Table of Contents

DVA-310X

Welcome to the In-Dash DVA-310X Automobile DVD Player Operating Guide. Before you begin, read the following warnings and notes carefully.

Warning!

To avoid serious harm or injury to you, others, the vehicle, or the remote control unit, follow the instructions below.

To avoid short-circuiting the electrical system:

- This product uses laser technology. Do not remove the cover. Exposure to hazardous radiation may result from procedures other than those specified in this guide.

- When replacing a blown fuse, disconnect all power supplies and power off the unit. Be sure to use the correct replacement fuse.

- If the unit shows signs of overheating or malfunction, power off the unit and consult your dealer immediately. Do not open the unit; there are no serviceable parts inside.

This unit uses high-quality electronic components and is manufactured under a stringent quality-control system. Properly maintain the remote control unit to ensure optimal performance:

- Replace the batteries regularly. To avoid damage to new batteries, do not use new and used batteries at the same time. Battery life is six months.

- Allow adequate air circulation to prevent internal heat buildup. Do not install unit near heat sources such as radiators or air ducts, or in a place subject to direct sunlight or excessive dust. If the internal temperature of the vehicle is extremely high, do allow a short cooling down period before operating the unit.

- Avoid strong magnets such as large loudspeakers.

- This unit may interfere with TV reception. This is not a malfunction of the unit or the TV. To watch a TV broadcast, turn off this unit.

- This unit was designed to be used with DVD audio discs, DVD-ROMs, CD-ROMs, and Photo CDs.

- Use the correct fasteners and connecting cables during installation to avoid fire hazard.

- See your authorized dealer if unsure how to proceed.

Before installing this display system, **ensure you are in compliance with** local traffic rules and regulations.

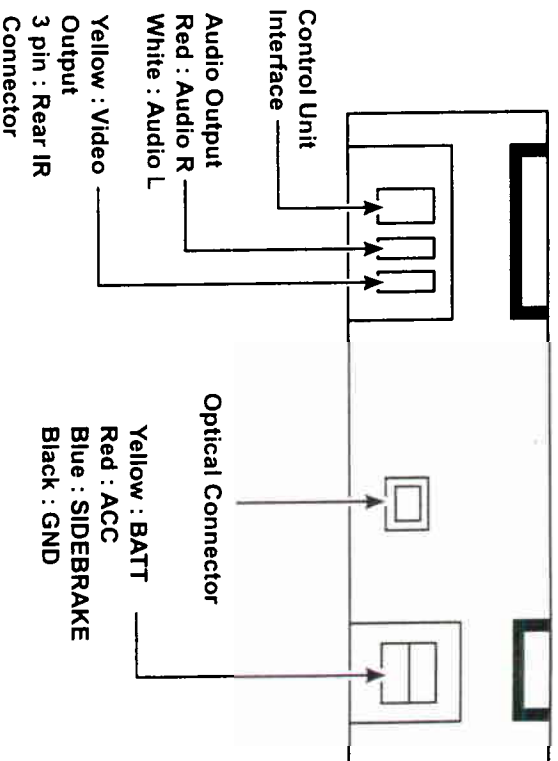Manufactured under license from Dolby Laboratories. "Dolby" and double-D are trademarks of Dolby Laboratories.

INSTALLATION

Precautions

1 This unit should be installed by a qualified service technician.

2 This product is designed to operate with a 12-Volt, negative ground battery.

3 Disconnect the ground wire from the battery terminal *before* connecting this unit to the electrical system.

4 Other products or accessories may have wires that are color-coded similarly to those for this unit. Refer to the electrical diagrams of any other products before installation of the unit to avoid making wrong connections.

5 To avoid short-circuiting the electrical system, use proper insulation and fastening materials.

6 Do *not* connect the unit's yellow wire directly to the battery terminal. Connect the unit's red wire to the ACC of the ignition switch. Connect the red wire to the ACC of the ignition switch. Failure to connect the red and yellow wires properly may drain the vehicle's battery.

