FX-MX48IR-70

HDMI Matrix&4x4Group(HDMI&HDBaseT)

Dear Customer

Thank you for purchasing this product. For optimum performance and safety, please read these instructions carefully before connecting, operating or adjusting this product. Please keep this manual for future reference.

ABLE OF CONTENTS

Feature

- Incorporates HDBaseT technology
- Any Four Sources to Any Four Displays,Each port supports HDMI or DVI inputs.
- The four outputs are all include one HDMI-A output port and one HDBT output port, They can output simultaneously
- Support high definition resolution 1080p,1080i,720p and standard video formats
- Extends HDMI up to 228 feet (70 meters) using one CAT5e (or better) cable
- Supports high bit-rate audio formats (Dolby True-HD / DTS Master Audio)
- Switching modes: panel buttons, local IR, RS232 and Ethernet
- IR system could control the source from the sinks or control the sinks from sources
- HDCP compliant.
- Support 3D.
- DC 12V Power supply.
- Power consumption:20watts
- Dimension (L×W×H):442.5x170x44.5 mm
- Net Weight:2450g .

NOTICE

Our company reserve the right to make changes in the hardware, packaging and any accompanying documentation without prior written notice.

INTRODUCTION

It is newest 4x4 HDMI Matrix , supports 3D . It offers HD video solution for super market, shopping mall; HDTV, STB, DVD and projector factory; data control center; conference rooms; education and training; luxurious house; home theaters etc.

SPECIFICATIONS

Operating Temperature Range	-5 to +65℃(+23 to +149℉)
Operating Humidity Range	5 to 90%RH (No Condensation)
Video Bandwidth	225MHz/6.75Gbps
Support Video Format	Up to 1080p@60Hz@36b/pixels,support 3D

Connectors	HDMI receptacle RJ45 Power connector terminal Power DC receptacle IR Extender
Transmission Distance	1080P 228FT/70m over single CAT5E/6 Solid
RJ45 Pin Configuration Reverse Polarity Sensitive Use EIA/TIA 568B Straight-through wiring	
Power supply	110-240V/DC 12V Power supply
Power consumption	20Watts
Enclosure	Cold-Rolled(Cold Rolled) Steel
Dimension (L×W×H)	442.5x170x44.5mm
Net Weight	2450g

Note: Specifications are subject to change without notice. Mass and dimensions are approximate.

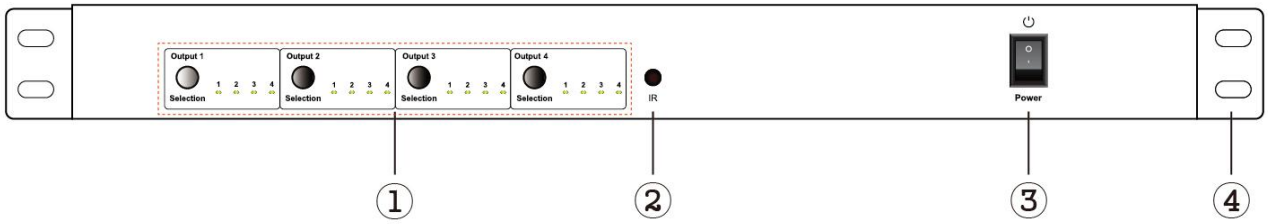
PACKING CONTENTS

1) Main Unit. 4x4 HDMI matrix
2) DC12V 3A Power Supply
3) Remote Controller
4) IR-RX cable x1PCS
5) M3x5 Screw x6PCS
6) Mounting ear
7) Operating Instructions.

Notes: Please confirm if the product and the accessories and all in duded, if not please contact with the dealers.

PANEL DESCRIPTION

Front Panel



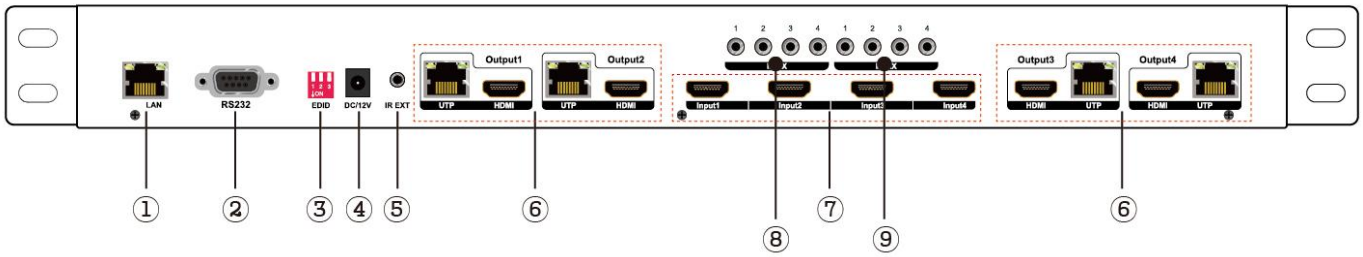
1) Four groups of LEDs for each output port

2) IR windows

3) Power ON/OFF.

