## VOR/ILS/GS/MB - ADJUSTMENT/TEST

*EFFECTIVITY: ALL*

1. General

   A. This section gives the procedures to do the test of the VOR/ILS System.

   B. The VOR/ILS module is part of the Integrated Navigation Unit.

   C. The procedures in this section are given in the sequence below. The tasks identified with (♦) are part of the Scheduled Maintenance Requirements Document (SMRD).

| *TASK NUMBER* | *DESCRIPTION* | *EFFECTIVITY* |
|---|---|---|
| 34-32-00-700-801-A | VOR/ILS SYSTEM OPERATIONAL TEST | ALL |

TASK 34-32-00-700-801-A
*EFFECTIVITY: ALL*

2. VOR/ILS SYSTEM OPERATIONAL TEST

A. General

(1) This task gives the procedures to do the Operational Test of the VOR/ILS System.

B. References

| *REFERENCE* | *DESIGNATION* |
|---|---|
| AMM SDS 23-51-00/1 | |
| AMM SDS 23-81-00/1 | |
| AMM SDS 31-51-00/1 | |
| AMM SDS 34-22-00/1 | |
| AMM SDS 34-23-00/1 | |
| AMM SDS 34-32-00/1 | |
| AMM SDS 34-51-00/1 | |
| AMM TASK 20-40-01-860-801-A/200 | ENERGIZATION OF THE AIRCRAFT WITH AN EXTERNAL POWER SOURCE |

C. Zones and Accesses

Not Applicable

D. Tools and Equipment

Not Applicable

E. Auxiliary Items

Not Applicable

F. Consumable Materials

Not Applicable

G. Expandable Parts

Not Applicable

H. Persons Recommended

| *QTY* | *FUNCTION* | *PLACE* |
|---|---|---|
| 1 | Does the task | Cockpit |

I. Preparation

*SUBTASK 841-002-A*

(1) Energize the aircraft with the External DC Power Supply ( AMM TASK 20-40-01-860-801-A/200).

(2) Make sure that the Systems below are operational and on:

– Airborne Audio System (AMM SDS 23-51-00/1).

– Radio Management System (AMM SDS 23-81-00/1).

– Aural Warning System (AMM SDS 31-51-00/1).

– EFIS (AMM SDS 34-22-00/1).

– DME System (AMM SDS 34-51-00/1).

– VOR/ILS/GS/MB (AMM SDS 34-32-00/1).

– (Aircraft with CAT-III configuration) Head-up Guidance System (AMM SDS 34-23-00/1).

J. VOR/ILS System - Check Procedures (Figure 501) (Figure 502) (Figure 503) (Figure 504) (Figure 505)

*SUBTASK 710-002-A*

(1) Set the cursor of RMU 1 to the NAV1 window.

(2) Do the test of frequency selection as shown below:

(a) Put the cursor on the select frequency code.

(b) Turn the dual concentric knobs.

Result:

1 A frequency code can be selected.

(3) Do the self-test below:

(a) Set the RMU to the NAV1 window.

(b) Push and hold the RMU TST function key.

Result:

1 On the RMU, the NAV1 window shows:

- TEST and VOR TEST (amber).
- TEST (amber) and VOR PASS (green), at the end of the test cycle.

NOTE: A VOR ERR (red) message is the indication that the selected VOR is defective.

(4) Do steps (1), (2), and (3) above again for the NAV2 window, on RMU 2.

(5) Do the navigation test below:

(a) Set RMU 1 to the NAV1 window.

(b) Tune in to VOR/ILS stations.

Result:

1 Make sure that the operation of the system is correct.

(c) Set RMU 2 to the NAV2 window.

(d) Tune in to VOR/ILS stations.

Result:

1 Make sure that the operation of the system is correct.

(6) (Aircraft with CAT-III configuration) Do the test of VHF/NAV 3 as follows:

(a) (Aircraft with VHF/NAV 3 control panel model CTL-23C) Do the steps below:

1 On the VHF/NAV 3 control panel, set the mode select knob to the ON position.

- Make sure that the lower half of the 1 digit corresponding to 100 MHz does not flash.

2 On the Head-up control panel (HCP), push the TEST key.

- The combiner display will be blanked and the fault annunciator on the HCP will be illuminated until all tests are passed (approximately 2 seconds, if no fault is detected).
- The HCP display shows TEST on the display upper left side.
- The HGS test menu is shown on the combiner display.

