

***TRANSCENSION***

# **HS2 Hybrid PowerCON DMX Distribution Splitter User Manual**



**Order code: BOTE73**

**WARNING****FOR YOUR OWN SAFETY, PLEASE READ THIS USER MANUAL CAREFULLY BEFORE YOUR INITIAL START-UP!**

- Before your initial start-up, please make sure that there is no damage caused during transportation.
- Should there be any damage, consult your dealer and do not use the equipment.
- To maintain the equipment in good working condition and to ensure safe operation, it is necessary for the user to follow the safety instructions and warning notes written in this manual.
- Please note that damages caused by user modifications to this equipment are not subject to warranty.

**IMPORTANT:**

The manufacturer will not accept liability for any resulting damages caused by the non-observance of this manual or any unauthorised modification to the equipment.

- Never let the power cable come into contact with other cables. Handle the power cable and all mains voltage connections with particular caution!
- Never remove warning or informative labels from the unit.
- Do not open the equipment and do not modify the unit.
- Do not switch the equipment on and off in short intervals, as this will reduce the system's life.
- Only use the equipment indoors.
- Do not expose to flammable sources, liquids or gases.
- Always disconnect the power from the mains when equipment is not in use or before cleaning! Only handle the power-cable by the plug. Never pull out the plug by pulling the power-cable.
- Make sure that the available mains supply voltage is 240V AC, 50Hz.
- Make sure that the power cable is never crimped or damaged. Check the equipment and the power cable periodically.
- If the equipment is dropped or damaged, disconnect the mains power supply immediately and have a qualified engineer inspect the equipment before operating again.
- If the equipment has been exposed to drastic temperature fluctuation (e.g. after transportation), do not connect power or switch it on immediately. The arising condensation might damage the equipment. Leave the equipment switched off until it has reached room temperature.
- If your product fails to function correctly, stop use immediately. Pack the unit securely (preferably in the original packing material), and return it to your Pro Light dealer for service.
- Only use fuses of same type and rating.
- Repairs, servicing and power connection must only be carried out by a qualified technician. THIS UNIT CONTAINS NO USER SERVICEABLE PARTS.
- This fixture is for professional use only - it is not designed for or suitable for household use. The product must be installed by a qualified technician in accordance with local territory regulations. The safety of the installation is the responsibility of the installer. The fixture presents risks of severe injury or death due to fire hazards, electric shock and falls.
- WARRANTY: One year from date of purchase.

**OPERATING DETERMINATIONS**

If this equipment is operated in any other way, than those described in this manual, the product may suffer damage and the warranty becomes void. Incorrect operation may lead to danger e.g: short-circuit, burns and electric shocks etc.

Do not endanger your own safety and the safety of others!

Incorrect installation or use can cause serious damage to people and/or property.

