



Developed from the UK's most successful wired intercom system, the all new Series 2 MS745 Master Station unit inherits the sturdiness and excellent build quality of the original Tecpro designs, incorporated into a space saving 1U format. Despite the reduced size, several new features have been added that address common installation and operational issues.

Original Tecpro master stations offered a creditable 650mA per circuit – enough to drive sixteen of our BP111 beltpacks. The new MS745 master station supplies 1.25A per circuit – almost doubling the drive current.

Like its predecessors, the new MS745 offers two independent circuits A and B. Circuit B may be linked to A to form a single 'super' circuit capable of powering up to sixty BP111 beltpacks!

New features include 'Remote Mic Kill' to help keep intercom channels free of unnecessary noise. Latching and non-latching modes have been added to some selector switches to increase their functionality.

Each intercom circuit has its own power supply with short-circuit protection. All protection is electronic and automatic so no resetting is necessary following the removal of a fault condition. As the supplies are independent, in the event of a cable fault temporarily disabling one circuit, the other circuit will continue to operate uninterrupted. Over-temperature circuitry monitors the entire power supply.

The MS745 is fitted with a Universal Power Supply and can be operated world-wide without the need to change AC power settings.

Tecpro series 2 products are backwards compatible with the original Tecpro range (except 'Remote Mic Kill' facility which applies to series 2 products only).

For further details visit [www.tecpro.co.uk](http://www.tecpro.co.uk)



## Features

### Master Station MS745

- Two independent intercom circuits, A and B
- Separate short circuit and overload protection on each circuit. Thermal monitoring / protection for main PSU
- Circuit B may be linked to A to form a single circuit with doubled drive capacity
- Supports up to 30 Tecpro BP111 beltpacks per circuit
- 'Remote Mic Kill' facility will shut down all open microphones on a selected circuit (series 2 products only)
- XLR3 AUX input on rear with selectable microphone or line level. Switched 24V phantom power on mic circuit
- Microphone limiting prevents signal overload

## The Tecpro Communication System

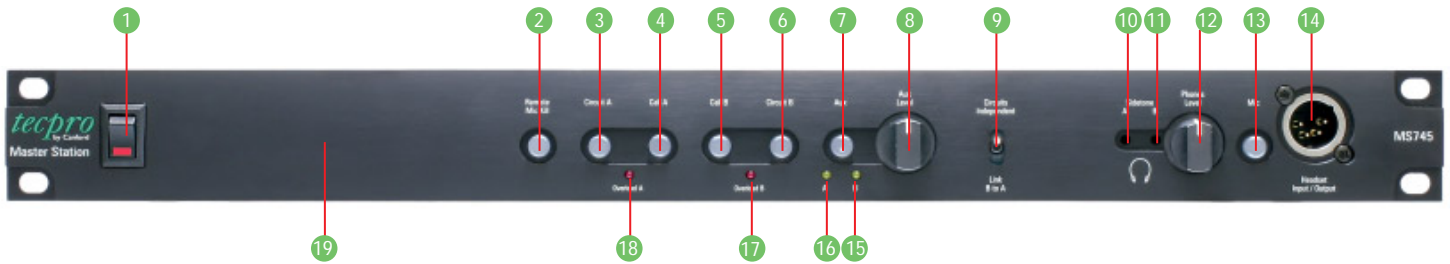
Tecpro is a 'two wire' or, as it is sometimes known, 'party-line' or 'ring' system which enables a number of people to take part in the same conversation. Each participant can hear all other participants on the same circuit while being able to talk to them simultaneously, so a full 'duplex' conversation can take place – similar to a telephone system.

The major applications for these systems are in the theatre, conference, live performance and broadcast markets, though new applications are constantly emerging.

A basic Tecpro communication system would comprise a power supply and two or more outstations or beltpacks. An outstation may be wall mounted, free-standing or mounted in a rack. It will usually have a built-in loudspeaker and possibly a microphone. Beltpacks are intended for personal use and work only with a headset. Outstations and beltpacks connect together with two core screened microphone cable which carries system power, audio, and various control signals. Most have a 3-pin XLR input and output and can be simply daisy-chained together. Alternatively interconnection can radiate out from a central, passive splitter. A combination of both methods is often used.