3 On the HGS test menu, select the SENSOR DATA option. To do this, use the BRT+ and DIM- keys, on the head-up control panel, to put the cursor in the related line and then push the ENTER key.

NOTE: BRT+ represents the scroll up key and DIM- represents the scroll down key.

- The combiner display shows the SENSOR MENU.

4 On the Sensor Menu, select the VHF NAV #3 option. To do this, use the BRT+ and DIM- keys, on the head-up control panel, to put the cursor in the related line and then push the ENTER key.

- Make sure that the frequency shown by VHF FREQ #3 in the right column of the combiner display is 100 MHz below the one shown on the lower window of the VHF/NAV 3 display.

NOTE: Make sure that the NAV/COM select switch, on the VHF/NAV 3 control panel, is set at the NAV position.

- Make sure that the status of the VHF FREQ # 3 and ILS TUNED # 3 signals received from the sensors shown on the combiner display is normal (NORM is shown in the right column).

5 Turn the frequency select knobs to select other frequency.

- Make sure that the frequency shown by VHF FREQ #3 changes to continue to be 100 MHz below the one shown on the lower window of the VHF/NAV 3 display.

6 On the HCP, push the TEST key.

- The Head-up Guidance System goes out of the test mode.

(b) (Aircraft with VHF/NAV 3 control panel model CTL-32) Do the steps below:

1 On the VHF/NAV 3 control panel, set the power knob to the ON position.

2 Turn the frequency select knobs to select a VOR frequency (for example 112.80 MHz).

3 Momentarily put the XFR/MEM switch to the XFR position to transfer the preset frequency to the active display.

4 Push and hold the TEST button.

NOTE: For the first 2 or 3 seconds immediately after the TEST button on the CTL-32 is pushed, a 2 digit diagnostic code may be displayed in the lower window based on the conditions existing immediately before the TEST button was pushed.

5 Make sure that four dashes ("----") are shown on the upper window and the code "00" is shown on the lower window.

NOTE: The four dashes ("----") and the code "00" indicate a normal operation (no trouble found).

6 Release the TEST button.

7 On the Head-up control panel (HCP), push the TEST key.

- The combiner display will be blanked and the fault annunciator on the HCP will be illuminated until all tests are passed (approximately 2 seconds, if no fault is detected).
- The HCP display shows TEST on the display upper left side.
- The HGS test menu is shown on the combiner display.

8 On the HGS test menu, select the SENSOR DATA option. To do this, use the BRT+ and DIM- keys, on the head-up control panel, to put the cursor in the related line and then push the ENTER key.

NOTE: BRT+ represents the scroll up key and DIM- represents the scroll down key.

- The combiner display shows the SENSOR MENU.

9 On the Sensor Menu, select the VHF NAV #3 option. To do this, use the BRT+ and DIM- keys, on the head-up control panel, to put the cursor in the related line and then push the ENTER key.

- Make sure that the frequency shown by VHF FREQ #3 in the right column of the combiner display is 100 MHz below the one shown on the upper window of the VHF/NAV 3 display.
- Make sure that the status of the VHF FREQ # 3 and ILS TUNED # 3 signals received from the sensors shown on the combiner display is normal (NORM is shown in the right column).

10 Turn the frequency select knobs to select other frequency.

11 Momentarily put the XFR/MEM switch to the XFR position to transfer the preset frequency to the active display.

- Make sure that the frequency shown by VHF FREQ #3 changes to continue to be 100 MHz below the one shown on the upper window of the VHF/NAV 3 display.

