

ETS Inc.

SM8-RC RS232 Controllable Microphone Mixer / Switcher Instructions

The SM8-RC is a RS232 controllable microphone mixer and switcher for use ETS pre-amplified microphones only. The SM8-RC is primarily designed to be used in conjunction with DVRs / video gateways in one way (or two-way: using the companion SS8-RC speaker switcher) to expand versatility in audio zone handling. Note- the DVR manufacturer must write custom software to “talk” to the –RC series switchers via an available RS232 port on the DVR using a simple ASCII protocol described later in this document. Contact ETS technical support for a list of DVR manufacturers who have integrated the use of the –RC switchers into their platforms.

Note-If your application requires more than 8 audio zones, you must add (loop or cascade) additional SM8-RCs for 8 more zones and up to a maximum of 32 zones total (4 SM8-RCs). Each SM8-RC is assigned an ID number for its range of zones as described later in this document.

Front panel controls and indicators

When powered up, the SM8-RC is in remote control mode (the front switches do not work.)

If you want to control the switcher manually, press and hold the Zone 1 button until the “Recorder” indicator light goes out. You can now select and deselect Zones by pressing their respective channel buttons. You can also set the volume of a zone by adjusting the corresponding Level control.

To go back to RS-232 control mode, press and hold the Zone 1 until the “Recorder” light illuminates.

Setting the zone range (ID) for looped SM8-RCs

Unplug the SM8-RC from its AC power Source. Press and HOLD DOWN the corresponding zone number which translates to ID channel number. CH1=ID1...CH4=ID4. Power up the SM8-RC until the corresponding channel light illuminates. Then release the switch and the CH lamp will extinguish shortly thereafter.

ID 1= zones 1-8

ID 2= zones 9-16

ID 3= zones 17-24

ID 4= zones 25-32

Note-On a power down / up cycle of the SM8-RC, the ID of the unit will be shown on the corresponding zone lamp (1-4) for 2 seconds.

Rear panel connections

PWR: The SS8-RC uses a 12Vdc 1amp transformer. *Note- the SS8-RC and SM8-RC use different types of AC adapters.*

Audio Out Connector: Connect this to the Audio input of your remote monitoring equipment.

Audio In Connector: When using multiple SM8-RCs, connect the Audio output of the first SM8-RC to the Audio input of the next SM8-RC using the supplied RCA patch cable.

RS-232 Connectors: This is a looping RS-232 input and output. You only need one RS-232 port on your remote monitoring equipment to control up to 4 SM8-RC and 4 SS8-RC devices. Plug the RS-232 DB9/3.5mm cable into either RS-232 jack on the SM8-RC. Connect the other end of this cable to your remote monitoring equipment. If using more than 1 SM8-RC, Plug the supplied 3.5mm/3.5mm patch cord into the remaining jack of the first SM8 and into the next SM8-RC (see connection diagram).

Microphone inputs Use a single pair shielded #22 wire for microphone cable runs up to 1500'. You can connect any SM1 series microphone to the SM8-RC inputs.

ETS microphone speaker switcher command protocol version 2.0

Note- all selected channel settings are lost during a power outage of an SM8-RC. The –RC series switchers are also, RS232, listen only devices and currently do not communicate back any information to the host controller. Therefore, it is recommended that the host control software periodically update the switchers via RS232 with the current settings as a precaution so as to not lose track of channel settings during a power loss.

Command formats

- All commands received must be RS232, 2400 Baud, 8N1 (8 data bits, No parity and 1 stop bit).
- All commands must be ASCII characters and all letters must be upper case.
- Each command string must be immediately followed with a <CR> (0D hex) character to mark the end of transmission. DO NOT add a <LF> (0A hex) after <CR>.
- All single digit channel addresses must have an ASCII 0 zero preceding them. 00 is not a valid channel number.
Example: 01,02,03
- All channels addressed in the "multi channel format" described below must have commas as separators between channel numbers. 01-99 is the valid range. Example: **MI,01,50,99<CR>**
- Commands may be combined with the asterisk * (2A hex) command separator character to form a single command transmission string as in the following format Example: **MI01*SO01,99*MI02*BO16,32<CR>**.
- Each command must be 5 characters minimum in length including the <CR> character. Single combined command strings cannot exceed 48 chars total.
- Because there is no report back of switcher channel status to the host computer from the switchers, it is highly recommended that a global command such as BN<CR> preface all switching commands. This way you will always know all channels are off before turning any channels on. Other approaches are valid, but require keeping track of enabled channels in the host software.

