User Manual

EXP-HDMI-7201

4K UHD HDMI KVM EXTENDER

Version: EXP-HDMI-7201_2022V4

GENERAL SAFETY INSTRUCTIONS

When using electronic products, please review the following safety precautions before installing or using the products.

i. Read these instructions.

ii. Keep these instructions.

iii. Follow all instructions.

iv. Heed all warnings.

v. Be sure all cables and equipment are connected to the unit as described in the manual.

vi. Do not use this product near water.

vii. Do not place the product on top of any easily combustible materials such as carpet or fabric.

viii. Do not stack the product on top of a hot component such as a power amplifier.

ix. Do not use liquid or aerosol cleaners to clean the product. Clean only with a dry cloth and always unplug the power to the device before cleaning.

x. Do not block any ventilation openings. Blocking the airflow could cause damage. Arrange components so that air can flow freely. Ensure that there is adequate ventilation if the product is placed in a stand or cabinet. Install or place the product in a properly ventilated area, away from direct sunlight or any source of heat such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.

xi. The power cord must be accessible to allow for the removal of the power from the product.

xii. Only use attachments/accessories specified by the manufacturer.

xiii. To reduce the risk of electric shock and/or damage to this product, never handle or touch this unit or power cord if your hands are wet.

xiv. To avoid electric shock, never stick anything in the slots on the case or remove the cover.

Be careful with electricity:

- **Power outlet:** To prevent electric shock, be sure the electrical plug used on the product power cord matches the electrical outlet used to supply power to the HPC product. Use only the power adapter and power connection cables designed for this unit.

- **Power Adaptor:** Be sure the power adaptor is 5V/2A, please match the rating of the power voltage.

- **Lightning:** For protection from lightning or when the product is left unattended for a long period, disconnect it from the power source.

- **ESD:** Handle the product with proper ESD care. Failure to do so can fail.

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Content

INTRODUCTION

EXP-HDMI-7201 with us allows one HDMI, Bi-direction IR, Bi-direction RS232, and USB KVM function to be connected up to 100meters via a single CAT.6 cable for Computer, Laptop, BD Player, Game Console, and other HDMI source devices. Supporting 4Kx2K/60Hz UHD resolution with 12-bit deep color and lossless compressed audio that make 4KEXTENDER-100 a smart choice for home entertainment, company conference, commercial advertising, and other applications.
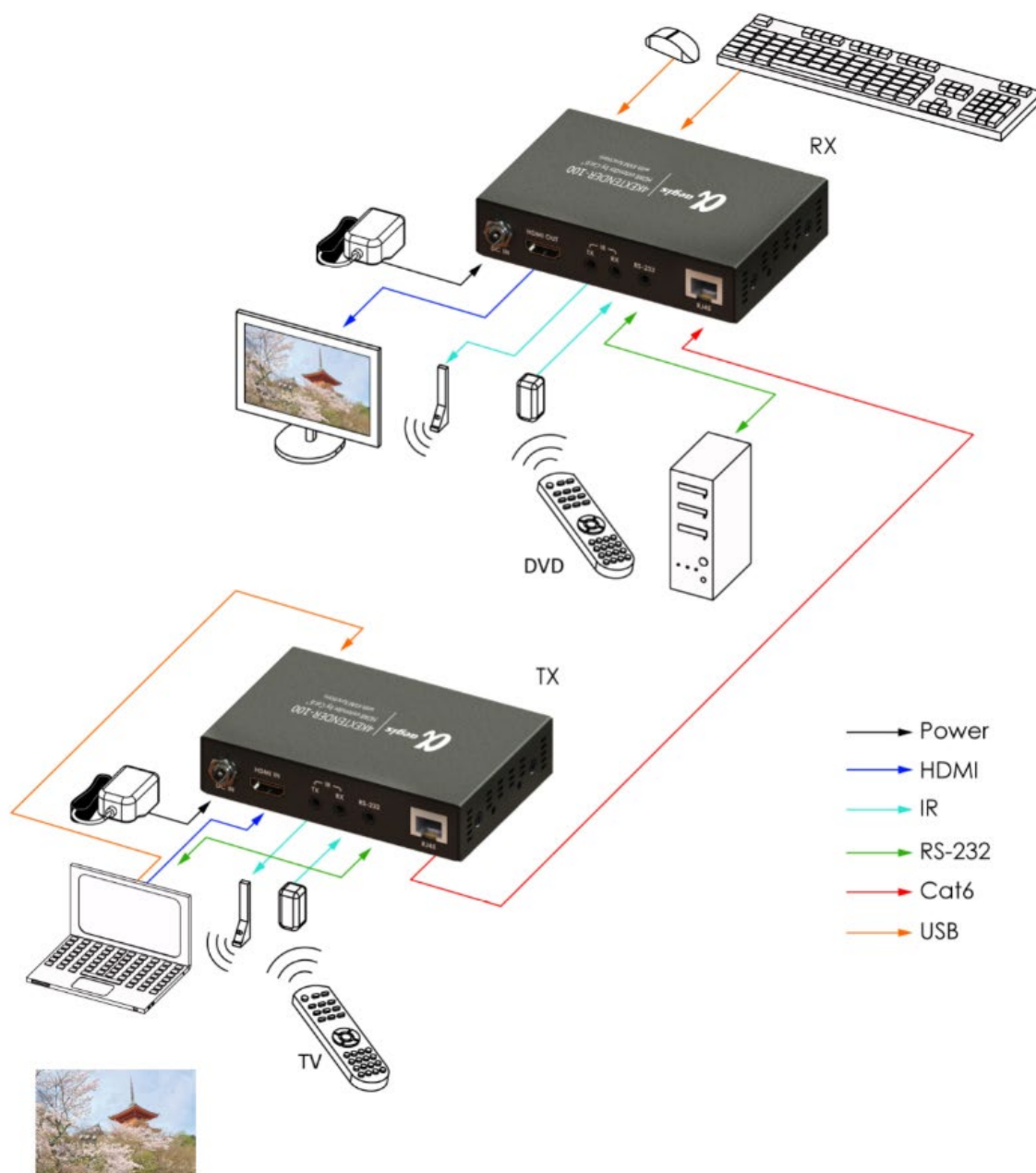
PACKAGE CONTENTS

