

**36/50**

Integrated Two Zone Plus Utility Mixer Amplifier



**Cloud**

Clearly better sound

# 36/50 Integrated Two Zone Plus Utility Mixer Amplifier

The Cloud 36/50 provides both power and control for venue sound systems from a single, cost-effective unit. Ideal for shops, pubs, restaurants and bars, the 36/50 combines the features and versatility of our best selling zone mixer with the reliability of our rugged, 50 watt amplifier modules. This remarkable product offers 6 music source connections, plus 1 microphone input, fully configurable into 2 main output zones, plus a third 'utility' output, all at 50 Watts. This third output may be used to provide sound in peripheral areas such as storerooms, toilets, foyers and corridors, or it can be used as a slave to zone 1, effectively doubling the power available to that zone. For convenience, the 6 music line inputs are all stereo, the conversion to mono being undertaken internally. The microphone input has a wide gain range, its own EQ, a 100Hz filter, optional priority over the music signals and access inputs for paging purposes. Music EQ is provided on each of the zone outputs. Naturally the 36/50 includes a number of installer pre-set options and overrides. Of course, it comes with a choice of optional extras, like remote, in-zone controls, a three channel 40W/100V line transformer facility, and even a plug-in equaliser for use with Bose® model 8,25,32 and 102 loudspeakers. That it offers outstanding audio quality and unsurpassable reliability over an extended life goes without saying.

## Line Inputs

The 36/50 has six line inputs; for installer convenience, stereo inputs are provided and the left and right inputs are summed internally to form a mono signal. The line inputs are suitable for a wide variety of music signal sources such as CD players, tuners, cassette players etc. Connection is by way of RCA phono sockets on the rear panel. The gain of each input can be optimised by the rear panel pre-set controls.

## Microphone Input

One microphone input is provided on the 36/50 with electronically balanced, low noise circuitry. Connection is by way of a 3 pin latching XLR type connector. The input is suitable for microphones with an impedance range of 200 to 600 ohms. Adjacent to the mic input connector there is a pre-set gain control with a range of 0dB to 60dB.

The microphone input can provide phantom power; this is selected by means of an internal jumper.

Microphone access inputs are provided to give the unit compatibility with standard paging microphone access contacts. One access input is provided for each output Zone 1, Zone 2 and Utility.

The Mic level in each of the two zones is set independently by the respective front panel level control and a pre-set Mic level control is provided for the Utility output.

A rear panel switch is provided to enable a priority function; when a microphone signal is detected the music signal will be reduced by 30dB, smoothly restoring to its previous level when the announcement ceases.

The microphone signals operate independently and are not controlled by the remote level controls (if fitted).

## Microphone Equalisation

Pre-set treble and bass controls are provided for the microphone signal and these are located on the rear panel adjacent to the microphone input section.

The equalisation is optimised for vocal use providing  $\pm 10\text{dB}$  at 100Hz and 5kHz. A high pass filter operates at 100Hz; this reduces handling noises and breath blasts to a minimum and therefore improves intelligibility.

## Operator Zone Controls

Each of the two main zones on the 36/50 has identical source controls:

### Music Source Switch

The Rotary 6-position switch is used to select the desired music source. Input 6 can be internally configured to have audio priority over any other selected source in either or both zones.

### Music Level Control

This control adjusts the level of the selected music source.

### Remote Music Source/Level Control

The music programme selection and music level of each zone can be controlled remotely if required by connecting the optional RSL-6 six channel remote

source/level control plates. Zone 1 and zone 2 have rear panel mounted switches that allow them to operate with local control or remote control and if appropriate, internal jumpers allow the use of a remote level control (RL-1) with front panel source select. When using the remote control function, the operation of the respective front panel control is defeated. The RSL-6 is connected to the mixer using two-core cable with screen. The microphone levels are not controlled by the remote control facilities.



Remote source select and level control (RSL-6)



#### Music Equalisation

The pre-set music treble and bass controls for each zone are located on the rear panel adjacent to the zone output socket. The equalisation characteristics are optimised for music signals.

#### Remote Music Mute

A facility to remotely mute the music signals is provided and this can be used to satisfy the requirements of the Local Fire Service. A rear panel mounted 2-pole connector can interface with a fire alarm control panel; when an alarm condition exists, the music signals will mute, but the microphone circuits will operate normally for controlled evacuation.

#### Utility Output

The utility output is primarily intended to serve utility areas such as toilets and foyers. The music source can be derived from the zone 1 programme (pre-fade) or directly from line 1 input. Pre-set rear panel controls are provided for both the music and microphone levels.

