

## BX-25E/BX-25ED TWO-CHANNEL REVERBERATION UNIT

### Features

- Optional M-250 Digital Delay Line
- Genuine two-channel design. Either channel can be used and controlled separately.
- Improved low sensitivity to structure born vibrations.
- Patented circuitry to avoid any direct (dry) signal at the reverb output.
- Frequency response may be altered both, at input and output of reverb section.
- Built-in limiter for reverb drive signal with LED indication on the front panel.
- Input and output level adjustable on the connector panel.
- Remote control of reverb time.
- Switchable to mono drive of both reverb channels.
- No locking or re-adjusting when used in OB-vans or on the road.

The new BX-25E is the next step in true studio and transportable two-channel reverberation. Replacing the BX-20E, the BX-25E continues to provide both the quality and operating features required in studio applications. The BX-25E is based on the patented and extremely successful Torsional Transmission Line principle used in all AKG reverb units.

The TTL-SYSTEM has been improved by extending the overall length of the spring by about 25% over the BX-20E yet at the same time reducing the overall size of the BX-25E dramatically by about one-third. The two Torsional Spring Systems are physically separated and isolated providing a dramatic increase in channel separation resulting in greater than 60dB crosstalk.

Independent decay-time adjustment (via R25 remote control, included), high- and low-frequency equalization, external input/output level adjustments and dry/reverb signal mixing are provided for each of the two electronically and acoustically separate channels. Decay time is adjusted silently through the use of motional feedback.

In addition to the shelving type frequency equalization, AKG has incorporated a high-cut filter at the input/reverb drive amplifier. This enables the selection of a bright, more aggressive sound or a more mellow natural reverberation sound.

Plug-in PC boards are used for the electronics within the control module. This module may be removed from the main



housing and operated remotely via an optional extension cable up to 30 feet away from the reverb section.

The exciting news is the new M-250 Digital Delay module that may be added to a BX-25E at any later time or ordered within the BX-25E. As a complete unit (reverb and delay), the BX-25ED incorporates all the reverb features mentioned above plus digital delay.

The new digital delay module provides: remote mix control between reverb signal and reverb plus individual reflections; individually adjustable level for each of the discrete reflections in 2dB steps from original level down to 20dB below the original level; discrete reflections are available as reflections only or mixed with reverb; initial delay for the reverb signal is switchable to 0, +30ms and +60ms; two discrete reflections for each channel may be adjusted in 6ms steps from 6ms to 60ms; bandwidth reflections: 12kHz.

At the rear of the digital delay module are six XLR connectors - two input and four output. Two of the output connections allow for fixed echoes only. The second set of output connections allows for mixing between reverb only and reverb plus echoes (using the R25 remote).

## TECHNICAL DATA

### REVERB SECTION

- Decay time: 1.5 to 3.5 seconds continuously and independently adjustable for each channel on remote control
- Nominal input level: adjustable to -22, -6, 0, +6 and +12 dBm (0 dBm  $\approx$  0.775 volts)
- Maximum permissible input level: 35 dB above selected input level
- Input limiters: Threshold = 6 dB above selected nominal level Range = approx. 30 dB
- Input impedance:  $\geq$  10 k ohms per channel, transformer balanced
- Nominal output level: adjustable to -6, +6 and +12 dBm
- Maximum output level: Associated equipment should have input headroom

- of at least 20 dB over selected nominal output level to accommodate instantaneous peaks in reverb signal
- Output impedance:
  - $\leq$  300 ohms (+ 12 dBm)
  - $\leq$  100 ohms (+ 6 dBm)
  - $\leq$  15 ohms (- 6 dBm)
 } transformer balanced
- Recommended load impedance:
  - $\geq$  600 ohms (+ 12 dBm)
  - $\geq$  200 ohms (+ 6 dBm)
  - $\geq$  50 ohms (- 6 dBm)
- Frequency range:
  - 50-4,000 Hz in position
  - 50-8,000 Hz in position
- Signal to noise ratio:
  - $\geq$  76 dB r. m. s. weighted
  - $\geq$  75 dB r. m. s. unweighted

- Bass control range:  $\pm$ 10 dB at 150 Hz
- Treble control range:  $\pm$ 5 dB at 5,000 Hz
- Crosstalk between channels:  $\geq$  60 dB
- Level difference between the channels: adjustable compensation
- Acoustical feedback safety:  $\geq$  120 dB
- Operating temperature range: -10° to +60° C
- Power requirements: 115/230 volts, 50-60 Hz, 80 VA
- Max. permissible inclination during operation:  $\leq$  10° (20%)

### DELAY SECTION

- REFLECTION (ECHO) TIME:  
Two per channel adjustable from 6 to 60ms each in 6ms Steps
- REFLECTION (ECHO) LEVEL:  
Two per channel adjustable from 0 to -20dB each in -2dB Steps
- PRE-DELAY (REVERB):  
Switchable 0, 30, 60ms
- Frequency response:  
20 ... 12,000 Hz - 2 dB  
(12 dB below nominal level)

- Distortion:  
< 0.5% at 1 kHz and nominal level  
(all delays 60 ms)
- Unweighted noise:  
70 dB below nominal level
- Weighted noise:  
67 dB below nominal level

### GENERAL

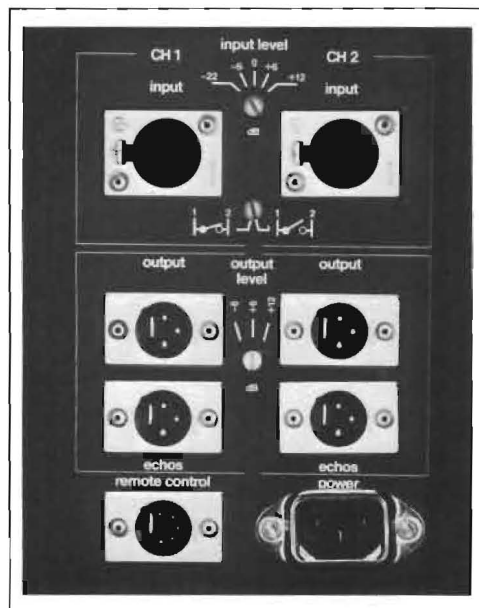
- Dimensions:  
45 x 52 x 54 cm (W x D x H)  
± 18 x 20 x 21 inch
- Net weight: approx. 30 kg (66 lb)
- Shipping weight: 41 kg (90 lb)



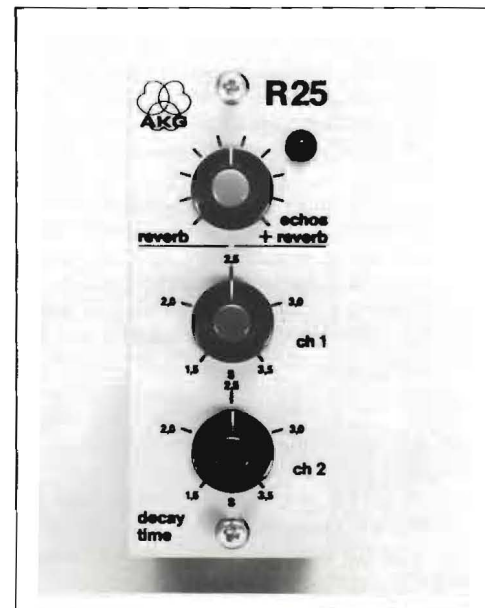
DELAY SECTION



REVERB SECTION



REAR PANEL



REMOTE

21-882-10M1



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