BavCom™ One on Two Audio System

Installation and Service Manual

P/N 00626011

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BavCom™ One on Two Audio

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The BavCom™ One on Two audio system lets one inside position talk to two remote positions.

<u>**Features**</u>

- Φ Full duplex operation

- Φ Electret condenser microphone

- Φ Speaker with back box for maximum efficiency and minimum feedback

- Φ Case is of heavy 16ga steel construction with a durable powder coated finish

- Φ Interior microphone and speaker are built into the console unit

- Φ All functions are controlled via a factory configured PLA (programmable logic array).

- Φ Built-in call tone is included in the console:
  The call tone is controlled by the logic. The tone will only be activated for a lane not selected. The tone will only stay on while being activated and/or for a maximum of ten seconds. The tone cannot subsequently be activated for another 30 seconds. The LEDS stay flashing until acknowledged by having the lane select or standby buttons activated.

- Φ Plug-in electrical connections:
  One 12-position Molex connector for power and interface. Two 9-position Molex connectors are used for the remote speakers, microphones and call buttons. **Note that all of these connectors are color-coded.**

- Φ Five teller controls:
  All are momentary buttons. There are buttons to select Lane 1, Standby or Lane 2. Boost buttons are provided to give substantial increases in incoming or outgoing volume. Note that when boosting volume in, the outgoing channel is turned off to prevent feedback and vice versa.

- Φ Two LED indicators:
  Each lane has an LED indicator. **Off** indicates that the channel is not in use. **On** indicates that the channel is in use. **Flashing** indicates that the call button has been activated for that lane.

- Φ Four service adjustments:
  Each of the four channels, Lane 1 incoming, Lane 2 incoming, Lane 1 outgoing and Lane 2 outgoing have separate gain controls. See section labeled **ADJUSTMENT** for more information.

Installation

Install Console:
The console is designed to sit above the counter top on a mount that rotates for wall or countertop mounting. The electrical connections are on the back of the console. The speaker then faces down towards the counter top for proper operation.

Connecting to Existing BavCom™ Audio:
The cables for the audio connection are color-coded. Lane 1 connections have red connectors; Lane 2 connections have blue connectors.

If you have a system that already has BavCom™ audio you can use a cable with a 24-position connector. Begin by disconnecting the 24-position in-line connector from the existing audio board. Remove the duplex audio board. Connect the 24-position connector of the cable to the mating connector of the harness in the machine.

Connecting to Non-BavCom™ Systems:
To connect to remotes that do not have BavCom™ audio, please consult the factory. Note we can supply many different types of audio components and they should be selected to suit the needs of the applications. These are to be ordered separately.

Connecting Power:
The power comes from a UL Listed LOW VOLTAGE (17vdc) power supply, which is included with the kit, part number 01521023. The 12-position white connector plugs into the mating white connector on the back of the console. **CAUTION: THE POWER MUST BE OFF WHEN PLUGGING OR UNPLUGGING THE WHITE CONNECTOR.** Plug the line cord into a 120vac outlet. Press either lane 1 or lane 2 buttons on the console, the LED should illuminate indicating that the console is operational. Press the standby button and the LED should go out. Test the audio for operation. If the sound levels are not correct, go to the audio adjustment section.

Adjustment

It is necessary to open the console to adjust the gain controls. Access is gained by turning the two thumbscrews on the back of the console. The fasteners are captive and will not get lost or misplaced. After the fasteners are fully unscrewed, the front portion of the case hinges forward for easy access.

Each position has separate gain controls and needs to be adjusted independently. For details on the location of the adjustments, see Figure 1. The adjustment procedure is the same for each position.

With the teller speaking in the inside microphone and a car present at the customer unit, the outgoing volume control corresponding to that position should then be adjusted for satisfactory volume. The incoming volume control corresponding to that position should then be adjusted clockwise until feedback occurs, then counterclockwise until feedback stops. This should complete the adjustment. If the incoming level is not sufficiently high enough, the outgoing level will have to be reduced to be able to get additional incoming volume level. The gain levels are a balance; adjustment of each has an effect on the other. If the incoming level is too high, adjust it to a lower level. Reassemble the console.

With a lane selected, press the **boost in** button. The incoming should get substantially louder while the outgoing is muted. Press the **boost out** button. The outgoing should get substantially louder while the incoming is muted. If feedback occurs, consult the factory.

Troubleshooting

Audio doesn't work (Assumes No LEDS)
        Outlet on?
        Power supply plugged in?

Lane 1 no incoming (Assumes incoming on position 2)
        Adjust gain.
        Doesn't work? Plug red connector into blue position.
        Works, replace console.
        Doesn't work, replace remote microphone.
        Doesn't work, consult factory.

Lane 1 no outgoing (Assumes outgoing on position 2)
        Adjust gain.
        Doesn't work? Plug red connector into blue position.
        Works, replace console.
        Doesn't work, replace remote speaker.
        Doesn't work, consult factory.