4)Assembly ear.

Rear Panel



1) Ethernet port

2) RS232 port

3)DIP Switch

4)Power input

5) IR extender control

6)Output port (HDMI and HDBaseT)

7) HDMI input port

8）IR-TX ports

9）IR-RX ports

CONNECT AND OPERATE

1) Connect the HDMI input sources into 4x4 HDMI matrix and note the input chosen.

2) Connect HDMI receiver over Cat5e/Cat6 cables to both the Cat5e/6 port of HDMI matrix and Cat5e/6

port of Receiver,The RJ45 connections must follow EIA-TIA 568b standards.

3) Connect the HDMI output from the Receiver(RX) into the display HDMI input.

4) Connect IR-RX cable into IR-RX port on the receiver and affix the IR receiver in direct line of site with the handheld remote control.It is recommended to affix the receiver on the display frame /bezel or the display stand.

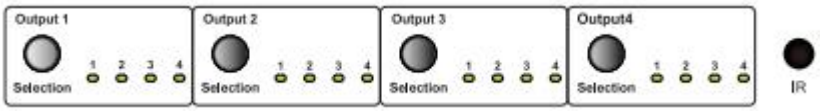
Note：Do not affix the emitter until the placement is tested.

5) Connect 4PCS IR-TX cables to the IR-TX sockets on the matrix and connect 4PCS IR RX cables to the IR-RX sockets on the matrix.

6) Power up all units, the Matrix,Receiver, sources and displays.

7) Use remote or select the button on the front panel to choose the desired input source.

Operation



1) Front panel control

The HDMI matrix front panel control for switching inputs to the various outputs.there are four groups of LEDs for each output port. The LED lit on position means that the output port selects this as its source.

2) Local IR remote control

User can control the HDMI route of the matrix by using the IR remote.There are four group key pads for four output port. For each output port source selection, there are 4 number key and two arrow key. Press number key to select specific input port. Left arrow is to backward the input port,and right arrow to forward input port.

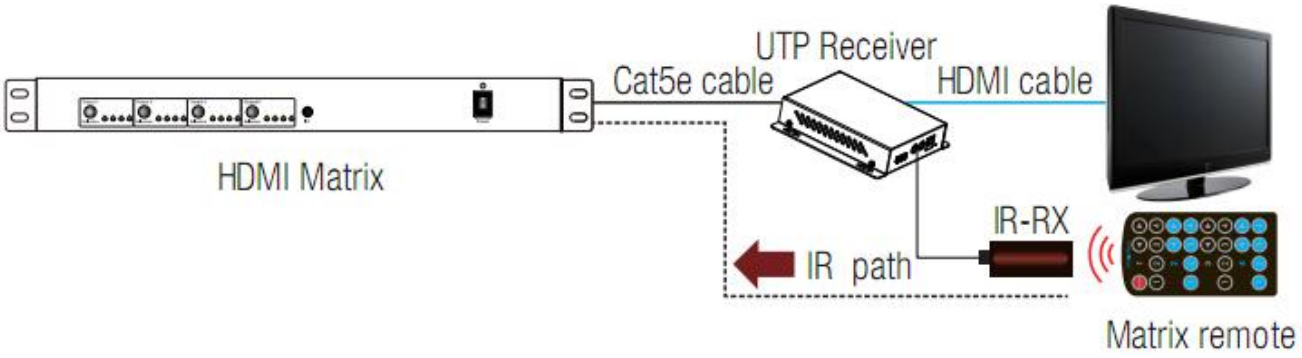
3) IR extension control

User can use the IR receiver cable to change the IR receiver position.