7 To avoid damaging the unit, use only the accessories supplied with the unit.

8 Do not install this product in a position that may cause injury to passenger(s) during an accident.

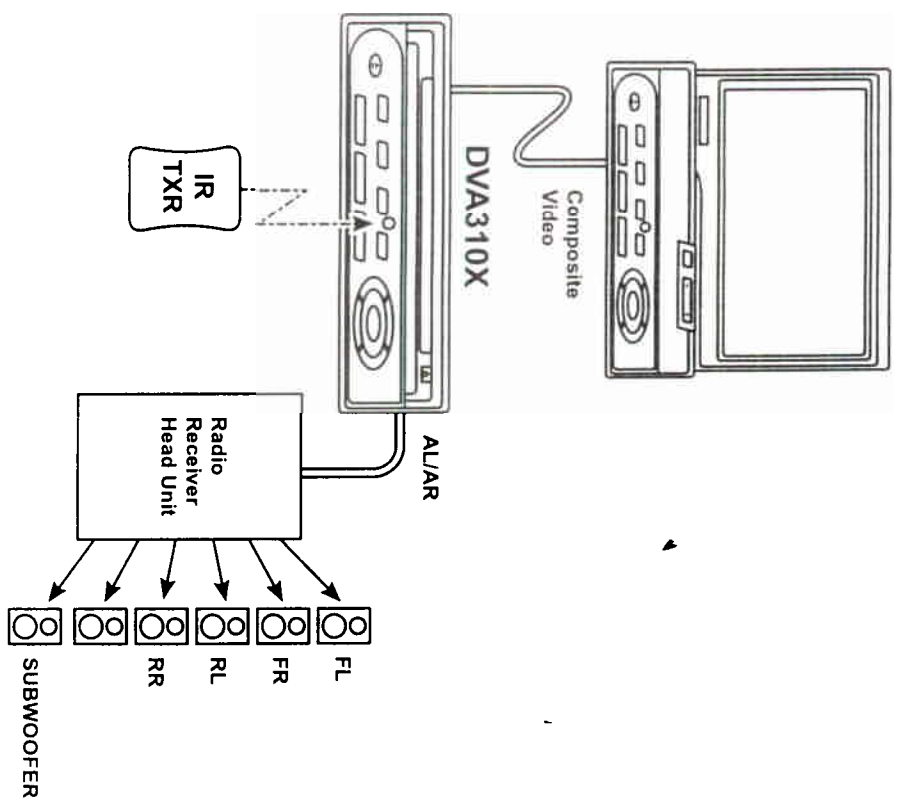9 Do not install this product in an angle exceeding ± 30 degrees.

Back Panel

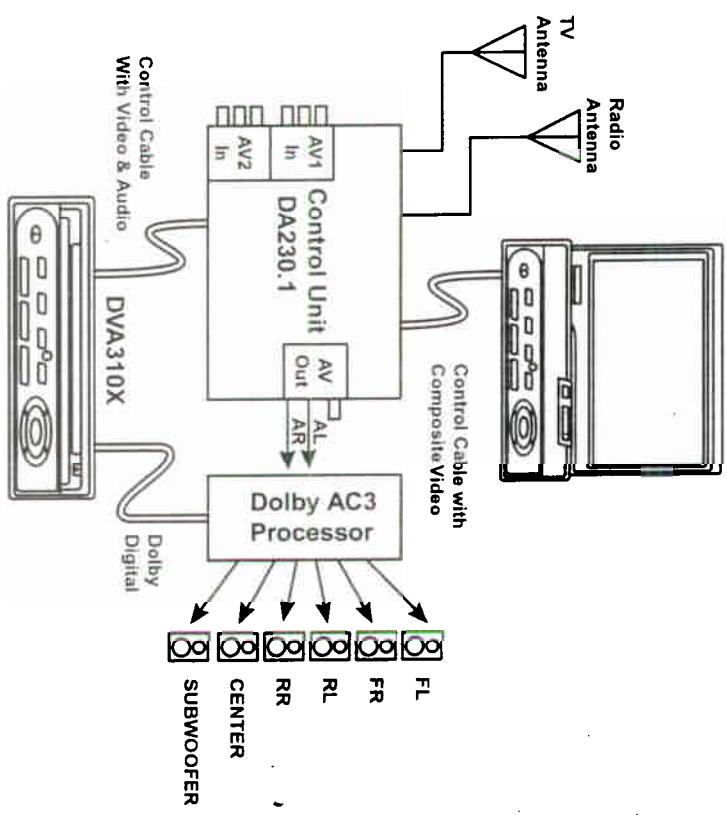Refer to the figure below for Back Panel functions and wire connections.