More complex systems can use a master station which has two in-built power supplies and offers two independent communication circuits, A and B, which can be linked if required.

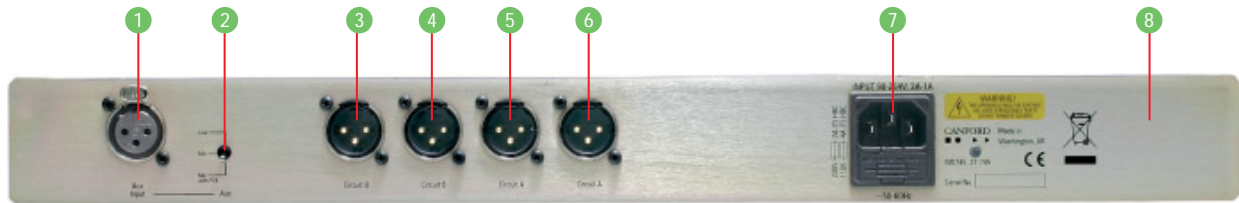
# MASTER STATION MS745



## Front Panel Features

1	<b>Power ON / OFF Switch</b>	11	<b>Sidetone B</b> - When a headset is plugged in, the level of the user's voice can be adjusted in relation to other operator's voices on this intercom circuit.
2	<b>Remote Mic Kill</b> - Shuts down all open microphones on a selected circuit. <i>This feature is not compatible with original Tecpro designs which use mechanical switches. All Series 2 products use electronic switching and will respond to 'RMK'</i>	12	<b>Phones Level</b> - Adjusts headset listening level
3	<b>Circuit A Select Button</b>	13	<b>Mic</b> - Switches headset microphone on and off. Latching and non-latching modes.
4	<b>Call A</b> - When Circuit A is selected, pressing the Call button makes all Call lights on that circuit illuminate.	14	<b>Headset Input / Output</b> - Plug headset in here
5	<b>Call B</b> - When Circuit B is selected, pressing the Call button makes all Call lights on that circuit illuminate.	15	<b>B</b> - Indicates auxiliary selected for circuit B.
6	<b>Circuit B Select Button</b>	16	<b>A</b> - Indicates auxiliary selected for circuit A.
7	<b>Aux Selector Switch</b> - Directs auxiliary audio to circuit A, B, A and B or none,	17	<b>Overload B</b> - Indicates excessive current draw on circuit B intercom line.
8	<b>Aux Level Control</b> - Controls the level of the auxiliary signal.	18	<b>Overload A</b> - Indicates excessive current draw on circuit A intercom line.
9	<b>Circuits Independent / Link B to A</b> - Using the toggle switch, circuit B may be linked to circuit A to form a single 'super' circuit with double the drive capacity .	19	<b>Front Panel</b> - Brushed, anodised aluminium curved extrusion.
10	<b>Sidetone A</b> - When a headset is plugged in, the level of the user's voice can be adjusted in relation to other operator's voices on this intercom circuit.		

## MASTER STATION MS745 (rear)



### Rear Panel Features

1	<b>Aux Input</b> Balanced XLR3 auxiliary audio input.	5	<b>Circuit A</b> - XLR3 intercom circuit connector.
2	<b>Auxiliary mic / line selector switch</b> - Three position switch: LINE, MIC and MIC with +24V phantom power.	6	<b>Circuit A</b> - XLR3 intercom circuit connector.
3	<b>Circuit B</b> - XLR3 intercom circuit connector.	7	<b>Power Connector</b> - IEC fused inlet for world-wide operation. 90-260 VAC, 50-60Hz.
4	<b>Circuit B</b> - XLR3 intercom circuit connector.	8	<b>Rear Panel</b> - Alocrom finish.

## MORE OOMPH!

### MS741 MASTER STATION

### ME742 MASTER STATION EXTENDER



The brilliant MS741 Master Station offers two full duplex intercom circuits.

This can be increased to four fully independent circuits by the addition of the ME742 Master Station Extender.

