Digital Talkback Controller
Remote Control for Leon Audio Talkback Substations.

Features

- **Mute open microphones**

- **Calls specific substations assigned to 1 of 4 call groups.**

- **Call substations with vibrator or beeper even if these are deselected.**

- **Mute all mics and turn on stage manager's mic with just one button.**

- **Mute all mics and talk to the Cast Call PA with just one button.**

- **Connects anywhere in the system.**

- **Line Powered.**

Description

A control unit for the Leon Audio computer based talkback system to allow access to advanced beltpack features.

1: Mic Mute.

Turns off any open microphone on any beltpack.

2: Lockout Beepers

Mutes all beepers on all beltpacks. The beeper function is also locked out so that it can not be accidentally selected by the beltpack's mode button. The beltpack must be reset before beepers can again be selected from the beltpack.

5-8: Group call.

The beltpacks can be programmed to respond to any one of four group calls.
The four yellow group buttons and associated yellow LEDs determine to which groups any calls will be addressed.
Calls are initiated by any of the 3 red call buttons.

When Group 1 is selected, a DC signalling voltage is also sent whenever *Call Lights* (button 11) is pressed. This enables other brands of non-intelligent substations to be called.

Setting a Beltpack's Group Number:
1: Press and hold the beltpack's grey button.
2: Yellow LEDs flash current group number after 3 seconds.
3: Press the beltpack's Green button 1-4 times to select new group, or just release the grey button to leave it as is.
4: Yellow LEDs flash new group number.
5: Release the beltpack's grey button.

A beltpack will remember its group number while the power is removed.

12: S/M Talk.

Lets important cues cut through the chatter.
This button momentarily mutes all microphones except for the stage manager's mic, which is turned on. All mics revert to their previous state upon release of the *S/M Talk* button.
Individual beltpacks can override the global microphone muting should the need arise.

3: Select S/M Mic.

One beltpack needs to be designated for use by the Stage Manager.
1: Turn of all mics (use the *Mic Mute* button)
2: Turn on the mic on the Stage Manager's beltpack.
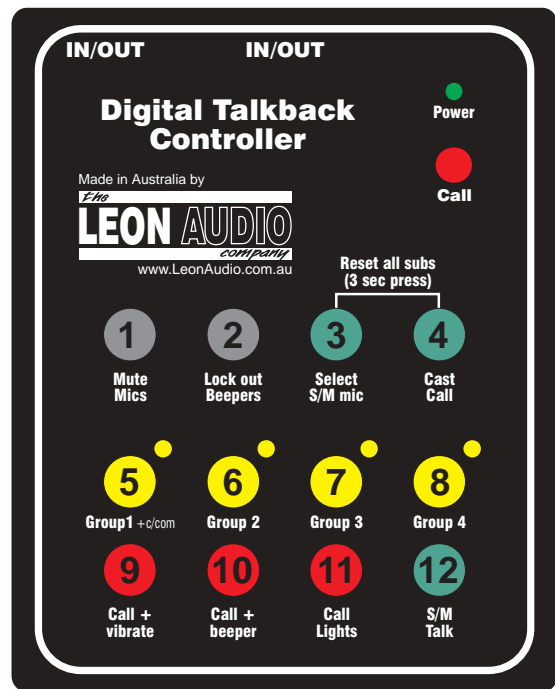3: Press the *Select S/M Mic.* button.

When a beltpack receives the *Select S/M Mic.* command, the state of its mic on/off LED determines how it will respond to an *S/M Talk* command.
If its mic was off, it will mute its mic when an *S/M Talk* command is received.
If its mic was on, it will open its mic when an *S/M Talk* command is received.

A beltpack will remember how it has been configured while the power is removed.

The *reset* command will deselect the beltpack from being designated as the Stage Manager's.

4: Cast Call

Allows the Stage manager to mute all microphones and turn on his mic with just one button. An optional *Cast Call* unit activates, passing talkback audio to the Cast Call (dressing room) PA system.
This command is the same as *S/M Talk* except that the *Cast Call* unit activates.
Once a microphone has been designated as the Stage Manager's microphone (see *Select S/M Mic)*, it functions with both the *Cast Call* and *S/M Talk* buttons.

9: Call + Vibrate.

Call substations on any or all of the 4 possible call groups.
Addressed substations will respond with their call light and vibrator, even if the vibrator has been deselected at the substation.

10: Call + Beeper .

Call substations on any or all of the 4 possible call groups.
Addressed substations will respond with their call light and beeper, even if the beeper has been locked out or deselected at the substation.

11: Call Lights .

Call substations on any or all of the 4 possible call groups.
Addressed substations will respond with their call light only.
If Group 1 is selected, a DC signalling voltage is also sent. This enables other brands of non-intelligent substations to be called.

3+4: Reset.

Press both these buttons for 3 seconds to reset all substations.
Resets all substations to Group #1
Re-enables all beepers if locked out.
Clears selection of Stage Manager's microphone.

Individual substations can be reset by pressing all 3 buttons on the substation for 3 seconds.

Call Light.
Just for convenience.
Indicates incoming calls.

Digital Commands.

The remote functions are controlled from the Digital Talkback Controller by sending digital data over the intercom wiring to the substations.

To maintain compatibility with existing talkback substations, the data is encoded by a modem into pulses of supersonic tones around 39kHz. These tones are superimposed on the audio circuit.

A modem in the beltpack converts these tones back into data ready for processing by the microcomputer.

39kHz was chosen as it not audible and does not interfere with speech. It is far enough away from audio frequencies to enable simple filtering to separate the data from the speech. Cable attenuation is low enough to permit operation over very long cable runs.

Each command consists of one byte of data. Transfer rate is 300 baud for high reliability.

Connecting it up.

The Controller may be connected anywhere in the talkback system.
Wire it up in the same manner as any substation.

Packaging.

- Satin black powder coated diecast aluminium case.
- Common industry standard metal XLR connectors.

Specifications.

Power.
Recommended 24-36V DC
Will operate on as little as 8 volts.

Idle Current: 48mA
Signalling light on: 98mA

Connectors.
Intercom Line: 3 pin XLR M+F
Pin 1: Ground
Pin 2: 24-36V DC power
Pin 3: Audio + call signalling

Remote Control.
Digital data via 39kHz FM signal.

Dimensions.
Diecast case excluding connectors:
Width: 95mm (3.8")
Height: 120mm (4.7")
Depth: 34mm (1.3")

Weight.
0.35kg (11.3 ounces)

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company

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Warranty
The Leon Audio Digital Talkback Controller is guaranteed for two years from date of original purchase against defects in workmanship and materials. If such malfunction occurs, the item will be repaired or replaced (at our option) without charge for materials or labour if delivered prepaid to THE LEON AUDIO COMPANY. Unit will be returned prepaid. Warranty does not cover finish or malfunction due to abuse or operation at other than specified conditions. Repairs by other than THE LEON AUDIO COMPANY or authorized agents will void this guarantee.