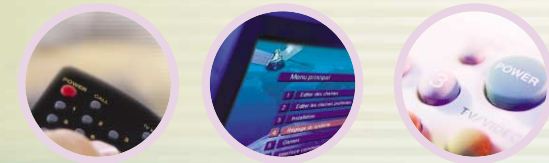
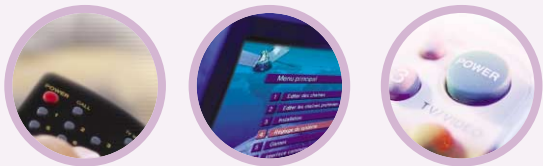


User's Manual

Free To Air
VS2000 **XTREME**



Digital Satellite Receiver

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Important Safety Instruction

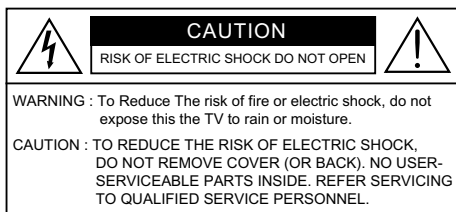
- 1) Read all of these instructions.
- 2) Save these instructions for later use.
- 3) Follow all warnings and instructions marked on the product.
- 4) Follow all instructions.
- 5) Do not use the apparatus near water.
- 6) Clean only with dry cloth.
- 7) Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
- 8) Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- 9) Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet. Consult an electrician for replacement of the obsolete outlet.
- 10) Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
- 11) Only use attachments/accessories specified by the manufacturer.
- 12) Do not place the apparatus on an unstable cart, stand or table. The apparatus may fall, causing serious damage to the apparatus.
- 13) Unplug this apparatus during lightning storms or when unused for long periods of time.
- 14) Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been moisture, does not operate normally, or has been dropped.
- 15) The apparatus shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on the apparatus.



Shock Hazard Marking and Associated Graphical Symbols



Explanation of Safety Related Symbols



This symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

WARNING : To Reduce The risk of fire or electric shock, do not expose this the apparatus to rain or moisture.

The main socket-outlet for connecting mains plug shall be accessibly close to this apparatus

Declaration of Conformity

FCC Rule : TESTED TO COMPLY WITH FCC PART 15, CLASS B OPERATING ENVIRONMENT : FOR HOME OR OFFICE USE.

FCC COMPLIANCE STATEMENT :

This device complies with part 15 of the FCC rules. Operation is subject to the following conditions :

- 1) This device may not cause harmful interference, and
- 2) This device must accept any interference received, including interference that may cause undesired operation.

INFORMATION TO USER:

This equipment has tested and found to comply with the limits of a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation, if this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

1. Reorient / Relocate the receiving antenna.
2. Increase the separation between the equipment and receiver.
3. Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
4. Consult the dealer or an experienced radio / TV technician for help.

CAUTION : Changes or modifications not expressly approved by manufacturer responsible for compliance could void the user's authority to operate the equipment.

1. SAFETY PRECAUTIONS

*This receiver has been manufactured to satisfy the international safety standards.
Please read the following recommended safety precautions carefully.*

MAIN SUPPLY : AC 95V~240V 50 / 60 Hz

LOCATION : Locate the receiver indoor.

Locate receiver away from potential hazards such as houseplants, lighting, raining and direct sunlight.

OVERLOADING : Do not overload wall outlets, extension cords or adapters as this can result in fire or electrical shock.

LIQUIDS : Keep liquids away from the receiver.

CLEANING : Before cleaning, disconnect the receiver from the wall socket.
Use a cloth lightly dampened with water (no solvents) to clean the exterior.

VENTILATION : Do not block the receiver ventilation holes. Ensure that free airflow is maintained around the receiver.

Never set the receiver on soft furnishings or carpets. Do not use or store the receiver where it is exposed to direct sunlight, or near heater.

Never stack other electronic equipment on top of the receiver.

Place the receiver at least 30mm from the wall.

ATTACHMENTS : Do not use any attachment that is not recommended by the manufacturer, as it may cause a hazard or damage the equipment.

CONNECTION TO THE SATELLITE DISH LNB : The LNB connector cable has a voltage in its center core. It is therefore recommended that the receiver is disconnected from the mains power before connecting or disconnecting this cable.

FAILURE TO DO SO COULD DAMAGE THE LNB.

SERVICING : Do not attempt to service this product yourself. Any attempt to do so will make the warranty invalid. Refer all servicing to a qualified service agent.

LIGHTNING : If the receiver is installed in an area subject to intense lighting activity, protection devices for the receiver mains connector and modem telephone line are essential. The individual manufacturer's instruction for safeguarding other equipment, such as TV set, Hi-Fi, etc., connected to the receiver, must also be followed during lightning storms.

GROUNDING : The ground of the LNB cable must be directly connected to the system ground for the satellite dish. The grounding system must comply with local regulations.

2. GENERAL FEATURES

- Fully MPEG-2 & DVB Compliant
- Input Frequency 950~2150MHz
- Supports EPG, PIG
- Supports SCPC & MCPC from C / Ku-band
- 1 LNB Input Tuner with Loop Through IF Signal
- Tuner Symbol Rate : 1~45MS/s
- Fast Booting & Auto Scan
- Quick Channel Changing
- Max. 4000 Channels(TV & Radio) Programmable
- User Friendly 256 Colors OSD & Easy GUI
- A lot of OSD Language supported
- Radio Channel Background Display
- Favorite Channel List Programmable
- Master PIN Code Function & Parental Lock Function
- 100 Steps Volume Control
- Automatic Detection of Forward Error Correction
- Window based S/W Download Program Supported by RS232 Serial Port
- Set to Set Download (Main Program, Channel Data)
- 4:3, 16:9 Letter Box
- Support Closed Caption
- 7 Segment-4 Digit Display
- 5 Keys on the Front Panel (Power On/Off, Channel Up/Down, Volume Up/Down)
- Various LNB Polarity Control
 - 22KHz Switching Control
- 6 RCA Output for Video, Audio L/R, Component
- S/PDIF Output for Digital Audio
- S-VIDEO Output
- RF-Modulator Output
- Zoom function
- Multi Picture
- Blind Scan
- USALS

3. HOW TO CONNECT YOUR RECEIVER

Please DO NOT plug in the main power supply cord until you have finished all the connections.

1) LOCATION OF THE RECEIVER

Your receiver should be placed under proper ventilation. Don't put in completely enclosed cabinet that will restrict the flow of air, Resulting overheating. The location should be safeguarded from direct sunlight, excess moisture, rough handling or household pets. Avoid stacking other electronic components on the top of the receiver. The location should be safely accessible by the cable from your antenna system.

2) CONNECTING THE RECEIVER WITH DISH SYSTEM

After installing your dish system, connect the coaxial cable from LNB of your dish antenna to "LNB IN" terminal marked at the rear of the receiver. All cable connectors should be finger tightened ; do not use any kind of wrench on the cable over connectors. The cable should be 75Ω impedance coaxial twisted at the end with a "F" type connector.

