

HDMI HDBaseT Extender, 100m with USB

SC05.8100U



Scion Tech Ltd
Unit 10
Thatcham Business Village
Colthrop Lane
Thatcham
Berkshire. RG19 4LW
United Kingdom

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.

Surge protection device recommended
This product contains sensitive electrical components that may be damaged by electrical spikes, surges, electric shock, lighting strikes, etc. Use of surge protection systems is highly recommended in order to protect and extend the life of your equipment.

Table of Contents

1.	Introduction.....	1
2.	Features	1
3.	Package Contents	1
4.	Specifications	2
5.	Operation, Control and Functions	3
	5.1 Transmitter Panel	3
	5.2 Receiver Panel	4
	5.3 IR Pin Connections.....	5
6.	Application Drawing.....	6
7.	Servicing, Warranty and Maintenance.....	7
	7.1 Servicing.....	7
	7.2 Warranty	7
	7.3 Returning a product.....	7
	7.4 Limited Warranty and Exclusions	8

Description

This 18Gbps Extender extends high definition video, audio, bi-directional IR, RS-232, USB 2.0 for KVM, CEC and 1G LAN. The supported transmission distance is up to 90 meters for 4K2K@60Hz 4:4:4 resolution and 100 meters for 1080P60Hz resolution between transmitter and receiver over a single CAT 5e/6 cable.

The transmitter supports local audio extraction, bi-directional IR pass-through for controlling both source and display devices. It also supports PoC (power over cable).

The extender includes two units, transmitter and receiver. The transmitter captures the incoming signals and transmits them over one cost effective Cat5e/6 cable. The receiver unit receives the signals and presents them as outputs for connecting to your devices.

This extender offers the most convenient solution for HDMI extension via a single Cat5e/6 with long distance capability, and is the perfect solution for any application.

Main Features

- HDMI 2.0b, HDCP 2.2 Compliant
- Up to 4K/60Hz with 24bit RGB/YCBr 4:4:4
- 18Gbps Zero Latency (Uncompressed)
- HDR, HDR10, HDR10+ and Dolby Vision pass through
- LPCM 7.1CH, Dolby True HD and DTS-HD Master Audio
- Up to 100m using CAT6/6a cable
- Supports USB 2.0 for KVM
- Two way IR, Full Duplex RS232, 1Gbps LAN and CEC pass-through
- Receiver Supports Audio Extraction
- Power over Cable (PoC)

Package Contents

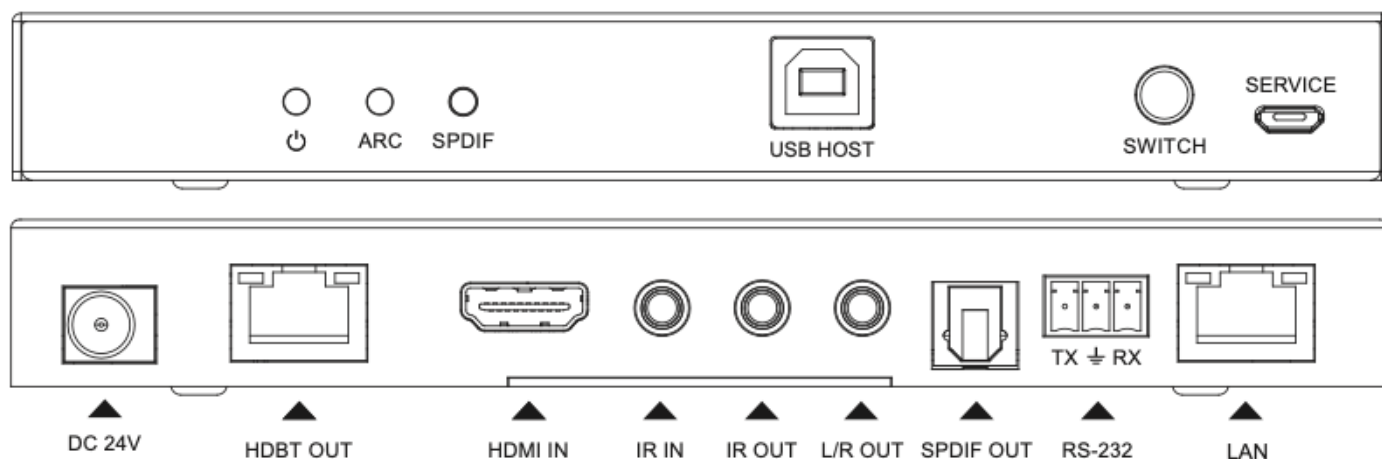
- 1 x Transmitter
- 1 x Receiver
- 1 x IR Blaster Cable (1.5m)
- 1 x IR Receiver Cable (1.5m)
- 1 x 24V / 1A Power Supply
- 2 x 3-Pin Phoenix Terminal
- 4 x Mounting Ears
- 1 x User Manual

