

Technical Data Sheet

TECPRO OUTSTATIONS USER GUIDE

- 27-351** LS351 Desktop, single circuit unit, with XLR connectors (XLR3F, XLR3M loop-through). Local plug-in PSU option.
- 27-352** LS352 Desktop, dual circuit, with XLR connectors (2 x XLR3F, XLR3M loop-through, XLR5F, XLR5M loop-through). Local plug-in PSU option.
- 27-361** LS361 Wallmount (surface), single circuit unit, rear cable entry enables user termination into junction block inside.
- 27-371** LS371 Flushmount, single circuit unit, to fit 27-379 flush back box, user termination into junction block inside.
- 27-372** LS372 Flushmount, dual circuit, to fit 27-379 flush back box, user termination into junction block inside.
- 27-381** LS381 Rackmount, single circuit unit, with XLR connectors (XLR3F, XLR3M loop-through). Local plug-in PSU option
- 27-382** LS382 Rackmount, dual circuit unit, with XLR connectors (2 x XLR3F, 2 x XLR3M loop-through, XLR5F, XLR5M loop-through). Local plug-in PSU option

INTRODUCTION

The Tecpro Series 2 LS300 series Loudspeaker Stations provide clear, intelligible local monitoring of intercom circuits and the built-in microphone allows the listener to take part in the conversation. Plugging in a gooseneck or a hand-held fist mic will automatically mute the internal microphone. Plugging in a headset will mute both the internal mic and loudspeaker. Depending on how they will be used, the loudspeaker stations can be set for "simplex" (one-way conversation, like a walkie-talkie) or "full duplex" (simultaneous, two-way) conversation. LS300 Loudspeaker Stations offer single circuit operation as standard. Dual circuit versions are available on some models

CONNECTING THE OUTSTATION TO THE SYSTEM

LS351 and LS381

These single circuit Outstations are connected to the system via the available male and female XLR 3 pin connectors. By convention the female connector is used as the input and the male connector as the output, enabling the cabling to be 'looped through' to the next station, if required.

LS352 and LS382

These dual circuit Outstations are connected to the system via two, 3 pin, male and female, XLR type connectors or male and female 5 pin XLR connectors. They are marked Circuit 1 and Circuit 2. By convention the female connector is used as the input and the male connector as the output enabling the cabling to be 'looped through' to the next station, if required.

LS361 and LS371 (Single Circuit), LS372 (Dual Circuit)

These Outstations are connected to the system via a 3 way terminal block.

Remove circuit board assembly from housing by removing four screws from one end panel.

Slide out front panel. (All electronics are fitted to this panel.)

A removable 3-pin phoenix connector is fitted to the lower board. Carefully remove the free part of the terminal block and wire as shown below. (Wiring details are also shown on the PCB)



N.B. - Connector is polarised so can only be re-fitted one way round.

Please check wiring is correct before re-assembly.

DETAILED OPERATION OF CONTROLS

The front panel houses the mic select and call buttons, headphone volume and side-tone adjust control(s).

Headset Operation

A Tecpro compatible headset, wired as in diagram 1, should be plugged into the 4-pin XLR connector.

The "MIC" button activates the headset mic to speak to the system when depressed. The volume control can be adjusted for a comfortable listen level.

Side-tone adjustment

The level of the user's voice in the headset is called 'side-tone'. The required level can be set by adjusting the recessed side-tone control on the front panel with a small screwdriver.

On the two channel Outstations, LS352, LS382 & LS372, the side-tone setting relates only to the channel in use.

Signal light operation

The CALL pushbutton flashes a light in all outstations connected to the circuit. It is used to attract the attention of a user that has the headset removed or volume level turned right down.

NON-HEADSET OPERATION

The outstations can be set up in one of two modes. As supplied, they operate in Mode 1.

Mode 1

On pressing the "Mic" button, the loudspeaker "Mute" button will illuminate. A message can then be sent over the Tecpro system. In this mode, conversations are one way at a time (simplex, like a walkie-talkie) as other participants cannot be heard while the microphone is active. In mode 1, the microphone will not latch in the 'On' position to avoid accidentally leaving the loudspeaker muted, thereby missing important announcements.

