

Product Description



The SMS02 Microphone is a sloping desk console with flexible gooseneck microphone. It is designed to work with the SMS/HCI and PA/VA Systems for London Underground and similar installations. It will typically be used by the Station Master for making announcements using the PA/VA system under the routing control of the SMS system. It may also be used for recording announcements in the SMS system.

Microphone audio is provided as a balanced 0dBu (nominal) analogue signal. The unit features an in-built signal limiter.

The SMS microphone supplies the PTT signal to the SMS system by means of a serial RS485 data link. The SMS system interrogates the router to determine PTT activation.

An outgoing 20Hz surveillance tone is generated to enable the microphone and the audio cabling to the PA/VA System router to be monitored at the PA/VA system.

A RJ45 connector on a flying lead provides field connections.

CE Declaration



This equipment is designed and manufactured to conform to the following EC standards:

EMC	EN 50121-4
Safety	EN 60065

Failure to use the equipment in the manner described in the product literature will invalidate the conformity. A 'Declaration of Conformity' statement to the above standards and a list of auxiliary equipment used for compliance verification is available on request.

Safety and Precautions

ELECTRICAL SAFETY

Always replace blown fuses in the supply to this equipment with the correct type and rating. Ensure power supply cabling is adequately rated.

ENVIRONMENTAL PRECAUTIONS

The temperature and humidity ranges shown in the specifications for this product must not be exceeded. This equipment must not be installed in an area that is subject to a corrosive atmosphere, excessive moisture or may allow water or other liquids to come into contact with the unit or its external connections. In the close proximity of some radio frequency transmitters, the signal to noise ratio of this product may be reduced. If this occurs, re-location of the equipment or the signal cables is recommended.

ESD PRECAUTIONS

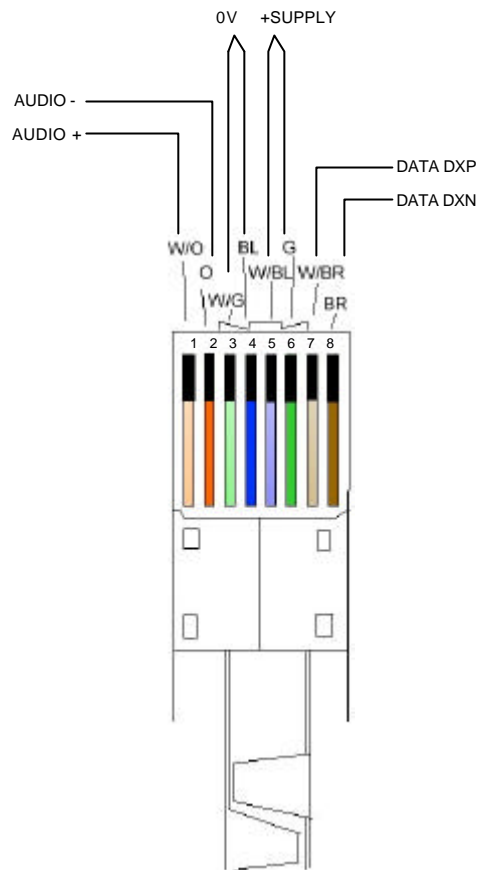
This product contains static-sensitive devices. Observe ESD precautions when working on the equipment with the cover removed.

To install this product you will need;

- The SMS02 unit
- Completed slip-in Microphone identification label (Microsoft Word® template available from ASL website)
- A pair of wire cutters/strippers and an RJ45 crimping/cable termination tool (only for installing the wall plate connector)
- Overall screened CAT5 cabling from microphone position to the central equipment containing the VAR DSP Router/System Controller (normally part of the building installation).

Connections

RJ45 Cable Connector



Standard overall screened CAT5 cabling is required to connect the microphone unit to the VAR DSP Router/System Controller.

For cable-run limitations and alternative cable types please refer to Application Solutions Ltd for advice.

