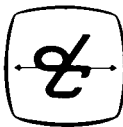
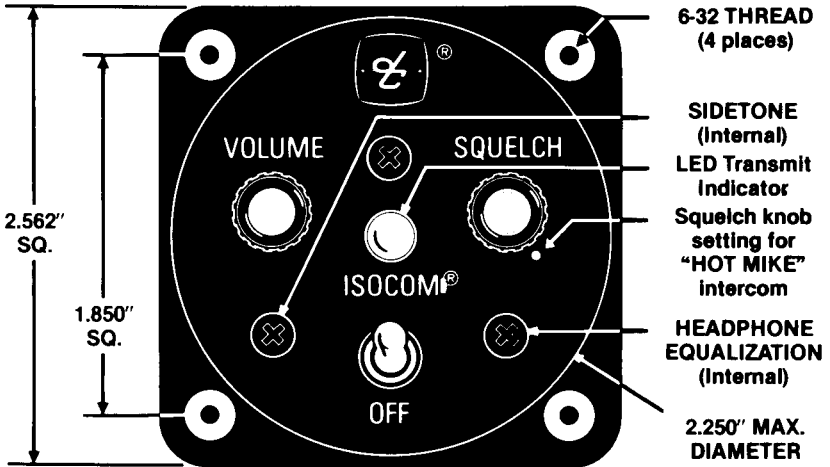


* ISOCOM[®]

VOICE ACTIVATED INTERCOM

OPERATION-INSTALLATION MANUAL



David Clark COMPANY
INCORPORATED
360 Franklin Street
Box 15054
Worcester, MA 01615-0054
Tel. 508-756-6216 Telex 920482 Fax 508-753-5827

LIMITED ONE YEAR WARRANTY

David Clark Company Incorporated, 360 Franklin Street, P.O. Box 15054, Worcester, MA 01615-0054, warrants to the user who originally purchased the equipment, to be free from defects in material and workmanship under normal and proper use, for the period of one year from the date of original purchase, and agrees, at its option, to repair or replace such parts showing factory defects, subject to the following provisions:

If a defective product or part cannot reasonably be repaired or replaced, David Clark Company Incorporated will refund its purchase price. This warranty applies only to a new product which has been sold through authorized channels of distribution. The purchaser voids the warranty if he or others not authorized by David Clark Company Incorporated attempt to repair or service the unit, or if any parts not supplied by David Clark Company Incorporated are inserted in the unit. Defective products or parts must be delivered prepaid.

THE FOREGOING IS YOUR SOLE REMEDY FOR FAILURE IN SERVICE OR DEFECT, DAVID CLARK COMPANY INCORPORATED SHALL NOT BE LIABLE UNDER THIS OR ANY IMPLIED WARRANTY FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES. This warranty is in lieu of all other warranties, express or implied, INCLUDING THE WARRANTY OF MERCHANTABILITY OR FITNESS FOR USE, WHICH WARRANTIES ARE HEREBY EXCLUDED. To the extent that this exclusion is not legally enforceable, the duration of implied warranties shall be limited to one year from the date of purchase. No suit for breach of express or implied warranty may be brought after one year from date of purchase.

Some states do not allow limitations on how long an implied warranty lasts, and some states do not allow the exclusion or limitation of incidental or consequential damages and the exclusion of implied warranties may not be legally enforceable, so the above limitations or exclusions may not apply to you. This warranty gives you specific legal rights and you may have other rights which vary from state to state.

TECHNICAL SPECIFICATIONS

Weight: 0.7 lbs.

Dimensions: 2.562" × 2.562" × 6.125" with rear connector

Power Requirements: 11 - 32 VDC, 250 ma. max.

Temperature Range: -15°F to +150°F

Total Headsets: 6 @ 600 ohms nominal

Total Output Power: 90 mw

Lamp Current: 14V @ 120 ma., or 28V @ 60ma.

