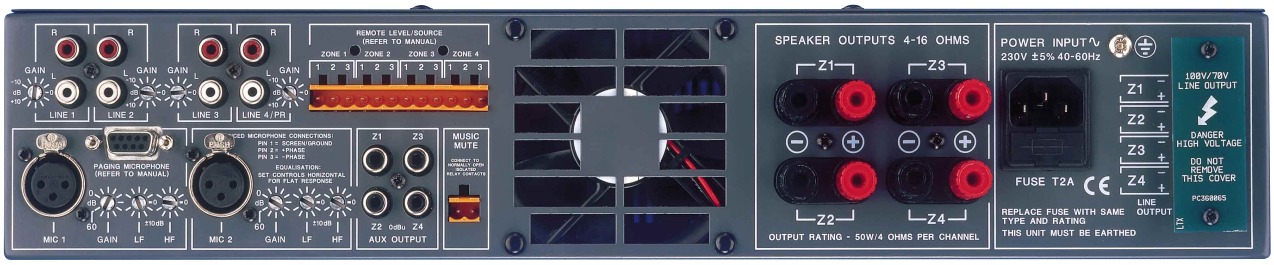
44/50



Power and control are normally separate functions within a venue sound system, but now, with the introduction of the Cloud 44/50, they have been fully integrated into a single compact unit. The 44/50 offers simple, direct connection of up to two microphones and four music sources which can be mixed and fed to four different output zones in any combination, with up to 50 Watts (@ 4 Ohms) of crisp, clean audio power available for each zone.

A large range of accessories and options are available for the 44/50 which greatly extend the flexibility of this unit. These include a dedicated four zone paging mic with pre-announcement chime, a plug-in remote control PCB which provides simple, user-friendly remote control of music level (via RL-1) or of both music and source selection (via RSL-1) and, for use in line distribution systems, an internally housed 100V (or 70V) four channel line transformer module.

As well as several installer pre-set options, the 44/50 also offers tamperproof music equalisation on all four zones, voice operated priority over music and fire alarm music mute when interfaced with an alarm system. The 44/50 also provides auxiliary outputs for connection to additional amplifiers, making it an extendible system.
For installer convenience, although the unit operates in mono, all line inputs are via stereo RCA type phono connectors, with mono mixing of signals taking place internally. Because it is a Cloud, the 44/50 is built to the highest professional standards for exemplary audio quality and long life.

APPLICATIONS

Key applications for this versatile and powerful unit are seen as:

- Simplified operation of background/ foreground music systems in pubs with general announcement requirements and extra mic applications such as quiz nights, poetry readings, impromptu speeches etc.
- Retail premises using background music, typically split into separate areas such as, sales floor, warehouse, loading bay and offices, accessed using the CPM-4 paging microphone.
- Restaurants, requiring music play in both eating area and bar announcements in bar only.
- Small to medium sized hotels with 4-zone paging mic and one other mic in conference or banqueting suite.
- Leisure centres of all types.

LINE INPUTS

The 44/50 has four line level inputs; for installer convenience, stereo inputs are provided and the left and right signals 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 and the gain of each input can be optimised by the rear panel preset controls.

MICROPHONE INPUTS

Two mic inputs are provided on the 44/50; these have electronically balanced, low noise circuitry and connection is by way of 3 pin latching XLR type connectors. Each input is suitable for microphones with an impedance in the range of 200 to 600 ohms. A pre-set gain control is provided adjacent to the respective input connector. Each of the four zones has two front panel mounted mic level controls; this allows the two microphone channels to be routed to any zone at the optimum level or not at all. The microphone signals are autonomous and are not controlled by the remote control facilities. Mic 1 has priority over Mic 2 and all the microphone signals have priority over the music signals; when a mic signal is detected, the music signal will be reduced by 30dB, smoothly restoring to it's previous level when the announcement ceases.

MICROPHONE EQUALISATION

Pre-set treble and bass controls are provided for both Mic I and Mic 2 and these are located on the rear panel, adjacent to the input socket and gain control. The equalisation is optimised for vocal use and a 3 pole high pass filter operates at 100Hz; this reduces handling noises and breath blasts to a minimum and therefore improves intelligibility.

