

Headset



U. S. Department  
of Transportation

**Federal Aviation  
Administration**

Small Airplane Directorate  
Chicago Aircraft Certification Office  
2300 E. Devon Avenue  
Des Plaines, IL. 60018

October 16, 2007

Mr. Allen Abell  
Quality Engineering Manager  
Otto Controls Division  
10 West Main Street  
Carpentersville, IL 60110

Dear Mr. Abell:

This is in response to your letter, dated August 28, 2007, requesting Technical Standard Order (TSO) authorization for a headset, Part Number AV6-10000-( ). The Statement of Conformance to TSO-C50c and the data submitted are accepted. Effective this date, you are authorized to identify the following headset, Part Numbers AV6-10000-( ) with the marking requirements defined in 14 Code of Federal Regulations (CFR) Section 21.607(d) and in TSO-C50c.

Your Quality Control System as defined in Otto Control Quality & Repair Station Manual, Rev. AE, dated January 18, 2007, is considered satisfactory for production of this equipment at your Carpentersville, Illinois, manufacturing facility.

The following statement must be furnished with each manufactured unit:

“The conditions and tests required for TSO approval are minimum performance standards. It is the responsibility of those installing this article either on or within a specific type or class of aircraft to determine that the aircraft installation conditions are within the TSO standards. TSO articles must have separate approval for installation in an aircraft. The article may be installed only if performed under 14 CFR part 43 or the applicable airworthiness requirements.”

The following submitted data, (except Item b-1) will be retained in our files:

- a. Statement of Conformance in your letter dated 08/28/07,
- b. OTTO Operation Instructions,
- c. OTTO Equipment Limitations,

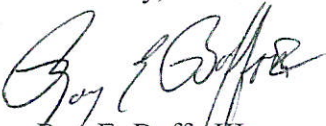
- d. OTTO Installation Procedures,
- e. OTTO Schematic Drawings,
- f. OTTO Wiring Diagrams,
- g. OTTO Specifications
- h. OTTO Equipment Calibration and Maintenance Procedures
- i. OTTO List of Major Components
- j. OTTO Complete drawing List
- k. OTTO Functional Test Specification
- l. OTTO Copy of Nameplate Drawing
- m. OTTO TSO Qualification Test Report

Any design change to this TSO article must be forwarded to this office as outlined in 14 CFR § 21.611 with minor change submittal intervals not to exceed six months. Also, as recipient of this authorization, you are required to report any failure, malfunction, or defect relating to this authorization in accordance with the provisions of 14 CFR § 21.3.

This authorization is not transferable to another person or location and is effective until surrendered, withdrawn, or otherwise terminated by the Administrator.

If you have any questions regarding this authorization, contact me at (847) 294-7564.

Sincerely,



Roy E. Boffo III  
Sr. Systems Engineer  
Systems & Flight Test Branch

Enclosures



| REV | QCN     | DATE      | APP |
|-----|---------|-----------|-----|
| A   | 03B314  | 20 JUL 07 | BC  |
| B   | 1400235 | 06 NOV 07 | PM  |

(E)