OPERATION

Turn the **ISOCOM** on with the squelch control fully clockwise and adjust volume for desired intercom conversation level. Background noise between conversation periods can be eliminated by slowly turning the squelch control counter-clockwise.

Radio headphone volume is adjusted by its own control and not effected by the **ISOCOM** volume control.

Transmission is done normally - by depressing the Push-to-Talkswitch of the pilot or co-pilot, or by using the hand microphone.

The **ISOCOM** provides pilot transmit priority over the co-pilot, yet does not affect the operation of the aircraft hand microphone.

OWNER RECORD

ISOCOM SERIAL NUMBER

INSTALLING AGENCY

Install Date _____

A / C Type _____

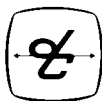
A / C N # _____

Dealer Signature

X _____

SERVICE INFORMATION:

Return Goods Authorization must be obtained prior to the return of the ISOCOM by calling or writing:



David Clark COMPANY
INCORPORATED

360 Franklin Street
Box 15054

Worcester, MA 01615-0054

Tel. 508-756-6216 Telex 920482 Fax 508-753-5827

INSTALLATION

- **Installation Kit:** PART NO. 18525G-01. Molex connector parts; body, key, 18 crimp pins, 2 each 4-40 mounting screws. **ISOCOM** mounting screws, 4 each 6-32.
- **Mounting:** 2.250 inch diameter clearance hole with 7 inches minimum clearance in back.
- **Wiring:** Shielded cable for microphone audio lines, grounding as shown, wire size #24AWG minimum.
- **Jacks Location:** Right, left and center. Original aircraft hand microphone and phone jacks left intact.
- **Electrical Protection:** 1 amp circuit breaker or slo-blo fuse.
- **Push-to-Talk**—Single-pole momentary contact switch.

POST INSTALLATION

- **Sidetone:** To provide transmit sidetone, when not available from present radios, remove front screw (see front page), adjust level with small flat bladed screwdriver. Sidetone is off (CCW) as shipped from David Clark Co. Inc. In installations where both radio and **ISOCOM** sidetones are available **only one** should be used.
- **Headphone Equalization:** Set a radio signal to a comfortable headphone level with **ISOCOM** "off". Turn **ISOCOM** "on". If "on/off" volumes are different, remove front screw (see front page), adjust "on" volume with small flat bladed screwdriver. Equalization adjustment should be made with the typical number of headsets connected.

