CANCELLED

ACCESSORY KIT

Title  CESSNA DME 300 INSTALLATION KIT (14 & 28-V AIRCRAFT)

MODELS AFFECTED  SERIALS AFFECTED

See Notes.

NOTES

1. This kit is used to install AK205-89 Basic Electronics kit in any aircraft having sufficient panel space for the addition. However, the installation data (hole locations, dimensions, etc) given in this kit is for 1967 model-year aircraft for which Cessna has designed and offered a factory installation. On aircraft other than 1967 year models or those not having factory installations available, the installation details will be left to the discretion of the installer.

2. Forced air cooling for the Cessna DME 300 is MANDATORY. A standard 300 Series Radio Cooling Kit is sufficient if the radio will be mounted in the center stack with other 300 Series radios. If a right hand installation is contemplated, order the following additional cooling parts to supplement the 300 Series radio cooling kit.

   1 ea 150-0038-00 Duct
   1 ea 0700729-1 Tee
   2 ea NAS997-14 Clamp

See Accessory Kits Catalog for applicable cooling kit numbers.

3. An audio selector switch is required and may be ordered separately for the model affected.

   Model 172, 180 & 185 order an S382-3 Switch
   Models 182, 200 Series, 337 Series, order an S1695-1 Switch

   See Electronics Installations Manual for wiring diagrams.

4. The following parts are not supplied any may be ordered separately if needed. Refer to Accessory Kit Catalog and/or Electronics Installations Manual for applicable kit or part numbers.

   a. Magneto Noise Filter Kit
   b. Headset jack and wiring
   c. Radio lights rehostat

PARTS LIST:

<table>
<thead>
<tr>
<th>QUANTITY</th>
<th>PART NUMBER</th>
<th>NOMENCLATURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>030-2043-00</td>
<td>8-pin Jones Connector</td>
</tr>
<tr>
<td>1</td>
<td>030-0020-01</td>
<td>Antenna Connector</td>
</tr>
<tr>
<td>1</td>
<td>030-0024-00</td>
<td>Antenna Connector - Rt. Angle</td>
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<tr>
<td>1</td>
<td>024-0001-00</td>
<td>Cable, Coax, RG-8/U, 10 ft.</td>
</tr>
<tr>
<td>3'</td>
<td>S1460-22-6</td>
<td>Wire, 22 ga, blue</td>
</tr>
<tr>
<td>3'</td>
<td>S1460-16-2</td>
<td>Wire, 18 ga, red</td>
</tr>
<tr>
<td>3'</td>
<td>S1460-18-4</td>
<td>Wire, 18 ga, yellow</td>
</tr>
</tbody>
</table>
CHANGE IN WEIGHT AND BALANCE: (1967 Models & On)

MODEL       172       180, 182       206 Series       337 Series
WEIGHT INCREASE (lbs)  9.7       9.7       9.7       9.7
ARM (inches)    18.5      20.4      23.0      90.4
RESULTANT MOMENT (lb-ins)  178      198      226      876
INDEX (lb-ins/1000)  .178      .198      .226      .876

1. DESCRIPTION OF INSTALLATION.

Installation of this kit consists of:

a. Interconnection of Wiring.

b. Installation of Antenna.

c. Installation of Panel Unit.

2. INSTALLATION INSTRUCTIONS.

a. Interconnection of Wiring (See figure 1).

(1) Disassemble connector (1) and solder wires (2) to terminals as shown.

(2) Prepare receiver transmitter per notes 1 thru 3, figure 1. Units are shipped in a 14-volt configuration. If a 28-volt unit is required, remove 5 amp fuse from fuseholder on power supply and install a 3 amp fuse (provided). Remove existing bulbs from sockets behind panel and replace with #327 bulbs (provided). Reposition voltage change over switch in receiver transmitter to the "28-VOLT" Position.

(3) Install circuit breaker (3), terminate red wire from DME 300 in an S1687-2-8 terminal (4) and attach to breaker.

(4) Terminate black wire from DME 300 in an S1687-8 terminal (3) and ground under a convenient existing screw near the panel unit location.

