

FEATURES

- 8" Loudspeaker
- Provides two-way talkback communications
- Supports up to 4 Satellite Speakers
- Fully supervised and monitored for network connectivity
- Powered by Power-over-Ethernet (PoE)
- Features Just Plug It In![™] design
- True digital network endpoint solution
- Crystal clear HD Audio[™] speech quality
- Requires no IP address, DHCP server, subnet, or mask configuration
- No head end, central server or controller equipment required
- Non-blocking audio between speaker and consoles via LAN
- Function based and digitally controlled volume
- Conditioned microphone with built-in compression and noise gate
- Extremely low latency
- Extremely fast all station audio connect times
- Integrates with eCS Call Stations; supports Privacy or Do Not Disturb Mode, and separate Emergency Call Station
- Station status LED
- Audible and visual call-in assurance
- Supports auxiliary functions (door release, siren, strobe)
- Advanced features configurable using ePORT
- Firmware upgradable over LAN



DESCRIPTION

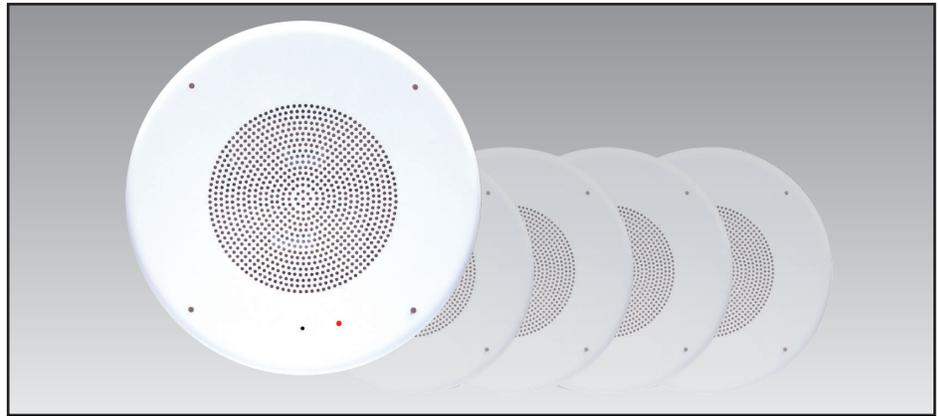
The eS8-TB4 Talkback Master Speaker is a network based 8" speaker station that provides two-way intercom communications and receives paging announcements. The eS8-TB4 is available in two models: with a round baffle (eS8-TB4-R) or with a square baffle (eS8-TB4-SQ).

In addition, it has the ability to support up to four additional Satellite Speakers that connect directly to the eS8-TB4. This allows you to distribute an audio broadcast over a larger area, making it a perfect solution for larger rooms where a single speaker does not provide adequate coverage.

While the audio signal is broadcast through multiple speakers, the source of the talk back audio from the room is from only a single eS8-TB4 speaker, strategically located in the room to provide the best coverage. The single microphone picks-up audio that is predominantly the talker's voice, minimizing the ambient noise within the coverage of the Satellite Speakers. This optimizes the signal to noise of the talk audio from the room, ensuring maximum intelligibility.

Satellite Speakers that can be used with the eS8-TB4 are 25V speakers supporting a total speaker load of 4 watts. Satellite Speakers such as Telecor's S8T2570, 8" Speaker Transformer Assemblies are suitable. These may be installed in appropriate enclosures with the appropriate speaker baffles.

