TV on the wall, only use a JVC wall mounting unit which is designed for this TV.
- Make sure the TV is installed on the wall by a skilled installer.

Locate the TV away from direct sunlight and strong lights, soft, indirect lighting is recommended for comfortable viewing. Place on a sturdy platform, the mounting surface should be flat and steady, it should then be secured to the wall with a sturdy tie using the hook on the back of the TV, this will prevent it from falling over. Use curtains or blinds to prevent direct sunlight falling on the screen.

A floor and table top stand are available for this television, or an angled bracket which enables the TV to be wall-mounted.

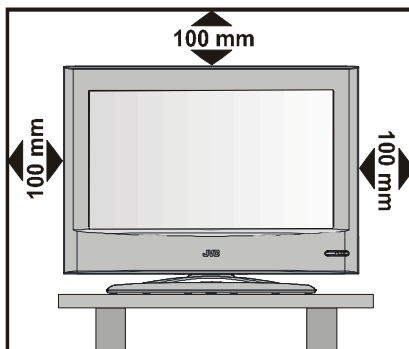
The LCD display panels are manufactured using an extremely high level of precision technology, however sometimes some parts of the screen may be missing picture elements or have luminous spots. This is not a sign of a malfunction.

Make sure the TV is located in a position where it cannot be pushed or hit by objects, as pressure will break or damage the screen.

Distance Recommendation

Install the TV on solid horizontal surface such as a table or desk.

For ventilation, leave a space of at least 10 cm free all around the set. To prevent any fault and unsafe situations, please do not place any objects on top of the set.



Important Information

Please take note

EXCLUSION CLAUSE

JVC shall under no circumstances be liable for loss and/or damage to the product caused by:

- fire;
- earthquake;
- accidental damage;
- intentional misuse of the product;
- use of the product in improper conditions;
- loss and/or damage caused to the product whilst in the possession of a third party;
- any damage or loss caused as a result of the owner's failure and/or neglect to follow the instructions set out in the owner's manual;
- any loss or damage caused directly as a result of misuse or malfunction of the product when used simultaneously with associated equipment;

Furthermore, under no circumstances shall JVC be liable for any consequential loss and/or damage including but not limited to the following, loss of profit, interruption of business, the loss of recorded data whether caused during normal operation or misuse of the product.

WARNING! NEVER LEAVE A STATIONARY IMAGE ON THE SCREEN

If stationary images generated by TELETEXT, CHANNEL IDENTIFICATION LOGOS, COMPUTER DISPLAYS, VIDEO GAMES, ON SCREEN MENUS, etc. are left on the TV screen for any length of time, they could become permanently ingrained.

If you use your television to display completely still images, or moving pictures which have a permanent still image superimposed e.g. broadcast network logos, it is always advisable to reduce BOTH the brightness and contrast settings.

Care and disposal

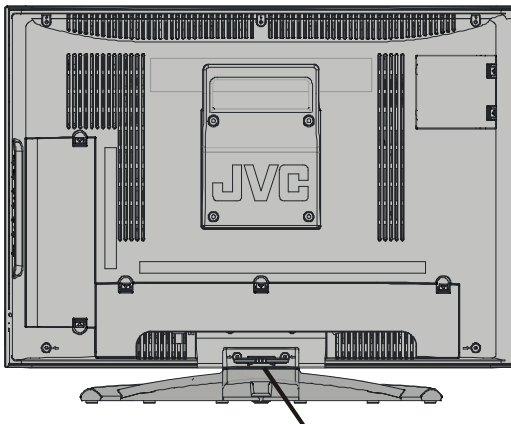
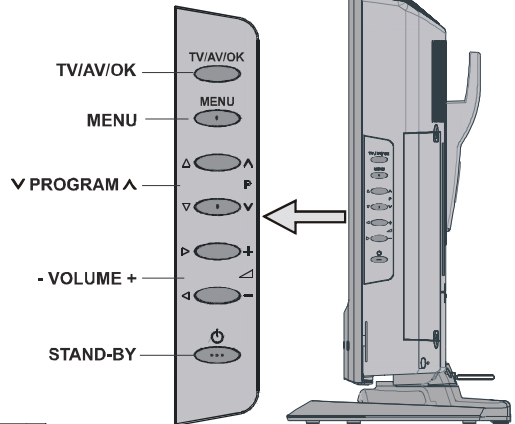
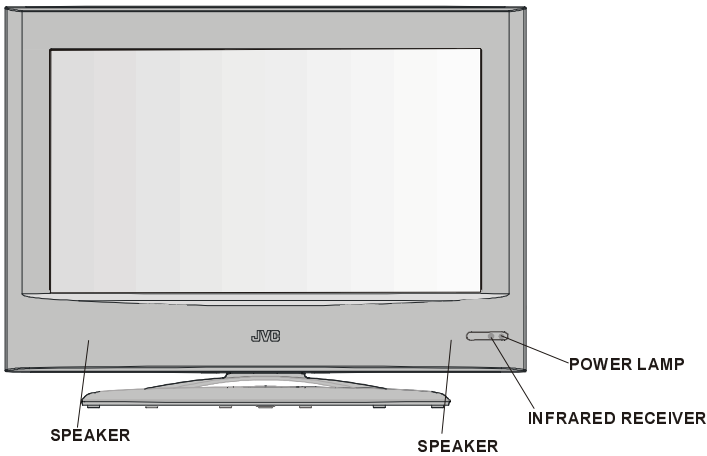
Cleaning the screen and cabinet...

Turn off the power, clean the screen and cabinet with a soft, dry cloth. We recommend that you do not use any proprietary polishes or solvents on the screen or cabinet as this may cause damage.

Disposal...

When the set reaches the end of its useful life please dispose of it in accordance with Local Government Regulations or at a recycling centre.

Control Panel Buttons



FOOT TOP COVER

With certain combinations of connectors and leads the back cover may not be easily fitted. If the cover is left off, this in no way infringes safety requirements.

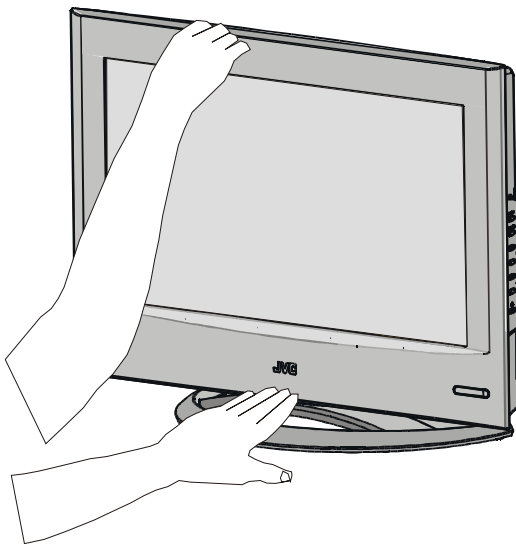
Using the stand

This TV comes with a Table Top Stand already attached.

This stand can be used to adjust the direction of the TV screen 10° backward and 5° forward.

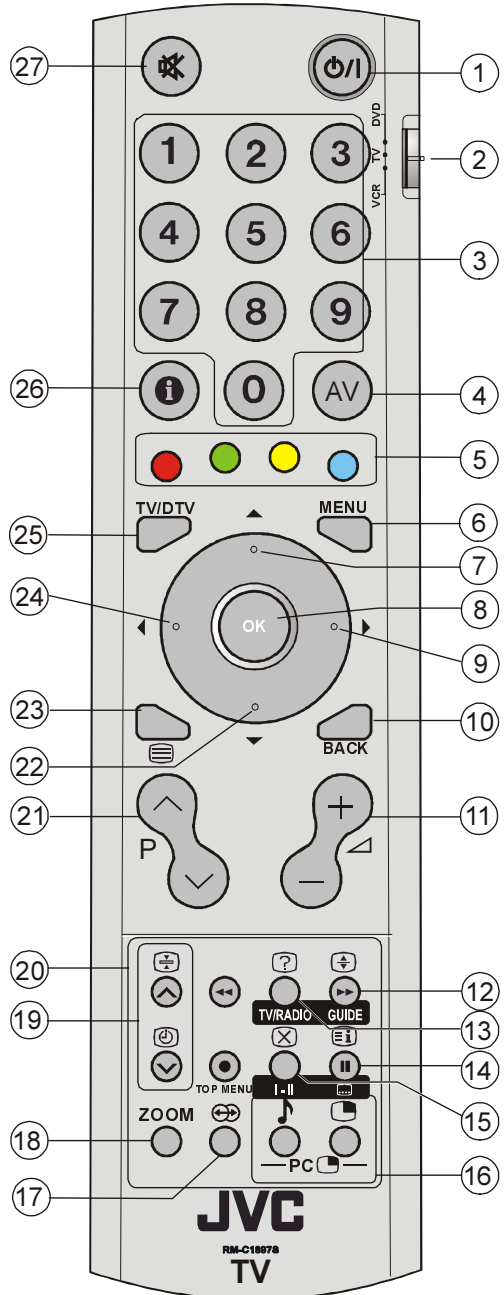
Tilt the TV up and down:

While holding the bottom of the stand with one hand, use your other hand to hold the middle of the top of the TV and slowly tilt the TV up and down.



Remote Control Buttons

- ① = (Stand By) button
- ② TV / VCR / DVD Switch
- ③ Number buttons
- ④ **AV** button
(EXT-1, EXT-2, EXT-2S, EXT-3,
EXT-4, EXT-4S, PC, DIGITAL TV)
- ⑤ Colour button
- ⑥ **MENU** = Menu button
- ⑦ = Cursor Up button
- ⑧ **OK** button
- ⑨ = Cursor Right button
- ⑩ **BACK** = Back button
- ⑪ = Volume - /+ buttons
- ⑫ **GUIDE** button
- ⑬ **TV/RADIO** = No Function
- ⑭ = **SUBTITLE** button
- ⑮ **I/II** = Audio Language
- ⑯ PC Control buttons
- ⑰ = Hyper Sound On/Off button
- ⑱ **ZOOM** = Zoom button
- ⑲ buttons
- ⑳ IDTV/ VCR/ DVD/ Teletext Control buttons
- ㉑ buttons
- ㉒ = Cursor Down button
- ㉓ = Teletext button
- ㉔ = Cursor Left button
- ㉕ **TV / DTV** button
- ㉖ = Information Button / T-V Link in
Program Menu
- ㉗ = Mute button



Features

- It is a remote controlled Integrated Digital colour television and PC monitor.
- 100 programmes from VHF, UHF bands or cable channels can be preset.
- It can tune cable channels.
- Controlling the TV is very easy by its menu driven system.
- It has 2 pieces of Euroconnector socket for external devices (such as video, video games, audio set, etc.)
- S-Video and AV inputs are available.
- Optional stereo sound systems (German or German+Nicam) are available.
- Multilanguage OSD.
- Teletext (FLOF (Fastext), TOP, WST (World Standard System)).
- It is possible to connect headphone.
- A.P.S. (Automatic programming system).
- PLL (Frequency Search).
- All programmes can be named.
- Forward or backward automatic tuning.
- Sleep timer.
- Child lock.
- Auto, Full, Regular, Panoramic, 14:9 Zoom, 16:9 Zoom, 16:9 Zoom Subtitle modes.
- Automatic sound mute when no transmission.
- When no valid signal is detected, after 5 minutes the TV switches itself automatically to standby mode.
- NTSC Playback.
- TV Picture in PC (if PC input available).
- PC input (Support Up to 1360 x 768).
- Plug&Play for Windows 9X, ME, 2000, XP.
- PC Audio input.

Getting Started

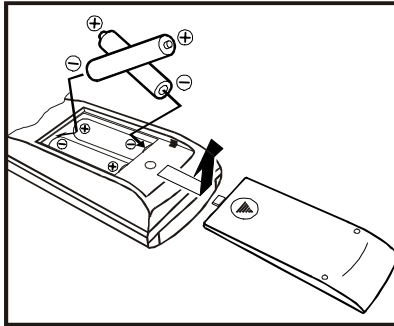
Follow Step 1 to 7 to set up your TV:

Step 1: Checking the accessories supplied

- Remote control unit x 1
- AA/R6 battery x 2
- AC adapter x 1
- Power cord x 1

Step 2: Inserting batteries

- Remove the battery cover located on the back of the remote control by gently pulling upwards from the indicated part.
- Insert two AA/R6 dry cell or equivalent type of batteries inside.
- Replace the battery cover.



NOTE: Remove the batteries from remote control when it is not to be used for a long period. Otherwise it can be damaged due to any leakage of battery.

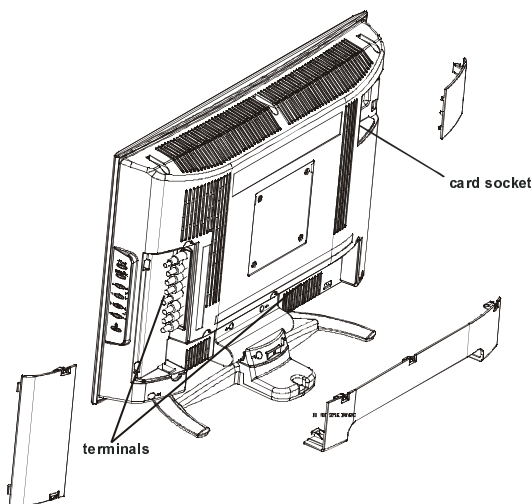
Old batteries must be disposed in a designated area. If performance of the remote control reduces, replace the batteries with the correct type. Do not combine a used, old battery or a new one or mixed battery types. Remove dead batteries immediately to prevent acid from leaking into the battery compartment.

Step 3: Removing the terminal cover

There are connection terminals and a card socket behind the covers of the rear of the TV. Remove the cover before connecting an antenna, VCR, DVD and other devices.

Remove the covers by removing the hooks. When replacing the covers, place the side or bottom of the covers against the TV and insert the hooks.

- Leave the covers off if they do not fit properly. DO NOT force to replace the covers. Doing so may cause damages of the connection cables and the covers.
- Leave these covers off when mounting the TV on a wall.



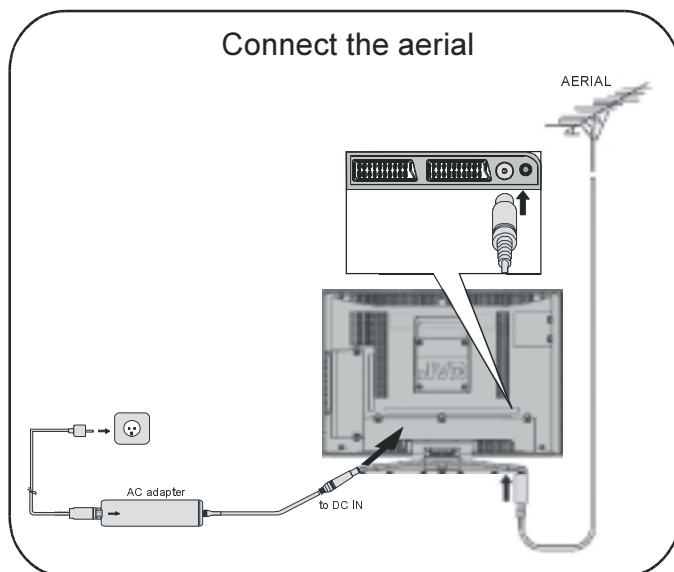
- 100 mm mount based on VESA regulation is equipped.
- The handle and the stand can be left by loosening the screws with a screwdriver when mounting the TV on a wall.
- Spread a soft cloth on a flat table and then place the TV on the cloth with the screen facing downwards when you leave the handle and the stand.

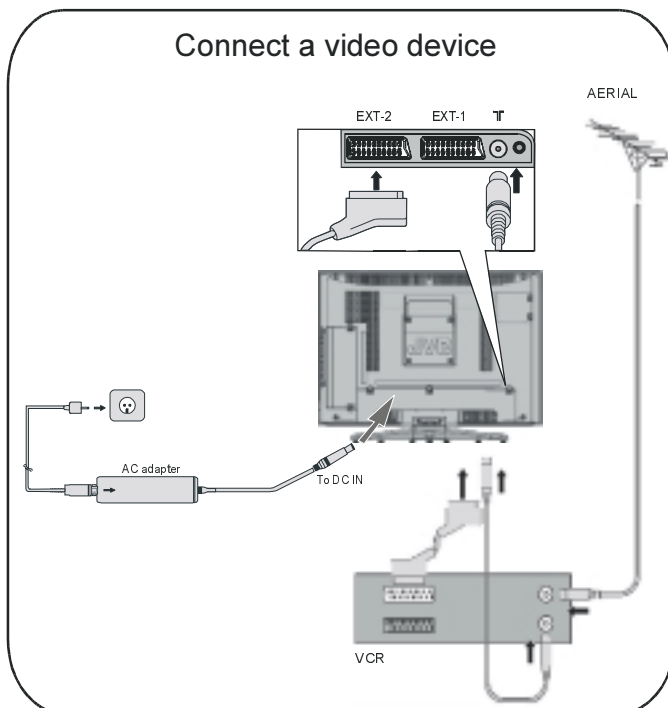
Step 4: Connecting an aerial VCR and mains

Please read the user manual of each device before connecting, to ensure a correct setup.

It is necessary to connect aerial to watch TV.

Please see “**Peripheral Equipment Connections**” on **page 37** for connections to other devices.



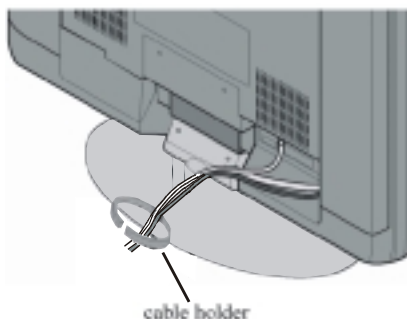


IMPORTANT:

- Only use the adaptor supplied with this TV.
- The TV set is designed to operate on **24 V DC**. For this, an adaptor is used which gives **24 V DC** voltage. Connect this adaptor to a system that supplies 100-240 V AC, 50 Hz.

Step 5: Using the cable holder

A cable holder which is used to keep the connection cables tidy is supplied. Attach the cable holder to the hole on the back of the stand, then gather together the connection cables and put them inside the holder.



Step 6: Switching the TV ON/OFF

To switch the TV on

Your TV will switch on by two steps:

- 1- Connect the power supply cord to the system. Then the TV switches itself to stand-by mode and the power lamp becomes red located on the front of the TV.
- 2- To switch on the TV from stand-by mode either:

Press the  button on the remote control or on the right side of the TV

or.

press a digit button on the remote control so that a programme number is selected,
or,

Press “P∨” or “P^” buttons on the right side of the TV or on the remote control, so that last switched off programme is selected.

By either ways the TV will switch on and the power lamp will become green.

To switch the TV off

- Press the  button on the remote control or on the right side of the TV, so the TV will switch to stand-by mode and the power lamp will become red.

NOTE: To switch the TV off completely remove the mains plug from the socket.

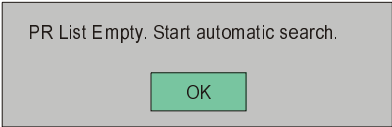
Step 7: Initial settings

When the TV is first turned on, it goes into the initial settings mode. Follow the instructions on the screen display to make the initial settings.

Note: If the TV does not go into the initial settings mode this is because your TV has already been turned on for the first time. (Perform the initial settings with “INSTALLATION” (see page 24) in the DTV menu and “AUTO STORE” (Analogue) (see page 31) in the PROGRAM menu.)

Because this is the first time that IDTV has been used, there are no channels stored in the memory and below information will be displayed on the screen.

- 1. Press the OK button to start the automatic search.



The IDTV will automatically tune to the UHF transmission channels 21 to 68 looking for digital terrestrial TV broadcasts and displaying the names of channels found. This process will take about five minutes. To cancel searching, you can press MENU button at any time during the process.

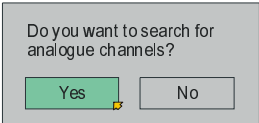
HINT: Depending on the reception conditions in your particular area, you may find that the list of channels found includes one or more repeated names. This is because the receiver may detect and store some channels, including those it cannot receive clearly, from adjacent areas alongside the strong channels from a transmitter nearby. This is not a problem and the weaker channels can be deleted from the receiver later, as described in - Edit PR List on [page 22](#).

2. When the automatic search has finished, the EDIT PR LIST menu appears.

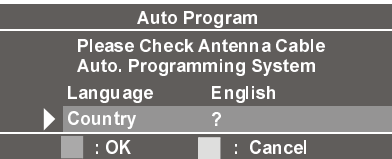
- If you want to, you can now edit the programme numbers (PR) using the EDIT PR LIST function. For details, see “Edit PR List” on [page 22](#).
- If you do not want to edit programme numbers (PR), go to the next step.

3. Press the MENU button.

The EDIT PR LIST menu disappears and the following message appears.



If you select “Yes”, Analogue terrestrial broadcastingAUTOMATIC PROGRAMMING SYSTEM (A.P.S.) window is displayed.



To cancel APS before starting, press BLUE button.

First of all choose the “**Language**” which the menus of the analogue part of the TV will appear. As soon as you change the language, the menu items will be displayed in the selected language. By pressing the “▲” or “▼” button, come to the “**Country**” item and select the country. This will affect the sort process in APS. Press RED button to start A.P.S.

After APS is finalized, a programme list will appear on the screen. In the programme list you will see the programme numbers and names assigned to the programmes.

If you press the BLUE button at any time while the A.P.S. is running, the A.P.S. will be ended.

If you do not accept the locations and / or the programme names of programmes, you can change them in Program menu. For details see PROGRAM menu on [page 30](#).

If you do not have a T-V LINK compatible VCR, press MENU button to exit the menu.

If you have a T-V LINK compatible VCR connected to the EXT-2 terminal, press “i” button to display T-V LINK menu. Then follow the operating procedure “Downloading data to VCR” in the following T-V LINK section.

T-V LINK

When a T-V LINK compatible VCR connected to the EXT-2 terminal on the TV, it is easier to set up the VCR and to view videos. T-V LINK uses the following features:

To use T-V LINK functions

A “T-V LINK compatible VCR” means a JVC video cassette recorder with the T-V LINK logo, or with one of the following logos. For details see your VCR instruction manual.

“**Q-LINK**” (A trademark of Panasonic Corporation)

“**Data Logic**” (A trademark of Metz Corporation)

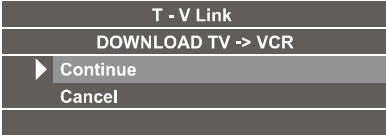
“**Easy Link**” (A trademark of Philips Corporation)

“**Megalogic**” (A trademark of Grundig Corporation)

“**SMARTLINK**” (A trademark of Sony Corporation)

Downloading data to VCR:

The VCR will automatically download the registered data on the TV channels from the TV. This means you do not need to set up the programme channels on your VCR manually. The “T-V LINK” menu will be displayed when you press the “i” button while PROGRAM menu is displayed.



If you do not have a T-V LINK compatible VCR, select Cancel and press “▶” or “OK” button to exit the menu.

Press “▶” or “OK” button to start downloading data to VCR. “TRANSFER” is displayed in the menu.



If “FEATURE NOT AVAILABLE” is displayed, download was not performed correctly. Before trying to download again, check that:

- The VCR power is turned on.
- The VCR is T-V LINK compatible.
- The VCR is connected to EXT-2.
- The scart cable is fully wired.

Direct REC:

You can easily record to VCR the images that you are watching on the TV. For details, read the manual for your VCR. Use your VCR controls you can not carry out Direct REC using your TV control.

When the VCR is not ready (For example when there is no tape inserted), “NO RECORDING” is displayed.

When you press the following buttons (⏮ / I, , TV / DTV, ZOOM, , i, AV, MENU, , (SUBTITLE), GUIDE, , BACK, P / P ^, ^

number buttons) during recording, a message appears asking if you want to stop recording or not. Press **OK** button to stop recording or **BLUE** button to continue recording.

Do not turn the TV off in the following cases:

- When recording images from an external device connected to TV (For example camcorder).
- When recording a TV channel after it has been unscrambled on a decoder.
- When recording a TV channel by using the TV's output because the VCR's own tuner can not properly receive that channel.
- When recording Digital terrestrial broadcasting (DVB-T).

TV autpower on/VCR image view:

When the VCR starts playing, the TV automatically turns on and images from EXT-2 appear on the screen.

This function does not happen if your TV's main power is turned off. Set your TV's main power to on (StandBy Mode).

Basic Operations

You can operate your TV using both the remote control and TV buttons.

Operation with the buttons on the TV

Volume Setting

- Press “ -” button to decrease volume or “ +” button to increase volume, so a volume level scale (slider) will be displayed at the middle of the bottom on the screen.

Programme Selection

- Press “**P**” button to select the next programme or “**P**” button to select the previous programme.

Switching input mode

- Pressing TV/AV/OK button will change the input mode.

Entering Main Menu

- Press “**MENU**” button to enter Main menu. In the Main menu select submenu using “**P**” or “**P**” button and enter the submenu using “ -” / “ +” or TV/AV/OK or **MENU** button. To learn the usage of the

menus, refer to the Menu System sections.

Operation with Remote Control

The remote control of your TV is designed to control all the functions of the model you selected. The functions will be described in accordance with the menu system of your TV.

Functions of the menu system are described in following sections.

Volume Setting

Press “ +” button to increase volume. Press “ -” button to decrease volume. A volume level scale (slider) will be displayed in the middle at the bottom of the screen.



Programme Selection (Previous or next programme)

- Press “**P**” button to select the previous programme.
- Press “**P**” button to select the next programme.

Programme Selection (direct access):

Press digit buttons on the remote control to select programmes between 0 and 9. TV will switch to the selected programme. To select programmes between 10 - 99, press the digit buttons consecutively which programme you want to select (eg. for programme 27, first press 2 and then 7). When it is late to press second digit button only the first digit programme will be displayed. The limit of the delay time is 3 seconds.

Example: PR6 → press 6, PR12 → press 1 and 2.

Press directly the programme number to reselect single digit programmes.

Hint: The channel list numbers are assigned by the broadcasters. Because not all channels are broadcast free-to-air and stored by the receiver, the channel list numbers do not run continuously. The fifteenth channel in the list, for example, may not be channel number 15 but channel number 17.

Hint: If you enter a number which does not correspond to a stored channel, the next valid channel number is selected instead. If you enter a number greater than the highest numbered channel in the channel list, the IDTV will select the last channel in the list.

Operating while watching IDTV

Pressing the **TV/DTV** button at any time while watching television programmes will switch the TV set between displaying the digital terrestrial television broadcasting and its normal analogue broadcasting.

It is also used to switch to the last watched mode (TV or DIGITAL TV) from the EXT mode. For example; if a DVD player is connected with a SCART cable and powered on, then the IDTV will automatically switch to EXT mode. The IDTV will switch to the last watched mode (TV or DIGITAL TV) if DVD player is switched off or "TV/DTV" button is pressed.

EVERYDAY OPERATION

While using the IDTV to the full, there are great many buttons to use in different situations. Many of the menu screens displayed by the IDTV have reminders as to which button do what, at the base of the screen. In addition, many screens have further help available which

is displayed when the **i** button is pressed, as prompted at the bottom right of the screen.

INFORMATION BANNER

Whenever you change channel, using the **P** $\vee$ / **P** $\wedge$ buttons or the number buttons, an information banner is displayed at the bottom of the screen. This will remain on the screen for approximately three seconds. The information banner can also be displayed at any time while watching TV by pressing the

i button on the remote control. Pressing the **i** button again removes the banner.



Hint: Not all channels broadcast the programme data. If the name and times of the programme is not available then "No Information" is displayed in the information banner.

The information banner gives a number of facts on the channel selected and the programmes on it. The name of the channel is displayed, along with its channel list number and an in-

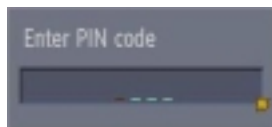
dication of the strength of the signal received on this tuning channel.

The name and the start and finish time of the programme currently showing on the selected channel are given, and the current time.

Icons are also displayed in the information banner and if this channel is a favourite channel.

favorite channel icon 

If the selected channel is locked, you must enter the correct four digit code to view the channel.



ELECTRONIC PROGRAMME GUIDE (EPG)

Another way of selecting a channel is with the electronic programme guide, or EPG. Like the Channel List, the EPG screen displays a list of the stored channels along with information on what programmes are being broadcast.

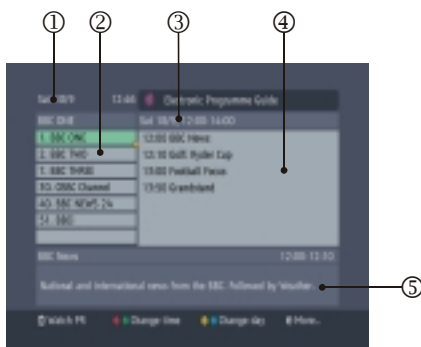
Using the Electronic Programme Guide

EPG can display 7 days programme guide, but in some areas only current and next programme guide is displayed.

By using EPG, you can select the channel and set the reminder for the programme which you do not want to miss.

To display the EPG screen, press the GUIDE button while watching Digital terrestrial broadcasting.

You can exit the EPG screen by pressing the GUIDE button again or the MENU button.



- ① Current date and time
 - ② Channel listings
 - ③ Selected date and time
 - ④ Programme name and broadcast time
 - ⑤ Brief description of the programme
- The programme name, broadcast time and a brief description of the programme are displayed for the programme chosen from the channel listings.

Choosing Channel

1. Press “▲” or “▼” buttons to choose the channel.
2. Press OK button.

The selected channel is displayed.

Programme Reminders

You can easily set the reminder so that you will not miss the programme you want to watch.

1. Press “▲” or “▼” buttons to choose the channel.
2. Press the Red and Green buttons to change the time and Yellow and Blue buttons to change the date.
3. Press “◀” or “▶” buttons and then “▲” or “▼” buttons to choose the programme you want to watch.
4. Press the OK button.

The reminder icon will be displayed on the right side of the chosen programme name and the setting is completed.

When the TV is being watched, it automatically changes to the channel of the reminded programme when the start time of the scheduled programme is reached.

- This function does not work when the TV is turned off.

To cancel the reminder setting

Display the EPG screen, choose a programme which has the reminder icon, and press the OK button.

Note:

- Reminder events are ignored if any timer event is active at that time.

- You can not set the reminder for the programme which has already started.
- “No Information” is displayed for the programme or channel which does not have any information. You can not set the reminder for these programmes.

DISPLAYING THE SUBTITLES

With Digital terrestrial broadcasting (DVB-T), some programmes are broadcast with subtitles. Subtitles can be displayed when watching these programmes.

- Press the  (SUBTITLE) button when watching Digital terrestrial broadcasting (DVB-T).

“Subtitle ON” appears at the top-left of the screen and, if programme has subtitles, the subtitles are displayed.

- When the  (SUBTITLE) button is pressed again, “Subtitle OFF” appears and the subtitles disappear.

Subtitle ON

Subtitle OFF

DIGITAL TELETEXT

Use of teletext and its functions are identical to the analogue text system. Please do refer to the “Analogue teletext” explanations.

DTV Menus

The DTV menu can only be shown when watching Digital terrestrial broadcasting. To display the DTV menu, do the following:

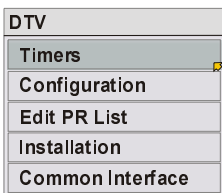
1. Press MENU button.

The menu appears.



2. Choose DIGITAL and press the OK button.

The DTV menu appears.



Timers (DTV Timer Recording)

By setting the timer, you can record a Digital terrestrial broadcasting (DVB-T) programme with a VCR connected to EXT-2 while you are out.

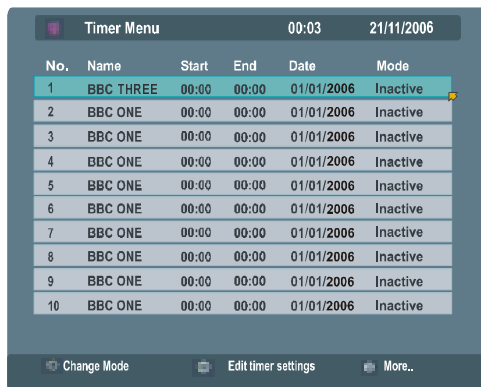
- Before using DTV timer recording, the VCR and TV must be connected correctly. For details, see T-V LINK on [page 15](#).
- When you have a T-V LINK compatible VCR connected to Ext-2, all you need to do is set the TV timer settings and the programme will be recorded.