CPM-4 PAGING MICROPHONE

The CPM-4 four zone paging microphone is available as an accessory and features a pre-announcement chime which can be enabled or disabled as required. The logic controlled zone switching routes the signal to any combination of the four zones and a concealed switch allows the zone selection to be retained or automatically reset; a 'call all' facility is also provided for instant announcements in all four zones. A small internal chime sounder can be enabled for installations where the CPM-4 is located in a position where the pre-announcement chime cannot be heard through the PA system. The CPM-4 is connected to the 44/50 by a 9 pin 'D' connector and occupies the Mic I input stage which has priority over Mic 2.

ZONE CONTROLS

Each of the four zones has the following user controls:

Music source
The rotary 5 position switch is used to select the desired music source or no music at all. On Zone 1, line 4 can be switched to have priority over any other selected source.

Music level
This control adjusts the level of the selected music source.

Mic level controls
These provide independent level control of the two mics in each zone; each of the four zones has two front panel mounted mic level controls. The level of the microphone signals is not affected by the remote control facilities. Microphone I has priority over microphone 2 and in addition, a microphone signal present on any of the four zones will have priority over any music signal present on the same zone.

REMOTE SOURCE/LEVEL CONTROL

The music program selection and music level of each zone can be controlled remotely if required by installing the optional REM-4 four channel remote control module and connecting up to four RSL-1 remote source/level control plates. Configuration jumpers on the REM-4 module allow any of the four zones to operate with local control or remote control and if appropriate, the functions can be split to allow, for example, control of the source via the front panel with the level controlled remotely using the RL-1 remote level control. When using the remote control function, the front panel mounted music level control can be defeated if required.

MUSIC EQUALISATION

The music treble and bass controls for each of the four zones are concealed behind a front panel mounted tamperproof cover; once the cover has been removed, the pre-set controls can be optimised for each of the four zones. The equalisation characteristics are optimised for music signals.

LINE 4 PRIORITY ON ZONE 1

A push button switch concealed behind the front panel mounted tamperproof cover activates the music priority which provides fully automatic priority to any audio signal present on input four over any other selected source operating in zone 1.

REMOTE MUSIC MUTE

A facility to remotely mute the music signals is provided and can be used to comply with Local Authority or Fire Service requirements. A rear panel mounted 2 pole connector can interface with a fire alarm control panel and when an alarm condition exists, the music signals will mute, leaving the microphone circuits unaffected which can be used for evacuation purposes.

OUTPUTS

The 44/50 features four rugged 50 watt fan cooled power amplifiers which can deliver their full rated output for long periods without problems. Low impedance speaker outputs are terminated on the rear panel by robust binding posts which can accept cables of up to 2.5mm^2. For 100V or 70V line installations and distributed sound systems, the CXL-400 four channel transformer module is available, in both 100V and 70V versions; this module is mounted within the chassis of the 44/50 and output termination is by way of a shrouded screw connector strip.

AUXILIARY OUTPUT

A line level (0dBu) unbalanced output via RCA phono connectors is provided for all four zones; this provides a facility to add extra power amplification if required.

Technical Specifications

Line Inputs

Frequency response	20Hz-20kHz ±0.5dB
Sensitivity	-12dBu(200mV) to +8dBu(2.0V)
Input impedance	47kΩ
Input gain	±10dB
Headroom	>20dB
Noise	-90dB (0dB gain A wtg)
Equalisation	HF ±10dB 10kHz
	LF ±10dB 50Hz

