

SigTEL Type B Outstation Instructions



EVC302S (shown left)

Order Codes

EVC302F - Handsfree half-duplex EVC outstation, stainless steel, flush mounting

EVC302S - Handsfree half-duplex EVC outstation, stainless steel, surface mounting

EVC302GF - Handsfree half-duplex EVC outstation, mild steel (green), flush mounting

EVC302GS - Handsfree half-duplex EVC outstation, mild steel (green), surface mounting

IMPORTANT

THIS SECTION MUST BE READ PRIOR TO THE INSTALLATION/MAINTENANCE OF THIS PRODUCT

This equipment must only be installed and maintained by a suitably skilled and technically competent person. No responsibility can be accepted by the manufacturer or distributors of this product for any misinterpretation of an instruction or guidance note, or for the compliance of the system as a whole.

Emergency voice communication system design is beyond the scope of this document. An understanding of the system components and their use are assumed.

Overview

Emergency voice communication system Type B outstations are typically used to allow communication between disabled refugees and management at a control point.

Building regulations Approved Document B states that some people may not be able to use stairways without assistance and that, for them, evacuation involving the use of refuges on escape routes and either assistance down (or up) stairways or the use of suitable lifts will be necessary.

What are refuges and where are they required?

Refuges are relatively safe waiting areas for short periods. They are not areas where disabled people should be left alone indefinitely until rescued by the fire and rescue service, or until the fire is extinguished.

In a phased evacuation, the first people to be evacuated are those with reduced mobility and those on the storey most immediately affected by the fire.

Refuges should lead directly to a safe route to a storey exit, an evacuation lift, or the final exit, thus serving as a temporary safe space for disabled people to wait for assistance during their evacuation.

A refuge should be provided for each protected stairway, allowing exit from each storey, except storeys consisting exclusively of plant rooms.

Location

Type B outstations should normally be mounted 0.9 to 1.2 metres above the floor in an easily accessible, well-illuminated and prominent position free from obstruction.

As far as practicable, outstations in buildings should be located where background noise is normally low (preferably not more than 40 dBA). Where background noise levels are higher, installing an acoustic hood around the outstation may help reduce its impact to an acceptable level.

Cabling

To connect to the outstation from the exchange, use two-core 1.5 mm² enhanced fire-resistant cable up to 1000 metres. Other cables may work but will not comply with the recommendations of BS 5839-9.

Important Note about Earthing of the Outstation

Protective Earth (PE) is designed for safety and protects against electric shock by diverting fault currents to earth, e.g. short circuit fault. PE uses green/yellow sleeving and connects to an earth tag/bracket on the unit's metalwork and its use is purely dependent on the installer's system design.

Functional Earth (FE) is designed to enhance system performance and ensure the correct equipment operation by reducing electrical noise and EMI. FE typically uses pink sleeving and connects to the unit's SCR terminal (CNN1).

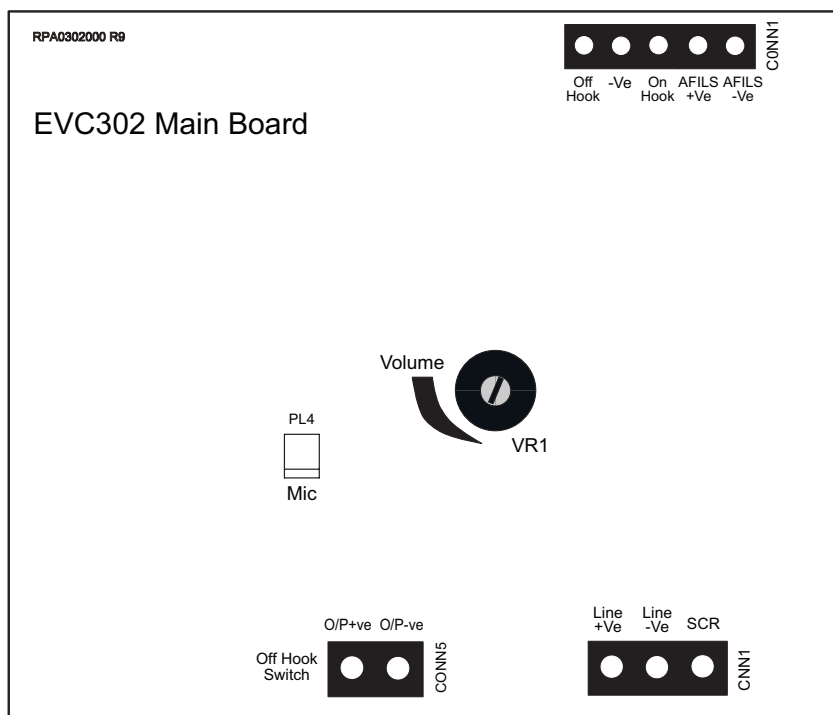
Ensure separation of protective and functional earths.