4. Specifications

Connections		
Transmitter	Input:	1 x HDMI Type A (19-Pin Female)
	Output:	1 x HDBaseT (RJ45 Data Socket)
		1 x SPDIF (Optical)
		1 x L/R Stereo Audio (3.5mm Jack Socket)
		1 x 1G LAN (RJ45 data socket)
		1 x IR IN (3.5mm Jack Socket)
	Control:	1 x IR Out (3.5mm Jack Socket)
		1 x RS232 (Phoenix Terminal)
		1 x Service (Mini-USB)
		1 x USB Host (USB-B, 4-Pin Female)
Receiver	Input:	HDBaseT (RJ45 Data Socket)
		1 x SPDIF (Optical)
	Output:	1 x HDMI Type A (19-Pin Female)
		1 x 1G LAN (RJ45 data socket)
	Input:	1 x IR IN (3.5mm Jack Socket)
		1 x IR Out (3.5mm Jack Socket)
		1 x Service (Mini-USB)
		1 x RS232 (Phoenix Terminal)
		2 x USB (USB-A, 4-Pin Female)
Technical		
HDMI and HDCP Compliance		HDMI 2.0b, HDCP 2.2 / HDCP 1x and DVI 1.0
HDMI in/out Video Resolutions		4K2K 50/60Hz 4:4:4
		4K2K 50/60Hz 4:2:0
		4K2K 30Hz 4:4:4
		1080p, 1080i, 720p, 480p, 480i
		All PC resolutions including 1920 x 1200
Colour Space		RGB, YCbCr 4:4:4, YCbCr 4:2:2, YCbCr 4:2:0
Colour Depth		8-bit, 10-bit, 12-bit, [1080p, 4K/30Hz, 4K/60Hz (YCbCr 4:2:0) 8-bit [4K/60Hz (YCbCr 4:4:4)]
HDMI Audio Formats		PCM 2.0 / 5.1 / 7.1CH, Dolby Digital/Plus/EX, Dolby True HD, DTS, DTS-EX, DTS-96/24, DTS High Res, DTS HD Master Audio, DSD
L/R Audio Formats		PCM 2.0, Dolby Digital, Dolby Digital Plus, DTS
HDR Formats		HDR10, HDR10+, HLG
USB		USB 2.0, Transmission Rate up to 480mb/s
Infrared Frequency		20 to 60KHz
Power		
Power Supply	Input:	100~240V 50/60Hz
	Output:	DC 24V / 1A
Power Consumption		13W (max)
Operating Temperature		Operating Temp. 0°C ~ 40°C, Storage Temp. -20°C ~ 60°C
Relative Humidity		20~90% RH (non-condensing)
Mechanical		
Housing		Metal Enclosure, Colour Black
Dimensions		TX & RX = (W) 165 x (D) 88 x (H) 20mm
Weight		TX = 170g and RX = 165g