Plugging a headset into a loudspeaker station set to Mode 1 will automatically switch it to Mode 2 so 'full duplex' conversations can take place.

Mode 2

The loudspeaker and microphone operate simultaneously. This allows a hands-free, simultaneous two-way (full duplex) conversation to take place without the need to wear a headset. Feedback cancellation circuitry helps avoid acoustic howl-round.

Press the "MIC" button briefly and it will illuminate green. This action switches on the mic circuitry and allows the operation of other functions.

To switch off the mic circuitry press the "MIC" button briefly again. The lamp within the button will extinguish.

Holding the "MIC" button continuously keeps the mic

circuitry alive for the duration of the press.

NOTE: It is recommended that only one user station per intercom circuit is used in mode 2 to avoid introducing feedback. Other loudspeaker stations should be switched to mode 1.

If power is removed from the outstation, previous mode setting will be retained when power is re-connected

CALL SEND

To toggle between modes.....

- Hold down the 'Call' button until it flashes
- Press the 'Speaker' 'Mute' button
- When the 'Call' light stops flashing, the mode is changed.

CHANGING MODES

Mode 1

While holding the "MIC" button push the "Call" button briefly. This will cause the lamps on all other beltpacks and outstations on the same circuit to flash for approximately one second. The button will also illuminate red. A tone of similar duration will sound in the headphones and loudspeakers

Mode 2

If "MIC" button is not illuminated then push it briefly.

Push the "Call" button briefly. This will cause the lamps on all other beltpacks and outstations on the same circuit to flash for approximately one second. The button will also illuminate red. A tone of similar duration will sound in the headphones and loudspeakers.

REMOTE MIC KILL SEND

Ensure mic button is not illuminated.

Depress the "CALL" button briefly three times. It will illuminate red for approximately two seconds.

During this time, briefly press the appropriate "MIC" button to switch off all mics on that circuit.

LEVEL OVERRIDE

The MS741 Master Station has an override facility whereby it can call beltpacks and outstations where the loudspeaker/headset may be turned down.

On the outstation there two adjustable preset controls for the "Override" facility, one for the loudspeaker and one for the headset. These can be set to a suitable level when setting up a Tecpro system.

PROGRAMMABLE OPTIONS

All settings revert to default when power is removed.

Default settings

1. Call alert tone ON/OFF – ON
2. Disable or enable Mic – ENABLED.

PREFERENCE SETTINGS

Alert Tone – On /Off

Switch off mic and hold down “Call” button for 3 seconds - red call LED flashes slowly for 2 sec.

To select alert tone off, while call LED is flashing, press mic - call alert tone on for 0.1 sec.

To select alert tone on, while call LED is flashing press mic - call alert tone on for 1 sec.

When the call alert mode is programmed ON, 50mS of call alert tone acknowledges that the call switch is pressed at the start of the 3 sec ‘hold down’. This button press acknowledgement is then suppressed until the unit deselected set up mode and reverts to normal operation.

With alert tone off, when outstation is called, “CALL” button will illuminate. There will be no audible tone from the speaker/headset.

Mic Disable

Switch off Mic and hold down call for 10 sec - red call LED flash rate changes to quick flash after 10 sec.

To disable Mic while call LED is flashing, press mic - Mic LED flashes once.

To enable Mic while call LED is flashing, press mic - Mic LED flashes 3 times.

MISCELLANEOUS

ClearCom Compatibility

Tecpro stations are completely compatible with Clear-Com stations. Any Tecpro stations added to Clearcom will function as their Clear-Com equivalents. However, Clear-Com stations have a lower bridging impedance and will degrade a Tecpro system slightly due to a reduction in side-tone stability incurred when a Clear-Com outstation is used in a Tecpro communications system.