- ➤ EXP-HDMI-7201 Transmitter X 1 PCS
- ➤ EXP-HDMI-7201 Receiver X 1 PCS
- ➤ 5VDC / 2.0 Amp Locking Power adapter X 2 PCS (US, UK, EU Power plug.)
- ➤ IR Blaster Cable X 1 PCS
- ➤ IR Receiver Cable X 1 PCS
- ➤ 3.5mm to RS232 Cable X 2 PCS
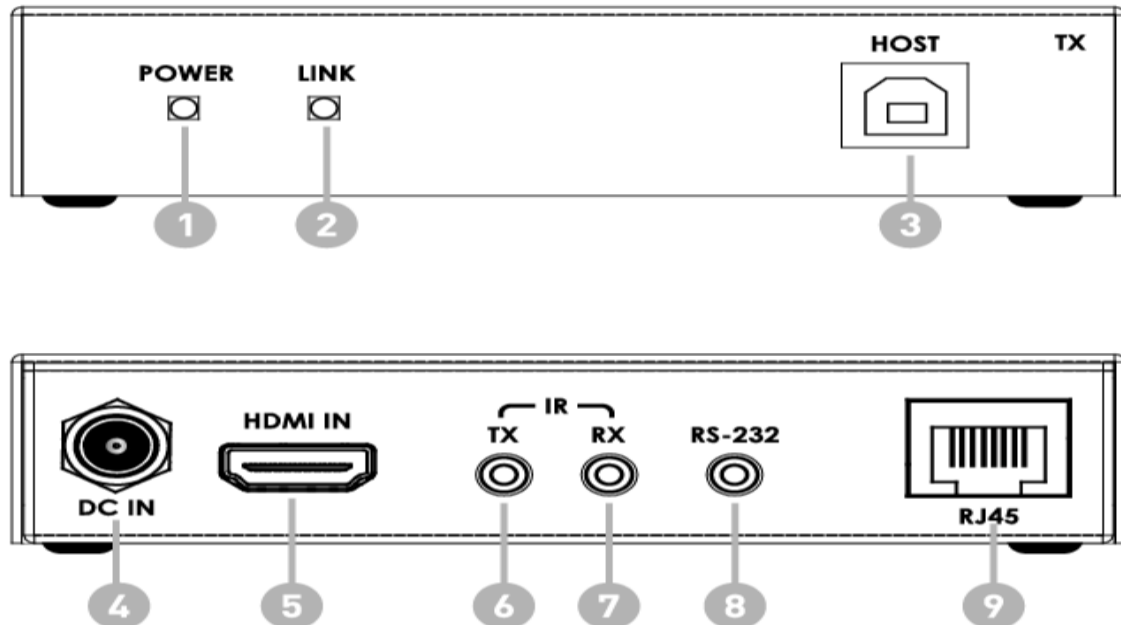- ➤ User Manual X 1 PCS