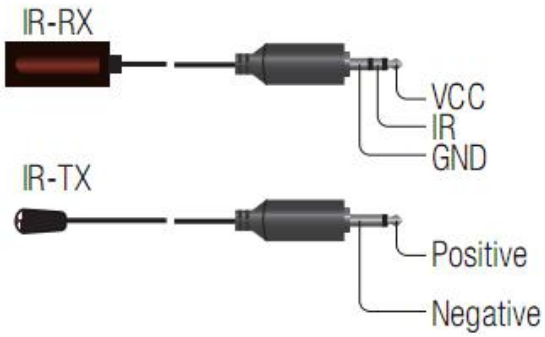
Plug the IR extension cable into IR Ext socket on the rear panel,use the remote controller to aim at the IR receiver to control matrix

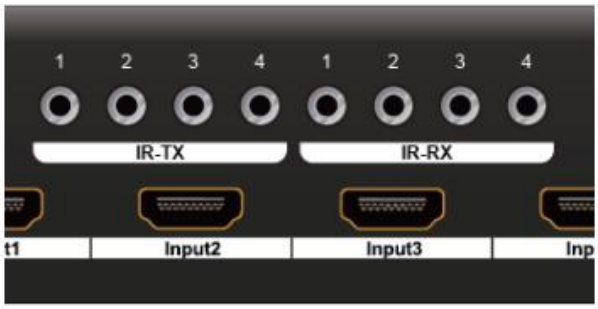
4) IR call back control the matrix

User can control the matrix via the IR call back system



The matrix can pass the IR signal through the IR system to the HDMI source or pass the IR signal from the HDMI source to the HDMI sink.





Control the source from the sinks

Step1:Connect the HDMI input sources to the Matrix.

Step2:Connect 4pcs IR TX cables to the IR-TX sockets on the matrix,connect 4pcs IR RX cables to the IR RX sockets on the receivers.

Steps3:affix the IR emitter to the IR window of the HDMI source which connected to the related input port.

For example,STB is connected to input1,if you want to control the STB via the IR call back systems,then you need connect the IR TX cable into IR-TX 1 socket socket and affix the IR emitter near to the IR Window of STB.

Control the sinks from sources.

Step1:Connect the HDMI Sinks to the Matrix.

Step2:Connect 4pcs IR TX cables to the IR-TX sockets on the receivers,connect 4pcs IR RX cables to the IR RX sockets on the Matrix

Steps3:affix the IR emitter to the IR window of the HDMI Sink which connected to the related receivers.For example,HD LCD is connected to HDBT receiver which connected with the HDBT output1 of the matrix,if you want to control the HD LCD via the IR systems,then you need connect the IR RX cables into the IR-RX socket on the matrix,then affix the IR emitter near to the IR window of the HD LCD. Go to IR matrix

mode,press output1 button to select the first IR channel.

6. RS232 remote control

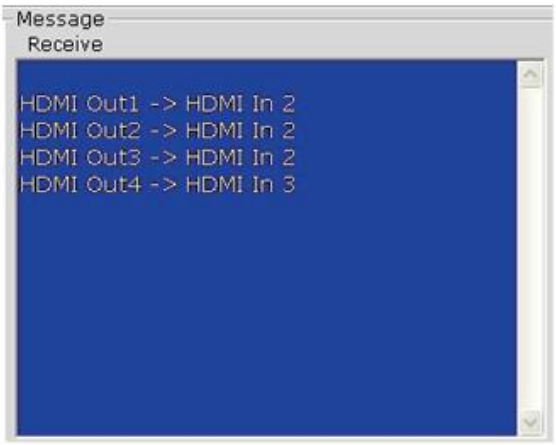
6.1.1 The Message Window

6.1.2Com port setting:

Baud Rate:	9600 bps
Data bits:	8 bits
Parity:	None
Stop bits:	1 bit
Flow control:	None

6.2.1 Receive window

The “receive window” will show the message received from matrix. When you click the Control Buttons (see step 4) or send Control Command (see 2.3) to matrix, it will send out the message about “operation results” as right windows:



6.2.2 Status Button

Click this button to read the status of Matrix.

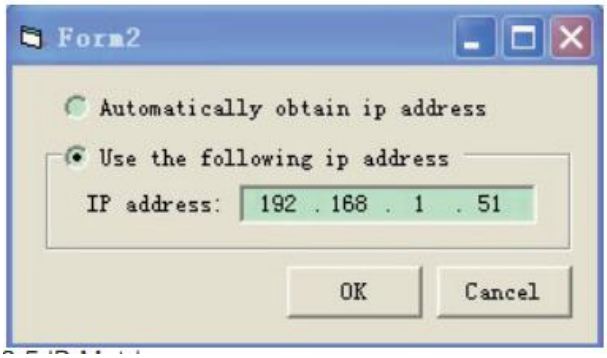
The status shows which input is selected by the output.

