



INSTALLATION INSTRUCTIONS

MicroComm DXI

SMK-130 Speaker/Microphone Kit

1. Intent & Scope

This document describes the installation procedure for the SMK-130 Speaker/Microphone Kit used in conjunction with MAI-120, MAI-125, MAI-420 or MAI-425 Master Audio Interfaces.

2. Description

The SMK-130 includes a loudspeaker and microphone mounted on a sub-plate. It is intended to mount behind a console or panel faceplate.

When the installation is complete, the loudspeaker will be protected from physical damage by the offset in the panel faceplate and the sub-plate perforations. The microphone is protected by a fine mesh and offset in the acoustic channel.

3. Installation Requirements

The panel behind which the speaker/microphone kit is to be mounted must be prepared prior to installation. That preparation includes:

- drilling perforation holes for the loudspeaker
- drilling a perforation hole for the microphone
- providing mounting studs for the sub-plate assembly

Each SMK-130 assembly requires a clearance 3.700" wide x 2.875" high x 1.5" deep behind the panel on which it is mounted.

3.1 Loudspeaker Perforations

An array of twenty one (21) holes must be drilled in the mounting panel faceplate for transmission of the loudspeaker signal from the unit to the operator. Each hole is 0.156" (5/32") diameter.

The SMK-130 Installation Details diagram shows the layout and spacing requirements for the loudspeaker perforations.

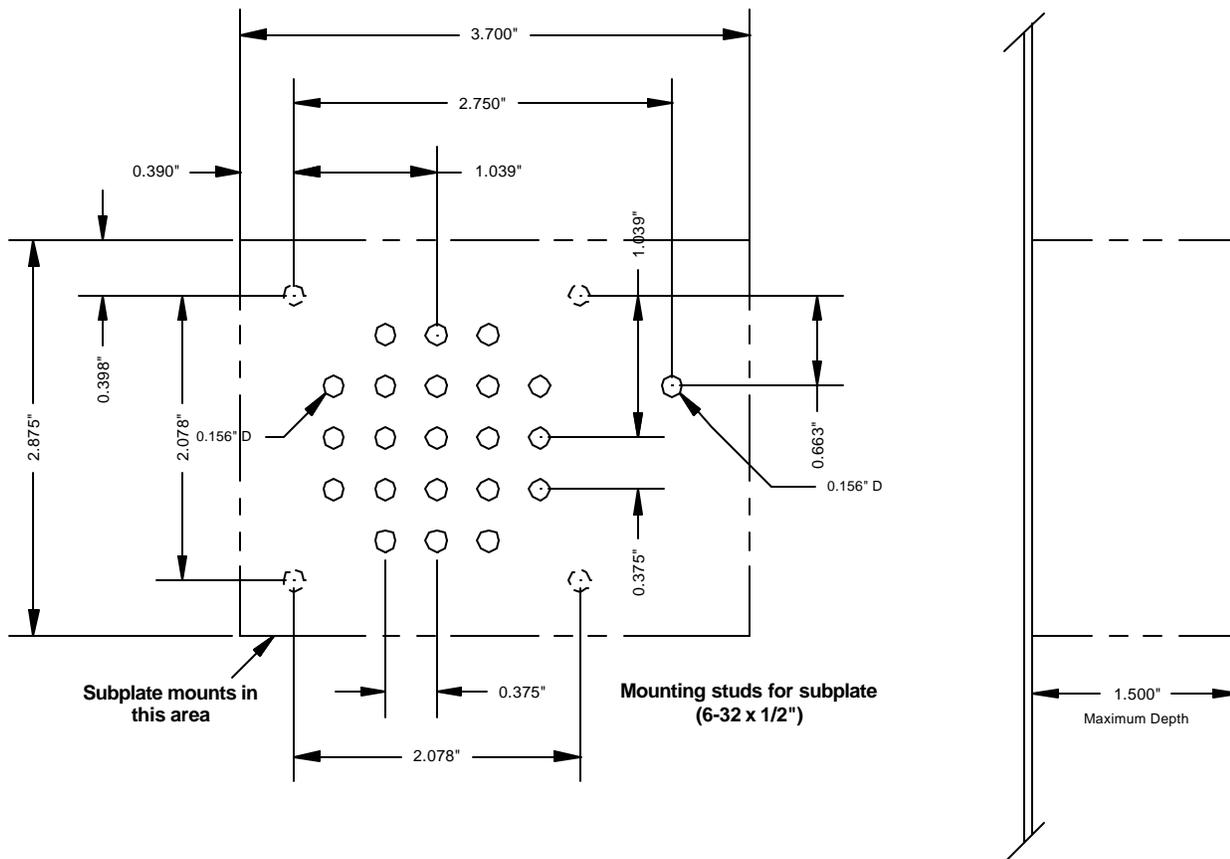
3.2 Microphone Perforation

A single hole must be drilled in the mounting panel faceplate to allow the operator's voice to be transmitted to the microphone pick up element. It is also 0.156" diameter and indicated on the installation details drawing.