12 On the HCP, push the TEST key.

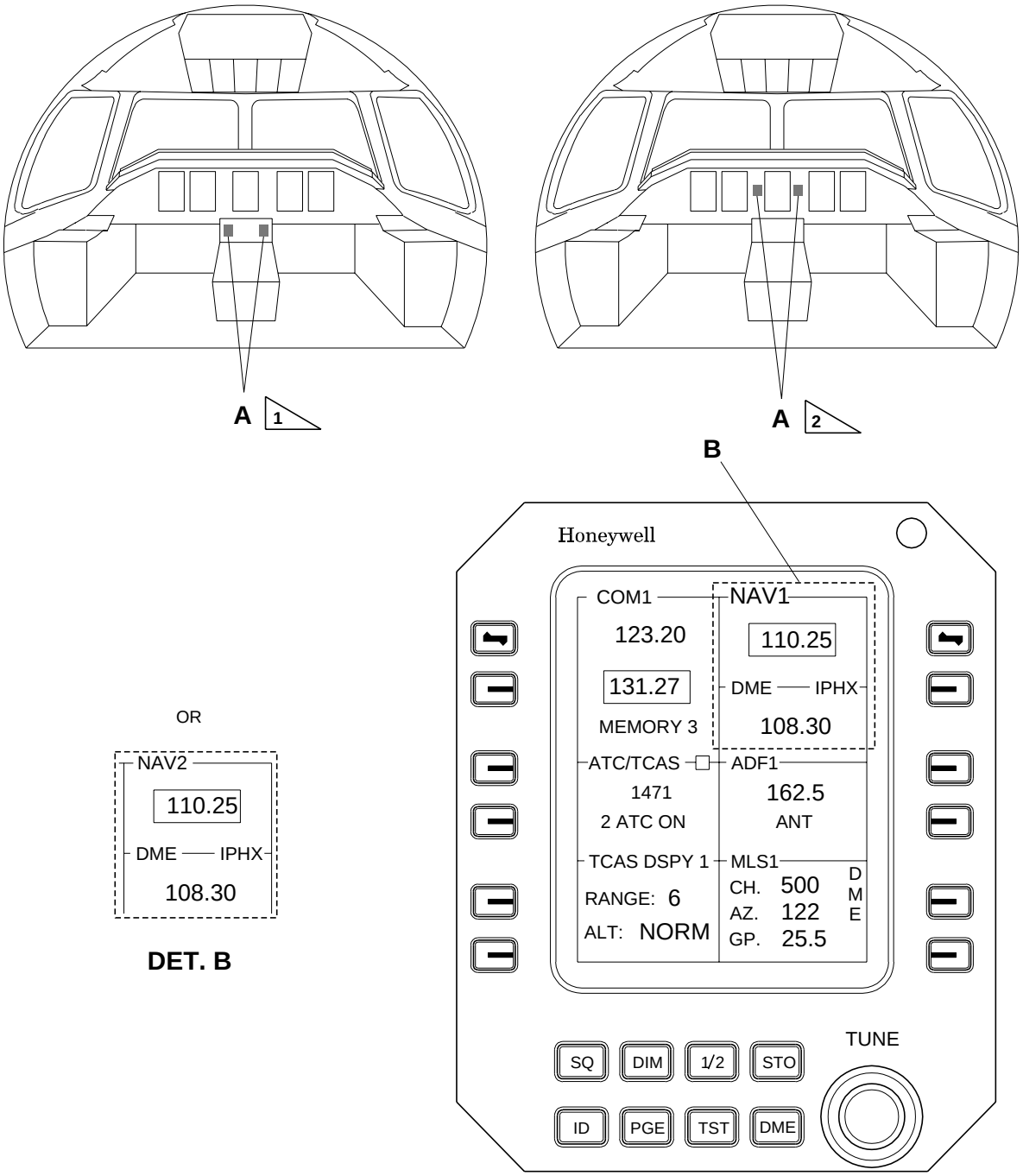
- The Head-up Guidance System goes out of the test mode.

K. Follow-on

*SUBTASK 842-002-A*

(1) Deenergize the aircraft ( AMM TASK 20-40-01-860-801-A/200).