WIRING CONVENTIONS

System cable connectors:

XLR 3 pin

- Pin 1 Earth/screen
- Pin 2 +24VDC
- Pin 3 Audio

XLR 5 pin

- Pin 1 Earth/screen
- Pin 2 +24VDC
- Pin 3 Audio, circuit 1
- Pin 4 +24VDC
- Pin 5 Audio, circuit 2

3 pin terminal block

- Pin 1 0 volts
- Pin 2 +24V
- Pin 3 Line A

HEADSET CONNECTORS

XLR 4 pin

- Pin 1 Microphone Earth/screen
- Pin 2 Microphone signal
- Pin 3 Earphones Earth/screen
- Pin 4 Earphones signal

TECHNICAL SPECIFICATION

Power requirements

Tecpro line Supply voltage:	24 - 30 volts DC
Current consumption:	60mA static 75 mA in "Call" mode (all LEDs on)
Max current consumption:	< 175mA peak depending on loudspeaker volume
External DC input Supply voltage:	24 - 30 volts DC
Max current consumption:	< 100 mA peak DC – removes current drain of loudspeaker amplifier

Headphone output:	30 ohm to 4Kohm headphones
Microphone input:	200 to 600 ohm dynamic microphones

CONNECTORS

LS351, LS381	Circuit – 1 x XLR 3 pin male, 1 x XLR 3 pin female - looped Headset – 1 x XLR 4 pin male
--------------	---

LS352, LS382	Circuit 1 - 1 x XLR 3 pin male, 1 x female - loop through Circuit 2 - 1 x XLR 3 pin male, 1 x female - loop through Circuits 1 & 2 - 1 x XLR 5 pin male, 1 x XLR 5-pin female Headset – 1 x XLR 4 pin male
--------------	---

LS361, LS371, LS372	Circuit - 3 pin terminal block plugs into PCB Headset - XLR 4 pin male
---------------------	---

CASE

LS351, LS352

Case material:	Aluminium alloy; ABS end mouldings
Dimensions:	245mm (W) x 120mm (D, excluding connectors) x 90mm (height to top of controls)
Weight:	1.15Kg

LS361

Case material:	Aluminium alloy
Dimensions:	243mm (W) x 110mm (D) x 74mm (from wall to top of controls)
Weight:	1Kg

LS371, LS372

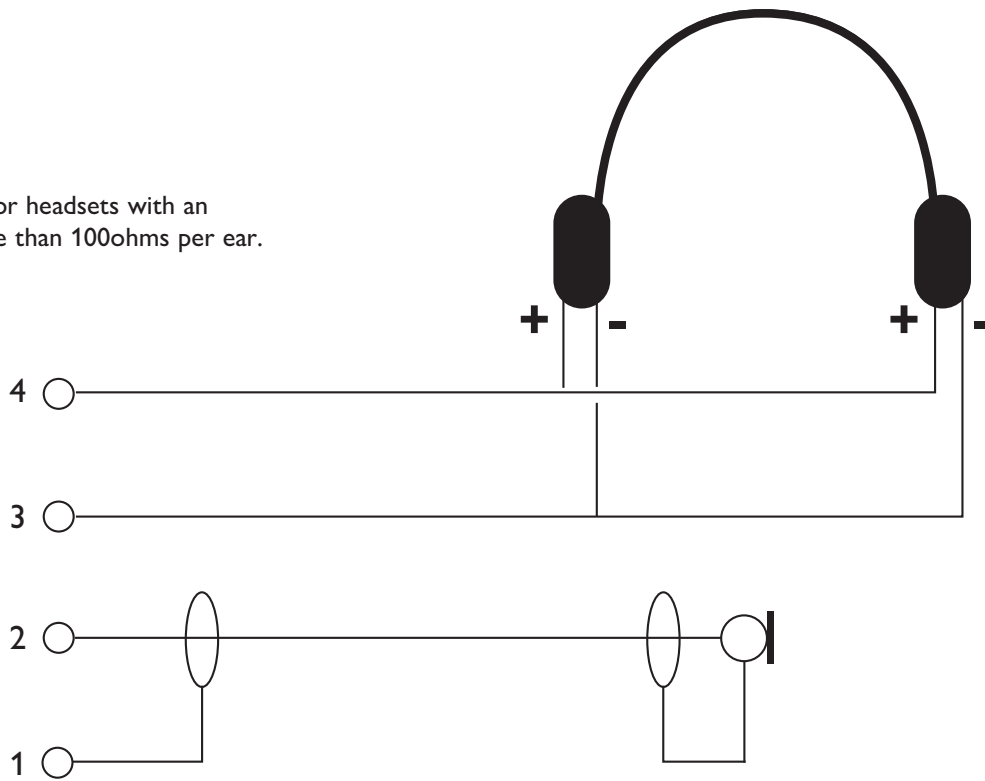
Panel material:	Aluminium
Dimensions:	180mm (L) x 170mm (W) x 54mm (depth behind panel) Fits back box (stock code 27-379)
Weight:	450g
External dimensions of 27-379	141 (H) x 153 (W) x 56 (deep)
Weight of 27-379	500g