By using “Direct Rec” of the T-V LINK function, the Direct Rec commands are sent from the TV to the VCR to automatically start and end the recording. It is not necessary to set the timer on the VCR.

- When your VCR is not T-V LINK compatible, you also need to set the VCR timer settings to match the TV timer settings.
- The recording may not start and stop at exactly the right times for some programmes. It is recommended that you allow some leeway when setting the recording times.
- Provided that the days and times are not the same, you can set up to ten timer settings.
- When subtitles are ON, the subtitles displayed with the broadcast will be recorded. When you do not want to record the subtitles, you need to turn OFF the subtitles settings beforehand (See “**Displaying the subtitles**” on [Page18](#)).
- During DTV timer recording, you are unable to view the DTV menu.

1. Choose Timers and press the OK button.

The TIMER MENU appears.



- When the BACK button is pressed, the previous screen is returned to.

2. Press “▲” / “▼” buttons to choose the timer number, and then press the OK button.

The timer setting window appears.



3. Use the “▲” / “▼” buttons, number buttons and OK button to set the timer.

- When setting the start time and end time, input 1200 for 12:00 PM, 1500 for 3:00 PM and 0000 for 12:00 AM.

Name:

Use the “◀” / “▶” buttons to choose the channel for which the timer is to be set.

Press the “▼” button.

Start:

Set the timer start time with the number buttons.

- When the “◀” / “▶” buttons are pressed, the input position moves.

Press the “▼” button.

End:

Set the timer end time with the number buttons.

- When the “◀” / “▶” buttons are pressed, the input position moves.

Press the “▼” button.

Date:

Set the date for the timer to work with the numbers.

- When the “◀” / “▶” buttons are pressed, the input position moves.

Press the “▼” button.

Mode:

Use the “◀” / “▶” buttons to choose the timer mode (Once/Daily/Weekly), and then press the **OK** button.

4. Prepare your VCR for recording

When recording on a T-V LINK compatible VCR:

1. Insert the videotape for recording into the VCR and set the recording mode.
 2. Make sure the VCR is ready to receive Direct Rec commands from the TV.
 3. Make sure VCR timer settings do not coincide with the TV timer settings.
- For details, see your VCR instruction manual.

When recording on a T-V LINK incompatible VCR:

1. Insert the videotape for recording into the VCR and set the recording mode.
 2. Set the VCR recording timer settings.
 3. Make sure that the start and end time match with the TV timer.
 4. Set the VCR to record the signal from the external input that the TV is connected to.
- For details, see your VCR instruction manual.

When you have finished the step 4, you have set the timer.

When you are not watching TV, make sure the TV is in stand by.

WARNING :

Do not turn off the main power. The timer function will not work with the main power switched off.

The TV power lamp begins flashing before the timer start time. When you are watching TV at that time, a message appears on the screen to inform you the timer is about to start.

- When performing timer recording with a T-V LINK compatible device, test the timer recording before you record the programme. There are some T-V LINK compatible recording device that will not correctly receive the Direct Rec command from the TV.

If the recording device does not operate when the recording start time is reached, it means VCR is not receiving the Direct Rec command from the TV. In this case, follow the instructions of “When recording on a T-V LINK incompatible VCR.”.

While the timer is in operation:

- You can turn the TV on or off (Stand by).

WARNING: Do not turn off the main power.

- You can watch analogue terrestrial broadcasting channels or the pictures via an Ext terminal.
- Please note that any programme information that appears on the screen, such as when making changes to the Digital terrestrial broadcasting (DVB-T) channel picture, will be superimposed over the picture in the VCR recording.
- When you press the following buttons (i, AV, MENU,  (SUBTITLE), GUIDE, , BACK, P◀ / P▶, number buttons) during recording, a message appears asking if you want to stop recording or not. Press **OK** button to stop recording or **BLUE** button to continue recording.

Cancelling the timer setting

Display the **TIMER MENU** and press the “▲” / “▼” buttons to choose which timer setting to cancel. Press the “◀” / “▶” buttons so that “Inactive” appears in the Mode column.

Reactivating the cancelled timer setting

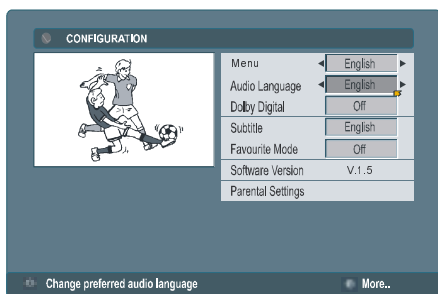
Display the TIMER MENU and press the “▲” / “▼” buttons to choose which timer setting to reactivate. Press the “◀” / “▶” buttons so that “Active” appears in the Mode column.

Configuration

Set the basic setting when watching Digital terrestrial broadcasting (DVB-T).

Choose configuration and press the **OK** button.

CONFIGURATION appears.



- When the **BACK** button is pressed, the previous screen is returned to. When **MENU** button is pressed, the menu disappears.
- When the **i** (Information) button is pressed, the help screen appears. When it is pressed again, the previous screen is returned to.

MENU

When the Configuration menu is entered, **MENU** is highlighted. Use left or right buttons to change language between English or Spanish.

MENU Language determines the on-screen menu language.

Audio Language

With Digital terrestrial broadcasting (DVB-T), a number of languages can be broadcast at the same time. Choose language you want to listen when watching these broadcasts.

1. Press the “▲” / “▼” buttons and choose Audio Language.

2. Press the “◀” / “▶” buttons and choose the language.

Language changes every time the button is pressed.

- If the selected language is not broadcast, the default language will be played.
- You can change the Audio language directly by pressing **I-II** button

Dolby Digital

By pressing “◀” / “▶” button, select Dolby Digital. Dolby Digital can be set to On or Off.

After press “◀” / “▶” button the following message appears on the screen.

Dolby digital audio can only be listened to using a home entertainment system

“Dolby” and the double-D symbol are trademarks of Dolby Laboratories.

Subtitle

With Digital terrestrial broadcasting (DVB-T), a number of subtitles can be broadcast at the same time. Choose the subtitle you want to display when watching these broadcasts.

1. Press the “▲” / “▼” buttons and choose Subtitle.
2. Press the “◀” / “▶” buttons and choose a subtitle that appears when the  (**SUB-TITLE**) button is pressed.

Favourite Mode

Enable/disable the Edit PR List Favourites settings.

1. Press the “▲” / “▼” buttons and choose Favourite Mode.
2. Press the “◀” / “▶” buttons and choose ON or OFF.

On:

The Edit PR List Favourites settings are enabled.

When the **P∨** / **P∧** button is pressed, only the channels chosen in the Edit PR List favourites (those with the icon) can be chosen.

- For details on how to set your favourite channels, see “Setting the favourite channels” on **page 24**.

Off:

The Edit PR List Favourites settings are disabled.

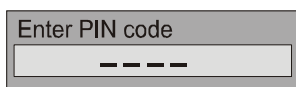
When the **P**  / **P**  button is pressed, all the channels registered in the Edit PR List can be chosen.

Parental Settings

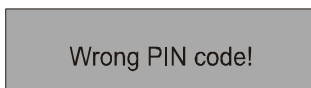
Some channels broadcast material which you do not want younger members of the family to watch. Any channel can be 'locked' so that it cannot be selected for viewing without first a four-digit PIN code being entered. In this way any channel not suitable for younger viewers can be protected.

This function enables or disables the menu protection system and allows the PIN code to be changed. Channel And Menu Protection Lock feature.

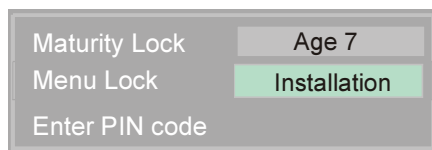
Use up or down buttons to highlight Parental Settings. Press "OK" button to enter Parental Settings Menu. A box asking for the lock key is displayed.



There is only one key which is set to "0000" initially. Enter lock key. If wrong Lock key is entered, the following message is displayed on the screen and it is returned back.



If it is correct, the Parental Settings Menu including following items is displayed:



Use or buttons to highlight the menu item that will be adjusted.

Maturity Lock:

Use or buttons to set Maturity Lock to the "Off, Age7, Age13, Age18 and classified X.

Menu Lock:

There you can set/reset locking for the Main Menu or the Installation Menu to restrict access. If the menu lock is disabled, there will be free access to the menu system.

Disable: All menus are unlocked.

Main Menu: Main menu is accessible only with the correct lock key.

Installation: Installation menu is locked, so the user cannot add channels.

Changes will be updated after exiting Configuration Menu.

Enter PIN code:

Also in this menu you can change the pin code and set/change parental lock mode.

Choose Enter PIN code to change the PIN code for the Edit PR List menu's "Lock". The PIN code factory setting (how it is set when you purchase the television) is 0000.

1. Press the " " / " " buttons and choose Enter PIN code, and press the **OK** button.

2. Input the current PIN code.

When you are making this setting for the first time, input 0000.

When a PIN code has already been set, enter the correct PIN code.

The PIN code setting window appears.

3. Press the number buttons to input a new PIN code (password).

4. Input the new PIN code (password) again in the Confirm box.

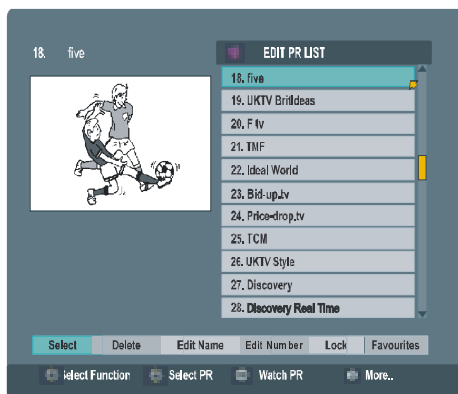
"Pin code is changed" appears.

Your newly chosen PIN code is now set. You will now need to use the PIN code (password) you choose. Here to lock or to unlock the Edit PR List's "Lock".

Edit PR List

Choose Edit PR List and press the **OK** button.

EDIT PR LIST appears.



The Edit PR List can be used to do the following:

- delete registered channels
- edit channel names.
- lock channels so that they can not be watched by children.
- set Favourites so that you can easily choose from only the channels you often watch.
- Sometimes you may notice a drop in picture quality while watching your programme in the quarter-screen. This is not a fault.
- When the BACK button is pressed, the previous screen is returned to. When the TV/DTV or MENU button is pressed, the menu disappears.
- When the **i** (information) button is pressed, the help screen appears. When it is pressed again, the previous screen is returned to.

Here, you can preview any channel stored by the receiver before viewing it full screen. The complete list of channels is displayed in **pages of 19** channels at a time, with their channel list number and a favourite channel icon if appropriate.

Choosing a channel

The chosen channel is shown on the quarter-screen.

1. Press the “◀” / “▶” buttons and choose **Select** on the bar at the bottom of the screen.
2. Press the “▲” / “▼” buttons and choose a channel, and then press the **OK** button.

The picture of the chosen channel is shown on the quarter-screen.

Deleting a channel

1. Press the “◀” / “▶” buttons and choose **Delete** on the bar at the bottom of the screen.
2. Press the “▲” / “▼” buttons and choose the channel to be deleted, and then press the **OK** button.

The channel deletion confirmation window appears.

3. Choose **Yes** and press the **OK** button.

The chosen channel is deleted.

- If you do not want to delete the chosen channel, choose **NO** and press the **OK** button.
- Perform “**Installation**” (see **page 24**) to re-register a channel that you have deleted.

Editing a channel name

1. Press the “◀” / “▶” buttons and choose **Edit Name** on the bar at the bottom of the screen.
2. Press the “▲” / “▼” buttons and choose the channel to be edited, and then press the **OK** button.

The EDIT window appears.

3. Press the “▲” / “▼” buttons and choose a character, press the “◀” / “▶” buttons to move the cursor and edit the name, and then press the **OK** button.

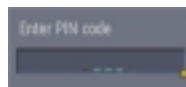
The edited channel appears in the Edit PR List.

Locking a channel

When there is a channel you do not want your children to watch, you can lock the channel.

1. Press the “◀” / “▶” buttons and choose **Lock** on the bar at the bottom of the screen.
2. Press the “▲” / “▼” buttons and choose the channel to be locked, and then press the **OK** button.

The Enter PIN code input window appears.



3. Press the number buttons to input to correct PIN code.

If you have not changed the PIN code in the CONFIGURATION menu's "**Enter PIN Code**" (see page 22), input the PIN code you chose.

The lock icon appears next to the channel name in the Edit PR List.

When a locked channel is chosen, the Enter PIN code input window will appear. If the correct PIN code is input, the picture appears.

- When you forget the PIN code for the "Lock", you can unlock locked channels by performing Automatic Search (see INSTALLATION).

Setting the favourite channels

If only channels that you often watch are set as favourite channels, you can choose from just those channels by pressing **P**∇ / **P**△.

- After setting the favourite channels, check the "**Favourite Mode**" in "**Configuration**" (see page 21) is set to ON.

1. Press the "◀" / "▶" buttons and choose Favourites on the bar at the bottom of the screen.
2. Press the "▲" / "▼" buttons and choose the channel to be registered as a favourite channel, and then press the **OK** button.

The favourite icon (😊) appears on the right side of the chosen channel.

When you leave the Channel List screen, by pressing "MENU" the channel showing on the quarter screen is selected for normal viewing on the whole screen.

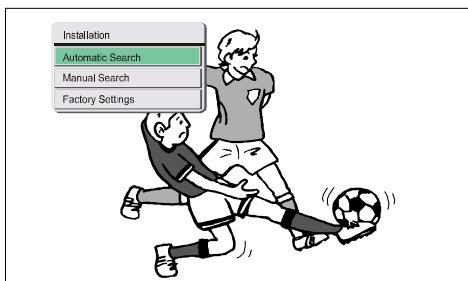
Installation

Although your TV will not lose its settings or stored channels when switched off, you may wish to re-install the programs because you have moved to a different area with different broadcast frequencies, you wish to reinstate a channel previously deleted from the channel list, or you want to watch new channels which have started broadcasting.

Display the DTV Menu and using the "▲" or "▼" buttons, highlight the Installation line and press **OK** to display the Installation Menu.

The Installation menu appears.

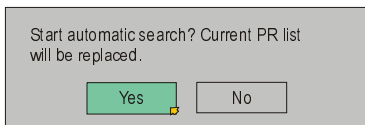
You can either select Factory Settings, effectively resetting the receiver to its factory setting condition, or just search for channels.



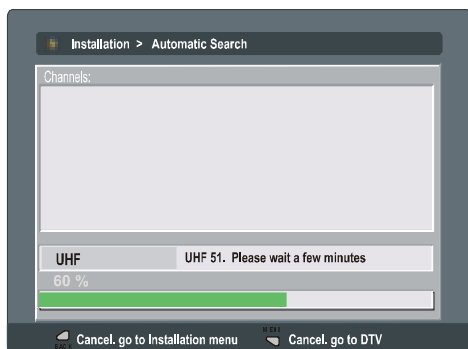
Automatic Search:

The receiver can search for channels automatically (searching all the broadcast frequencies for free-to-air channels).

To perform Automatic search, Select Automatic Search with the "▲" or "▼" buttons and press **OK**. A warning message is displayed.

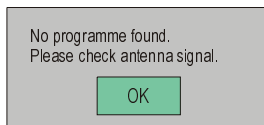


This starts the automatic tuning process and searches through all the available broadcast frequencies for free-to-air channels.

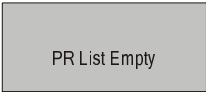


Previous channels will be replaced on automatic search.

If no digital terrestrial television broadcasts are found, the TV will display a message:

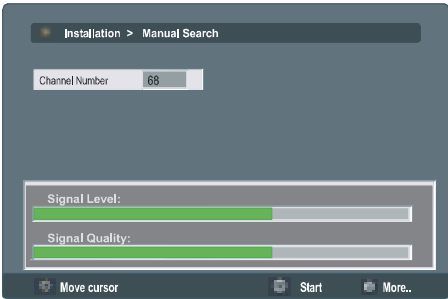


When “OK” button is pressed, following message will appear on the right bottom side of the screen:



Manual Search:

This is for searching for digital channels on a single broadcast frequency. The frequency channel number (21-68) is entered in the box at the top left of the screen and the received signal level and signal quality can be observed on the two bar graphs at the bottom. When **OK** is pressed, the TV searches that frequency and display a list of the channels found.



Hint

The bar graphs of signal quality and signal level give a good indication of whether any channels are likely to be found. If only the signal level graph shows a high value then it is likely that an analogue channel occupies that broadcast frequency. If the signal quality bar is high as well then it is a digital frequency and digital channels will probably be found.

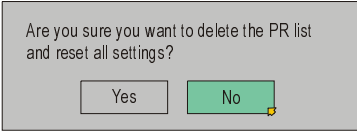
Again, channels which duplicate those already in the channel list are ignored. However, the manual channel search will find all channels on the broadcast frequency.

When either search is finished, press the MENU key to return to normal broadcast viewing, to watch the new digital terrestrial television channels found.

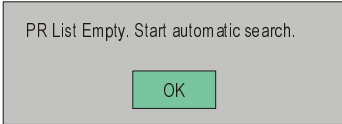
Factory Settings:

To reset the TV, highlight the Factory Settings line in the menu and press **OK**. A warning screen is displayed in case of accidental op-

eration.



Highlight the YES button with the “◀” or “▶” key and press **OK** to erase all the channels and settings. A message will be displayed on the screen.



- Press the **OK** button to start the automatic search.
- When the automatic search has finished, the EDIT PR LIST menu appears.

Common Interface

It is required to subscribe to a pay channel company to view the pay channels of the Digital Terrestrial broadcasting.

Obtain the Conditional Access Module (CAM) and the Viewing card by subscribing to a pay channel company, then insert those to the Television using the following procedure.

1. Switch off the TV and unplug from the mains.
 2. Insert the CAM, then Viewing Card to the slot that is located in the terminal cover at the left-hand side of the TV (from front view).
- The CAM should be correctly inserted, it is impossible to insert fully if reversed. The CAM or the TV terminal may be damaged if the CAM is forcefully inserted.
3. **Connect the TV to the mains supply, switch on and then wait for few moments until the card is activated.**
- Some CAMs may require the following set up. Please set the CAM by entering the DTV menu, Common Interface then pressing **OK** button. (CAM set up menu is not displayed when it is not required.)
 - To see the viewing contract information, press **MENU**, Select DIGITAL and Press **OK**, then Select Common Interface and press **OK**.

- When no module is inserted, “No CI Module” appears.
- Refer to the module instruction manual for details of the settings.

Setting The TV

Menu System

Your TV's analogue part has been designed with a menu system to provide an easy manipulation of a multi-function system. The TV is controlled by choosing the commands, which are displayed on the screen.

MAIN MENU

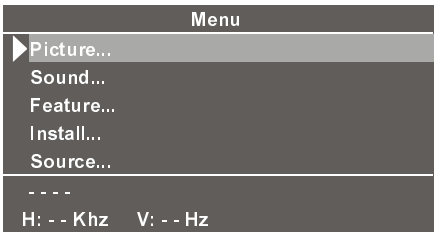
Press the “MENU” button. The main menu will be displayed in the middle of the screen.



To select a sub-menu use “▲” or “▼” button, and press “◀” or “▶” button or directly press “OK” button.

In EXT-1, EXT-2 and EXT-4 modes, main menu appears the same as in TV mode but without Program sub-menu.

In EXT-3 mode, Main Menu appears as follows:



In DIGITAL TV mode, DIGITAL will appear on the Main menu. Install and Program do not appear.

Menu does not disappear automatically if it is left on the screen.

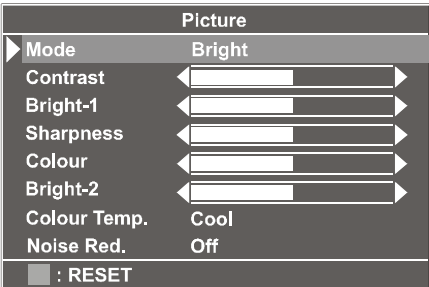
Press “MENU” button again to remove menu.

Picture Menu

Press “MENU” button, now you are in main menu. In the Main menu, select “Picture” using “▲” or “▼” button, then enter the Picture menu by pressing “◀” / “▶” or “OK” button.

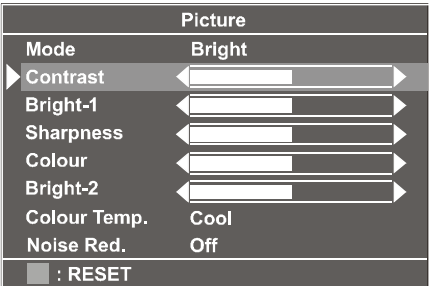
Setting Mode

- As you enter the picture menu, Mode will be the first item.
- By pressing “◀” or “▶” button you may choose one of these options:
Soft, Standard and Bright.



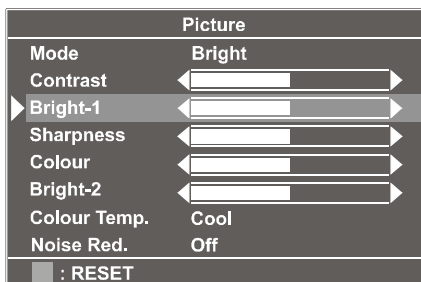
Setting Contrast

- Using “▲” or “▼” button select Contrast.
- Press “▶” button to increase contrast level.
- Press “◀” button to decrease contrast level.



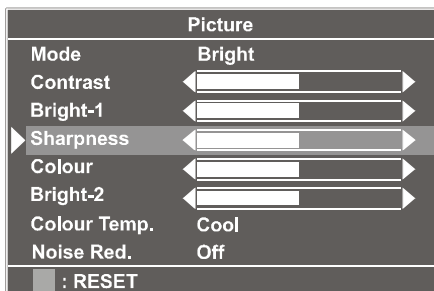
Setting Bright-1

- Using “▲” or “▼” button select Bright-1.
- Press “▶” button to increase brightness.
- Press “◀” button to decrease brightness.



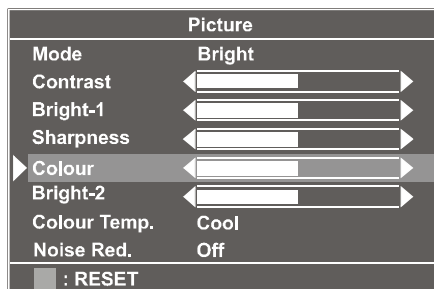
Setting Sharpness

- Using “▲” or “▼” button select Sharpness.
- Press “▶” button to increase sharpness level.
- Press “◀” button to decrease sharpness level.



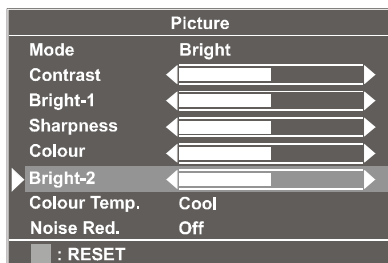
Setting Colour

- Using “▲” or “▼” button select Colour.
- Press “▶” button to increase colour level.
- Press “◀” button to decrease colour level.



Setting Bright-2

- Using “▲” or “▼” button select Bright-2.
- Press “▶” button to increase the back light.
- Press “◀” button to decrease the back light.



Setting Colour Temp.

- Using “▲” or “▼” button select Colour Temp.
- Press “◀” or “▶” button to select “Warm”, “Cool” or “Normal”.

Setting Noise Reduction

- Using “▲” or “▼” button select Noise Reduction.
- Press “◀” or “▶” button to select Noise Reduction level “Off” or “Minimum” or “Medium” or “Maximum”.

Note 1:

At low signal level, the changes on the Noise Reduction function are not effective when there is menu on the screen. If the menu is removed, the effect of this function is seen. At normal broadcasting, Noise Reduction changes are effective at once.

Note 2:

At moving pictures, while Noise Reduction is at maximum level, some picture distortions may occur. If Noise Reduction is set to medium or minimum, the picture will improve.

Setting Hue

During Playback NTSC system, this will appear in AV mode only when NTSC video source is applied. Otherwise, HUE option is invisible in Picture menu in TV mode :

- Using “▲” or “▼” button select Hue.
 - Press “▶” button to increase hue level.
 - Press “◀” button to decrease hue level.
- Center value is indicated with one arrow.

Reset

Press BLUE button to reset the picture modes to factory default settings.

To Store the Settings

In the Picture Menu, all settings are stored automatically.

Sound Menu

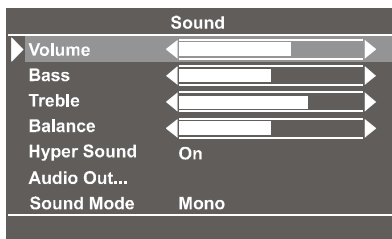
As you enter the main menu, sound will be the second item. In the main menu, select **Sound** using “▲” or “▼” button, then enter the sound menu by pressing “◀” / “▶” or “OK” button.

Setting Volume

As you enter the sound menu, Volume will be the first selected option.

- Press “▶” button to increase volume.
- Press “◀” button to decrease volume.

Or you can directly change the volume settings using “◀ +” (to increase) or “- ▶” (to decrease) button.



Setting Bass Level

- Using “▲” or “▼” button select Bass Level.
- Press “▶” button to increase bass level.
- Press “◀” button to decrease bass level.

Setting Treble Level

- Using “▲” or “▼” button select Treble
- Press “▶” button to increase treble level.
- Press “◀” button to decrease treble level

Setting Balance

It allows adjusting the distribution between the left and right speakers.

- Using “▲” or “▼” button select Balance.
- Press “▶” button to change balance rightward.
- Press “◀” button to change balance leftward.

Hyper Sound

- Using “▲” or “▼” button select Hyper Sound.

- Pressing “◀” or “▶” button will turn on or off this feature.

Pseudo/spatial effect can be turned on or off via the Hyper Sound item in the Sound menu or by remote control. In Mono transmission the left and right channels will be added at left channel and dummy stereo effect will be introduced to end-user.

In stereo transmission it yields a phase difference between left and right channels.

To Change Audio Out Settings

Audio Out is a sub-menu of Sound menu.

Use this settings to adjust volume for audio out terminal which is located at the right side of the TV.

- Using “▲” or “▼” button select Audio Out.
- Press “◀” or “▶” button or directly press “OK” button on Audio Out, to enter the Audio Out menu.



Audio Out Volume

- As you enter the Audio Out sound menu, Volume will be the only option.
- Press “▶” button to increase volume.
- Press “◀” button to decrease volume.

While you are connecting headphones, when you change the Audio Out Volume, “◀” or “▶” Volume setting is changed at the same time.”

Selecting Sound Mode

- Using “▲” or “▼” button select Sound Mode.
- Press “◀” or “▶” button to change Sound Mode.

You can choose **Mono**, **Stereo** or **Dual (I-II)** mode, only if the selected channel supports that mode.

In case of bilingual broadcast (Dual Sound), you can select original or dubbed language using mode option. So when somebody listens to the original language from the loudspeakers, somebody else can listen to the dubbed language from headphone.

To Store The Settings

In the Sound Menu, all settings are stored automatically.

Feature Menu

Press “MENU” button, now you are in mainmenu. In the main menu, select **Feature** using “▲” or “▼” button. Then enter the Feature menu by pressing “◀” / “▶” or “OK” button.

Feature	
▶ Sleep Timer	Off
Child Lock	Off
Language	English
EXT-2 Output	TV
Blue Back	Off

Sleep Timer

The Sleep Timer is used to turn the TV off after a defined period of time after selecting this item. The timer can be programmed between Off and 120 minutes in steps of 10 minutes. (Off, 010, 020, 030, 040, ... , 120)

If sleep timer is activated, at the end of the selected time, the TV goes automatically to stand-by mode.

Child Lock

You can use this feature to prevent children turning the TV on/off or changing programmes or adjustments etc. without remote control.

- Using “▲” or “▼” button select Child Lock.
- Press “◀” / “▶” button to select Child Lock On or Off .

The **Child Lock** feature can be set **On** or **Off** by “◀” / “▶” button. When **Off** is selected, there will be no difference in the operation of your TV. When **On** is selected, the TV can only be controlled by the remote control. In this case the control panel buttons except “⏻” button on the right side of the TV will not work.

Selecting Menu Language

- Using “▲” or “▼” button select Language.
- Press “◀” or “▶” button to select menu language.

EXT-2 Output

From EXT-2 Output; TV, EXT-1, EXT-4 or DIGITAL can be given. These modes can be chosen by pressing “◀” or “▶” button on “EXT-2 OUTPUT”.

Feature	
Sleep Timer	Off
Child Lock	Off
Language	English
▶ EXT-2 Output	TV
Blue Back	Off

Blue Back (During No Signal)

The Blue Back Feature can be set by “▲” or “▼” button to either On or Off.

To Store Settings

In Feature menu all settings are stored automatically.

Install Menu

Press “MENU” button, now you are in main menu. In the main menu, select “Install” using “▲” or “▼” button. Then enter the Install menu by pressing “◀” / “▶” or “OK” button.

Install	
▶ Programme	P 02
Band	C
Channel	02
Colour System	Auto
Sound System	BG
Fine Tuning	◀-----+-----▶
Search	048.25
Decoder(EXT-2)	Off
VCR	Off
Store	

In EXT mode, Install menu appears like this:

Install	
▶ Colour System	Auto
VCR	Off

You can change only Colour system and VCR.

Selecting Programme

- Using “▲” or “▼” button select **Programme**.
- To select programme number, you can use “◀” / “▶” button or Digit Buttons.

Selecting Band

Band, can be chosen either,

- “C” or “S” by “◀” or “▶” button.

Selecting Channel

Channel can be changed by “◀” or “▶” button or by Digit Buttons.

Selecting Colour System

Using “◀” or “▶” button on **Colour System**, you can change the colour system to **PAL**, **SECAM** or **Auto**.

Note: In EXT mode, you can choose NTSC 3.58 and NTSC 4.43 as well.

Selecting Sound System

Using “◀” or “▶” button on **Sound System**, you can change the standard to **BG**, **DK**, **I**, **L**, **Lp**.

Selecting Fine Tuning

You can use the Fine Tuning process for fine adjustment (after coarse adjustment), if you are not happy about the image on the screen.

Use “◀” or “▶” button on **Fine Tuning** item, until getting the best image on the screen.

Selecting Search

To start the search process, press “▶” button for forward search or “◀” button for backward search. If a signal is found or reaches to end of the band after searching, press “◀” or “▶” buttons to continue search process. To stop the search process when you want, press “◀” or “▶” buttons at any time.

Decoder (EXT-2)

You can use this mode to connect any decoder to your TV.

- Press the “◀” or “▶” buttons to set it “On” or “Off”.

When you select Decoder (EXT-2) “On”, EXT-2 output will be chosen as TV mode only and any scrambled channels will be unscrambled through decoder connected your TV via EXT-2 output.

Setting VCR (Video Cassette Recorder) Mode

- This item can be seen in **TV**, **EXT-1**, **EXT-2**, **EXT-2S**, **EXT-3**, **EXT-4** and **EXT-4S** modes.
- If you want to watch a **VCR** source from one of these modes, then it will be better to set **VCR** mode “On”. For this, while the cursor is on this item press the “◀” or “▶” buttons to set it “On”.
- If you want to watch a **DVD**, then you must set this item “off”; because **DVD** is not a source like a **VCR** and to see the picture better, you must set the **VCR** mode “Off”.

To Store Settings

- Press “◀” / “▶” or “OK” button on **Store** option to store Install menu settings.
- After stored, T-V LINK menu will appear. If you do not need to do T-V LINK, select Cancel and press “▶” or “OK” button to exit the menu.

Program Menu

Press “MENU” button, now you are in main menu. In the main menu, select “**Program**” using “▲” or “▼” button. Then enter the Programme menu by pressing “◀” / “▶” or “OK” button.

Note: There is no Program menu in any EXT modes.