3.3 Mounting Studs

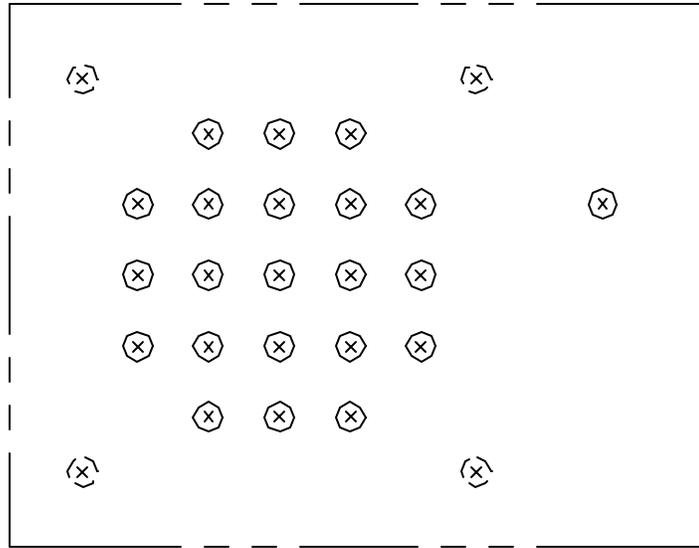
Mounting of the SMK-130 requires that four 6-32 x 1/2" studs be provided on the mounting panel faceplate. These may be fastened to the rear of the panel faceplate, or take the form of machine bolts passing through the faceplate to the sub-plate.

The following diagram shows the location and dimensions for the perforations and mounting studs.



SMK-130 Installation Details

The following template may be used for locating the faceplate perforations and mounting studs.



SMK-130 Mounting Template

4. Installation

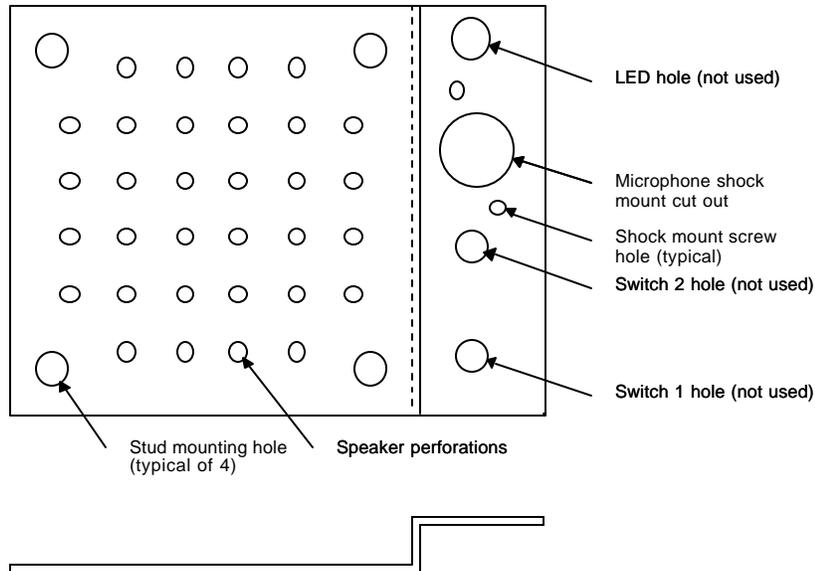
4.1 Parts List

The SMK-130 Speaker/Microphone Kit consists of the following parts:

- one (1) microphone mounted on a sub-plate assembly.
- one (1) loudspeaker with pigtail leads.
- one (1) foam rubber gasket.
- one (1) stainless steel perforated microphone grille.
- four (4) flat washers.
- four (4) star washers.
- four (4) 6-32 machine nuts.
- one (1) microphone connector with pigtail leads.

The following diagram shows the sub-plate perforations and layout as viewed through the panel on which it is mounted and from the top. Note that the perforations on the sub-plate are intentionally offset from the perforations in the mounting panel. This is to protect the loudspeaker from damage.