ISOCOM WARRANTY REGISTRATION

ISOCOM SERIAL NUMBER

INSTALLING AGENCY

Install Date _____

A/C Type _____

A/C N # _____

Dealer Signature

X _____

Registered Owner _____

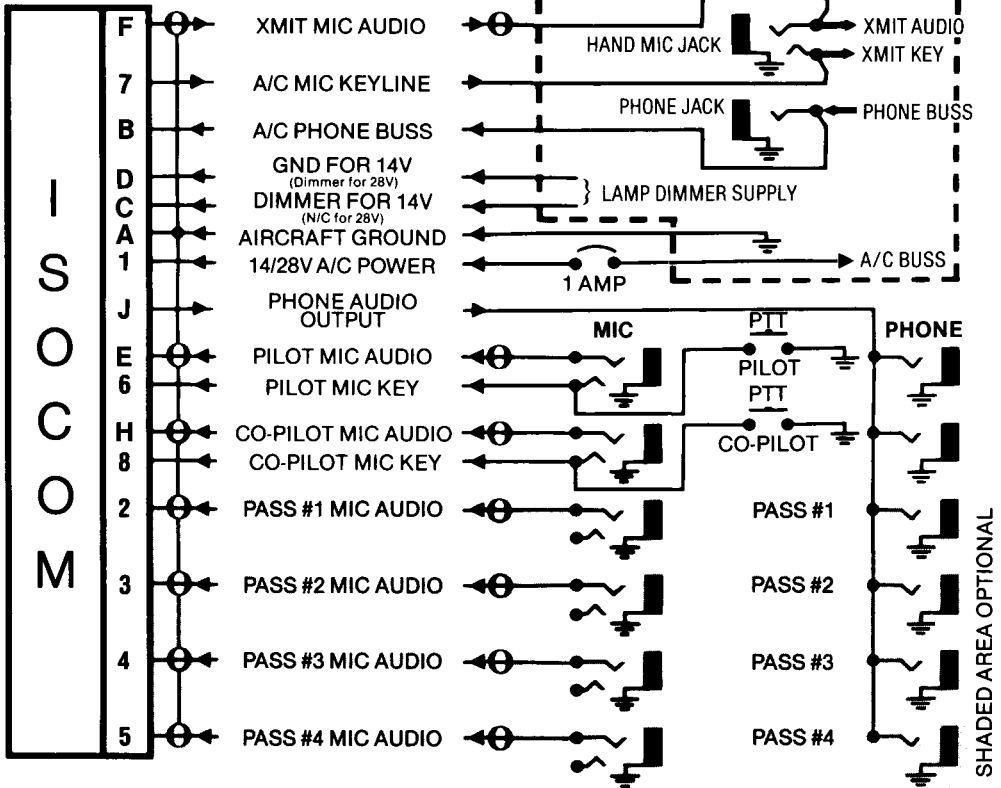
Address _____

City _____ State _____ Zip _____

Remarks: _____

ISOCOM INSTALLATION DIAGRAM

Refer to Block Diagram and Schematic



NO POSTAGE
NECESSARY
IF MAILED
IN THE
UNITED STATES

BUSINESS REPLY CARD

FIRST CLASS PERMIT NO. 522 WORCESTER, MA

POSTAGE WILL BE PAID BY ADDRESSEE

DAVID CLARK COMPANY INCORPORATED

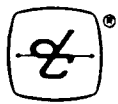
Attn: Warranty Dept.

360 FRANKLIN STREET

BOX 15054

WORCESTER, MA 01615-9972





David Clark COMPANY
INCORPORATED

360 FRANKLIN STREET, BOX 15054, WORCESTER, MA 01615-0054, TEL. 508-756-6216 TELEX 920482 FAX 508-753-5827

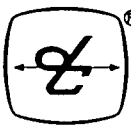
ISOCOM® INSTALLATION SUGGESTION

Some installations, where "alternator whine" is excessive, can be significantly improved by using the single-point ground technique. The theory being not to include alternator-whine air-frame currents with microphone signal currents. Single-point grounding for the ISOCOM system can more closely be accomplished by:

1. Insulating the pilot's, co-pilot's and passengers' microphone and phone jacks from air-frame ground at their respective locations.
2. Running separate ground wires from each jack to pin (A) of the ISOCOM.
3. Connecting pin (A) of the ISOCOM to same ground as aircraft radios.

ATTENTION

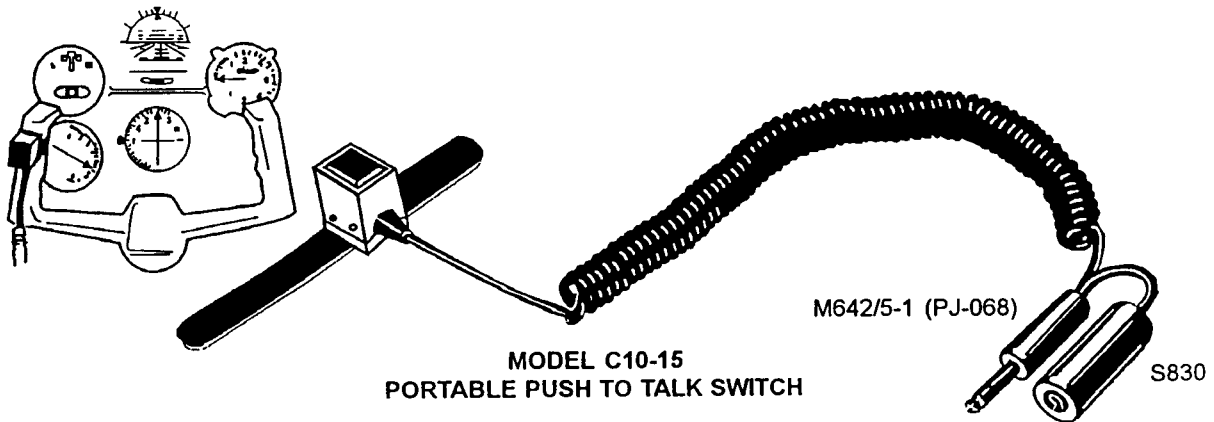
Some aircraft may have a pilot/co-pilot microphone isolation relay system, which should be removed when installing an ISOCOM system. (The ISOCOM provides microphone isolation.) If the installer chooses not to remove the existing relay system, the relays must have protective diodes across their terminals. Unprotected relays can cause damage to the ISOCOM, and other aircraft equipment.



