

1:4 HDMI Splitter over CAT6 18G, 4K/60Hz 4:4:4, HDR

SC02.6040



User Manual

Version 1.1

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.

The manual is only for operational purposes, please contact a local dealer for maintenance assistance. The functions described in this version were updated in July 2020. In the constant effort to improve this product, we reserve the right to make functional or parameter changes without notice or obligation. Please refer to your local dealer for the latest details.

Surge protection device recommended

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

FCC Statement

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 equipment. It 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 commercial installation.

Any changes or modifications not expressly approved by the manufacture would void the user's authority to operate the equipment.



Safety Precautions

- Unpack the equipment carefully and save the packaging for possible future use.
- Follow basic safety precautions to reduce the risk of fire, electric shock and personal injury.
- Do not dismantle the housing or modify the enclosure as this may result in electric shock or personal injury.
- Using parts or components not meeting the manufactures specifications may result in damage, deterioration or malfunction of the device.
- Refer all and any servicing to the manufacturer or local dealer.
- To prevent electric shock, do not expose this device to rain, moisture or install this product near water.
- Do not place items on the product as this may result in overheating.
- Do not open or remove the housing as this may expose you to harmful voltages or electric shock.
- Ensure the product has plenty of ventilation above and below.
- Liquid spillage over or inside the product may result in electric shock and permanent damage. In the event of spillage remove the power immediately.
- Do not pull or twist the optical cables as this may result in damage to the optical connector.
- Do not use liquid or aerosol cleaners on the product and always remove the power before cleaning.
- Remove the power if the product is going to be left for long periods without use.
- Information on disposal for scrapped devices: do not burn or mix with general household waste and please treat the product as normal electrical waste.

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1.0 Introduction

This professional 1 in 4 out HDMI splitter over CAT6 delivers lossless 4K/60Hz video resolution up to 60m over a single CAT6 cable. With it's 18G high spec performance, this splitter supports 8/10/12bit colour depth, YCbCr 4:4:4 colour space, HDR, HDR+, HLG and Dolby Vision™. The splitter also supports all digital audio formats up to LPCM 7.1 and offers de-embedded analogue and digital audio for connecting to a sound system. A looped HDMI output is provided for connecting a local screen or stacking several splitters for larger installations.

Each receiver has an Infra-Red return path for controlling the soucre device and the receivers are powered from the splitter over CAT6 (PoC), therefore removing the need for local PSU's behind the screens.

The advanced EDID management ensures the splitter is compatible with all displays making this splitter quick and easy to install.

This splitter is supplied with 4 x receivers and is ideal for the home, retail displays, education, control centres, churches or anywhere were you have multiple displays spread over long distances.

1.1 Key Features

- 18G, 1:4 HDMI Splitter over CAT6
- HDMI 2.0, HDCP 2.2
- Up to 60m Distance over CAT6/6a/7
- 4K/60Hz, YCbCr 4:4:4, HDR, HDR10+
- LPCM 7.1, Dolby True HD, DTS-HD
- Looped HDMI output
- Return IR Path for Source Control
- Extracts analogue and digital audio
- Advanced EDID Management
- PoC (Power over Cable)

1.2 Package contents

1. 1 x Main Unit (SC02.6040)
2. 1 x IR Emitters
3. 4 x Receivers
4. 4 x IR Senders cables
5. 1 x Power Adaptor 12V/2.5A
6. User Manual

2.0 Specifications

Connections

Main Unit (Splitter)

HDMI Input: 1 x HDMI Type A, 19-Pin Female

CAT6/6a/7 Output: 4 x RJ45 Data socket

Looped HDMI Output: 1 x HDMI Type A, 19-Pin Female

Digital Audio Output: 1 x Coax RCA Phono

Analogue L/R Audio Output: 1 x 3.5mm Stereo Jack Socket

Infra-Red Output: 1 x 3.5mm Jack Socket

RS232 Service: 1 x Micro USB

Power: 1 x DC Jack

Receiver

CAT6/6a/7 Input: 1 x RJ45 Data Socket

HDMI Output: 1 x HDMI Type A, 19-Pin Female

Infra-Red Input: 1 x 3.5mm Jack Socket

RS232 Service: 1 x Micro USB

Power: 1 x DC Jack (not required when used with SC02.6040)