Control Unit Interface

Audio Output
Red : Audio R
White : Audio L

Yellow : Video Output
3 pin : Rear IR Connector

Optical Connector

Yellow : BATT
Red : ACC
Blue : SIDEBRAKE
Black : GND

Installation with Car Stereo Head Unit and Standalone Monitor

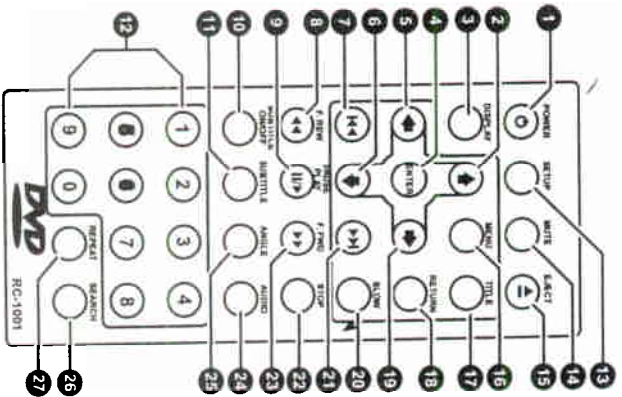## Installation with Control Unit, TFT Monitor and Dolby Digital Processor
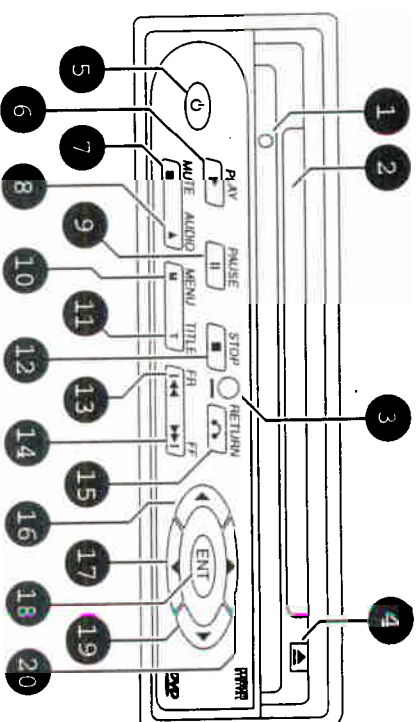
Remote Control Reference

For Standalone Unit

1 POWER BUTTON
2 SETUP BUTTON
3 DISPLAY BUTTON
4 UP CURSOR KEY
5 LEFT CURSOR KEY
6 ENTER KEY
7 PREV/REVERSE SKIP BUTTON
8 DOWN CURSOR KEY
9 REVERSE SCAN BUTTON
10 PLAY/PAUSE BUTTON
11 SUBTITLE ON/OFF BUTTON
12 SUBTITLE SELECTION BUTTON
13 NUMERIC KEYPAD
14 EJECT BUTTON
15 MUTE BUTTON
16 TITLE BUTTON
17 MENU/PBC BUTTON
18 RETURN BUTTON
19 RIGHT CURSOR KEY
20 SLOW BUTTON
21 NEXT/FORWARD SKIP BUTTON
22 STOP BUTTON
23 FORWARD SCAN BUTTON
24 AUDIO SELECTION BUTTON
25 ANGLE SELECTION BUTTON
26 SEARCH BUTTON
27 REPEAT BUTTON

Front Panel Control Reference

1 POWER INDICATOR
2 DISC SLOT
3 REMOTE SENSOR
4 EJECT BUTTON
5 CURSOR UP KEY
6 CURSOR RIGHT KEY
7 ENTER KEY
8 CURSOR DOWN KEY
9 CURSOR LEFT KEY
10 RETURN BUTTON
11 FORWARD SKIP BUTTON
12 BACKWARD SKIP BUTTON
13 STOP BUTTON
14 TITLE BUTTON
15 MENU BUTTON
16 PAUSE BUTTON
17 AUDIO BUTTON
18 MUTE BUTTON
19 PLAY BUTTON
20 POWER ON/OFF BUTTON

Basic Functions

DVD Playback (DVD)

- To turn power on, press the **POWER** button on the remote control or on the front panel.

- Insert a disc.

- DVD playback commences unless the disc includes menu selections. If the disc includes one or more titles, a menu screen appears on the monitor.

- Press the up, down, left or right arrow to select the preferred title.

- Press **ENTER**.

- To return to the menu screen, press **MENU** or **TITLE**.

