

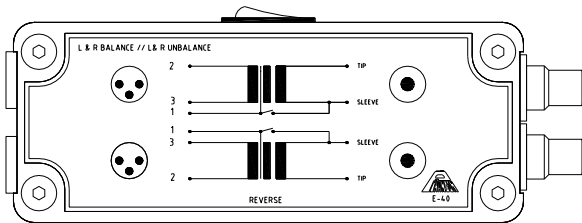
Description

Balancers and **adders** are **passive adapters** that work by transformer.

A **balancer** is the best way to adapt unbalanced to balanced signals (connect consumer equipment to professional equipment) reducing or eliminating the noise that can be induced in our audio signal.

An **unbalancer** adapts a balanced to unbalanced signal (connecting professional devices to consumer devices) with a 12 dB attenuation, if it is required, keeping a high CMRR (noise rejection).

An **adder** is an adaptor that adapts a stereo signal (two different channels) on a single audio output. It is a “quick” way to get a stereo signal “combined” into a single connector.





Balancers Applications

The purpose of a balanced line is to transfer a signal from one place to another while rejecting noise. This is accomplished using two lines whose impedance with respect to ground is the same.

When the output of our source is an unbalanced output (cameras, iPod, PC...) to be transmitted over a long distance, you should balance the signal to remove noise induced.

Adders Applications

Situations where you want to move from a stereo signal (2 different signals) to a combined stereo signal into a single output.

Tech Data

ADAPTORS BALANCERS AND ADDERS

Types of Balancers/Unbalancers

BALANCERS

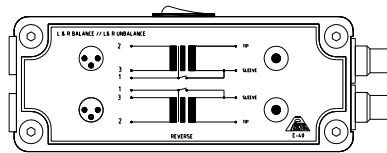
OUTPUT CONNECTORS

INPUT CONNECTORS

XLR - M

RCA

OUTPUTS



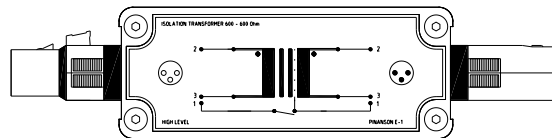
INPUTS

PT41963

XLR - M (unbalanced)

XLR - M (balanced)

INPUT



OUTPUT

PT18876

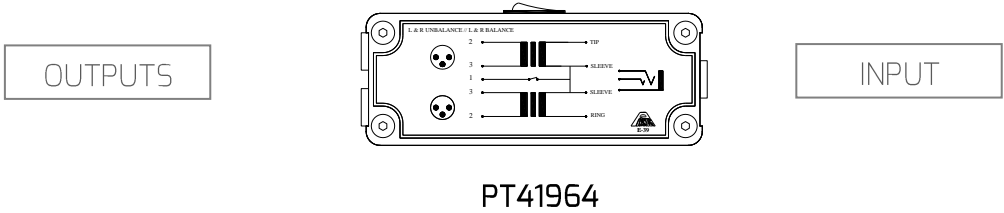
NOTE

For proper operation, unbalanced cable connected to the balancer has to be done according to AES14-1992 (R2009) standard: **1 and 3 contacts have to be joined.**

Tech Data

ADAPTORS
 BALANCERS AND ADDERS

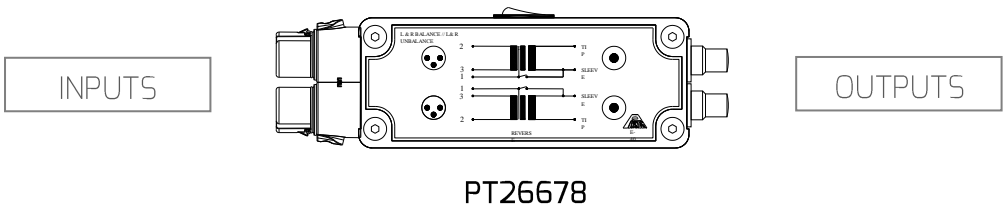
| OUTPUT CONNECTORS | INPUT CONNECTORS |
|-------------------|----------------------|
| 2 XLR – M | 1 MINI JACK (Stereo) |