Signal

Signal Input: HDMI

Standards: HDMI 2.0b, HDCP 1.x and 2.2

Bandwidth: 18Gbps

Video Resolutions: 4K/60Hz, 4:4:4

Colour Space: RGB/YCbCr 4:4:4, YCbCr 4:2:2, YUV 4:2:0, HDR, HDR 10+, HLG, Dolby Vision

Colour Depth: 8/10/12-bit

HDMI Audio: LPCM 7.1, Dolby Atmos™, Dolby True HD™, Dolby Digital™ Plus, DTS: X™, DTS-HD™ Master Audio™ pass through

Digital Audio: PCM 2.0, Dolby Digital / Plus, DTS 2.0/5.1

L/R Stereo Audio: PCM 2.0CH

Infra-Red: Wide Bandwidth, Frequency 30KHz to 56KHz (940nm)

Cable Lengths

HDMI Input/Output Cable: 4K/60Hz 4:4:4@3m, 4K/60Hz 4:2:0@5m, 1080p/60Hz@15m

CAT5e/6/7 Distance: 4K/60Hz 4:4:4@35m, 4K/30Hz@50m, 1080p/60Hz@60m

Power Adaptor

Input: 100~240V AC 50/60Hz

Output: DC 12V/2.5A

Consumption: 14 Watts

Environment

Operating Temperature: -0° to 40°C

Storage Temperature: -20° to 60°C

Operating Humidity: 20 to 90% RH (no condensation)

Dimensions: Splitter (W) 210 x (D) 100 x (H) 25, Receiver (W) 61 x (D) 88 x (H) 18

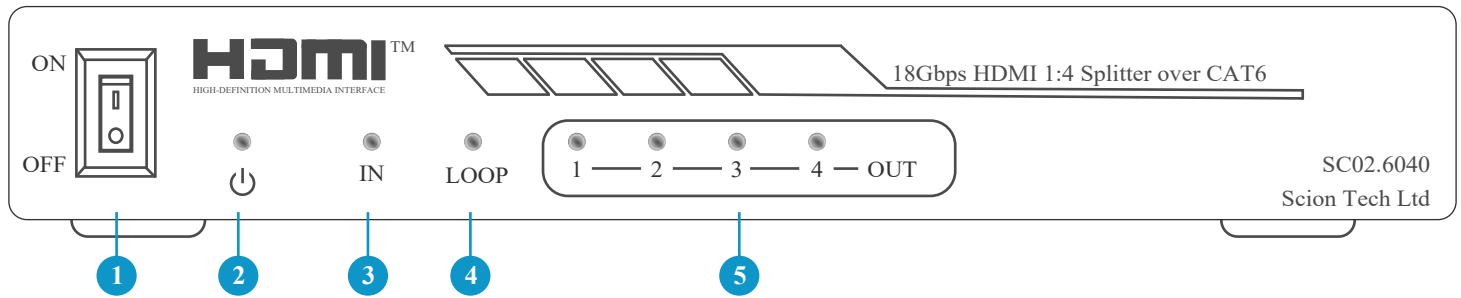
Weight: Splitter 620g, Receiver 155g

Colour: Black

ESD: Human Body - +/-8kV, (air gap discharge) & +/-4kV (contact discharge)