3) CONNECTING THE RECEIVER TO TV

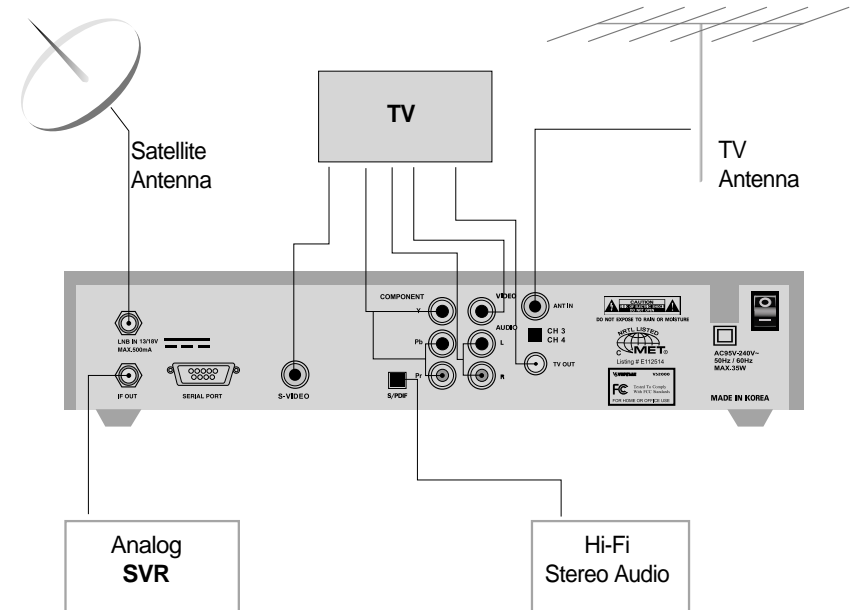
To connect the receiver with your television, you can follow three method ; through RF cable, RCA cable, COMPONENT cable and S-Video cable. Connect the RF cable to the terminal marked "TV OUT" at the rear panel of the receiver and its other end to the TV RF input socket.

4) CONNECTING EXTERNAL AUDIO HI-FI SYSTEM

To connect any external Audio Hi-Fi system, the receiver has been provided with S/PDIF connector at the back of the receiver.

5) CONNECTING YOUR ANALOG RECEIVER

To facilitate the user using analog receiver to view analog channels, the receiver has been provided with a loop through terminal marked as "IF OUT" . Connect the coaxial cable from this terminal to the IF input terminal of your analog receiver. Now by keeping the receiver in standby, you will be able to tune and view analog channels from your analog receiver.



4. HARDWARE DESCRIPTION

4. A. FRONT PANEL



POWER

1) **POWER** : This key is used to turn the receiver on and off (stand by).



CH

2) **CH** : These keys are used to change the channels.



VOL

3) **VOL** : These keys are used to increase and decrease the volume level manually.



INFRARED SENSOR

4) **INFRARED SENSOR** : This is to receive the IR commands from the RCU. Do not block the view of the sensor.



7 SEGMENT DISPLAY

5) **7 SEGMENT DISPLAY** : This SEGMENT display will show the current channel number. While the receiver is in stand by mode, the display will show the current time.



SMART CARD INTERFACE SLOTS

6) **SMART CARD INTERFACE SLOTS** : To watch scrambled channels you should insert a smart card into Smart Card Interface issued the service provider whom you subscribes to. Therefore you can watch only a specific range of channels with entitlements in smart card. The smart card includes information to decipher parameters necessary for descrambling the program. Please note that the gold chip on the smart card should face down and inward when you insert when you insert it into Smart Card Interface.

4. B. REAR PANEL

1) **LNB IN** : This port is to connect the coaxial cable from LNB of your Dish. The IF input is provided through this port and the input frequency range is 950~2150MHz. Also the voltage switching 13V and 18V is passed through this port.

2) **IF OUT** : To enable the connection of an analog receiver. The receiver is provided with this port. Connect this port to LNB IN port of the other receiver via RF Cable.

3) **SERIAL PORT** : This is used to connect your receiver with computer through a serial cable. This port can be used for upgrading software.

4) **S/PDIF DIGITAL OUTPUT** : This port is for the connection to the external Hifi system which has a optical S/PDIF input interface.

5) **VIDEO, AUDIO R/L, COMPONENT (Y, Pb, Pr)** : These RCA connectors are used to connect any external video and audio.

6) **ANT IN** : This is used to connect your local RF channels to your TV through Loop.

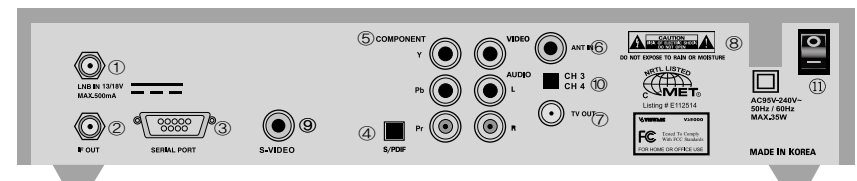
7) **TV OUT** : This is used to connect your TV through RF cable.

8) **POWER INPUT** : This is to plug in the AC main power cord. The input AC volts range is 95V~240V, 50/60Hz supply.

9) **S-VIDEO** : This is used to connect your TV through S-Video Cable.

10) **CH 3,4** : The switch select RF 3,4 channel number.

11) **POWER SWITCH** : This is swith to turn on and off the AC main power.



4. C. REMOTE CONTROL UNIT

- 1) **POWER** : This is used to switch the receiver to ON/STANDBY mode.
- 2) **MUTE** : This key is used to toggle between normal and muted audio.
- 3) **0-9 NUMERIC KEYS** : These keys are used to enter numeric values and to select the channel directly by entering its number.
- 4) **CH ▲ · CH ▼** : These keys are used to change channels and to browse the menu.
- 5) **VOL ► · VOL ◀** : These keys are used to vary the volume level and to change the cursor options in the menu.
- 6) **MENU** : This key is used to open up the menu.
- 7) **EXIT** : This key is used to exit from any menus.
- 8) **OK** : This key is used to enter and confirm any data to the receiver in the menu systems.
The Channel list can be accessed directly by pressing this Key in the normal view mode.
- 9) **Page Up** : This key is used to page up the menu.
- 10) **Page Down** : This key is used to page down the menu.
- 11) **FAV** : This key is used to switch between favorite lists.
- 12) **GUIDE** : This key is used to open up the Electronic Program Guide.
- 13) **i** : This key is used to view the channel information.
- 14) **📺/📻** : This key is used to toggle between the TV channel and the radio channel.