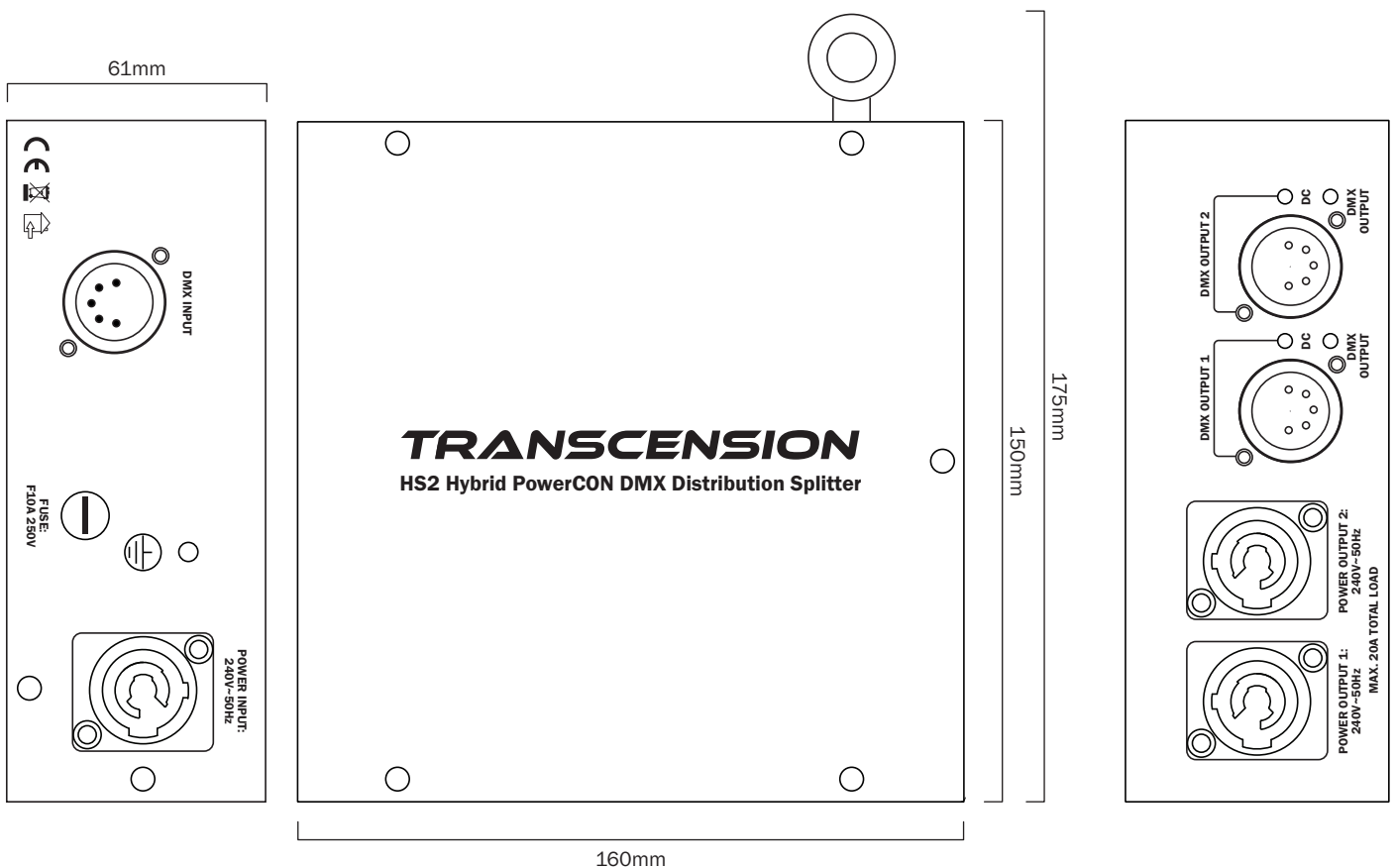
## HS2 Hybrid PowerCON DMX Distribution Splitter