- Press **POWER** to enter standby mode.

Note: The monitor displays INVALID when a corresponding operation is prohibited either by the player or by the disc.

Note: The monitor displays INVALID DISC if the DVD disc is incompatible with the unit.

Audio or Video CD Playback (CD/VCD)

- To turn power on, press the **POWER** button on the remote control or on the front panel.

- Insert a disc.

- Press **PLAY/PAUSE** (ll/u).

Video CD Playback Using Menus (Playback Control On)

This function works only with Video CD with playback control (Version 2.0).

- A Menu screen appears on the TV monitor after you insert a disc and press **PLAY/PAUSE** (ll/u).

- Use the numeric keypad to select the desired track.

- Press the RETURN button to stop the playback and return to the Menu screen.

Use the following functions for Video CDs with Playback Control (PBC):

NEXT TRK ꝏ⌐ : Move to the next menu (if available) or next track
PREV TRK |◄◄ : Move to the previous menu (if available) or previous track
RETURN: Return to the previous menu

Note: Menu details vary.

Video CD Playback Without Using Menus (Playback Control Off)

- Press the **MENU/PBC** button to turn off Playback Control (PBC). PBC OFF appears in the monitor.

- Press the desired track number button or press **PLAY/PAUSE** (ll/u) to commence playback.

- Press the **MENU/PBC** button to return to playback control. PBC ON appears in the monitor. The menu (if available) appears in the monitor.

Fast Forward (CD/VCD/DVD)

- Press the **F.FWD** (▸▸) button during playback to toggle the unit between fast forward and regular play.

  Audio CD playback has one fast forward speed.

  Video CD/DVD playback has five fast forward speeds: 2, 4, 8, 16, and 32. Press the **F.FWD** button to cycle through these options and regular play.

Fast Reverse (◂◂) (CD/VCD/DVD)

- Press the **F.REV** (◂◂) button during playback to toggle the unit between fast reverse and regular play.

  Audio CD playback has one fast reverse speed.

  Video CD/DVD playback has five fast reverse speeds: 2, 4, 8, 16, and 32. Press the **F.REV** button to cycle through these options and regular play.

Next Track or Previous Track (CD/VCD/DVD)

- Press ▸▸l during playback to skip forward to the next track or to the next title/chapter each time the button is pressed.

  SKIP FW appears in the monitor.

- Press l◂◂ during playback to skip backward to the previous track or to the previous title/chapter each time the button is pressed.

  SKIP BW appears in the monitor.

Play / Pause (ll/▸) (CD/VCD/DVD):

- Press the **PLAY/PAUSE** button to cycle from normal play to Pause modes.

Slow Motion (VCD/DVD)

- Press the **SLOW** button to play in Slow Motion Mode. The unit has 5 slow forward speeds: 2, 4, 8, 16, and 32. Press the **SLOW** button to cycle through these options and regular play.

Stop (CD/VCD/DVD)

Audio CD:

- Press **STOP** (■) to stop the CD playback and enter Stop mode.

VCD/DVD:

- Press **STOP** (■) to enter PRE STOP mode. PRE STOP appears on the monitor. The player records the point where the **STOP** button is pressed (Resume playback function).

- Press **Play / Pause** (ll/▸) to resume normal playback from this point

- Press **STOP** again. STOP appears in the monitor and the resume playback function is cleared.

Note: Resume playback function is not available for Audio CDs.

Search (CD/VCD/DVD)

The Search function enables you to specify a time/ track/ chapter or title.

Audio CD:

- Press **SEARCH** to cycle through the following options:

  Track xx
  CD
  Time xx:xx

- Use the numeric keys to enter the desired track number or disc time. Press the **ENTER** button to play the selected track or time.

  You can also use the numeric keys to enter the desired track without entering Search mode.

Video CD:

- Press **SEARCH** to cycle through the following search options:

  Track xx
  Time xx:xx:xx
  [Blank monitor]

  Use the numeric keys to enter the desired track number, or disc time. Press the **ENTER** button to play the selected track or time.

  You can also use the numeric keys to enter the desired track without entering Search mode.

Note: The Search function is not available on Video CDs when PBC ON mode is activated.

DVD:

- Press **SEARCH** to cycle through the following search options:

  Title xx
  Chapter XXX
  Time xx:xx:xx:
  [Blank monitor]

- Use the numeric keys to enter the desired title, chapter, or chapter time. Press the **ENTER** button to play the selected track or time.