6.2.3 Send Window

Input the control command in this window.the control command

use ASCII

6.2.4 Set IP Button



1way select automatically obtain address.

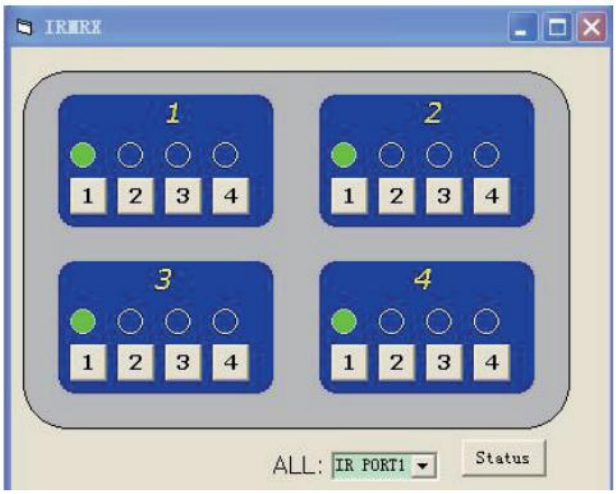
2 way:select use the following IP address

Then write the codes to the matrix.

6.5 IR Matrix

In this menu,you can select the IR-RX channel to control sink. Click this button to write the codes onto the device.

(Right fig:IR-RX 1 channel control all sink over UTP output)



7 the Com status

7.1 connect state.

Connect state shows the com open or not. If it is open, the state is green. Otherwise, the state is red.

7.2 com select.

→ Select which com you will use.

→ Connect button.

The word on this button will change when the connection state changes. If the word is “Disconnect”, then click this button, the com will be closed. If the word is “Connect”, then click this button, the com will be opened.

8.NET Control

Note: Use the direct UTP cable to connect with PC, or use cross cable to connect to the Ethernet switcher

a.Use RS232 to assign an IP for the machine.(See 2 d)

b.Run Netfinder.exe and search for the device(see include CD) .

c.select the device and press “web browser” to enter the web control window.

d.enter the password “0000000000”

e.WEB control.

Switch for EDID setting. (Factory default setting: DIP in ‘010’ mode, EDID are all 1080p and stereo.)

Position ID			Function
1	2	3	
0	0	0	copy HDMI Sink's EDID to its current selection of input port (note1)
0	0	1	1080P 3D stereo (note2)
0	1	0	1080p stereo (Using Embedded EDID) (note3)
0	1	1	1080i stereo (Using Embedded EDID) (note4)
1	0	0	1080p5.1(Using Embedded EDID) (note5)
1	0	1	1080p 7.1(Using Embedded EDID) (note6)
1	1	0	Reserved

1	1	1	Reserved

Note1: Copy the EDID data to the input port according to the matrix route status. It will copy the EDID data from the output number port.

For example, when output-3 selects input-1, after pressing and holding the Output 3 button for 3 seconds, it will copy the output-3's EDID to input-1.

Note2: The matrix will use the embedded 1080p-stereo 3D EDID when the DIP switch is in this mode. The EDID will be 1080p 3D video and stereo audio. The EDID data will only be updated when powering on the matrix.

Note3: The matrix will use the embedded 1080p-stereo EDID when the DIP switch is in this mode. The EDID will be 1080p video and stereo audio. The EDID data will only be updated when powering on the matrix.

Note4: The matrix will use the embedded 1080i-stereo EDID when the DIP switch is in this mode.The EDID will be 1080i video and stereo audio. This setting can be used when the TV set is an old model that can not support 1080p. The EDID data will only be updated when powering on the matrix.

Note5: The matrix will use the embedded 1080p-5.1 EDID when the DIP switch is in this mode. The EDID will be 1080p video and 5.1 audio. The EDID data will only be updated when powering on the matrix.

Note6: The matrix will use the embedded 1080p-7.1 EDID when the DIP switch is in this mode. The EDID will be 1080p video and 7.1 audio. The EDID data will only be updated when powering on the matrix.

Examples for EDID setting:

How to reset EDID to factory default setting?

Because the default EDID is 1080p and stereo. So just set DIP to '010' and power on the matrix, all the EDID for input ports will be set to 1080p and stereo. After reset the EDID data, the DIP switches can be set to '000' or '001' if user needs future setting.

How to copy the EDID of AVR which is 7.1 audio to the special input port, where connected a BD player?