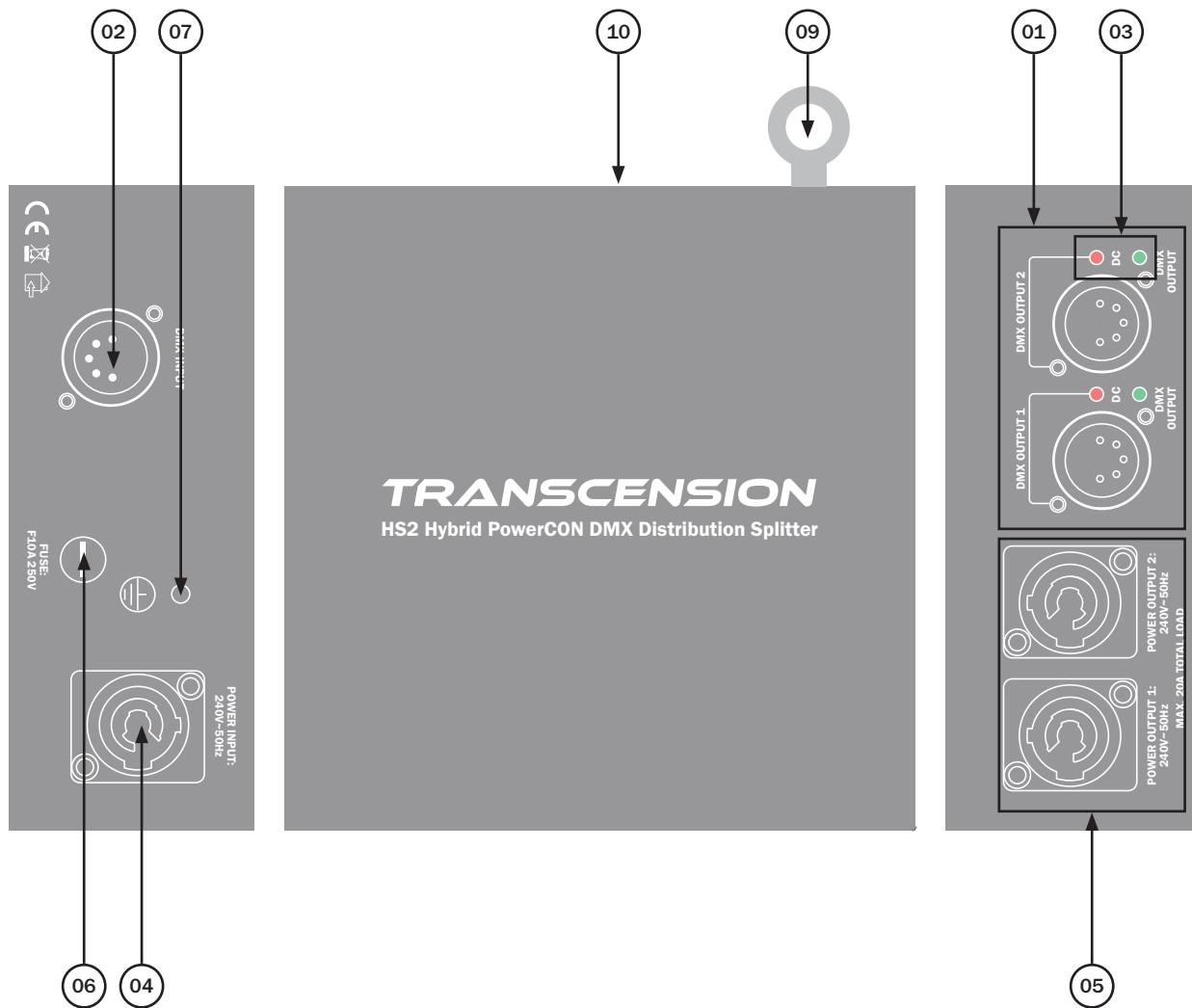
A combination 2 way DMX booster/distributor featuring one input and two outputs plus PowerCON power input with two PowerCON power outputs. Both DMX input and DMX output are provided with 5-Pin XLR connectors, each DMX output has an independent driver.



- 2 way DMX distributor with one input and two outputs
- 5-Pin XLR input
- 5-Pin XLR output per channel
- Each DMX output features an independent driver
- 100% electrical isolation between all inputs/outputs
- 2 way PowerCON power distributor with one input and two outputs
- M10 rigging point
- Safety bond point
- Rugged, steel chassis

Specifications	
Power supply	240V, 50Hz
Fuse	F10A 250V
Dimensions	61 x 160 x 175mm
Weight	1.1kg
Order code	BOTE73





- 01 - 2 x 5-Pin DMX outputs
- 02 - 5-Pin DMX input
- 03 - DC/DMX output indicators

