EV-20R US

SOUND REPEATER

The EV-20R is a convenient addition to sites where the same message or music is repeatedly broadcast. Up to 4 types of music and messages (6 minutes total time) can be recorded and played back. The USB port facilitates recording by transferring the supplied sound sources from a PC to the unit. The unit's small built-in amplifier enables small-scale broadcasts through a simple speaker connection.

Key features

- Dedicated file management software is supplied with the product.
- Audio file library is available on the supplied CD-ROM.
- Customized WAV files can be uploaded.
- Direct recordings can be done by front panel operation.
- Instant playback by front switch operation.
- Dry contact inputs are available to play and stop audio files by external devices such as sensors, program timers or manual switches
- Repeat audio files as set by the built-in interval TIMER.
- Up to 4 different messages can be stored in a built-in flash memory and played back.
- The maximum total recording time for the 4 messages is 6 minutes.
- Recorded data is not compressed, ensuring high quality sound output.
- Automatic Gain Control (AGC) can make recording audio levels uniform.
- An incorporated 3 W/ 8 Ω power amplifier allows direct connection with a low-impedance speaker.
- A USB interface permits audio data to be transferred from a PC with software.
- Live broadcasts can be made without recording by using a microphone or an audio player.

Specifications

(*1) 0 dB = 1 V

Power Source	Supplied from an external 24 V DC/400 mA power supply or from an optional AD-246 AC adapter or its equivalent
Power Consumption	10 W (rated output)
Wave Format	44.1 kHz sampling frequency, 16-bit PCM (monaural)
Frequency Response	20 Hz - 20 kHz ±3 dB (1 kHz) 50 Hz -14 kHz ±3 dB (IT-450 mounted, 1 kHz)
Distortion	1% or less (1 kHz, rated output)
Recording System	USB data transfer or analog recording
Control Input	Play 1 - 4, stop: No-voltage make contact input, pulse make length: 200 ms, open voltage: 30 V DC, short-circuit current: 10 mA, removable terminal block (22 pins)
Control Output	Busy: Contact capacity: 30 V DC/0.5 A, removable terminal block (22 pins)
Input	Input/Recording input: Mic: –60 dB(*1), 2.2 kΩ / Line: -20 dB(*1), 10 kΩ, (Mic/Line changeable), unbalanced, phone jack Line input: 0 dB(*1), 10 kΩ, unbalanced, removable terminal block (22 pins)
Output	Line output: 0 dB(*1), 600 Ω, unbalanced, removable terminal block (22 pins) Headphone output: 0 dB(*1), 100 Ω, unbalanced, phone jack Speaker output: 3 W, 8 Ω, removable terminal block (22 pins)
Maximum Number of Messages	4 Pre-recorded audio data: Message 1. Westminster chime (*2) Message 2, Ascending 4-tone chime(*2) Message 3, Descending 4-tone chime(*2) Message 4, None Note: The above audio sources can be overwritten by using the supplied software.
Maximum Recording Time	6 minutes
Message Delay Time	0, 2 s, or 4 s (selectable)
Playback Interval Time	∞, 0, 5 s, 10 s, 30 s, 1 min, 5 min, 10 min, 30 min, or 1 h (selectable)
LED Indicator	POWER, USB, START/STOP 1 - 4
Operating Humidity	90 %RH or less (no condensation)
Finish	Case: ABS resin, black
Dimensions	210 (W) x 44.2 (H) x 181 (D) mm (excluding projection)
Weight	730 g
Included Accessories	CD-ROM (USB data transfer software and sample chimes recorded) x 1, Unbalanced-phone plug x 1, USB cable (1 m) x 1, Removable terminal plug (22 pins) x 1, Rubber foot x 4
Optional Accessories	Rack mounting bracket: MB-WT3 (for rack mounting one EV-20R unit), MB-WT4 (for rack mounting two EV-20R units) AC adapter: AD-246

(*2) These audio sources are also contained in the supplied CD-ROM as sample audio data.
Line input and Line output can be converted to balanced type using an optional IT-450 transformer.

A&E specifications

The rack-mount digital message repeater shall have three minutes of CD-quality digital storage capacity with four selectable messages/tones. The messages shall be stored as 44.1k Hz, 16 bit PCM (monaural), uncompressed WAV format and shall be transferred via USB interface of recorded directly to unit via front panel mic/line input (switchable). The unit shall include a built-in amplifier (3 W, 8 ohms, terminal block type connector) for direct speaker connection, a balanced line input (Input / Recording input: Mic: -60 dBV Line: -20 dBV, 10k ohms, (switchable Mic/Line), unbalanced, phone jack 0 dBV, 10k ohms, unbalanced, terminal block type connector) pass-through to balanced line output (0 dBV, 600 ohms, unbalanced, terminal block type connector) with automatic muting of external source during message activation and a headphone output (0 dBV, 100 ohms, unbalanced, phone jack) with adjustable volume control. Individual message activation shall be accomplished via front panel and/or rear panel switch inputs (no-voltage make contact input, pulse make length: 200 ms, open voltage: 30 VDC, short-circuit current: 10 mA) with terminal block type connector. A stop input terminal shall allow immediate termination of current messages. Features shall include an adjustable broadcast delay time (0, 2 and 4 seconds) and an interval timer to allow messages to be repeated at various time intervals (0/5/10/30 seconds or 1/5/10/30 minutes, 1 hour or continuous). A control output (contact capacity: 30 VDC/0.5 A) with terminal block type connector shall activate during message playback.

Power shall be derived from an external 24 VDC/400 mA power supply or external 24 VDC input with power consumption of 10 W (rated output). Specifications shall include frequency response of 20 to 20k Hz +/- 3 dB (1k Hz) and distortion under 1% (1k Hz, rated output). Front panel LED indicators shall include POWER, USB and START/STOP 1-4. Finish shall be black ABS resin. Dimensions (W x H x D) shall be 8.23“ x 1.74“ x 7.13“ (210 x 44.2 x 181 mm) and weight of 1.61 lbs. (730 g).

The digital message repeater shall be TOA model EV-20R.

The AC power supply shall be TOA model AD-246.