SIGTRONICS "TRANSCOM" CONNECTION & OPERATING INSTRUCTIONS (PORTABLE) SPO-20

Transcom is a voice actuated aircraft intercom with the capability for transmitting through the aircraft radio by the mere push of a button. It was designed for simplicity of use. Three controls are provided on the front panel:

POWER SWITCH — Turns unit on and off. (10-33VDC)

VOLUME CONTROL — Controls the intercom volume. (The radio volume is controlled conventionally.)

SQUELCH CONTROL — Controls the threshold of amplifier turn-on. This control is normally used to adjust for variations in background noise found in different aircraft.

Two Microphone Input Jacks, labeled **MIKE,** are provided. They accept the standard aircraft mike plugs (i.e. carbon or amplified dynamic microphone).

Two Output Jacks are provided, labeled **HDPH** which accept the standard .250" aircraft headphone plug.

Two jacks are provided on the panel, labeled **XMIT SW** which accept the standard aircraft .206" mike plugs such as found on aircraft push-to-talk switches. Transmitting from both positions
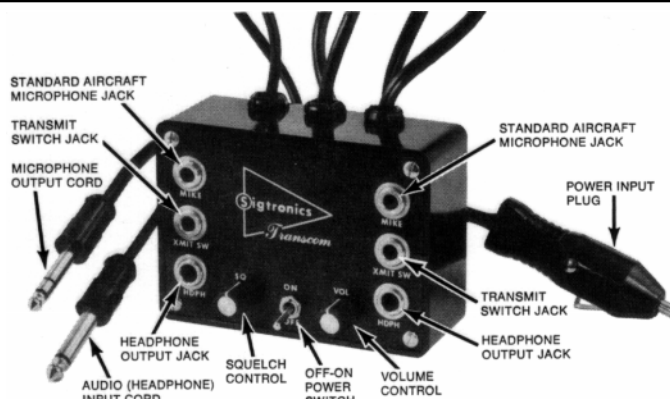
is possible on a one-at-a-time basis. Each position disables the other while transmitting. Yoke mounted, built-in switches may be used, however, the other mike/mikes will not be disabled.

SIGTRONICS TRANSCOM CONNECTION SCHEMATIC

*The female jack on your portable push-to-talk switch should not be connected.
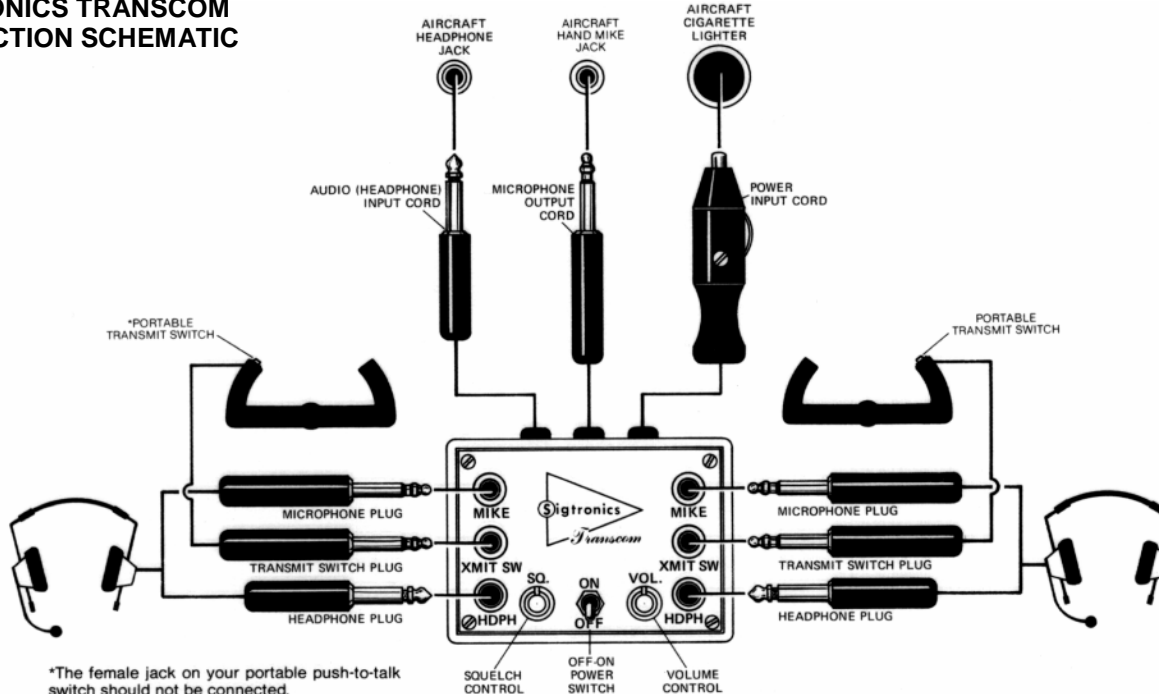
HOW TO USE THE TRANSCOM:
STEP 1. — INTERCOM MODE

A. Connect the Sigtronics TRANSCOM as illustrated in the Transcom Connection Schematic. Be certain that the transmit switch and corresponding headset mike plugs are connected on the same side as shown in the schematic, since the mike input on the opposite side is disabled when a transmit switch is actuated.

B. Put on headset/s and position the boom mike close to the mouth, as is the practice with a hand-held mike. Voice clarity is best when mike is at one side of the mouth and ¼" from the lips.

C. Set audio panel to "Headphone" position, if applicable.

D. Turn power "on" and set Volume Control to a low level. (¼th to 1/3 rd open for best signal to noise ratio).

E. Adjust Squelch Control clockwise until background noise becomes audible. Then rotate counter-clockwise **small** amounts until noise dimishes. Now make **small, incremental** adjustments until voice triggers unit on. (This procedure is necessary because the squelch system is a "fast attack, slow off" circuit). Small adjustments may be necessary if aircraft background noise changes significantly; such as from idle to full power.

STEP 2. — TRANSMIT MODE

When ready to transmit with the unit connected as in Step 1., depress the Transmit Switch and your voice is automatically transmitted via the aircraft radio. When transmitting, your voice is heard by all aircraft occupants that are wearing headsets, via radio sidetone return and "intercom provided" simulated sidetone. You may also transmit from the pilot's position with the unit "off."

A small square, trimmer potentiometer is provided inside the unit for adjusting the mike input level to the radio. In the event of overmodulation or reports of weak transmissions, an appropriate adjustment can be made. Clockwise rotation of the screwdriver adjustment increases the mike output level.

STEP 3. — RADIO MONITORING

When the unit is connected as in Step 1., radio monitoring is automatic. The radio monitor circuit is always active even with the TRANSCOM power switch in the OFF position, or in the event of Transcom failure. No switching is necessary. A "fail safe" feature.

HELPFUL HINTS ON TRANSCOM OPERATION

Position the boom mike in close proximity to the mouth, as is the practice with a hand-held mike, for best results.

Maintain **minimum acceptable volume.**

A fusing resistor is located within the unit and may be replaced by a qualified person should the need arise.