

User's Guide

VIDEO CASSETTE RECORDER
WITH TV TUNER



CAUTIONS AND WARNINGS

To obtain the best results and to avoid malfunctions, PLEASE READ CAREFULLY THE DESCRIPTIONS AND OPERATING PROCEDURES CONTAINED IN THIS OWNER'S MANUAL PRIOR TO OPERATING THE VIDEO CASSETTE RECORDER.



This user manual employs the following symbols to indicate different types of warning messages.



Indicates a warning or notice regarding product operation.
Indicates the presence of important operating and maintenance (servicing) instructions.



Indicates the presence of uninsulated dangerous voltage within the unit enclosure.

WARNING : TO PREVENT FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

AVERTISSEMENT: POUR PRÉVENIR LES RISQUES D'INCENDIE ET D'ÉLECTROCUTION, NE PAS EXPOSER CET APPAREIL À LA PLUIE NI À L'HUMIDITÉ.

SAFETY INSTRUCTIONS

1. Read Instructions-All the safety and operating instructions should be read before the Video Cassette Recorder is operated.
2. Retain Instructions- The safety and operating instructions should be retained for future reference.
3. Heed Cautions and Warnings-All cautions and warnings regarding the Video Cassette Recorder should be adhered to.
4. Follow Instructions-All operating instructions should be followed.
5. Cleaning-Unplug or turn off vehicle power to the Video Cassette Recorder before cleaning. Do not use liquid cleaners or aerosol cleaners. Use only a damp cloth for cleaning.
6. Attachments-Do not use attachments not recommended by the Video Cassette Recorder manufacturer as they may cause hazards.
7. Water and Moisture-Do not use this video product near water, for example, near a bath tub, kitchen sink, near a swimming pool or other wet locations.
8. Accessories-Do not place the Video Cassette Recorder on an unstable cart, stand, tripod, bracket, or table. The Video Cassette Recorder may fall, causing serious injury to a child or adult, and serious damage to the Video Cassette Recorder. Use only with a cart, stand, tripod, bracket, or table recommended by the manufacturer or sold with the Video Cassette Recorder. When used in vehicles, the Video Cassette Recorder must be securely fastened.
9. Ventilation-Slots and openings in the cabinet are provided for ventilation to ensure reliable operation of the Video Cassette Recorder and to protect it from overheating. These openings must not be blocked or covered. The openings should never be blocked by placing the Video Cassette Recorder on a bed, sofa, rug, or other similar surface. The Video Cassette Recorder should never be placed near or over a radiator or heat register. This video product should not be placed in a built-in installation such as a book case or rack unless proper ventilation is provided.
10. Power Sources-The Video Cassette Recorder should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supply to your home, consult your appliance dealer or local power company. For video products intended to operate from battery power or other sources, refer to the operating instructions.

Servicing

Do not attempt to service the set yourself as opening or removing covers may expose you to dangerous voltage or other hazards.

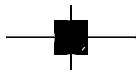
Refer all servicing to qualified service personnel.

Replacement of parts

When replacement of parts is required, be sure the service technician has used replacement parts specified by the manufacturer that have the same characteristics as the original parts. Unauthorised substitutions may result in fire, electric shock, or other hazards.

Safety Check

Upon completion of any service or repairs to the set, ask the service technician to perform routine safety checks (as specified by the manufacturer) to determine that the set is in safe operating condition.



INFORMATION TO THE USER

This equipment has been tested and found to comply with the limits for 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 more of the following measures:

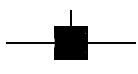
- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

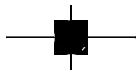
WARNING

Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.

TABLE OF CONTENTS

CAUTIONS AND WARNINGS	1
SAFETY INSTRUCTIONS	2
TABLE OF CONTENTS	3
VIDEO HEAD CLEANING	4
FEATURES	4
CONTROLS AND INDICATORS	5
REAR PANEL	6
REMOTE CONTROLLER	8
ERASURE PROTECTION	9
BASIC PLAYBACK	9
OSD(ON SCREEN DISPLAY)	10
TROUBLESHOOTING	14
SPECIFICATION	16





VIDEO HEAD CLEANING

The video heads enable the VCR to read video information pictures from the tape during playback.