Installation and Connections

All units are supplied complete with a suitable back box that should be fitted to the wall using suitable fasteners. The back box has 20 mm knock-outs at the top and bottom.

Connect the line from the controller to the Line +Ve, Line -Ve terminals (CNN1). If using functional earth, connect to the SCR terminal.

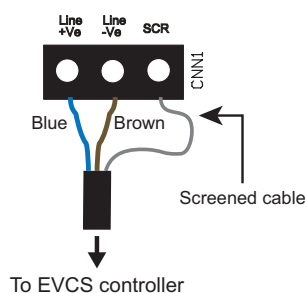
When installation is complete, secure the lid using the four machine screws supplied. These have a secure pin-hex design that requires a special Allen key (supplied).



Protective Earth (PE)



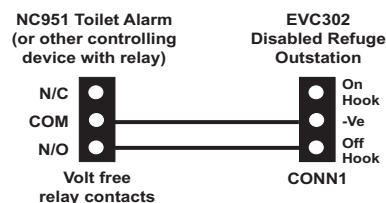
Functional Earth (FE)



Interfacing with a disabled person toilet alarm system

The outstation can be optionally interfaced to an NC951 disabled persons toilet alarm system by connecting its Off-Hook and -Ve terminals (CONN1) to the toilet alarm's volt-free relay contacts (shown right).

Activation of the NC951 (or any other controlling device with volt-free relay contacts) will have the same effect as pushing the Outstation's "push to call or answer" button. Thus, when the call is answered at the exchange, a direct speech channel will be established between the exchange and the outstation. This speech channel will remain open until the disabled persons toilet alarm is reset, as there is a clear requirement in disabled persons toilet alarm applications that all reset functions be carried out at the source.



Connecting to an induction loop system

If an audio induction loop facility is required, the outstation's AFILS +Ve and AFILS -Ve terminals (CONN1) should be connected to the line-level input of a suitable induction loop amplifier. The induction loop should be located adjacent to the outstation to adequately cover the outstation's immediate area.

Connecting to a CCTV camera

When the outstation is active, its opto-isolated CONN5 terminals (O/P +ve and O/P -ve) close and can be used to trigger a CCTV camera or recorder. The maximum current they can pass is 3 mA at 24 Vdc. If this current is exceeded, the output will be damaged. If required, an RLPV relay and a 24 Vdc power supply can be used to give two sets of volt-free change-over contacts.

Connecting to an RLPV

Use the switching output on the outstation. Connect any of the RLP's terminals 1-4 to the outstation O/P +ve (CONN5). Connect the 0V of the RLP to the outstation O/P -ve (CONN5).

When the outstation goes off hook or rings in/out, the RLP will activate.

Note that the RLP must also be supplied from a 24V source.

Setting to work

At the exchange end, use the FITT line tester to check that the cable is OK and that the outstation is working correctly. See the FITT instructions, document DCP0001518, for details. Then follow the relevant SigTEL installation manual for SigTEL EVC or SigTEL Compact.

Shorting the "On Hook" and "-Ve" terminals effectively hangs up a call so that the engineer does not have to return to the system controller. This is equivalent to hanging up a telephone.

The speaker's volume can be adjusted to suit the application/background noise levels using the VR1 volume control.

OPERATION

Calling from the outstation

Press the "Push to Call or Answer" button. The red "Call in Progress" LED will light steadily and a pulsed ringing tone will be heard from the loudspeaker. When the call is answered, the ringing tone stops and two-way speech can commence.

Calling to the outstation

If the outstation is called, the red "Call in Progress" LED pulses and a pulsed ringing tone is heard from the internal beeper. Press the "Push to Call or Answer" button and the LED lights steadily. The ringing tone stops and two-way speech can commence.

SPECIFICATION

Dimensions:	Surface 240 x 160 x 53 mm; Flush 250 x 175 x 53 mm
Weight:	Surface 1.3 kg; Flush 1.5 kg
Input voltage (from exchange):	10.7 Vdc quiescent; 5 Vdc in use
Current consumption @ 24 Vdc:	3 mA quiescent; 25 mA in use
Microphone frequency response:	250 Hz to 5 kHz ± 3 dB
Loudspeaker frequency response:	250 Hz to 4 kHz ± 3 dB
Audio output level:	0 dB (775 mV) balanced line level
Switch output:	Opto-isolated normally open, open-collector, max 24 Vdc 3 mA
External indicators:	Red call in progress LED
External controls:	Push to Call or Answer button (Off Hook)
Internal controls:	Loudspeaker volume VR1
Security fasteners:	4 x machine screw pin hex button head
Back box:	Adaptable box AB573K-B (supplied)