The eS8-TB4 uses Power-over-Ethernet technology, Just Plug It In![™] design, and a decentralized network



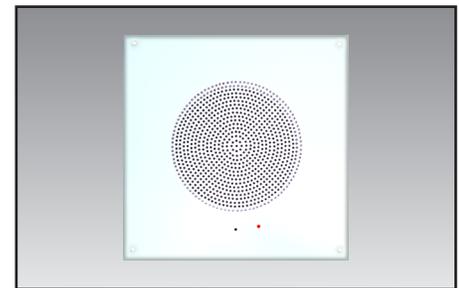
eS8-TB4-R with Satellite Speakers

structure to ensure easy wiring and simplified network planning. The use of Power-over-Ethernet technology allows the eS8-TB4 to be plugged into a PoE network switch to supply both power and data. The simplicity of Telecor's Just Plug It In![™] design means the eS8-TB4 does not require any network configuration or administration, eliminating IP address and DHCP server requirements. The decentralized network structure means no head end, central server or controller equipment is required to operate the network. Once plugged into the LAN, the eS8-TB4 is immediately functional. It can establish two-way audio communications with eConsoles as well as receive pages and audio source distributions from devices in the network.

Speech is transmitted through the speaker in crystal-clear HD Audio. Audio is transmitted in the frequency range from 50 Hz to 7 kHz while using a 150 kbps of bandwidth during a call (128 kbps audio stream and overhead resulting in 150 kbps per audio channel). The maximum audio output level is 104 dB at 3.3 feet (1 m). Audio between stations and consoles is non-blocking, allowing a virtually unlimited number of audio channels across the LAN and reducing or eliminating busy signals. The microphone includes a conditioned preamp with built-in compression and noise gate for excellent vocal clarity and noise reduction.

The volume of the eS8-TB4 can be adjusted individually, by zone, or across the entire eSeries network via the ePort Management Interface or eVC Virtual Control Interface. Volume controls incorporated into certain eCS station models also allow a user to adjust the volume of a local eS8-TB4. Volume levels can be set by specific functions: intercom, paging, emergency paging, and public channel operations.

The eS8-TB4 is fully supervised and monitored for network connectivity, call destination, and call station connectivity. If the eS8-TB4's network connection is lost, targeted e300 eConsoles will report that station as absent and display its dial number. When the eS8-TB4 is used with call stations, the call-in destinations are monitored. If the device at a call-in destination loses network connectivity, the eS8-TB4 will automatically search for an alternate destination. If no other suitable call-in destinations exist, the call station will audibly and visually indicate an error. If a wiring fault is detected between a Call Station and the eS8-TB4, the eS8-TB4 will audibly and visually indicate the error. The ePort logs the location, time,



eS8-TB4-SQ

date and type of fault. The ePort and eAmplifiers will also optionally generate a sonic alarm.

Call-in capabilities can be provided with addition of any of Telecor's eSeries Call Stations. The eCS-6 and eCS-3 are used to initiate Normal and Emergency calls respectively. Also available are advanced stations that provide additional features: the eCS-1 (Privacy and Normal Call) and eCS-2 (Do Not Disturb and Normal Call).



eCS CALL STATIONS

The eS8-TB4 features a status LED that flashes in different patterns to indicate normal operation, call-in assurance, message waiting, a call or paging audio in progress, or to indicate an error.

The eS8-TB4 is equipped with three relays. One relay can be activated remotely from an eConsole to support an auxiliary function (e.g. door control). The other two relays are used for emergency notifications, such as a strobe or combination strobe and siren. The strobe and siren relays are automatically activated on an emergency call-in or when receiving an audible or

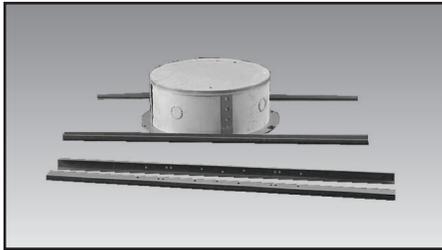


textual emergency message, but the siren is silenced once the speaker is active.

The eS8-TB4 can further be configured using an ePORT to suit the building application. It can be programmed as a member of a single paging zone or multiple paging zones.