In the unlikely event that the heads become clogged with dirt video playback will be impossible.

This can easily be determined during playback of a known good tape, there is good sound, but the picture is extremely snowy.

If this is the case, have the video cassette recorder checked by qualified service personnel.

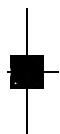
NOTES

During normal operation of the VCR, the video and audio heads can accumulate dirt over a period of time, especially when using an old or poor quality tape. When the heads are dirty, the picture can get snowy and the tracking control will have little or no effect.

If this condition occurs, head cleaning cartridges may take care of the problem and restore normal picture.

We recommend that head cleaning cartridges be used sparingly since they are very abrasive and can damage the video heads during prolonged use.

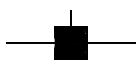
If the problem is not resolved with the head cleaning cartridge then the unit needs to be checked by a qualified service personnel.



FEATURES

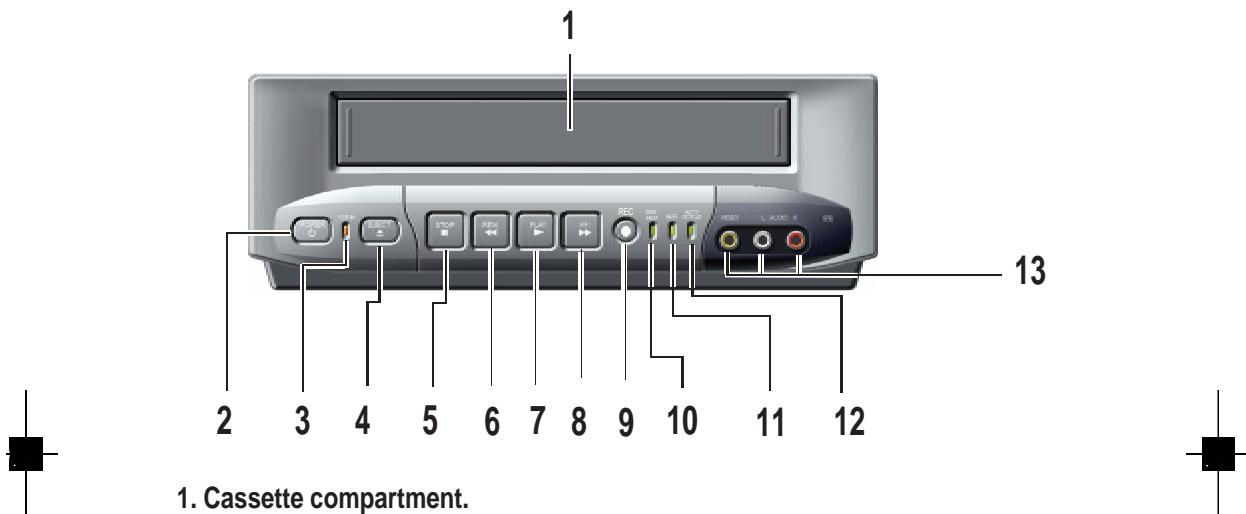
CONGRATULATIONS on your purchase of a new VHS VCR. This VCR is an exciting, new VCR designed to satisfy all your VHS tape play and recording needs. And, with proper use and care, your new VCR will offer many years of viewing enjoyment. Just few of the features include.

- HI-FI SYSTEM.
- BACK LIGHTING OF FUNCTION BUTTONS.
- ON SCREEN DISPLAY (English)
- EXTERNAL IR REMOTE CONTROLLER WITH RECEIVER.
- DEW & HEAT SENSORS FOR TAPE PROTECTION.
- NTSC COLOR SYSTEM.
- TWO AUDIO/VIDEO INPUTS.
- ENCORE FUNCTION
 - Press ENCORE key on the remote controller to watch the desired picture once during playback.
- AUTO REPEAT PLAY
 - This function can be turned on/off from "menu"
- DIGITAL AUTO TRACKING
 - This VCR plays clear pictures without special operations.
- AUTO START FUNCTION
 - This VCR will automatically power on and into PLAYBACK mode when a cassette is inserted.



CONTROLS AND INDICATORS

FRONT PANEL



1. Cassette compartment.

2. Power Key

When power is supplied to the set, the power indicator lamp will always light up in red. The Power ON and Power OFF mode will be toggled by pressing this key.