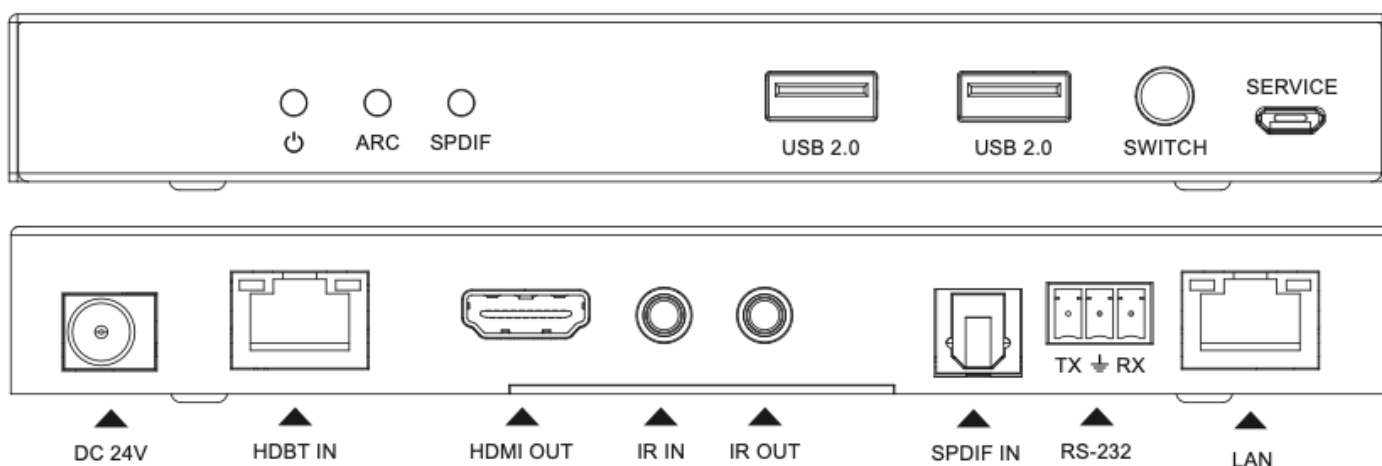
5. Operation Controls and Functions

5.1 Transmitter Panel



Name	Description / Function
Power LED	The LED will illuminate RED when powered ON.
ARC LED	The LED will illuminate GREEN when ARC is enabled.
SPDIF LED	The LED will illuminate Green when audio outputs the SPDIF from the receiver.
USB Host	USB Type B port. Connection for PC.
Service Port	Used only for firmware updates
Power	DC 24V /1A Power Input. Note: The products support PoC and therefore only one end (either the transmitter or receiver) requires power.
HDBaseT Out	RJ45 Data output for connecting directly to the receiver. Note: This product does not support routers, switches or other network devices and should be connected end to end only.
Connection LED	Illuminates: Good connection between transmitter & receiver Flashes: Poor connection between transmitter & receiver Dark: No connection between the transmitter & receiver
Signal LED	Illuminates: HDMI signal with HDCP Flash: HDMI signal without HDCP Dark: No HDMI Signal
HDMI In	Connect HDMI source
IR In	IR input for receiver IR signals from a remote control
IR Out	IR output for controlling source device.
L/R Out	Stereo analogue audio output
SPDIF Out	SPDIF digital audio output
RS232	Full Duplex RS232 data between transmitter & receiver
LAN	1Gbps LAN pass-through.