No soldering, wiring or tools required for installation. To securely fasten the switch assembly to the control yoke, the following steps should be taken:

1. Position the switch on the inner portion of the yoke or in the most convenient location.
2. Wrap the fabric (pile) side of the back strap around the yoke as tightly as possible.
3. Fold the hook side of the back strap over the pile. For yokes having a very thin cross-section, it may be necessary to shorten the back by scissor trimming the required amount from each side.
4. Connect the M642/5-1 (PJ-068) plug to the microphone jack of the aircraft communications equipment.
5. Connect the headset microphone plug to the S830 jack on the "Y" portion of the cord.
6. Check operation by calling the tower.

NOTE: If communications become intermittent or scratchy it may indicate a need to clean the brass parts of the plugs with fine steel wool. Be sure to wipe off any steel wool particles before reinserting the plugs.



Specifications

Switch Type: 2 each SPST momentary, normally open contacts.
Voltage: Designed for 6 volt to 28 volt circuits.
Current: Will handle up to 1/2 amps, resistive load safely.
Plug: .206" diameter, three circuit (switch to microphone jack).
Jack: .206" inside diameter, three circuit (microphone to switch).
Cordage: Coiled, extends to over five feet.
Strap: Hook and pile type fits yokes from 1/2" to over 1" in diameter.
Weight: 107 grams - 3.7 oz.