SYSTEM REQUIREMENTS

- ➤ HDMI Source device includes SetTop Box, BD Player, Computer, Laptop, Game Console, Media Player, and Camcorder.
- ➤ HDMI Sink device includes LED/LCD Monitor, LED/LCD TVs, Projector, and AV Receiver.
- ➤ USB device includes Computer, Laptop, Mouse, and Keyboard
- ➤ HDMI 2.0 Premium Certified Cable-Highly recommended
- ➤ Standard 24AWG Cat.6, Cat.6e or Cat.7 Cable-Highly recommended

CONNECTION DIAGRAM

DEVICE FUNCTION

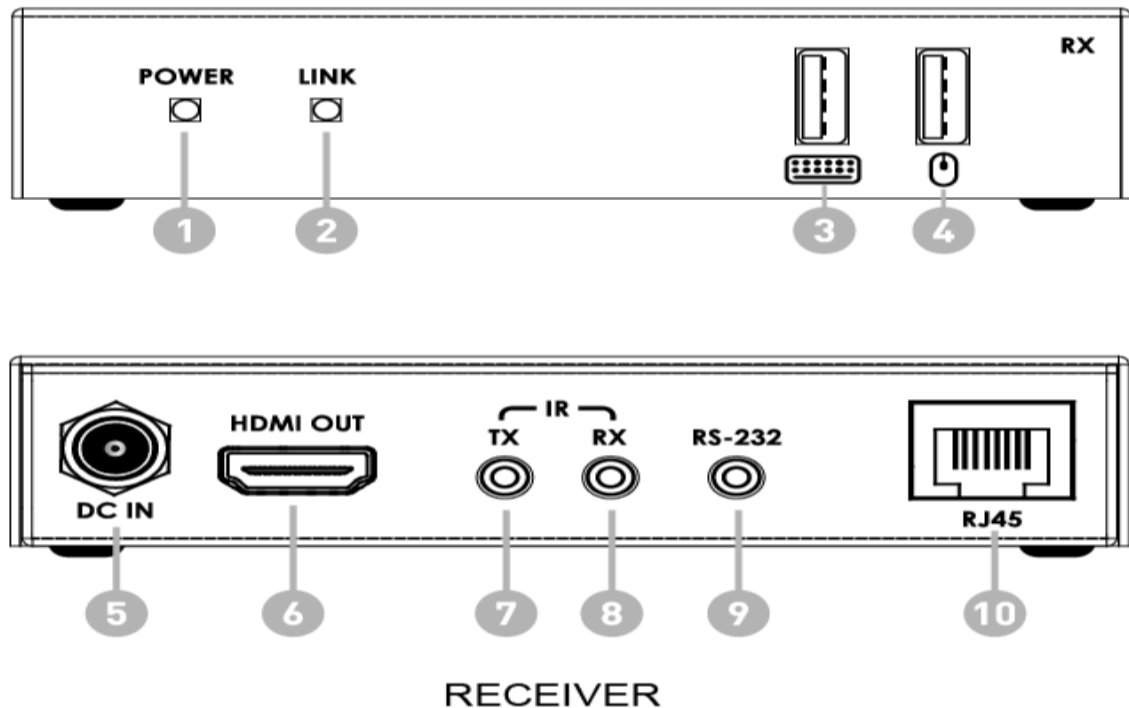## Transmitter Panel

TRANSMITTER

1. POWER LED: This LED will illuminate when the power adapter plugs into the EXP-HDMI-7201 Transmitter.
2. LINK LED: This LED will illuminate when the Transmitter connects compatible Receiver and all signals start transmission.
3. HOST: Connect to USB devices, such as Computers and Laptops.
4. DC IN: 5VDC / 2.0 Amp Locking Power Jack