5.2 Receiver Panel

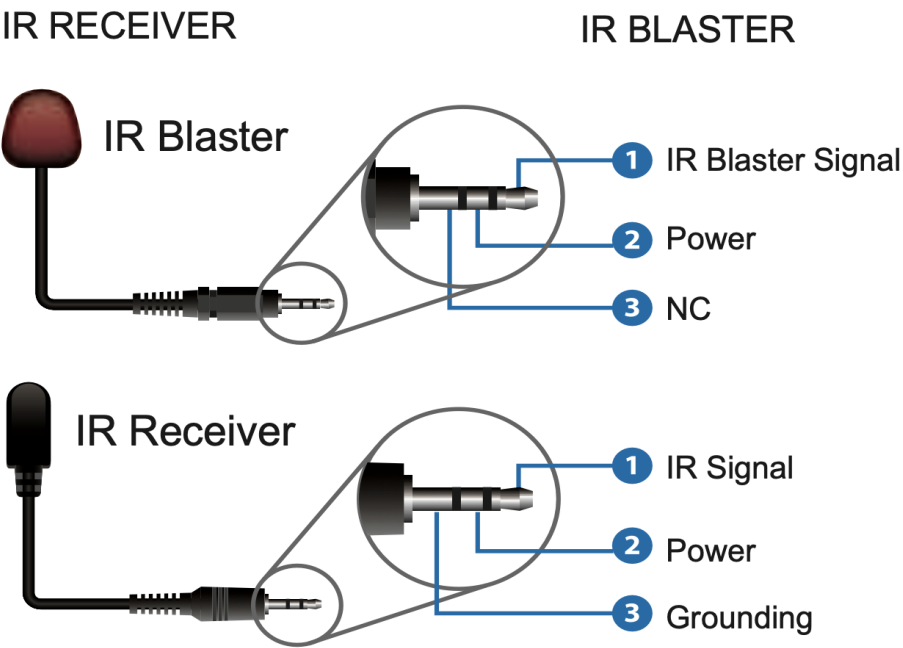


Name	Description / Function
Power LED	The LED will illuminate RED when powered ON.
ARC LED	The LED will illuminate GREEN when ARC is enabled.
SPDIF LED	The LED will illuminate Green when audio outputs the SPDIF from the receiver.
USB 2.0	USB Type A ports. Connection for keyboard and mouse.
Service Port	Used only for firmware updates
Power	DC 24V /1A Power Input. Note: The products support PoC and therefore only one end (either the transmitter or receiver) requires power.
HDBaseT In	RJ45 Data output for connecting directly to the transmitter. Note: This product does not support routers, switches or other network devices and should be connected end to end only.
Connection LED	Illuminates: Good connection between transmitter & receiver Flashes: Poor connection between transmitter & receiver Dark: No connection between the transmitter & receiver
Signal LED	Illuminates: HDMI signal with HDCP Flash: HDMI signal without HDCP Dark: No HDMI Signal
HDMI In	Connect HDMI source
IR In	IR input for receiver IR signals from a remote control
IR Out	IR output for controlling source device.
SPDIF Out	SPDIF digital audio output
RS232	Full Duplex RS232 data between transmitter & receiver
LAN	1Gbps LAN pass-through.

5.3 Audio Signal Output Switching

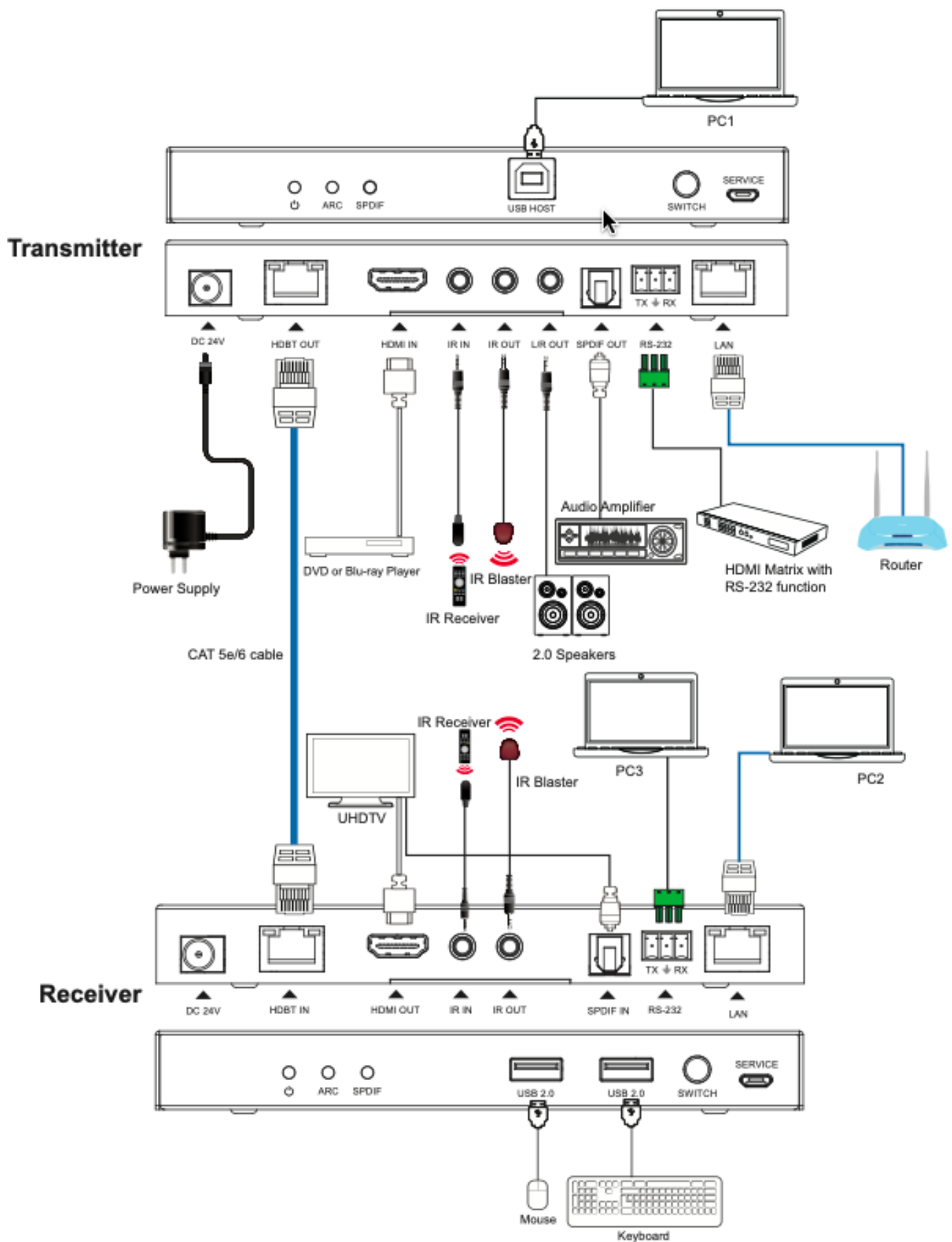
Switch the output audio signal source for SPDIF OUT and L/R OUT port using the “SWITCH” button on the panel (the corresponding LED will illuminate). The status of ARC LED and SPDIF LED indicate the audio output logic, as shown in the table below:

