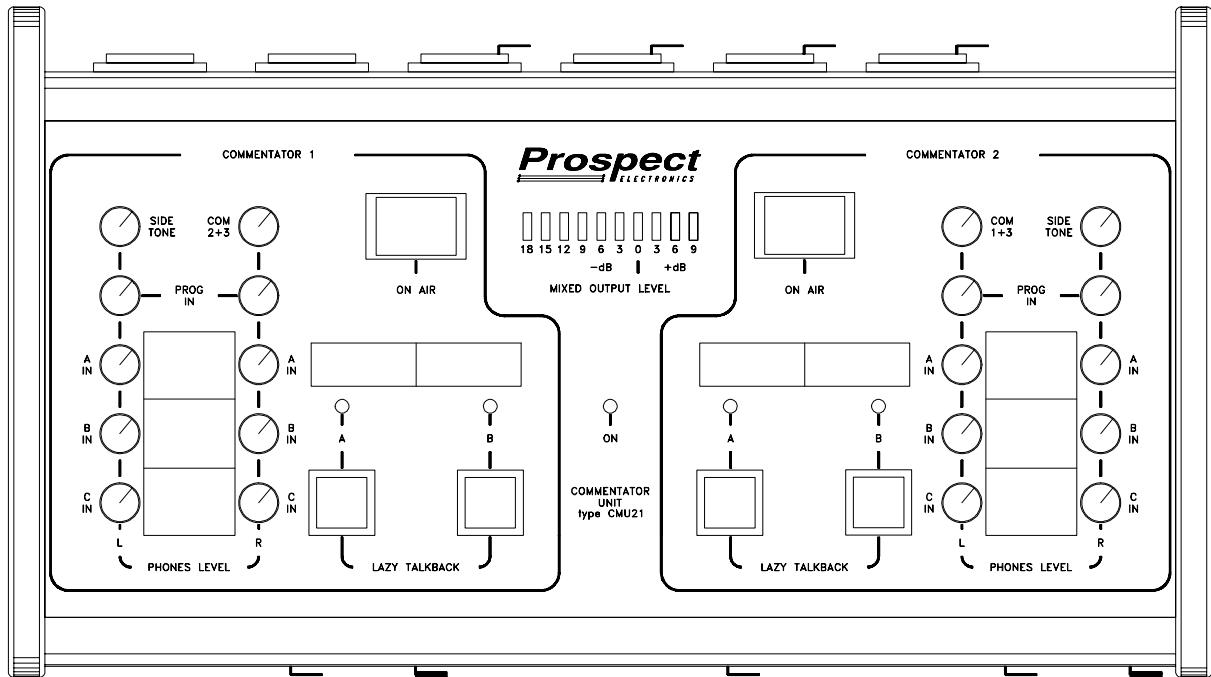


COMMENTATOR UNIT type CMU21

The CMU21 is a compact, desk-top unit providing high-quality programme outputs of two commentators' microphones and an interview microphone. Communications are provided by dual switched talkback outputs of the commentary microphones, with headphone monitoring of four external inputs.



FEATURES

- * Provision for two commentators each to have a microphone and split headphones.
- * Microphone or line-level input for interview microphone or tape playback.
- * Two "Lazy" talkback outputs available to both commentators, using on-air mic.
- * Left and right headphones monitoring of four external inputs and all microphone inputs
- * Mic. gain adjustable between 20dB and 80dB. Phantom power selectable to all mic. inputs.
- * Dual outputs of the mic. mix signal with adjustable limiter, in addition to three direct mic. outputs.
- * LED PPM monitors level of microphone mix signal.
- * Powered from 100 - 240 AC mains input or dual 12V battery.

COMMENTATOR UNIT type CMU21

DESCRIPTION

The CMU21 Commentator Unit provides separate line-level programme outputs for two commentators' microphones and an interview microphone, plus two separate outputs of the mixed microphone signal. Each commentator is provided with two "lazy" talkback switches which silently switch the commentary microphone to either of the two talkback outputs. A recessed rear-panel LINK switch routes the mic signal to both talkback outputs when either "lazy" switch is pressed. Peak limiting is provided on these outputs to ensure signal level compatibility with other talkback systems, and, to ensure that the signal at the talkback outputs remains at the optimum level, the two outputs have separate gain switches to increase the gain of the mic signal by 10dB prior to the limiters.