Lane 2 no incoming (Assumes incoming on position 1)
        Adjust gain.
        Doesn't work? Plug blue connector into red position.
        Works, replace console.
        Doesn't work, replace remote microphone.
        Doesn't work, consult factory.

Lane 2 no outgoing (Assumes outgoing on position 1)
        Adjust gain.
        Doesn't work? Plug blue connector into red position.
        Works, replace console.
        Doesn't work, replace remote speaker.
        Doesn't work, consult factory.

No incoming both lanes (Assumes power to console, LEDS work)
        Remote connection cables plugged in?
        Adjust gain.
        Still doesn't work? Replace console speaker.
        Still doesn't work? Consult factory.

No outgoing both lanes (Assumes power to console, LEDS work)
        Adjust gain.
        Still doesn't work? Replace console microphone.
        Still doesn't work? Consult factory.

Figure 1

BLUE 9 POS. PLUG

WHITE CONNECTOR BOARD

RED 9 POS. PLUG

00818014

17 VDC POWERPACK

00818013

110/120 VAC

24 POS. CONNECTOR 0691152
.025 FEMALE PINS 06952021
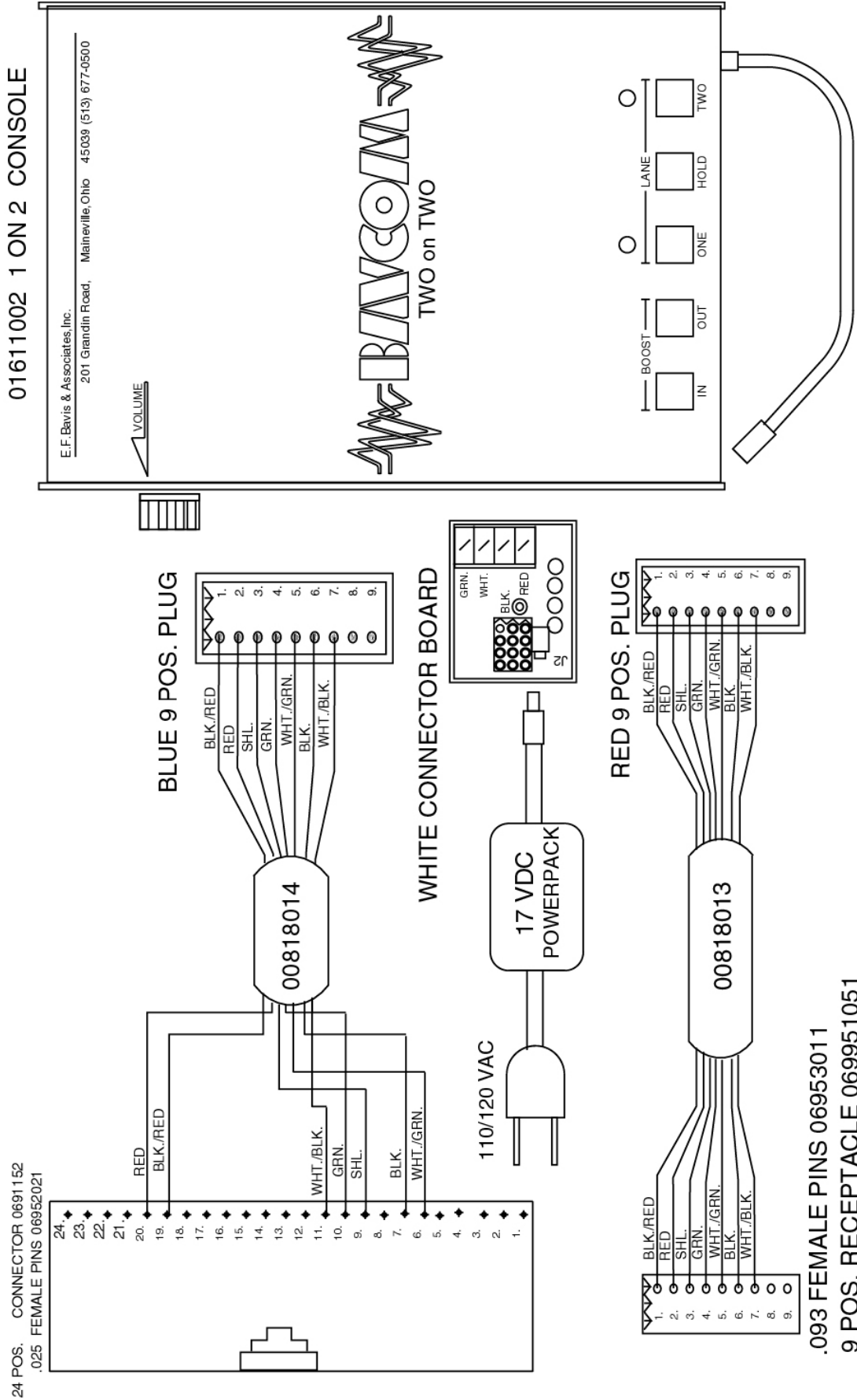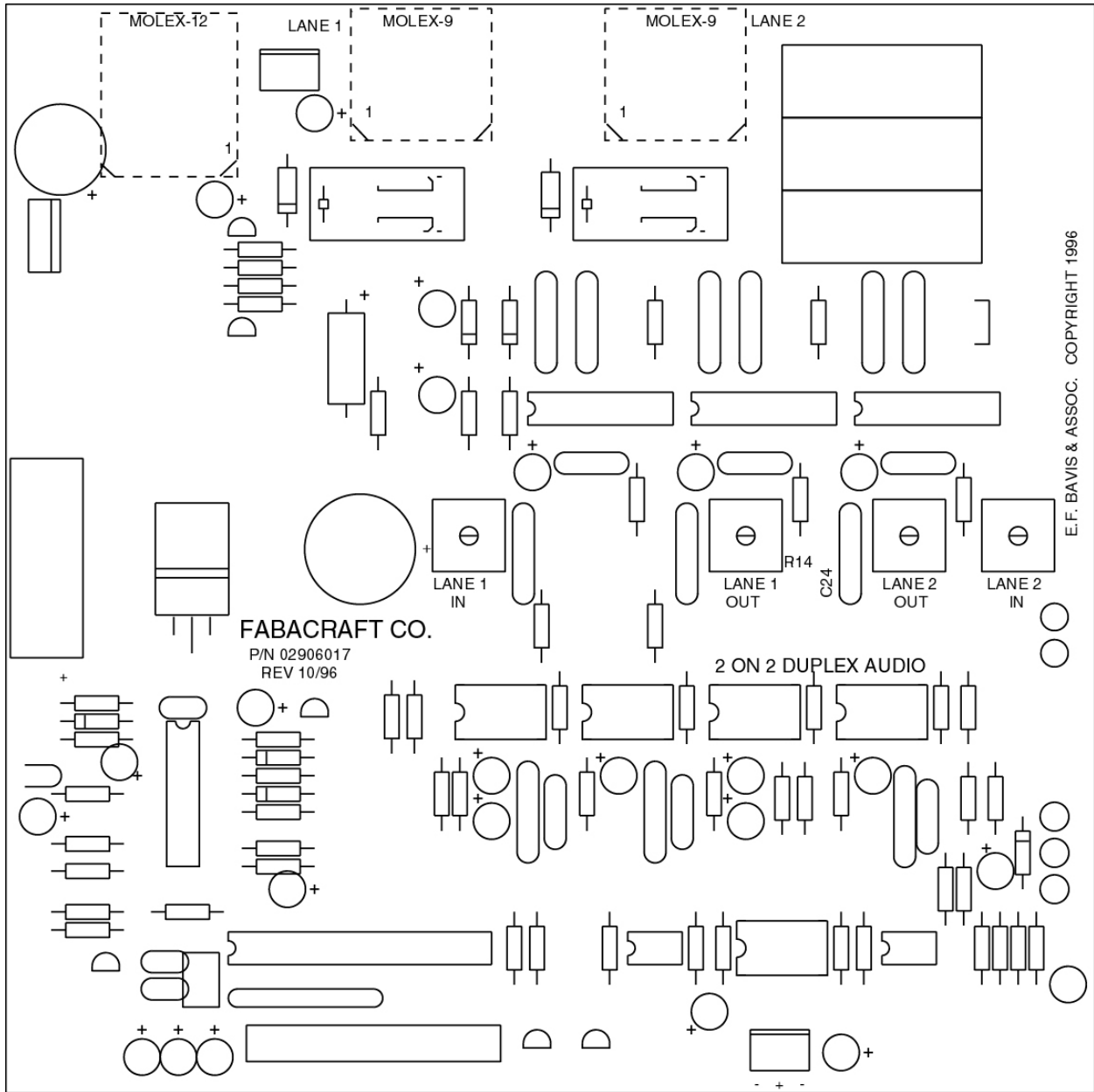
.093 FEMALE PINS 06953011
9 POS. RECEPTACLE 069951051

Figure 2

Installation and service tool list for audio

1/8" And 3/8" Flathead Screwdrivers
#0 And #2 Phillips Screwdrivers
1/16" And 3/32" Allen Wrenches
1/2" Open-End Wrench
1/4", 5/16", 11/32", 3/8", And 1/2" Nut Drivers
Wire Cutters
Wire Strippers
Wire Crimpers
Volt Meter
Electric Drill
Drill Bits
Level
7/8" Unibit
Fish Tape
Loctite