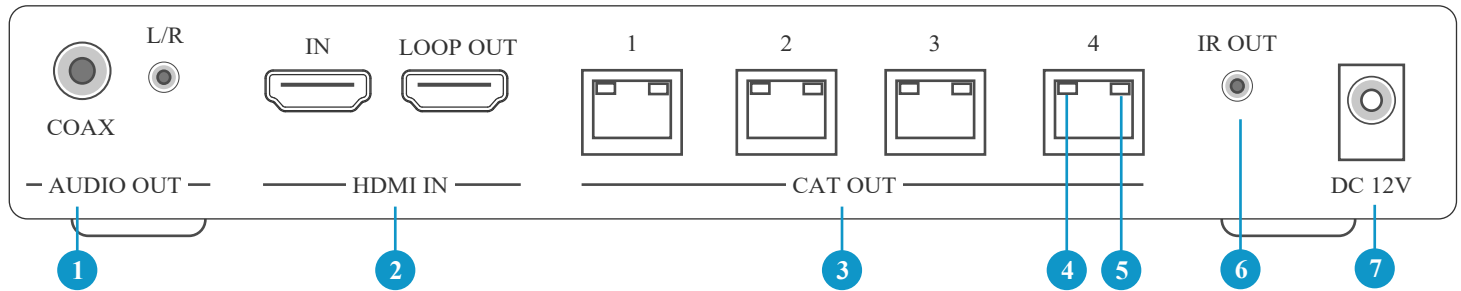
Safety and Emissions: CE, FCC, UL, RoHS

3.0 Front Panel Description



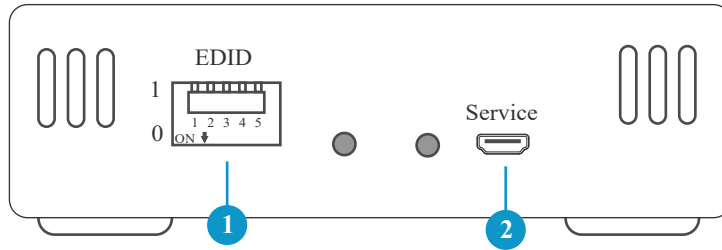
Number	Name	Function / Description
1	Power Switch	Powers the splitter on and off.
2	Power LED	Illuminates red when powered ON.
3	IN LED	The LED illuminates green when a HDMI source in connected.
4	Loop LED	The LED illuminates green when a HDMI device in connected.
5	Out 1 ~ 4	When the output is connected to a powered device the LED illuminates green.

4.0 Rear Panel Description



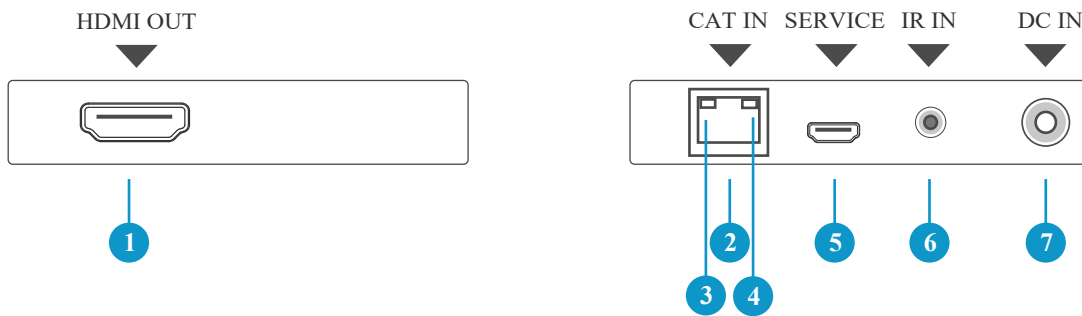
Number	Name	Function / Description
1	Audio Out (Coax, L/R)	Analogue and digital audio outputs for connection to amplifiers or speakers.
2	HDMI Ports	IN: HDMI input, connect to source device. Loop: output, connect to local screen, splitter or other device.
3	CAT Out	Connect to CAT6/6a/7 with Scion receiver on other end.
4	Green LED	Illuminates green when a receiver is connected.
5	Amber LED	Illuminates when a signal is detected between splitter and receiver.
6	IR Out	Connect the IR emitter.
7	Power	Connect the 12V power adaptor.