Program		P01
▶ 01	BBC	11 _ _ _ _
02	RTL	12 _ _ _ _
03	XXXXXX	13 _ _ _ _
04	_ _ _ _ _	14 _ _ _ _
05	_ _ _ _ _	15 _ _ _ _
06	_ _ _ _ _	16 _ _ _ _
07	_ _ _ _ _	17 _ _ _ _
08	_ _ _ _ _	18 _ _ _ _
09	_ _ _ _ _	19 _ _ _ _
10	_ _ _ _ _	20 _ _ _ _
Name		Insert
Delete		Autostore
I : T-V Link		

Program Menu is used to delete a channel, to change the programme number of a channel, to give a channel name to a channel, and to start the A.P.S (Autostore) function.

To choose a channel in the PROGRAM menu

Press “▲” / “▼” / “◀” / “▶” button. The programme number that you choose is highlighted in the Program.

Caution:

Using “Delete” or “Insert” function rewrite the current channel list in the Program menu. Therefore, the programme numbers of some of channels will change.

When you complete the settings of Program menu:

If you have a T-V LINK compatible VCR, press “i” button to display the T-V LINK menu. then follow the operating procedure “Downloading the data to VCR”.



If you do not have a T-V LINK compatible VCR, select Cancel and press “▶” or “OK” button to exit the menu.

To give a channel name (Name):

1. Choose the channel you want to give a channel name.
2. Press the RED button to enter the Name mode.
3. Press “◀” or “▶” button to choose the position, and press “▲” or “▼” button to choose each character of channel name.
4. Press the RED button to store the channel name.

- To cancel the Name mode, press the BLUE button.

To delete a channel (Delete):

1. Choose the channel you want to delete.
 2. Press the YELLOW button to enter the Delete mode.
 3. Press the YELLOW button to delete it.
- To cancel the Delete mode, press the BLUE button.

To change the programme number of a channel (Insert)

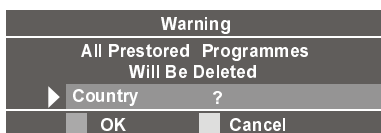
1. Choose the channel you want to change the programme number.

2. Press the GREEN button to enter the Insert mode.
3. Press “▲” / “▼” / “◀” / “▶” button to choose new programme number.
4. Press the GREEN button to Insert the channel to the chosen programme number.

Autostore:

To enter Autostore menu, press the BLUE button. To learn the features of this function see “Autostore” below.

Autostore, searches and stores all channels automatically on your TV, according to the transmission of programme systems in your area.



First of all choose the “Country” by using “◀” or “▶” button. Then press the Red button to start Autostore.

After Autostore is finalized, a programme list will appear on the screen. In the program list you will see the programme numbers and names assigned to the programmes.

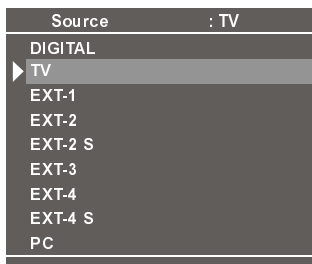
If you do not accept the locations and/or the programme names of programmes, you can change them in Programme menu.

Source Menu

You can switch your TV to EXT modes by pressing directly to “AV” button or by selecting in source menu from the main menu.

While in EXT mode, you can also switch your TV to TV or other EXT modes by selecting in source menu from the main menu.

In main menu, firstly use “▲” or “▼” button then use “◀” / “▶” or “OK” button to enter Source menu. In source menu, move the cursor by “▲” or “▼” button and then press “OK” button or “◀” / “▶” buttons when the cursor is on the required item. The selected mode comes automatically on the screen.



Other Features

TV Status

Programme Number, Programme Name (or EXT), (they are displayed on the upper left of the screen). The **sound indicator** is displayed with them too. They are displayed after programme change for 3 seconds.

Sound Indicator

The alternatives of the indicator are Mono, Stereo, Dual I and Dual II. This indicator is displayed under the programme number indicator on the screen.

Mono

In Mono broadcast or in forced-mono (for stereo broadcast).

Stereo

In **Stereo** broadcast.

Dual I

If dual broadcast detected. Dual I is selected in default and also can be selected after Dual II by Remote Control.

Dual II

If Dual II selected by Remote Control.

Hyper Sound

By selecting Hyper Sound in sound menu or by pressing the “” button on your remote control, Pseudo/Spatial effect can be turned on or off. In Mono transmission the left and right channels will be added at left channel and dummy stereo effect will introduced to end-user.

In stereo transmission it yields a phase difference between left and right channels.

Mute Indicator

It is placed in the upper middle of the screen when enabled, and it stays there until it is disabled.



To cancel mute, there are two alternatives; the first one is by pressing the “” button, this volume is set to the preceding value, and the second one is increasing or decreasing the volume level.

No-Signal Detection (TV mode)

If no valid signal detected, it takes 5 minutes to switch to the Stand-By mode unless any signal detected or any Remote Control command is accessed.

After a Remote Control command (if No-Signal Timer is active) the timer stops and if no signal detected again the timer is initialized to 5 minutes and starts 3 seconds later again to count down.

It is not valid in EXT modes.

Volume Bar

It is displayed in the lower middle of the screen. When a volume command is received (pressing “ +” or “ -” by Remote Control or Control panel at the top of the TV) and no menu is active, it stays on the screen for 3 seconds, after the last volume command or until another command is received in between.



EXT Modes

By pressing the “**AV**” button you can switch your TV to EXT modes (except being in Teletext). Pressing this button consecutively will switch the TV in one of the optional EXT modes: **EXT-1**, **EXT-2**, **EXT-2 S**, **EXT-3**, **EXT-4**, **EXT-4 S**, **PC** and **DIGITAL TV**.

In order to quit the EXT mode press any digit buttons or “**P**” or “**P**”

Zoom Modes

Zoom mode can be changed by pressing **ZOOM** button. You can change the screen size according to the picture aspect ratio. Select the optimum one from the following **ZOOM** modes.

AUTO:

When a **WSS (Wide Screen Signalling)** signal, which shows the aspect ratio of the picture, is included in the broadcast signal or the signal from an external device, the TV automatically changes the **ZOOM** mode to **16:9 ZOOM** mode **PANORAMIC** or **FULL** mode according to the **WSS** signal.

- When the **AUTO** mode does not function correctly due to poor **WSS** signal quality or when you want to change the **ZOOM** mode, change to another **ZOOM** mode manually.

Using the different screen formats

Press the **ZOOM** button to select the different modes: Auto, Full, Regular, Panoramic, 14:9 Zoom, 16:9 Zoom, 16:9 Zoom Subtitle modes. In some modes, press “▲” or “▼” button to move the picture up or down.

Note: You can only choose **REGULAR** and **FULL** in **PC mode**.

FULL:

This uniformly stretches the left and right sides of a normal picture (4:3 aspect ratio) to fill the wide TV screen.



- For 16:9 aspect ratio pictures that have been squeezed into a normal picture (4:3 aspect ratio), use the **FULL** mode to restore the picture to its original shape.

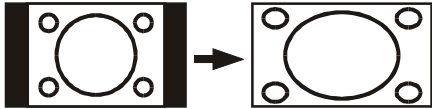
REGULAR:

Use to view a normal picture (4:3 aspect ratio) as this is its original shape.



PANORAMIC:

This stretches the left and right sides of a normal picture (4:3 aspect ratio) to fill the screen, without making the picture appear unnatural.



The top and bottom of the picture are slightly cut off.

14:9 ZOOM:

This zooms up the wide picture (14:9 aspect ratio) to the upper and lower limits of the screen.



16:9 ZOOM:

This zooms up the wide picture (16:9 aspect ratio) to the full screen.



16:9 ZOOM SUBTITLE:

This zooms up the wide picture (16:9 aspect ratio) with subtitles to the full screen.



Note:

- For 14:9Zoom, 16:9Zoom, 16:9Zoom Subtitle, top and bottom of DTV menu and OSD will be cut off.
- To enjoy with recommended aspect ratio, please set Zoom size to Auto.

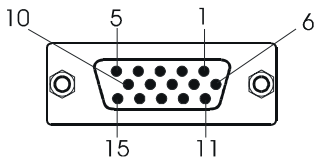
PC Mode

Installation

- Power off both Computer and the TV before making any connections.
- Set your PC's resolution correctly before connecting to the TV. See the table in **page 41** for supported modes.

- Use a D-SUB cable to connect the TV's PC input to the computer's RGB output terminal. If you want to listen to the sound from the computer, use an audio cable to connect the PC AUDIO IN to the computer's sound output terminal.

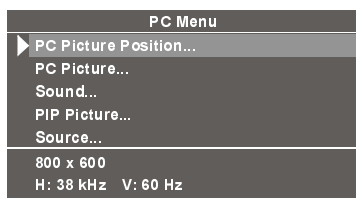
15 Pin Mini D-Sub Connector



- Tighten the screws of the Display cable until the connectors are fastened securely (finger-tighten only).

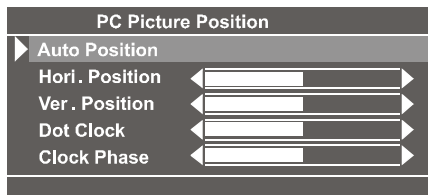
Main Menu in PC mode

Enter the main menu by pressing the **"MENU"** button on the remote control.



PC Picture Position Menu

In the Main menu, select **"PC Picture Position"** using **"▲"** or **"▼"** button, then enter the menu by pressing **"◀"** / **"▶"** or **"OK"** buttons.



Auto Position

If you shift the picture horizontally or vertically to an unwanted position, use this item to put the picture into correct place automatically.

- Select Auto position item by using **"▲"** or **"▼"** buttons.
- Press **"OK"** button.
- Press **"MENU"** button or **"BACK"** button to store the value.

Warning: Auto position adjustment recommended to be done with the full screen image for the proper adjustment.

Horizontal Position

This item shifts the image horizontally to right hand side or left hand side of the screen.

- Select **Hor. Position** item by using **"▲"** or **"▼"** button.
- Use **"◀"** or **"▶"** button to adjust the value.
- Press **"MENU"** button or **"BACK"** button to store the value.

Vertical Position

This item shifts the image vertically towards the top or bottom of the screen.

- Select **Ver. Position** item by using **"▲"** or **"▼"** button.
- Use **"◀"** or **"▶"** button to adjust the value.
- Press **"MENU"** button or **"BACK"** button to store the value.

Dot Clock

Dot Clock adjustments correct interference that appear as vertical banding in dot intensive presentations like spreadsheets or paragraphs or text in smaller fonts.

- Use **"◀"** or **"▶"** button to adjust the value.

Clock Phase

Depending on the resolution and scan frequency that you input to the TV Set, you may see a muddy or noisy picture on the screen. In such a case you can use this item to get a clear picture by trial and error method.

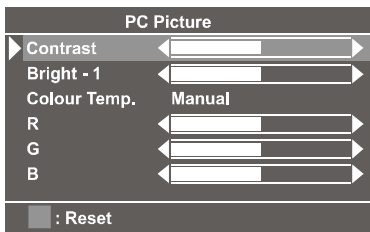
- Use **"◀"** or **"▶"** button to adjust the value.

PC Picture Menu

In the Main menu, select **"PC Picture"** using **"▲"** or **"▼"** button, then enter the PC Picture menu by pressing **"◀"** / **"▶"** or **"OK"** buttons.

Contrast, Bright-1 and Colour Temperature adjustments in this menu are identical to adjustments defined in TV picture menu.

R, G, and B adjust the TV image colour in PC mode. You can change the TV colour to your desired colour: R (Red), G (Green), B (Blue)



Sound Menu

In the main menu select “**Sound**” using “▲” or “▼” button then enter the Sound menu by pressing “◀” / “▶” or “OK” buttons.

The items in this menu are described at Sound menu starting [page 28](#).

PIP Picture

In the Main menu, select “**PIP Picture**” using “▲” or “▼” button, then enter the PIP Picture menu by pressing “◀” / “▶” or “OK” buttons.

This menu is displayed when PIP is displayed on the screen. Otherwise “PIP No Signal” message will be displayed at the bottom of menu.



PIP picture is displayed on the screen by “” button.

Contrast, Bright-1, Colour and Sharpness are described at Picture menu on [page 26](#).

Setting PIP Size

- Using “▲” or “▼” button select PIP Size.
- Press “◀” or “▶” button to change PIP size. Two different PIP sizes are available.

Setting PIP Position

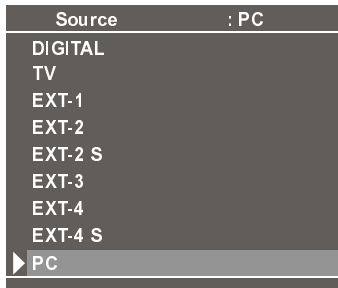
- Using “▲” or “▼” button select PIP Position.
- Press “◀” or “▶” button to change PIP position.

There are four different PIP positions.

Programme in the PIP window can be changed by “**P**▼ / **P**▲”, digit buttons or AV button. All EXT modes (Except EXT-3) are also available in PIP window. PIP window is removed from the screen by “” button.

Source Menu

In the Main menu, select “**Source**” using “▲” or “▼” button, then enter the Source menu by pressing “◀” / “▶” or “OK” buttons.



Select the available sources of **DIGITAL**, **TV**, **EXT-1**, **EXT-2**, **EXT-2 S**, **EXT-3**, **EXT-4**, **EXT-4S** or **PC** using “▲” or “▼” button and by pressing “◀” / “▶” or “OK” buttons.

Sound in PC mode

- Connect the PC’s Audio output to the TV’s **PC Audio In** socket with an audio cable.
- On your remote control, using “” button to select sound source from **TV**, **EXT-1**, **EXT-2**, **EXT-3**, **EXT-4**, **PC** and **DIGITAL** options.
- When PIP is displayed on the screen, “” button allows you to switch sound between PC and selected PIP source.

No-Signal and Out Of Range Detection (PC mode)

In PC Mode, as no menu is displayed, in case that there is no PC input to the TV, it is displayed an OSD message:

No input signal detected

then the power lamp turns to orange and PC will switch to PC standby mode. Press AV button, digit buttons or “**P**▼ / **P**▲” buttons to exit standby mode.

In PC Mode, if the resolution and the vertical frequency is not supported by the concept, it is displayed an OSD message:

Signal out of range

Analogue Teletext

Teletext is an information system that displays text on your TV screen. Using the Teletext information system you can view a page of information on a subject that is available in the list of contents (index).

On screen display is not available in text mode.

Contrast, brightness or colour control is not available, but volume control is available in text mode.

To operate Teletext

- Select a TV station on which Teletext is being transmitted.
- Press (TELETEXT) “” button. Usually the list of contents (index) is displayed on the screen.



To select a page of Teletext

- Press the appropriate digit buttons for the required Teletext page number.

The selected page number is displayed at the top left corner of the screen. The Teletext page counter searches until the selected page number is located, so that the desired page is displayed on the screen.

- Press “**P**  ” button to move the Teletext screen forward one page at a time.
- Press “**P**  ” button to move the Teletext screen backward one page at a time.

To Select Index Page

- To select the page number of the index (generally page 100), press “” button.

Searching for a teletext page while watching TV

- In the Teletext mode pressing “” button will switch the screen to the TV mode. In the TV mode enter a page number using digit buttons. As you enter last digit of page number, “” sign will replace the page number and flash until the entered page number is found. Then the page number will replace “” sign again. Now you can display this teletext page pressing “” button.

To Select Double Height Text

- Press “” button for the top half of the information page to be displayed in double height text.
- Press “” button again for the bottom half of the information page to be displayed in double height text.
- Press “” button once more for the full page of normal height text.

To Reveal “concealed” Information

- Pressing “” button once will reveal answers on a quiz or games page.
- Pressing “” button again will conceal the revealed answers.

To Stop Automatic Page Change

The teletext page you have selected may contain more information than what is on the screen; the rest of the information will be displayed after a period of time.

- Press “” button to stop the automatic page change.
- Press “” button again to allow the next page to be displayed.

To Select a Subcode Page

Subcode pages are subsections of long Teletext pages that can only be displayed on the screen one section at a time.

- Select the required Teletext page.
- Press “” button.

- Select the required subcode page number by pressing four digit buttons (e.g. 0001).
- If the selected subcode page is not displayed in a short time, press “

To exit Teletext

- Press “

Fastext and Toptext

Your TV supports the 7 page Teletext system. When the page number of any of the 7 pages in memory is entered, the system will not search for the requested page; instead it will display the page automatically.

- Press “**P**

For Fastext and Toptext

The subject-heading for the information may have a particular colour.

- Press an appropriate **RED**, **GREEN**, **YELLOW** or **BLUE** button in order to reach the relevant page quickly.

For TOPTXT

If Toptext transmission is present, colour coded buttons will appear in status row.

If Toptext transmission is not present, status row will not appear.

In Toptext mode the “**P**

Peripheral Equipment Connections

There is a wide range of audio and video equipment that can be connected to your TV.

Connection diagrams at the end of this section show you where the different equipment should be connected at the back side of the TV.

Via the Euroconnector

Your TV set has 2 Euroconnector sockets. If you want to connect peripherals (e.g. video, decoder, etc.) which have Euroconnectors, to your TV, use **EXT-1** or **EXT-2** input.

If an external device is connected via Euroconnector sockets TV is switched to AV mode automatically. In this case if both sockets are connected, **SCART1** has the precedence.

T-V LINK compatible VCR

Be sure to connect the T-V LINK compatible VCR to the **EXT.2** terminal. If not, the T-V LINK function will not work properly.

- When connecting a T-V LINK compatible VCR to the EXT.2 terminal, be sure to connect the decoder to the VCR. If not, the **T-V LINK** function may not work properly. And then set the **Decoder (EXT-2)** function for the channel to **ON** to unscramble a scrambled channel.

RGB mode

If an equipment can output the **RGB** signals, connect it to the **EXT-1** or **EXT-2** terminal.

EXT-2 S Mode

If the equipment connected to your TV set supports S-Video (Y/C) output from Euroconnector, you can have a better picture quality by selecting **EXT-2 S** mode and connecting your equipment to the **EXT.2 (EXT-2 S)** terminal of TV. See your equipment's booklet to check if your equipment has such feature.

Via the RCA jacks

If you have an equipment (such as a Camcorder) which has the RCA jacks, connect it to the **EXT-4** terminal with the video and audio cables.

If you have a device which outputs component video (Y/Pb/Pr), connect it to the **EXT-3** terminal with a component video cable and an audio cable.

Via the ANT (aerial) socket

If your equipment does not have an Euroconnector or RCA jacks, connect it to the TV with an aerial cable. For details, see the manual provided with the equipment.

- To store the test signal that comes from the equipment, see “**Install Menu**” on **page 29** and store it to the program number 0. You can watch images from that equipment to select the program number which you stored the test signal.

Decoder

Cable TV offers you a wide choice of programmes. Most of them are free, others are to be paid for by the viewer. This means that you will need to subscribe to the broadcasting organisation whose programmes you wish to receive. This organisation will supply you a corresponding decoder unit to allow the programmes to be unscrambled.

For further information ask your dealer. See also the booklet supplied with your decoder.

Connect a decoder with an aerial socket to the TV

- Connect the aerial cable.

Connect a decoder without an aerial socket to the TV

- Connect the decoder to your TV with a eurocable (RCA Jack Cable) to **EXTERNAL** (RCA Jack). When your decoder has a Euroconnector / RCA Jack you can obtain better picture quality if you connect a eurocable (RCA Jack Cable) to **EXTERNAL** (RCA Jack).

TV and Video Recorder (VCR)

- Connect the Video Recorder to the ANT (antenna input) socket of the TV with the aerial cable.
- Connect the Video Recorder to the **EXT-1** or **EXT-2** terminal with the SCART cable, or connect it to the **EXT-4** terminal with the audio and video cables.

NTSC Playback

Connect a NTSC video recorder to a terminal. Then press “**AV**” button to select the corresponding AV mode.

NTSC 3.58/4.43 system is detected automatically in AV mode.

Camera and Camcorder

To connect to the EXT-4 terminal

Connect your camera or camcorder at the back side of your TV.

- Connect your equipment to the TV via **VIDEO** (yellow), **AUDIO R** (red) and **AUDIO L** (white) inputs. You should connect the jacks to the input in the same colour.

Connect the decoder to the video recorder

Some video recorders have a special euroconnector for decoder.

- Connect a eurocable to the euroconnector of your decoder and to the special euroconnector of your video recorder. See also the handbook of your video recorder.
- To connect your video recorder to the TV, see TV and Video Recorder section.

If you want to connect more equipment to your TV, consult your dealer.

Connecting Headphones

Use the stereo headphone socket on the right side of your TV, to connect headphones.

Connecting the PC

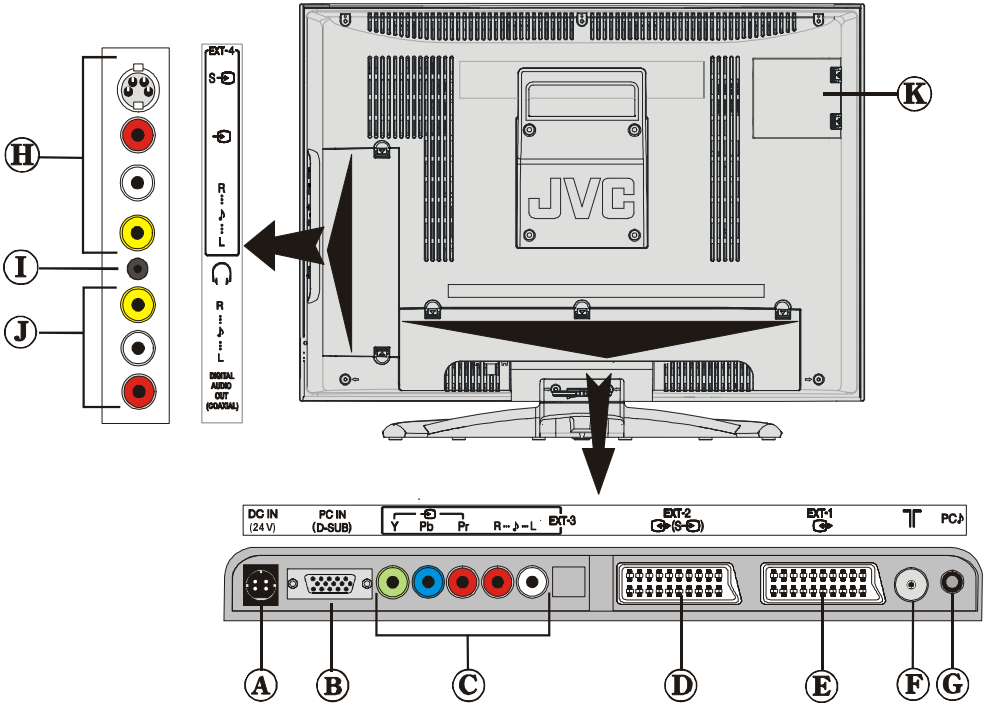
Connect PC monitor with 15-pin PC cable to the 15-pin connector on the rear of the computer. For detail installation procedure see **Installation** in PC mode.

To connect to S-Video input

Connect your camera or camcorder at the back side of your TV.

- Connect your equipment to the TV via S-Video input at the back side by using S-Video cables.

Peripheral Equipment Connections

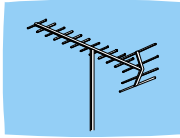


- | | | |
|------------------------|--|-----------------------------|
| (A) DC IN | | |
| (B) PC INPUT | | |
| (C) EXT-3 | | Y |
| (D) EXT-2 | | Pb |
| (E) EXT-1 | | Pr |
| (F) ANTENNA | | Component Audio In R |
| (G) PC AUDIO IN | | Component Audio In L |
| (H) EXT-4 | | S-Video In |
| (I) HEADPHONE | | Video In |
| (J) AUDIO OUT TERMINAL | | Audio R |
| (K) CARD SLOT | | Audio L |
| | | Audio R |
| | | Audio L |
| | | Digital Audio Out (Coaxial) |

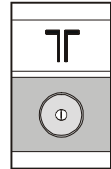
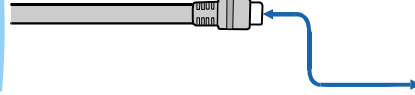
Antenna Connections

Outdoor Antenna Connections

VHF antenna

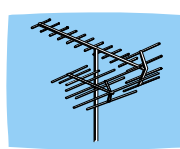


Round 75 ohm coaxial cable

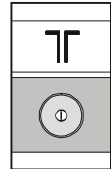
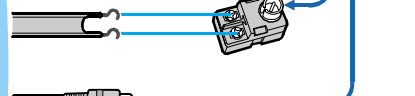


Rear of TV

VHF/UHF antenna



Flat 300-ohm twin lead cable



Rear of TV

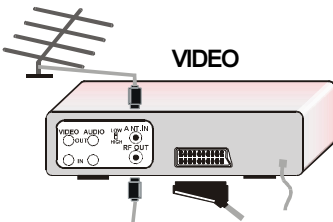
Round 75-ohm coaxial cable

Peripheral Equipment Connections

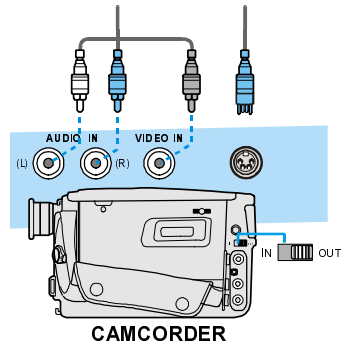
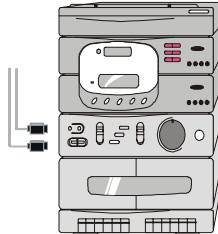
HEADPHONE



VIDEO

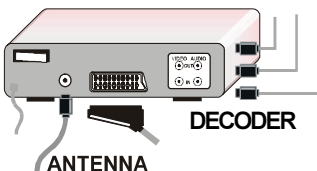


AUDIO



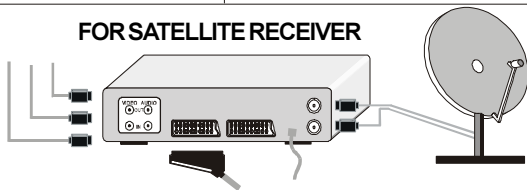
CAMCORDER

DECODER



ANTENNA

FOR SATELLITE RECEIVER



PC Input Typical Display Modes

The display has a maximum resolution of 1360x768, vertical sync. frequency range of 50-75 Hz and a horizontal sync. frequency range of 30-69 KHz.

The following table is an illustration of some of the typical video display modes.

Mode	Resolution		Frequency	
	Horizontal	Vertical	Hor. (kHz)	Ver. (Hz)
1	640	400	31.5	60
2	640	400	31.5	70
3	640	480	31.5	60
4	640	480	37.9	72
5	640	480	37.5	75
6	720	400	31.5	70
7	800	600	35.2	56
8	800	600	37.9	60
9	800	600	48.1	72
10	800	600	46.9	75
11	1024	768	48.4	60
12	1024	768	56.5	70
13	1024	768	60.0	75
14	1280	720	44.6	60
15	1360	768	47.7	60

The native resolution of the TFT-LCD Panel is 1366 x 768. Therefore using Mode 15 is advised to get the best PC input display quality.

Tips

Can not turn the TV on?

Check that TV/VCR/DVD switch is set to TV position.

TV may go to stand-by mode when you turn the TV on soon after you turn the TV off. If you can turn the TV on again, it is not a problem.

Can not turn the TV off?

Check that TV/VCR/DVD switch is set to TV position.

Care of the Screen

Clean the screen with a slightly damp, soft cloth. Do not use abrasive solvents as they may damage the TV screen coating layer.

Colours of image on screen are abnormal

Have you selected the correct TV system? Is your TV set or house aerial located too close to the loudspeakers, non-earthed audio equipment or neon lights, etc. ?

Mountains or high buildings can cause double pictures or ghost images. Sometimes you can improve the picture quality by changing the direction of the aerial.

Is the picture or Teletext unrecognisable? Check if you have entered the correct frequency.

The picture quality may degrade when two peripherals are connected to the TV at the same time. In such a case, disconnect one of the peripherals.

No Image on Display Screen

Is the aerial connected properly? Are the plugs connected tightly to the aerial socket? Is the aerial cable damaged? Are suitable plugs used to connect the aerial? If you are in doubt, consult your dealer.

No Image means that your TV is not receiving any transmission. Have you pressed the correct buttons on the remote control? Try once more.

PC Picture

If no PC picture appears, check that the D-SUB cable is connected properly. Check that your PC's resolution set correctly. **See pages 41** for supported modes.

Sound

You can not hear any sound. Did you perhaps interrupt the sound, pressing "X" button? Are external speakers connected to the TV?

Sound is coming from only one of the speakers. Is the balance set to one direction extreme? See **Sound** menu.

Remote Control

If your TV no longer responds to the remote control, perhaps the batteries are exhausted. Replace the batteries.

Have you selected the wrong menu? Press "MENU" button to return to normal screen or press "BACK" button to return to the previous menu.

No solution

If the TV suddenly stops responding, disconnect the power cord of the TV from the AC outlet. Connect them to the AC outlet again to turn on the TV. If the TV returns to a normal state, it is not a failure. If this does not work, switch off, remove the mains plug and call the service personnel; never attempt to repair it yourself.

Bad picture (in digital mode)

Although this TV can receive both Digital terrestrial broadcasting (DVB-T) and Analogue terrestrial broadcasting, you may not be able to receive DVB-T depending on the area in which you live.

If the picture freezes a lot, or block effect is seen frequently on screen, probably there is a problem with your reception.

Please contact customer services of your service provider if you are a subscriber.

Specifications		
Item	Model	LT-20DA6SSP
Broadcasting Systems	PAL SECAM BG, DK, I, L, Lp	
Channels and Frequencies	Digital : 474 MHz - 858 MHz	
	Analogue : 46.25 MHz - 862.25 MHz	
	Cable TV (S1-S20/ S21-S41)	
Input Signal	Video: Analog 0,7 Vp-p 75 ohm positive	
	Sync: TTL Level positive or negative, Seperate sync.	
Horizontal Timing	30 - 69 kHz	
Vertical Timing	50 - 75 khz	
Dot Rate	78,75 MHz max.	
Panel Size	20,04" (509 mm) (measured diagonally)	
Visible Picture Size	443,61 mm horizontal x 249,41 mm vertical	
Display Resolution	1366 x 768 max. (WXGA)	
Number of Preset Channels	Analogue: 100	
Channel Indicator	On Screen Display (OSD)	
RF Aerial Output	75 Ohm (unbalanced)	
Power Requirements	Adaptor: 100-240 V AC, 50 Hz / TV: 24 V DC	
Power Consumption (W)	80 W (max) / STAND-BY <3W	
Sound Systems	German , Nicam Stereo	
Audio Output	2 x 5 W _{RMS} (%10 THD)	
EXT-1 Terminal	Euroconnector (21-pin, SCART) (back of the cabinet) • Video Input, Audio L/R Inputs and RGB inputs are available. • TV broadcast outputs (Video and Audio L/R) are available.	
EXT-2 Terminal	Euroconnector (21-pin, SCART) (back of the cabinet) • Video Input, S-VIDEO (Y/C) input, Audio L/R and RGB inputs are available. • Video and Audio L/R outputs are available. • T-V LINK functions are available.	
EXT-3 Terminal	RCA connectors x 5 (back of the cabinet) • Component video (Pr, Pb, Y) inputs and Audio L-R inputs are available • 625p/50Hz and 525p/60Hz signals are available.	
EXT-4 Terminal	RCA connectors x 3 (side of the cabinet) S-VIDEO connector x 1 (side of the cabinet) • Video input, S-VIDEO (Y/C) input and Audio L/R inputs are available.	
AUDIO OUT Terminal	RCA connectors x 3 • Audio L/R output are available. • Digital Audio Out (Coaxial) is available.	
PC IN terminal	Analog RGB D-SUB 15 x 1 • PC signal is available (refer to page 41 for details of the signals which can be input)	
PC AUDIO IN terminal	Stereo mini-jack (3.5 mm diameter)	
Card Slot	Card Slot for the Conditional Access Module (CAM) x1	
Dimensions (W x H x D)	537 mm x 414 mm x 214 mm	
	537 mm x 377 mm x 97 mm (TV only)	
Weight	6,5 kg (with stand) / 5,5 kg (TV only)	
Accessories	Remote control unit x 1 (RM-C1897S) / AA/R6 dry cell battery x 2 AC adapter x 1 / Power cord x 1	
Headphone jack	Stereo mini-jack (3.5 mm diameter)	
Wall Mount VESA Compatible	Yes. Wall Mount Hole Pitch:100mm×100mm (4 holes)	

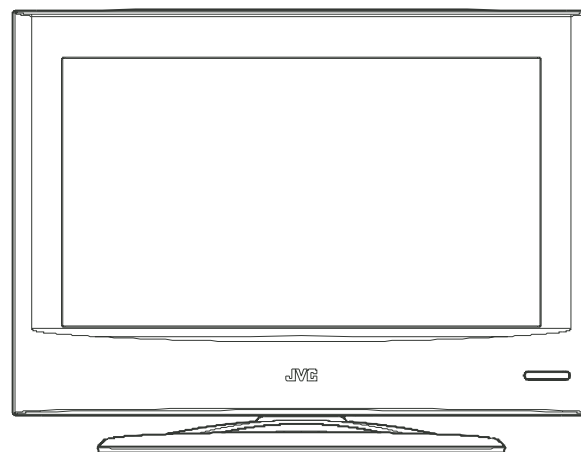
JVC

SCHEMATIC DIAGRAMS

INTEGRATED DIGITAL WIDE LCD PANEL TELEVISION

LT-20DA6SSP

CD-ROM No.SML200610



InterArt

DVB
Digital Video
Broadcasting

**LT-20DA6SSP is the model which destination was changed based on LT-20DA6SK.
Therefore, this service manual describes only the items which differ from those of the LT-20DA6SK service manual.
For details other than those described in this manual, please refer to the LT-20DA6SK service manuals (No.YA354, 2005/11).**

LT-20DA6SSP

STANDARD CIRCUIT DIAGRAM

■ NOTE ON USING CIRCUIT DIAGRAMS

1.SAFETY

The components identified by the $\triangle$ symbol and shading are critical for safety. For continued safety replace safety critical components only with manufactures recommended parts.