*EFFECTIVITY: ALL*
RMU 1 and 2 - NAV 1 and 2 WINDOW
Figure 501




1 AIRCRAFT WITH RMU INSTALLED ON CONTROL PEDESTAL.

2 AIRCRAFT WITH RMU INSTALLED ON MAIN INSTRUMENT PANEL.

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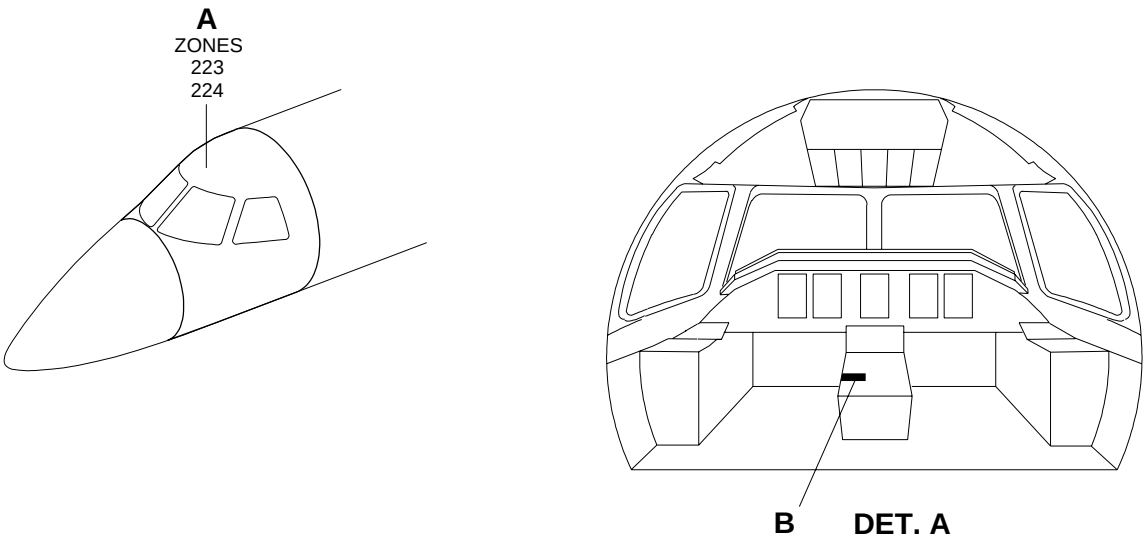
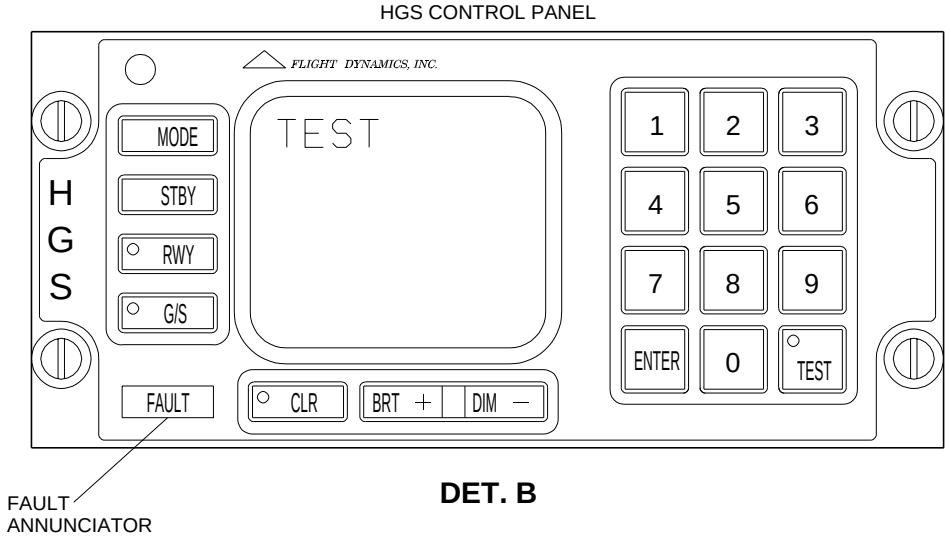
*EFFECTIVITY: AIRCRAFT WITH CAT-III CONFIGURATION*