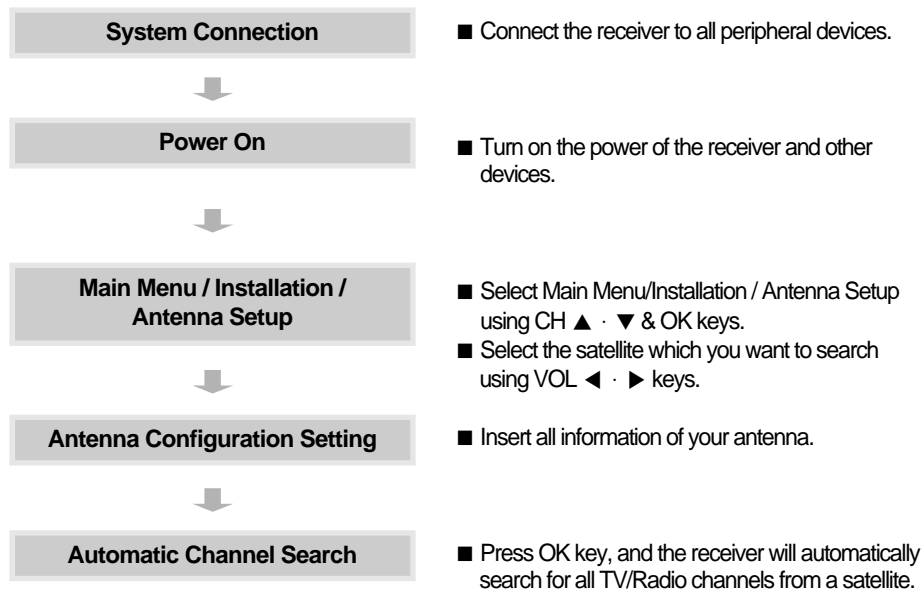
- 15) **LAST** : This key is used to return to the previous channel.
- 16) **AUDIO** : This key is used to select the soundtrack list for the current service and also used to select audio mode.
- 17) **PAUSE** : This key is used to pause the screen.
- 18) **SAT** : This key is used to select the satellite.
- 19) **F1, F2, F3, F4** : Function Keys.
- 20) **HELP** : This key is for Help.



5. SYSTEM SET-UP

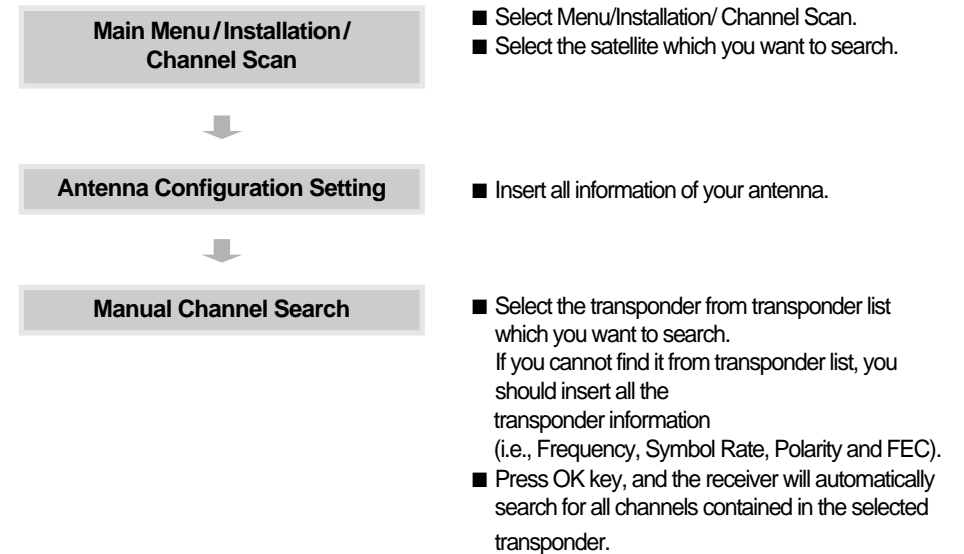
5.A. Automatic channel search for a satellite

You can automatically detect and save all TV and Radio channels of a satellite as follows :



5. B. Manual channel search for a transponder

You can automatically search and save all TV and Radio channels of a transponder as follows :



6. MENU OPERATION

The main menu is classified into five sub menus which will carry out the various operation individually.

1. MAIN MENU

After installing your dish system and receiver with appropriate connectors, plug in the AC main power and turn on the receiver.



Press the MENU key of the RCU. You will see the "Main Menu" on the TV screen as follow.

You can move into the desired submenu using the "up/down" keys (▲ · ▼) or numeric keys.

Press "OK" key to confirm your selection. If the "Main Menu" is locked, note that you should enter the PIN code in order to move into the corresponding submenu in case of "Edit Channels" menu, "Edit Favorites" menu and "Installation" menu.

The default factory PIN code is "0000".

Press the "menu" key or "exit" key to return to previous menu.

2. EDIT CHANNELS



You can edit channels on various channel lists - channel lock, delete channel, move channel, edit the name of a channel, and sort the channel list.

Select "Edit Channels" menu in main menu, and you will be asked to enter your PIN code. You can find the following "Edit Channels" screen by entering it.

1. A. CHANNEL LOCK

Select the "Channel Lock" icon using the left/right keys (◀ · ▶). Select the channel that you want to lock or unlock from the channel list using the "up/down" keys (▲ · ▼) and the "page up/down"

keys (▲ · ▼). Press the "OK" key to confirm your selection.

Also, you can use the "↔" key to select either TV channel list or Radio channel list.

Once the channel is locked, every time you try to watch the program, you will be asked to enter PIN code. Press the "menu" key or "exit" key to return to previous menu.

2. B. DELETE CHANNEL

Select the "Delete Channel" icon using the "left/right" keys (◀ · ▶). Select the channel that you want to delete from the channel list using the "up/down" keys (▲ · ▼) and the "page up/down" keys (▲ · ▼). Press the "OK" key to confirm your selection. Also, you can use the "↔" key to select either TV channel list or Radio channel list.

Press the "menu" key or "exit" key to return to previous menu.

2. C. MOVE CHANNEL

Select the "Move Channel" icon using the "left/right" keys (◀ · ▶). Select the channel that you want to move from the channel list using the "up/down" keys (▲ · ▼) and the "page up/down" keys (▲ · ▼). Press "OK" key to confirm your selection.

Move it to the position where you want to place it using the "up/down" keys (▲ · ▼) and the "page up/down" keys (▲ · ▼). Press the "OK" key to confirm. Also, you can use the "↔" key to select either TV channel list or Radio channel list.

Press the "menu" key or "exit" key to return to previous menu.

2. D. EDIT CHANNEL NAME

Select the "Edit Channel Name" icon using the "left/right" keys (◀ · ▶). Select the channel that you want to edit from the channel list using the "up/down" keys (▲ · ▼) and the "page up/down" keys (▲ · ▼). Press "OK" key to confirm your selection.