2.SPECIFIED VOLTAGE AND WAVEFORM VALUES

The voltage and waveform values have been measured under the following conditions.

- (1)Input signal : Colour bar signal
- (2)Setting positions of each knob/button and variable resistor : Original setting position when shipped
- (3)Internal resistance of tester : DC 20k Ω /V
- (4)Oscilloscope sweeping time : H $\Rightarrow$ 20 μ s / div
: V $\Rightarrow$ 5ms / div
: Others $\Rightarrow$ Sweeping time is specified
- (5)Voltage values : All DC voltage values

* Since the voltage values of signal circuit vary to some extent according to adjustments, use them as reference values.

3.INDICATION OF PARTS SYMBOL [EXAMPLE]

- In the PW board : R209 $\rightarrow$ R209

4.INDICATIONS ON THE CIRCUIT DIAGRAM

(1)Resistors

● Resistance value

- No unit : [Ω]
- K : [k Ω]
- M : [M Ω]

● Rated allowable power

- No indication : 1/16 [W]
- Others : As specified

● Type

- No indication : Carbon resistor
- OMR : Oxide metal film resistor
- MFR : Metal film resistor
- MPR : Metal plate resistor
- UNFR : Uninflammable resistor
- FR : Fusible resistor

* Composition resistor 1/2 [W] is specified as 1/2S or Comp.

(2)Capacitors

● Capacitance value

- 1 or higher : [pF]
- less than 1 : [μ F]

● Withstand voltage

- No indication : DC50[V]
- Others : DC withstand voltage [V]
- AC indicated : AC withstand voltage [V]

* Electrolytic Capacitors

47/50[Example]: Capacitance value [μ F]/withstand voltage[V]

●Type

- No indication : Ceramic capacitor
- MM : Metalized mylar capacitor
- PP : Polypropylene capacitor
- MPP : Metalized polypropylene capacitor
- MF : Metalized film capacitor
- TF : Thin film capacitor
- BP : Bipolar electrolytic capacitor
- TAN : Tantalum capacitor

(3)Coils

- No unit : [μ H]
- Others : As specified

(4)Power Supply

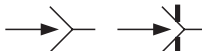
-  : B1
-  : B2 (12V)
-  : 9V
-  : 5V

* Respective voltage values are indicated

(5)Test point

-  : Test point
-  : Only test point display

(6)Connecting method

-  : Connector
-  : Wrapping or soldering
-  : Receptacle

(7)Ground symbol

-  : LIVE side ground
-  : ISOLATED(NEUTRAL) side ground
-  : EARTH ground
-  : DIGITAL ground

5.NOTE FOR REPAIRING SERVICE

This model's power circuit is partly different in the GND. The difference of the GND is shown by the LIVE : () side GND and the ISOLATED(NEUTRAL) : () side GND. Therefore, care must be taken for the following points.

- (1)Do not touch the LIVE side GND or the LIVE side GND and the ISOLATED(NEUTRAL) side GND simultaneously. if the above caution is not respected, an electric shock may be caused. Therefore, make sure that the power cord is surely removed from the receptacle when, for example, the chassis is pulled out.
- (2)Do not short between the LIVE side GND and ISOLATED(NEUTRAL) side GND or never measure with a measuring apparatus (oscilloscope, etc.) the LIVE side GND and ISOLATED(NEUTRAL) side GND at the same time. If the above precaution is not respected, a fuse or any parts will be broken.

◆ Since the circuit diagram is a standard one, the circuit and circuit constants may be subject to change for improvement without any notice.

NOTE

◆ Due improvement in performance, some part numbers show in the circuit diagram may not agree with those indicated in the part list.

When ordering parts, please use the numbers that appear in the Parts List.

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SEMICONDUCTOR SHAPES

2-2

WIRING DIAGRAM

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CIRCUIT DIAGRAMS

MAIN PWB CIRCUIT DIAGRAM

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PATTERN DIAGRAMS

MAIN PWB PATTERN

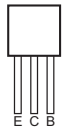
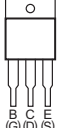
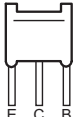
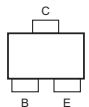
2-29

USING P.W. BOARD

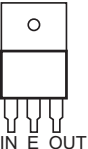
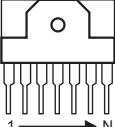
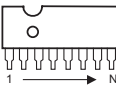
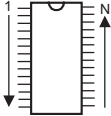
P.W.B ASS'Y name	P.W.B ASS'Y number
MAIN P.W. BOARD	VE-20267690

SEMICONDUCTOR SHAPES

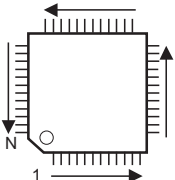
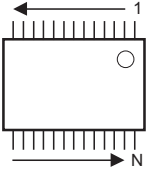
TRANSISTOR

BOTTOM VIEW	FRONT VIEW				TOP VIEW
					CHIP TR 

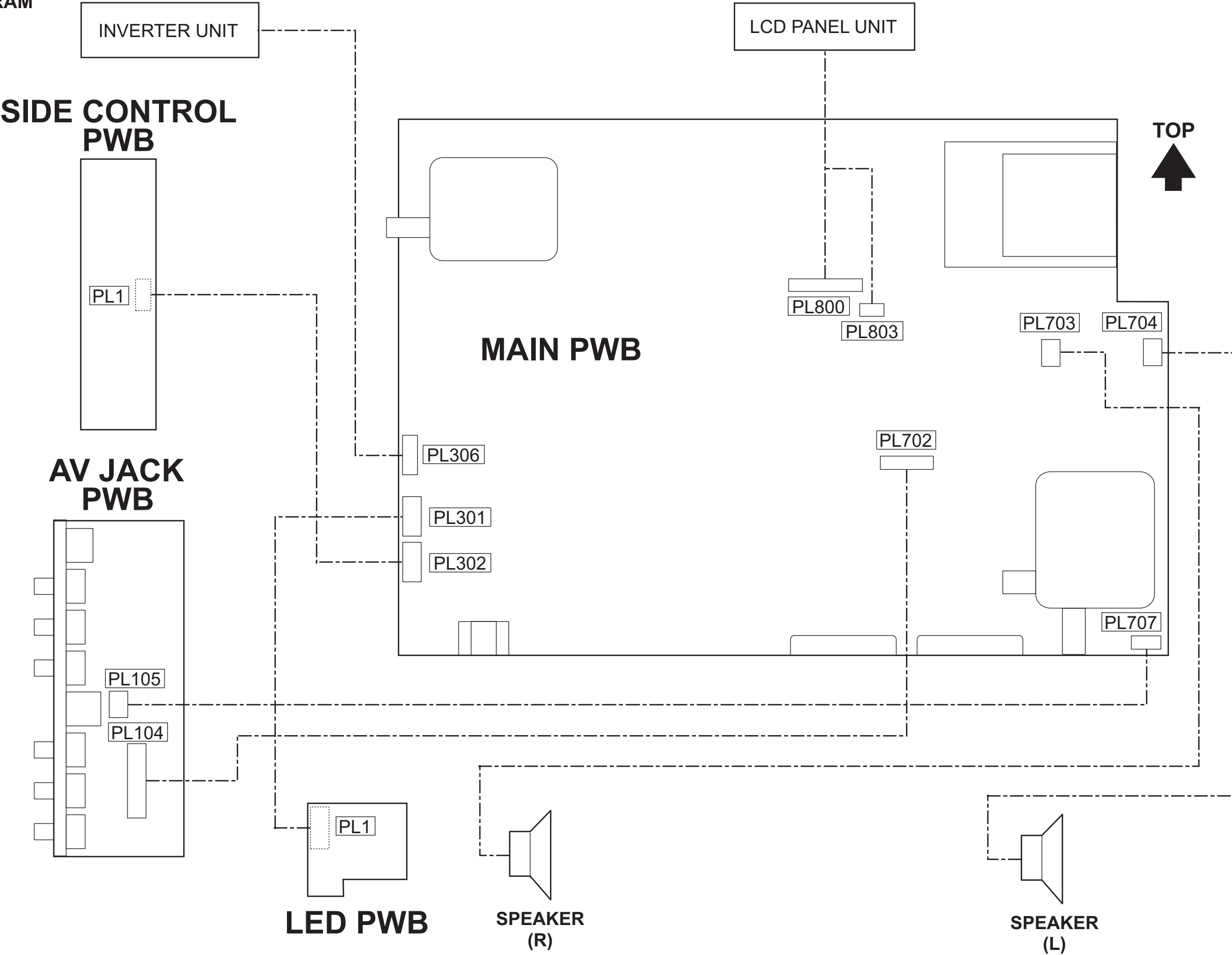
IC

BOTTOM VIEW	FRONT VIEW			TOP VIEW
				

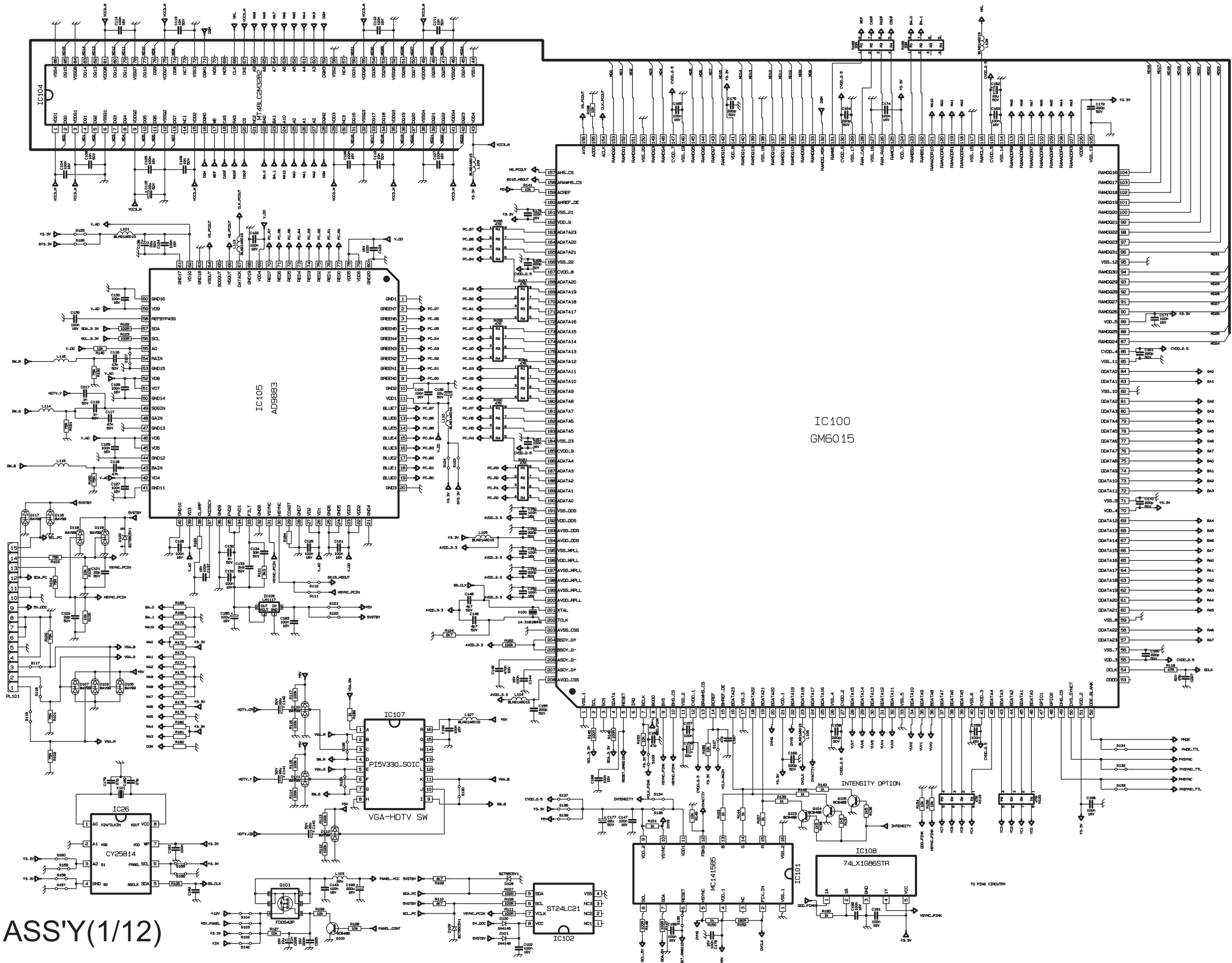
CHIP IC

TOP VIEW		
		

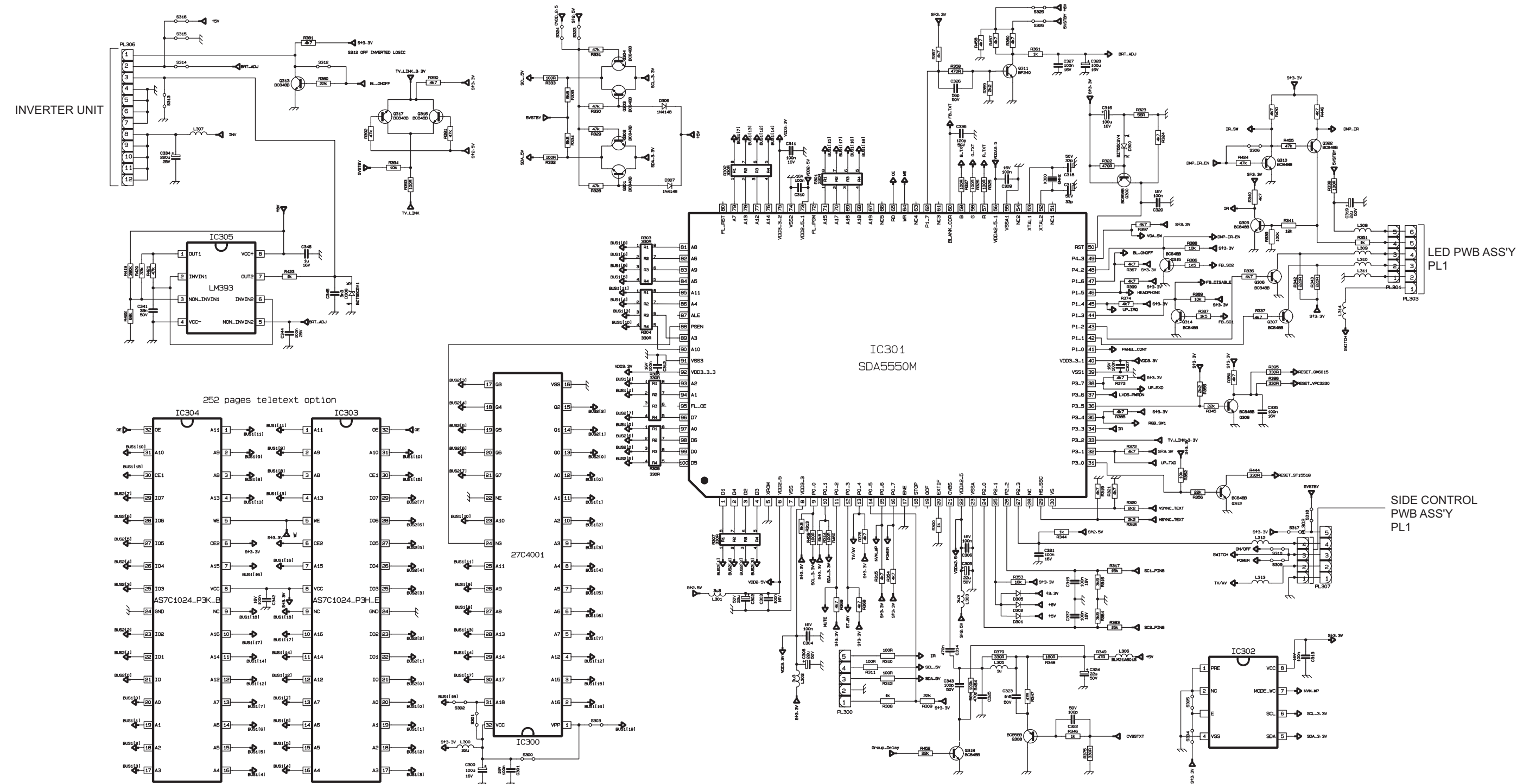
WIRING DIAGRAM



CIRCUIT DIAGRAMS
MAIN PWB CIRCUIT DIAGRAM (1/12) SHEET1

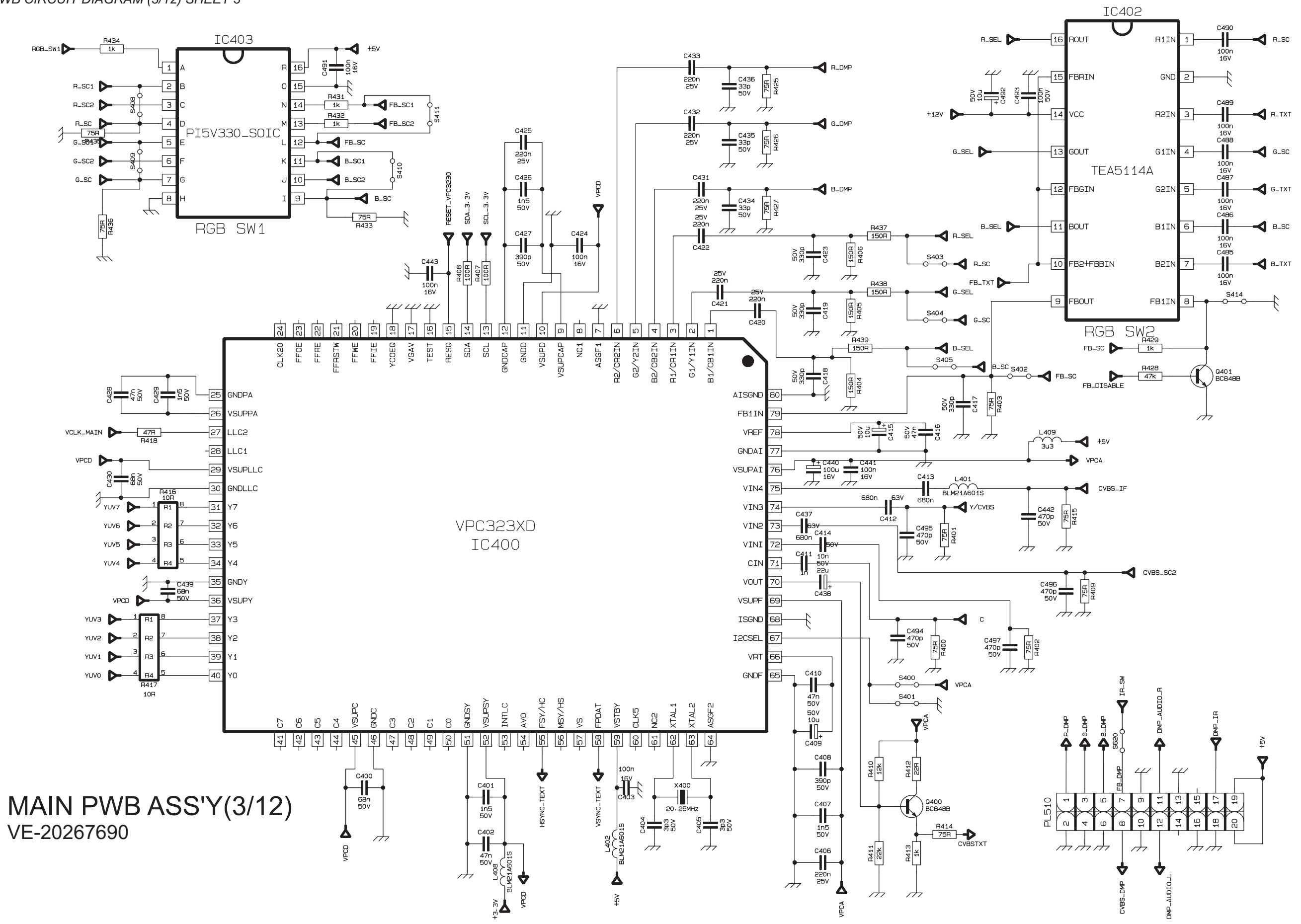


MAIN PWB ASS'Y(1/12)
VE-20267690

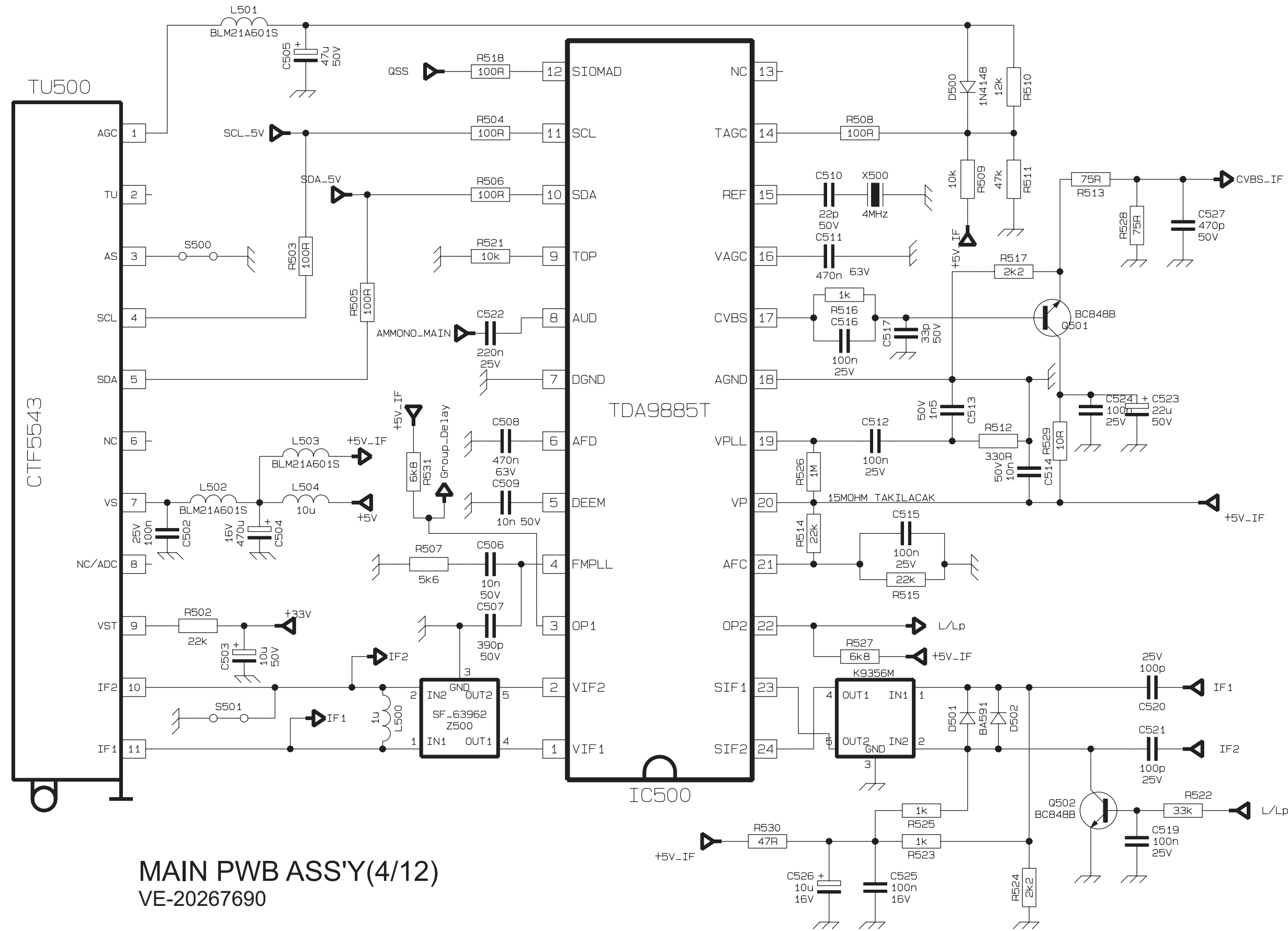


NOTE : Refer to the part list for the part number of IC302.

