

## - 1 - INTRODUCTION

### 1.1 DESCRIPTION

SPLITTER4WRK is a DMX distributor. The unit has one input and four output, absolutely electric isolation between input and output or between output and output. Two types of DMX connectors ( 3 pin & 5 pin) for each individual channel, each DMX output features an independent driver. Equipped with DATA+ and DATA indicators and with DMX switch allowing to isolate from malfunction caused by DMX input on the case.

### 1.2 TECHNICAL SPECIFICATIONS

- 4-ways with 1 input and 4 outputs
- Opto-insulated inputs and outputs
- Output for a linkage to another distributor
- Linkage: DMX512 (IN/OUT XLR 3/5 pole)
- Power supply: 220V~ 50 Hz
- Body: 1 standard 19" rack unit made of steel
- Dimensions (WxHxD): 483x44x138 mm
- Weight: 3 kg

### 1.3 SCHEMATIC DIAGRAMS

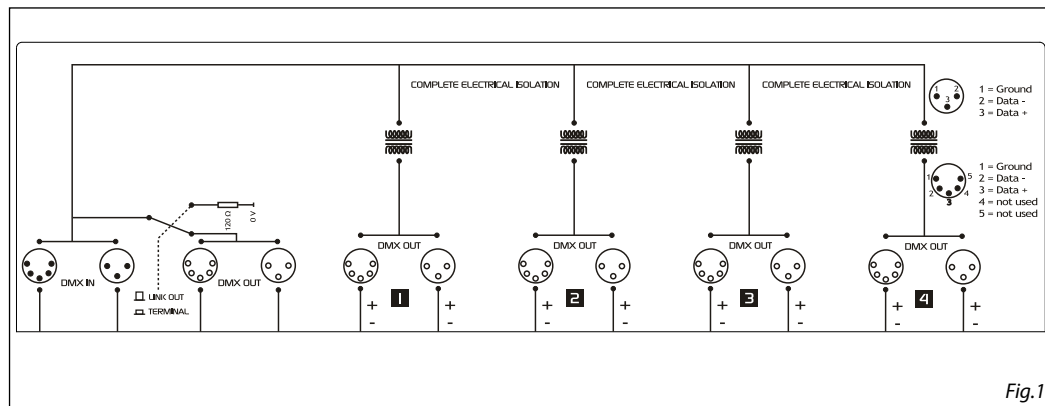
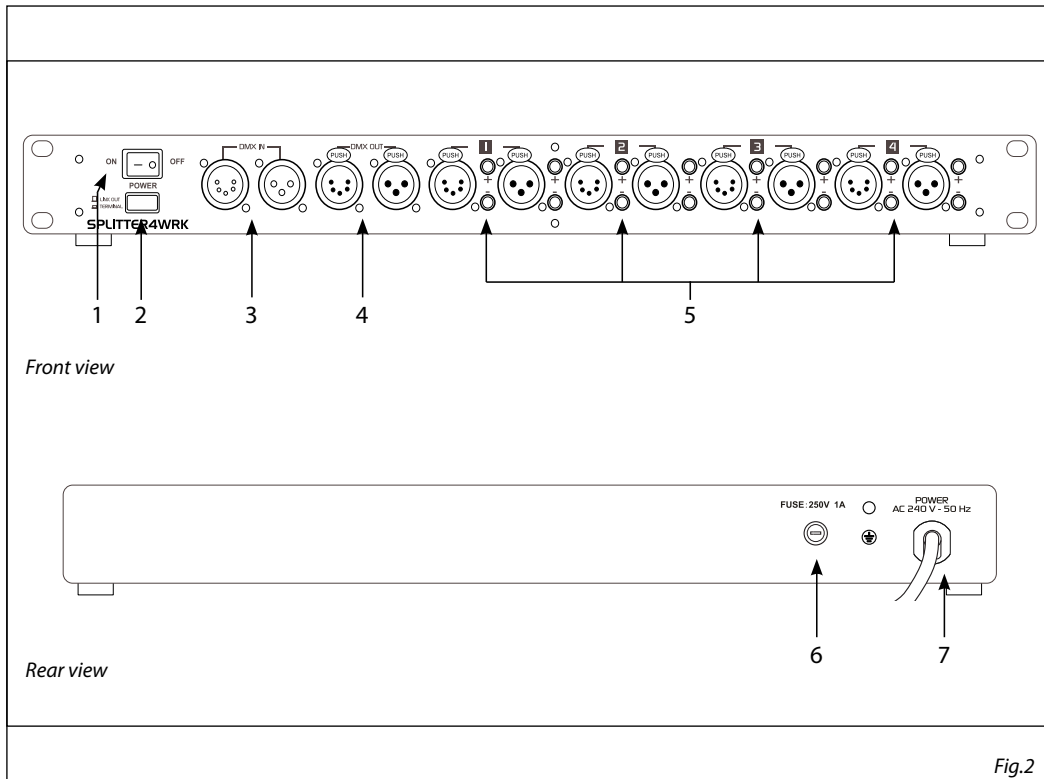