Microphone Inputs

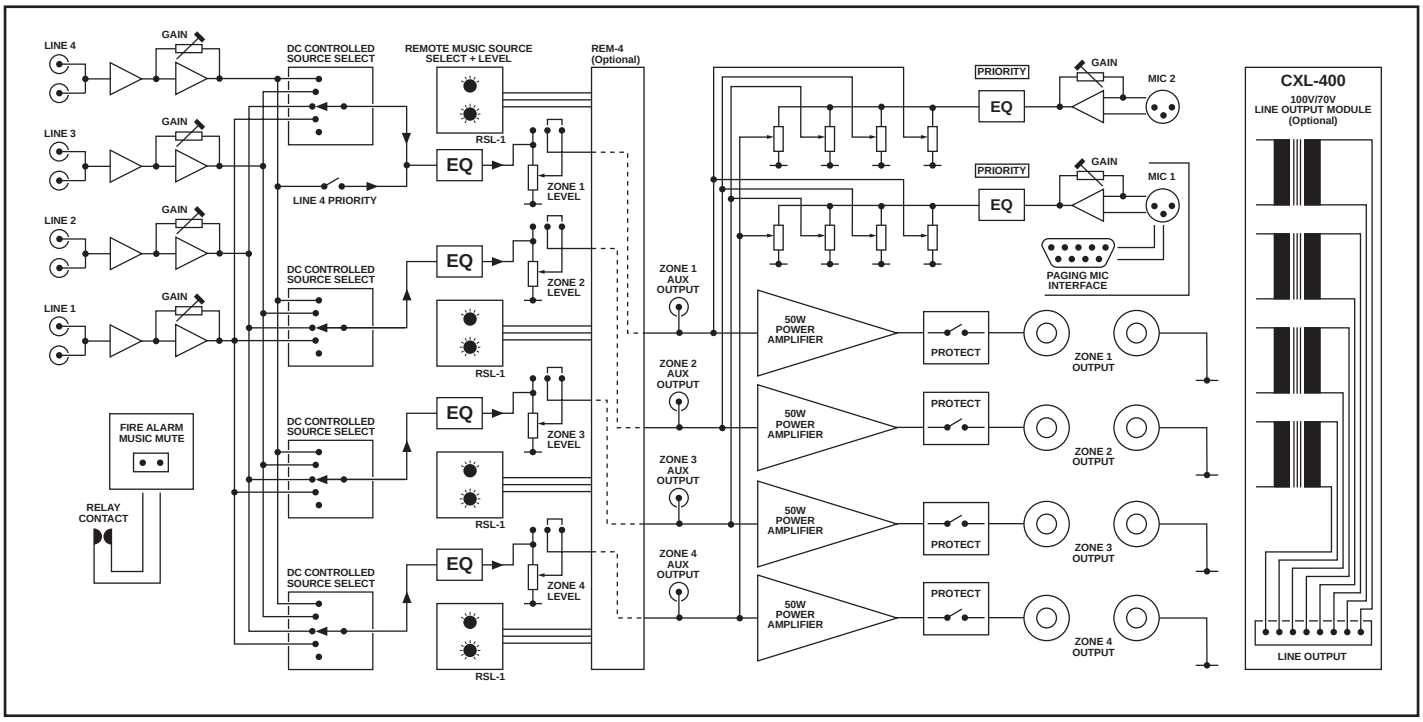
Frequency response	-3dB 100Hz (filter) ±0.5dB 20kHz
THD	0.05% 1kHz
Gain range	0dB-60dB
Input impedance	>2kΩ (balanced)
Common mode rejection	>70dB 1kHz
Headroom	>20dB
Noise	-128dB EIN 22Hz-22kHz (150Ω)
Equalisation	HF ±10dB 5kHz
	LF ±10dB 100Hz

Zone Outputs

Auxiliary output	0dBu (775mV) unbalanced via RCA phono's
Speaker output	50 watts/4Ω 35 watts/8Ω via binding posts
70/100V line output Maximum load 40 Watts	100V or 70V with optional CXL-400 module via screw connectors

General Specifications

Protection (power amplifier)	VI limit, DC offset, thermal & delay
Power consumption	400VA max
Power requirements	230V ± 5% or 115V ± 5%
Fuse rating	T2A for 230V input
	T4A for 115V input
Fuse type	20mm x 5mm class 3 T 250V
Width	482.60mm
Height	88mm
Depth	300mm (+connectors)
Weight	6.35kg



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In the interests of continuing improvements Cloud Electronics Limited reserves the right to alter specifications without prior notice.