SMK-130 Speaker/Microphone Kit



SMK-130 Sub-plate - View Through Mounting Panel and Top View

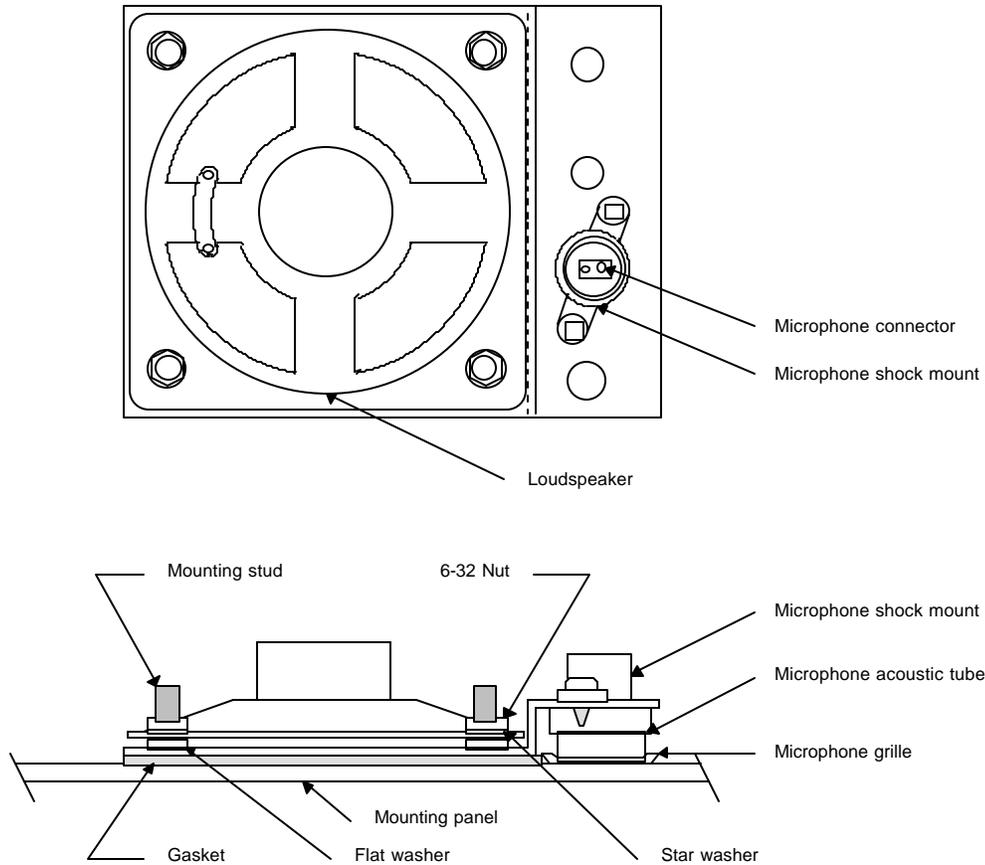
4.2 Mechanical Installation

Once the mounting panel has been prepared, the following is the installation procedure for the SMK-130:

- place the foam rubber gasket against the rear of the mounting panel. Note that the gasket has cut outs for the loudspeaker and mounting studs.
- next, place the subplot assembly against the mounting gasket. While doing so, fit the microphone grille between the microphone acoustic grille and the rear of the mounting faceplate.
- then, place one flat washer on each of the mounting studs.
- install the loudspeaker with the flat washers between the sub-plate and the loudspeaker frame.
- then, install one star washer on each of the mounting studs.
- finally, secure the assembly with the four 6-32 machine nuts.

The following diagram shows the completed SMK-130 mechanical assembly.

SMK-130 Speaker/Microphone Kit



SMK-130 - Rear and Top Assembled Views

4.3 Electrical Installation

The SMK-130 is connected to the Spkr/Mic connector of an MAI-120 or MAI-125 Master Audio Interface module.

Those connections should be made with a #22 AWG shielded twisted pair cable for each of the loudspeaker and microphone circuits. The loudspeaker is provided with 6" pigtail leads for making its connection. A two pin plug in connector with 6" pigtail leads is provided for the microphone.

Speaker and microphone connections to the master audio interface are made on a single 4-pin MTA connector as per the following table:

MTA Pin	Signal
1	Speaker +
2	Speaker -
3	Microphone - (Ground)
4	Microphone +