The **VOLUME** control on the right earcup (earcup without mic boom) contains the **MONO/STEREO** switch.

FOR MONO OPERATION:

1. Rotate the right earcup **VOLUME** control fully **counter clockwise**. It will **click OFF**.
2. The headset is now in **MONO** mode.
3. The **VOLUME for both** earcups is now controlled with the **LEFT** earcup (mic side) **VOLUME** control.

FOR STEREO OPERATION:

1. Rotate the right earcup **VOLUME** control to the **mid-point.**
2. The headset is now in **STEREO** mode.
3. The **VOLUME** for each earcup is now controlled with its' respective **VOLUME** control.

SOFTCOMM PRODUCTS
INSTALLATION INSTRUCTIONS
PANEL MOUNTED INTERCOMS

ATC-2P, ATC-4P, ATC-6P MONAURAL
ATC-2PS, ATC-4PS, ATC-6PS STEREO

This procedure covers the installation of the Softcomm panel mounted STEREO and MONAURAL intercoms in 2, 4, and 6 place aircraft. Only qualified personnel should attempt installation. Familiarity with electrical systems is essential. The installation should be planned out in advance.

1. INSTALLING THE INTERCOM UNIT----------

   Select a convenient spot for the intercom control panel. The pilot must be able to easily access the on/off switch in case of difficulty. The on/off switch incorporates an override function that connects the pilot's headset directly to the radio in case of intercom failure. Access to the knobs is also important, so they must be easy to get to. Six inches minimum clearance behind the panel is required. An optional battery clip is provided. The battery is not required, but will provide intercom function when the electrical power for the aircraft is shut down. Determine if horizontal or vertical mounting is best for your particular aircraft.

   When the location is chosen, the 17/64" mounting holes can be drilled using the face plate as a template. Maximum panel thickness is 0.22 inches (7/32"). Refer to Fig. 3.

   Note: All installation hardware is included.

2. INSTALLING THE JACKS----------

   Installation of the jacks must take into account the convenience of the passengers and the crew. They must be easy to locate and yet place the headset cord out of the way. Refer to Fig. 1 & Fig. 2 for the installation of jacks and face plates into the aircraft panel.

3. WIRING THE INTERCOM AND JACKS----------

   Refer to Fig. 4, Harness Wiring, for wiring. The intercom is supplied with a pre-wired harness with connector. Each wire on the connector is identified with stamped or labeled numbers, or colors, or both. The grounding point for the intercom should be the ground used by the radio or other communications equipment.

   Recorder jacks should be installed for convenient access to a recorder. Since the two jacks are identical in size, place the jacks in a spot where the face plate legend can be read.

INSTALLATION INSTRUCTIONS
PANEL MOUNTED INTERCOMS

4. POWER CONNECTIONS----------

Primary power for the intercom is derived from the aircraft's D.C.. To protect the intercom and aircraft wiring, put a 1 to 3 amp fuse or circuit breaker in the line before the intercom. (see Fig. 4).

A 9 volt battery can be used to provide power to the intercom when the aircraft power is shut down. Install the battery clip in a location for easy battery replacement. When the aircraft power is on, the intercom will not draw power from the battery. To preserve battery life, be sure to turn the intercom off when it is not in use.

5. PUSH-TO-TALK----------

The intercom supports two separate PTT switches: pilot's and co-pilot's. The pilot's PTT switch must be installed. Use only PTT's that are SPST-NO switches, gold contacts preferred. The panel mount intercoms PTTs must be hardwired into the yoke or stick of the aircraft. The co-pilot's PTT is optional. (see Fig. 4, wiring harness).

Note: There is an internal relay on the printed circuit board to control pilot or co-pilot mic select. The pilot's mic is always connected to the radio except when the co-pilot's PTT is pressed, which energizes the relay, isolation the pilot's PTT and connecting the co-pilot's mic to the aircraft radio.

6. UNUSED WIRES----------

The wiring harness is built for a 6 place intercom. You may remove the unused wires for the 2 and 4 place installations or leave them intact. It is important that the conductors of unsued wires not touch other conductive objects. To avoid problems, make sure the conductors of those wires are not protruding from the insulation, then bend the end of the wire over on itself and put a small piece of heat shrink tubing over the small hook you just made.