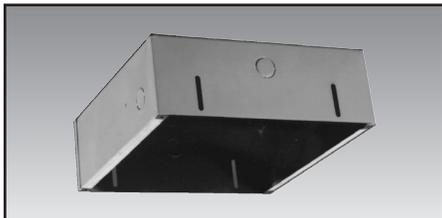
The eS8-TB4 baffle is constructed of 22 gauge cold-rolled steel and is finished in a mar-resistant, white, semi-gloss, epoxy coating. The edges are bevelled to provide an attractive trim appearance.

The eS8-TB4-R is suitable for ceiling mounting using an H10 round recessed enclosure. This enclosure is cold-rolled, welded steel, and is covered with a rust-preventative satin finish. Four combination 1/2" and 3/4" knockouts are contained in the enclosure to allow conduit fittings. The H10 enclosure can be installed with a CC1 formed channel support to better secure the enclosure to the T-bar structures of suspended ceilings. Using a CC1 ensures that the weight of the speaker assembly is not concentrated on the ceiling tiles alone. Each enclosure requires a pair of CC1 channel supports. The channel supports are constructed of 22 gauge cold-rolled steel, and treated in a rust-preventative, satin finish. Each channel support has mounting holes for fastening the enclosure to it.

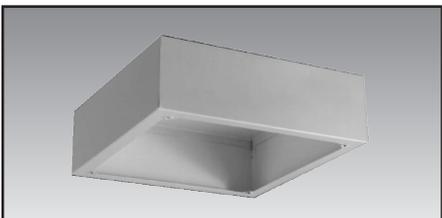


H10 ROUND RECESSED ENCLOSURE AND CC1 CHANNEL SUPPORTS

The eS8-TB4-SQ can be mounted using an H20 square recessed enclosure. This enclosure is a welded assembly, constructed of 22 gauge cold-rolled steel, and treated in a rust-preventative satin finish. Four combination 1/2" and 3/4" knockouts are contained in the enclosure to allow conduit fittings. Alternatively, the eS8-TB4-SQ can be wall or ceiling surface mounted using an SH20-SB square surface enclosure. This enclosure is a welded assembly constructed of 18 gauge cold-rolled steel and finished in a mar-resistant white semi-gloss epoxy coating.



H20 SQUARE RECESSED ENCLOSURE



SH20-SB SQUARE SURFACE ENCLOSURE

The interior of all enclosures are coated to prevent mechanical and acoustical resonances. They are also provided with four "J" clips in the mounting flange for screw mounting of the baffle.

eS8-TB4 SPECIFICATIONS

Power Source:	Power-over-Ethernet IEE 802.3af compliant
PoE Power Required:	Class 3, 5.5 W (8 ohm speaker only), 8.6 W (with 4 x 1 W 8 ohm satellite speakers)
Network Interface:	RJ45 10/100 Mbit Ethernet
Hardware Protocols:	Ethernet MAC
Audio Format:	G.711.1 (wideband), Bandwidth of 50 Hz - 7 kHz @ 128 kbits/s (µLaw, 16 kHz sampling rate)
Audio Latency:	Typical 0.1s
Connect Times:	
Paging:	0.01 s typical for 500 stations
Loudspeaker:	
Speaker Diameter:	8" (203 mm)
Power Rating:	10 watts
Frequency Range:	30 Hz to 15 kHz
Axial Sensitivity:	96 dB @ 3 ft (0.91 m) (1 watt input)
Voice Coil:	3/4" (19.1 mm) diameter
Depth:	2.75" (70 mm)
SPL:	104 dB at 3.3 ft (1 m)
Microphone:	
Type:	Omni Directional
Sensitivity:	-42 db (+/- 3dB)
Frequency:	20 Hz - 20 kHz
S/N Ratio:	60 dBA
Indicators:	
Front Panel:	Status
Internal:	Network Connection Status, Activity Status
Relays:	3 Switched Power from Auxiliary Power Input, Strobe, Siren
Contact Format:	DPDT
Contact Rating:	1 A @ 30 VDC or 0.3 A @ 125 VAC
Termination:	0.100 IDC
Switching Capacity:	1 A
Station Terminations:	RJ45 network connector
Wiring Requirements:	CAT5 or higher
Environment Requirements:	50-77°F/10-25°C, 5-90% relative humidity, non-condensing Round or square, one-step contour
Baffle:	
Finish:	White, semi-gloss epoxy
Material:	22 gauge, cold-rolled steel
Size:	12.75" (32.5 cm) diameter, 3.75" (9.5 cm) deep
Weight:	1.25 lbs (0.6 kg)