1. Set DIP to '000'.

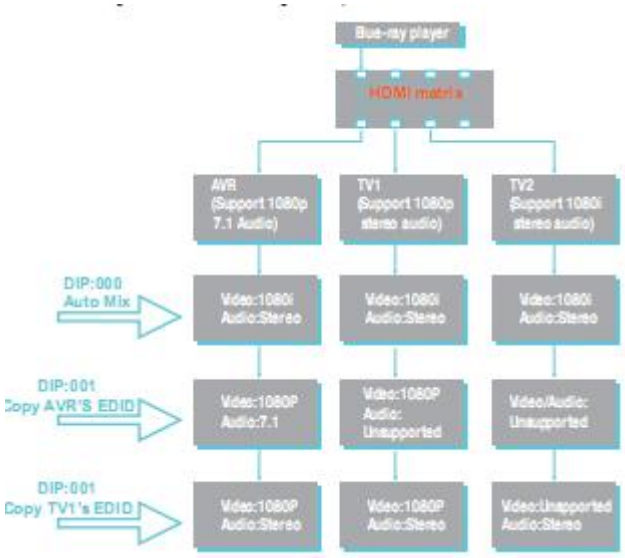
2. Connect the AVR to one of the output ports. For example, connect to output1.

3. Power on the matrix. Select the source of the AVR (for example input2) to the input port which

is connected to BD-player.

4. Press and hold the output1 key more than 3 seconds, the matrix will copy the EDID data from output1 to input2.

Below is the diagram for the some usage examples.