5. HDMI IN: Connect to HDMI source devices, such as SetTop Box, BD Player, Computer, Laptop, Game Console, Media Player, and Camcorder.
6. IR TX: Transmitting IR signal to remote control HDMI source devices via IR Blaster Cable.
7. IR RX: Receiving IR signal to remote control HDMI sink devices via IR Receiver Cable.
8. RS-232: Connect to a Computer, Laptop, and another serial control device via a 3.5mm to RS232 Cable.
9. RJ45: Connect to EXP-HDMI-7201 Receiver with single Cat.6 cable for HDMI, IR Blaster, IR Receiver, and RS232 signal transmission.

Receiver Panel

RECEIVER
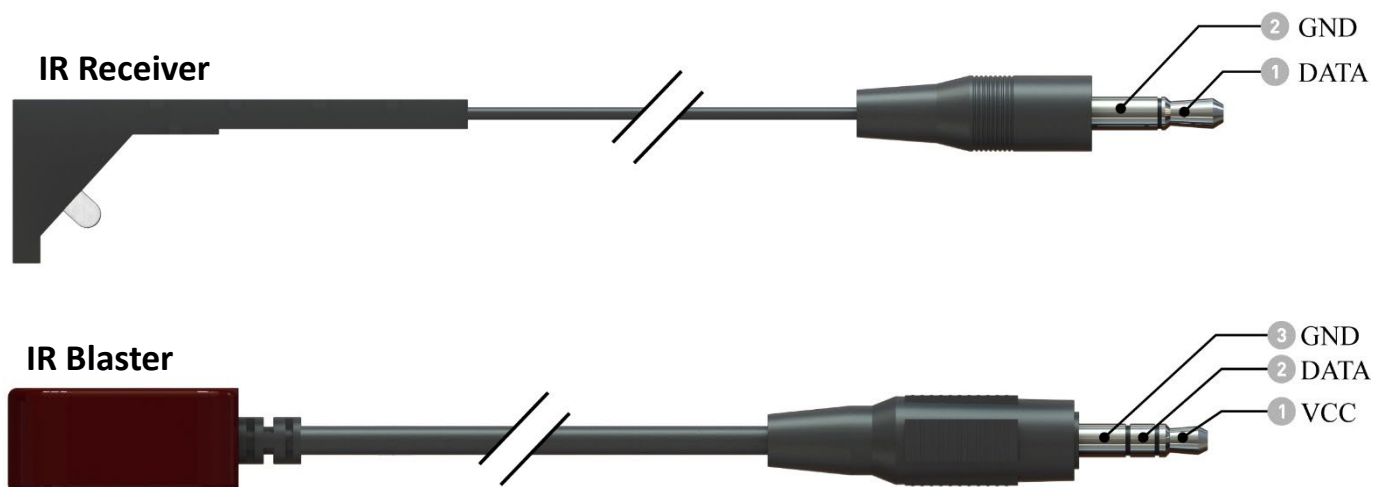
1. **POWER LED: This LED will illuminate when the power adapter plugs into the EXP-HDMI-7201 Receiver.**
2. **LINK LED: This LED will illuminate when the Receiver connect compatible Transmitter and all signal start to transmission.**