Select the character which you want to edit using the browse keys (▲ · ▼, ◀ · ▶). Press "OK" key to confirm. Save the character currently selected using the "F2" key. Also, you can use the "↔" key to select either TV channel list or Radio channel list. Press the "menu" key or "exit" key to return to previous menu.

2. E. SORT CHANNEL LIST

Select the "Sort Channel List" icon using the "left/right" keys (◀ · ▶). Press "OK" key to confirm. Select the sort type which you want to sort using the "up/down" keys (▲ · ▼). Press the "OK" key to confirm. Also, you can use the "↔" key to select either TV channel list or Radio channel list. Press the "menu" key or "exit" key to return to previous menu.

3. EDIT FAVORITES

You can edit the favorite channel list, such as add/delete a channel or move its position, which facilitates you to easily find your favorite channel from the favorite channel list.

The favorite channel is classified into one of 8 favorite categories depending on its genre.

Select "Edit Favorite" menu in main menu, and you will be asked to enter your PIN code.

You can find the following "Edit Favorite" screen by entering it.

3. A. ADD FAVORITE CHANNEL

You can choose TV channel list or Radio channel list in an alternative way by pressing the " " key on the RCU.



By pressing "FAV" key on the RCU, you can choose your favorite channel group out of 8 favorite groups. Select the "Add Channel" icon using the "left/right" keys(◀ · ▶). Select a channel that you want to add into the favorite channel list using the "up/down" keys(▲ · ▼) and the "page up/down" keys(▲ · ▼). Press the "OK" key, and the selected channel will be added to the favorite channel list. Press the "menu" key or "exit" key to return to previous menu.

3. B. DELETE FAVORITE CHANNEL

You can choose TV channel list or Radio channel list in an alternative way by pressing the " " key on the RCU.

By pressing "FAV" key on the RCU, you can choose your favorite channel group out of 8 favorite groups.

Select the "Delete Channel" icon using the "left/right" keys(◀ · ▶).

Select a channel that you want to delete from the favorite channel list using the "up/down" keys(▲ · ▼) and the "page up/down" keys(▲ · ▼). Press the "OK" key, and the selected channel will disappear from the favorite channel list.

Press the "menu" key or "exit" key to return to previous menu.

3. C. MOVE FAVORITE CHANNEL

You can choose TV channel list or Radio channel list in an alternative way by pressing the " " key on the RCU.

By pressing "FAV" key on the RCU, you can choose your favorite channel group out of 8 favorite groups.

Select the "Move Channel" icon using the "left/right" keys(◀ · ▶).

Select a channel that you want to move using the "up/down" keys(▲ · ▼) and the "page up/down" keys(▲ · ▼). Press "OK" key to confirm your selection. Move it to the position where you want to place it using the "up/down" keys(▲ · ▼) and the "page up/down" keys(▲ · ▼).

Press the "OK" key to confirm.

Press the "menu" key or "exit" key to return to previous menu.

3. D. RENAME FAVORITE GROUP

You can choose TV channel list or Radio channel list in an alternative way by pressing the " " key on the RCU.

By pressing "FAV" key on the RCU, you can choose your favorite channel group out of 8 favorite groups.

Select the "Rename Favorite Group" icon using the "left/right" keys(◀ · ▶).

Press the "OK" key and select the character which you want to edit using the browse keys(◀ · ▶, ▲ · ▼).

Press the "OK" key to confirm.

Save the character currently renamed using the "F2" key.

Press the "menu" key or "exit" key to return to previous menu.

3. E. SORT CHANNEL LIST.

You can choose TV Channel list or Radio channel list in an alternative way by pressing the " " key on the RCU.

By pressing "FAV" key on the RCU, you can choose your favorite channel group out of 8 favorite groups.

Select the "Sort Favorite List" icon using the "left/right" keys(◀ · ▶). Press "OK" key to confirm.

Select the sort type which you want to sort using the "up/down" keys(▲ · ▼).

Press the "OK" key to confirm.

Press the "menu" key or "exit" key to return to previous menu.



4. INSTALLATION

"Installation" menu helps you to setup a variety of parameters necessary for receiving signal, add new service, upgrade the new software and reset the channel data.

Select "Installation" menu in main menu, and you will be asked to enter your PIN code.

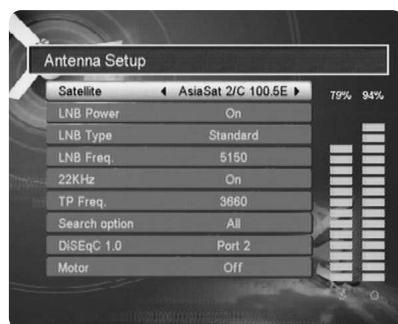
You can find the following "Installation" screen by entering it.

4.A. ANTENNA SETUP

Your receiver includes the preprogrammed information of transponders contained in various satellites.

You can update the transponder list preprogrammed for a satellite by adding a new transponder to it or modifying the information of the existing transponder. (Refer to the Channel Scan described in section 4.B) Select "Antenna Setup" menu in "Installation" menu and the following screen will be displayed.

Select the desired satellite using the "left/right" keys (◀ ▶). Set "LNB Power", "LNB Type", "LNB Freq", "22KHz", "Search Option", and "DiSEqC 1.0" fields to the appropriate value using the left/right keys (◀ ▶) at each field.



LNB Power

: Depending on the user's antenna LNB, you can supply either LNB power by setting "ON" or not by setting "OFF". Normally set this to "ON".

LNB Type

: You can select the LNB type.

LNB Freq.

: You can select the predefined LNB frequency or manually enter a specific frequency in MHz unit by pressing numeric keys.

22KHz

: In case you are using two antennas connected to a 22KHz tone switch box, you can supply either 22KHz by setting "ON" or off by setting "OFF" to select antenna.

Search option

: You can search all the free channels & scramble channels or only free channels or only scramble channels by setting the search option.

DiSEqC 1.0

: If you have DiSEqC box, you can choose port by selecting port number. Otherwise, choose "none".

Motor

: If you have a DiSEqC 1.2 motorised system, then you can take advantage of the DiSEqC 1.2 functions available. Choose Installer as Motor and press "F1" key. After that, adjust antenna direction using browse keys.

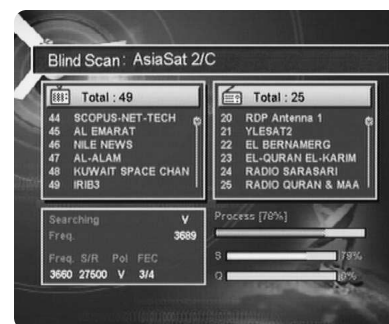
4. A. 1 Automatic Scan

Check the signal strength. Press "OK" key to start the scan procedure. You can see the progressive status of channel searching.

Please note that the scan procedure may take a few minutes.