5.0 Side Panel Description



Number	Name	Function / Description
1	EDID	Use to set the EDID (please see EDID table for details)
2	Service	Use for firmware updates and RS232 control.

6.0 Receiver Front and Rear Panel Description



Number	Name	Function / Description
1	HDMI Out	HDMI output, connect to display or sink device.
2	CAT IN	Connect to CAT6/6a/7 cable.
3	Power LED	Illuminates green when powered.
4	Signal LED	Illuminates amber when a receiving HDMI signal.
5	Service	Used for firmware update only.
6	IR In	Connect the IR receiver.
7	Power	Connect the 12V power adaptor (not required when used with splitter)

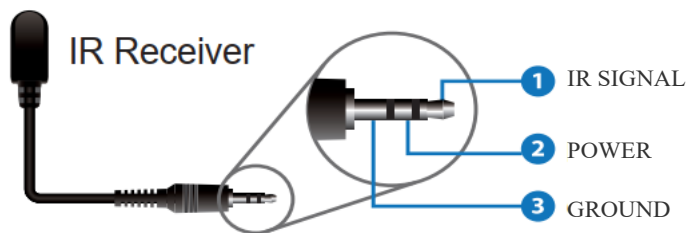
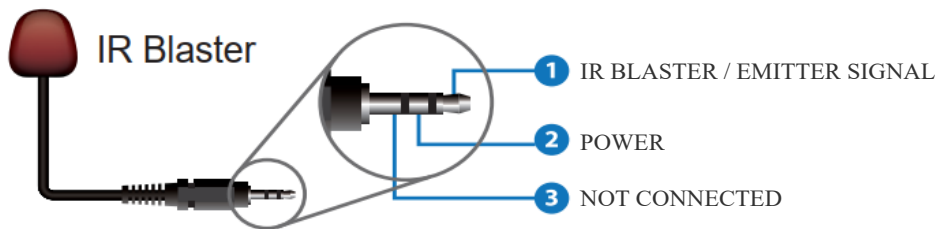
7.0 IR Pin Connections