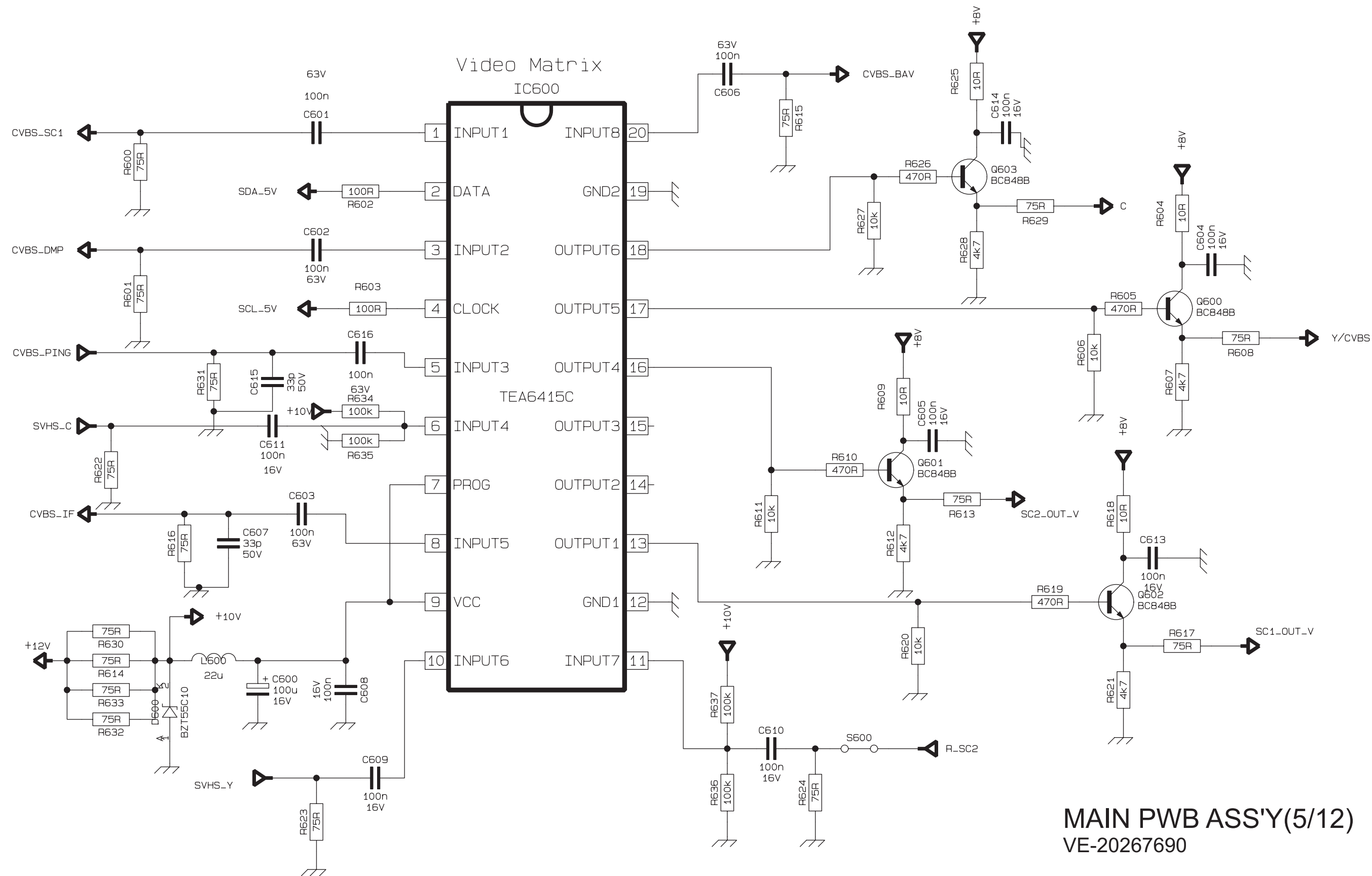
MAIN PWB ASS'Y(2/12)
VE-20267690



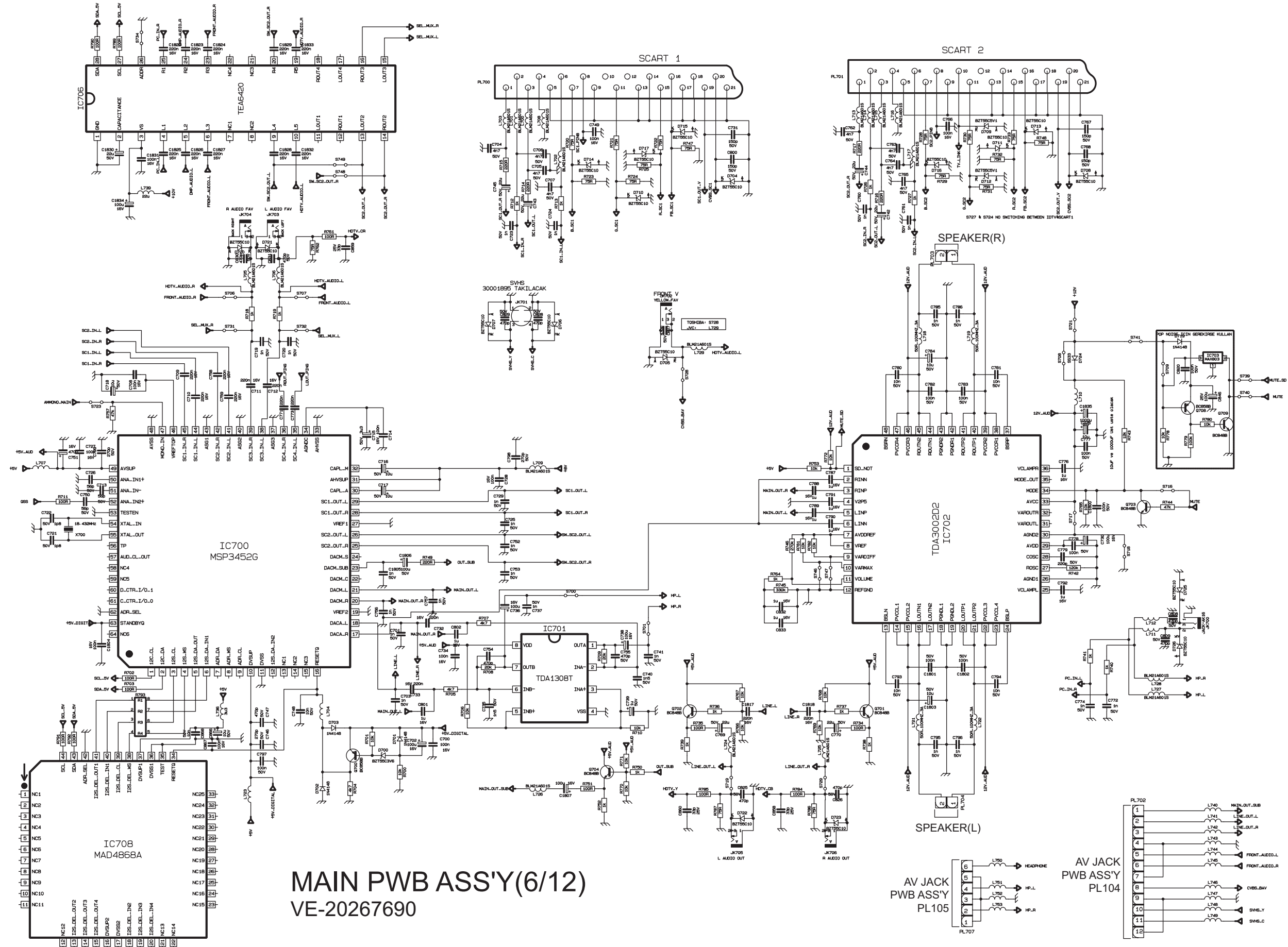
MAIN PWB ASS'Y(3/12)
VE-20267690

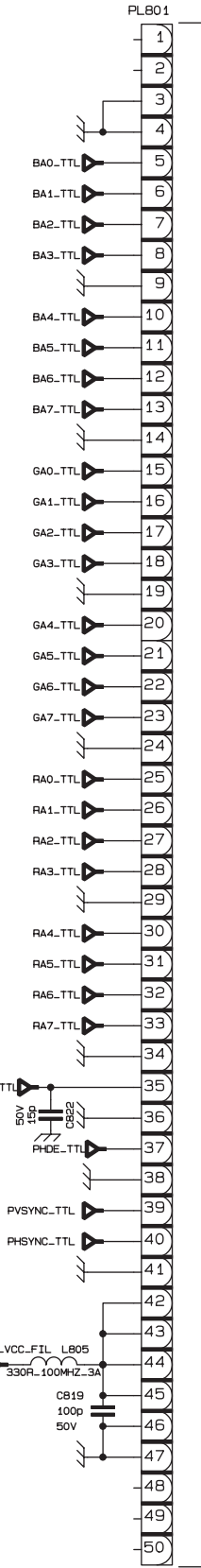
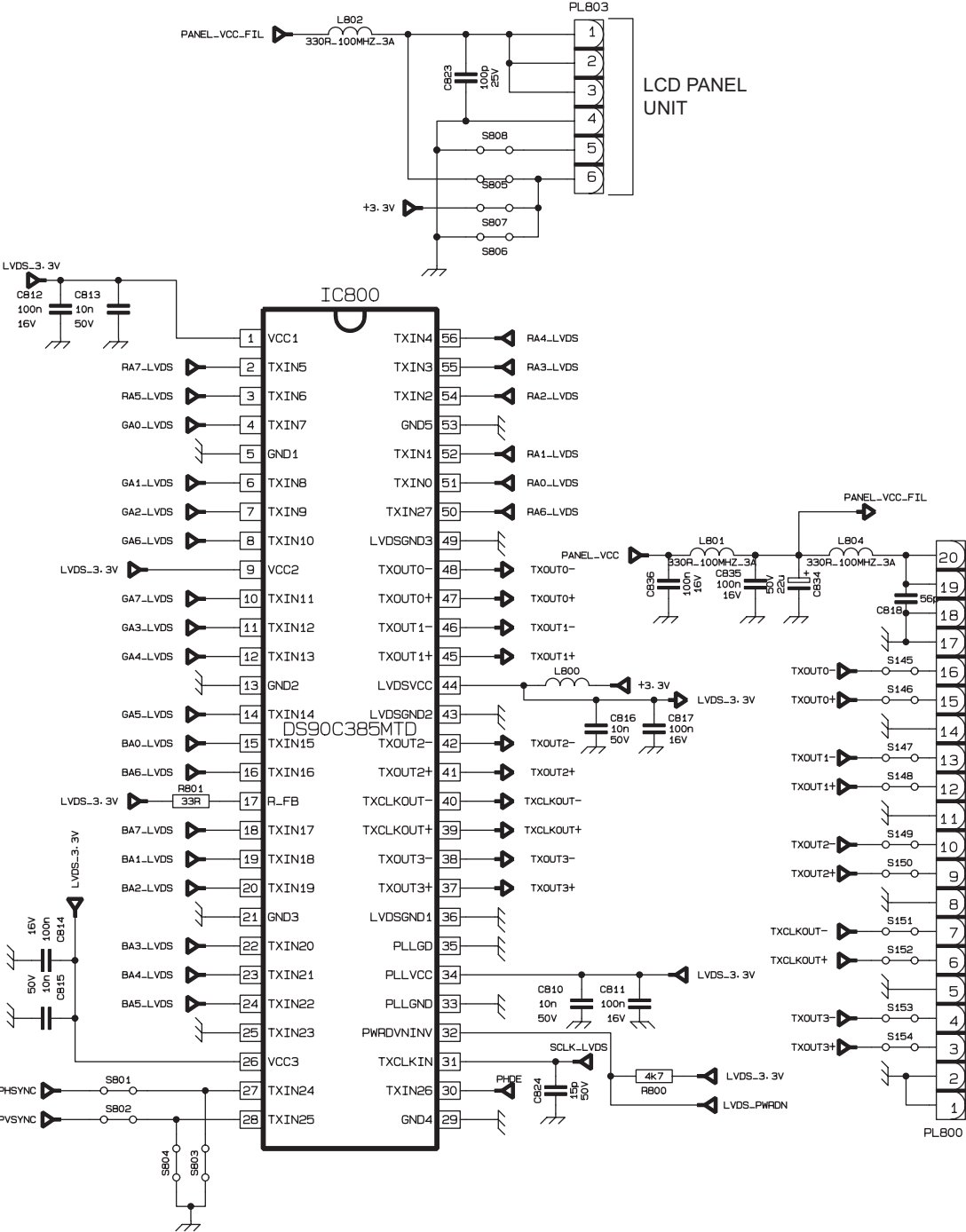
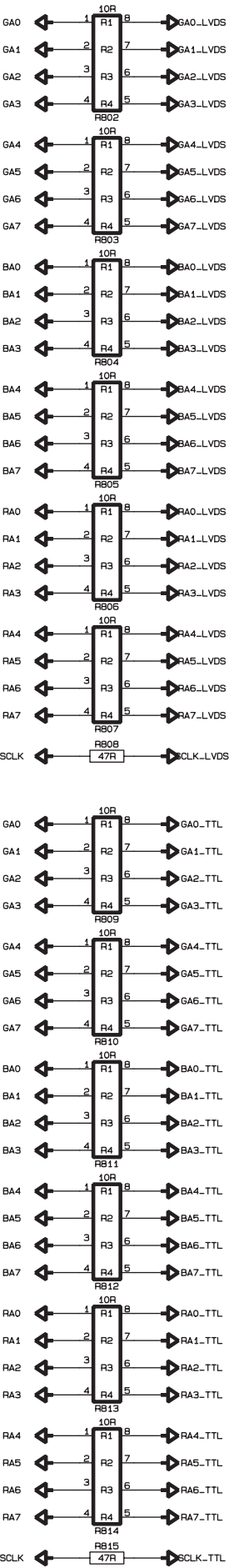


MAIN PWB ASS'Y(4/12)
VE-20267690

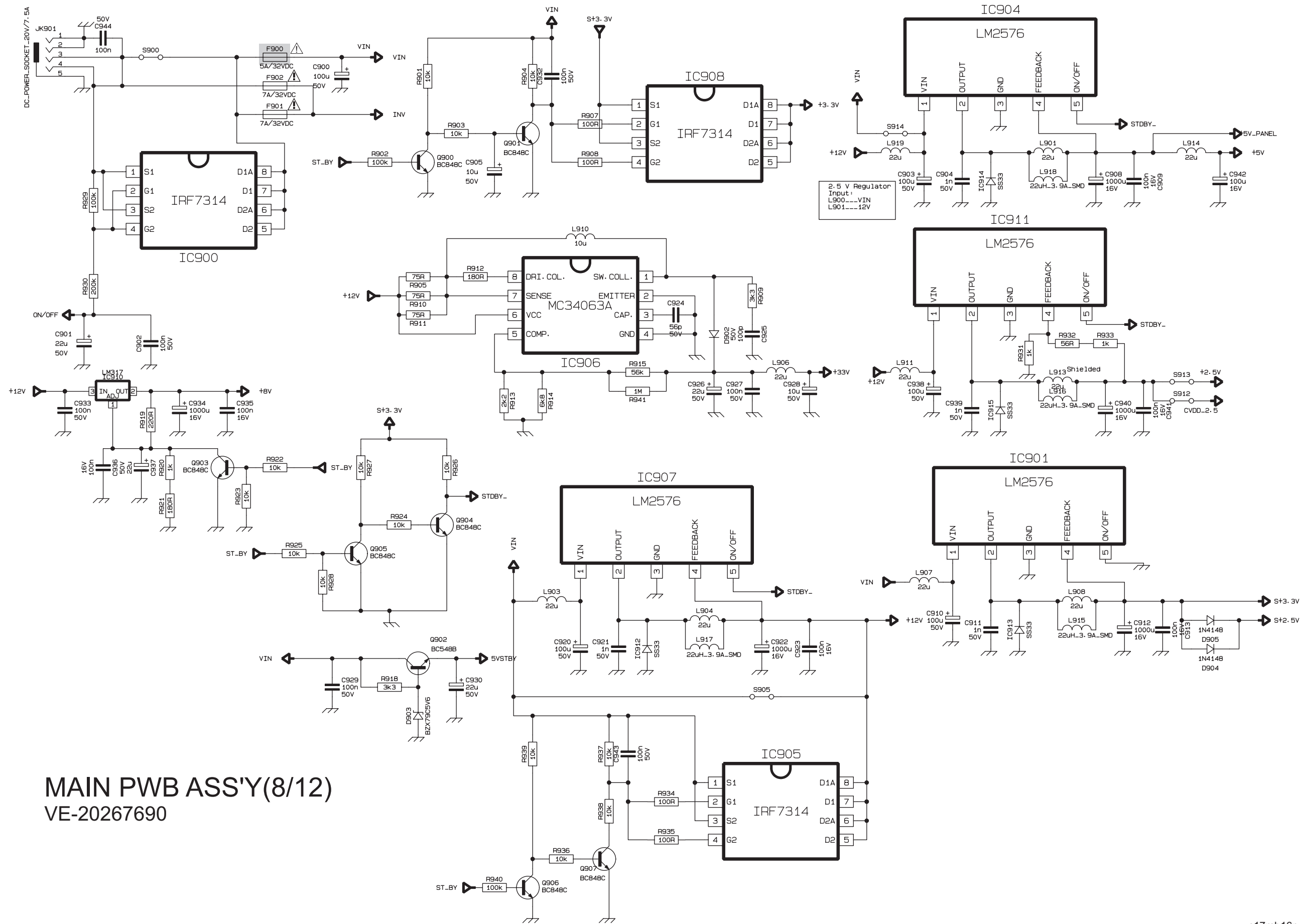


MAIN PWB ASS'Y(5/12)
VE-20267690



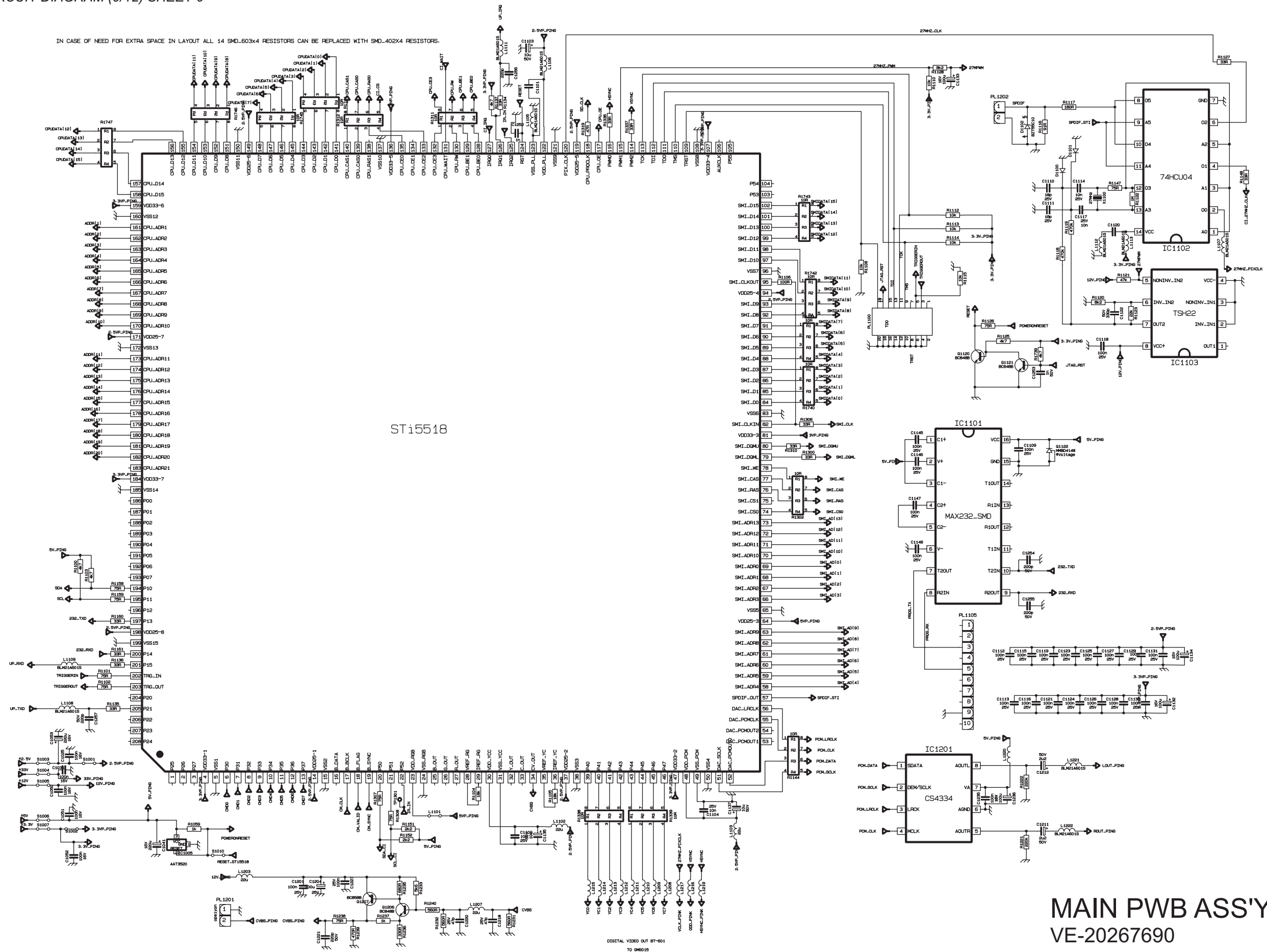


LCD PANEL UNIT

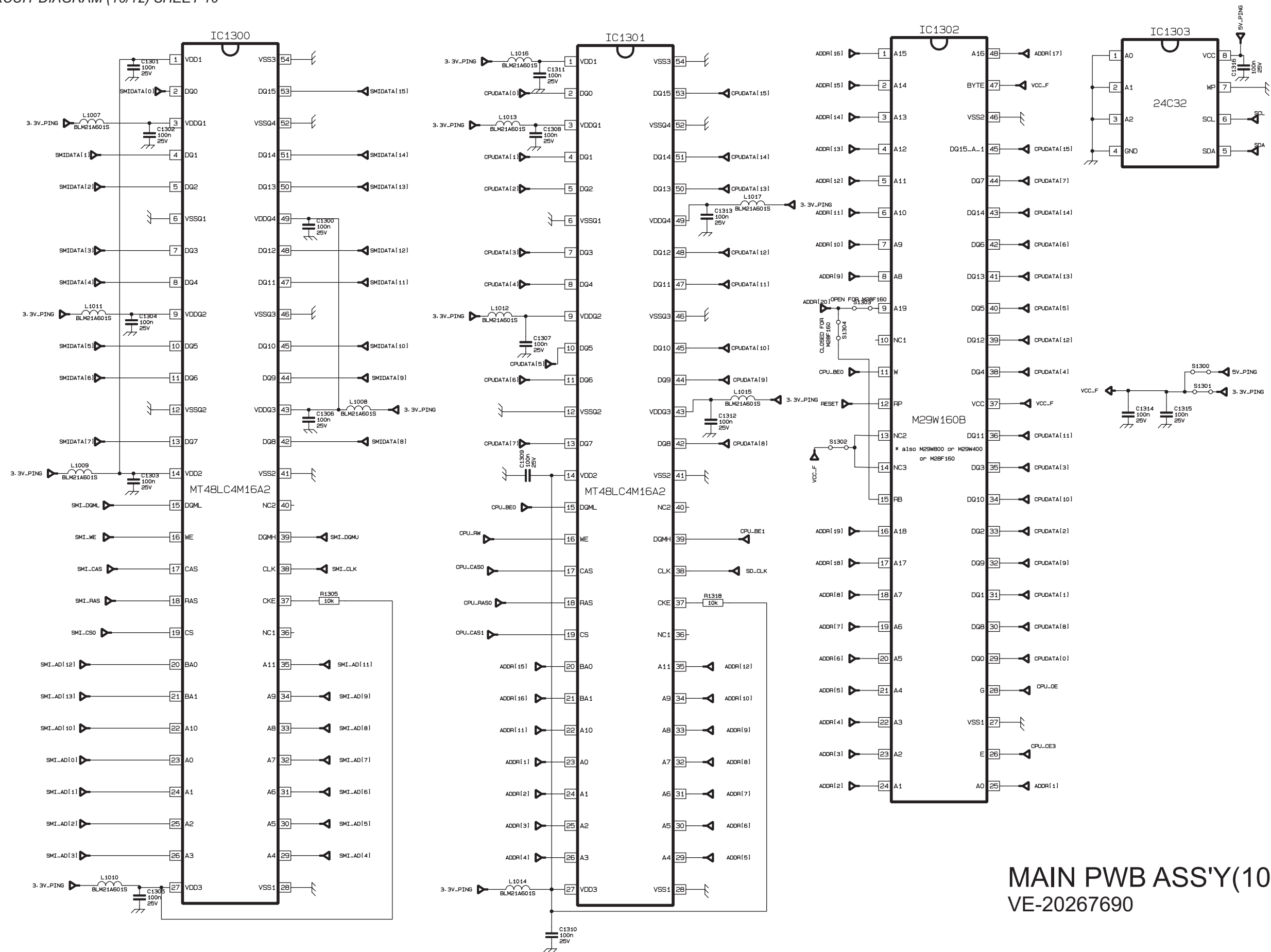


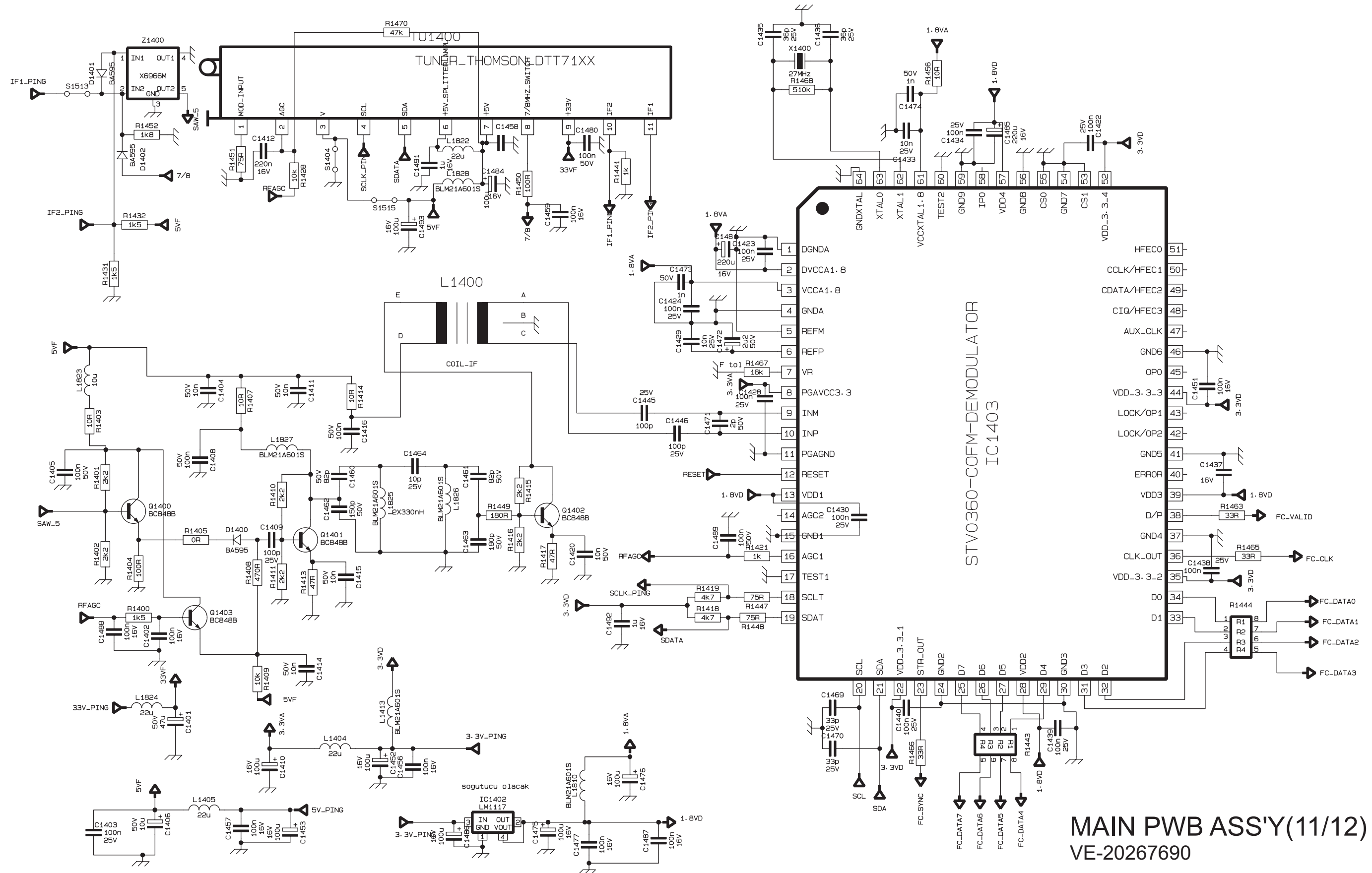
MAIN PWB ASS'Y(8/12)
VE-20267690

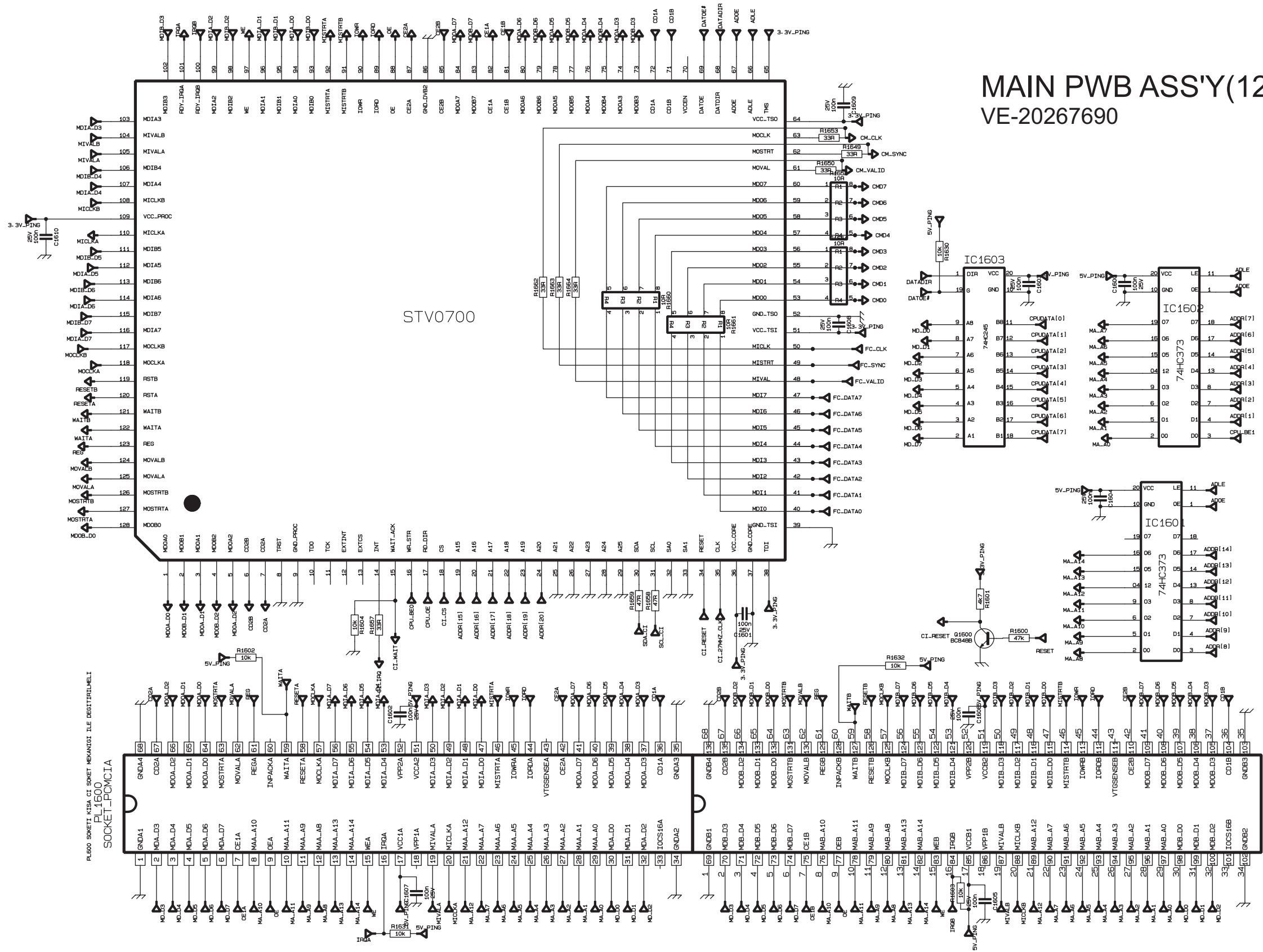
IN CASE OF NEED FOR EXTRA SPACE IN LAYOUT ALL 14 SMD_603x4 RESISTORS CAN BE REPLACED WITH SMD_402X4 RESISTORS.



MAIN PWB ASS'Y(9/12)
VE-20267690

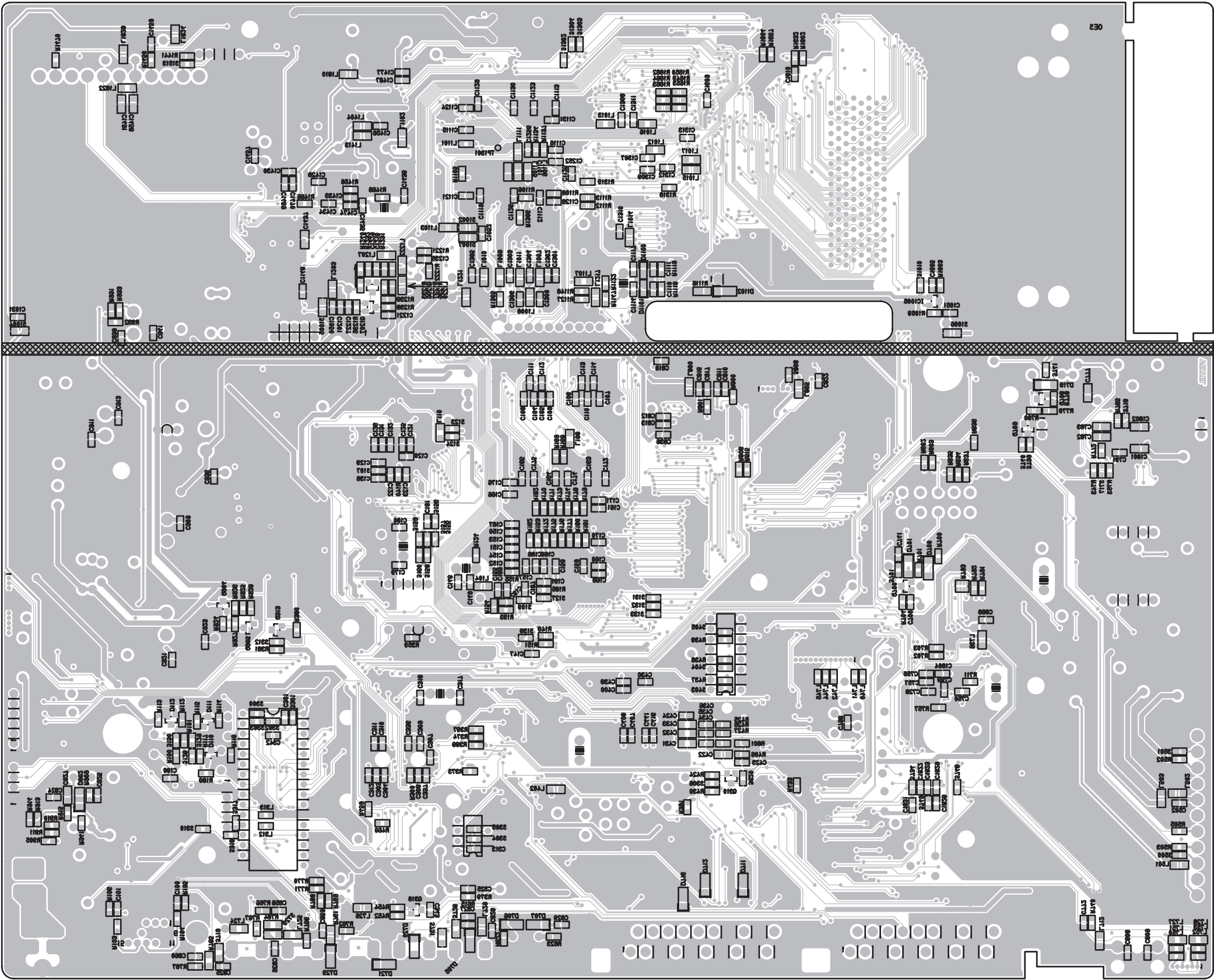






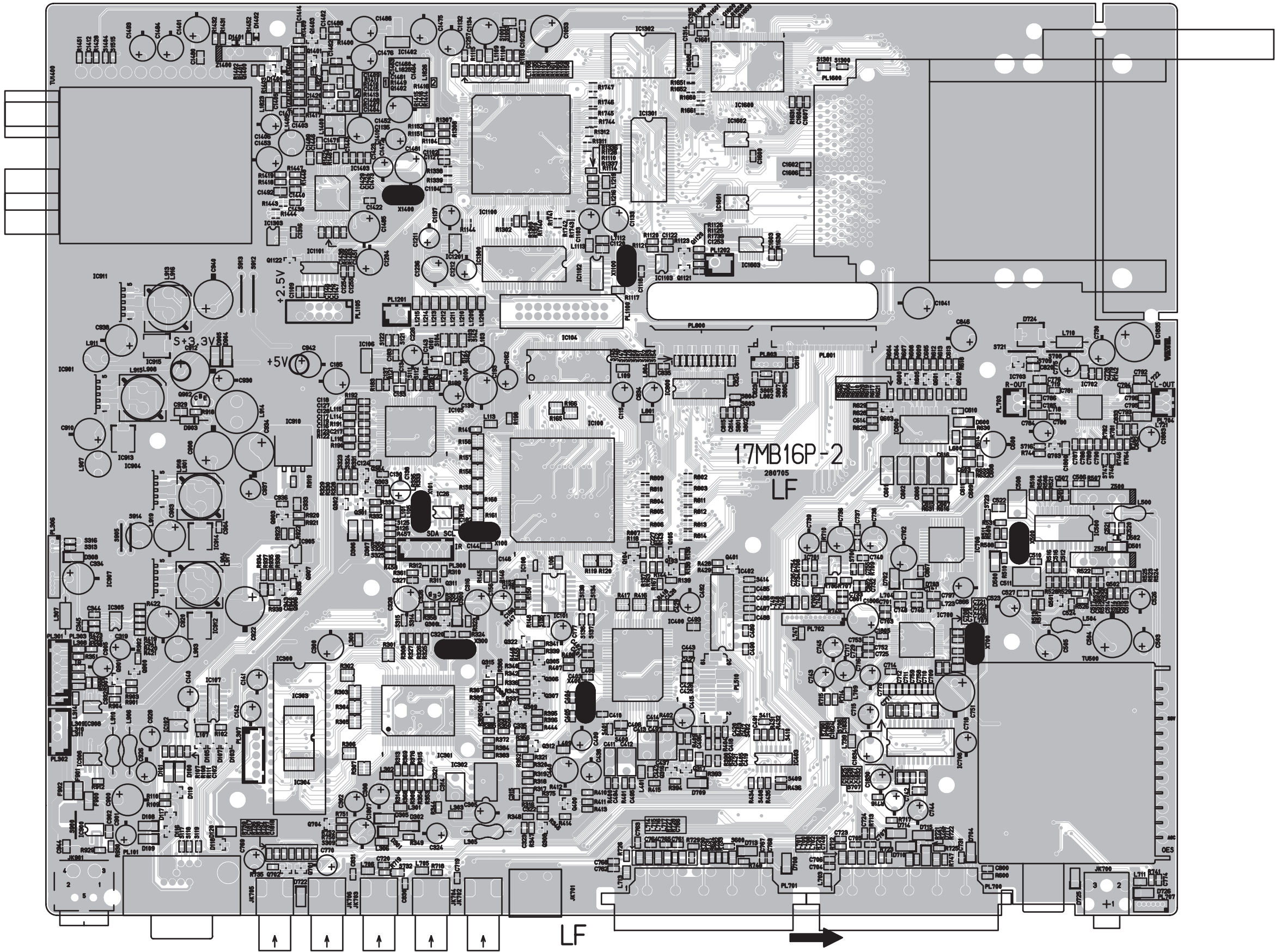
MAIN PWB ASS'Y(12/12)
VE-20267690

PATTERN DIAGRAMS
MAIN PWB PATTERN [SOLDER SIDE]



TOP
↑

TOP
↑





Victor Company of Japan, Limited
Display Category 12, 3-chome, Moriya-cho, Kanagawa-ku, Yokohama-city, Kanagawa-prefecture, 221-8528, Japan

(No.YA354B)



Printed in Japan
VPT

PARTS LIST

CAUTION

- The parts identified by the Δ symbol are important for the safety . Whenever replacing these parts, be sure to use specified ones to secure the safety.
- The parts not indicated in this Parts List and those which are filled with lines --- in the Parts No. columns will not be supplied.
- P.W. BOARD Ass'y will not be supplied, but those which are filled with the Parts No. in the Parts No. columns will be supplied.