PT41964

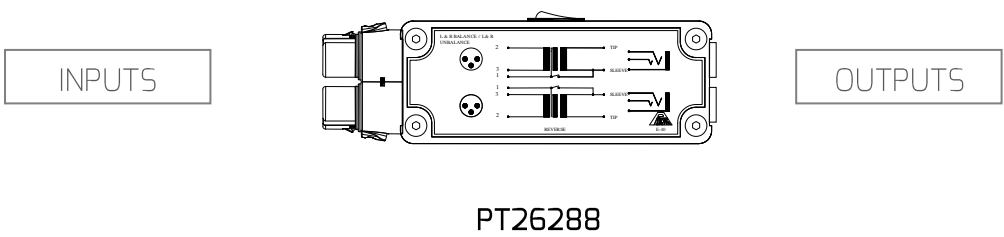
UNBALANCERS

| INPUT CONNECTORS | OUTPUT CONNECTORS |
|------------------|-------------------|
| XLR – H | RCA |



PT26678

| | |
|---------|-----------|
| XLR – H | JACK 1/4" |
|---------|-----------|



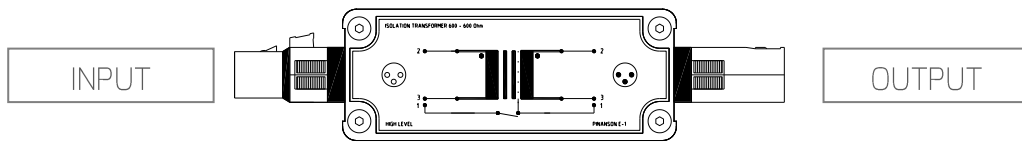
PT26288

Tech Data

ADAPTORS BALANCERS AND ADDERS

XLR – H (balanced)

XLR – M (unbalanced)



PT18876

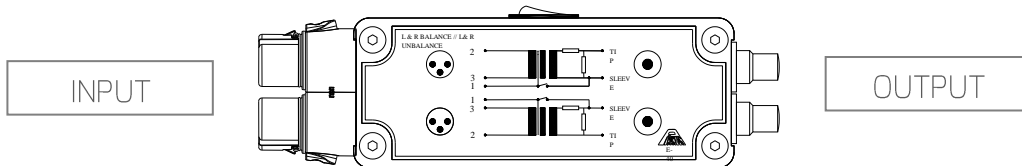
NOTA

For proper operation, unbalanced cable connected to the balancer has to be done according to *AE514-1992 (R2009)* standard: **1 and 3 contacts have to be joined.**

UNBALANCER + PAD

XLR – M

RCA



NOTA

This unbalancer provides an attenuation of approx. **-12 dB** in the unbalanced output for the adaptation of consumer equipment.

Tech Data

ADAPTORS BALANCERS AND ADDERS

Types of Adders

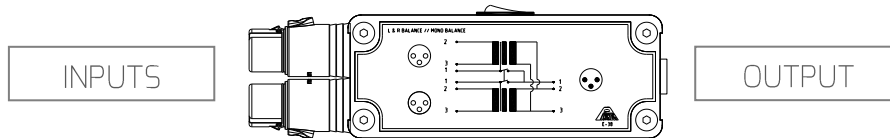
ADDERS

INPUT CONNECTORS

2 XLR - H

OUTPUT CONNECTORS

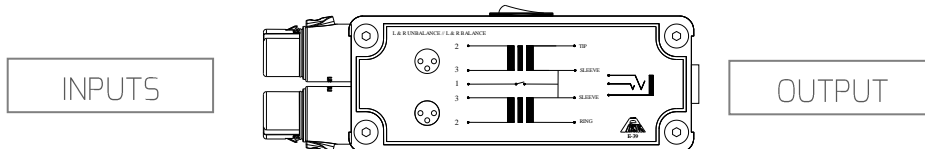
1 XLR- M



REF.: PT23629

2 XLR - H

1 MINI JACK H (Stereo)



REF.: PT25136

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In this case, the stereo signal keeps in two channels as the mini Jack has the signals separated in L and R (ring and tip).

Tech Data

ADAPTORS BALANCERS AND ADDERS

The examples are **portable boxes** (*MF boxes*) of one or two channel (stereo signal). Pinanson can configure the equipment needed according to the number of channels (*up to 16*) or *format*:

- For Screwing and to fix in surface
- For 19" rack mount

Characteristics

| | | |
|--|-------------------|----------|
| Max. Input Level | 50 Hz, 0.4% THD+N | + 15 dBu |
| | 1KHz, 1% THD+N | +20 dBu |
| Source Impedance | 600 Ω | |
| Load Impedance | 2 K Ω | |
| Insertion loss | 0 dB | |
| THD + N (+4 dBu, 1KHz) | ≤ 0.01% | |
| Frequency Response (20 Hz – 20 KHz) | ± 0.08 dB | |
| SNR (+ 4 dBu, 1KHz, BW 20 KHz) | 121 dB | |
| CMRR (+ 4 dBu, 1KHz) | 120 dB | |

Tech Data

ADAPTORS BALANCERS AND ADDERS

Measurements

Audio measurements are done with *Audio Precision APx515 analyser*.



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For possible changes due to continuous product improvements; Pinanson S.L. reserves the right to change the showed data in this document without notice. The data presented here correspond to the time it was compiled.