Installation guide

M•Flex 12/15 PA speakers

Mach

Content

P/N 00000000A, Rev A

Mach

Installation guide for M•Flex speakers

How to connect audio cables and plugs

On the following pages you will find information about how to hook up your M-Flex speakers. To save time and a lot of sweat and tears please follow these instructions carefully. Before you start make sure that all cables are without damages and the plugs are clean and dry.

⚠ **Note**

Make sure only to use good quality audio cables, plugs and connectors with the M-Flex products. When connecting plugs to cables please follow this connection guide carefully. If there is any doubt about how to connect a specific plug please contact the supplier.
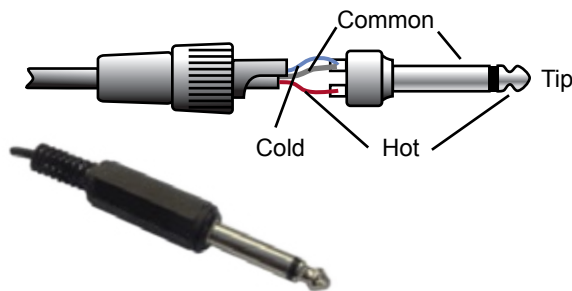
⚠ **IMPORTANT**

Remember to bring the power cord at all times, as the professional PowerCon mains connector is only available from specialized suppliers.
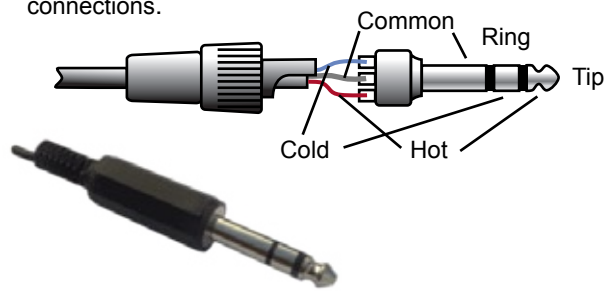
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TS plug (mono)
Standard mono (unbalanced) phone plug, used in the **Line1, Line2, Mix.Out** and most mixer connections.
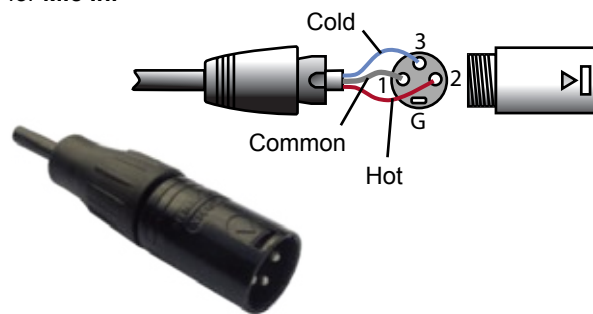
Common — Tip
Cold — Hot

TRS plug (stereo)
Standard stereo (balanced) phone plug, used in **Line1, Line2, Mix.Out** and for balanced mixer connections.

Common — Ring — Tip
Cold — Hot

Balanced XLR plug (male)
Standard XLR plug for microphone connector, used for **Mic In.**

Cold — 3
1 — 2
Common — G
Hot

Balanced XLR plug (female)
Standard XLR plug for microphone connector, used for **Mic Link**.

Cold — 3
1 — 2
Common — G
Hot
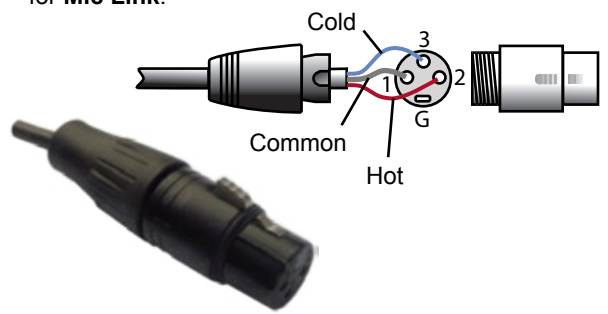
Industrial Connectors / PowerCon®
Locking 3 pole equipment AC connector for 110/250 V AC. High current capacity (up to 20 A).