Both the MS741 and ME742 units are capable of driving 30 BP111 beltpacks from each circuit - virtually doubling the drive capability of the original Tecpro Master Stations!

The comprehensive feature set includes useful, real world facilities including 'remote mic kill' 'override' and 'announce'.

**Find out what all the fuss is about... Call 0191 418 1040 for a leaflet**

The small print.....

TECPRO is a registered trademark of CANFORD AUDIO PLC

All products manufactured by Canford carry a two year warranty

Tecpro products are manufactured subject to stringent quality control tests.

The use of highest quality components throughout, together with our renowned mechanical build quality ensure many years of trouble free operation.

Our policy is one of continuous development.

All specifications and design details are subject to change without notice.

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# TECHNICAL SPECIFICATION

Microphone.....	200 ohm dynamic type
Headset earphone.....	400 ohm typical – 32 ohm to 4k ohm acceptable
System output voltage.....	+24V DC
System line termination impedance.....	200 ohm in the audio frequency band, 5k ohm at DC
Auxiliary Input.....	XLR3 electronically balanced, line or mic sensitivity with +24V phantom power
Call signal.....	DC and 20kHz
Remote mic kill signal (RMK).....	24kHz
Maximum number of outstations per circuit.....	30 beltacks or 7 loudspeaker stations (depending on model selected)
System cabling.....	Fixed installations:31-050 FST-HD Mobile facilities:30-130 HST-HD
Power.....	90 – 260V AC50 – 60Hz
Fuse rating.....	2A (T) HBC for 240V AC operation 4A (T) HBC for 110V AC operation
Dimensions.....	1U rack mount 195mm deep
Weight.....	1.6 kilos

## WIRING CONVENTION

### Cable requirements

Three factors affect the choice of cable for a particular system or installation:

- (a) The length of cable run – longer runs require a larger gauge cable.
- (b) The number of outstations on each cable – increasing the number of outstations requires a larger gauge cable.
- (c) Permanent installation or mobile use.

In general, we suggest a screened 0.5 sq mm (20AWG) twisted pair cable should be used. Canford heavy duty cables FST-HD, HST-HD and HST-HD-R are suitable. HST-HD-R has a polyurethane jacket, which has very similar properties to rubber – i.e. very abrasion resistant and resilient. FST-HD is a foil screened cable specifically for permanent installation purposes. HST-HD can be used for mobile systems.

## SYSTEM CABLE CONNECTORS

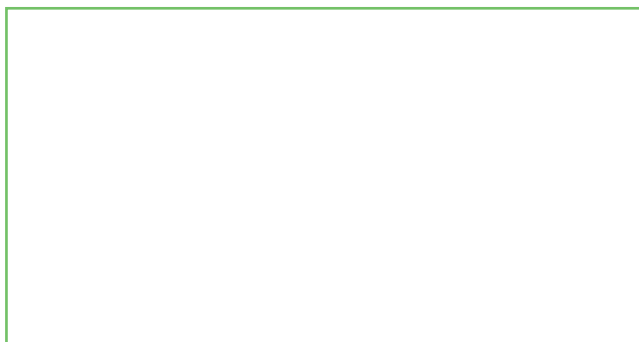
BP111, BP112, BP114, BP116	XLR3	Pin 1 Pin 2 Pin 3	Earth / Screen +24V DC Audio
BP113, BP115, BP117	XLR6	Pin 1 Pin 2 Pin 3 Pin 4 Pin 5 Pin 6	Earth / Screen +24V DC Audio Circuit 1 Audio Circuit 2 Audio Circuit 3 - Unused for beltacks Audio Circuit 4 - Unused for beltacks

N.B. XLR6 pin connectors must be Neutrik type. Switchcraft XLR6 pin types are not compatible and are NOT suitable.

## HEADSET CONNECTORS

BP111, BP112, BP113, BP114, BP115	XLR4	Pin 1 Pin 2 Pin 3 Pin 4	Microphone screen Microphone signal Earphones common Earphones signal
BP116, BP117	XLR5	Pin 1 Pin 2 Pin 3 Pin 4 Pin 5	Microphone screen Microphone signal Earphones common Left earphone Right earphone

## DEALER



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