Title
CESSNA 300 SERIES RADIO INSTALLATION KIT
(INCLUDES NAV/COM 300R & TRANSCEIVER 300)

MODELS AFFECTED
All Single Engine Models

SERIALS AFFECTED
All

NOTES

1. This kit is used to install one of the following basic electronic kits for a complete radio installation:
   a. AK205-88 Nav/Com 300R (90 Channels) (Type 517R)
   b. AK205-76 Nav/Com 300R (360 Channels) (Type 515R-1)
   c. AK205-56 Transceiver 300
   d. AK205-92 Nav/Com 300R (360 Channels) (Type 515R)

2. The following parts are not included in this kit and may be needed to complete the installation. Refer to the Accessory Kits Catalog (Alphabetical Index) and/or the Electronics Installations Manual to determine applicability or need:
   a. RADIO COOLING KIT
   b. OMNI ANTENNA KIT (Nav/Com 300R Only)
   c. VHF ANTENNA KIT
   d. TRANSMITTER AND AUDIO SELECTOR SWITCH KIT
   e. MAGNETO FILTER KIT
   f. RADIO LIGHTS RHEOSTAT
   g. MICROPHONE: C596502
   h. HEADSET: 0770039-1
   i. MICROPHONE AND HEADSET JACKS and wiring provisions.
   j. SPEAKER
   k. OMNI ANTENNA TEE CABLE ASSEMBLY: 0570400-206 (Used with dual omni receivers)
   l. OMNI SELECT SWITCH (Needed when dual omnis are used with autopilot)

3. When installing this kit in an early model aircraft which is not illustrated in the following figures, installation may be accomplished in a similar manner. Special attaching hardware will have to be fabricated by the installer as required.

PARTS LIST:

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CHANGE IN WEIGHT AND BALANCE: Includes basic and installation kits

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1. DESCRIPTION OF INSTALLATION.

Installation of this kit consists of:

a. Installation of Audio Wiring.

b. Installation of Power Wiring.

c. Connection of Antenna Cables.

d. Installation of Panel Units.
NAV/COM 300R
(TYPES 515R, 517R & 515R-1)

Figure 1. Wiring Diagram, Radio Cable Assembly (Sheet 1 of 2)
Figure 1. Wiring Diagram, Radio Cable Assembly (Sheet 2 of 2)
Figure 2. Wiring Diagram, Audio Connections for Single Radio Installation

Figure 3. Wiring Diagram, Audio Connections for a Single Transceiver and Multiple Receivers
Figure 4. Antenna Cable Connections

Figure 5. Aircraft Audio and Dial Lighting Equipment

Components in this figure are standard in most Cessna aircraft models. The need for ordering these components will be determined on an individual airplane basis.
c. Connection of Antenna Cables (See figure 4).
   
   (1) If installing a Transceiver 300, attach VHF antenna cable (2) to coax connector on dust cover back plate as shown.

   (2) If installing a Nav/Com 300 or Nav/Com 300R, attach VHF antenna cable (2) and OMNI antenna cable (1) to connectors on dust cover back plate as shown.

   (3) If installing a second omni receiver, attach omni tee cable assembly (3) to omni antenna cable and attach legs of tee cable assembly to omni receiver antenna inputs.

   d. Installation of Panel Units (See figure 6).

   NAV/COM 300R ONLY

   (1) Install indicator (8) in desired location on instrument panel with hardware specified.

   ALL "FIRST" RADIOS

   (2) Locate and drill holes (4) in radio mounting angles as shown.

   (3) Install back plate on dust cover and install dust cover in radio stack space using screws and nuts (4) and support straps and hardware (1 & 2) as applicable.

   (4) Trim plastic radio stack cover to accommodate radio(s) installed. Replace cover and install transceiver unit (5) in dust cover.

   ALL "SECOND" RADIOS

   (5) Locate and drill holes (4) in radio mounting angles as shown.

   (6) Install back plate on dust cover and install dust cover in radio stack space using screws and nuts (4) and support straps (3) when applicable.

   (7) Trim plastic radio stack cover to accommodate radio(s) installed. Replace cover and install transceiver unit (5) in dust cover.

3. ADJUSTMENT PROCEDURE

   a. All radios should be flight tested after installation. If adjustment is required refer to Cessna 300 Series Electronics Service/Parts Manual for instructions.
**MODELS 150 & F150**

1. SCREW AND SUPPORT ASSEMBLY (REMOVE AND DISCARD IF PRESENT)

2. 11/64 (.171) HOLE
   S1022Z8-8 SCREW
   NAS446-4-3 NUT
   4 EACH REQD

3. 1270465-3 SUPPORT
   1 REQD
   S1022Z8-8 SCREW
   NAS395-16-3 NUT
   2 EACH REQD

* SUPPLIED IN BASIC ELECTRONICS KIT
  (SEE NOTE 1, PAGE 1)

5. RECEIVER-TRANSMITTER
   1 REQD* (FIRST RADIO LOCATION)

6. RECEIVER-TRANSMITTER
   (SECOND RADIO LOCATION)

7. 31640 INDICATOR
   1 REQD* (ALTERNATE LOCATION)

8. 31640 INDICATOR
   1 REQD* AN515BR10 SCREW
   NAS467-20 NUT
   3 EACH REQD (NAV/COM 300R ONLY)
   (STANDARD LOCATION)

9. S1090-13 FUSE CAP
   S1091-15 FUSE
   1 EACH REQD

Figure 6, Installation of Panel Unit (Sheet 1 of 3)
TOP OF RADIO CUTOUT (REF)

4 11/64 (.171) HOLE
S1022Z8-8 SCREW
NAS446-4-3 NUT
4 EACH REQD

3 1270465-3 SUPPORT
1 REQD
S1022Z8-8 SCREW
NAS395-16-3 NUT
2 EACH REQD

6 S1360-5 CIRCUIT BREAKER
1 REQD

7 S1360-15 CIRCUIT BREAKER
1 REQD

8 31640 INDICATOR
1 REQD*
AN515B6R10 SCREW
NAS487-20 NUT
3 EACH REQD
(NAV/COM 300R ONLY)

TRIM PLASTIC RADIO STACK
COVER TO ACCOMODATE
RADIOS INSTALLED

5 RECEIVER-TRANSmitter
1 REQD*
(FIRST RADIO LOCATION)

5 RECEIVER-TRANSmitter
(SECOND RADIO LOCATION)

* SUPPLIED IN BASIC
ELECTRONICS KIT
(SEE NOTE 1, PAGE 1)