(5) Install the audio selector switch (note 3, page 1) in desired spot on instrument panel and solder blue wire from DME 300 to the "arm" of the switch. Connect opposite "contacts" to the phone jack and audio amplifier respectively. Refer to the Electronics Installations Manual for specific wiring diagrams.

(6) Connect yellow wire from DME 300 to radio dial light source.
NOTES:

1. THE DME 300 IS INTERNALLY FUSED. USE 6 AMP FUSE ON 14 VOLTS; 3 AMP SLO-BLO FUSE ON 28 VOLTS.

2. DIAL LAMPS MUST BE OF THE PROPER TYPE FOR THE OPERATING VOLTAGE. USE TYPE 330 FOR 14 VOLTS; TYPE 327 FOR 28 VOLTS.

3. INTERNAL VOLTAGE SELECT SWITCH MUST BE POSITIONED FOR THE DESIRED OPERATING VOLTAGE.

4. GROUND CONNECTION MUST BE MADE TO BRIGHT, CLEAN METAL ON AIRCRAFT AIRFRAME.

Figure 1. Wiring Diagram, Cessna DME 300
NOTE

A receiver suppression pulse for transponder equipment is available from pin 4 of the transmitter-receiver plug. Refer to transponder manufacturer's instructions for the use of this feature.

b. Installation of Antenna. (See figures 2 & 4.)

NOTE

Installation locations shown are those recommended for 1967 model aircraft and on. Prior years may have different structure or the recommended space may already be occupied. In this event, the antenna may be located by the installer if care is taken to insure the following conditions:

(a) The antenna is mounted on the aircraft bottom skin so that it points straight down when in level flight.

(b) The antenna should be mounted clear of propellers, landing gear, and other antennas.

(c) Neither the antenna or its cable shall interfere with the operation of landing gear systems or the aircraft's controls.

(1) Locate and drill holes (5) & (9). Install rivnuts (5). Install antenna (8) with screws (7).

(2) Prepare one end of antenna cable by installing connector (1) on cable (2) per figure 3.

(3) Attach connector to antenna and route cable to panel by way of standard wire routing in aircraft. Use larger clamps as required.

(4) Cut cable to length required and install connector (3, figure 3).

c. Installation of Panel Unit. (See figure 2.)

(1) Locate and drill holes (1) in mounting rails as shown.

NOTE

A right hand installation may be made in all models except Model 150. All models, except 150, have a cutout, on the right side, under the plastic cover on the instrument panel. Models 337 Series will require locally fabricated side mounting angles which are made from S-110 aluminum angle (provided).

(2) Install dust cover from Receiver-transmitter unit (2) using screws (1).

NOTE

Radio cooling per note 2, page 1, is mandatory and should be installed at this time.

(3) Install Receiver-transmitter unit in dust cover and attach cable assemblies.

3. ADJUSTMENT PROCEDURES.

a. A flight test of the DME 300 is recommended. Refer to the 300 Series Service/Parts Manual if difficulty is encountered.
Figure 2. DME 300 Installation
FABRICATION OF ANTENNA-CABLE

Step 1. Prepare one end of cable by stripping off 1/2" of outer jacket, combing shield wires out straight, and stripping off 1/4" of inner insulation.

Step 2. Taper shield wires as shown and slide nut, gasket, and clamp over the end of the cable in the order and position shown.

Step 3. Flare shield wires out and trim off excess length. Note that only the flat face of the clamp applies pressure to the shield wires in the assembled connector. Therefore, the shield wires need not extend very far past the face of the clamp.

Step 4. Solder the contact pin to the inner conductor and trim away excess solder. Insert cable into connector body and tighten nut with a wrench. Note that considerable pressure is required to assure proper assembly of the connector as the clamp must split the gasket into two pieces as the nut is tightened. It is almost impossible to tighten the nut too tight.

Step 5. Cut cable to desired length and repeat steps 1 thru 4 on the other end using the other connector.

Figure 3. Fabrication of Antenna Cable
Figure 4. Antenna Location Details