- 04 - PowerCON input
- 05 - PowerCON outputs
- 06 - Fuse: F10A 250V

- 07 - Earth point
- 08 - Safety eye
- 09 - M10 rigging point

In the box: **1 x HS2 distribution splitter, 1 x power cable & 1 x user manual**

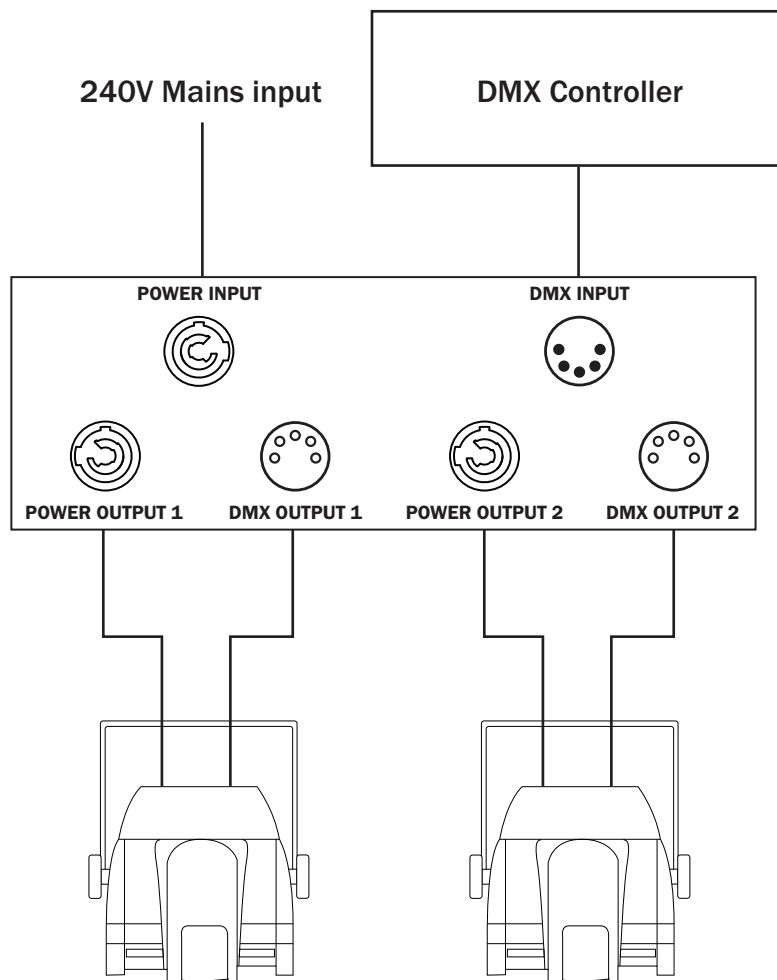
**Setup:**

Connect a DMX signal cable from a lighting console or fixture into the DMX Input via the 5-Pin male connector on the side panel. The HS2 has 2 outputs each with a 5-pin XLR connector for each DMX output. From each DMX output a signal cable may be connected with up to 32 fixtures per signal line, and up to 100m cable length. Connect the HS2 to a suitable 240VAC 50Hz mains supply via the PowerCON mains inlet.

**LED indicators:**

The HS2 is fitted with signal and DC indicators. Under normal conditions, with DMX signal passing through the unit both LEDs will be illuminated. The DMX LED indicates the presence of a DMX signal. The DC LED indicates the DMX drive circuit is functioning correctly.

**Example connection diagrams:**



**Setting the DMX address:**

The DMX mode enables the use of a universal DMX controller. Each fixture requires a “start address” from 1- 512. A fixture requiring one or more channels for control begins to read the data on the channel indicated by the start address. For example, a fixture that occupies or uses 7 channels of DMX and was addressed to start on DMX channel 100, would read data from channels: 100,101,102,103,104,105 and 106. Choose a start address so that the channels used do not overlap. E.g. the next unit in the chain starts at 107.

**DMX 512:**

DMX (Digital Multiplex) is a universal protocol used as a form of communication between intelligent fixtures and controllers. A DMX controller sends DMX data instructions from the controller to the fixture. DMX data is sent as serial data that travels from fixture to fixture via the DATA “IN” and DATA “OUT” XLR terminals located on all DMX fixtures (most controllers only have a data “out” terminal).

**DMX linking:**

DMX is a language allowing all makes and models of different manufactures to be linked together and operate from a single controller, as long as all fixtures and the controller are DMX compliant. To ensure proper DMX data transmission, when using several DMX fixtures try to use the shortest cable path possible. The order in which fixtures are connected in a DMX line does not influence the DMX addressing. For example; a fixture assigned to a DMX address of 1 may be placed anywhere in a DMX line, at the beginning, at the end, or anywhere in the middle. When a fixture is assigned a DMX address of 1, the DMX controller knows to send DATA assigned to address 1 to that unit, no matter where it is located in the DMX chain.

**DATA cable (DMX cable) requirements (for DMX operation):**

This fixture can be controlled via DMX-512 protocol. The DMX address is set on the back of the unit. Your unit and your DMX controller require a standard 3-pin XLR connector for data input/output, see image below.