  You can also use the numeric keys to enter the desired track without entering Search mode.

Advanced Playback (CD/VCD/DVD)

- **Repeat mode:** Press the **REPEAT** button to cycle through the following Repeat modes.

  For Audio / Video CDs:

  REPEAT ONE = The current track will be repeated.
  REPEAT ALL = The current disc will be repeated.
  REPEAT OFF = Repeat mode will be switched off.

Note: REPEAT is not available during Video CD Playback Control mode ("PBC ON").

For DVDs:

RPT CHAPT = The current chapter will be repeated
RPT TITLE = The current title will be repeated
REPEAT OFF = Repeat mode will be switched off

- **Camera angle (DVD):** Some DVD discs contain scenes with more than one viewing angle. For these discs, the same scene can be viewed from a different angle by using the **ANGLE** button.

  During DVD playback, press the **ANGLE** button. ANGLE x/y appears in the monitor, where x represents the current camera angle and y represents the total available camera angle.

  Press the **ANGLE** button again until the preferred angle is selected. The ANGLE selection will cycle through all available camera angles.

Note: This function is only available on DVDs that contain multiple viewing angles.

- **Audio function (VCD/DVD):** The audio function works only for discs that have multiple audio soundtracks.

  During VCD playback, press the **AUDIO** button until the desired audio is selected.

  During DVD playback, press the **AUDIO** button.

AUDIO x/y appears in the monitor, where x represents the current audio stream and y represents the total available audio streams.

Press the **AUDIO** button until the preferred audio is selected. AUDIO will cycle through all available audio streams.

- **Subtitle (DVD):** During DVD playback, you may change the subtitle language from the one selected at the initial setting to a different language, if available.

Press the **SUBTITLE ON/OFF** button to cycle between SUBTITLE ON and SUBTITLE OFF modes.

During DVD playback with SUBTITLE ON mode selected, press the **SUBTITLE** button. SUBTITLE x/y appears in the monitor, where x represents the current subtitle and y represents the total available subtitles.

Press the **SUBTITLE** button until the preferred subtitle is selected. The SUBTITLE selection will cycle through all available subtitles.

Note: SUBTITLE works only for discs that have multiple subtitle options.

Note: In some cases, the subtitle change is not immediate.

- **DVD menu (DVD):** Most DVD discs have unique menu structures. DVD menu contents and operation may differ from disc to disc.

During DVD playback, press the **MENU** button. The DVD menu available on the disc will be displayed.

Use the up, down, left and right arrows to select the preferred option.

Press the **ENTER** button when the desired option is selected.

- **Title menu (DVD):** Some DVD discs may include more than one title.

During DVD playback, press the **TITLE** button. A list of the titles may be displayed f the disc includes title options.

Use the up, down, left and right arrows to select the preferred item.

Press the **ENTER** button when the desired option is selected.

- **Display function (CD/VCD/DVD):** The **DISPLAY** function enables you to view the status, current title number, track number and the total playing time of the disc on the monitor.

Audio CDs:

Press the **DISPLAY** key repeatedly to view the following information in the monitor:

TTIME	= Track time
TRTIME	= Track remaining time
DTIME	= Disc time
DRTIME	= Disc remaining time

Video CDs:

Press the **DISPLAY** key repeatedly to cycle through the following information in the monitor:

TTIME	= Track time
TRTIME	= Track remaining time
DTIME	= Disc time
DRTIME	= Disc remaining time

DVDs:

Press the **DISPLAY** key repeatedly to view the following information in the monitor:

CTIME   = Chapter time
CRTIME = Chapter remaining time
TTIME   = Title time
TRTIME = Title remaining time

• **Setup menu (DVD):** When the player is in Stop mode, press the **SETUP** button to modify some basic settings.

Enter STOP mode and press the **SETUP** button. The Setup menu appears in the display.

Setup

(1) Disc Language
(2) Password
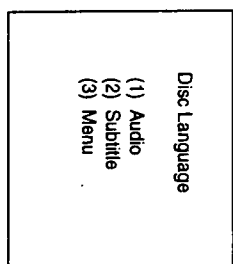(3) Parental
(4) TV Aspect
(5) Digital Output

Use the up or down arrow keys or numeric keys to select the desired setup option, then press **ENTER**.