3. ▦ **: Connect USB-type Keyboard.**

4. 🖱 **: Connect USB-type Mouse.**
5. **DC IN: 5VDC / 2.0 Amp Locking Power Jack**
6. **HDMI OUT: Connect to HDMI sink devices, such as LED/LCD monitors, LED/LCD TVs, Projector, and AV Receiver.**
7. **IR TX: Transmitting IR signal to remote control HDMI sink devices via IR Blaster Cable.**
8. **IR RX: Receiving IR signal to remote control HDMI source devices via IR Receiver Cable.**
9. **RS-232: Connect to a serial control device via a 3.5mm RS232 Cable.**
10. **RJ45: Connect to EXP-HDMI-7201 Transmitter with single Cat.6 cable for HDMI, IR Blaster, IR Receiver, and RS232 signal transmission.**
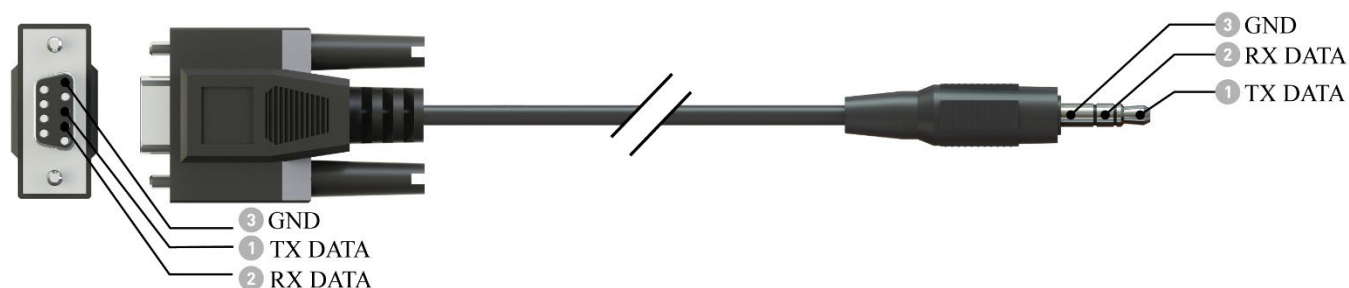
IR Pin Assignment

IR Receiver

② GND
① DATA

IR Blaster

③ GND
② DATA
① VCC

RS232 Pin Assignment

③ GND
② RX DATA
① TX DATA

③ GND
① TX DATA
② RX DATA

TECHNICAL SPECIFICATION

Transmitter Specification

HDMI Bandwidth	600MHz / 18.0Gbps
HDMI Resolution	480P, 720P, 1080P/24, 30, 50,60Hz, 4Kx2K/24, 30,60Hz.
Audio Format	2 Channel 16/20/24bit PCM at 32/44.1/48KHz
	IEC 61937 Compress audio with IEC 60958 frame rate at 2/44.1/48KHz, up to 8 channels.
	IEC Compressed audio format.
HDCP	1.3, 1.4 and 2.2
Input Port	HDMI X 1
Output Port	RJ45 X 1 - Cat.6/6e/7
Control Port	IR Blaster X 1 - 3.5mm
	IR Receiver X 1 - 3.5mm
	RS232 X 1 - 3.5mm
	USB 1.1 Type B X 1
IR Frequency	20-60Khz
Baud Rate	Up to 115200 bps
Power Supply	5VDC / 2.0 Amp (US, UK, EU Power Plug)
Power Consumption	10 W - Max.
Chassis Material	Metal
Chassis Color	Black
Operating Temperature	0℃ -40℃ / 32℉ -104℉
Storage Temperature	-15℃ -55℃ / 5℉ -131℉
Humidity	5 - 85% RH (Non-Condensing)
Dimension LXWXH	4.33 in (110 mm) X 2.95 in (75 mm) X 0.98 in (25 mm)
Weight	270 g

Note:

IEC 61937 Compressed audio formats include: Dolby Digital 5.1(AC-3), MPEG-1 Audio, MP3, MPEG-2 Audio, AAC LC, DTS 5.1 Surround, ATRAC, Dolby Digital Plus 7.1(EAC-3), DTS-HD 7.1 Surround, WMA Pro, Dolby TrueHD 7.1 (MLP), MPEG-4 Audio (HE-ACC), MPEG-4 Audio v2 (HE-AACv2, also referred to as AAC+v2 or EAAC+)