Yellow/Green ⏚
N — Blue
L — Black

Plug wiews from wiring side
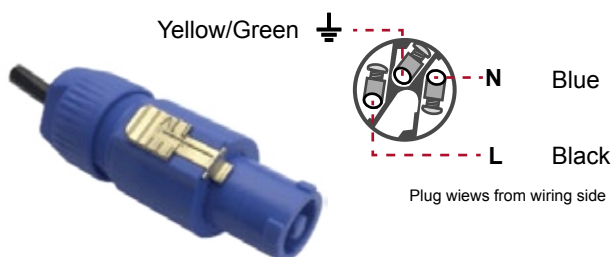
Speakon®
4 pole cable connector with latch lock. Intermates with 4-pole chassis connector and makes contact with +1/-1.

Black — 1+ — Red
1- — 2-
2+

Plug wiews from wiring side

Rear panel interface for M•Flex 12 and M•Flex 15

M-Flex products feature build-in switch-mode amplification and Digital Signal Processing (DSP) made by T.C.Electronic. As such it represent the next gener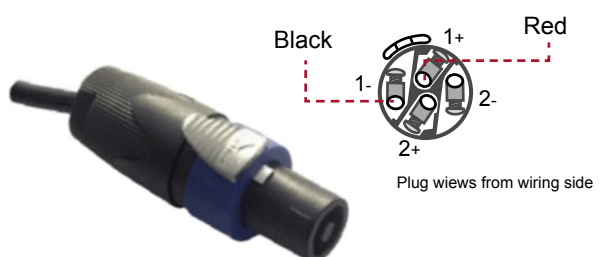ation of composite moulded speaker design. The amplifier interface is the connection panel which is mounted on the backside of the speaker. The connection panel has several connectors and adjustments controls which will be described on the following pages. This section describes the rear panel interface on the M-Flex 12/15

Note

Master volume should normally be on max to secure optimal limiter function.
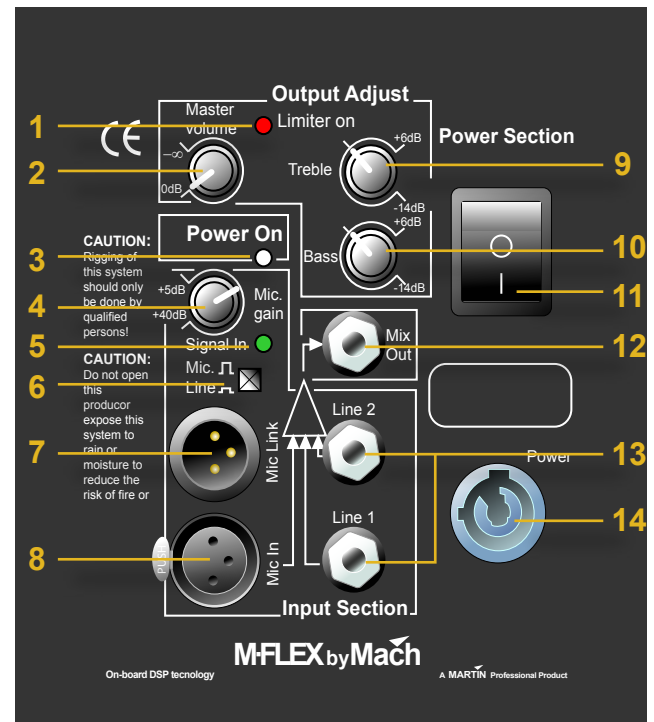
1. Limiter on
Red LED indicates when the input and output limiter is active.

2. Master volume
Adjusts the master output signal from - ∞ to 0 dB. *(should normally be on max).*

3. Power on
Blue LED indicates when AC power in on. The LED turns off when the unit is in standby mode waiting for signal.

4. Mic. gain
Control for the signal input volume.

5. Signal in
Green LED indicates that the unit is receiving signal.

6. Mic./Line selector
Pres the Mic/Line selector button when the microphone input is to be used as a line input. The **Mic/Line** selector control the sensitivity of the input as follows: Mic. +5 dB to +40 dB. Line. PAD –20 dB to +15 dB.

7. Mic. Link
This XLR enables you to link the microphone signal to other M•Flex speakers. It is a passive through link so the output of the signal of the plugs is similar to the input signal.

8. Mic. In
The microphone input accepts a standard XLR connector. Apart from accepting microphone, the input can be switched to accept line signal by the **Mic/Line** selector.

9. Treble
Adjust the high frequency output of the speaker (Shelv – 10 kHz +- 10 dB)

10. Bass
Adjust the bass output of the speaker (Shelv – 100 Hz +- 10 dB).

11. Power switch
When turning on the M•Flex speaker, make sure that all sources such as mixer, musical instruments or CD players have been turned on, and the input gain controls have been turned down.