Each commentator can independently adjust the level heard in either side of the headphones to position the sound of all four external input signals, the commentator's own microphone output, and the mixed output of the other two microphones. The commentators' headphones plug into locking jack sockets which can accept either "A" or "B"-gauge 6.35mm jack plugs.

The commentary microphone inputs provide switchable phantom power and have coarse and fine gain controls, giving fully adjustable gain from 20 to 80dB. The interview microphone input can also be muted or switched to LINE mode, in which the phantom power is removed and the variable gain range is -10 to +20dB. All channel input controls are recessed to avoid accidental operation. The three programme channels employ transformerless input and output stages to ensure both minimum input noise and maximum low-frequency output headroom.

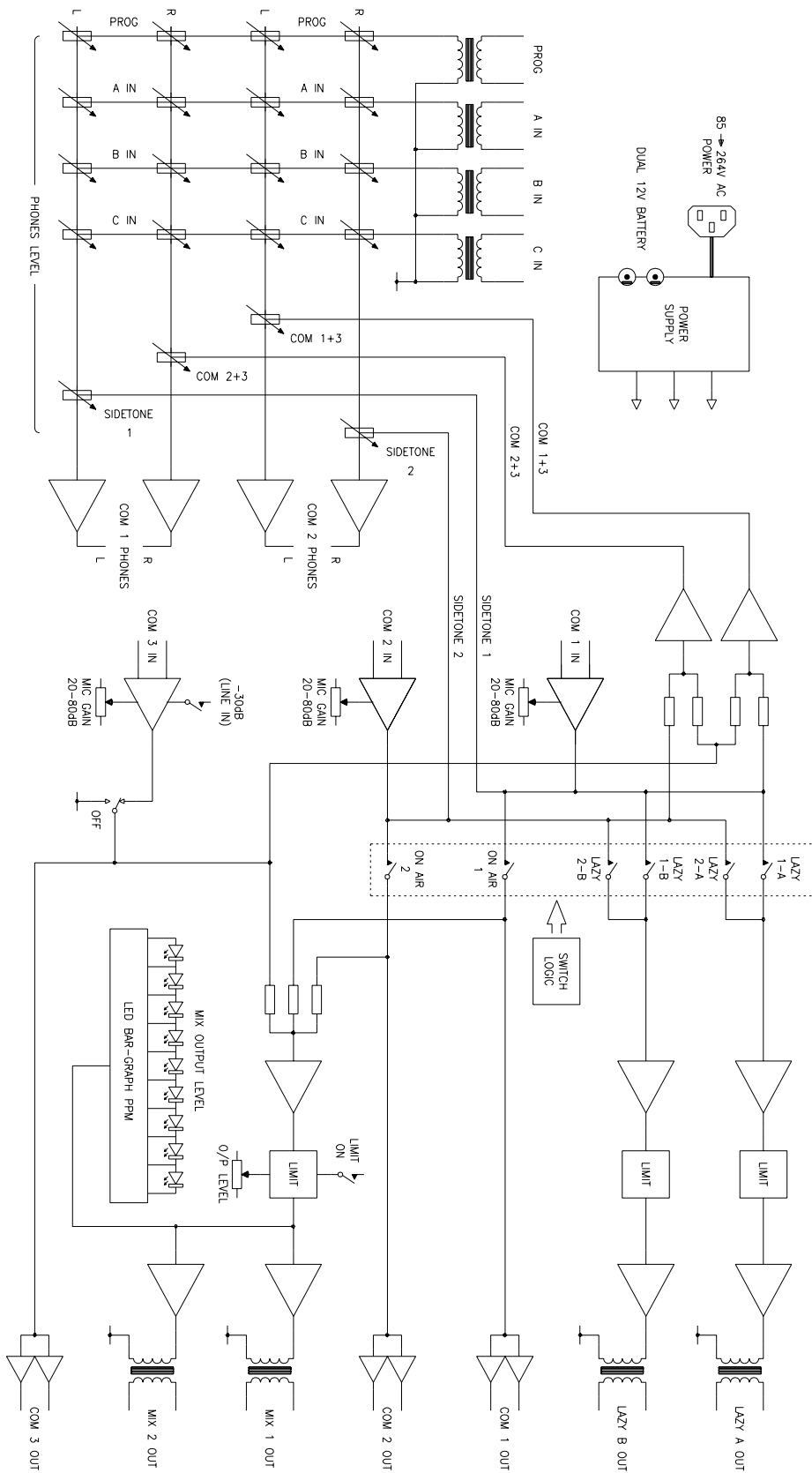
To prevent accidental de-selection of the on-air microphones, the ON-AIR switches can be selected to operate in failsafe mode, which requires the ON-AIR and rear-panel OFF-AIR ENABLE switch to be simultaneously pressed in order to turn off the microphone permanently. However, the OFF-AIR ENABLE LOCK switch allows the microphones to be tuned on and off as required, by just pressing the corresponding ON-AIR switch. Operation of either talkback switch will turn off the corresponding ON-AIR light, as the microphone signal is diverted from the programme output to the selected talkback output. The ON-AIR switches are normally set to default to the ON state at power-up, although the OFF state can be selected on internal jumper links.

