

# Sigtronics Com Radio Transmit Trouble-Shooting Guide

## Intercom Models: SPA-400, SPA-400N, SPA-600, SPA-600N, and Sport 200

These instructions are designed to assist the avionics technician in diagnosing comm' radio transmit problems following an SPA-400, SPA-600, or Sport 200 intercom installation.

The most common problem encountered is issued by the complaint of "One side (Pilot or Co-pilot) transmits OK but the other position's radio transmissions are very weak or nonexistent". The cause of this problem is almost always due to one of two possible wiring errors **in the aircraft**.

1. One of the intercom's mic inputs is connected to the radio mic audio input (Intercom **white / black** or **white / orange** wire connected to intercom **brown** wire).
2. One of the intercom's PTT inputs is connected to the radio key line input (Intercom **white / red** or **white / blue** wire connected to intercom **white** wire).

Visual Check: **Only one wire** should be connected to the pilot's and co-pilots intercom mic jack's RING terminal: **white / black** for the pilot and **white / orange** for the co-pilot.

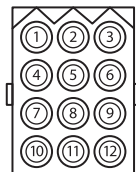
Electrical Check: With the SPA intercom **disconnected** from the wiring harness and **all power switched off**, use an ohmmeter or continuity tester to measure between the following pins of the **Female** wiring harness J1 connector head:

Pins: 1 < > 6

11 < > 6

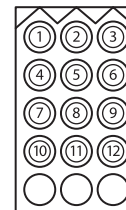
2 < > 5

10 < > 5



SPA-400 / Sport 200 Cable Connector J1

**Note:** Not all intercom models have a pin # 12.



SPA-600 Cable Connector J1

### The Above Connections Should All Read Open (Infinity).

If continuity is found between any of the above pin combinations, refer to the SPA Installation and Operating Instructions and rewire per the schematic.

Connector J1			
Plug Pin #	Wire Color	Function	Connect To:
1	White / Black	Pilot Mic Input	Ring Terminal of Pilot Intercom Mic Input Jack
2	White / Red	Pilot Transmit Switch Input	Pilot Transmit Switch (PTT) (Switch to Ground to Transmit)
5	White	Transmit Relay (Key) Control Output	Tip Terminal of Aircraft Mic Jack or Key Input of Aircraft Radio or Audio Panel
6	Brown	Mic Audio Output	Ring Terminal of Aircraft Mic Jack or Input of Aircraft Radio or Audio Panel
10	White / Blue	Copilot Transmit Switch	Copilot Transmit Switch (PTT)
11	White / Orange	Copilot Mic Input	Ring Terminal of Intercom Copilot Mic Input Jack



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178 East Arrow Highway, San Dimas, CA 91773 (909) 305-9399