When the POWER is switched on, the power lamp will light up in red the other keys will light up in green.

3. Cassette-In Lamp.

When the cassette is inserted, the CST-IN lamp will light up in red.

4. Eject Key.

Press this button to eject tape.

5. Stop key.

Press this button to stop tape.

6. Rewind / Review key.

If this key is pressed in the PLAYBACK mode, the VCR enters the reverse picture search mode.

If pressed in STOP mode, then the tape will rewind at high speed.

The REW indicator lamp will up in red.

7. Play key.

Press this key to playback a recorded tape, or to release special operation such as the search mode.

In the playback mode the playback indicator lamp will be light in red, and Auto Tracking mode, this indicator lamp will blink.

8. Fast Forward/ Cue key.

If this key is pressed in the PLAYBACK mode, the VCR enters the forward picture search mode.

If pressed in STOP mode, then the tape will fast forward at high speed.
The FF indicator lamp will light up in red.

9. REC key.

Press the REC key for at least one second to start recording.

10. DEW/HEAT lamp.

When power is on, this indicator flashes red to indicate excessive moisture buildup inside the VCR.

The unit will not operate until it dries out sufficiently (the tape can be ejected from the unit). When DEW mode has been activated, leave the unit on to allow it to dry out completely.

11. Hi-Fi lamp.

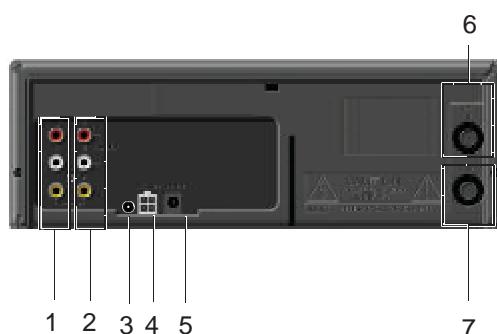
In the Hi-Fi out mode, the lamp will light up in red.

12. Auto Repeat lamp.

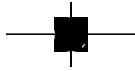
During Auto repeat operation, Auto Repeat lamp will light up in red.

13. Audio/Video In Jacks

Connect these jacks to the audio/video out jacks terminal of your game machine or camcorder using the RCA cord provided.

REAR PANEL**1. AUDIO/VIDEO IN Connector.**

Connector this terminal to VIDEO/AUDIO OUT terminal of your Game machine, Camcorder, Portable DVD Player, using the RCA cord provided.



2. AUDIO/VIDEO OUT Connector.

Connect this terminal to VIDEO/ AUDIO IN terminal of your television, using the RCA cord provided.

3. IR INPUT

Connect this terminal to remote control out.

4. DC JACK IN (DC 12V)

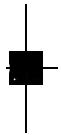
For car using, we recommend to use this connector with 3-wire system.

* Connector description for 5



* Please note : We highly recommend to connect the unit corresponding to the 3-wire system of 5.

Thus, to make sure a proper working of power-off tape guide. Beyond it, the unit will automatically change to standby mode after turning off the vehicle in order to save the car battery.



5. DC JACK IN (DC 12V) ----- < OPTION. >

Connector this jack to DC source (DC 12V, PLUS and GND) For car using, please use connection via connector 5 for proper working.

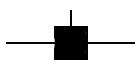
6. ANT IN Connector.

Connect the TV antenna (or cable if available- home use) to this connector.

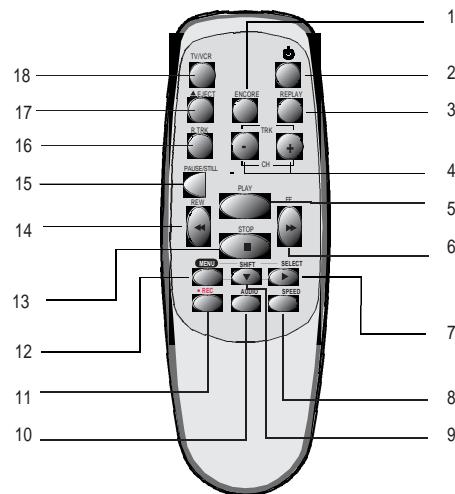
7. RF OUT Connector.