12. Mix Out
This output enables link of the mixed signal microphone/line signal to other M•Flex speakers.

13. Line 1 & 2
Line 1 & 2 feature ¼" Jack plug, which accepts a balanced or unbalanced line level signal from sources such as CD players, cassette, MP3 players, computer sound-card outputs, keyboards and other electrical instruments.

14. Power plug
The enclosed power cable feature a Neutric PowerCon plug.

Application

One important feature of M-Flex is allowing direct connection of instruments, CD's and microphones to the build-in amp without using a mixer. The following illustrations show how to connect instruments, CD/MP3 players and microphones directly to the M-Flex.
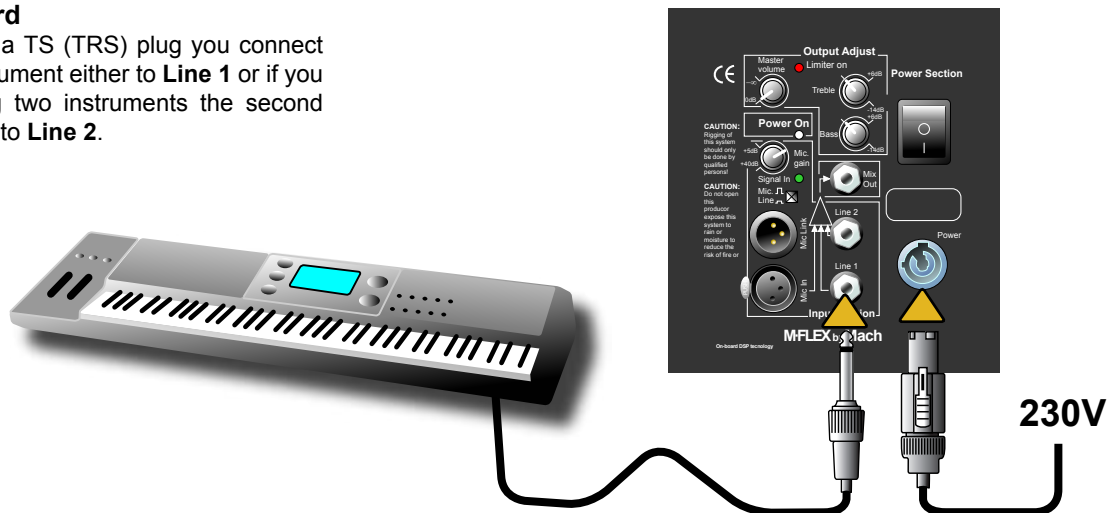
Microphone
By using a XLR (male) plug you can connect the microphone directly to **Mic In**. Use the **Mic. gain** controller to adjust the input volume from the microphone.
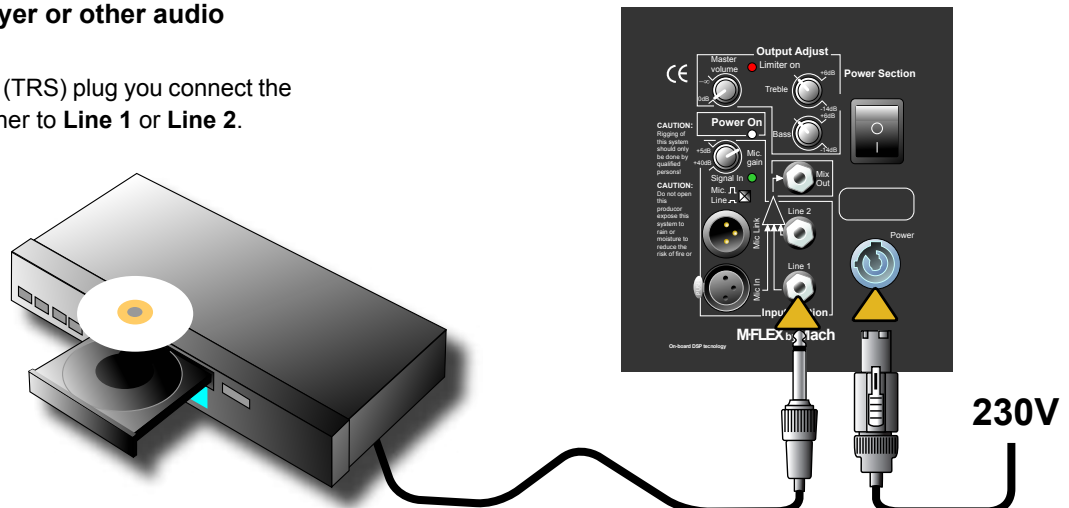
230V

Keyboard
By using a TS (TRS) plug you connect your instrument either to **Line 1** or if you are using two instruments the second connects to **Line 2**.