MICROPHONES (M=Microphone)

Function Command

MICROPHONE "IN" **MIxx<CR>** (xx=01-99) 01=1, 02=2, etc. Multi channel format: **MI01,99<CR>**

MICROPHONE "OUT" **MOxx<CR>** (xx=01-99) 01=1, 02=2, etc. Multi channel format: **MO01,99<CR>**

MICROPHONE "ALL" **MA<CR>**

MICROPHONE "NONE" **MN<CR>**

SPEAKERS (S=Speaker)

Function Command

SPEAKER "IN" **SIxx<CR>** (xx=01-99) 01=1, 02=2, etc. Multi channel format: **SI01,99<CR>**

SPEAKER "OUT" **SOxx<CR>** (xx=01-99) 01=1, 02=2, etc. Multi channel format: **SO01,99<CR>**

SPEAKER "ALL" **SA<CR>**

SPEAKER "NONE" **SN<CR>**

BOTH MICROPHONES and SPEAKERS (B=both)

Function Command

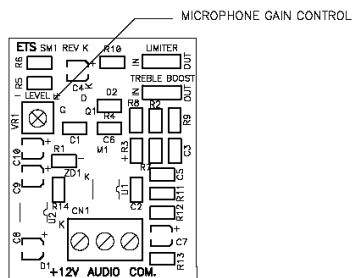
MIC AND SPEAKER "IN" **BIxx<CR>** (xx=01-99) 01=1, 02=2, etc. Multi channel format: **BI01,99<CR>**

MIC AND SPEAKER "OUT" **BOxx<CR>** (xx=01-99) 01=1, 02=2, etc. Multi channel format: **BO01,99<CR>**

MIC AND SPEAKER "ALL" **BA<CR>**

MIC AND SPEAKER "NONE" **BN<CR>**

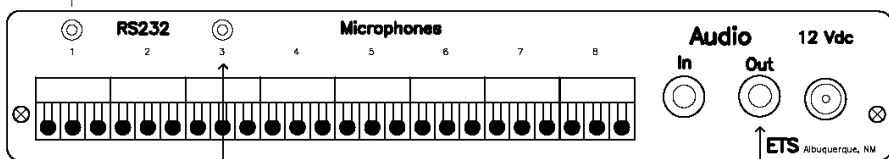
SOUND SURVEILLANCE SERIES MICROPHONE



TO PC RS232 COM PORT, 2400 BAUD, 8N1

MICROPHONES 1-8

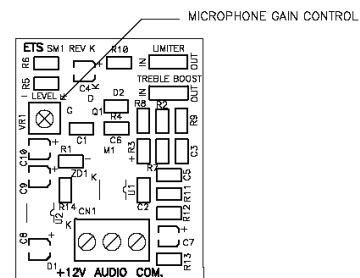
12VDC ADAPTOR INPUT



1000 FEET MAX.

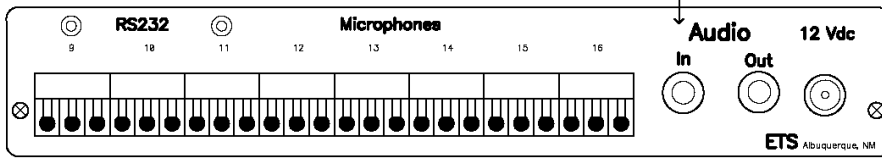
STRANDED, #22 SHIELDED 2 CONDUCTOR

SOUND SURVEILLANCE SERIES MICROPHONE



MICROPHONES 9-16

12VDC ADAPTOR INPUT



SECOND SSB ONLY REQUIRED FOR 9 OR MORE SPEAKER LOCATIONS

TO HEAD END LINE LEVEL "AUDIO INPUT"

1000 FEET MAX.

STRANDED, #22 SHIELDED 2 CONDUCTOR

Warranty

All **ETS** products carry a one year parts and labor warranty. This warranty does not cover damages as a result of misuse, improper handling of the unit or exposure to extreme temperatures or moisture. At its discretion, **ETS** reserves the right to repair or replace this unit under the conditions of the warranty. If you experience problems with your equipment call **ETS** at: 505-888-3923 to obtain a return authorization number. Equipment requiring repair beyond the warranty period or units that have been damaged or are not covered under the warranty can be repaired by **ETS** for a minimal cost under most conditions.

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by
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