7. GROUNDING----------

The wiring harness contains several ground wires. Be sure that only one point in the aircraft is grounded to prevent "ground loops". Whenever possible, use a "high" (Avionics) ground point. To eliminate static or crosstalk, do not run the power or ground leads adjacent to antenna leads, gyro's or high frequency equipment.

8. FAA REQUIREMENTS----------

A new weight and balance must be performed and logged in the POS. This new equipment being installed must be documented on a FAA form DD-337, signed by the owner and sent to the closest FSDO immediately. For experimental aircraft this is a minor alteration and just needs to be noted in the maintenance logbook. This intercom does not have a FAA TSO.

SOFTCOMM
OPERATING INSTRUCTIONS

ATC-2P, ATC-4P, ATC-6P
ATC-2PS, ATC-4PS, ATC-6PS

This procedure covers the operation of the Softcomm panel-mounted intercom. It is assumed the installation of the unit is in accordance with the installation procedures.

INTERCOM CONTROLS

There are three controls on the panel of the intercom: Squelch, Volume and Selector Switch.

VOLUME

The volume control is used to adjust the loudness of the intercom voice only. It has no effect on the aircraft radio or music source (i.e. tape player) loudness. The aircraft radio volume in the intercom is adjusted at the radio and the tape player's volume is adjusted at the tape player.

SQUELCH

The squelch level is adjustable to accommodate the aircraft noise and the mic sensitivity. If adjusted too sensitive (low), the cockpit noise will be picked by the headset mics and heard over the intercom. If adjusted too high, you may have to shout to activate the mic. When properly set, the intercom will be silent when no one is talking, and activate with a minimum of speaking effort.

SELECTOR SWITCH

The selector switch has 3 positions: ON, RADIO and OFF.

ON: **In the "ON" position, the intercom is powered and the pilot can converse with the passengers as well as over the radio. Only the pilot's or copilot's mic is capable of transmitting over the radio.**

RADIO: **The "RADIO" position isolates the pilot's headphones from the passengers to allow him/her to concentrate on radio communications. The intercom is still operative, the passengers can hear the pilot and aircraft radios, converse and enjoy music.**

OFF: **The "OFF" position removes power from the intercom and connects the pilot's headset directly to the radio. (FAIL SAFE)**

PUSH TO TALK (PTT)

At least 1 PTT must be connected (pilot). Internal switching will give either the pilot or copilot access to the radio depending on which PTT is pressed. The copilot's PTT must be connected to the intercom for copilot transmission. If both are pressed, the copilot will have priority access.

RECORDER (music)

RECORD OUT: The "record out" jack is used to record the intercom and radio transactions of the pilot, whether in "radio" or "intercom" mode.

RECORD IN: The "record in" jack can be used to provide music from a cassette or CD player. It could also be used to provide taped information for sightseeing, etc. Remember, the volume is controlled at the recorder or player.

MUTING

There are automatic muting circuits in the intercom to allow the aircraft radio to be heard over the recorder (music). When information is detected coming from the radio, the volume of the recorder is reduced, letting the radio be clearly heard. The muting circuit also allows the conversation to be heard louder than the recorder by reducing the recorder volume when conversations are taking place. These circuits are not adjustable.

STEREO USERS ONLY !

If you have a stereo intercom, you should only use stereo headsets. If you must use a mono headset (one black ring on phone plug), do not insert the earphone plug (the larger of the two) all the way. Insert the plug only until the first "click" (ring), which will leave about one quarter inch of the sleeve exposed

FAILSAFE

Failsafe mode is when the pilot's headset is connected directly to the aircraft radio. This mode would allow the pilot to use the Aircraft radio with the headset even if a problem occurred in the intercom or power supplying the intercom. Failsafe mode can be manually selected by setting the selector switch in the RADIO or OFF positions or is automatically selected when the intercom loses power.

AUXILIARY POWER

If the 9 volt battery is installed, it will supply intercom power to permit intercom operation when aircraft power is off (pre-flight checkout etc.). To conserve the battery, turn the intercom off when not in use.

INTERCOM SPECIFICATIONS

Primary Power	**12/24 VDC @ 65mA**
Auxiliary Power	**9V Battery**
Stereo Separation	**30 dB**
Power Output per Channel	**.5 Watt**
Distortion (Recorder in)	**.5% max**
Frequency Response	**50 to 15000 Hz**
Signal to Noise Ration	**70 dB or greater**
Dimensions with connector	**6"(deep) x 2.6" x 1.02"**
Weight	**5 oz.**