H10 SPECIFICATIONS

Type:	Circular, recessed enclosure
Finish:	Rust-preventative, grey, satin coating
Material:	22 gauge, cold-rolled steel
Size:	12" (30.5 cm) diameter flange, 10" (25.4 cm) body, 4" (10.2cm) deep
Weight:	2.5lbs (1.3 kg)

CC1 SPECIFICATIONS

Quantity:	1 pair per enclosure
Finish:	Rust-preventative, grey, satin coating
Material:	22 gauge, cold-rolled steel
Size:	23.75" (60.3 cm) L x 0.75" (1.9 cm) W x 0.5" (1.3 cm) deep
Weight:	0.6 lbs (0.3 kg)

H20 SPECIFICATIONS

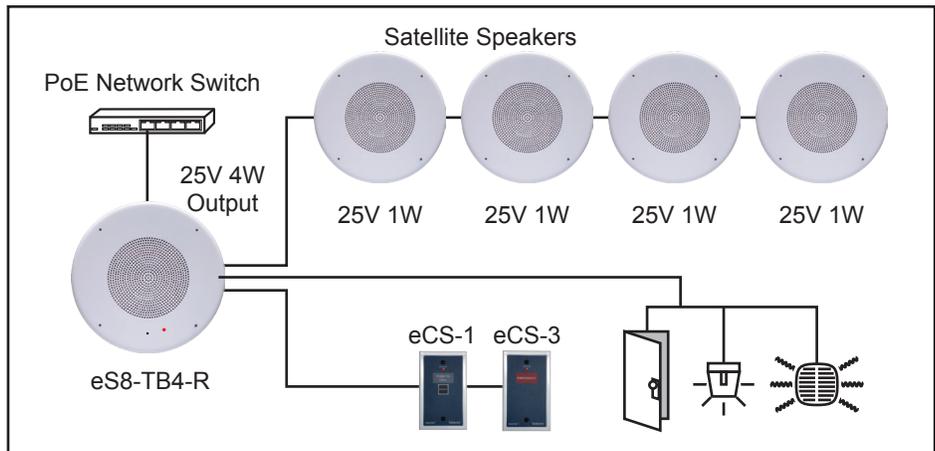
Type:	Square, recessed enclosure
Finish:	Rust preventative, grey, satin coating
Material:	22 gauge, cold-rolled steel
Size:	11.8" (30 cm) square, 4" (10.2 cm) deep
Weight:	3.5 lbs (1.6 kg)

SH20-SB SPECIFICATIONS

Type:	Square, surface enclosure
Finish:	White, semi-gloss epoxy
Material:	18 gauge, cold-rolled steel
Size:	12.8" (32.5 cm) square, 4" (10.2 cm) deep
Weight:	4 lbs (1.8 kg)

PARTIAL LIST OF ASSOCIATED EQUIPMENT

H10	Round Recessed Enclosure
CC1	Channel Support
H20	Square Recessed Enclosure
SH20-SB	Square Surface Enclosure
B11	Round Speaker Baffle
S8TB2570	Speaker Transformer Assembly
eCS-1	Call Station with Privacy
eCS-2	Call Station with DND
eCS-3	Emergency Call Station
eCS-4	Call Station with Volume Control and Channel Select
eCS-5	Volume Control and Channel Select Station
eCS-6	Call Station
eAMP	Ethernet 25W Amplifier
e300	eConsole
ePORT	Management Interface



Example of eS8-TB4-R Room Speaker and Call Station Configuration