LS381, LS382

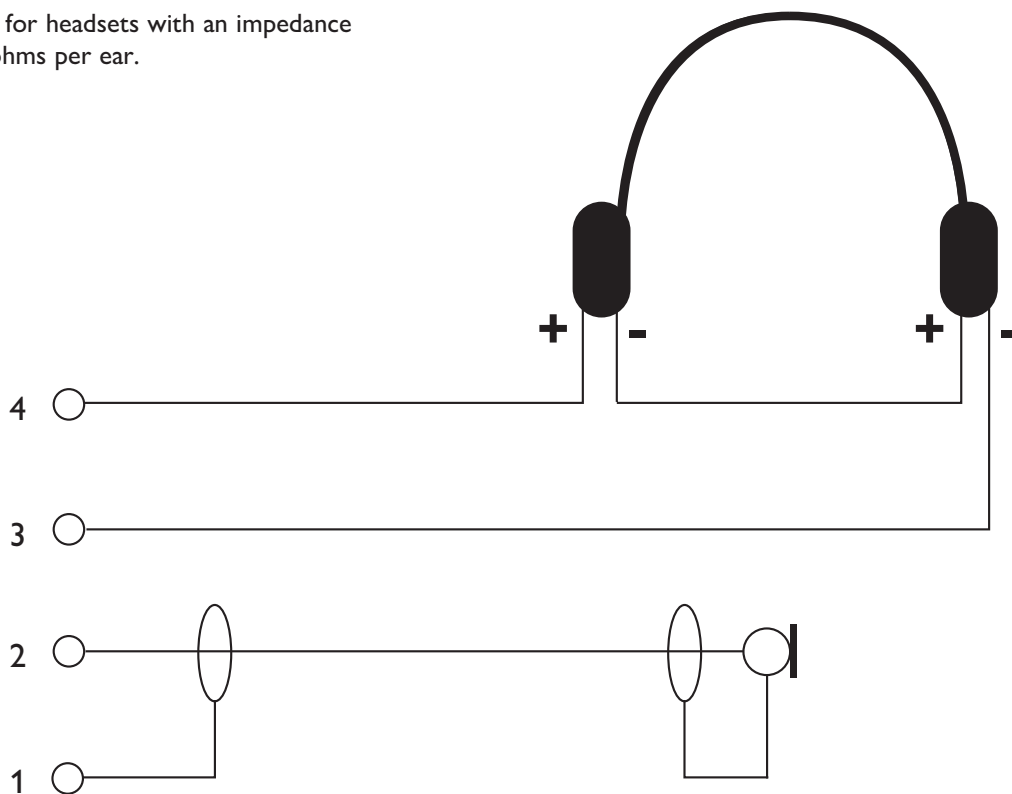
Case material:	Aluminium alloy
Dimensions:	483mm (W) x 44mm (H) x 66mm (depth behind panel excl. connectors)
Weight	900g

DIAGRAM 1

4-pin XLR wiring for headsets with an impedance of more than 100ohms per ear.



4-pin XLR wiring for headsets with an impedance of less than 100ohms per ear.



[illegible]

NOTES

This image shows a single sheet of white paper with horizontal green ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.



For more information on products and services, please contact our sales team:

UK Sales 0191 418 1122 sales@canford.co.uk

International Sales +44 (0)191 418 1133 international@canford.co.uk

canford.co.uk