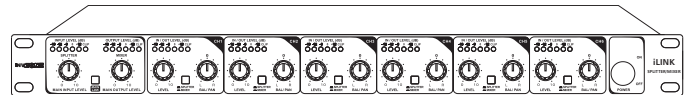


# INVOTONE

**USER'S MANUAL**

## ***iLINK*** **SPLITTER/MIXER**



NF03825-1.0

## IMPORTANT SAFETY INSTRUCTION



**TO REDUCE THE RISK OF ELECTRIC SHOCK PLEASE DO NOT REMOVE THE COVER OR THE BACK PANEL OF THIS EQUIPMENT. THERE ARE NO PARTS NEEDED BY USER INSIDE THE EQUIPMENT. FOR SERVICE, PLEASE CONTACT QUALIFIED SERVICE CENTERS.**

This symbol, wherever used, alerts you to the presence of un-insulated and dangerous voltages within the product enclosure. These are voltages that may be sufficient to constitute the risk of electric shock or death.

This symbol, wherever used, alerts you to important operating and maintenance instructions. Please read.

⊕ Protective Ground Terminal  
 ~ AC mains (Alternating Current)  
 ⚡ Hazardous Live Terminal

ON: Denotes the product is turned on.  
 OFF: Denotes the product is turned off.

### CAUTION

Describes precautions that should be observed to prevent damage to the product.

1. Read this Manual carefully before operation.
2. Keep this Manual in a safe place.
3. Be aware of all warnings reported with this symbol.

4. Keep this Equipment away from water and moisture.
5. Clean it only with dry cloth. Do not use solvent or other chemicals.
6. Do not damp or cover any cooling opening. Install the equipment only in accordance with the Manufacturer's instructions.
7. Power Cords are designed for your safety. Do not remove Ground connections! If the plug does not fit your AC outlet, seek advice from a qualified electrician. Protect the power cord and plug from any physical stress to avoid risk of electric shock. Do not place heavy objects on the power cord. This could cause electric shock or fire.

8. Unplug this equipment when unused for long periods of time or during a storm.
9. Refer all service to qualified service personnel only. Do not perform any servicing other than those instructions contained within the User's Manual.

10. To prevent fire and damage to the product, use only the recommended fuse type as indicated in this manual. Do not short-circuit the fuse holder. Before replacing the fuse, make sure that the product is OFF and disconnected from the AC outlet.

## WARNING

To reduce the risk of electric shock and fire, do not expose this equipment to moisture or rain.



Dispose of this product should not be placed in municipal waste and should be separate collection.

11. Move this Equipment only with a cart, stand, tripod, or bracket, specified by the manufacturer, or sold with the Equipment. When a cart is used, use caution when moving the cart / equipment combination to avoid possible injury from tip-over.



12. Permanent hearing loss may be caused by exposure to extremely high noise levels. The US Government's Occupational Safety and Health Administration (OSHA) has specified the permissible exposure to noise level. These are shown in the following chart:

### HOURS X DAY SPL EXAMPLE

8	90	Small gig
6	92	train
4	95	Subway train
3	97	High level desktop monitors
2	100	Classic music concert
1,5	102	
1	105	
0,5	110	
0,25 or less	115	Rock concert

According to OSHA, an exposure to high SPL in excess of these limits may result in the loss of heat. To avoid the potential damage of heat, it is recommended that Personnel exposed to equipment capable of generating high SPL use hearing protection while such equipment is under operation.

The apparatus shall be connected to a mains socket outlet with a protective earthing connection.

The mains plug or an appliance coupler is used as the disconnect device, the disconnect device shall remain readily operable.

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## 1. INTRODUCTION

Thank you for purchasing INVOTONE iLINK splitter/mixer. iLINK is a good solution for many stage and studio applications, because you can use it as a splitter or mixer. For using as splitter, just apply the main signal input from the MAIN IN sockets, and select the SPLITTER mode for each individual channel, then six mono outputs are available. By pressing the MAIN MIX button, two further outputs can be provided. For using as mixer, select the MIXER mode for individual channel, and connect the input signal from the mono input, then six input signals can be mixed together, and output from the MAIN OUT. By pressing the MAIN MIX button, two further inputs can be provided. Please take your time to read this manual before using the unit, and you will be the real master of your iLINK.