LT-20DA6SSP is the model which destination was changed based on LT-20DA6SK.
Therefore, this service manual describes only the items which differ from those of the LT-20DA6SK service manual.
For details other than those described in this manual, please refer to the LT-20DA6SK service manuals (No.YA354, 2005/11).

ABBREVIATIONS OF RESISTORS, CAPACITORS AND TOLERANCES

RESISTORS		CAPACITORS	
CR	Carbon Resistor	C CAP.	Ceramic Capacitor
FR	Fusible Resistor	E CAP.	Electrolytic Capacitor
PR	Plate Resistor	M CAP.	Mylar Capacitor
VR	Variable Resistor	CH CAP.	Chip Capacitor
HV R	High Voltage Resistor	HV CAP.	High Voltage Capacitor
MF R	Metal Film Resistor	MF CAP.	Metalized Film Capacitor
MG R	Metal Glazed Resistor	MM CAP.	Metalized Mylar Capacitor
MP R	Metal Plate Resistor	MP CAP.	Metalized Polystyrol Capacitor
OM R	Metal Oxide Film Resistor	PP CAP.	Polypropylene Capacitor
CMF R	Coating Metal Film Resistor	PS CAP.	Polystyrol Capacitor
UNF R	Non-Flammable Resistor	TF CAP.	Thin Film Capacitor
CH V R	Chip Variable Resistor	MPP CAP.	Metalized Polypropylene Capacitor
CH MG R	Chip Metal Glazed Resistor	TAN. CAP.	Tantalum Capacitor
COMP. R	Composition Resistor	CH C CAP.	Chip Ceramic Capacitor
LPTC R	Linear Positive Temperature Coefficient Resistor	BP E CAP.	Bi-Polar Electrolytic Capacitor
		CH AL E CAP.	Chip Aluminum Electrolytic Capacitor
		CH AL BP CAP.	Chip Aluminum Bi-Polar Capacitor
		CH TAN. E CAP.	Chip Tantalum Electrolytic Capacitor
		CH AL BP E CAP.	Chip Tantalum Bi-Polar Electrolytic Capacitor

RESISTORS									
F	G	J	K	M	N	R	H	Z	P
±1%	±2%	±5%	±10%	±20%	±30%	+30% -10%	+50% -10%	+80% -20%	+100% -0%

CONTENTS

USING P.W. BOARD & REMOTE CONTROL UNIT	3-2
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PRINTED WIRING BOARD PARTS LIST	3-4
MAIN P.W. BOARD ASS'Y (VE-20267690)	3-4
PACKING	3-12
PACKING PARTS LIST	3-12

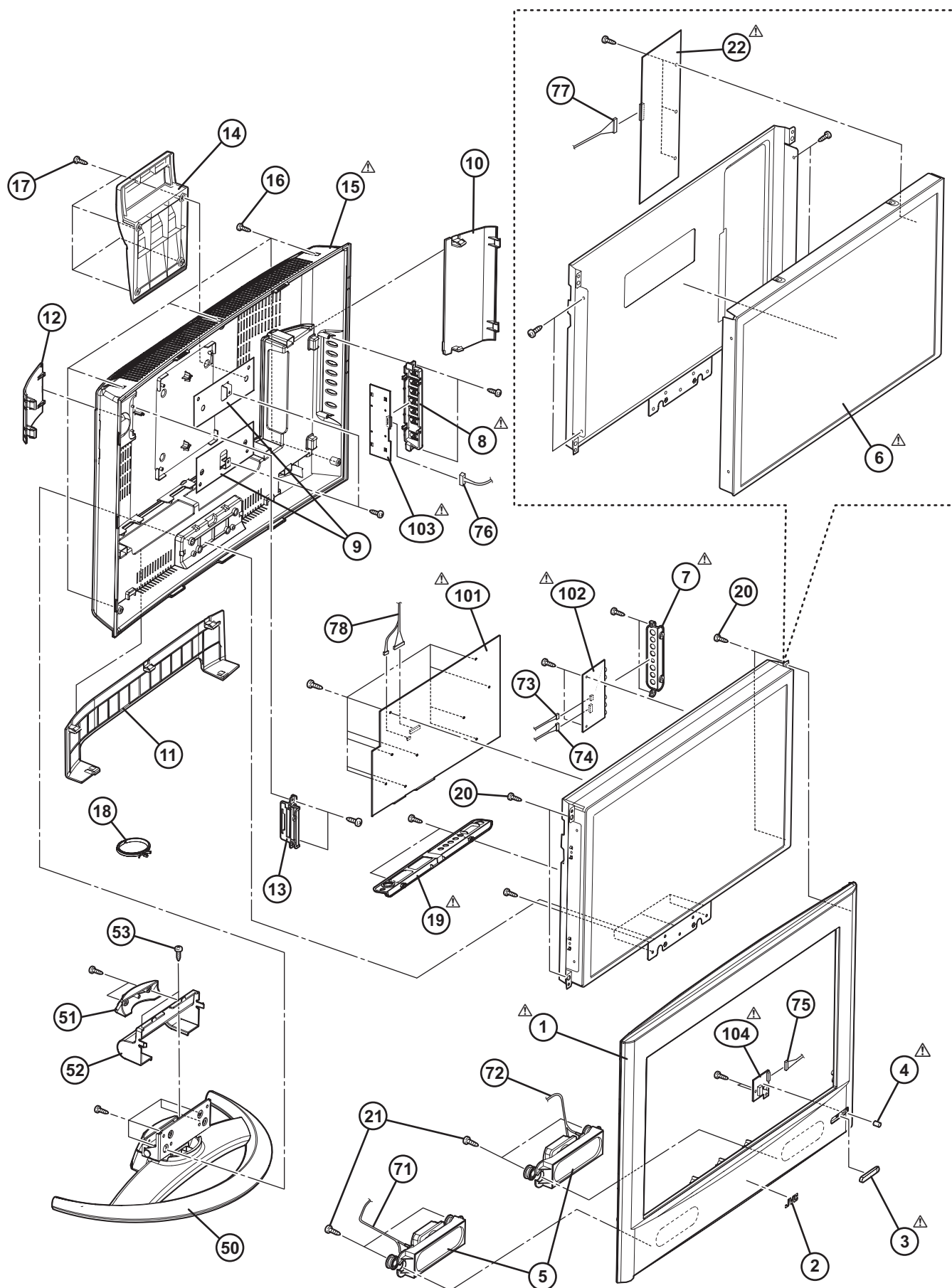
USING P.W. BOARD & REMOTE CONTROL UNIT

P.W.B ASS'Y name	P.W.B ASS'Y No.
MAIN P.W.B	VE-20267690
REMOTE CONTROL UNIT	VE-30044649

EXPLODED VIEW PARTS LIST

△	Ref.No.	Part No.	Part Name	Description	Local
△	1	VE-20224798	FRONT COVER		
	2	VE-20181267	LOGO		
△	3	VE-20235770	LED LENS		
△	4	VE-20102039	IR LENS		
	5	VE-30030145	SPEAKER	8ohm 5W 3x10cm(x2)	
△	6	VE-30041596	LCD PANEL UNIT		
△	7	VE-20224813	AV JACK BRACKET		
△	8	VE-20224812	FUNCTION BUTTON		
	9	VE-35012930	METAL HANG	(x2)	
	10	VE-20224814	SIDE AV DOOR		
	11	VE-20224816	BACK DOOR		
	12	VE-20224815	CARD SLOT DOOR		
	13	VE-20184550	CI BRACKET		
	14	VE-20182430	HANDLE		
△	15	VE-20224825	BACK COVER		
	16	VE-35008191	SCREW	(M3x12) For BACK COVER(x5)	
	17	VE-35000185	SCREW	(M4x8) For HANDLE(x4)	
	18	VE-20176416	CABLE HOLDER		
△	19	VE-20173333	BRACKET SOCKET COVER		
	20	VE-35008875	SCREW	(M4x16) For LCD PANEL UNIT(x4)	
	21	VE-35008812	SCREW	(M3x10) For SPEAKER(x4)	
△	22	VE-30041672	INVERTER UNIT		
	50	VE-20224796	FOOT ASSEMBLY		
	51	VE-20224795	HINGE COVER		
	52	VE-20224794	FOOT TOP COVER		
	53	VE-35008090	SCREW	(M3.5x12) For FOOT TOP COVER(x2)	
	71	VE-30032464	E-HARNESS ASSY	MAIN PL704 - SPEAKER LEFT	
	72	VE-30036412	E-HARNESS ASSY	MAIN PL703 - SPEAKER RIGHT	
	73	VE-30042272	E-HARNESS ASSY	MAIN PL707 - AV JACK PL105	
	74	VE-30032123	E-HARNESS ASSY	MAIN PL702 - AV JACK PL104	
	75	VE-30023196	E-HARNESS ASSY	MAIN PL301 - LED PL1	
	76	VE-30041133	E-HARNESS ASSY	MAIN PL302 - SIDE CONTROL PL1	
	77	VE-30041730	E-HARNESS ASSY	MAIN PL306 - INVERTER UNIT	
	78	VE-30041702	E-HARNESS ASSY	MAIN PL800+PL803 - LCD PANEL UNIT	
△	101	VE-20267690	MAIN PWB		
△	102	VE-20224823	AV JACK PWB		
△	103	VE-20224821	SIDE CONTROL PWB		
△	104	VE-20220627	LED PWB		

EXPLODED VIEW



PRINTED WIRING BOARD PARTS LIST

MAIN P.W. BOARD ASS'Y (VE-20267690)

△Ref No.	Part No.	Part Name	Description Local	△Ref No.	Part No.	Part Name	Description Local
IC100	VE-30033063	IC	(SERVICE)	Q900	VE-30001457	TRANSISTOR	
IC101	VE-30047934	IC		Q901	VE-30001457	TRANSISTOR	
IC102	VE-30018006	IC		Q902	VE-30001454	TRANSISTOR	
IC104	VE-30019132	IC		Q903	VE-30001457	TRANSISTOR	
IC105	VE-30047670	IC		Q904	VE-30007798	TRANSISTOR	
IC106	VE-30033064	IC		Q905	VE-30007798	TRANSISTOR	
IC107	VE-30019372	IC		Q1120	VE-30001457	TRANSISTOR	
IC108	VE-30027533	IC		Q1121	VE-30001457	TRANSISTOR	
IC301	VE-30013571	IC		Q1206	VE-30012551	TRANSISTOR	
IC302	VE-20227534	IC		Q1207	VE-30012552	TRANSISTOR	
IC400	VE-30015059	IC		Q1400	VE-30016424	TRANSISTOR	
IC402	VE-30004999	IC		Q1401	VE-30016424	TRANSISTOR	
IC403	VE-30019372	IC		Q1402	VE-30016424	TRANSISTOR	
IC500	VE-30021083	IC		Q1403	VE-30001457	TRANSISTOR	
IC600	VE-30013686	IC		Q1600	VE-30001457	TRANSISTOR	
IC700	VE-30018263	IC		D100	VE-30001285	DIODE	
IC701	VE-30010024	IC		D101	VE-30001285	DIODE	
IC702	VE-30027663	IC		D103	VE-30007169	DIODE	
IC706	VE-30013416	IC		D105	VE-30007169	DIODE	
IC708	VE-30031906	IC		D107	VE-30007169	DIODE	
IC800	VE-30043701	IC		D108	VE-30038502	DIODE	
IC901	VE-30027613	IC		D109	VE-30038502	DIODE	
IC904	VE-30027612	IC		D110	VE-30007169	DIODE	
IC906	VE-30018326	IC		D111	VE-30007169	DIODE	
IC907	VE-30027635	IC		D112	VE-30007169	DIODE	
IC908	VE-30014344	TRANSISTOR		D116	VE-30007169	DIODE	
IC910	VE-30007739	IC		D117	VE-30007169	DIODE	
IC911	VE-30030067	IC		D118	VE-30007169	DIODE	
IC912	VE-30018574	DIODE		D119	VE-30007169	DIODE	
IC913	VE-30018574	DIODE		D120	VE-30038475	DIODE	
IC914	VE-30018574	DIODE		D1X1	VE-30038502	DIODE	
IC915	VE-30018574	DIODE		D300	VE-30038493	DIODE	
IC1100	VE-30036171	IC		D301	VE-30001285	DIODE	
IC1101	VE-30039048	IC		D302	VE-30001285	DIODE	
IC1102	VE-30030268	IC		D305	VE-30001285	DIODE	
IC1103	VE-30007366	IC		D306	VE-30001285	DIODE	
IC1201	VE-30036169	IC		D307	VE-30001285	DIODE	
IC1300	VE-30030321	IC		D500	VE-30001285	DIODE	
IC1301	VE-30030321	IC		D501	VE-30012411	DIODE	
IC1302	VE-30037013	IC		D600	VE-30038475	DIODE	
IC1303	VE-30010056	IC		D700	VE-30038479	DIODE	
IC1402	VE-30020607	IC		D701	VE-30001285	DIODE	
IC1403	VE-30039715	IC		D702	VE-30001285	DIODE	
IC1600	VE-30048063	IC		D703	VE-30001285	DIODE	
IC1601	VE-30039055	IC		D704	VE-30038475	DIODE	
IC1602	VE-30039055	IC		D705	VE-30038475	DIODE	
IC1603	VE-30039054	IC		D708	VE-30038475	DIODE	
				D709	VE-30038475	DIODE	
				D710	VE-30038480	DIODE	
Q100	VE-30001457	TRANSISTOR		D711	VE-30038502	DIODE	
Q101	VE-30018060	TRANSISTOR		D712	VE-30038502	DIODE	
Q103	VE-30001457	TRANSISTOR		D713	VE-30038475	DIODE	
Q104	VE-30001457	TRANSISTOR		D714	VE-30038502	DIODE	
Q105	VE-30001457	TRANSISTOR		D715	VE-30038475	DIODE	
Q300	VE-30001458	TRANSISTOR		D716	VE-30038502	DIODE	
Q301	VE-30001457	TRANSISTOR		D717	VE-30038502	DIODE	
Q302	VE-30001457	TRANSISTOR		D719	VE-30001285	DIODE	
Q303	VE-30001457	TRANSISTOR		D720	VE-30038475	DIODE	
Q304	VE-30001457	TRANSISTOR		D721	VE-30038475	DIODE	
Q305	VE-30001457	TRANSISTOR		D722	VE-30038475	DIODE	
Q306	VE-30001457	TRANSISTOR		D723	VE-30038475	DIODE	
Q307	VE-30001457	TRANSISTOR		D724	VE-30018574	DIODE	
Q308	VE-30001458	TRANSISTOR		D725	VE-30038475	DIODE	
Q309	VE-30001457	TRANSISTOR		D726	VE-30038475	DIODE	
Q311	VE-30001423	TRANSISTOR		D902	VE-30001285	DIODE	
Q312	VE-30001457	TRANSISTOR		D903	VE-30001343	DIODE	
Q313	VE-30001457	TRANSISTOR		D905	VE-30001285	DIODE	
Q314	VE-30001457	TRANSISTOR		D1100	VE-30010689	DIODE	
Q315	VE-30001457	TRANSISTOR		D1101	VE-30010689	DIODE	
Q316	VE-30001457	TRANSISTOR		D1400	VE-30016425	DIODE	
Q317	VE-30001457	TRANSISTOR		D1401	VE-30019192	DIODE	
Q318	VE-30001457	TRANSISTOR		D1402	VE-30019192	DIODE	
Q400	VE-30001457	TRANSISTOR					
Q501	VE-30001457	TRANSISTOR		C100	VE-30012566	CAPACITOR	22pF 50V J
Q502	VE-30001457	TRANSISTOR		C101	VE-30012566	CAPACITOR	22pF 50V J
Q600	VE-30001457	TRANSISTOR		C102	VE-30016654	CAPACITOR	100nF 16V K
Q601	VE-30001457	TRANSISTOR		C104	VE-30016654	CAPACITOR	100nF 16V K
Q602	VE-30001457	TRANSISTOR		C105	VE-30016654	CAPACITOR	100nF 16V K
Q603	VE-30001457	TRANSISTOR		C106	VE-30016654	CAPACITOR	100nF 16V K
Q700	VE-30001458	TRANSISTOR		C107	VE-30016654	CAPACITOR	100nF 16V K
Q701	VE-30001457	TRANSISTOR		C108	VE-30012582	CAPACITOR	10nF 50V K
Q702	VE-30001457	TRANSISTOR		C109	VE-30012582	CAPACITOR	10nF 50V K
Q703	VE-30001457	TRANSISTOR		C110	VE-30012582	CAPACITOR	10nF 50V K
Q704	VE-30001457	TRANSISTOR		C111	VE-30012582	CAPACITOR	10nF 50V K
Q708	VE-30001458	TRANSISTOR		C112	VE-30016654	CAPACITOR	100nF 16V K
Q709	VE-30001457	TRANSISTOR		C113	VE-30012582	CAPACITOR	10nF 50V K

△Ref No.	Part No.	Part Name	Description Local	△Ref No.	Part No.	Part Name	Description Local
C114	VE-30016654	CAPACITOR	100nF 16V K	C319	VE-30000371	E CAPACITOR	22uF 50V M
C115	VE-30000371	E CAPACITOR	22uF 50V M	C320	VE-30016654	CAPACITOR	100nF 16V K
C116	VE-30016654	CAPACITOR	100nF 16V K	C321	VE-30016654	CAPACITOR	100nF 16V K
C117	VE-30016654	CAPACITOR	100nF 16V K	C324	VE-30000371	E CAPACITOR	22uF 50V M
C118	VE-30016654	CAPACITOR	100nF 16V K	C325	VE-30012607	CAPACITOR	150pF 50V J
C120	VE-30016654	CAPACITOR	100nF 16V K	C326	VE-30012569	CAPACITOR	33pF 50V J
C121	VE-30016654	CAPACITOR	100nF 16V K	C327	VE-30016654	CAPACITOR	100nF 16V K
C122	VE-30016654	CAPACITOR	100nF 16V K	C328	VE-30000352	E CAPACITOR	100uF 16V M
C123	VE-30016654	CAPACITOR	100nF 16V K	C336	VE-30012560	CAPACITOR	100pF 50V J
C124	VE-30016654	CAPACITOR	100nF 16V K	C337	VE-30016654	CAPACITOR	100nF 16V K
C125	VE-30016654	CAPACITOR	100nF 16V K	C343	VE-30012560	CAPACITOR	100pF 50V J
C126	VE-30016654	CAPACITOR	100nF 16V K	C400	VE-30016654	CAPACITOR	100nF 16V K
C127	VE-30016654	CAPACITOR	100nF 16V K	C401	VE-30012581	CAPACITOR	1nF 50V K
C128	VE-30016654	CAPACITOR	100nF 16V K	C402	VE-30016654	CAPACITOR	100nF 16V K
C129	VE-30016654	CAPACITOR	100nF 16V K	C403	VE-30016654	CAPACITOR	100nF 16V K
C130	VE-30016654	CAPACITOR	100nF 16V K	C404	VE-30012613	CAPACITOR	3.3pF 50V C
C131	VE-30016654	CAPACITOR	100nF 16V K	C405	VE-30012613	CAPACITOR	3.3pF 50V C
C132	VE-30012581	CAPACITOR	1nF 50V K	C406	VE-30000315	CAPACITOR	220nF 25V Z
C133	VE-30012589	CAPACITOR	4.7nF 50V K	C407	VE-30012581	CAPACITOR	1nF 50V K
C134	VE-30012589	CAPACITOR	4.7nF 50V K	C408	VE-30012572	CAPACITOR	390pF 50V J
C136	VE-30016654	CAPACITOR	100nF 16V K	C409	VE-30000345	E CAPACITOR	10uF 50V M
C137	VE-30016654	CAPACITOR	100nF 16V K	C410	VE-30016654	CAPACITOR	100nF 16V K
C138	VE-30000371	E CAPACITOR	22uF 50V M	C411	VE-30000068	CAPACITOR	1nF 53V K
C139	VE-30000371	E CAPACITOR	22uF 50V M	C412	VE-30007082	CAPACITOR	680nF 63V J
C140	VE-30000371	E CAPACITOR	22uF 50V M	C413	VE-30007082	CAPACITOR	680nF 63V J
C141	VE-30000371	E CAPACITOR	22uF 50V M	C414	VE-30012582	CAPACITOR	10nF 50V K
C142	VE-30000371	E CAPACITOR	22uF 50V M	C415	VE-30000345	E CAPACITOR	10uF 50V M
C143	VE-30016654	CAPACITOR	100nF 16V K	C416	VE-30012590	CAPACITOR	47nF 50V K
C144	VE-30016654	CAPACITOR	100nF 16V K	C420	VE-30000294	CAPACITOR	100nF 50V K
C146	VE-30000109	CAPACITOR	470nF 63V J	C421	VE-30000294	CAPACITOR	100nF 50V K
C147	VE-30016654	CAPACITOR	100nF 16V K	C422	VE-30000294	CAPACITOR	100nF 50V K
C148	VE-30012575	CAPACITOR	4.7pF 50V C	C424	VE-30016654	CAPACITOR	100nF 16V K
C149	VE-30012575	CAPACITOR	4.7pF 50V C	C425	VE-30000315	CAPACITOR	220nF 25V Z
C150	VE-30016654	CAPACITOR	100nF 16V K	C426	VE-30012581	CAPACITOR	1nF 50V K
C151	VE-30016654	CAPACITOR	100nF 16V K	C427	VE-30012572	CAPACITOR	390pF 50V J
C152	VE-30016654	CAPACITOR	100nF 16V K	C428	VE-30016654	CAPACITOR	100nF 16V K
C153	VE-30012567	CAPACITOR	220pF 50V J	C429	VE-30012581	CAPACITOR	1nF 50V K
C154	VE-30012567	CAPACITOR	220pF 50V J	C430	VE-30016654	CAPACITOR	100nF 16V K
C155	VE-30012567	CAPACITOR	220pF 50V J	C437	VE-30007082	CAPACITOR	680nF 63V J
C156	VE-30000371	E CAPACITOR	22uF 50V M	C438	VE-30000371	E CAPACITOR	22uF 50V M
C157	VE-30016654	CAPACITOR	100nF 16V K	C439	VE-30016654	CAPACITOR	100nF 16V K
C158	VE-30012567	CAPACITOR	220pF 50V J	C440	VE-30000352	E CAPACITOR	100uF 16V M
C159	VE-30016654	CAPACITOR	100nF 16V K	C441	VE-30016654	CAPACITOR	100nF 16V K
C160	VE-30012567	CAPACITOR	220pF 50V J	C442	VE-30012569	CAPACITOR	33pF 50V J
C161	VE-30012567	CAPACITOR	220pF 50V J	C443	VE-30016654	CAPACITOR	100nF 16V K
C162	VE-30000371	E CAPACITOR	22uF 50V M	C485	VE-30016654	CAPACITOR	100nF 16V K
C163	VE-30016654	CAPACITOR	100nF 16V K	C486	VE-30016654	CAPACITOR	100nF 16V K
C164	VE-30012567	CAPACITOR	220pF 50V J	C487	VE-30016654	CAPACITOR	100nF 16V K
C165	VE-30016654	CAPACITOR	100nF 16V K	C488	VE-30016654	CAPACITOR	100nF 16V K
C166	VE-30012567	CAPACITOR	220pF 50V J	C489	VE-30016654	CAPACITOR	100nF 16V K
C167	VE-30016654	CAPACITOR	100nF 16V K	C490	VE-30016654	CAPACITOR	100nF 16V K
C168	VE-30016654	CAPACITOR	100nF 16V K	C491	VE-30016654	CAPACITOR	100nF 16V K
C169	VE-30012567	CAPACITOR	220pF 50V J	C492	VE-30000345	E CAPACITOR	10uF 50V M
C170	VE-30012567	CAPACITOR	220pF 50V J	C493	VE-30000294	CAPACITOR	100nF 50V K
C171	VE-30016654	CAPACITOR	100nF 16V K	C494	VE-30012574	CAPACITOR	470pF 50V J
C172	VE-30012567	CAPACITOR	220pF 50V J	C495	VE-30012574	CAPACITOR	470pF 50V J
C174	VE-30016654	CAPACITOR	100nF 16V K	C496	VE-30012574	CAPACITOR	470pF 50V J
C175	VE-30012567	CAPACITOR	220pF 50V J	C502	VE-30016654	CAPACITOR	100nF 16V K
C176	VE-30016654	CAPACITOR	100nF 16V K	C503	VE-30000345	E CAPACITOR	10uF 50V M
C177	VE-30000371	E CAPACITOR	22uF 50V M	C504	VE-30000407	E CAPACITOR	470uF 16V M
C178	VE-30016654	CAPACITOR	100nF 16V K	C505	VE-30000400	E CAPACITOR	47uF 50V M
C183	VE-30016654	CAPACITOR	100nF 16V K	C506	VE-30012582	CAPACITOR	10nF 50V K
C185	VE-30000352	E CAPACITOR	100uF 16V M	C507	VE-30012572	CAPACITOR	390pF 50V J
C187	VE-30012576	CAPACITOR	56pF 50V J	C508	VE-30000109	CAPACITOR	470nF 63V J
C189	VE-30016654	CAPACITOR	100nF 16V K	C509	VE-30012582	CAPACITOR	10nF 50V K
C190	VE-30016654	CAPACITOR	100nF 16V K	C510	VE-30012566	CAPACITOR	22pF 50V J
C191	VE-30016654	CAPACITOR	100nF 16V K	C511	VE-30000109	CAPACITOR	470nF 63V J
C192	VE-30016654	CAPACITOR	100nF 16V K	C512	VE-30016654	CAPACITOR	100nF 16V K
C193	VE-30000375	E CAPACITOR	220uF 16V M	C513	VE-30012581	CAPACITOR	1nF 50V K
C217	VE-30012581	CAPACITOR	1nF 50V K	C514	VE-30012582	CAPACITOR	10nF 50V K
C225	VE-30016126	CAPACITOR	220nF 16V K	C515	VE-30016654	CAPACITOR	100nF 16V K
C300	VE-30000352	E CAPACITOR	100uF 16V M	C519	VE-30016654	CAPACITOR	100nF 16V K
C301	VE-30016654	CAPACITOR	100nF 16V K	C520	VE-30012582	CAPACITOR	10nF 50V K
C302	VE-30000352	E CAPACITOR	100uF 16V M	C522	VE-30000315	CAPACITOR	220nF 25V Z
C303	VE-30016654	CAPACITOR	100nF 16V K	C523	VE-30000371	E CAPACITOR	22uF 50V M
C304	VE-30016654	CAPACITOR	100nF 16V K	C524	VE-30016654	CAPACITOR	100nF 16V K
C305	VE-30000371	E CAPACITOR	22uF 50V M	C525	VE-30016654	CAPACITOR	100nF 16V K
C306	VE-30016654	CAPACITOR	100nF 16V K	C526	VE-30000345	E CAPACITOR	10uF 50V M
C307	VE-30016654	CAPACITOR	100nF 16V K	C600	VE-30000352	E CAPACITOR	100uF 16V M
C308	VE-30000352	E CAPACITOR	100uF 16V M	C601	VE-30000074	CAPACITOR	100nF 63V J
C309	VE-30016654	CAPACITOR	100nF 16V K	C603	VE-30000074	CAPACITOR	100nF 63V J
C310	VE-30016654	CAPACITOR	100nF 16V K	C604	VE-30016654	CAPACITOR	100nF 16V K
C311	VE-30016654	CAPACITOR	100nF 16V K	C605	VE-30016654	CAPACITOR	100nF 16V K
C312	VE-30016654	CAPACITOR	100nF 16V K	C606	VE-30000074	CAPACITOR	100nF 63V J
C313	VE-30016654	CAPACITOR	100nF 16V K	C607	VE-30012569	CAPACITOR	33pF 50V J
C314	VE-30000109	CAPACITOR	470nF 63V J	C608	VE-30016654	CAPACITOR	100nF 16V K
C315	VE-30016654	CAPACITOR	100nF 16V K	C609	VE-30016654	CAPACITOR	100nF 16V K
C316	VE-30000352	E CAPACITOR	100uF 16V M	C610	VE-30016654	CAPACITOR	100nF 16V K
C317	VE-30012569	CAPACITOR	33pF 50V J	C611	VE-30016654	CAPACITOR	100nF 16V K
C318	VE-30012569	CAPACITOR	33pF 50V J	C613	VE-30016654	CAPACITOR	100nF 16V K