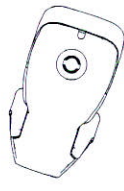
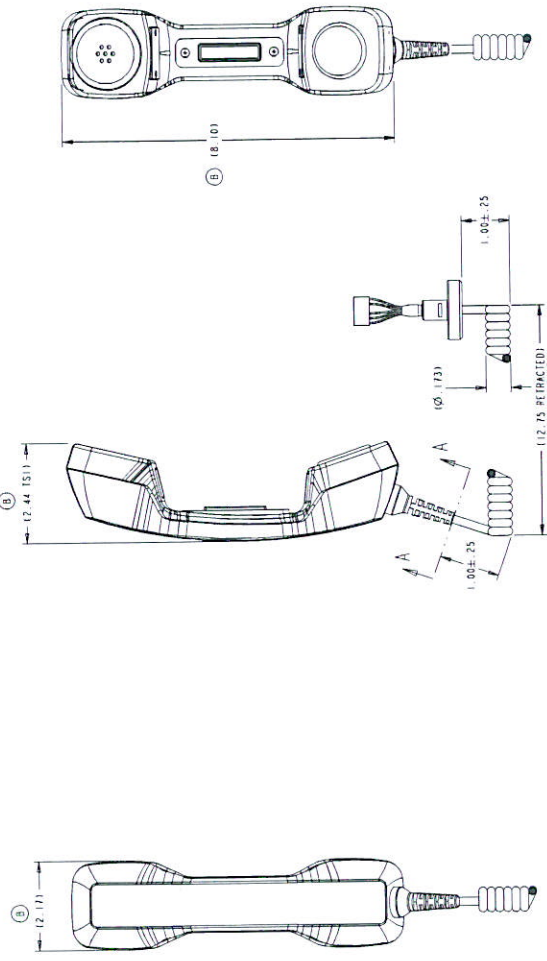
- NOTES:
- THIS PART PRODUCT IS TO BE MANUFACTURED WITH THE MIL-CABLE REGULATIONS OF LC DIRECTIVES 2002/95/EC AND 2002/96/EC. RESTRICTION OF THE USE OF HAZARDOUS SUBSTANCES IN ELECTRICAL AND ELECTRONIC EQUIPMENT (ROHS) AND WASTE IN ELECTRICAL AND ELECTRONIC EQUIPMENT (WEEE).

| PARAMETERS                       | UNITS                   | MIN   | TYP   | MAX |
|----------------------------------|-------------------------|-------|-------|-----|
| <b>ELECTRICAL SPECIFICATIONS</b> |                         |       |       |     |
| MICROPHONE                       | 94 dB SPL @ 1KHZ - 3KHZ | -2.7K | BIAS  |     |
| IMMUNITY                         | 1500mV                  | -4.1  |       |     |
| CURRENT DRAIN                    | @ -47                   | -4.3  | -39   |     |
| FREQUENCY RANGE                  | 17                      | 50    | 10000 |     |
| SPEAKER                          | V                       | 1.2   | 20    |     |