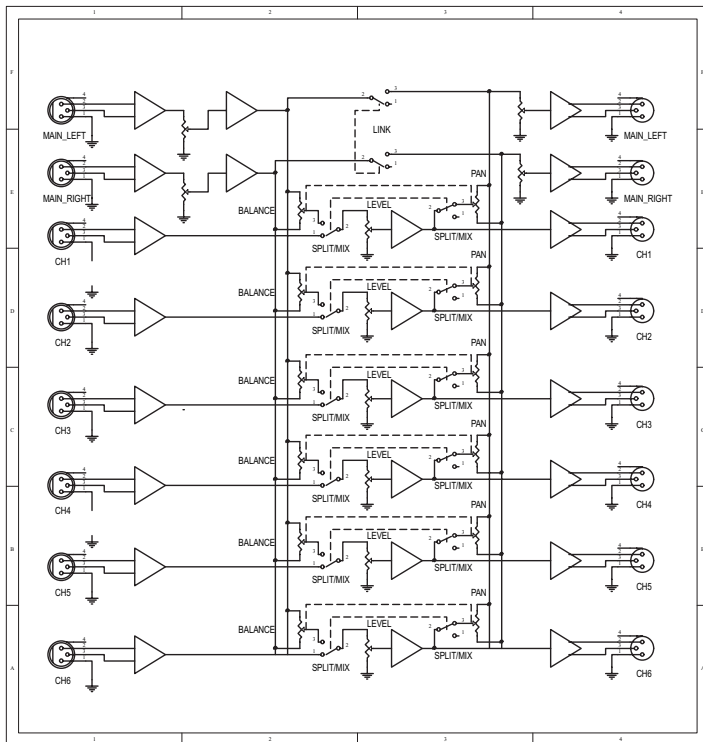
The iLINK splitter/mixer is equipped with following features:

- 1 rack unit.
- SPLIT / MIX switch for each mono channel.
- 2 input, 6+2 outputs splitter.
- Balance / Pan control for each channel.
- Main input and output level control.
- MAIN LINK function allows to route the MAIN IN signal to MAIN OUT, vice versa.
- Level meters for each channel.
- XLR balanced connectors for 4 mono channels, and TRS type for another 2 mono channels.
- Dual voltage unit for global operation.

## 6. TECHNICAL SPECIFICATIONS

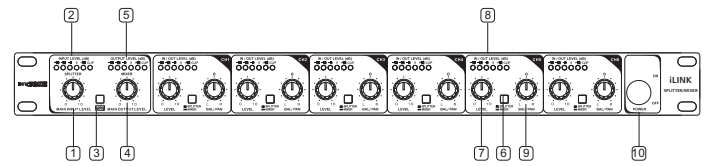
AUDIO INPUTS	Connectors	XLR and 1/4" TRS
	Type	RF filtered, servo-balanced input
	Impedance	50 kOhms balanced, 25 kOhms unbalanced
	Nominal operating level	-10 dBV to +4 dBu
	Max. input level	+21 dBu balanced and unbalanced
	CMRR	Typ. 40 dB, > 55 dB @ 1 kHz
AUDIO OUTPUTS	Connectors	XLR and 1/4" TRS
	Type	Electronically servo-balanced output stage
	Impedance	60 Ohms balanced, 30 Ohms unbalanced
SYSTEM SPECIFICATIONS	Max. output level	+22 dBu balanced and unbalanced
	Frequency response	5 Hz to 200 kHz, +/- 3 dBu
	S/N ratio	>95 dBu, unweighted, 22 Hz to 22 kHz
FUNCTION CONTROLS	THD	≤ 0.002 % typ. @ +4 dBu, 1kHz, gain 1
	Main input level	variable
	Main output level	variable
	Level	variable for each channel
FUNCTION SWITCHES	Balance/pan	placing in the stereo field
	Main Link	links the main input signal to the main output
	Split/mix	changeover from split to mix mode for each channel
INDICATORS	Input level (main)	6-digit LED display: -18/-12/-6/0/+12/Clip
	Output level (main)	6-digit LED display: -18/-12/-6/0/+12/Clip
	Input/output level	6-digit LED display: -18/-12/-6/0/+12/Clip
POWER SUPPLY	Mains Voltages	USA/Canada 120V ~, 60 Hz
		U.K./Australia 240V ~, 50 Hz
		Europe 230V ~, 50 Hz
	Power Consumption	max. 15 Watts
	Fuse	100 - 120 V ~: T 500 mA H 220 - 240 V ~: T 315 mA H
Mains Connection	Standard IEC receptacle	
PHYSICAL	Dimensions (W*D*H)	483(W)×195(D)×44(H)mm (19"×7.54"×1.7")
	Net Weight	2.6 kg(5.73lb)
	Shipping Weight	3.5 kg

## 5. BLOCK DIAGRAM



## 2. CONTROL ELEMENTS

### FRONT PANEL



#### 1. MAIN INPUT LEVEL control

Use this knob to adjust the level of the main input signal. The adjustable range goes from  $-\infty$  to +10dB.