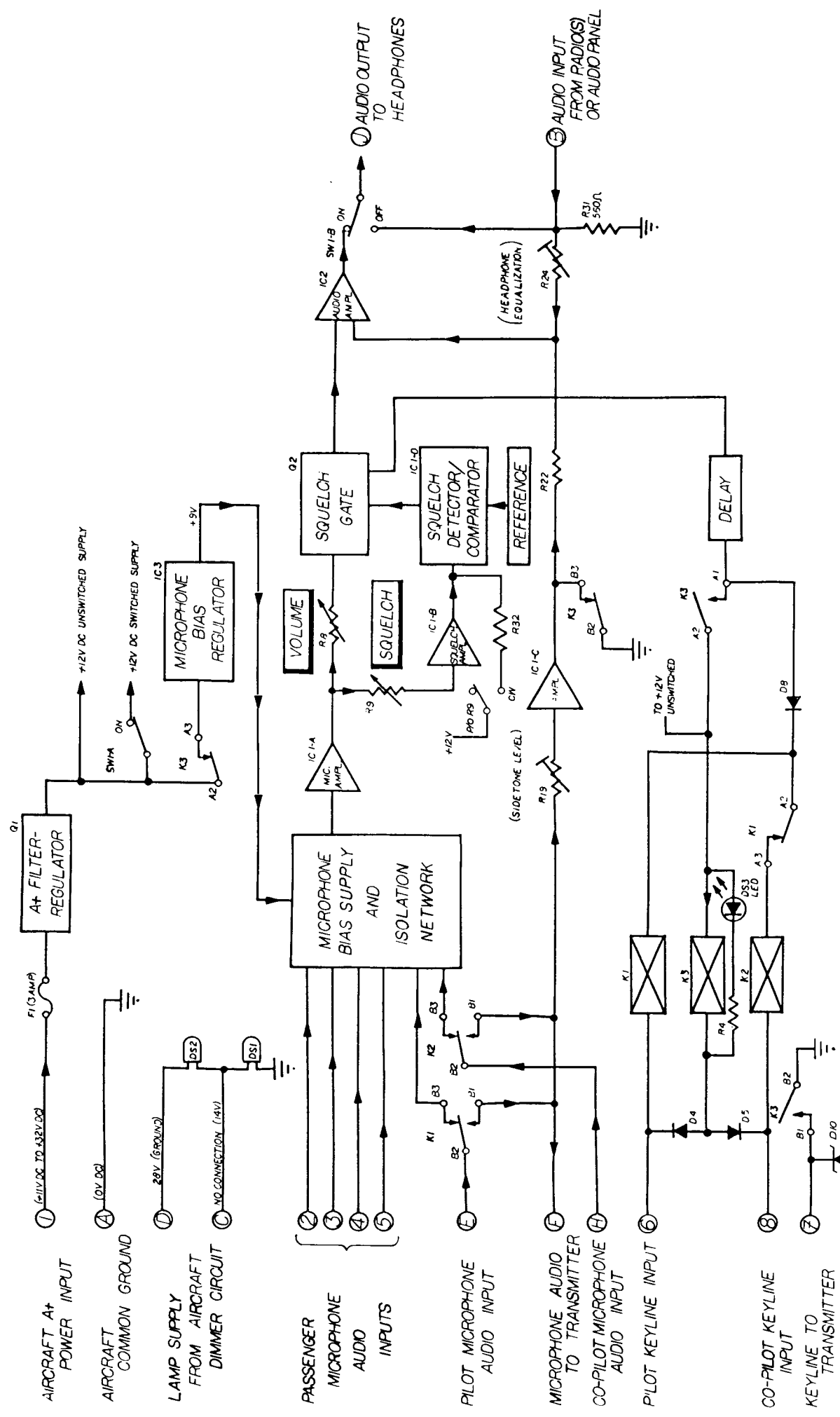
NOTE

Push-To-Talk Switch Usage With Intercom Systems

Push-To-Talk Switches, including the David Clark Company Incorporated Model C10-15, have two normally open switch contact sets; one set to key the transmitter, the other set to close the microphone to the transmitter microphone-audio circuit. The intent of the normally open microphone contact set is to provide isolation (eliminate loading effects) between the pilot's and co-pilot's microphones during transmissions. However, unless modified, it is not possible to use the Push-To-Talk Switch with an intercom system, because no microphone connection is made during non-transmission periods. The C10-15 can be modified by connecting the two joined black wires to the red wire within the M642/5-1 microphone plug. After modification, the microphone circuits will operate normally with the intercom.

| REV. NO. | DATE | APPROVED |
|----------|------|----------|
| | | |

| SYM | DESCRIPTION |
|-----|-------------|
| | |



| | |
|---|----------------------------------|
| CREATED BY R.M. | DATE 16 SEPT. 83 |
| CHECKED BY R.S. | DATE 10 SEPT. 83 |
| ENG. APPROVAL J.B. | DATE 16 SEPT. 83 |
| DAVID CLARK CO., INC. WORCESTER, MASS. | |
| BLOCK DIAGRAM | |
| ISOCOM® | |
| CODE IDENT. NO. 71483 | SIZE |
| CONTRACT NO. | DRAWING NO. 19503 P-77 |
| SCALE NONE | REV. |

- NOTES**
- RELAYS SHOWN NON-ENERGIZED. SWITCH SHOWN IN "ON" POSITION.
 - LAMP WIRING
 - 28V AIRCRAFT: 28V DIMMER SUPPLY TO PIN①, PIN② NOT CONNECTED
 - 14V AIRCRAFT: GROUND PIN①, 14V DIMMER SUPPLY TO PIN③

