



VBS-320 Visitor Booth Station

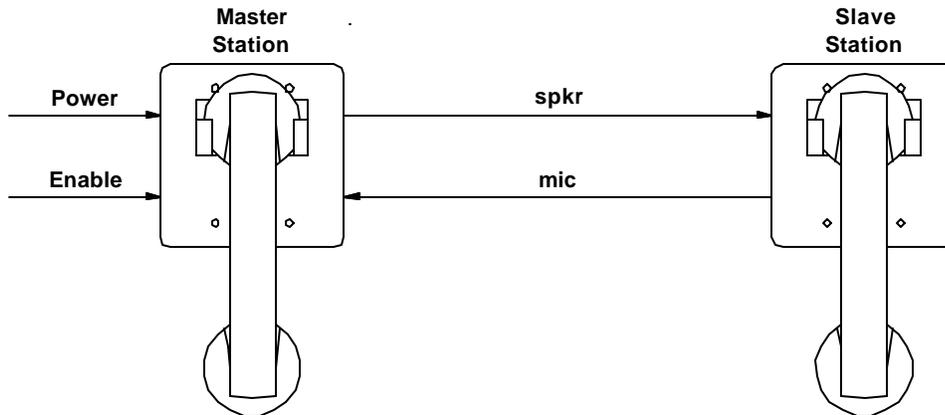
1. Intent & Scope

This document describes the installation procedure for the VBS-320 Visitor Booth Station

2. Description

The VBS-320 is a Visitor Booth Station that provides an audio connection between a handset station with electronics, called the master, and a second remote handset, called the slave.

The VBS-320 requires a dc power supply that can vary from +12 to +24 Vdc and provide a minimum of 30 mA of current.



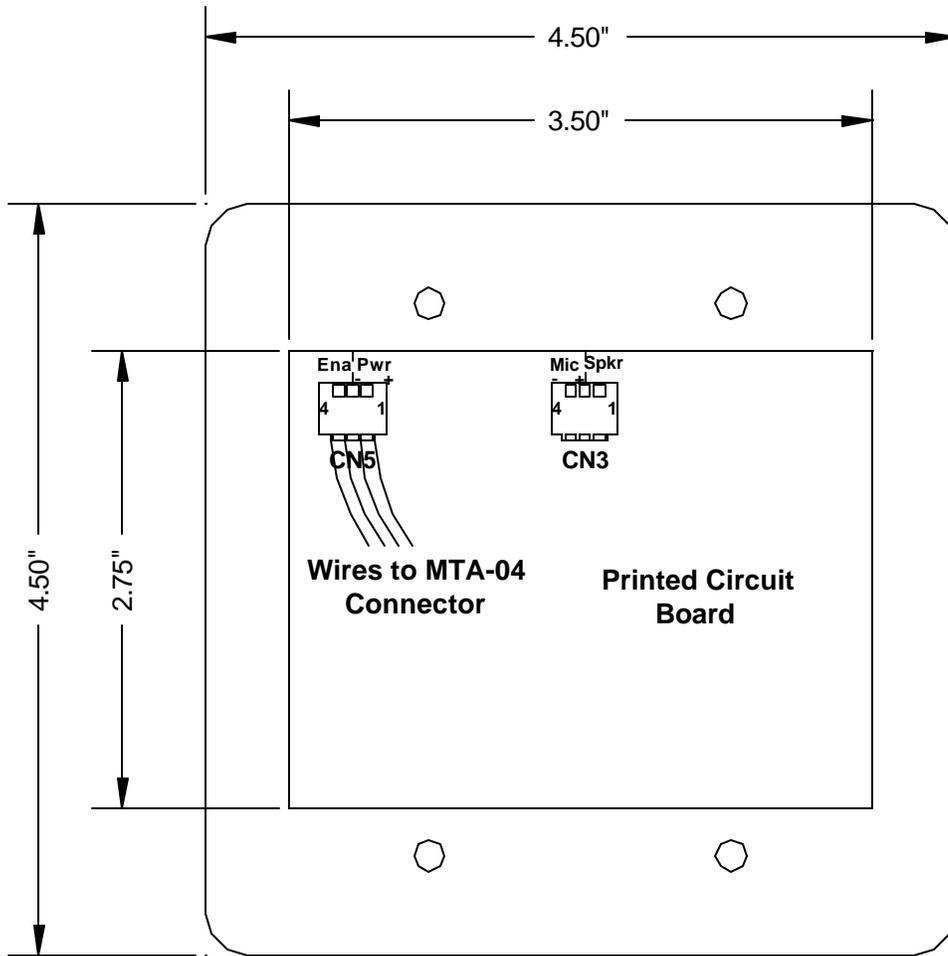
Block Diagram of VBS-320

3. Installation

Electrical connections to the VBS-320 are made to two MTA-100 series connectors located on the master station printed circuit board. The view from the back of the master shows the printed circuit board and the location of the two MTA connectors.

The wires to the MTA connectors should be placed so that they run to the inside as shown in the diagram. This will prevent the wires from binding against the electrical box.

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Connectors on PC Board of VBS-320

3.1 Power Connection and Enable Switch

The VBS-320 requires a +12 Vdc to +24 Vdc and Gnd connection. The pin configuration for the MTA connector (labeled CN 5 on the printed circuit board) is shown below.