230V

CD/MP3 player or other audio sources
By using a TS (TRS) plug you connect the equipment either to **Line 1** or **Line 2**.

230V

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How to use two M•Flex speakers together without mixer

After connecting the instrument or the CD/MP3 players to the primary speaker then connect the secondary speaker with TRS plug from **Mix Out** (primary speaker) to **Line 1** (secondary speaker).

⚠️ Note

Use only balanced plugs (TRS) for connection between two or more M•Flex speakers

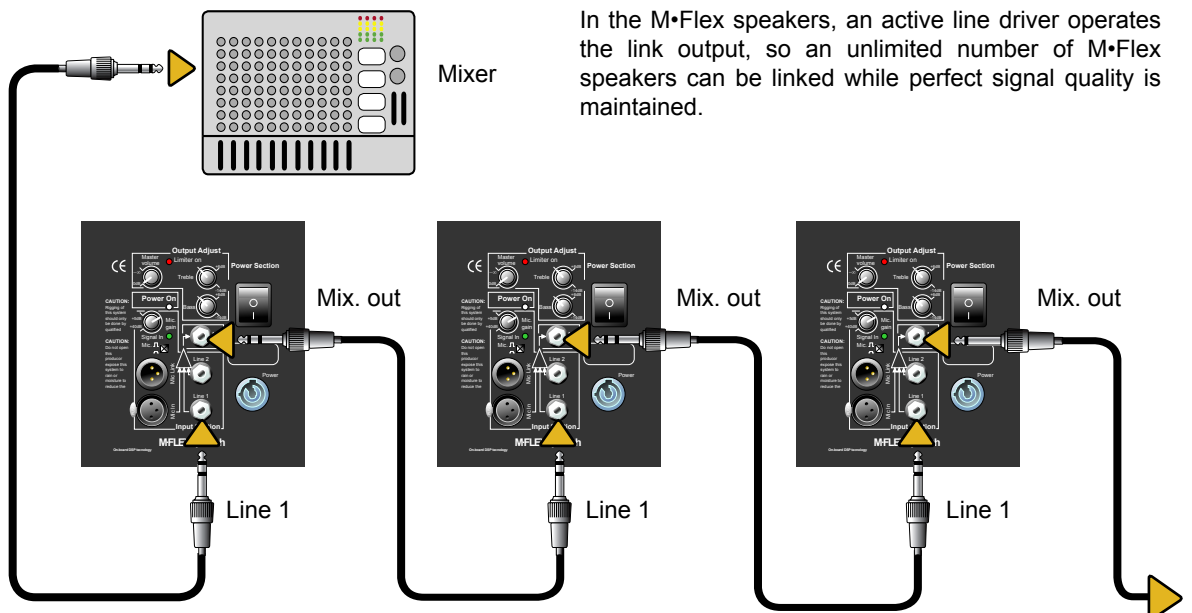**primary speaker**　　　　　　　　　　**secondary speaker**