Press the "menu" key or "exit" key to return to previous menu.

4. A. 2 Blind Scan



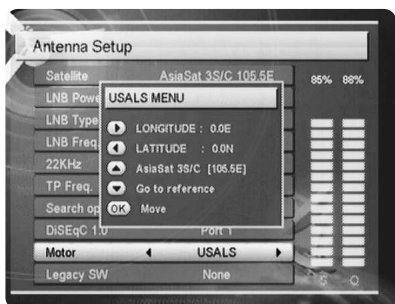
Blind Scan search the channel when you don't know the transponder information.

Press the F2 key to start the blind scan procedure and the following screen will be displayed.

Please note that the scan procedure may take a few minutes.

Press the "menu" key or "exit" key to return to previous menu.

4. A. 3 USALS



- Please go to Antenna Setup and select USALS from motor.
- Press F1 then Pop-up will be appeared.
- Press arrow button to write Longitude
- Press arrow button to write Latitude, then OK to work.

4. B. CHANNEL SCAN

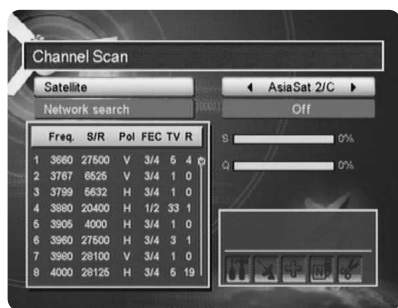
It will be more convenient to use "Channel Scan" procedure when you want to search channel for a specified transponder offered from the satellite. As in "Antenna Setup", "Channel Scan" also searches all channels broadcasted over a specific transponder using its predefined information. You can add a new transponder if you cannot find it on the predefined transponder list.

Select "Channel Scan" menu in "Installation" menu, and the following screen will be displayed.

4. B. 1 Channel Scan

Select the desired satellite using the "left/right" keys (◀ · ▶).

Select the "Antenna Configuration" icon using the browse keys (▲ · ▼, ◀ · ▶).



Press "OK" key, and set "LNB Power", "LNB Type", "LNB Freq", "22KHz", "Search Option", and "DiSEqC 1.0" fields to the appropriate value using the "left/right" keys (◀ · ▶) at each field. Check the signal strength and press "Exit" key.

Select the "Search/Edit TP" icon using the "left/right" keys (◀ · ▶). Press "OK" key, and select the desired transponder using the "up/down" keys (▲ · ▼). Press "OK" key to start the manual searching for selected transponder.

You can see the progressive status of channel searching.

If you cannot find the desired transponder from the transponder list, you can add it by inputting appropriate parameter values for a new transponder using the "F1" key. When you want to change the parameter of an existent transponder, select the parameter using the "F1" key, change its value and press the "Exit" Key. Correctly set various parameters.

Freq.	: Input the frequency of the transponder you want to find manually.
S/R	: Inputs the symbol rate of the transponder you want to find.
Pol.	: Select the polarization of the transponder you want to find. In the case of horizontal, 18V and in the case vertical, 13V are output through LNB line.
FEC	: Select the FEC of the transponder you want to find. You can select the value of 1/2, 2/3, 3/4, 5/6, 7/8 or auto.

4. B. 2 ADD SATELLITE

You can add a new satellite. Select the "Add Satellite" icon using the "left/right" keys (◀ · ▶), and press the "OK" key.

Select the "Search/Edit TP" icon using the "left/right" keys (◀ · ▶). Press the "OK" key and add a new transponder using the "F1" key. You should set various parameters of the transponder.

The default name of the added satellites is "UserSAT-No."

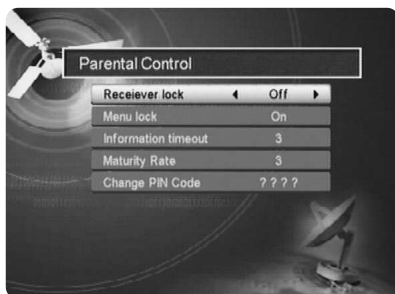
4. B. 3 RENAME SATELLITE

You can also change the satellite name. Select the "Rename Satellite" icon using the "left/right" keys (◀ · ▶).

Press "OK" key and select the character which you want to edit using the browse keys (▲ · ▼, ◀ · ▶). Press the "OK" key to confirm. Save the character currently renamed using the "F2" key.

4. B. 4 DELETE SATELLITE

You can also delete the user satellite. Select the satellite that you want to delete from the satellite list. Select the "Delete Satellite" icon using the browse keys (▲ · ▼, ◀ · ▶). Press the "OK" key, and the selected satellite will disappear.



4. C. PARENT CONTROL

This function prevents children or unauthorized persons from watching programs. Also you can change PIN(Personal Identification Number) code. Select "Parental Control" menu in "Installation" menu, and the following screen will be displayed.

4.C.1 Receiver Lock

To lock receiver, select "Receiver Lock" in the "Parental Control" menu and change it to "On" mode using the "left/right" keys (◀ · ▶).

4.C.2 Menu Lock

To lock the Main Menu, select "Menu Lock" in the "Parental Control" menu and change it to "On" mode using the "left/right" keys (◀ · ▶).

4.C.3 Change PIN Code

You can change your PIN code from factory default value "0000" as follow: Select "Change PIN Code" in the "Parental Control" menu using the "left/right" keys(◀ · ▶).

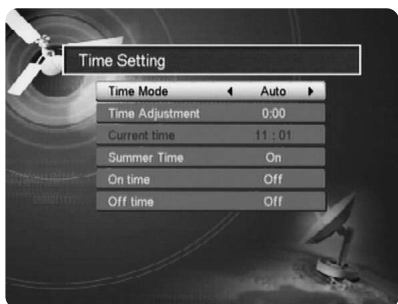
Press "OK" key. Then you will be asked for a new PIN code.

Once you enter a new PIN code, the receiver will ask you to enter it in again.

After you enter a new PIN code twice, the PIN code is changed permanently.

If you forget the PIN code, you have to contact the distributor to find out it.

4. D. TIME SETTING



You can change the time of your receiver and also switch on/off the timer function in this menu.

Select "Time Settings" item in the "Receiver Settings" menu and the following screen will be displayed.

Time Mode	: Select the time mode of your receiver. In Auto mode, your receiver will use the information from the satellite as time reference. In manual mode, you can set the time of your receiver manually.
Time Adjustment	: Set the time offset from the UTC (GMT). Useful in auto mode only.
Current time	: Set the current time manually. Useful in manual mode only.
Summer Time	: Enable or disable the Summer Time. Most European countries use the Summer Time. Useful in auto mode only.
On time	: Set the time when the receiver will be automatically turned on
Off time	: Set the time when the receiver will be automatically turned off.