Further DMX cables can be purchased from all good sound and lighting suppliers or Pro Light Concepts dealers.

Please quote:

**CABL10 – 2m**

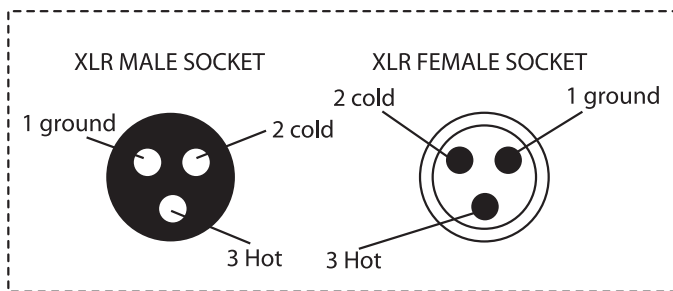
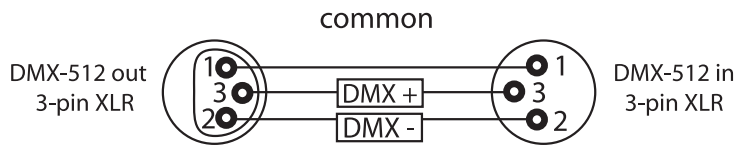
**CABL11 – 5m**

**CABL12 – 10m**

Also remember that DMX cable must be daisy chained and cannot be split.

**Notice:**

Be sure to follow the diagrams below when making your own cables. Do not connect the cables shield conductor to the ground lug or allow the shield conductor to come in contact with the XLRs outer casing. Grounding the shield could cause a short circuit and erratic behaviour.



XLR Pin Configuration
Pin 1 = Ground
Pin 2 = Negative
Pin 3 = Postive

**Special note:**

**Line termination:**

When longer runs of cable are used, you may need to use a terminator on the last unit to avoid erratic behaviour.

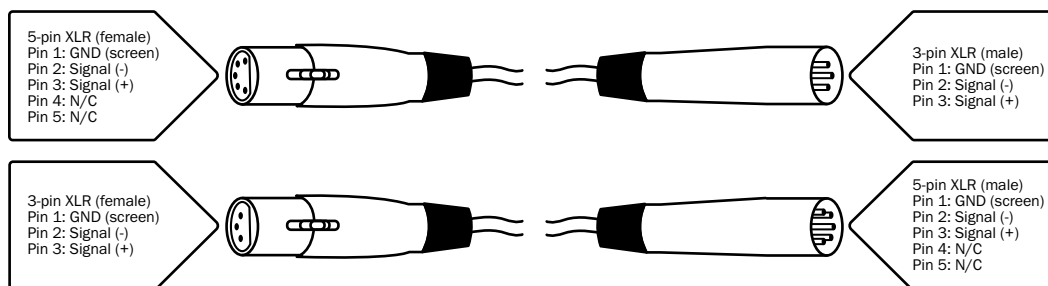
Using a cable terminator will decrease the possibilities of erratic behaviour.

(3-pin - Order ref: CABL90, 5-pin - Order ref: CABL89)

Termination reduces signal transmission problems and interference. It is always advisable to connect a DMX terminal, (resistance 120 Ohm 1/4 W) between pin 2 (DMX-) and pin 3 (DMX+) of the last fixture.

**5-pin XLR DMX connectors:**

Some manufactures use 5-pin XLR connectors for data transmission in place of 3-pin. 5-pin XLR fixtures may be implemented in a 3-pin XLR DMX line. When inserting standard 5-pin XLR connectors in to a 3-pin line a cable adaptor must be used. The diagram below details the correct cable conversion.





***Correct Disposal of this Product  
(Waste Electrical & Electronic Equipment)***

**(Applicable in the European Union and other European countries  
with separate collection systems)**

This marking shown on the product or its literature, indicates that it should not be disposed of with other household wastes at the end of its working life. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate this from other types of wastes and recycle it responsibly to promote the sustainable reuse of material resources.

Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take this item for environmentally safe recycling.

Business users should contact their supplier and check the terms and conditions of the purchase contract. This product should not be mixed with other commercial wastes for disposal.