Recommended installation procedure

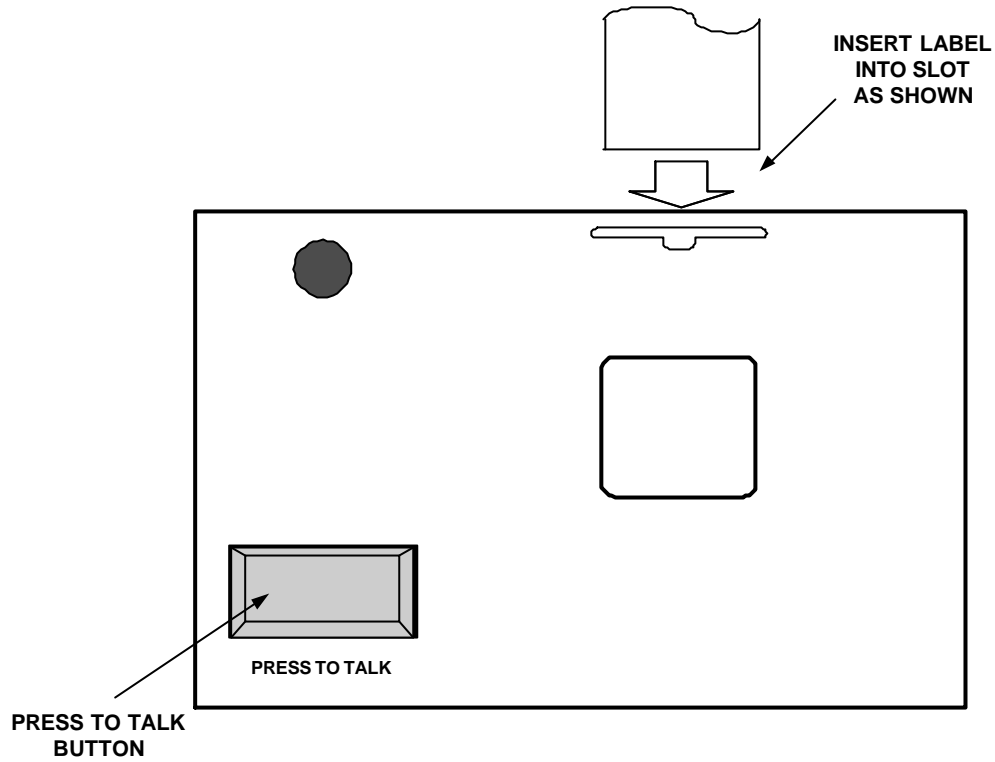
Connect the CAT5 installation wiring to the wall socket connector as shown above.

Plug the SMS02 RJ45 connector into the wall socket.

Check that the rear-panel indicator is flashing slowly (approximately every second), and not either off or flashing fast (see below).

Complete Microphone identification label and insert as shown below.

Controls and Indicators



Press To Talk button	When pressed, it activates the zone selection, opens the microphone channel and triggers the pre-announcement chime (if selected at the VAR DSP Router/System Controller) ready for the paging announcement.
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There is also a rear panel LED for diagnostic/install purposes - It flashes slowly to indicate OK status. Rapid flashing indicates that power is OK but there is a communications fault.

Cabling Requirements

The SMS02 will usually plug into an RJ45 wall box in the Control Room. The cabling from this to the PA/VA system rack is as follows.

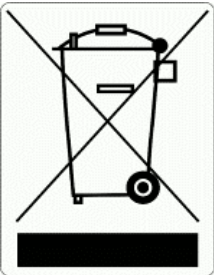
Signals	Cable Description	Suggested Type
Audio, Power, Data	4 x pair, twisted	CAT5 STP

For a given installation ASL can offer advice regarding maximum cable lengths.

Specifications:

Supply voltage range	12-40V DC
Current consumption	90mA at 24V. Fused at 200mA in the PA/VA VAR Router
Audio output	0dBu balanced. Source Impedance <600Ω, Input impedance into SMS System and into PA/VA Router > 10K
Dimensions (H x W x D) excluding gooseneck microphone and connectors.	40mm x 180mm x 130mm (excluding gooseneck)
Colour	PB No.5 off-white with black annotation
Weight	1 kg
Environmental	IP50
Temperature range (storage and operating)	-5°C to +50°C
Humidity range	0% to 93% Non-condensing
EMC EN 61000-4-3. 80MHz to 1GHz EN61000-4-6 0.15MHz to 80MHz	ITU/R 562-3 impairment level 3. In the close proximity to some radio frequency transmitters, the signal to noise ratio of this system may be reduced. If this occurs, ensure adequate system RF earthing or re-locate the equipment or signal cables. <i>Full performance information available on request.</i>

This product must be disposed of in accordance with the WEEE directive.



Manufacturer

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This equipment is designed and manufactured in the UK by Application Solutions Ltd to a quality system certified to the internationally recognised quality standard: BS EN ISO 9001: 1994

Certificate number: 96-LON-AQ-041

In the interest of continual product development, Application Solutions Ltd reserves the right to make changes to product specification without notice or liability. Information contained in this document is believed to be accurate, however no representation or warranty is given and Application Solutions Ltd. assumes no liability with respect to the accuracy of such information.