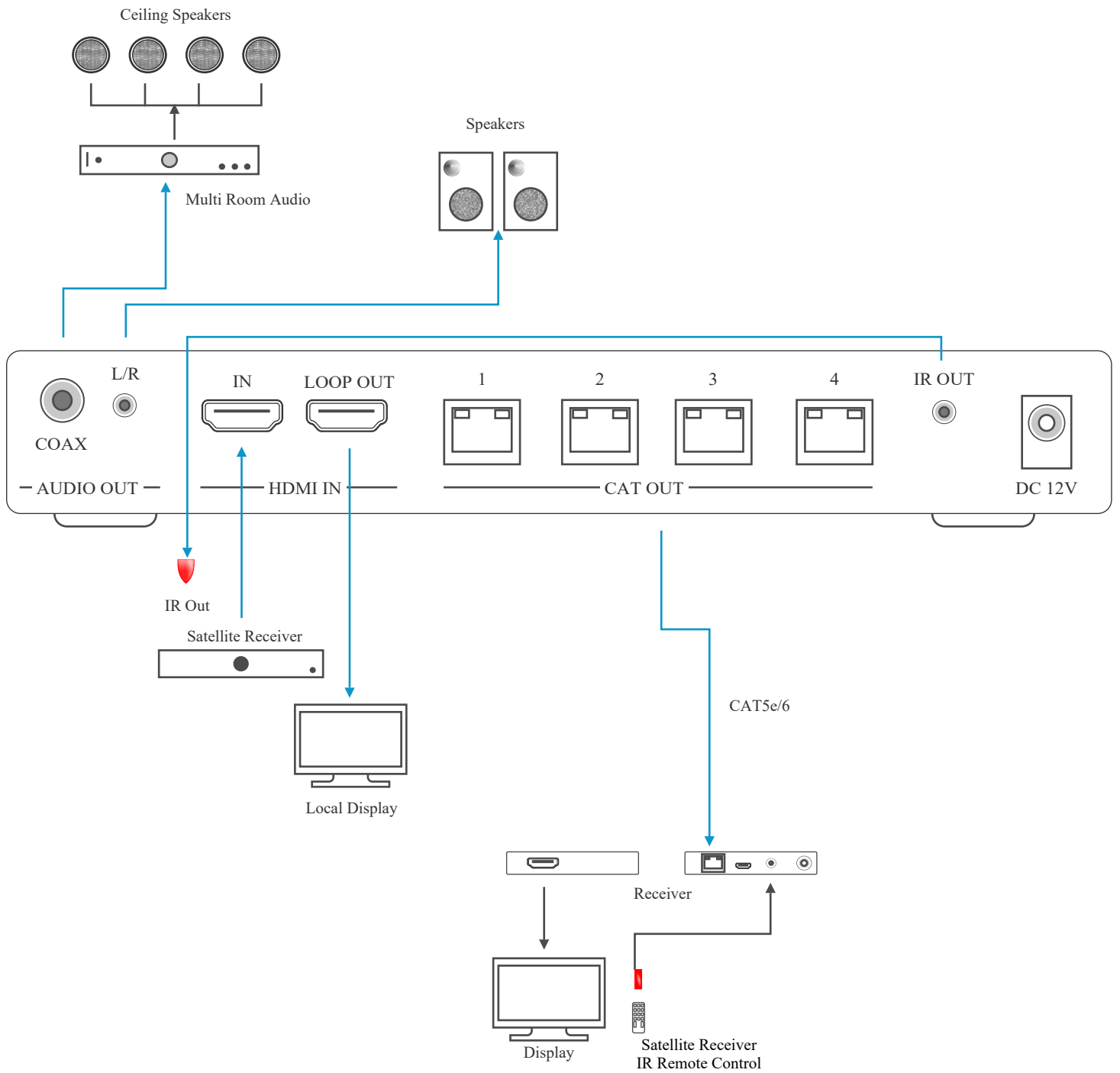
IR RECEIVER / SENDER



IR BLASTER / EMITTER



8.0 Application Drawing



9.0 EDID Table

EDID MODE	EDID DESCRIPTION
11111	1080P, Stereo Audio 2.0
11110	1080P, Dolby/DTS 5.1
11101	1080P, HD Audio 7.1
11100	1080i, Stereo Audio 2.0
11011	1080i, Dolby/DTS 5.1
11010	1080i, HD Audio 7.1
11001	1080P 3D, Stereo Audio 2.0
11000	1080P 3D, Dolby/DTS 5.1
10111	1080P 3D, HD Audio 7.1
10110	4K2K30Hz_444, Stereo Audio 2.0
10101	4K2K30Hz_444, Dolby/DTS 5.1
10100	4K2K30Hz_444, HD Audio 7.1
10011	4K2K60Hz_420, Stereo Audio 2.0
10010	4K2K60Hz_420, Dolby/DTS 5.1
10001	4K2K60Hz_420, HD Audio 7.1
10000	4K2K60Hz_444, Stereo Audio 2.0
01111	4K2K60Hz_444, Dolby/DTS 5.1
01110	4K2K60Hz_444, HD Audio 7.1
01101	4K2K60Hz_444, Stereo Audio 2.0 HDR
01100	4K2K60Hz_444, Dolby/DTS 5.1 HDR
01011	4K2K60Hz_444, HD Audio 7.1 HDR
01010	COPY_FROM_LOOP OUT
01001	COPY_FROM_CAT OUT1
01000	COPY_FROM_CAT OUT2
00111	COPY_FROM_CAT OUT3
00110	COPY_FROM_CAT OUT4
00101	1080p, Stereo Audio 2.0
00100	1080p, Stereo Audio 2.0
00011	1080p, Stereo Audio 2.0
00010	1080p, Stereo Audio 2.0
00001	1080p, Stereo Audio 2.0
00000	PC Control Mode

10.0 Maintenance

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

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 manufacturer 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.

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.

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.

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 authorized 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.

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