This connectors provides an interface to the antenna input connectors terminal of your television using a coaxial cable.

Tuner the television to channel 3 or 4 to watch video tapes.



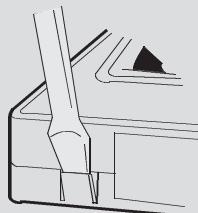
REMOTE CONTROLLER



1. To watch the desired picture once more during playback, press "ENCORE" key .
The VCR unit rewinds the tape for 5 seconds and will play the picture watch again.
2. POWER ON/OFF
3. To watch the picture from start position of tape, press "REPLAY" key .The VCR unit rewinds the start position of tape.
4. TRACKING -,+ / CHANNEL -,+
5. PLAY
6. FAST FORWARD
7. SELECT
8. Tape speed in recording
9. SHIFT
10. During the Hi-Fi STEREO tape playback mode, you can select the audio out channel.
"Hi-Fi ► Hi-Fi "L" ► Hi-Fi "R" ► Mono ► Hi-Fi ► "
11. RECORDING
12. MENU
13. STOP
14. REWIND
15. PAUSE/STILL
16. When the playback picture is noisy, this "RE - TRACKING" key will control the playback picture quality automatically.
17. EJECT
18. This key is not available in the this mode.

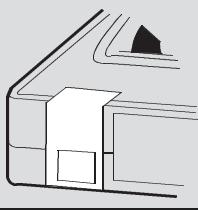
ERASURE PROTECTION

Video cassettes are equipped with a safety tab to prevent accidental erasure. When the tab is removed, recording can not be performed.



TO PREVENT ACCIDENTAL ERASURE

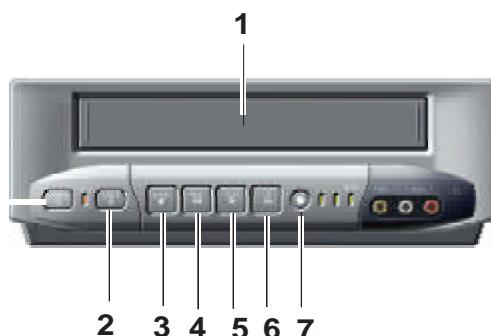
- After recording, break off the safety tab with a screwdriver if you don't want to record over the tape.



TO RECORD AGAIN

- Cover the hole with cellophane tape.

BASIC PLAYBACK



- 1. LOADING :** The power is on automatically when the cassette is inserted even if the power was off.

2. **EJECTING** : Press the EJECT key once more(in the stop mode), and the tape will eject.

3. **STOP** : Press the STOP key once. The tape will stop.

4. **REWINDING** : Press the REW key STOP mode. The tape will rewind at high speed without any picture and sound.

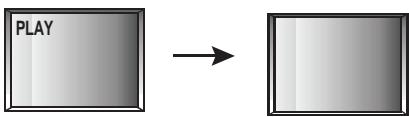
5. **PLAY** : Press the PLAY key, then pictures will appear within approximately 2 seconds.

6. **FAST FORWARDING** : Press the FF key in the STOP mode. The tape advances at high speed without any picture and sound.

7. **REC** : Press the REC key for at least one second to start recording on your VCR.

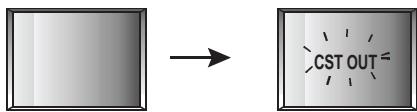
OSD (On Screen Display)

PLAYBACK



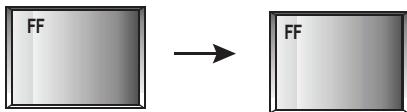
Press PLAY key, "PLAY" letter will appear on blue back screen.
And then, real playback picture will appear with super imposed letters, approximately 2 seconds later.

EJECT



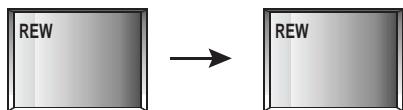
Press EJECT key of VCR unit or EJECT key on the remote control one more, "CST OUT" letter will be blinked.(in the stop mode.)

FF



Press FF key in the STOP mode. The tape advances at high speed without any picture and sound.
(This function can be turned on/off from "menu" :
Press FF key of VCR unit or ► key on the remote control during playback mode, "FF" indicator lamp will be blinked.)