230V　　　**230V**
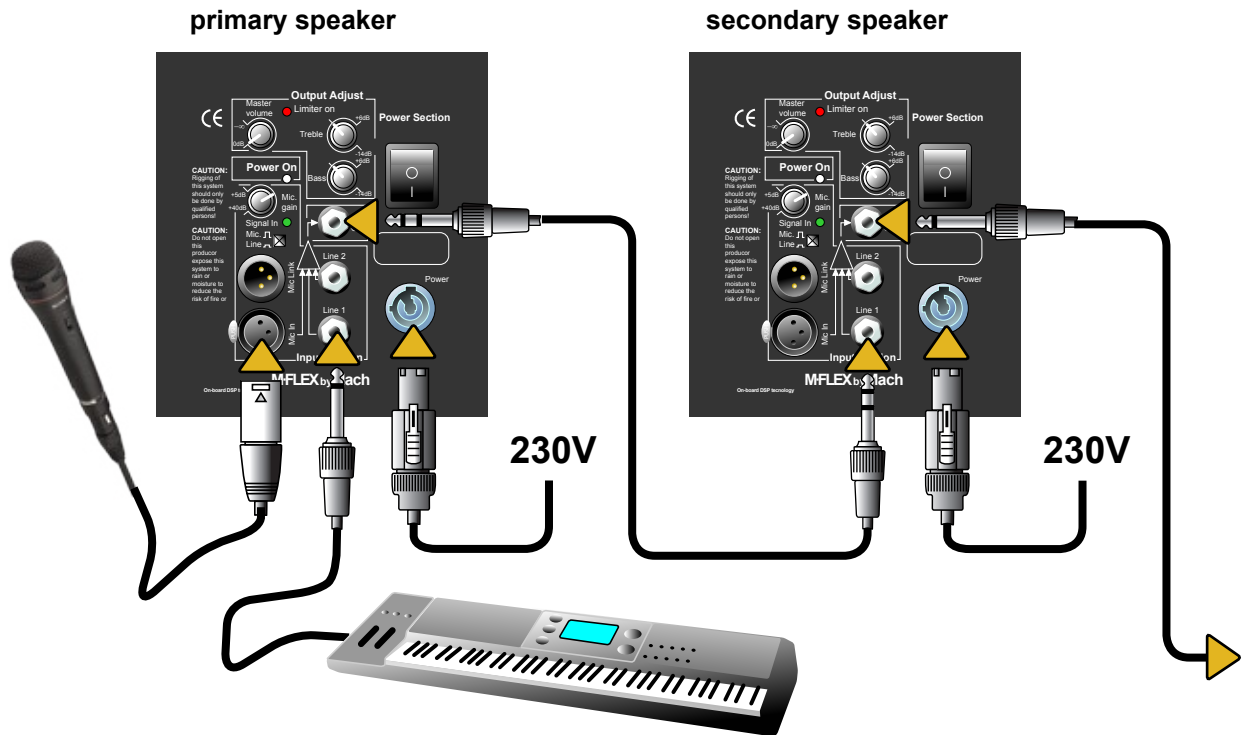
How to use two or more M•Flex speakers with a mixer

The M-Flex is highly flexible and can therefore be combined with all other M-Flex products. The following illustrations demonstrate examples of combinations and connections.

Daisy chaining for M-Flex 12 and M-flex 15

Mixer

In the M•Flex speakers, an active line driver operates the link output, so an unlimited number of M•Flex speakers can be linked while perfect signal quality is maintained.

Mix. out　　　Mix. out　　　Mix. out

Line 1　　　Line 1　　　Line 1

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Stereo setup with either two M•Flex 12 or two M•Flex 15 and a mixer

Most mixers have both TS/TRS (Jack) plug and XLR plug

Line 1

Line 1
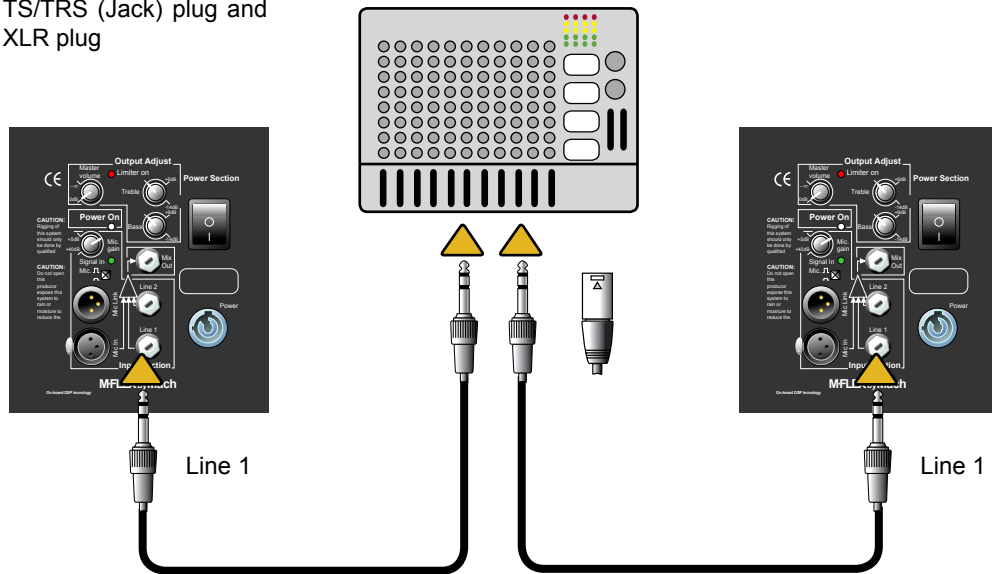
Stereo setup with either four M•Flex 12 or four M•Flex 15 and a mixer

Mixer

Line 1

Line 1

Mix. out

Mix. out

Line 1

Line 1