△Ref No.	Part No.	Part Name	Description Local	△Ref No.	Part No.	Part Name	Description Local
C614	VE-30016654	CAPACITOR	100nF 16V K	C787	VE-30020694	CAPACITOR	1uF 16V Z
C615	VE-30012569	CAPACITOR	33pF 50V J	C788	VE-30020694	CAPACITOR	1uF 16V Z
C616	VE-30000074	CAPACITOR	100nF 63V J	C789	VE-30020694	CAPACITOR	1uF 16V Z
C700	VE-30016654	CAPACITOR	100nF 16V K	C790	VE-30020694	CAPACITOR	1uF 16V Z
C701	VE-30012581	CAPACITOR	1nF 50V K	C791	VE-30020694	CAPACITOR	1uF 16V Z
C702	VE-30000352	E CAPACITOR	100uF 16V M	C792	VE-30010555	CAPACITOR	1uF 16V K
C703	VE-30012581	CAPACITOR	1nF 50V K	C793	VE-30012582	CAPACITOR	10nF 50V K
C704	VE-30012589	CAPACITOR	4.7nF 50V K	C794	VE-30012582	CAPACITOR	10nF 50V K
C705	VE-30012589	CAPACITOR	4.7nF 50V K	C795	VE-30012581	CAPACITOR	1nF 50V K
C706	VE-30012589	CAPACITOR	4.7nF 50V K	C796	VE-30012581	CAPACITOR	1nF 50V K
C707	VE-30012589	CAPACITOR	4.7nF 50V K	C797	VE-30000294	CAPACITOR	100nF 50V K
C708	VE-30016654	CAPACITOR	100nF 16V K	C798	VE-30012567	CAPACITOR	220pF 50V J
C709	VE-30016126	CAPACITOR	220nF 16V K	C799	VE-30012568	CAPACITOR	270pF 50V J
C710	VE-30016126	CAPACITOR	220nF 16V K	C808	VE-30012574	CAPACITOR	470pF 50V J
C711	VE-30016126	CAPACITOR	220nF 16V K	C809	VE-30012574	CAPACITOR	470pF 50V J
C712	VE-30016126	CAPACITOR	220nF 16V K	C810	VE-30012582	CAPACITOR	10nF 50V K
C713	VE-30012579	CAPACITOR	82pF 50V J	C811	VE-30016654	CAPACITOR	100nF 16V K
C714	VE-30016654	CAPACITOR	100nF 16V K	C812	VE-30016654	CAPACITOR	100nF 16V K
C715	VE-30000393	E CAPACITOR	3.3uF 50V M	C813	VE-30012582	CAPACITOR	10nF 50V K
C716	VE-30000345	E CAPACITOR	10uF 50V M	C814	VE-30016654	CAPACITOR	100nF 16V K
C717	VE-30000345	E CAPACITOR	10uF 50V M	C815	VE-30012582	CAPACITOR	10nF 50V K
C718	VE-30000345	E CAPACITOR	10uF 50V M	C816	VE-30012582	CAPACITOR	10nF 50V K
C719	VE-30012581	CAPACITOR	1nF 50V K	C817	VE-30016654	CAPACITOR	100nF 16V K
C720	VE-30012581	CAPACITOR	1nF 50V K	C818	VE-30012576	CAPACITOR	56pF 50V J
C721	VE-30012565	CAPACITOR	1.8pF 50V J	C823	VE-30016654	CAPACITOR	100nF 16V K
C722	VE-30012565	CAPACITOR	1.8pF 50V J	C825	VE-30012574	CAPACITOR	470pF 50V J
C723	VE-30012581	CAPACITOR	1nF 50V K	C826	VE-30012574	CAPACITOR	470pF 50V J
C724	VE-30012581	CAPACITOR	1nF 50V K	C827	VE-30012574	CAPACITOR	470pF 50V J
C725	VE-30012581	CAPACITOR	1nF 50V K	C830	VE-30012574	CAPACITOR	470pF 50V J
C726	VE-30012579	CAPACITOR	82pF 50V J	C831	VE-30012574	CAPACITOR	470pF 50V J
C727	VE-30016654	CAPACITOR	100nF 16V K	C832	VE-30020694	CAPACITOR	1uF 16V Z
C728	VE-30016654	CAPACITOR	100nF 16V K	C833	VE-30020694	CAPACITOR	1uF 16V Z
C729	VE-30012581	CAPACITOR	1nF 50V K	C834	VE-30000371	E CAPACITOR	22uF 50V M
C730	VE-30000352	E CAPACITOR	100uF 16V M	C835	VE-30016654	CAPACITOR	100nF 16V K
C731	VE-30012607	CAPACITOR	150pF 50V J	C836	VE-30016654	CAPACITOR	100nF 16V K
C732	VE-30016126	CAPACITOR	220nF 16V K	C846	VE-30000353	E CAPACITOR	100uF 25V M
C733	VE-30016126	CAPACITOR	220nF 16V K	C858	VE-30012569	CAPACITOR	33pF 50V J
C734	VE-30016654	CAPACITOR	100nF 16V K	C859	VE-30012569	CAPACITOR	33pF 50V J
C735	VE-30012581	CAPACITOR	1nF 50V K	C860	VE-30012569	CAPACITOR	33pF 50V J
C736	VE-30000352	E CAPACITOR	100uF 16V M	C866	VE-30000345	E CAPACITOR	10uF 50V M
C737	VE-30012589	CAPACITOR	4.7nF 50V K	C867	VE-30016654	CAPACITOR	100nF 16V K
C738	VE-30000352	E CAPACITOR	100uF 16V M	C868	VE-30012582	CAPACITOR	10nF 50V K
C739	VE-30000400	E CAPACITOR	47uF 50V M	C900	VE-30000354	E CAPACITOR	100uF 35V M
C740	VE-30012581	CAPACITOR	1nF 50V K	C903	VE-30018901	E CAPACITOR	100uF 50V M
C741	VE-30012589	CAPACITOR	4.7nF 50V K	C904	VE-30012581	CAPACITOR	1nF 50V K
C742	VE-30000371	E CAPACITOR	22uF 50V M	C908	VE-30005819	E CAPACITOR	1000uF 16V M
C743	VE-30000371	E CAPACITOR	22uF 50V M	C909	VE-30016654	CAPACITOR	100nF 16V K
C744	VE-30000371	E CAPACITOR	22uF 50V M	C910	VE-30018901	E CAPACITOR	100uF 50V M
C745	VE-30000371	E CAPACITOR	22uF 50V M	C911	VE-30012581	CAPACITOR	1nF 50V K
C746	VE-30012567	CAPACITOR	220pF 50V J	C912	VE-30031826	E CAPACITOR	4700uF 6.3V M
C747	VE-30012574	CAPACITOR	470pF 50V J	C913	VE-30016654	CAPACITOR	100nF 16V K
C748	VE-30012582	CAPACITOR	10nF 50V K	C920	VE-30000354	E CAPACITOR	100uF 35V M
C749	VE-30016654	CAPACITOR	100nF 16V K	C921	VE-30012581	CAPACITOR	1nF 50V K
C750	VE-30012576	CAPACITOR	56pF 50V J	C922	VE-30000359	E CAPACITOR	1000uF 16V M
C751	VE-30000407	E CAPACITOR	470uF 16V M	C923	VE-30016654	CAPACITOR	100nF 16V K
C752	VE-30012581	CAPACITOR	1nF 50V K	C924	VE-30012576	CAPACITOR	56pF 50V J
C753	VE-30012581	CAPACITOR	1nF 50V K	C925	VE-30012560	CAPACITOR	100pF 50V J
C754	VE-30012574	CAPACITOR	470pF 50V J	C926	VE-30000371	E CAPACITOR	22uF 50V M
C755	VE-30012574	CAPACITOR	470pF 50V J	C927	VE-30000294	CAPACITOR	100nF 50V K
C756	VE-30012581	CAPACITOR	1nF 50V K	C928	VE-30000345	E CAPACITOR	10uF 50V M
C757	VE-30012581	CAPACITOR	1nF 50V K	C929	VE-30000294	CAPACITOR	100nF 50V K
C758	VE-30016126	CAPACITOR	220nF 16V K	C930	VE-30024336	E CAPACITOR	22uF 50V
C759	VE-30016126	CAPACITOR	220nF 16V K	C932	VE-30000294	CAPACITOR	100nF 50V K
C760	VE-30012581	CAPACITOR	1nF 50V K	C933	VE-30000294	CAPACITOR	100nF 50V K
C761	VE-30012581	CAPACITOR	1nF 50V K	C934	VE-30005819	E CAPACITOR	1000uF 16V M
C762	VE-30012589	CAPACITOR	4.7nF 50V K	C935	VE-30016654	CAPACITOR	100nF 16V K
C763	VE-30012589	CAPACITOR	4.7nF 50V K	C936	VE-30016654	CAPACITOR	100nF 16V K
C764	VE-30012589	CAPACITOR	4.7nF 50V K	C937	VE-30000371	E CAPACITOR	22uF 50V M
C765	VE-30012589	CAPACITOR	4.7nF 50V K	C938	VE-30018901	E CAPACITOR	100uF 50V M
C766	VE-30016654	CAPACITOR	100nF 16V K	C939	VE-30012581	CAPACITOR	1nF 50V K
C767	VE-30012607	CAPACITOR	150pF 50V J	C940	VE-30000359	E CAPACITOR	1000uF 16V M
C768	VE-30012607	CAPACITOR	150pF 50V J	C941	VE-30016654	CAPACITOR	100nF 16V K
C769	VE-30000371	E CAPACITOR	22uF 50V M	C942	VE-30000352	E CAPACITOR	100uF 16V M
C770	VE-30000371	E CAPACITOR	22uF 50V M	C1025	VE-30020694	CAPACITOR	1uF 16V Z
C771	VE-30016126	CAPACITOR	220nF 16V K	C1041	VE-30000359	E CAPACITOR	1000uF 16V M
C772	VE-30012581	CAPACITOR	1nF 50V K	C1050	VE-30020694	CAPACITOR	1uF 16V Z
C773	VE-30016126	CAPACITOR	220nF 16V K	C1051	VE-30020694	CAPACITOR	1uF 16V Z
C774	VE-30012581	CAPACITOR	1nF 50V K	C1052	VE-30020694	CAPACITOR	1uF 16V Z
C775	VE-30000345	E CAPACITOR	10uF 50V M	C1053	VE-30000359	E CAPACITOR	1000uF 16V M
C776	VE-30010555	CAPACITOR	1uF 16V K	C1101	VE-30010555	CAPACITOR	1uF 16V K
C777	VE-30000294	CAPACITOR	100nF 50V K	C1102	VE-30012582	CAPACITOR	10nF 50V K
C778	VE-30000294	CAPACITOR	100nF 50V K	C1103	VE-30000345	E CAPACITOR	10uF 50V M
C779	VE-30012567	CAPACITOR	220pF 50V J	C1104	VE-30012582	CAPACITOR	10nF 50V K
C780	VE-30012582	CAPACITOR	10nF 50V K	C1109	VE-30016654	CAPACITOR	100nF 16V K
C781	VE-30012582	CAPACITOR	10nF 50V K	C1110	VE-30012564	CAPACITOR	18pF 50V J
C782	VE-30000294	CAPACITOR	100nF 50V K	C1111	VE-30012564	CAPACITOR	18pF 50V J
C783	VE-30000294	CAPACITOR	100nF 50V K	C1112	VE-30016654	CAPACITOR	100nF 16V K
C784	VE-30000345	E CAPACITOR	10uF 50V M	C1113	VE-30016654	CAPACITOR	100nF 16V K
C785	VE-30012581	CAPACITOR	1nF 50V K	C1114	VE-30016654	CAPACITOR	100nF 16V K
C786	VE-30012581	CAPACITOR	1nF 50V K	C1115	VE-30016654	CAPACITOR	100nF 16V K

△Ref No.	Part No.	Part Name	Description Local	△Ref No.	Part No.	Part Name	Description Local
C1116	VE-30016654	CAPACITOR	100nF 16V K	C1456	VE-30016654	CAPACITOR	100nF 16V K
C1117	VE-30016654	CAPACITOR	100nF 16V K	C1457	VE-30016654	CAPACITOR	100nF 16V K
C1118	VE-30016654	CAPACITOR	100nF 16V K	C1458	VE-30016654	CAPACITOR	100nF 16V K
C1119	VE-30016654	CAPACITOR	100nF 16V K	C1459	VE-30016654	CAPACITOR	100nF 16V K
C1120	VE-30000294	CAPACITOR	100nF 50V K	C1460	VE-30012579	CAPACITOR	82pF 50V J
C1121	VE-30016654	CAPACITOR	100nF 16V K	C1461	VE-30012579	CAPACITOR	82pF 50V J
C1122	VE-30012570	CAPACITOR	330pF 50V J	C1462	VE-30012607	CAPACITOR	150pF 50V J
C1123	VE-30016654	CAPACITOR	100nF 16V K	C1463	VE-30014180	CAPACITOR	180pF 50V J
C1124	VE-30016654	CAPACITOR	100nF 16V K	C1464	VE-30012559	CAPACITOR	10pF 50V D
C1125	VE-30016654	CAPACITOR	100nF 16V K	C1471	VE-30012565	CAPACITOR	1.8pF 50V J
C1126	VE-30016654	CAPACITOR	100nF 16V K	C1472	VE-30000384	E CAPACITOR	2.2uF 50V M
C1127	VE-30016654	CAPACITOR	100nF 16V K	C1473	VE-30012581	CAPACITOR	1nF 50V K
C1128	VE-30016654	CAPACITOR	100nF 16V K	C1474	VE-30012581	CAPACITOR	1nF 50V K
C1129	VE-30016654	CAPACITOR	100nF 16V K	C1475	VE-30000352	E CAPACITOR	100uF 16V M
C1130	VE-30016654	CAPACITOR	100nF 16V K	C1476	VE-30000352	E CAPACITOR	100uF 16V M
C1131	VE-30016654	CAPACITOR	100nF 16V K	C1477	VE-30016654	CAPACITOR	100nF 16V K
C1132	VE-30000359	E CAPACITOR	1000uF 16V M	C1480	VE-30000294	CAPACITOR	100nF 50V K
C1133	VE-30000352	E CAPACITOR	100uF 16V M	C1481	VE-30000375	E CAPACITOR	220uF 16V M
C1134	VE-30000352	E CAPACITOR	100uF 16V M	C1484	VE-30000352	E CAPACITOR	100uF 16V M
C1135	VE-30000345	E CAPACITOR	10uF 50V M	C1485	VE-30000375	E CAPACITOR	220uF 16V M
C1137	VE-30000345	E CAPACITOR	10uF 50V M	C1486	VE-30000352	E CAPACITOR	100uF 16V M
C1145	VE-30016654	CAPACITOR	100nF 16V K	C1487	VE-30016654	CAPACITOR	100nF 16V K
C1146	VE-30016654	CAPACITOR	100nF 16V K	C1489	VE-30020694	CAPACITOR	1uF 16V Z
C1147	VE-30016654	CAPACITOR	100nF 16V K	C1600	VE-30016654	CAPACITOR	100nF 16V K
C1148	VE-30016654	CAPACITOR	100nF 16V K	C1601	VE-30016654	CAPACITOR	100nF 16V K
C1201	VE-30016654	CAPACITOR	100nF 16V K	C1602	VE-30016654	CAPACITOR	100nF 16V K
C1204	VE-30000353	E CAPACITOR	100uF 25V M	C1603	VE-30016654	CAPACITOR	100nF 16V K
C1211	VE-30000384	E CAPACITOR	2.2uF 50V M	C1604	VE-30016654	CAPACITOR	100nF 16V K
C1212	VE-30000384	E CAPACITOR	2.2uF 50V M	C1605	VE-30016654	CAPACITOR	100nF 16V K
C1218	VE-30012576	CAPACITOR	56pF 50V J	C1606	VE-30016654	CAPACITOR	100nF 16V K
C1220	VE-30012576	CAPACITOR	56pF 50V J	C1607	VE-30016654	CAPACITOR	100nF 16V K
C1221	VE-30012567	CAPACITOR	220pF 50V J	C1608	VE-30016654	CAPACITOR	100nF 16V K
C1227	VE-30016654	CAPACITOR	100nF 16V K	C1609	VE-30016654	CAPACITOR	100nF 16V K
C1235	VE-30016654	CAPACITOR	100nF 16V K	C1610	VE-30016654	CAPACITOR	100nF 16V K
C1236	VE-30000352	E CAPACITOR	100uF 16V M	C1800	VE-30000294	CAPACITOR	100nF 50V K
C1252	VE-30012581	CAPACITOR	1nF 50V K	C1801	VE-30000294	CAPACITOR	100nF 50V K
C1253	VE-30012567	CAPACITOR	220pF 50V J	C1802	VE-30000294	CAPACITOR	100nF 50V K
C1254	VE-30012567	CAPACITOR	220pF 50V J	C1803	VE-30000345	E CAPACITOR	10uF 50V M
C1255	VE-30012567	CAPACITOR	220pF 50V J	C1804	VE-30016654	CAPACITOR	100nF 16V K
C1300	VE-30016654	CAPACITOR	100nF 16V K	C1805	VE-30012581	CAPACITOR	1nF 50V K
C1301	VE-30016654	CAPACITOR	100nF 16V K	C1806	VE-30000355	E CAPACITOR	100uF 50V M
C1302	VE-30016654	CAPACITOR	100nF 16V K	C1807	VE-30000352	E CAPACITOR	100uF 16V M
C1303	VE-30016654	CAPACITOR	100nF 16V K	C1817	VE-30016126	CAPACITOR	220nF 16V K
C1304	VE-30016654	CAPACITOR	100nF 16V K	C1818	VE-30016126	CAPACITOR	220nF 16V K
C1305	VE-30016654	CAPACITOR	100nF 16V K	C1822	VE-30016126	CAPACITOR	220nF 16V K
C1306	VE-30016654	CAPACITOR	100nF 16V K	C1823	VE-30016126	CAPACITOR	220nF 16V K
C1307	VE-30016654	CAPACITOR	100nF 16V K	C1824	VE-30016126	CAPACITOR	220nF 16V K
C1308	VE-30016654	CAPACITOR	100nF 16V K	C1825	VE-30016126	CAPACITOR	220nF 16V K
C1309	VE-30016654	CAPACITOR	100nF 16V K	C1826	VE-30016126	CAPACITOR	220nF 16V K
C1310	VE-30016654	CAPACITOR	100nF 16V K	C1827	VE-30016126	CAPACITOR	220nF 16V K
C1311	VE-30016654	CAPACITOR	100nF 16V K	C1828	VE-30016126	CAPACITOR	220nF 16V K
C1312	VE-30016654	CAPACITOR	100nF 16V K	C1829	VE-30016126	CAPACITOR	220nF 16V K
C1313	VE-30016654	CAPACITOR	100nF 16V K	C1830	VE-30000371	E CAPACITOR	22uF 50V M
C1314	VE-30016654	CAPACITOR	100nF 16V K	C1831	VE-30016654	CAPACITOR	100nF 16V K
C1315	VE-30016654	CAPACITOR	100nF 16V K	C1832	VE-30016126	CAPACITOR	220nF 16V K
C1316	VE-30016654	CAPACITOR	100nF 16V K	C1833	VE-30016126	CAPACITOR	220nF 16V K
C1401	VE-30000400	E CAPACITOR	47uF 50V M	C1834	VE-30000352	E CAPACITOR	100uF 16V M
C1402	VE-30016654	CAPACITOR	100nF 16V K	C1835	VE-30000359	E CAPACITOR	1000uF 16V M
C1403	VE-30016654	CAPACITOR	100nF 16V K	C1836	VE-30012611	CAPACITOR	120pF 50V J
C1404	VE-30012582	CAPACITOR	10nF 50V K	C1837	VE-30012611	CAPACITOR	120pF 50V J
C1405	VE-30016654	CAPACITOR	100nF 16V K				
C1406	VE-30016085	E CAPACITOR	10uF 63V	R100	VE-30012713	RESISTOR	1/16W 75R J
C1408	VE-30016654	CAPACITOR	100nF 16V K	R101	VE-30012713	RESISTOR	1/16W 75R J
C1409	VE-30012560	CAPACITOR	100pF 50V J	R102	VE-30012713	RESISTOR	1/16W 75R J
C1410	VE-30000352	E CAPACITOR	100uF 16V M	R103	VE-30012713	RESISTOR	1/16W 75R J
C1411	VE-30012582	CAPACITOR	10nF 50V K	R104	VE-30012713	RESISTOR	1/16W 75R J
C1412	VE-30000315	CAPACITOR	220nF 25V Z	R105	VE-30012641	RESISTOR	1/16W 10K J
C1414	VE-30012582	CAPACITOR	10nF 50V K	R106	VE-30012641	RESISTOR	1/16W 10K J
C1415	VE-30012582	CAPACITOR	10nF 50V K	R107	VE-30012510	RESISTOR	1/16W 100R J
C1416	VE-30016654	CAPACITOR	100nF 16V K	R108	VE-30012510	RESISTOR	1/16W 100R J
C1420	VE-30012582	CAPACITOR	10nF 50V K	R109	VE-30012692	RESISTOR	1/16W 4.7K J
C1422	VE-30016654	CAPACITOR	100nF 16V K	R110	VE-30012692	RESISTOR	1/16W 4.7K J
C1423	VE-30016654	CAPACITOR	100nF 16V K	R111	VE-30012510	RESISTOR	1/16W 100R J
C1424	VE-30016654	CAPACITOR	100nF 16V K	R112	VE-30012509	RESISTOR	1/16W 100K J
C1428	VE-30016654	CAPACITOR	100nF 16V K	R113	VE-30012509	RESISTOR	1/16W 100K J
C1429	VE-30012582	CAPACITOR	10nF 50V K	R114	VE-30012509	RESISTOR	1/16W 100K J
C1430	VE-30016654	CAPACITOR	100nF 16V K	R115	VE-30012509	RESISTOR	1/16W 100K J
C1433	VE-30012582	CAPACITOR	10nF 50V K	R116	VE-30012509	RESISTOR	1/16W 100K J
C1434	VE-30016654	CAPACITOR	100nF 16V K	R117	VE-30012509	RESISTOR	1/16W 100K J
C1435	VE-30012564	CAPACITOR	18pF 50V J	R118	VE-30020896	FERRITE	
C1436	VE-30012559	CAPACITOR	10pF 50V D	R119	VE-30017653	RESISTOR ARRAY	1/16W 47RX4 J
C1437	VE-30016654	CAPACITOR	100nF 16V K	R120	VE-30017653	RESISTOR ARRAY	1/16W 47RX4 J
C1438	VE-30016654	CAPACITOR	100nF 16V K	R121	VE-30012679	RESISTOR	1/16W 3.9K J
C1439	VE-30016654	CAPACITOR	100nF 16V K	R122	VE-30012510	RESISTOR	1/16W 100R J
C1440	VE-30016654	CAPACITOR	100nF 16V K	R123	VE-30012510	RESISTOR	1/16W 100R J
C1445	VE-30012560	CAPACITOR	100pF 50V J	R127	VE-30012641	RESISTOR	1/16W 10K J
C1446	VE-30012560	CAPACITOR	100pF 50V J	R128	VE-30012641	RESISTOR	1/16W 10K J
C1451	VE-30016654	CAPACITOR	100nF 16V K	R136	VE-30012506	RESISTOR	1/16W 1.5K J
C1452	VE-30000352	E CAPACITOR	100uF 16V M	R137	VE-30012506	RESISTOR	1/16W 1.5K J
C1453	VE-30034074	E CAPACITOR	100uF 25V M	R138	VE-30012506	RESISTOR	1/16W 1.5K J

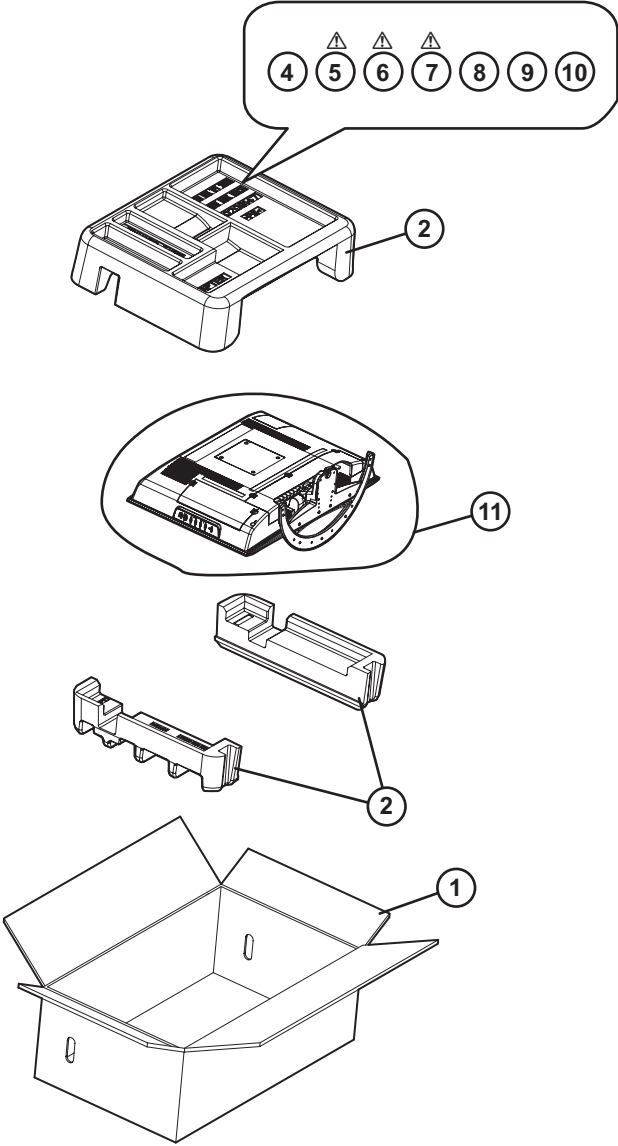
△Ref No.	Part No.	Part Name	Description Local	△Ref No.	Part No.	Part Name	Description Local
R139	VE-30012657	RESISTOR	1/16W 1K J	R347	VE-30014022	RESISTOR	1/16W 47R J
R141	VE-30012641	RESISTOR	1/16W 10K J	R348	VE-30012655	RESISTOR	1/16W 180R J
R142	VE-30012657	RESISTOR	1/16W 1K J	R349	VE-30014022	RESISTOR	1/16W 47R J
R143	VE-30012657	RESISTOR	1/16W 1K J	R350	VE-30012692	RESISTOR	1/16W 4.7K J
R145	VE-30012510	RESISTOR	1/16W 100R J	R351	VE-30012657	RESISTOR	1/16W 1K J
R146	VE-30012510	RESISTOR	1/16W 100R J	R352	VE-30012641	RESISTOR	1/16W 10K J
R147	VE-30012510	RESISTOR	1/16W 100R J	R353	VE-30012641	RESISTOR	1/16W 10K J
R148	VE-30012510	RESISTOR	1/16W 100R J	R354	VE-30012692	RESISTOR	1/16W 4.7K J
R149	VE-30012641	RESISTOR	1/16W 10K J	R355	VE-30012659	RESISTOR	1/16W 2.2K J
R150	VE-30012657	RESISTOR	1/16W 1K J	R356	VE-30012669	RESISTOR	1/16W 22K J
R151	VE-30012657	RESISTOR	1/16W 1K J	R357	VE-30012692	RESISTOR	1/16W 4.7K J
R152	VE-30012655	RESISTOR	1/16W 180R J	R358	VE-30012695	RESISTOR	1/16W 470R J
R153	VE-30012641	RESISTOR	1/16W 10K J	R359	VE-30012659	RESISTOR	1/16W 2.2K J
R154	VE-30012641	RESISTOR	1/16W 10K J	R360	VE-30012506	RESISTOR	1/16W 1.5K J
R155	VE-30012641	RESISTOR	1/16W 10K J	R361	VE-30012657	RESISTOR	1/16W 1K J
R156	VE-30017653	RESISTOR ARRAY	1/16W 47RX4 J	R367	VE-30012692	RESISTOR	1/16W 4.7K J
R157	VE-30017653	RESISTOR ARRAY	1/16W 47RX4 J	R368	VE-30012692	RESISTOR	1/16W 4.7K J
R158	VE-30017653	RESISTOR ARRAY	1/16W 47RX4 J	R369	VE-30012692	RESISTOR	1/16W 4.7K J
R159	VE-30017653	RESISTOR ARRAY	1/16W 47RX4 J	R372	VE-30012692	RESISTOR	1/16W 4.7K J
R160	VE-30017653	RESISTOR ARRAY	1/16W 47RX4 J	R373	VE-30012692	RESISTOR	1/16W 4.7K J
R161	VE-30017653	RESISTOR ARRAY	1/16W 47RX4 J	R374	VE-30012692	RESISTOR	1/16W 4.7K J
R162	VE-30012509	RESISTOR	1/16W 100K J	R375	VE-30012684	RESISTOR	1/16W 330R J
R165	VE-30025836	FERRITE NET		R376	VE-30012692	RESISTOR	1/16W 4.7K J
R166	VE-30025836	FERRITE NET		R379	VE-30012684	RESISTOR	1/16W 330R J
R168	VE-30012641	RESISTOR	1/16W 10K J	R380	VE-30012669	RESISTOR	1/16W 22K J
R169	VE-30012641	RESISTOR	1/16W 10K J	R381	VE-30012657	RESISTOR	1/16W 1K J
R170	VE-30012641	RESISTOR	1/16W 10K J	R383	VE-30016230	RESISTOR	1/16W 16K F
R172	VE-30012641	RESISTOR	1/16W 10K J	R384	VE-30012679	RESISTOR	1/16W 3.9K J
R173	VE-30012641	RESISTOR	1/16W 10K J	R385	VE-30012692	RESISTOR	1/16W 4.7K J
R174	VE-30012641	RESISTOR	1/16W 10K J	R386	VE-30012506	RESISTOR	1/16W 1.5K J
R175	VE-30012641	RESISTOR	1/16W 10K J	R387	VE-30012506	RESISTOR	1/16W 1.5K J
R176	VE-30012641	RESISTOR	1/16W 10K J	R388	VE-30012641	RESISTOR	1/16W 10K J
R177	VE-30012641	RESISTOR	1/16W 10K J	R389	VE-30012641	RESISTOR	1/16W 10K J
R178	VE-30012641	RESISTOR	1/16W 10K J	R390	VE-30012692	RESISTOR	1/16W 4.7K J
R179	VE-30012641	RESISTOR	1/16W 10K J	R391	VE-30012696	RESISTOR	1/16W 47K J
R180	VE-30012641	RESISTOR	1/16W 10K J	R392	VE-30012696	RESISTOR	1/16W 47K J
R181	VE-30012641	RESISTOR	1/16W 10K J	R393	VE-30012510	RESISTOR	1/16W 100R J
R182	VE-30012641	RESISTOR	1/16W 10K J	R394	VE-30012641	RESISTOR	1/16W 10K J
R183	VE-30012657	RESISTOR	1/16W 1K J	R395	VE-30012684	RESISTOR	1/16W 330R J
R184	VE-30012657	RESISTOR	1/16W 1K J	R396	VE-30012684	RESISTOR	1/16W 330R J
R185	VE-30012641	RESISTOR	1/16W 10K J	R397	VE-30012692	RESISTOR	1/16W 4.7K J
R189	VE-30012657	RESISTOR	1/16W 1K J	R399	VE-30012692	RESISTOR	1/16W 4.7K J
R193	VE-30012657	RESISTOR	1/16W 1K J	R400	VE-30012713	RESISTOR	1/16W 75R J
R199	VE-30012641	RESISTOR	1/16W 10K J	R401	VE-30012713	RESISTOR	1/16W 75R J
R300	VE-30012657	RESISTOR	1/16W 1K J	R402	VE-30012713	RESISTOR	1/16W 75R J
R301	VE-30018409	RESISTOR ARRAY	1/16W 330R J	R404	VE-30012713	RESISTOR	1/16W 75R J
R302	VE-30018409	RESISTOR ARRAY	1/16W 330R J	R405	VE-30012713	RESISTOR	1/16W 75R J
R303	VE-30018409	RESISTOR ARRAY	1/16W 330R J	R406	VE-30012713	RESISTOR	1/16W 75R J
R304	VE-30018409	RESISTOR ARRAY	1/16W 330R J	R407	VE-30012510	RESISTOR	1/16W 100R J
R305	VE-30018409	RESISTOR ARRAY	1/16W 330R J	R408	VE-30012510	RESISTOR	1/16W 100R J
R306	VE-30018409	RESISTOR ARRAY	1/16W 330R J	R409	VE-30012713	RESISTOR	1/16W 75R J
R307	VE-30018409	RESISTOR ARRAY	1/16W 330R J	R410	VE-30012644	RESISTOR	1/16W 12K J
R308	VE-30012657	RESISTOR	1/16W 1K J	R411	VE-30012669	RESISTOR	1/16W 22K J
R309	VE-30012669	RESISTOR	1/16W 22K J	R412	VE-30014022	RESISTOR	1/16W 47R J
R310	VE-30012510	RESISTOR	1/16W 100R J	R413	VE-30012657	RESISTOR	1/16W 1K J
R311	VE-30012510	RESISTOR	1/16W 100R J	R414	VE-30012713	RESISTOR	1/16W 75R J
R312	VE-30012510	RESISTOR	1/16W 100R J	R415	VE-30012510	RESISTOR	1/16W 100R J
R313	VE-30012705	RESISTOR	1/16W 6.8K J	R416	VE-30017653	RESISTOR ARRAY	1/16W 47RX4 J
R314	VE-30012705	RESISTOR	1/16W 6.8K J	R417	VE-30017653	RESISTOR ARRAY	1/16W 47RX4 J
R315	VE-30012692	RESISTOR	1/16W 4.7K J	R431	VE-30012657	RESISTOR	1/16W 1K J
R316	VE-30012679	RESISTOR	1/16W 3.9K J	R432	VE-30012657	RESISTOR	1/16W 1K J
R317	VE-30016230	RESISTOR	1/16W 16K F	R434	VE-30012657	RESISTOR	1/16W 1K J
R318	VE-30012659	RESISTOR	1/16W 2.2K J	R437	VE-30012713	RESISTOR	1/16W 75R J
R319	VE-30012692	RESISTOR	1/16W 4.7K J	R438	VE-30012713	RESISTOR	1/16W 75R J
R320	VE-30012659	RESISTOR	1/16W 2.2K J	R439	VE-30012713	RESISTOR	1/16W 75R J
R321	VE-30012692	RESISTOR	1/16W 4.7K J	R452	VE-30012669	RESISTOR	1/16W 22K J
R322	VE-30012695	RESISTOR	1/16W 470R J	R454	VE-30012509	RESISTOR	1/16W 100K J
R323	VE-30012987	RESISTOR	1/16W 56R J	R459	VE-30012510	RESISTOR	1/16W 100R J
R324	VE-30012692	RESISTOR	1/16W 4.7K J	R460	VE-30012510	RESISTOR	1/16W 100R J
R325	VE-30012695	RESISTOR	1/16W 470R J	R503	VE-30012510	RESISTOR	1/16W 100R J
R326	VE-30012695	RESISTOR	1/16W 470R J	R504	VE-30012510	RESISTOR	1/16W 100R J
R327	VE-30012695	RESISTOR	1/16W 470R J	R505	VE-30012510	RESISTOR	1/16W 100R J
R328	VE-30012685	RESISTOR	1/16W 33K J	R506	VE-30012510	RESISTOR	1/16W 100R J
R329	VE-30012685	RESISTOR	1/16W 33K J	R507	VE-30012698	RESISTOR	1/16W 5.6K J
R330	VE-30012685	RESISTOR	1/16W 33K J	R508	VE-30012510	RESISTOR	1/16W 100R J
R331	VE-30012685	RESISTOR	1/16W 33K J	R509	VE-30012641	RESISTOR	1/16W 10K J
R332	VE-30012510	RESISTOR	1/16W 100R J	R510	VE-30012644	RESISTOR	1/16W 12K J
R333	VE-30012510	RESISTOR	1/16W 100R J	R511	VE-30012696	RESISTOR	1/16W 47K J
R334	VE-30012692	RESISTOR	1/16W 4.7K J	R512	VE-30012684	RESISTOR	1/16W 330R J
R335	VE-30012692	RESISTOR	1/16W 4.7K J	R513	VE-30012713	RESISTOR	1/16W 75R J
R336	VE-30012692	RESISTOR	1/16W 4.7K J	R514	VE-30012669	RESISTOR	1/16W 22K J
R337	VE-30012692	RESISTOR	1/16W 4.7K J	R515	VE-30012669	RESISTOR	1/16W 22K J
R339	VE-30012642	RESISTOR	1/16W 120K J	R516	VE-30012510	RESISTOR	1/16W 100R J
R340	VE-30012692	RESISTOR	1/16W 4.7K J	R517	VE-30012659	RESISTOR	1/16W 2.2K J
R341	VE-30012644	RESISTOR	1/16W 12K J	R518	VE-30012510	RESISTOR	1/16W 100R J
R342	VE-30012668	RESISTOR	1/16W 220R J	R522	VE-30012641	RESISTOR	1/16W 10K J
R343	VE-30012668	RESISTOR	1/16W 220R J	R523	VE-30012659	RESISTOR	1/16W 2.2K J
R344	VE-30013001	RESISTOR	1/16W 1K F	R524	VE-30012510	RESISTOR	1/16W 100R J
R345	VE-30012669	RESISTOR	1/16W 22K J	R525	VE-30012702	RESISTOR	1/16W 560R J
R346	VE-30012657	RESISTOR	1/16W 1K J	R527	VE-30012692	RESISTOR	1/16W 4.7K J