Fig.1

## 1.4 OPERATING ELEMENTS AND CONNECTIONS



1. **POWER SWITCH**  
This switch turns on and off the main power.
2. **LINK OUT/TERMINATE SELECTOR**  
This switch is primarily meant for troubleshooting. When the switch is in "Terminate" position, DMX output is turned off and you can not link any more units. When the switch in the "Link Out" position, this unit allows you link a second unit.
3. **DMX IN (3 - pole XLR)**  
These connectors are used to receive an incoming DMX signal; 1=ground, 2=DMX-, 3=DMX+..
4. **DMX OUT (3 - pole XLR)**  
These connectors are used for linking a second unit;  
1=ground, 2=DMX-, 3=DMX+.DMX IN (3-pole XLR):
5. **DMX OUTPUT**  
The four DMX output channels are completely electronically isolated and each features an independent driver that boost the DMX signal.
6. **FUSE**  
Always replace a fuse with one of the same type
7. **230V ~ 50 Hz, main cable**

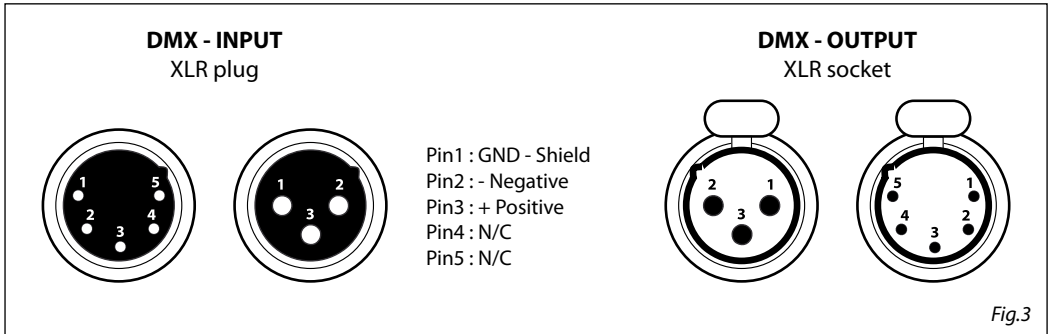
Fig.2

## - 2 - CONNECTIONS

### 2.1 CONNECTION OF THE DMX LINE

DMX connection employs standard XLR connectors. Use shielded pair-twisted cables with 120Ω impedance and low capacity.

The following diagram shows the connection mode:



#### ATTENTION

The screened parts of the cable (sleeve) must never be connected to the system's earth, as this would cause faulty fixture and controller operation.

Over long runs can be necessary to insert a DMX level matching amplifier.

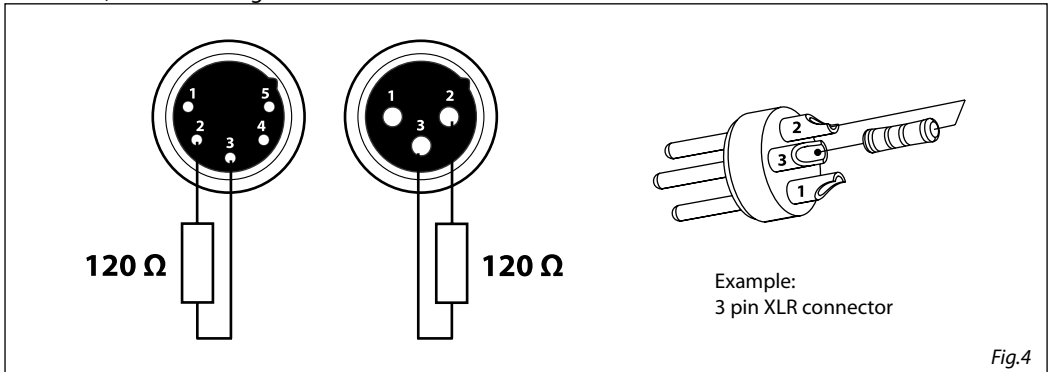
For those connections the use of balanced microphone cable is not recommended because it cannot transmit control DMX data reliably.

- Connect the controller DMX input to the DMX output of the first unit.
- Connect the DMX output to the DMX input of the following unit. Connect again the output to the input of the following unit until all the units are connected in chain.
- When the signal cable has to run longer distance is recommended to insert a DMX termination on the last unit.

### 2.2 CONSTRUCTION OF THE DMX TERMINATION

The termination avoids the risk of DMX 512 signals being reflected back along the cable when they reach the end of the line: under certain conditions and with certain cable lengths, this could cause them to cancel the original signals.

The termination is prepared by soldering a 120Ω 1/4 W resistor between pins 2 and 3 of the 5-pin male XLR connector, as shown in figure.



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