The Enable switch is connected between pins 3 and 4 of the MTA connector. To enable the station the switch and line resistance must be less than 200 ohms. If an external Enable switch is not required a jumper should be placed between pins 3 and 4. To make the jumper cut a wire 3-4 inches long, connect one end to pin 4 and the second to pin 3 of the MTA connector. (See the next section on how to make connections to MTA connectors.)

MTA-4 Pin	Function
1	+12 Vdc to +24 Vdc
2	Gnd
3	Enable Switch +
4	Enable Switch – (Gnd)

3.2 Audio Connections

The slave handset is connected to the master station printed circuit board by a two twisted pair cable. The wires are connected to wire pigtails at the slave end and at the master end to a 4-pin MTA connector. This connector is mated to a header located on the master station printed circuit board (labeled CN 3 on the printed circuit board).

The slave station has four wire pigtails. There are two standard color codes used for the handsets. A connection is made to the two pair interconnecting cable at the slave using a wire nut or crimp splice, while a 4-pin MTA connector terminates the cable at the master end of the cable.

Wire Colour #1 (at Slave)	Wire Colour #2 (at Slave)	MTA-4 Pin (at master station)	Function
Green	White	1	Spkr+
Yellow	White	2	Spkr-
Red	Red	3	Mic+
Black	Black	4	Mic-

Note that the polarity of the speaker connection is not critical but the microphone connection must maintain the specified polarity.

The connections to the master station are made with a 4-pin AMP MTA-100 series connector. The speaker pair is connected to pins 1 and 2 while the microphone pair is connected to pins 3 and 4. To make these connections you should use an AMP tool Handle Assy 58074-1 with a 58246-1 head. The cable should be cut to length and the outer jacket should be trimmed back about 1/2 inch

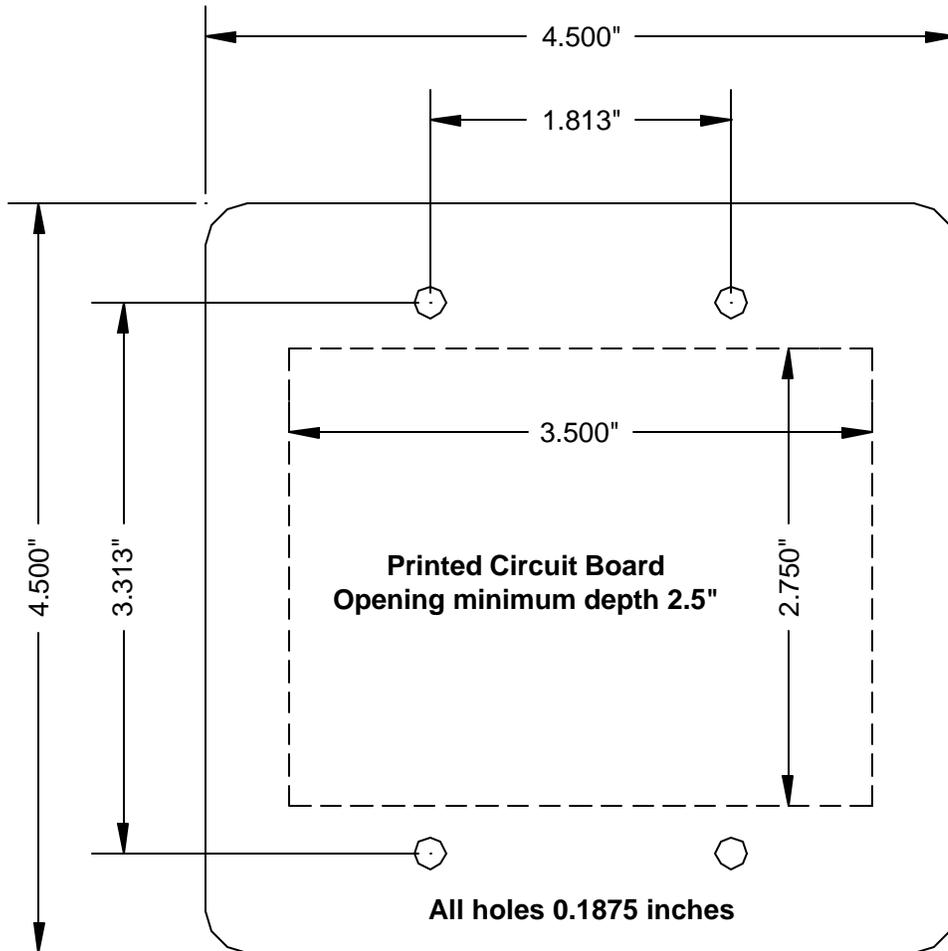
To insert the signal wires into the connector you remove the white cover from the connector, insert the connector into the tool from the left side (it will travel through the tool in the direction indicated by the arrow), pull the trigger once to load the connector. Then insert the signal wire for pin 4 (do not strip the wire) into the hole on the top of the tool and pull the trigger to insert the wire into the connector. (You should start with pin 4 in this case to have the wires run inward). Repeat to install the other signal wires. Finally, remove the connector from the tool, replace the cover, and then slide the connector onto the header pins on the master station printed circuit board.

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3.3 Mounting Details

Both the VBS-320 stations are designed to mount in a standard two-gang electrical box. The units should be mounted with four #6-32 machine screws. The mounting hole spacing is shown on the following diagram.

The box opening must be large enough to insert the printed circuit board (3.50 inches by 2.75 inches) and have sufficient depth (minimum of 2.50 inches) for the MTA connectors.



Mounting Details for VBS-320