

TE3115 AUDIO PRIORITISER

The TE3115 Audio Prioritiser (Vox/PA prioritiser) provides flexible take-over of a local Audio system by a priority audio signal. This can be used, for example, to cause safety announcements to interrupt the local audio, or for general announcements to interrupt background music. It will find use in system upgrade and safety enhancement situations.



The units can be supplied in small ABS free standing cases or in 2U rack mount aluminium cases.

The TE3115 provides two sets of two pole isolated change-over contacts (one set energised for priority, the other set de-energised for priority) to cater for a very wide range of switching and default requirements in the external PA equipment. In addition, two pole direct internal switching of the priority audio or speaker signals is available.

Various versions exist for use with 100V line (TE3115_1, TE3115_2) or low level/line level audio signals (TE3115_3, TE3115_4). The units can be supplied in small ABS free standing cases or in 2U rack mount aluminium cases. Generally the rack units are mains powered whereas the small free-standing units are powered by 12V dc from "plug-top" power Supplies, but units are made to customers' requirements.

VERSIONS

- TE3115-1 is for use when both the global and local speakers are 100V line. The local speakers are switched for priority announcements and default to the global system if the local system is turned off. The two sets of two pole changeover contacts are available for external equipment.
- TE3115-2 is for use when the global system is 100V line and the presence of a signal should cause the local system to switch over. The isolated 100V line signal is available as a line level output to feed to the local PA. The two sets of two pole isolated contacts can be used to control the local PA or to directly switch the audio signals.
- TE3115-3 is for use when the global signal is at line level. The presence of the actual message audio, or the presence of a control tone on one channel of a “stereo” signal, can effect the switch over. The two sets of two pole isolated contacts can be used to control the local PA or to directly switch the audio signals.
- TE3115-4 is for use when two line level signals are to be prioritised. In the presence of the priority audio signal it effects a direct relay switch over of the stereo audio signals from the default (subsidiary) input to the priority input. Optionally, two additional sets of two pole isolated contacts are switched simultaneously with the audio and can be used to control a PA or other equipment.

FEATURES

- Detection time is about 20ms and the hold over time after the end of the priority signal is about 3s.
- There is circuitry to suppress response to spurious clicks and spikes.
- The audio trigger level is adjustable.
- A TEST button simulates presence of a priority signal.
- LEDs show POWER, TRIGGER and PRIORITY states.
- The units can be supplied in 2U rack mount aluminium cases or in small ABS free standing cases.
- Mains operation via IEC inlet is standard for rack units, 115V or 230V 50/60Hz versions available.
- Free standing units are powered by 12V dc “Plug Top” PSUs (supplied)

USING THE TE3115

1 THE POWER CONNECTION

1.1 MAINS POWERED UNITS

A 230V 50Hz supply, fused at 5A or less, should be connected to the IEC inlet on the rear panel of the TE3115. Ensure that this supply is present when the local PA is powered.

1.2 PLUG TOP POWERED UNITS

The 12V dc Plug-Top PSU supplied (UK) should be connected to the TE3115 by the 2.1mm Low Power connector.

2 AUDIO CONNECTIONS

2.1 TE3115_1, TE3115_2 and TE3115_3

The main audio connections are to the audio panel XLR/DIN connectors. The use of male and female connectors on XLR versions allows the user connectors to mate together to give direct through connection for test or service purposes. A line level take off/monitor of the Priority Audio input is also available at the "OP" 2 part connector (see below).

PRIORITY IN is from the global or priority system. The user connector is a 3P free female for XLR versions.

DRIVE OUT (not present on TE3115-2) is the signal feed to the local 100V line speakers (TE3115-1) or PA (TE3115-3). The user connector is a 3P free male for XLR versions

SUBSID IN (not present on TE3115-2) is from the 100V OP of the local (subsidiary) amplifier (TE3115-1) or a subsidiary input that doesn't cause priority switching action (TE3115-3)

The user connector is a 3P free female for XLR versions

TE3115-	PRIORITY IN			DRIVE OUT			SUBSID IN		
	1	2	3	1	2	3	1	2	3
-1	100V line	100V line	-	100V line	100V line	-	100V line	100V line	-
-2	100V line	100V line	-	-	-	-	-	-	-
-3	Com	Ctrl Tone	Speech	Com	Speech	Speech	Com	Speech	Speech

2.2 TE3115_4

PRIORITY IN, **DRIVE OUT** and **SUBSID IN** are all connected via stereo phono pairs

3 THE LED INDICATORS and SENSitivity adjustment.

The **PWR** LED shows when mains power is being fed to the unit.

The **TRIG**ger LED illuminates whenever the priority input signal exceeds the trigger threshold. The trigger level can be adjusted with the **SENS**itivity potentiometer located in the contact group to the right of the trigger LED. Clockwise increases sensitivity.

The **PRIORITY** LED illuminates when the PRIORITY source is selected. This will be for the duration of any priority signals exceeding the threshold and for approximately 3s afterwards.

The **SENS**itivity **adjustment** is accessible between connectors on the connector panel. Turning the 15 turn adjuster with a small screwdriver allows the priority trigger sensitivity to be adjusted over a six to one voltage range.

4 THE TEST BUTTON.

The **TEST** button simulates the receipt of a priority signal. Pressing the **TEST** button should cause the **PRIORITY** LED to light and the relays to switch for the duration of the depression.

5 THE TWO PART SCREW TERMINAL CONNECTORS.

All of the 2 part connectors have the pins numbered **right to left** as viewed looking onto the rear panel.

The **OP** 2 way connector supplies a Line level audio signal derived from the Priority audio line. It is isolated from the 100V line (TE3115-1 and TE3115-2), but shares the same ground as the **AUX** connections.

This can be used to feed the local PA with the "Priority" audio input. Pin 2 is gnd.

The **E CONTACTS** are two sets of isolated changeover relay contacts that **E**nergise when the Priority source is selected; when power is down these contacts are in the Susidiary state. They are used to switch the PA priority control inputs or for other functions.

The **D CONTACTS** are two sets of isolated changeover relay contacts that **D**e-energise when the Priority source is selected; when power is down these contacts are in the Priority state. They are used to switch the PA priority control inputs or for other functions

The connections for both E and D contacts are:

Pin 1	Relay A Normally Open
Pin 2	Relay A Normally Closed
Pin 3	Relay A Wiper
Pin 4	Relay B Normally Open
Pin 5	Relay B Normally Closed
Pin 6	Relay B Wiper

NOTE: The E and D contact facility is an option for the TE3115_4

The **AUX** connector gives provision for external logic input and output.

There is an open collector drive for an external relay, etc. The drive goes active low for the Priority state (equivalent to a contact closure to 0V); it can be used with an external supply of up to 35V with the negative terminal connected to 0V.

There is a contact closure/TTL compatible logic input which is active low and simulates the action of the "TEST" button.

The pinning for the Aux connector is:

Pin 1	Ext Contact in.
Pin 2	0V (Com/Gnd)
Pin 3	Relay Drive Output.

FURTHER VARIANTS of THE TE3115

If none of the units above exactly fit your requirement, please contact us. We are always happy to discuss custom solutions.

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