△Ref No.	Part No.	Part Name	Description Local	△Ref No.	Part No.	Part Name	Description Local
R529	VE-30012982	RESISTOR	1/16W 10R J	R761	VE-30000464	RESISTOR	1/10W 100R J
R530	VE-30014022	RESISTOR	1/16W 47R J	R762	VE-30012713	RESISTOR	1/16W 75R J
R531	VE-30012692	RESISTOR	1/16W 4.7K J	R764	VE-30012677	RESISTOR	1/16W 3.3K J
R600	VE-30012713	RESISTOR	1/16W 75R J	R765	VE-30012641	RESISTOR	1/16W 10K J
R602	VE-30012510	RESISTOR	1/16W 100R J	R766	VE-30012641	RESISTOR	1/16W 10K J
R603	VE-30012510	RESISTOR	1/16W 100R J	R767	VE-30012641	RESISTOR	1/16W 10K J
R604	VE-30012982	RESISTOR	1/16W 10R J	R768	VE-30012641	RESISTOR	1/16W 10K J
R605	VE-30012695	RESISTOR	1/16W 470R J	R769	VE-30012641	RESISTOR	1/16W 10K J
R606	VE-30012641	RESISTOR	1/16W 10K J	R770	VE-30012641	RESISTOR	1/16W 10K J
R607	VE-30012692	RESISTOR	1/16W 4.7K J	R771	VE-30012641	RESISTOR	1/16W 10K J
R608	VE-30012713	RESISTOR	1/16W 75R J	R778	VE-30012641	RESISTOR	1/16W 10K J
R609	VE-30012982	RESISTOR	1/16W 10R J	R779	VE-30012509	RESISTOR	1/16W 100K J
R610	VE-30012695	RESISTOR	1/16W 470R J	R780	VE-30012641	RESISTOR	1/16W 10K J
R611	VE-30012641	RESISTOR	1/16W 10K J	R784	VE-30000464	RESISTOR	1/10W 100R J
R612	VE-30012692	RESISTOR	1/16W 4.7K J	R785	VE-30000464	RESISTOR	1/10W 100R J
R613	VE-30012713	RESISTOR	1/16W 75R J	R786	VE-30012713	RESISTOR	1/16W 75R J
R614	VE-30012713	RESISTOR	1/16W 75R J	R787	VE-30012713	RESISTOR	1/16W 75R J
R615	VE-30012713	RESISTOR	1/16W 75R J	R789	VE-30012510	RESISTOR	1/16W 100R J
R617	VE-30012713	RESISTOR	1/16W 75R J	R790	VE-30012510	RESISTOR	1/16W 100R J
R618	VE-30012982	RESISTOR	1/16W 10R J	R791	VE-30012510	RESISTOR	1/16W 100R J
R619	VE-30012695	RESISTOR	1/16W 470R J	R792	VE-30012510	RESISTOR	1/16W 100R J
R620	VE-30012641	RESISTOR	1/16W 10K J	R793	VE-30017653	RESISTOR ARRAY	1/16W 47RX4 J
R621	VE-30012692	RESISTOR	1/16W 4.7K J	R800	VE-30012692	RESISTOR	1/16W 4.7K J
R622	VE-30012713	RESISTOR	1/16W 75R J	R802	VE-30026054	RESISTOR ARRAY	1/32W 47R J
R623	VE-30012713	RESISTOR	1/16W 75R J	R803	VE-30026054	RESISTOR ARRAY	1/32W 47R J
R625	VE-30012982	RESISTOR	1/16W 10R J	R804	VE-30026054	RESISTOR ARRAY	1/32W 47R J
R626	VE-30012695	RESISTOR	1/16W 470R J	R805	VE-30026054	RESISTOR ARRAY	1/32W 47R J
R627	VE-30012641	RESISTOR	1/16W 10K J	R806	VE-30026054	RESISTOR ARRAY	1/32W 47R J
R628	VE-30012692	RESISTOR	1/16W 4.7K J	R807	VE-30026054	RESISTOR ARRAY	1/32W 47R J
R629	VE-30012713	RESISTOR	1/16W 75R J	R808	VE-30020529	FERRITE	
R630	VE-30012713	RESISTOR	1/16W 75R J	R901	VE-30016230	RESISTOR	1/16W 16K F
R631	VE-30012713	RESISTOR	1/16W 75R J	R902	VE-30012642	RESISTOR	1/16W 120K J
R632	VE-30000797	RESISTOR	1/10W 75R J	R903	VE-30012641	RESISTOR	1/16W 10K J
R633	VE-30000797	RESISTOR	1/10W 75R J	R904	VE-30016230	RESISTOR	1/16W 16K F
R634	VE-30012509	RESISTOR	1/16W 100K J	R905	VE-30012713	RESISTOR	1/16W 75R J
R635	VE-30012509	RESISTOR	1/16W 100K J	R907	VE-30012510	RESISTOR	1/16W 100R J
R636	VE-30012509	RESISTOR	1/16W 100K J	R908	VE-30012510	RESISTOR	1/16W 100R J
R637	VE-30012509	RESISTOR	1/16W 100K J	R909	VE-30012677	RESISTOR	1/16W 3.3K J
R700	VE-30012641	RESISTOR	1/16W 10K J	R910	VE-30020899	RESISTOR	1/16W 1R J
R701	VE-30012641	RESISTOR	1/16W 10K J	R911	VE-30012713	RESISTOR	1/16W 75R J
R702	VE-30012510	RESISTOR	1/16W 100R J	R912	VE-30012655	RESISTOR	1/16W 180R J
R703	VE-30012510	RESISTOR	1/16W 100R J	R913	VE-30012679	RESISTOR	1/16W 3.9K J
R704	VE-30012692	RESISTOR	1/16W 4.7K J	R915	VE-30012509	RESISTOR	1/16W 100K J
R705	VE-30012712	RESISTOR	1/16W 8.2K J	R918	VE-30012677	RESISTOR	1/16W 3.3K J
R706	VE-30012641	RESISTOR	1/16W 10K J	R919	VE-30012668	RESISTOR	1/16W 220R J
R707	VE-30012712	RESISTOR	1/16W 8.2K J	R920	VE-30012657	RESISTOR	1/16W 1K J
R708	VE-30012669	RESISTOR	1/16W 22K J	R921	VE-30012655	RESISTOR	1/16W 180R J
R709	VE-30012669	RESISTOR	1/16W 22K J	R922	VE-30012641	RESISTOR	1/16W 10K J
R710	VE-30012641	RESISTOR	1/16W 10K J	R923	VE-30012641	RESISTOR	1/16W 10K J
R711	VE-30012510	RESISTOR	1/16W 100R J	R924	VE-30012641	RESISTOR	1/16W 10K J
R712	VE-30012657	RESISTOR	1/16W 1K J	R925	VE-30012641	RESISTOR	1/16W 10K J
R713	VE-30012657	RESISTOR	1/16W 1K J	R926	VE-30012668	RESISTOR	1/16W 220R J
R714	VE-30012702	RESISTOR	1/16W 560R J	R927	VE-30012641	RESISTOR	1/16W 10K J
R715	VE-30012702	RESISTOR	1/16W 560R J	R928	VE-30012641	RESISTOR	1/16W 10K J
R716	VE-30012702	RESISTOR	1/16W 560R J	R931	VE-30013001	RESISTOR	1/16W 1K F
R717	VE-30012702	RESISTOR	1/16W 560R J	R932	VE-30012987	RESISTOR	1/16W 56R J
R720	VE-30023426	FIXED COIL	1.2uH K	R933	VE-30013001	RESISTOR	1/16W 1K F
R721	VE-30023426	FIXED COIL	1.2uH K	R1059	VE-30012692	RESISTOR	1/16W 4.7K J
R722	VE-30023426	FIXED COIL	1.2uH K	R1100	VE-30012692	RESISTOR	1/16W 4.7K J
R723	VE-30012713	RESISTOR	1/16W 75R J	R1101	VE-30012713	RESISTOR	1/16W 75R J
R724	VE-30012713	RESISTOR	1/16W 75R J	R1102	VE-30012713	RESISTOR	1/16W 75R J
R725	VE-30012713	RESISTOR	1/16W 75R J	R1103	VE-30012692	RESISTOR	1/16W 4.7K J
R726	VE-30012657	RESISTOR	1/16W 1K J	R1104	VE-30012669	RESISTOR	1/16W 22K J
R727	VE-30012657	RESISTOR	1/16W 1K J	R1105	VE-30014442	RESISTOR	1/16W 20K F
R728	VE-30023426	FIXED COIL	1.2uH K	R1106	VE-30012510	RESISTOR	1/16W 100R J
R729	VE-30012713	RESISTOR	1/16W 75R J	R1108	VE-30012641	RESISTOR	1/16W 10K J
R730	VE-30023426	FIXED COIL	1.2uH K	R1110	VE-30012641	RESISTOR	1/16W 10K J
R731	VE-30012713	RESISTOR	1/16W 75R J	R1112	VE-30012641	RESISTOR	1/16W 10K J
R732	VE-30012713	RESISTOR	1/16W 75R J	R1113	VE-30012641	RESISTOR	1/16W 10K J
R733	VE-30023426	FIXED COIL	1.2uH K	R1114	VE-30012641	RESISTOR	1/16W 10K J
R734	VE-30012510	RESISTOR	1/16W 100R J	R1115	VE-30012641	RESISTOR	1/16W 10K J
R735	VE-30012510	RESISTOR	1/16W 100R J	R1118	VE-30012694	RESISTOR	1/16W 470K J
R736	VE-30012657	RESISTOR	1/16W 1K J	R1119	VE-30012694	RESISTOR	1/16W 470K J
R737	VE-30012657	RESISTOR	1/16W 1K J	R1120	VE-30012712	RESISTOR	1/16W 8.2K J
R738	VE-30012657	RESISTOR	1/16W 1K J	R1121	VE-30012696	RESISTOR	1/16W 47K J
R739	VE-30012657	RESISTOR	1/16W 1K J	R1122	VE-30012658	RESISTOR	1/16W 1M J
R740	VE-30012657	RESISTOR	1/16W 1K J	R1123	VE-30012669	RESISTOR	1/16W 22K J
R741	VE-30012657	RESISTOR	1/16W 1K J	R1125	VE-30012692	RESISTOR	1/16W 4.7K J
R742	VE-30012642	RESISTOR	1/16W 120K J	R1126	VE-30012713	RESISTOR	1/16W 75R J
R743	VE-30012644	RESISTOR	1/16W 12K J	R1127	VE-30014128	RESISTOR	1/16W 33R J
R744	VE-30012696	RESISTOR	1/16W 47K J	R1128	VE-30012712	RESISTOR	1/16W 8.2K J
R745	VE-30012685	RESISTOR	1/16W 33K J	R1134	VE-30014128	RESISTOR	1/16W 33R J
R746	VE-30012674	RESISTOR	1/16W 27K J	R1135	VE-30014128	RESISTOR	1/16W 33R J
R747	VE-30012641	RESISTOR	1/16W 10K J	R1136	VE-30014128	RESISTOR	1/16W 33R J
R748	VE-30012713	RESISTOR	1/16W 75R J	R1137	VE-30012692	RESISTOR	1/16W 4.7K J
R749	VE-30012668	RESISTOR	1/16W 220R J	R1144	VE-30026054	RESISTOR ARRAY	1/32W 47R J
R750	VE-30012657	RESISTOR	1/16W 1K J	R1147	VE-30012713	RESISTOR	1/16W 75R J
R751	VE-30012510	RESISTOR	1/16W 100R J	R1148	VE-30014128	RESISTOR	1/16W 33R J
R752	VE-30012657	RESISTOR	1/16W 1K J	R1151	VE-30012659	RESISTOR	1/16W 2.2K J
R753	VE-30012641	RESISTOR	1/16W 10K J	R1152	VE-30012659	RESISTOR	1/16W 2.2K J

△Ref No.	Part No.	Part Name	Description Local	△Ref No.	Part No.	Part Name	Description Local
R1158	VE-30012713	RESISTOR	1/16W 75R J	R1747	VE-30026054	RESISTOR ARRAY	1/32W 47R J
R1159	VE-30012713	RESISTOR	1/16W 75R J				
R1160	VE-30014128	RESISTOR	1/16W 33R J	L101	VE-30001971	FERRITE	
R1161	VE-30014128	RESISTOR	1/16W 33R J	L103	VE-30002170	FERRITE CORE	
R1221	VE-30012667	RESISTOR	1/16W 220K J	L104	VE-30001971	FERRITE	
R1222	VE-30012667	RESISTOR	1/16W 220K J	L105	VE-30001971	FERRITE	
R1231	VE-30012702	RESISTOR	1/16W 560R J	L106	VE-30020896	FERRITE	
R1232	VE-30012702	RESISTOR	1/16W 560R J	L107	VE-30001971	FERRITE	
R1233	VE-30012692	RESISTOR	1/16W 4.7K J	L108	VE-30020896	FERRITE	
R1235	VE-30012707	RESISTOR	1/16W 680R J	L109	VE-30001971	FERRITE	
R1236	VE-30012695	RESISTOR	1/16W 470R J	L110	VE-30001971	FERRITE	
R1237	VE-30012714	RESISTOR	1/16W 820R J	L113	VE-30000710	RESISTOR	1/10W 47R J
R1238	VE-30012713	RESISTOR	1/16W 75R J	L114	VE-30020393	FERRITE	
R1239	VE-30012684	RESISTOR	1/16W 330R J	L115	VE-30020393	FERRITE	
R1240	VE-30012684	RESISTOR	1/16W 330R J	L116	VE-30020393	FERRITE	
R1300	VE-30014128	RESISTOR	1/16W 33R J	L300	VE-30017542	FIXED COIL	10uH J
R1302	VE-30026054	RESISTOR ARRAY	1/32W 47R J	L301	VE-30017542	FIXED COIL	10uH J
R1305	VE-30012641	RESISTOR	1/16W 10K J	L302	VE-30017542	FIXED COIL	10uH J
R1306	VE-30014128	RESISTOR	1/16W 33R J	L303	VE-30017542	FIXED COIL	10uH J
R1307	VE-30012713	RESISTOR	1/16W 75R J	L305	VE-30001990	FIXED COIL	6.8uH K
R1308	VE-30012713	RESISTOR	1/16W 75R J	L306	VE-30001971	FERRITE	
R1310	VE-30014128	RESISTOR	1/16W 33R J	L307	VE-30006712	FERRITE BEAD	
R1311	VE-30026054	RESISTOR ARRAY	1/32W 47R J	L308	VE-30020393	FERRITE	
R1312	VE-30026054	RESISTOR ARRAY	1/32W 47R J	L309	VE-30020393	FERRITE	
R1318	VE-30012641	RESISTOR	1/16W 10K J	L310	VE-30020393	FERRITE	
R1319	VE-30014022	RESISTOR	1/16W 47R J	L312	VE-30020393	FERRITE	
R1336	VE-30014128	RESISTOR	1/16W 33R J	L313	VE-30020393	FERRITE	
R1337	VE-30014128	RESISTOR	1/16W 33R J	L314	VE-30020393	FERRITE	
R1338	VE-30026054	RESISTOR ARRAY	1/32W 47R J	L401	VE-30001971	FERRITE	
R1339	VE-30026054	RESISTOR ARRAY	1/32W 47R J	L402	VE-30001971	FERRITE	
R1400	VE-30012506	RESISTOR	1/16W 1.5K J	L408	VE-30001971	FERRITE	
R1401	VE-30012659	RESISTOR	1/16W 2.2K J	L409	VE-30017542	FIXED COIL	10uH J
R1402	VE-30012659	RESISTOR	1/16W 2.2K J	L501	VE-30001971	FERRITE	
R1403	VE-30012982	RESISTOR	1/16W 10R J	L502	VE-30001971	FERRITE	
R1404	VE-30012510	RESISTOR	1/16W 100R J	L503	VE-30001971	FERRITE	
R1407	VE-30012982	RESISTOR	1/16W 10R J	L504	VE-30001996	FIXED COIL	22uH K
R1408	VE-30012695	RESISTOR	1/16W 470R J	L600	VE-30017542	FIXED COIL	10uH J
R1409	VE-30012641	RESISTOR	1/16W 10K J	L700	VE-30001971	FERRITE	
R1410	VE-30012659	RESISTOR	1/16W 2.2K J	L701	VE-30001971	FERRITE	
R1411	VE-30012659	RESISTOR	1/16W 2.2K J	L702	VE-30001971	FERRITE	
R1413	VE-30014022	RESISTOR	1/16W 47R J	L703	VE-30001971	FERRITE	
R1414	VE-30012982	RESISTOR	1/16W 10R J	L704	VE-30001971	FERRITE	
R1415	VE-30012659	RESISTOR	1/16W 2.2K J	L705	VE-30001971	FERRITE	
R1416	VE-30012659	RESISTOR	1/16W 2.2K J	L707	VE-30001971	FERRITE	
R1417	VE-30014022	RESISTOR	1/16W 47R J	L708	VE-30001971	FERRITE	
R1418	VE-30012692	RESISTOR	1/16W 4.7K J	L709	VE-30001971	FERRITE	
R1419	VE-30012692	RESISTOR	1/16W 4.7K J	L710	VE-30006712	FERRITE BEAD	
R1421	VE-30012657	RESISTOR	1/16W 1K J	L711	VE-30001971	FERRITE	
R1428	VE-30012655	RESISTOR	1/16W 180R J	L712	VE-30001971	FERRITE	
R1431	VE-30012506	RESISTOR	1/16W 1.5K J	L713	VE-30001971	FERRITE	
R1432	VE-30012506	RESISTOR	1/16W 1.5K J	L714	VE-30001971	FERRITE	
R1441	VE-30012657	RESISTOR	1/16W 1K J	L715	VE-30001971	FERRITE	
R1443	VE-30026054	RESISTOR ARRAY	1/32W 47R J	L716	VE-30001971	FERRITE	
R1444	VE-30026054	RESISTOR ARRAY	1/32W 47R J	L717	VE-30001971	FERRITE	
R1447	VE-30012713	RESISTOR	1/16W 75R J	L718	VE-30024779	FERRITE	
R1448	VE-30012713	RESISTOR	1/16W 75R J	L719	VE-30024779	FERRITE	
R1449	VE-30012655	RESISTOR	1/16W 180R J	L721	VE-30024779	FERRITE	
R1450	VE-30012510	RESISTOR	1/16W 100R J	L722	VE-30024779	FERRITE	
R1452	VE-30012508	RESISTOR	1/16W 1.8K J	L723	VE-30001971	FERRITE	
R1456	VE-30012982	RESISTOR	1/16W 10R J	L724	VE-30013412	FERRITE	
R1463	VE-30014128	RESISTOR	1/16W 33R J	L725	VE-30013412	FERRITE	
R1465	VE-30014022	RESISTOR	1/16W 47R J	L726	VE-30001971	FERRITE	
R1466	VE-30014022	RESISTOR	1/16W 47R J	L729	VE-30001971	FERRITE	
R1467	VE-30016230	RESISTOR	1/16W 16K F	L736	VE-30018093	FIXED COIL	3.3uH J
R1468	VE-30020847	RESISTOR	1/16W 510K J	L739	VE-30017143	FIXED COIL	22uH J
R1470	VE-30012696	RESISTOR	1/16W 47K J	L740	VE-30020393	FERRITE	
R1600	VE-30012696	RESISTOR	1/16W 47K J	L741	VE-30020393	FERRITE	
R1601	VE-30012692	RESISTOR	1/16W 4.7K J	L742	VE-30020393	FERRITE	
R1602	VE-30012641	RESISTOR	1/16W 10K J	L744	VE-30020393	FERRITE	
R1603	VE-30012641	RESISTOR	1/16W 10K J	L745	VE-30020393	FERRITE	
R1604	VE-30012641	RESISTOR	1/16W 10K J	L746	VE-30020393	FERRITE	
R1630	VE-30012641	RESISTOR	1/16W 10K J	L748	VE-30020393	FERRITE	
R1631	VE-30012641	RESISTOR	1/16W 10K J	L749	VE-30020393	FERRITE	
R1632	VE-30012641	RESISTOR	1/16W 10K J	L800	VE-30001971	FERRITE	
R1649	VE-30014128	RESISTOR	1/16W 33R J	L801	VE-30020394	FERRITE	
R1650	VE-30014128	RESISTOR	1/16W 33R J	L802	VE-30020394	FERRITE	
R1651	VE-30026054	RESISTOR ARRAY	1/32W 47R J	L804	VE-30020394	FERRITE	
R1652	VE-30026054	RESISTOR ARRAY	1/32W 47R J	L900	VE-30002170	FERRITE CORE	
R1653	VE-30014128	RESISTOR	1/16W 33R J	L903	VE-30002170	FERRITE CORE	
R1657	VE-30014128	RESISTOR	1/16W 33R J	L906	VE-30001996	FIXED COIL	22uH K
R1658	VE-30014022	RESISTOR	1/16W 47R J	L907	VE-30002170	FERRITE CORE	
R1659	VE-30014022	RESISTOR	1/16W 47R J	L910	VE-30002002	FIXED COIL	47uH K
R1739	VE-30012641	RESISTOR	1/16W 10K J	L911	VE-30002170	FERRITE CORE	
R1740	VE-30026054	RESISTOR ARRAY	1/32W 47R J	L914	VE-30011450	FIXED COIL	22uH
R1741	VE-30026054	RESISTOR ARRAY	1/32W 47R J	L915	VE-30036233	FIXED COIL	47uH
R1742	VE-30026054	RESISTOR ARRAY	1/32W 47R J	L916	VE-30036233	FIXED COIL	47uH
R1743	VE-30026054	RESISTOR ARRAY	1/32W 47R J	L917	VE-30036233	FIXED COIL	47uH
R1744	VE-30026054	RESISTOR ARRAY	1/32W 47R J	L918	VE-30036233	FIXED COIL	47uH
R1745	VE-30026054	RESISTOR ARRAY	1/32W 47R J	L1007	VE-30013412	FERRITE	
R1746	VE-30026054	RESISTOR ARRAY	1/32W 47R J	L1008	VE-30013412	FERRITE	

△Ref No.	Part No.	Part Name	Description Local
L1009	VE-30013412	FERRITE	
L1010	VE-30013412	FERRITE	
L1011	VE-30013412	FERRITE	
L1012	VE-30013412	FERRITE	
L1013	VE-30013412	FERRITE	
L1014	VE-30013412	FERRITE	
L1015	VE-30013412	FERRITE	
L1016	VE-30013412	FERRITE	
L1017	VE-30013412	FERRITE	
L1102	VE-30017143	FIXED COIL	22uH J
L1103	VE-30017143	FIXED COIL	22uH J
L1106	VE-30001971	FERRITE	
L1107	VE-30000710	RESISTOR	1/10W 47R J
L1108	VE-30001971	FERRITE	
L1109	VE-30001971	FERRITE	
L1111	VE-30001971	FERRITE	
L1113	VE-30013412	FERRITE	
L1203	VE-30017143	FIXED COIL	22uH J
L1207	VE-30017143	FIXED COIL	22uH J
L1208	VE-30001968	FERRITE	
L1209	VE-30001968	FERRITE	
L1210	VE-30001968	FERRITE	
L1211	VE-30001968	FERRITE	
L1212	VE-30001968	FERRITE	
L1213	VE-30001968	FERRITE	
L1214	VE-30001968	FERRITE	
L1215	VE-30001968	FERRITE	
L1216	VE-30013412	FERRITE	
L1217	VE-30001968	FERRITE	
L1219	VE-30013412	FERRITE	
L1220	VE-30017143	FIXED COIL	22uH J
L1221	VE-30013412	FERRITE	
L1222	VE-30013412	FERRITE	
L1400	VE-30046606	FIXED COIL	
L1404	VE-30017143	FIXED COIL	22uH J
L1405	VE-30011011	FIXED COIL	22uH J
L1413	VE-30001971	FERRITE	
L1822	VE-30016659	COIL	1uH
L1823	VE-30017542	FIXED COIL	10uH J
L1824	VE-30017143	FIXED COIL	22uH J
L1825	VE-30018612	COIL	330nH
L1826	VE-30018612	COIL	330nH
L1827	VE-30016659	COIL	1uH
L1828	VE-30016659	COIL	1uH
△F900	VE-30035282	FUSE	5A/32VDC
JK700	VE-30032641	JACK	PC AUDIO IN
JK702	VE-30032636	JACK	EXT3-AUDIO IN(L)
JK703	VE-30032638	JACK	EXT3-Pr IN
JK704	VE-30032638	JACK	EXT3-AUDIO IN(R)
JK705	VE-30032233	JACK	EXT3-Y IN
JK706	VE-30032234	JACK	EXT3-Pb IN
JK901	VE-30027932	DC POWER SOCKET	DC 24V IN
PL101	VE-30033117	D SOCKET	D-SUB
PL700	VE-30018089	SOCET SCART	EXT-1
PL701	VE-30018089	SOCET SCART	EXT-2
PL1600	VE-30031603	SOCKET PCMCIA	
S145	VE-30041653	FERRITE	
S146	VE-30041653	FERRITE	
S147	VE-30041653	FERRITE	
S148	VE-30041653	FERRITE	
S149	VE-30041653	FERRITE	
S150	VE-30041653	FERRITE	
S151	VE-30041653	FERRITE	
S152	VE-30041653	FERRITE	
S153	VE-30041653	FERRITE	
S154	VE-30041653	FERRITE	
S700	VE-30001971	FERRITE	
S701	VE-30001971	FERRITE	
S1001	VE-30020394	FERRITE	
S1002	VE-30020394	FERRITE	
S1003	VE-30020394	FERRITE	
S1005	VE-30012982	RESISTOR	1/16W 10R J
S1006	VE-30020394	FERRITE	
S1007	VE-30020394	FERRITE	
TU500	VE-30020655	TUNER	
TU1400	VE-30039060	TUNER	
X100	VE-30017946	CLYSTAT	14.318MHz
X300	VE-30006662	CLYSTAT	6.000MHz
X400	VE-30008778	CLYSTAT	20.250MHz
X500	VE-30021113	CLYSTAT	4MHz
X700	VE-30001756	CLYSTAT	18.432MHz
X1100	VE-30007367	CLYSTAT	27MHz
X1400	VE-30033132	CLYSTAT	27MHz
Z500	VE-30001692	SAW FILTER	
Z501	VE-30012545	SAW FILTER	
Z1400	VE-30019359	SAW FILTER	

PACKING



PACKING PARTS LIST

△	Ref.No.	Part No.	Part Name	Description	Local
	1	VE-50087323	CARTON BOX		
	2	VE-20217803	CUSHION ASSEMBLY	3pcs in 1set	
	4	VE-30044649	REMOTE CONTROL UNIT	RM-C1897S	
△	5	VE-50087321	INST BOOK	English/Spanish	
△	6	VE-30002375	POWER CORD		
△	7	VE-30033122	AC ADAPTOR	DC24V 6A	
	8	-----	BATTERY	AA/R6 type(x2)	
	9	-----	WARRANTY CARD	VE-50087322	
	10	VE-20176416	CABLE HOLDER		
	11	VE-50018337	POLY BAG		