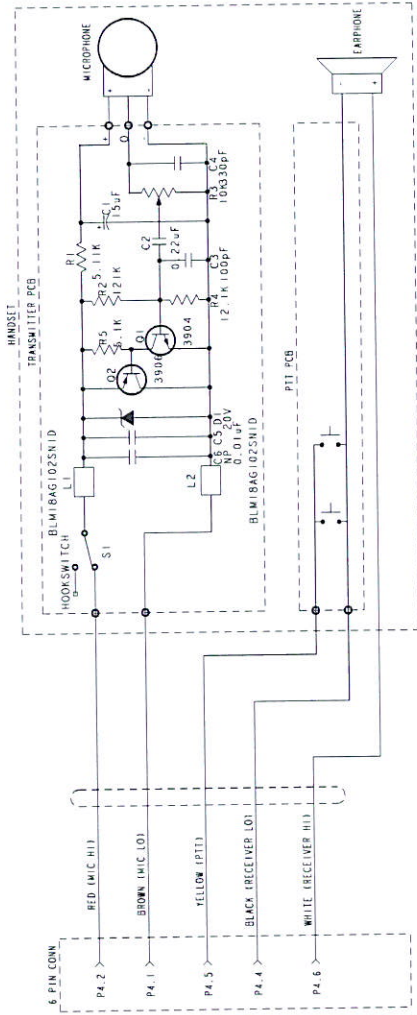
| TEST EQUIPMENT:                                  |                                 |       |     |
|--|---------------------------------|-------|-----|
| BAY 4128 HEAD & TORQUE                           |                                 |       |     |
| HEAD WITH TUBE AND 30" ADAPTER,                  |                                 |       |     |
| NO TIP   |                                 |       |     |
| <b>Mechanical Specifications:</b>                |                                 |       |     |
| INTERFERENCE @ 1KHZ                              | 0.02dB                          |       |     |
| SPL @ 1000-SPL @ 3                               | 150                             |       |     |
| DISTORTION @ 500W                                | THD < 10%                       |       |     |
| PTC SWITCH                                       | 15                              |       |     |
| <b>Electrical Specifications:</b>                |                                 |       |     |
| RATING @ 12 VDC                                  | mA                              | 10    |     |
| BATTERY  | 50                              |       |     |
| <b>Mechanical Specifications:</b>                |                                 |       |     |
| CABLE PULL FROM HANDSET, ARIAL                   | LIBS.                           | 20    |     |
| CABLE PULL FROM CABLE FEES AT HANDSET (2 LB WT.) | LIBS.                           | 20    |     |
| CABLE TELY AT CABLE FEES AT HANDSET (2 LB WT.)   | CYCLES                          | 60000 |     |
| ENVIRONMENTAL SPECIFICATIONS:                    |                                 |       |     |
| OPERATING TEMP                                   | °C                              | -40   | +55 |
| STORAGE TEMP                                     | °C                              | -55   | +85 |
| TEMP VARIATION                                   | PER RICA/JDD-140E PARA. 5.3.1   |       |     |
| ALTITUDE   | PER RICA/JDD-140E PARA. 4.6.1   |       |     |
| DECOMPRESSION                                    | PER RICA/JDD-140E PARA. 4.6.2   |       |     |
| OVERPRESSURE                                     | PER RICA/JDD-140E PARA. 4.6.3   |       |     |
| HUMIDITY   | PER RICA/JDD-140E PARA. 6.3.2   |       |     |
| OPERATIONAL SHOCK                                | PER RICA/JDD-140E PARA. 7.2     |       |     |
| VIBRATION  | PER RICA/JDD-140E PARA. 6.2.1.1 |       |     |
| CRASH SAFETY                                     | PER RICA/JDD-140E PARA. 6.3     |       |     |
| TONGUS RESISTANCE                                | PER RICA/JDD-140E SEC. 13       |       |     |

(B)

PACKAGING:  
EACH HANDSET, COIL CORD, ASSEMBLY, SCREWDRIVER AND USER'S MANUAL TO BE SEALED IN AN INDIVIDUAL BUBBLE WRAP, WRAPPED WITH BUBBLE WRAP, PACKED INSIDE 101816 BOX AND SEALED.



AUXILIARY VIEW A



CONTROLLED DRAWING  
THIS ITEM IS NOT INTENDED TO BE IN COMPLIANCE WITH THE REQUIREMENTS OF WEEE AND ROHS

FAA CONTROLLED DRAWING  
NO CHANGES TO SPECIFICATIONS, PROCESSES, PROCEDURES, MATERIAL, DESIGN OR MANUFACTURING LOCATION WITHOUT PRIOR APPROVAL OF THE FAA

|   |               |  |               |
|---|---------------|--|---------------|
| UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES. |               | DESCRIPTION                                  |               |
| TOLERANCES ARE:                                       |               | AV6, AVIATION HANDSET WITH COILCORD ASSEMBLY |               |
| FRACTIONAL  | ± .010        | DRAWING NO.                                  | AV6-10000-B1  |
| DECIMAL   | ± .010        | SIZE   | 2 1/2 X 3 1/2 |
| ANGLE   | ± .010        | SCALE  | 1:1           |
| SPACINGS  | AS NOTED      | REV.   | B             |
| ▲   | ENCLOSURE     | REV.   | B             |
| ■   | MANUFACTURING | REV.   | B             |
| ▲   | SPC           | REV.   | B             |

**OTTO**  
CAPPERSVILLE, ILLINOIS USA

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Scale 1:1 Sheet 1 of 1