#### 2. INPUT LEVEL meter

This 6-digit meter indicates the level of the main input signal. If the CLIP LED is lighting, reduce the input signal to avoid any distortion.

#### 3. MAIN LINK control

Use this switch to link the MAIN IN with the MAIN OUT.

#### 4. MAIN OUTPUT LEVEL control

Use this knob to adjust the level of the main output signal. The adjustable range goes from  $-\infty$  to +10dB.

#### 5. OUTPUT LEVEL meter

This 6-digit meter indicates the level of the main output signal. If the CLIP LED is lighting reduce the main signal to avoid any distortion.

## 6. SPLIT / MIX

Use this switch to select the specific operational mode for each individual mono channel.

For SPLITTER mode, please let the switch released and the main input signal can then be splitted into each mono channel output.

For MIXER mode, please engage this switch, and the mono channel input signal will be sent to the main output bus. Combined with the main input signal on condition that the MAIN LINK is activated, you can get the mixed signal output from the MAIN OUT sockets.

Further, also for the MIXER mode, you can route the mono channel input signal to the mono channel output directly.

## 7. LEVEL control for each channel

Use this knob to adjust the level of each mono channel. The adjustable range goes from  $-\infty$  to +10dB. In SPLITTER mode, use this knob to determine the output level of each individual mono channel. In MIXER mode, use this control to determine how intense the mono channel input signal is sent to the main output bus and/or each individual mono channel output.

## 8. INPUT / OUTPUT LEVEL meter

This 6-digit meter indicates the output level of each mono channel, If the CLIP LED is lighting reduce the signal level to avoid any distortion.

## 9. BALANCE / PAN control

If the stereo main signal is split into the mono channel output, or the mono input signal is routed to the stereo main output bus, please use this knob to determine the proportion between the left and the right channel.

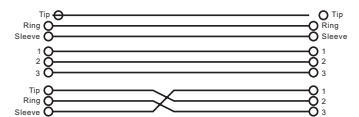
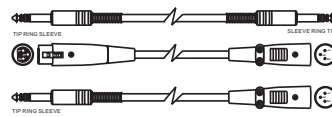
## 10. POWER SWITCH & POWER LED

This switch turns on/off the unit. When the unit is powered on, the LED will light up.

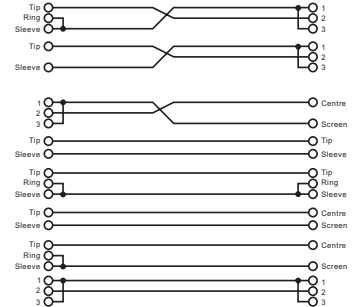
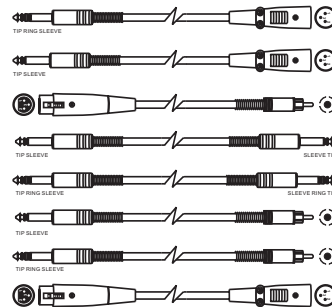
## b. In Line Connection

For these applications, the iLINK provides XLR connectors and 1/4" TRS phone jack to easily interface with most professional audio devices. Follow the configuration examples below for your particular connection.

### • Balanced



### • Unbalanced



## Rack Mounting

The iLINK fits into one standard 19" rack unit of space.

Please allow at least an additional 4" depth for the connectors on the rear panel. Be sure that there is enough space around the unit for sufficient ventilation and please do not place the iLINK on high temperature devices such as power amplifiers etc. to avoid overheating.

## 4. INSTALLATION & CONNECTIONS

### Mains Connection

This is a dual voltage unit. Please ensure that the iLINK is set to the correct supply voltage before plugging the power cord into the wall socket. Use the same fuse as marked on the fuse holder at the AC power connection socket only.