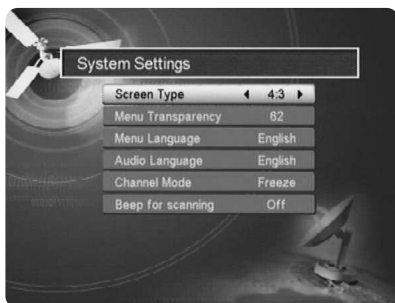


4. E. RECEIVER UPGRADE

You can upgrade the software of this receiver through serial port when the new software is released. Please contact the distributor for receiver upgrade. Distributor supports you useful information and new software for the receiver.

4. F. FACTORY DEFAULT

This is to restore the factory set values in case the user has encountered some problems after changing any new values of channel data and others which may be in error. Select "Factory Default" menu in "Installation" menu and press "OK" key. If you want to continue, select option "Yes". The receiver will be reset to settings automatically. Please note that the "Factory Default" procedure may take a few minutes.



5. SYSTEM SETTINGS

This menu helps you to Set up video output mode, language, screen type and Select "System Settings" menu in main menu

Screen Type	: You can choose either 4:3 or 16:9 according to the TV type.
Menu Transparency	: You can select the transparency of the menu.
Menu Language	: You can select the menu language.
Audio Language	: You can select the audio language.
Channel Mode	: You can select the channel mode when channel is changed.
Beep for scanning	: If this is "on" , receiver will beep out the signal status.

Press the "menu" key or "exit" key to return to previous menu.

6. GAMES



This menu helps you play game called Tetris. In this game you can choose level from 1 to 9. Once you choose game menu from main menu, you can choose OK to start a game.

7. CHANNEL LIST

This menu helps you to easily select the channel that you want to watch.



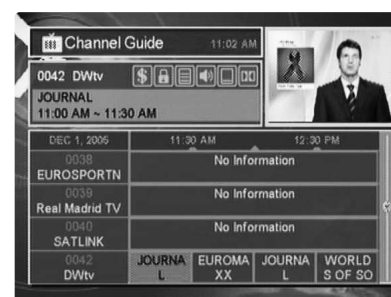
The channel list is separately constructed for each satellite. Press "OK" key, and the following screen will be displayed. You can get the information of channel number, channel name, and whether the program is scrambled or locked.

To watch a specific channel, first select it by pressing the "up/down" keys (▲, ▼) and the "page up/down" keys (⬆, ⬇). Then, press "OK" key. This enables you to move into that specific channel.

You can also select a specific satellite using the "SAT" key. When you press the "SAT" key, you can alternatively select TV or radio channel list. When you press Press the "menu" key or "exit" key to return to previous menu.

8. CHANNEL GUIDE

Press "GUIDE" key, and the following screen will be displayed. It will give the titles of the current and next programmes on different channels.

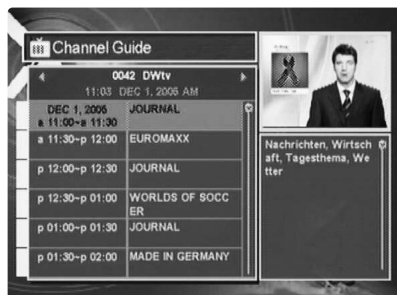


The information may include : current time / channel name, name of the current and next programme, the start and total time of the current programme, the start and total time of the next programme.

Programme information will be available only when it is included in the transmission.

When you press the "SAT" key, you can alternatively select TV or radio channel guide.

Press the "menu" key or "exit" key to return to previous menu.



When you press "GUIDE" key again, Daily Guide will be displayed. You can see all events for selected channel.

9. AUDIO

Press "AUDIO" key.

Select the audio mode which you want using the "left / right" keys (◀, ▶).

Some programs are broadcasted with one or more alternative language soundtracks.

You can select the preferred audio language for soundtrack using the "up/down" keys (▲, ▼).

10. ZOOM FUNCTION



On the live TV screen or paused TV screen, you can magnify some region of TV screen. Press "F4" key and the ZOOM box will be display.

You can use following keys.

- Up/Down/Left/Right keys (▲, ▼, ◀, ▶): Move the ZOOM box
- Page Up/Page Down keys (▲, ▼): Increase or decrease the ZOOM box
- OK key (OK): Watch the ZOOM box to full screen or return to ZOOM box
- Exit key (EXIT): Return to the live screen

11. MULTI PICTURE



You can use the Multi-picture Function using F1 key. You can watch four, six or nine pictures at the same time using this function. And select the number of pictures using (▲, ▼) keys and press OK. After that, you can see the Multi-Picture Screen. Also you can select the channel using (◀, ▶, ▲, ▼) keys and OK key in the Multi-picture Screen. The channel of your selection is only live signal when you selected one channel of the several channels. The channels of which is not selected are just the pictures.



4 Picture

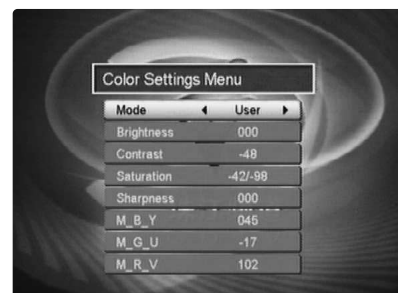


6 Picture



9 Picture

12. COLOR SETTING MENU



You can adjust the color setting to take the enhanced TV screen. Press "F2" key then below screen will display.

7. TROUBLE SHOOTING

Mode	: You can select this to "Default" or "User" When "Mode" is "User", you can change each color value.
Brightness Contrast Saturation Sharpness	: If your receiver connected to TV by using "VIDEO" or "S-VIDEO" Connector, these items will change the color setting of TV screen.
M_B_Y M_G_U M_R_V	: If your receiver connected to TV by using "Component cable" ("Y-Pb-Pr"), these three items will change the color setting of TV screen.

Problem	Solution
About the Receiver	
Does not display LED on the front panel or the receiver has no power.	<ul style="list-style-type: none"> - Connect the power cord to the power outlet properly. - Check if the receiver is in standby mode.
No pictures on the screen	<ul style="list-style-type: none"> - Check if the video output port is firmly connected to the Tv. - Check if you have selected the correct channel or video output on your TV.
No sound	<ul style="list-style-type: none"> - Connect the audio cords properly. - Check the volume level of the TV. - Press "MUTE" key.
Remote Control does not operate	<ul style="list-style-type: none"> - Point remote control directly towards the receiver. - Check and replace batteries.
Poor picture quality	<ul style="list-style-type: none"> - Check the signal strength in the "Antenna Setup" menu. - If this is low, try adjusting the alignment of your dish.
On - Screen Error Messages	
Searching Signal	<ul style="list-style-type: none"> - Connect the antenna cable properly. - Check the LNB. Please replace LNB if necessary. - Check the position of the dish. Please realign dish if necessary. - Check the signal strength in the "Antenna Setup" menu.
Unrecognized smartcard	<ul style="list-style-type: none"> - Check the smartcard.
Please insert your smartcard	<ul style="list-style-type: none"> - Insert the smartcard.