Alternatively the utility power amplifier can be used as a slave to Zone 1 should more power or more speakers be required in that area. In this mode the rear panel utility controls for the music and mic levels are bypassed.

#### Power Amplifier Outputs

The 36/50 features 3 rugged, convection cooled power amplifiers that can deliver their full power for extended periods without problems. Each power amplifier section has extensive protection facilities: thermal protection, switch on delay, DC protection, dynamic clip limiting, short circuit and adverse load protection. The low impedance speaker outputs are terminated on the rear of the amplifier by plug in screw terminals allowing the speaker wires to be fitted to the screw terminals outside the rack, then plugged into the unit.

Plug in filter cards are available which equalise the output for Bose® model 8, 25, 32 & 102 speakers.

For 100V or 70V line installations and distributed sound systems, the CXL-3120 three channel transformer module is available. Each output may be configured for 100V or 70V operation. This module is mounted within the chassis of the 36/50 and the output termination is by plug in screw terminals. For the protection of the transformers and speakers in the line distribution system, 65Hz high pass filters are provided for each output.

#### External Voltage Control of Music Source and Level

The Cloud 36/50 can be used as part of an automated sound system by controlling the music level and music source in zone 1 and zone 2 by an external 0-10V DC voltage. The microphone signals cannot be voltage controlled and will remain fixed at the levels set by the front panel rotary controls.



Above

1. CXL-3120
2. CXL-40T
3. RL-1
4. RSL-6
5. Model 8 EQ Module
6. Model 32 EQ Module

# TECHNICAL SPECIFICATIONS

## Line Inputs

Frequency response	20Hz - 20kHz $\pm 0.5$ dB
Distortion	<0.05% 20Hz - 20kHz
Input level	-12dBu (200mV) to +8dBu (2.0V)
Input impedance	47kohms
Input gain range	20dB
Headroom	20dB
Noise	-90dB rms 22Hz - 22kHz (0dB gain)
Equalisation	HF $\pm 10$ dB@10kHz LF $\pm 10$ dB@50Hz

## Microphone Inputs

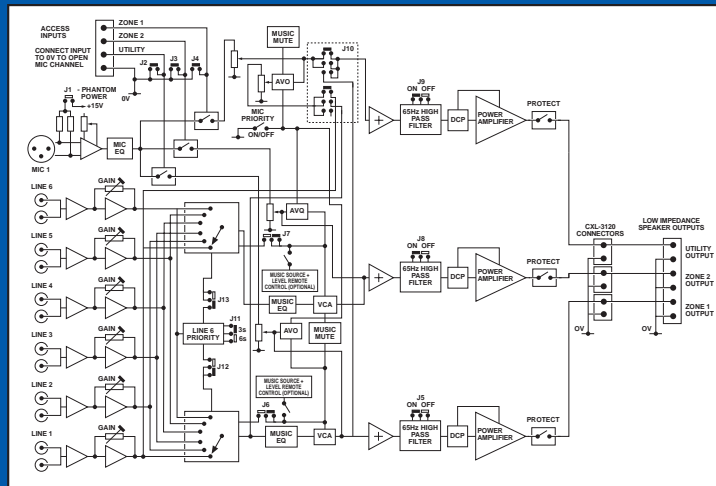
Frequency response	-3dB 100Hz (filter) $\pm 0.5$ dB 20kHz
Distortion	<0.05% 20Hz - 20kHz
Gain range	0dB-60dB
Input impedance	>2k ohms (balanced)
Phantom power	15V
CMR	>70dB@1kHz
Headroom	>20dB
Noise	-126dB EIN 22Hz-22kHz (150 $\Omega$ )
Equalisation	HF $\pm 10$ dB@5kHz LF $\pm 10$ dB@100Hz

## Outputs

Speaker outputs	60W/4 $\Omega$ 37W/8 $\Omega$ (1 channel driven) 52W/4 $\Omega$ 34W/8 $\Omega$ (2 channels driven) 45W/4 $\Omega$ 30W/8 $\Omega$ (3 channels driven)
70/100V line output	100V or 70V at 40W with CXL-3120 module (module with 3 outputs, internally mounted)

## General Specifications

Power consumption	150VA (Nominal)
Power requirements	230V $\pm 10\%$ AC 40-60Hz or 115V $\pm 10\%$ AC 40-60Hz
Fuse rating	T3.15A for 230V input or T6.3A for 115V input
Fuse type	20mm x 5mm class 3 T 250V
Width	482.6mm (19")
Height	88mm (2U)
Depth	300mm (+connectors)
Weight	6.70 kg



# Cloud

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