REW



Press REW key in the STOP mode. The tape advances at high speed without any picture and sound.

(This function can be turned on/off from "menu" :

Press REW key of VCR unit or \blacktriangleleft key on the remote control during playback mode, "REW" indicator lamp will be blinked.)

Setting the OSD



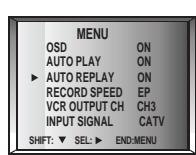
1. Press MENU key on the remote control.
2. Press select \blacktriangleright key until the appropriate system is selected. ("on" or "off")
3. On completion, press MENU key to exit the menu.

Setting the Auto PLAY



1. Press MENU key on the remote control.
2. Press shift \blacktriangledown key, until the cursor is placed in front of the "AUTO PLAY" option.
3. Press select \blacktriangleright key until the appropriate system is selected. ("on" or "off")
4. On completion, press MENU key to exit the menu.

Setting the Auto Replay



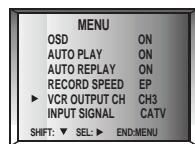
1. Press MENU key on the remote control.
2. Press shift \blacktriangledown key, until the cursor is placed in front of the "AUTO REPLAY" option.
3. Press select \blacktriangleright key until the appropriate system is selected. ("on" or "off")
4. On completion, press MENU key to exit the menu.

Setting the Record Speed



1. Press MENU key on the remote control.
2. Press shift ▼ key, until the cursor is placed in front of the "RECORD SPEED" option.
3. Press select ▶ key until the appropriate system is selected. ("EP" or "SP")
4. On completion, press MENU key to exit the menu.

Setting the VCR Output CH



1. Press MENU key on the remote control.
2. Press shift ▼ key, until the cursor is placed in front of the "VCR OUTPUT CH" option.
3. Press select ▶ key until the appropriate system is selected. ("CH3" or "CH4")
4. On completion, press MENU key to exit the menu.

Setting the Input Signal



1. Press MENU key on the remote control.
2. Press shift ▼ key, until the cursor is placed in front of the "INPUT SIGNAL" option.
3. Press select ▶ key, then the current input signal mode will be blinked.
4. Press shift ▼ key until the appropriate system is selected. ("TV" > "CATV" > "AV1" > "AV2")
5. Press select ▶ key, then channels will be found and stored automatically.

TV CHANNEL SET

(If RF-Signal is not input searching channel will be displayed blue-backpicture.)



1. Press MENU key on the remote control.
2. Press shift ▼ key, until the cursor is placed in front of the "INPUT SIGNAL" option.
3. Press select ▶ key, then the current input signal mode will be blinked.
4. Press shift ▼ key, until "TV" is selected. ("TV" > "CATV" > "AV1" > "AV2")
5. Press select ▶ key, then channels will be found and stored automatically.
While the "AUTO SEARCHING" is progressing, channels will be changed up to 69.
6. When searching and storing is completed, the TV mode will be displayed.

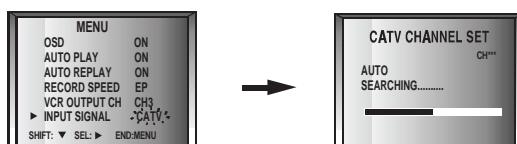
NOTE

While searching and storing channels, no button will be operated.

When "AUTO REPAT" function is "OFF" and VCR is "STOP" mode, this function will be operated.

CATV CHANNEL SET

(If RF-Signal is not input searching channel will be displayed blue-backpicture.)



1. Press MENU key on the remote control.
2. Press shift ▼ key, until the cursor is placed in front of the "INPUT SIGNAL" option.
3. Press select ▶ key, then the current input signal mode will be blinked.
4. Press shift ▼ key, until "CATV" is selected. ("TV" > "CATV" > "AV1" > "AV2")
5. Press select ▶ key, then channels will be found and stored automatically.
While the "AUTO SEARCHING" is progressing, channels will be changed up to 125.
6. When searching and storing is completed, the CATV mode will be displayed.

NOTE

While searching and storing channels, no button will be operated.

When "AUTO REPAT" function is "OFF" and VCR is "STOP" mode, this function will be operated.

TROUBLE SHOOTING

Before calling service personnel, check the following points for a possible cause of the trouble. A minor adjustment on your part may eliminate the trouble.