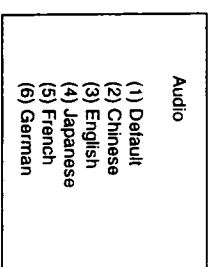To exit, press the **SETUP** button. Each Setup option is described below.

• Disc language

Use the up or down arrow keys or numeric keys to select the DISC LANGUAGE option from the Setup menu, then press **ENTER**. The following menu appears.

Disc Language

(1) Audio
(2) Subtitle
(3) Menu

Use the up or down arrow keys or numeric keys to select an option, then press **ENTER**. When you select **AUDIO**, the following menu appears.

Audio

(1) Default
(2) Chinese
(3) English
(4) Japanese
(5) French
(6) German

Use the up or down arrow keys or numeric keys to select the preferred language, then press **ENTER**.

Press **RETURN** to return to the previous menu or press **SETUP** to exit Setup mode.

• Password

While in STOP mode, press **SETUP**. The Setup menu appears.

Use the up or down arrow keys or numeric keys to select the PASSWORD option, then press **ENTER**. The change password menu appears.

Change Password

Parental
Password

Use the numeric keys to enter the original password, then press **ENTER**.

If the original password is entered correctly, you can now enter a new password.

Change Password

New
Password

Use the numeric keys to enter a new password, then press **ENTER**.

The user is required to confirm the new password. Use the numeric keys to enter the same password again, then press **ENTER**.

If an incorrect password is entered, the menu will be shown again.
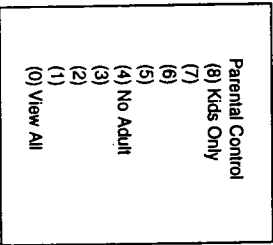
The SETUP menu appears.

- Parental Control

While in STOP mode, press the **SETUP** button. The Setup menu appears.

Use the up or down arrow keys or numeric keys to select the PARENTAL item, then press **ENTER**.

Use the numeric keys to enter your password, then press **ENTER**.

If the incorrect password is entered, "INVALID" appears. If the correct password is entered, the Parental control menu appears.

Parental Control
(8) Kids Only
(7)
(6)
(5)
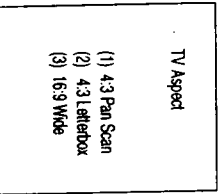(4) No Adult
(3)
(2)
(1)
(0) View All

Use the up or down arrow keys or numeric keys to select the desired parental control, then press **ENTER**.

The Setup menu appears.

- TV Aspect

While in Stop mode, press the **SETUP** button. The Setup menu appears.

Use the up or down arrow keys or numeric key to select TV ASPECT, then press **ENTER**. The TV ASPECT menu appears.

TV Aspect
(1) 4:3 Pan Scan
(2) 4:3 Letterbox
(3) 16:9 Wide

Use the up or down arrow keys or numeric key to select the preferred TV ASPECT option, then press ENTER. The Setup menu appears.

• Digital Output

While in STOP mode, press the **SETUP** button. The Setup menu appears.

Use the up or down arrow keys or numeric key to select the DIGITAL OUT option, then press **ENTER**. The digital audio output options appear.

```
Digital Audio Out

(1) LPCM
(2) Dolby Digital
(3) MPEG
```

Use the up or down arrow keys or numeric key to select the preferred digital audio output, then press **ENTER**. The Setup menu appears.

Product Specification

GENERAL

Power Supply	: 12VDC Typical
Current Consumption	: Less than 3.0 A
Operating positions	: Horizontal mount only
Dimension (WxHxD)	: 178 x 50 x 190 mm
Weight	: 2.0 kg

AUDIO

Frequency response	: 20 Hz to 20 kHz
Distortion	: 0.02% (at 1 kHz)
Dynamic range	: 96 dB
S/N ratio	: 96 dB
Crosstalk	: -75 dB

VIDEO

Television System	: NTSC/PAL
Playback Disc	: DVD/VCD/CD
Aspect ratio	: 4:3, 16:9
TV Encoder Resolution	: 10 bit D/A C
Video S/N	: 65 dB

CONNECTOR

Output

Video Output	: 3 RCA connector for Video and Audio 1 Vp-p (75 ohms terminated)
Digital Audio Output	: 1 optical transmitter
Controller Interface Connector	: For connecting to control unit

Input

Power Connector	: For external power supply inputs