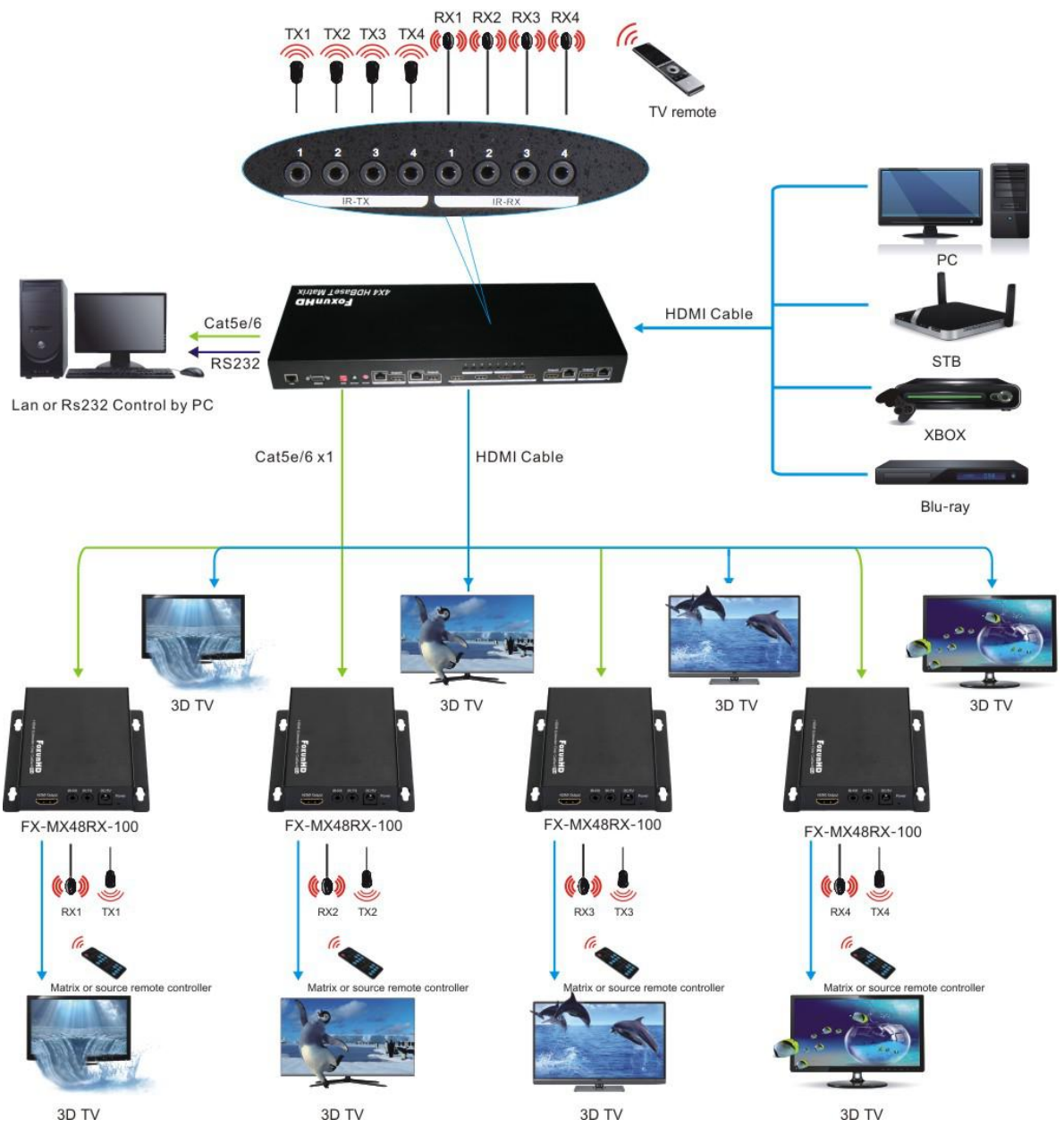


RS-232 pin assignment

HDMI Matrix			Remote Control Console	
PIN	Assignment		PIN	Assignment
1	NC	→	1	NC
2	TX	←	2	RX
3	RX	—	3	TX
4	NC		4	NC
5	GND		5	GND
6	NC		6	NC
7	NC		7	NC
8	NC		8	NC
9	NC		9	NC

Typical Application

The IR is Wide-band (support 38khz-56khz)



Attention: 1) Insert/Extract cable gently.

2) Please don't insert into or pull out HDMI Cable when power on. please connect Cable only when power is off.

MAINTENANCE

Clean this unit with a soft, dry cloth. Never use alcohol, paint thinner of benzene to clean this unit.

PRODUCT SERVICE

1) **Damage requiring service:** The unit should be serviced by qualified service personnel if:

(a)The DC power supply cord or AC adaptor has been damaged;

(b)Objects or liquids have gotten into the unit;

(c)The unit has been exposed to rain;

(d)The unit does not operate normally or exhibits a marked change in performance;

(e)The unit has been dropped or the cabinet damaged.

2) **Servicing Personnel:** Do not attempt to service the unit beyond that described in these operating instructions. Refer all other servicing to authorized servicing personnel.

3) **Replacement parts:** When parts need replacing ensure the servicer uses parts specified by the manufacturer or parts that have the same characteristics as the original parts. Unauthorized substitutes may result in fire, electric shock, or other hazards.

4) **Safety check:** After repairs or service, ask the servicer to perform safety checks to confirm that the unit is in proper working condition.

WARRANTY

If your product does not work properly because of a defect in materials or workmanship, our Company (referred to as "the warrantor") will , for the length of the period indicated as below, **(Parts(2)Year ,Labor(90) Days)** which starts with the date of original purchase ("Limited Warranty period"), at its option either(a) repair your product with new or refurbished parts, or (b) replace it with a new of a refurbished product. The decision to repair or replace will be made by the warrantor.

During the "Labor" Limited Warranty period there will be no charge for labor.

During the "Parts" warranty period, there will be no charge for parts. You must mail-in your product during the warranty period. This Limited Warranty is extended only to the original purchaser and only covers product purchased as new. A purchase receipt or other proof of original purchase date is required for Limited Warranty service.

LIMITED WARRANTY LIMITS AND EXCLUSIONS

1) This Limited Warranty ONLY COVERS failures due to defects in materials or workmanship, and DOES NOT COVER normal wear and tear or cosmetic damage. The Limited Warranty ALSO DOES NOT COVER

damages which occurred in shipment, or failures which are caused by products not supplied by warrantor,or failures which result from accidents,misuse,abuse,neglect, mishandling, misapplication, alteration, faulty installation, set-up adjustments, misadjustment of consumer controls, improper maintenance, power line surge, lightning damage, modification, or service by anyone other than a Factory Service center or other Authorized Servicer, or damage that is attributable to acts of God.

2) THERE ARE NO EXPRESS WARRANTIES EXCEPT AS LISTED UNDER "LIMITED WARRANTY COVERAGE".THE WARRANTOR IS NOT LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OF THIS PRODUCT, OR ARISING OUT OF ANY BREACH OF THIS WARRNTY. (As examples, this excludes damages for lost time, cost of having someone remove or re-install an installed unit if applicable, travel to and from the service, loss of or damage to media or images, data or other recorded content. The items listed are not exclusive, but are for illustration only.

PARTS AND SERVICE, WHICH ARE NOT COVERED BY THIS LIMITED WARRANTY, ARE YOUR RESPONSIBILITY.