A switchable peak-level limiter on the MIC MIX signal output enables the peak output level to be adjusted between 0dBu and +10dBu. In either case, the MIC MIX output level is displayed on the 10-LED peak programme meter, which has a range from -18dBu to +9dBu in 3dB steps with peak-hold indication on the top four LED's. To ensure reliable interconnection with other equipment, the MIC MIX outputs, the LAZY TALKBACK outputs and the four monitor inputs are all transformer-isolated.

The switch-mode power supply enables the unit to be powered by mains voltages between 100V and 240V, so avoids any problems of mains hum and fluctuating supply voltages. Provision is also made for the unit to be externally powered by two 12V batteries via two coaxial camera battery connectors. The unit is housed in a rugged extruded alloy case having extended side panels to provide protection for controls and connectors. This construction provides excellent isolation from RF interference, which is further enhanced by RF filters on all XLR3 connectors used for line and microphone signal connections.

COMMENTATOR UNIT type CMU21

BLOCK DIAGRAM



COMMENTATOR UNIT type CMU21

SPECIFICATIONS

MICROPHONE INPUTS

INPUTS	Transformerless balanced on XLR3F
PHANTOM POWER VOLTAGE	Adjustable 6-18V
INPUT NOISE VOLTAGE	-120dBu, 20Hz to 20kHz
BANDWIDTH (-3dB)	20Hz to 30kHz
GAIN RANGE	Switched 35/65dB with ± 15 dB fine gain control

PROGRAMME OUTPUTS

OUTPUTS	Transformerless balanced 50 ohms on XLR3M
PEAK OUTPUT LEVEL	+26dBu. at clipping
T.H.D.	<0.01%

MONITOR INPUTS

INPUTS	Transformer-balanced 10k ohms on XLR3F
PEAK INPUT LEVEL	+14dBu

TALKBACK & MIX OUTPUTS

OUTPUTS	Transformer-balanced 100 ohms output on XLR3M
PEAK OUTPUT LEVEL	+20dBu (f > 100Hz) at clipping

LEVEL METER

10-LED PPM -18 to +9dBu in 3dB steps with peak-hold above 0dBu

POWER INPUTS

MAINS	100V to 240V AC, 10W on 1.5m flying lead with IEC connector
BATTERY	12V + 12V DC, 300mA on dual battery plugs. Grounding terminal

PHYSICAL

DIMENSIONS	L33 x D18.5 x H7.5cm
WEIGHT	3.4kg
FINISH	Light grey