Receiver Specification

HDMI Bandwidth	600MHz / 18.0Gbps
HDMI Resolution	480P, 720P, 1080P/24, 30, 50,60Hz, 4Kx2K/24, 30,60Hz.
Audio Format	2 Channel 16/20/24bit PCM at 32/44.1/48KHz
	IEC 61937 Compress audio with IEC 60958 frame rate at 2/44.1/48KHz, up to 8 channels.
	IEC Compressed audio format.
HDCP	1.3, 1.4 and 2.2
Input Port	RJ45 X 1 - Cat.6/6e/7
Output Port	HDMI X 1
Control Port	IR Blaster X 1 - 3.5mm
	IR Receiver X 1 - 3.5mm
	RS232 X 1 - 3.5mm
	USB 1.1 Type A X 1 – Keyboard
	USB 1.1 Type A X1 – Mouse
IR Frequency	20-60Khz
Baud Rate	Up to 115200 bps
Power Supply	5VDC / 2.0 Amp (US, UK, EU Power Plug)
Power Consumption	10 W - Max.
Chassis Material	Metal
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Resolution Specifications

Supported Resolutions (Hz)	HDMI Output
720x400p@70 85	V
720x480i@60	V
720x480p@60	V
720x576i@50	V
720x576p@50	V
800x600@56 60 72 75 85	V
848x480p@60	V
1024x768@60 70 75 85	V
1152x864@75	V
1280x720p@50 60	V
1280x768@60RB/60 75 85	V
1280x800@60RB/60 75 85	V
1280x960@60 85	V
1280x1024@60 75 85	V
1360x768@60	V
1366x768@60RB 60	V
1400x1050@60RB 60	V
1440x900@60RB 60 75	V
1600x900@60RB	V
1600x1200@60	V
1680x1050@60RB 60	V
1920x1080i@50 60	V
1920x1080p@24 25 30	V
1920x1080p@50 60	V
1920x1200@60	V
2560x1440@60	V
2560x1600@60	V
2048x1080p@24 25 30	V
2048x1080p@50 60	V

Supported Resolutions (Hz)	HDMI Output
3840x2160p@24 25 30	v
3840x2160p@50 60 (4:2:0)	v
3840x2160p@24 25 30 HDR10	X
3840x2160p@50 60 (4:2:0) HDR10	X
3840x2160p@50 60	v
4096x2160p@24 25 30	v
4096x2160p@50 60 (4:2:0)	v
4096x2160p@24 25 30 HDR10	X
4096x2160p@50 60 (4:2:0) HDR10	X
4096x2160p@50 60	v

Cable Specifications

Cable Length	1080p/60Hz 8 bit	4K/30Hz 8 bit 4:4:4	4K/60Hz 8 bit 4:4:4
HDMI High-Speed Cable	10m	5m	2m
Cat.6/6e/7	140m	120m	100m

ACRONYMS

ACRONYM	DESCRIPTION
AV	Audio/Video
Cat.6	Category 6 Cable
Cat.6e	Category 6 Enhance Cable
Cat.7	Category 7 Cable
EDID	Extended Display Identification Data
HDMI	High-Definition Multimedia Interface Cable
HDCP	High Bandwidth Digital Content Protection
HDR	High Dynamic Range
IR	Infrared
LCD	Liquid-Crystal Display
LED	Light-Emitting Diode
RJ45	Local Area Network
RS232	Serial Control Cable
UHD	Ultra High Definition

WARRANTY

This warranty shall not apply if any of the following:

A. The product has been damaged by negligence, accident, lightning, water, or mishandling.

B. The product has not been operated under procedures specified in operating instructions.

C. The product has been repaired and or altered by other than the manufacturer or authorized service center.

D. The product's original serial number has been modified or removed.

E. External equipment other than supplied by the manufacturer, in the determination of a manufacturer, shall have affected the performance, safety, or reliability of the product.

F. Part(s) are no longer available for the product.

If the product needs repair or replacement during the specified warranty period, the product should be shipped back to the Manufacturer at Purchaser's expense. Repaired or replaced product shall be returned to the Purchaser by standard shipping methods at the Manufacturer's discretion. Express shipping will be at the expense of the Purchaser.

No other warranty, express or implied other than Manufacturers shall apply.

The manufacturer does not assume any responsibility for consequential damages, expenses or loss of revenue or property, inconvenience, or interruption in operation experienced by the customer due to a malfunction of the purchased equipment. No warranty service performed on any product shall extend the applicable warranty period. This warranty does not cover damage to the equipment during shipping and the Manufacturer assumes no responsibility for such damage. This product warranty extends to the original purchaser only and will be null and avoided upon any assignment or transfer.