ARC LED Status	SPDIF LED Status	Audio Output Logic
ON	OFF	The SPDIF OUT, L/R OUT and HDMI IN ports of the Transmitter simultaneously output the audio signal returned from HDMI (display device) on Receiver.
ON	ON	The SPDIF OUT and L/R OUT ports output the audio signal returned from HDMI (display device) on Receiver.
OFF	ON	The SPDIF OUT and L/R OUT ports output the audio signal returned from SPDIF IN on Receiver.
OFF	OFF	The SPDIF OUT and L/R OUT ports output the audio signal extracted from the Transmitter.



Note: When the angle between the IR receiver and the remote control is $\pm 45^\circ$, the transmission distance is 0-5 meters; when the angle between the IR receiver and the remote control is $\pm 90^\circ$, the transmission distance is 0-8 meters. the angle between the IR receiver and the remote

6. Application Drawing



7. Maintenance, Service & Warranty

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

7.1 Servicing

Damage requiring service: This product should be serviced by a qualified service engineer if:

- The DC power cord or AC adaptor has been damaged.
- Objects or liquids have entered the housings.
- The product has been exposed to rain.
- The product has stopped working or shows signs of significant change in operating performance or function.
- The unit has been dropped or severely damaged externally.

Servicing personnel: Do not attempt to service the product beyond that described in these instructions.

Refer all other servicing to authorised servicing personnel.

Replacement parts: When parts need replacing ensure the service engineer uses parts specified by the manufacture or parts that have the same characteristics as the original parts. Unauthorised substitutes may result in fire, electric shock or other hazards.

Safety check: After a repair or service, ask the engineer to perform safety checks to confirm the product is in proper working condition.

7.2 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 and labour 2 years) 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 or a refurbished product. The decision to repair or replace will be made by the warrantor.

During the "Labour" Limited Warranty period there will be no charge for labour. 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.

7.3 Returning a Product

When shipping the unit carefully pack and send it prepaid, adequately insured and preferably in the original carton. Include a letter detailing the complaint and provide a day time phone number and/or email address where you can be reached.

7.4 Limited warranty limits and exclusions

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, maladjustment of consumer controls, improper maintenance, power line surge, lightning damage, modification, or service by anyone other than a Factory Service centre or other authorised service engineer, or damage that is attributable to acts of God.

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 WARRANTY. (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. This returns policy does not affect your legal rights. Details of your legal rights are available from Trading Standards or Citizens Advice Consumer Service.

Scion Tech Ltd
Unit 10
Thatcham Business Village
Colthrop Lane
Thatcham
Berkshire. RG19 4LW
United Kingdom