# **MULTIPHONES II**

# MULTI-USER HEADPHONE SYSTEM WITH ZONED TALKBACK

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### DESCRIPTION

**MultiPhones II** is a multi-user distributed stereo headphones system for broadcast studio, professional audio, commercial sound and similar applications. It provides independent stereo headphone listening and three-zone Talkback facilities for multiple users. The MultiPhones II system consists of the Master unit and up to 12 satellite Guest Pods which are interconnected using standard CAT5 cabling. (This manual covers the Master unit only.)

## WARNING! For 230V operation, change mains voltage jumpers before connecting to AC power!

Remove jumpers between E7 & E8, and between E6 & E9. Install a jumper between E6 & E7 for 230V; replace fuse with .125a fuse. See schematic on reverse side. Jumpers should be changed by a qualified technician only.

#### INSTALLATION

Audio and control inputs for the MultiPhones II Master unit are via plug-in euroblock connectors. Remove about 1/8" of insulation, insert the wires into the plugs, and tighten the screws. Be certain that no bare wires are exposed.

The MultiPhones II Master unit has two inputs: Program and Talkback. The Program input is for 'normal' stereo audio, e.g., the Headphone output of a mixing console. Connect to the INPUT L and R terminals. For unbalanced sources, tie the – and G inputs together. The audio input level should be between -15 and 0 dBm.

The Talkback input is for a (mono) Talkback mic or line level Talkback audio. Any balanced lo-z mic can be used. Connect to the TALKBACK IN terminals. For unbalanced sources, tie the – and G terminals together. **NOTE:** The unit is shipped with the Talkback input set to MIC; to use a LINE level talkback audio source, open the chassis and set **JP1** to **L**.

There are three Talkback zones: A, B, and C. The Talkback function for each zone can be remotely activated with an external contact closure (e.g., a SPST momentary switch or button) to ground. Use the TALKBACK REM terminals to connect contact closures (one for each zone) between A, B, and/or C and G (ground).

Three RJ45 GUEST POD outputs on the rear of the unit are for connection to the MultiPhones II Guest Pods. All outputs feed the same Program audio to the Guest Pods, but each RJ45 connector is for a separate Talkback zone. Use standard CAT5 cabling; in most cases unshielded cabling can be used. Up to 12 Guest Pods can be driven by the Master unit. It doesn't matter how many Guest Pods are connected to each RJ45 connector, as long as the total does not exceed 12 units.

**NOTE:** If Guest Pods are connected <u>while the Master unit is plugged into AC</u>, it will be necessary to <u>unplug the Master unit</u>, <u>wait a few seconds, then plug it back in</u>.

#### **CALIBRATION AND SETUP**

Once MultiPhones II has been installed, the audio levels should be calibrated. Set the L and R MASTER trimmers fully CCW. Feed Program audio into the system, and monitor the output with a pair of headphones plugged into any Guest Pod. Set the LEVEL knob to about 2 o'clock, and adjust the MASTER L and R trimmers for the desired level.

To set the Talkback level, press the appropriate TALKBACK button on the Master unit. Speak into the Talkback mic and adjust the MASTER TB trimmer for adequate talkback audio level.

#### **OPERATION**

The MultiPhones II system is simple in its operation. The Guest Pod LEVEL control adjusts the audio level to the PHONES jacks. Do not use both jacks at the same time. Use headphones between 24 and 600 ohms. **Do not use 8-ohm headphones.** 

MultiPhones II II has three Talkback zones: A, B, and C. Pressing the Talkback button for any zone will "dim" the regular Program audio and feed Talkback audio to the Guest Pods in that zone only. Any combination of Talkback buttons can be pressed at the same time. Release the Talkback button(s) to restore normal Program audio.

#### SPECIFICATIONS

PROGRAM INPUT LEVEL TALKBACK INPUT LEVEL FREQUENCY RESPONSE DISTORTION NOISE OUTPUTS TALKBACK CONTROL POWER INPUT APPROVALS CONSTRUCTION PHYSICAL DIMEN -15 to 0 dBu, stereo, 10K bal or 5K unbal Either balanced mic or line, selectable, mono 5 Hz – 20 kHz, +/- 0.25 dB .005% typical -80 dBm typical Up to 12 Guest Pods in 3 Talkback zones GPI ground closure, 3X 115 OR 230 VAC, 50-60Hz, 9 W City of Los Angeles Elect. Test Lab, CE Steel enclosure 5.75"w X 5.50"d X 1.60"h, 3 LBS

Specifications subject to change without notice.

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