The MSI-BOC5 is an interface box designed to breakout the signals from ETS 2-way CAT5 based speaker / microphone connections. It allows the use of a separate speaker and microphone with our SMAx-xxC5 products vs a ETS -C5 combination speaker/microphone.

Microphone / Speaker Placement.
Locate the speaker and microphone near the area of interest in the space to be monitored. If a large area is to be monitored, locate the speaker and microphone in the middle of the space if possible. Avoid mounting the speaker and microphone near air conditioning vents, light fixtures or electrical equipment. The speaker and microphone should be placed as close to the subject(s) as possible. The speaker and microphone are still usable at distances of up to 15-25 feet in public address applications but is dependent on the level of background noise in the area. Experimentation in the environment will determine what distances work best.

Audio Signal Cable Runs
Recommended cable is: CAT5 between the SMAx-xxC5 amplifier / interface and the MSI-BOC5 microphone/speaker. Keep the cable run distances under 500 feet and away from AC power sources, light fixtures and electrical equipment.

Speaker output
Connect 70V speakers only and observe speaker polarity. Select the 70V tap on the speaker that is closest to 2.5W, 10W or 30W depending on which SMAx-xxC5 product you are using. Use 2 conductor (shield optional) cable 22AWG to connect the 70V speaker to the MSI-BOC5. The CAT5 main cable run + this cable run should not exceed a combined length of 1000'.

Microphone input
Use only ETS Sound Surveillance SM1 series microphones. Use 2 conductor 22AWG shielded cable to connect the microphone to the MSI- BOC5. The CAT5 main cable run + this cable run should not exceed a combined length of 1000'.
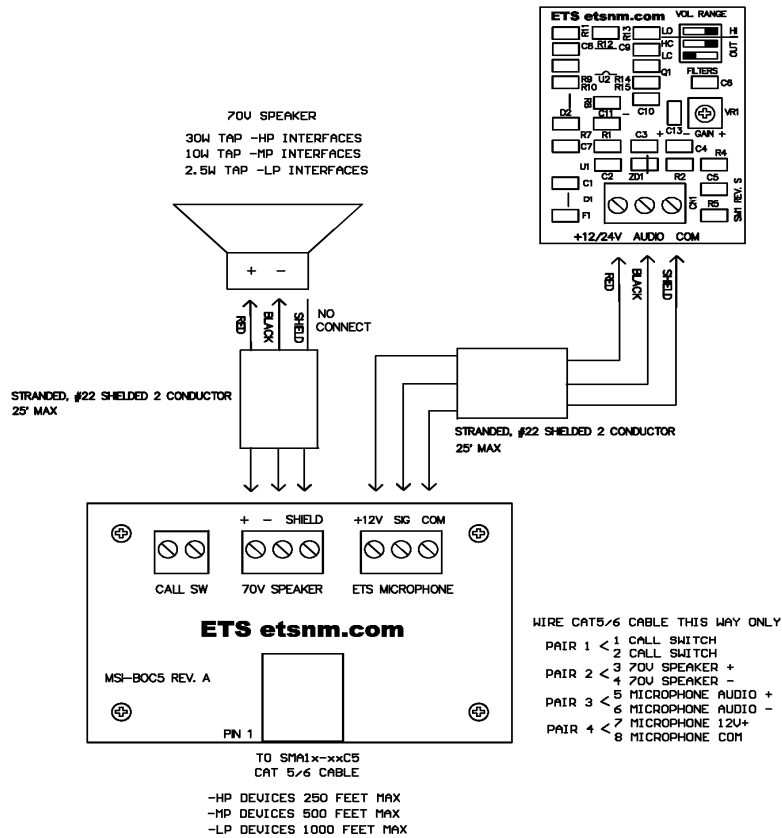
Call Switch
Use these terminals for connecting a dry contact call switch or a door relay. Any type of wire is suitable for these functions. Note- these connections are not referenced to any circuitry in the MSI-BOC5, so they may be used for any function required in your application.

IMPORTANT

Wire the RJ45 connectors in the following manner. DO NOT wire as a standard Ethernet cable and do not cross connections over.

Pair	Pin	Signal
Pair 1	1	CALL SW
	2	CALL SW
Pair 2	3	SPEAKER (70V) +
	4	SPEAKER (70V) –
Pair 3	5	MICROPHONE +
	6	MICROPHONE –
Pair 4	7	+12V (MICROPHONE)
	8	COM (MICROPHONE)

Wiring Diagram

ETS etsnm.com — VOL. RANGE

70V SPEAKER

30W TAP –HP INTERFACES
10W TAP –MP INTERFACES
2.5W TAP –LP INTERFACES

NO CONNECT

RED   BLACK   SHIELD

RED   BLACK   SHIELD

+12/24V   AUDIO   COM

STRANDED, #22 SHIELDED 2 CONDUCTOR 25' MAX

STRANDED, #22 SHIELDED 2 CONDUCTOR 25' MAX

CALL SW   + – SHIELD   +12V   SIG   COM
              70V SPEAKER   ETS MICROPHONE

ETS etsnm.com

MSI-BOC5 REV. A

PIN 1

TO SMA1x-xxC5
CAT 5/6 CABLE

–HP DEVICES 250 FEET MAX
–MP DEVICES 500 FEET MAX
–LP DEVICES 1000 FEET MAX

WIRE CAT5/6 CABLE THIS WAY ONLY

PAIR 1 < 1 CALL SWITCH
         2 CALL SWITCH
PAIR 2 < 3 70V SPEAKER +
         4 70V SPEAKER –
PAIR 3 < 5 MICROPHONE AUDIO +
         6 MICROPHONE AUDIO –
PAIR 4 < 7 MICROPHONE 12V+
         8 MICROPHONE COM

Caution

It may be against the law to install this microphone kit in certain environments. It may also be against the law to record conversations of the person(s) being monitored without their knowledge. It is the responsibility of the installation company and end-user to determine if the application of this product is legal. These laws vary from state to state. If you are not informed on these matters, consult a qualified attorney or contact the appropriate state agency. A sticker is provided with this kit for the applications where notification must be posted.

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.

**Made in
USA
BY ETS Inc**