SYMPTOMS	CAUSE	POSSIBLE SOLUTIONS
There is no power to the VCR?	<ul style="list-style-type: none">The power cord is not connected.The polarity of power cord is not correct.	<ul style="list-style-type: none">Check the power cord.Change the polarity of power cord.
Noise bars on screen.	<ul style="list-style-type: none">Tracking is not adjusted.	<ul style="list-style-type: none">Adjust the picture to be clear by pressing the PLAY key.
Operation key does not work.	<ul style="list-style-type: none">If the cassette or the VCR is not in normal condition, every indicator LED/LAMP lights up and the VCR does not work.	<ul style="list-style-type: none">Turn off the power and turn on the power again by pressing the POWER cord. Unplug and replug the power cord.
Cassette is ejected upon inserting	<ul style="list-style-type: none">Safety device works to protect the cassette when it is inserted incorrectly.	<ul style="list-style-type: none">Pull the cassette out (unloading) and insert it firmly into the cassette compartment.
Audio output does not change to Hi-Fi mode.	<ul style="list-style-type: none">The cassette is recorded in mono VCR.The first auto tracking is executing unit now.	<ul style="list-style-type: none">The cassette can not be playback in Hi-Fi mode.Wait for a second.
No backlighting at power button.	<ul style="list-style-type: none">NO 12V DC.	<ul style="list-style-type: none">Check circuit fuse at source of power<ul style="list-style-type: none">(see vehicle/converter manual).In-line fuse of power cord (in light plug).VCR (2AMP*20X5mm)fuse located on rear of unit.Power cord unplugged from 12V outlet or at rear of unit.

SYMPTOMS	CAUSE	POSSIBLE SOLUTIONS
Power indicated with backlighting-unit will not operate.	▪ (Unit in dew mode) Dew feature activated (see owner's manual)	▪ Retain power to recorder and allow unit for a time to get rid of moisture. (After 30 minutes if dew indicator is still on, completely switch power off from unit and resupply after a minute. This can reset dew indicator if moisture eliminated.)
	▪ No tape in unit.	▪ Insert the tape.
	▪ Low voltage.	▪ Start the vehicle, if not running.
More indicators flashing unit will not operate. (POWER,REW ,PLAYBACK,FF,STOP)	▪ Unit in emergency mode.	▪ Contact the vehicle, if not running.
PLAY mode indicated no audio or video to TV.	▪ VCR connected to A/V Input jack, RCA patch cables set in TV mode.	▪ Switch TV to video mode with remote control or switch behind control door of TV.
	▪ VCR connected to A/V output jacks. ▪ Poor connection between VCR output and TV input. ▪ Reversed A/V inputs to TV.	▪ Change connections from A/V out to A/V input. ▪ Check connection. ▪ Check connection.

SYMPTOMS	CAUSE	POSSIBLE SOLUTIONS
Poor video/snowy picture or lines on screen.	■ Dirty heads.	<ul style="list-style-type: none"> ■ Clean head using tape cartridge cleaner. We recommend using cartridge with cloth or paper tape and cleaning drops included. ■ These are readily available at retail stores.

SPECIFICATION

MODEL

POWER SUPPLY	DC 12V
POWER CONSUMPTION	14W
DIMENSION	265 X 91 X 275 (W x H x D)mm
WEIGHT APPROX	2.9Kg
VIDEO SIGNAL SYSTEM	NTSC color
TAPE TYPE	VHS Type
TAPE SPEED	SP: 33.35 mm/sec, LP: 22.23mm/sec, SLP: 11.12 mm/sec

SPECIFICATION

FF/REW TIME(T-120)

Approx. 5min

VIDEO SIGNAL INPUT

AUDIO SIGNAL INPUT

VIDEO SIGNAL OUTPUT (LINE)

1.0Vp-p, 75 ohm unbalanced, NEGATIVE SYNC

AUDIO SIGNAL OUTPUT(LINE)

-6dBm

OPERATING CONDITION HUMIDITY

80% RH MAX,
Temperature : 5°C ~ 35°C (41°F ~ 95°F)

OPERATING POWER VOLTAGE

12~14V

Design and specifications are subjected to change without notice.