8. TECHNICAL SPECIFICATIONS

1. Power Supply

Type	: SMPS
Input Voltage	: AC 95V~240v 50Hz / 60Hz
Fuse Rating	: 250V/T2A

2. Tuner

Input Frequency	: 950~2150MHz
Input Signal Level	: -65~-25dBm
Input Impedance	: 75Ω Unbalanced
Connector Type	: 'F' Type Female
LNB Power Supply	: 13V/18V, Max 500mA with Short Circuit Protection
22KHz Tone	: Frequency 22± 4KHz, Amplitude 0.6±0.2Vpp
DiSEqC	: 1.0 & 1.2 Version Compatible
Channel Selection	: PLL Frequency Synthesizer

3. Demodulator

Type	: QPSK Demodulation(DVB-S)
Symbol Rate	: 1~45 MS/s
Inner FEC	: Viterbi Convolutional Coding Rate 1/2, 2/3, 3/4, 5/6, 7/8
Outer FEC	: Reed Solomon Coding(204,188) T=8

4. Video Decoder

System Decoding	: MPEG-2 ISO/IEC 13818-2
Profile and Level	: MPEG-2 MP@ML
Data Rate	: 1~15 MB/s
Video Formats	: 4:3(Normal) & 16:9(Widescreen)

5. Audio Decoder

System Decoding	: MPEG-1 ISO/IEC 11172-3 Layer I & II
Audio Mode	: Mono, Dual, Stereo, Joint Stereo
Sampling Frequency	: 32, 44.1, 48 KHz

6. Audio/Video Output

Audio Output	: 2 ×RCA Cinch
Video Output	: 1 ×RCA Cinch
Digital Audio	: 1 ×S/PDIF(Optical)
S-Video	: 1 ×S-VIDEO
COMPONENT	: 3 ×RCA Cinch

7. RF Modulator

Modulator Output	: CH3~4
Video Type	: NTSC
Output Connector	: "F" Type Female
Ant. IN Connector	: "F" Type Female

8. Serial Data Interface

Signal	: RS-232, Max. 115200 bps
Connector Type	: 9 Pin D-Sub(male)

9. Embedded Descramble

X Crypt Conditional Access System

Programing The Remote Control

There are two ways to program the remote control ; Automatic Code Search or Direct Entry

Using Automatic Code Search

1. Turn on the component you want to control (**TV, VCR** or **DVD**)
2. Press and hold the component key you want to program. Holding the component key until the LED on the remote control turns on, then release the key.
3. Point the remote at the component, press and release the **UP (▲)** button, then wait three seconds or until the LED stops flashing.

At this point the remote control is searching for the correct code to program. If, after three seconds, the component you want to control does not turn off, press and release **UP (▲)** button again to tell the remote to search the next set of codes.

Continue pressing and releasing **UP (▲)** button until the component turns off.

4. If the component you want to control *does* turn off ;
Press and release **OK** button , then the LED blinks three times.

Using Direct Entry Method

1. Turn on the component you want to control (**TV, VCR** or **DVD**)
2. Locate the enclosed Code List. Find your brand of the component you want to control.
3. Press and hold the component key you want to program. Holding the component key until the LED on the remote control turns on, then release the key.
4. Enter 3-digit code from the code list, then the LED blinks three times.
5. If you get no response, repeat these steps using the next code listed for your brand until the component responds to the remote control command.

Changing Volume Lock

Locking the volume controls to a single device makes it easier to control volume, without having to guess whether the volume will change. If you lock the remote's volume controls to the TV (for example) , you will always be able to change the volume to the level you want, without having to adjust it on multiple devices.

If you want to lock the volume for the DVD component ;

1. Press and hold the DVD component key until the LED on the remote control turns on.
2. Enter 3-digit code, **9 9 9**.
3. Press and release the DVD component key, then the LED blinks three times.

Unlocking volume control ;

If you want to unlock the volume for the DVD component ;

1. Press and hold the DVD component key until the LED on the remote control turns on.
2. Enter 3-digit code, **9 9 9**.
3. Press and release the DVD component key, then the LED blinks three times.

Brand List for TV

A Mark	151
Abex	130
Admiral	013 131 166
Aiko	009
Akai	014
Alleron	056
Amtron	030
Anam National	015 030
AOC	016 017 018 019 140 141 169
Apex	181
Audiovox	030
Belcor	016
Bell & Howell	013 042 058
Broksonic	016 182
Brokwood	016
Candle	016
Carver	012
Celebrity	014
Citizen	009 010 016 018 030 042 096 139 173
Colortyme	011 016 018
Concerto	016
Contec / Cony	005 006 007 030
Coronado	151
Craig	030
Crosley	012
Crown	030
Curtis Mathes	008 012 016 018 042 045 058 096 139 172 173
Daewoo	000 001 009 016 017 018 116 139 151 167
Daytron	016 018 139
Dimensia	045
Dumont	016 125
Dynatech	016
Electroband	014
Electrohome	002 003 014 015 016 018
Emerson	004 005 016 018 020 021 022 023 024 025 026 027 028 029 030 031 032 033 034 035 036 037 038 039 042 056 058 114 139 142 143 151 167 178
Envision	016 018
Fisher	042 057 058 059 144
Fujitsu	056
Funai	030 056
GE	003 015 016 018 045 060 061 062 078 132 147 148 149 174
Gilbralter	016
Grundty	056
Hallmark	016 018
Hitachi	005 006 007 016 018 067 068 069 100 101 102 103 104 105 106 107 108 109 119 123 124 143 151 161 171 179
Infinity	012
JBL	012

JC Penney	003 006 010 016 017 018 041 045 055 060 061 064 078 095 096 117 130 132 139
Jensen	016 018
JVC	005 006 007 046 047 048 061 068 128 129 133 158 178
Kawasho	014 016 018
KEC	151
Kenwood	002 016 018
Kloss Novabeam	030 049 065
KMC	151
KTV	030 066 139 142
LG(Goldstar)	002 005 016 017 018 055 063 064 120 127 130 139 151
Logik	013
Luxman	016 018
LXI	012 018 040 041 042 045 058 132
Magnavox	002 010 012 016 018 043 044 049 050 065 079 110 111 112 151
Majestic	013
Marantz	012 016 018 051 067
Megatron	018 067
Memorex	013 017 018 042 056 058
MGA	002 003 016 017 018 052 053 059
Midland	130
Mitsubishi	002 003 016 017 018 052 053 054 059 115
Montgomery Ward	013
Motorola	015 131
MTC	016 017 018 096
Multitech	030
Multivision	076
NAD	018 040 041 134 171
NEC	011 015 016 017 018
Nikko	009 018
Onwa	030
Optimus	134 171
Optonica	075 131
Orion	032 168
Panasonic	015 061 138 152 175 002 005 010 012 015 016 017 018 043 049 050 065 151
Philco	002 005 010 012 015 016 043 049 065 070 077 078 079 151
Pilot	016
Pioneer	016 018 071 072 134 143 171
Portland	009 016 017 018 139 151
Price Club	096
Prism	061
Proscan	045 132
Proton	005 016 018 073
Pulsar	016
Quasar	015 061 066 074 175
Radio Shack	042 058