Do not plug the power cord into AC power until the voltage has been set correctly. The mains connection of the iLINK is made by using the enclosed mains cord and a standard IEC connection. It meets all of the international safety certification requirements.

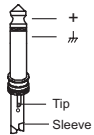
### Audio Connection

The iLINK is equipped with balanced XLR connectors and 1/4" TRS phone jack, it can be interfaced in several ways to support a variety of applications without any signal loss.

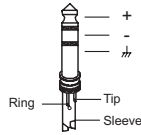
#### a. Wiring Configuration

Either the 1/4" TRS (Tip-Ring-Sleeve) phone jack or the XLR servo connector can be wired in balanced and unbalanced modes, which will be determined by the actual application status. Please wire your systems as the following examples show:

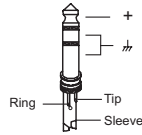
- For 1/4" Phone jack



TS Type Unbalanced

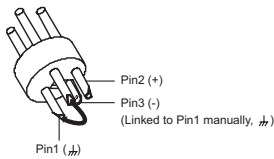


TRS Type Balanced

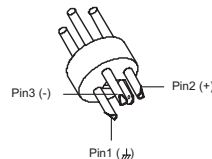


TRS Type Unbalanced

- For XLR connector



XLR Type Unbalanced



XLR Type Balanced

### Rear Panel



#### 11. FUSE HOLDER

Before operation, please make sure that your local voltage matches the voltage on the fuse-holder cover.

**Caution:** The fuse protects the AC power supply of this unit. The fuse can only be changed by a qualified technician, in the event of a fault or changing the supply voltage. If the fuse continues to blow after replacing, discontinue to use this until it has been properly repaired by a certified technician.

#### 12. AC inlet

This connector is for the connection of the supplied main cord. Do not plug the power cable into AC power until the voltage has been correctly set.

#### 13. MAIN INPUTS

Use these XLR balanced connectors to input the main stereo signal. In SPLITTER mode, it can be splitted into each mono channel output.

#### 14. MAIN OUTPUTS

Use these XLR balanced connectors to output the main stereo signal. By depressing the MAIN LINK, it can be linked with the MAIN IN directly.

#### 15. INPUT for the mono channel

For Channel 1-4, use the XLR balanced connectors to input the mono signal, for Channel 5-6, please use the TRS type.

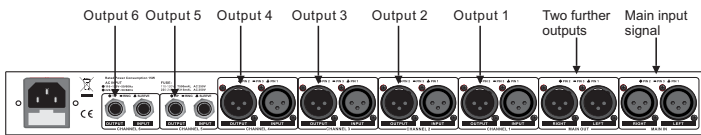
#### 16. OUTPUT for the mono channel

For Channel 1-4, use the XLR balanced connectors to output the mono signal, for Channel 5-6, please use the TRS type.

### 3.APPLICATIONS

#### How to use iLINK as the splitter

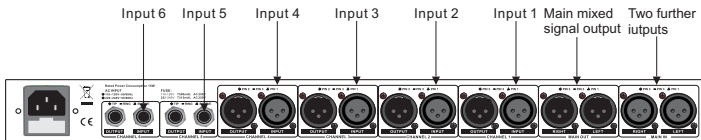
If working with bigger PA / sound reinforcement systems you know this problems for sure: One signal needs to be monitored by several groups, or the main mix output of the console should be transmitted to several power amplifiers, etc. And now, with your iLINK, you will get the best solution for it. Connect the iLINK into your systems as it is demonstrated. Now you can split a specific main input signal up to 6 outputs. If the MAIN LINK button is depressed, 2 further outputs are added.



Use the SPLIT/MIX switch to select the SPLITTER mode for each mono channel. Now you can apply the main signal from the MAIN IN sockets at the 6 outputs from the mono OUTPUT sockets of each channel. While the MAIN LINK is engaged, the MAIN OUT will also be linked with the MAIN IN signal and two further outputs are provided.

#### How to use iLINK as the mixer

This application is widely used for the mixing of one group main stereo signal with several mono signals.



Use the SPLIT/MIX switch to select the MIXER operation mode for each mono channel. The mixed input signals, from the mono INPUT of each channel, can be taken from the MAIN OUT sockets, at this mode. While the MAIN LINK is engaged, the MAIN IN will also be linked with the MAIN OUT signal, and two further input signals can be mixed with the main output signal.

