Title  CESSNA 300 NAV/COM - 90 CHANNEL - 14 VOLT INSTALLATION KIT (INCLUDES BASIC ELECTRONICS)

MODELS AFFECTED

150
F150
172
177
180
182
A182
A185
U206 & TU206
P206 & TP206
210
T210

SERIALS AFFECTED

15064533 & on
F150-0068 & on
17254893 & on
17700001 & on
18051775 & on
18257628 & on
A182-0057 & on
A185
185-1150 & on
U206-0057 & on
P206-0307 & on
21056819 & on
T210-0198 & on

CANCELLLED

1. This kit contains both basic electronics and the hardware necessary to install them.
2. The following parts are not included in this kit and may be needed to complete the installation. Refer to the Accessory Kits Catalog and/or the Electronics Installations Manual to determine applicability or needs:
   a. RADIO COOLING KIT
   b. OMNI ANTENNA KIT
   c. VHF ANTENNA KIT
   d. TRANSMITTER AND AUDIO SELECTOR SWITCH KIT
   e. MAGNETO FILTER KIT
   f. RADIO LIGHTS RHEOSTAT
   g. MICROPHONE: C596502
   h. HEADSET: 0776039-1
   i. MICROPHONE AND HEADSET JACKS and wiring provisions.
   j. SPEAKER
   k. OMNI ANTENNA COUPLER, Part No. ASP-547, and three UG-88C/U CONNECTORS (Needed when dual omnis are installed)
   l. OMNI SELECT SWITCH (Needed when dual omnis are used with autopilot)

FCC LICENSING DATA

Application for an aircraft radio station license for the Cessna 300 NAV/COM must be made on FCC Form 404. In response to Question No. 14 on Form 404, insert:

Manufacturer  Cessna Type No.
Aircraft Radio Corporation  CC-303A
Boonton, New Jersey, U.S.A.
(ARC Type 517R)

Complete technical information for the Cessna 300 NAV/COM is on file with the Federal Communications Commission.
PARTS LIST:

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<td>Installation Instructions</td>
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CHANGE IN WEIGHT AND BALANCE:

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<th>MODEL</th>
<th>150, F150</th>
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<th>172</th>
<th>180, 182, 185, A185</th>
<th>206 Series</th>
<th>210 Series</th>
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<td>WEIGHT INCREASE</td>
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<td>69.1 inches</td>
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<td>RESULTANT MOMENT</td>
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<td>127 lb-in.</td>
<td>131 lb-in.</td>
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<td>.148</td>
<td>.788</td>
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1. DESCRIPTION OF INSTALLATION.

a. Installation of this kit consists of:

(1) Installation of Audio Wiring.

(2) Installation of Power Wiring.

(3) Connection of Antenna Cables.

(4) Installation of Panel Units.
2. INSTALLATION INSTRUCTIONS

NOTE

In the following paragraphs on installation of wiring, the symbolism for junctions of wires is as follows: $\times$ denotes a permanent, insulated splice; $\rightarrow\leftarrow$ denotes quick disconnect; $\cdots$ denotes a terminal for stud mounting; and $\rightarrow\rightarrow$ denotes a soldered connection. Splices and quick disconnects are interchangeable for the convenience of the installer.

a. Installation of Audio Wiring.

(1) Remove back plate and cable assembly from dust cover of radio.

WHEN RADIO IS BEING INSTALLED AS THE ONLY RADIO:

(2) Refer to figures 1, 2 & 5 and connect audio wiring into aircraft audio system using permanent splices and/or quick disconnects as required.

WHEN RADIO IS BEING INSTALLED WITH OTHER RECEIVERS:

(3) Install audio selector switches (kit). Refer to figures 1, 3, 5 and switch kit instructions. Connect audio wiring into aircraft audio system using splices and/or quick disconnects as required.

WHEN RADIO IS BEING INSTALLED WITH OTHER RECEIVERS AND ANOTHER TRANSMITTER:

(4) Install audio and transmitter selector switches (kit). Refer to figures 1, 5 and switch kit instructions. Connect audio wiring into aircraft audio system using splices and/or quick disconnects as required.

b. Installation of Power Wiring (See figures 1 & 6).

AIRCRAFT MODELS USING FUSES:

(1) Install 15 amp fuse (9, figure 6) and appropriately marked fuse cap in an unused "RADIO" fuse holder.

(2) Connect red (radio power) wire to load terminal of fuse holder.

(3) If the audio amplifier in the radio being installed is to be used as an isolation amplifier, connect red/wht (amplifier power) wire to the "NAV LIGHTS" fuse.

(4) If the audio amplifier is to be used only for the radio which contains the amplifier, connect the red/wht (amplifier power) wire to the red/blk (switched $A+$) wire.

AIRCRAFT MODELS USING CIRCUIT BREAKERS

(5) Install 15 amp circuit breaker (7, figure 6) in unused "RADIO" circuit breaker position on circuit breaker panel.

(6) Connect red (radio power) wire to the load terminal of the circuit breaker.

(7) If the audio amplifier in the radio being installed is to be used as an isolation amplifier, install a 5 amp circuit breaker (8, figure 6) in the "AUD AMP" space on the circuit breaker panel. Connect red/wht (amplifier power) wire to the load terminal on the circuit breaker.

(8) If the audio amplifier is to be used only for the radio which contains the amplifier, connect the red/wht (amplifier power) wire to the red/blk (switched $A+$) wire.

ALL AIRCRAFT MODELS

(9) Connect yellow (radio dial lights) wire to the radio lights dimming rheostat.
300 NAV/COM

Figure 1. Wiring Diagram, Radio Cable Assembly
Figure 2. Wiring Diagram, Audio Connections for Single Radio Installation

Figure 3. Wiring Diagram, Audio Connections for a Single Transceiver and Multiple Receivers
c. Connection of Antenna Cables (See figure 4).

(1) Attach VHF antenna cable (2) and OMNI antenna cable (1) to connectors on dust cover back plate as shown.

(2) If this is a second omni receiver installation, install connectors (4) on cables (5) and connect to antenna coupler (3). (These parts are not supplied with this kit).

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

(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.