Radio Shack / Realistic	005 016 018 030 042 045 058 075 130 139
RCA	002 015 016 017 018 019 045 090 091 092 093 094 099 118 132 135 136 143 153 162 167 172 176 180
Realistic	042 058
Runco	125
Sampo	016 018 130 139
Samsung	000 002 005 008 016 017 018 095 096 097 130 139 151 163
Sansui	168
Sanyo	016 042 053 057 058 085 098 137 144
Scott	005 016 018 021 030 032 056
Sears	002 006 007 012 016 018 040 041 042 045 047 056 057 058 059 086 087 132 144 151 160
Sharp	005 016 018 023 026 075 080 088 089 113 131 139 151
Shogun	016
Signature	013
Sony	014 150 157 159 164 170 177
Soundesign	010 016 018 030 056
SSS	016
Starlite	030
Sylvania	002 010 012 016 018 043 044 049 050 065 079 081 146
Symphonic	020 030 056 160
Tandy	131
Tashiko	041
Tatung	015
Technics	061
Techwood	016 018 061
Teknika	005 006 007 009 010 012 013 016 017 018 030 044 056 096 138 139 151 175
Telecaption	082
Tera	016
Thomson	154
TMK	016
Toshiba	040 041 042 058 082 083 086 096 145 146 155 156 183
Totevision	139
Universal	060 078
Vidikron	012
Vidtech	016
Wards	002 012 013 016 017 018 020 021 043 044 045 049 056 060 065 075 078 079 084 151
Yamaha	002 016 017 018
Zenith	013 016 121 122 125 126 165

Brand List for VCR

Admiral	031	046
Adventura	029	
Aiko	015	
Aiwa	029	
Akai	007	008 009 035 041
Allegro	030	
America Action	015	
American High	026	027
Anam	026	027
Asha	000	
Audiovox	017	
Beaumont	000	
Bell & Howell	004	
Broksonic	005	
Calix	017	
Candle	000	017
Canon	026	027
Capehart	034	
Carver	001	
CCE	015	021
Citizen	000	015 017 018 019 025 044
Colortyme	002	
Craig	000	017 021 028
Curtis Mathes	000	002 019 022 025 026 027 045
Cybernex	000	
Daewoo	015	018 029 034 044
Daytron	034	
Dimensia	022	045
Dynatech	029	
Electroponic	017	
Emerson	005	007 016 017 018 023 026 029 041
Fisher	004	013 014 028
Funai	029	
Garrard	029	
GE	000	006 022 026 027 045
Go Video	039	040
Gradiente	029	
Harley Davidson	029	
Harman Kardon	001	002
Harwood	021	
Hitachi	012	020 024 029 035
J. C. Penney	000	002 003 004 005 012 017 020 021 024 026 027
Jensen	020	024 035
JVC	002	003 004 025 033 035 042
Kenwood	002	003 004 019 025 035 042
KLH	021	
Kodak	017	026
LG(GoldStar)	002	017 025
Lloyd's	029	
Logik	021	
LXI	017	
Magnavox	001	011 026 027
Magnin	000	
Marantz	001	002 003 004 019 025 026
Marta	017	
Matsushita	026	
Memorex	000	004 011 017 026 028 029 031 046
MGA	016	023 041
MGN Technology	000	
Minolta	012	020 024
Mitsubishi	016	020 023 024 041 042
Montgomery Ward	031	046
Motorola	026	031 046
MTC	000	
Multitech	000	019 021 029
NEC	002	003 004 019 025 035 042
Nikko	017	
Noblex	000	
Olympus	026	
Optimus	017	031 046
Optinica	010	
Panasonic	026	027
Pentax	012	019 020 024 025
Pentax Research	026	027
Philco	001	010 026
Phillips	001	010 026
Pilot	017	
Pioneer	003	024 042
Portland	019	034 044
Proscan	006	022 045
Quasar	026	027
Radio Shack	010	017 046
Radio Shack/ Realistic	000	004 010 013 014 016 017 026 027 028 029 031
Radix	017	
Randex	017	
RCA	000	006 007 012 020 022 024 026 036 045
Realistic	000	004 010 013 014 016 017 018 026 027 028 029 031 046
Ricoh	043	
Runco	011	
Samsung	000	009 018 040 047
Sansui	003	035 042
Sanyo	000	004 028 037
Scott	005	018 023
Sears	004	012 013 014 017 020 024 026 028 029
Sharp	010	016 031 044 046
Shintom	008	020 021
Shogun	000	
Signature	031	046
Singer	021	026 043
Sony	008	
STS	012	026
Sylvania	001	023 026 027 029
Symphonic	029	
Tandy	004	
Tashiko	017	
Tatung	035	
Teac	029	035
Technics	026	
Teknika	017	026 029
TIVO	048	049 050 051 052
TMK	000	
Toshiba	013	018 023 024 041
Totevision	000	017
Unitech	000	
Vector Research	002	003 018 019
Video Concepts	002	003 018 019 041
Videosonic	000	
Wards	000	001 010 012 016 017 018 020 021 024 026 029 031 046
XR-1000	021	026 029
Yamaha	002	003 004 025 035
Zenith	008	011 029 030 043
Zonda	030	

Brand List for DVD

Aiwa	000	019
Allegro	099	100
Alpine	001	
Apex	004	006 008 009
Blaupunkt	003	041
Bose	093	
Broksonic	007	101
Clarion	022	
Classic	023	
Daewoo	010	
Denon	005	011 036 037
Emerson	038	039
Fisher	040	
Funai	039	
GE	002	041 048
Go Video	094	100
GPX	049	
Hitachi	018	042 043 050 051
JVC	014	029 032 095
Kenwood	033	
Konka	017	024
Magnavox	026	034
Memorex	035	
Mintek	044	
Mitsubishi	015	
NAD	038	
Nakamichi	045	
Norcent	046	047
Onkyo	052	
Oritron	081	
Panasonic	025	053 054 055 059 060 061
Philips	026	031 056
Pioneer	016	057 058 077 078
Proscan	002	079
Qwestar	080	081
RCA	002	003 067 092 096
Sampo	068	
Samsung	069	070 071 097
Sansui	072	
Sanyo	020	073 098
Sharp	074	075
Sherwood	076	
Sony	012	021 027 062 063 064 065 066
Sylvania	039	
Teac	084	
Technics	085	
Techwood	086	
Toshiba	013	028 087 088 089 102
Yamaha	082	090 091
Zenith	030	083 099

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