Head-up Control Panel
Figure 502

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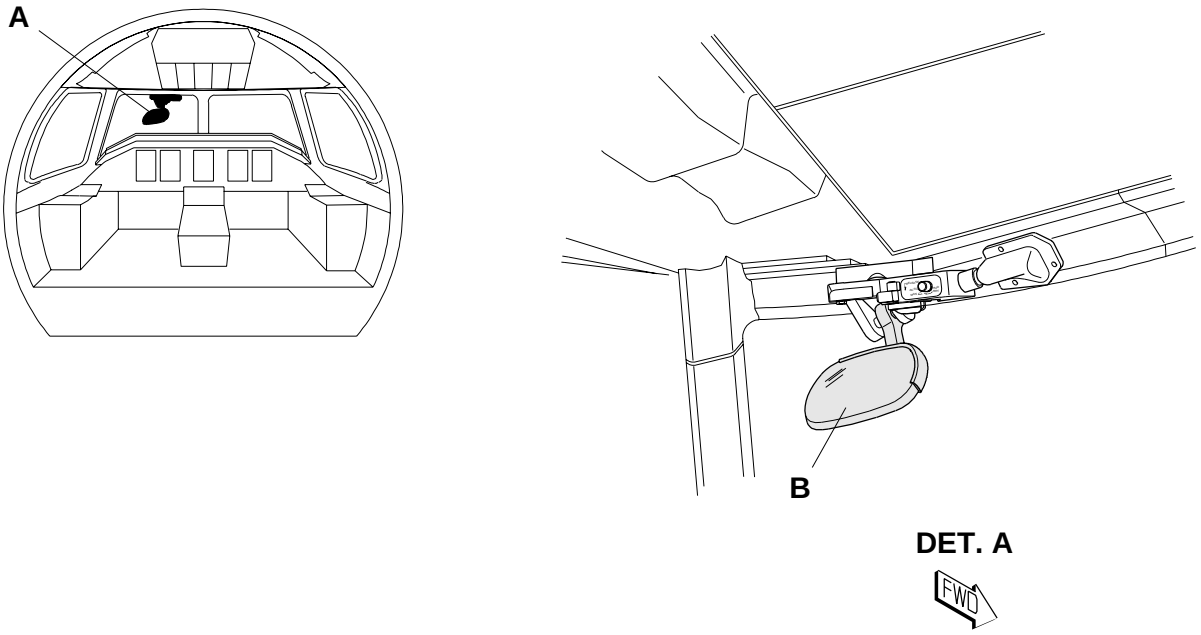
*EFFECTIVITY: AIRCRAFT WITH CAT-III CONFIGURATION*
Combiner Display
Figure 503

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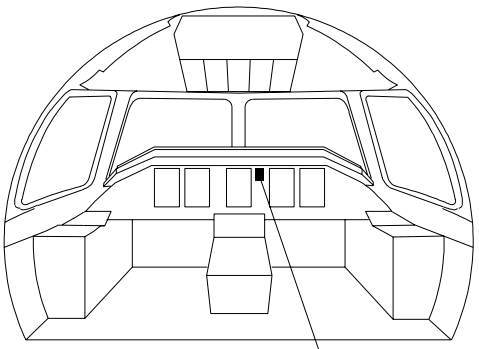
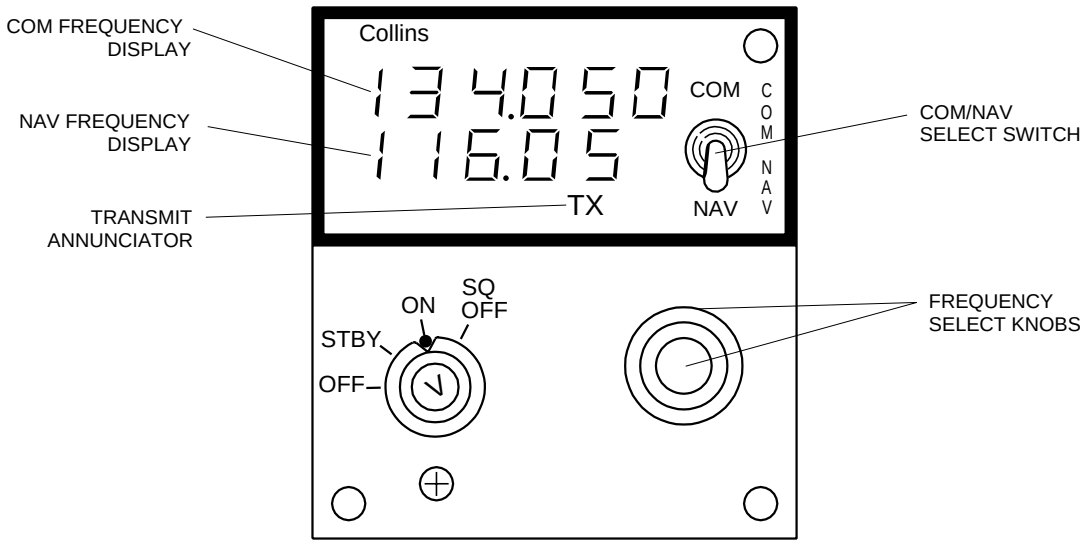
*EFFECTIVITY: AIRCRAFT WITH VHF/NAV INSTALLED*
VHF/NAV 3 Control Panel - Model CTL-23C
Figure 504




**DET. A**

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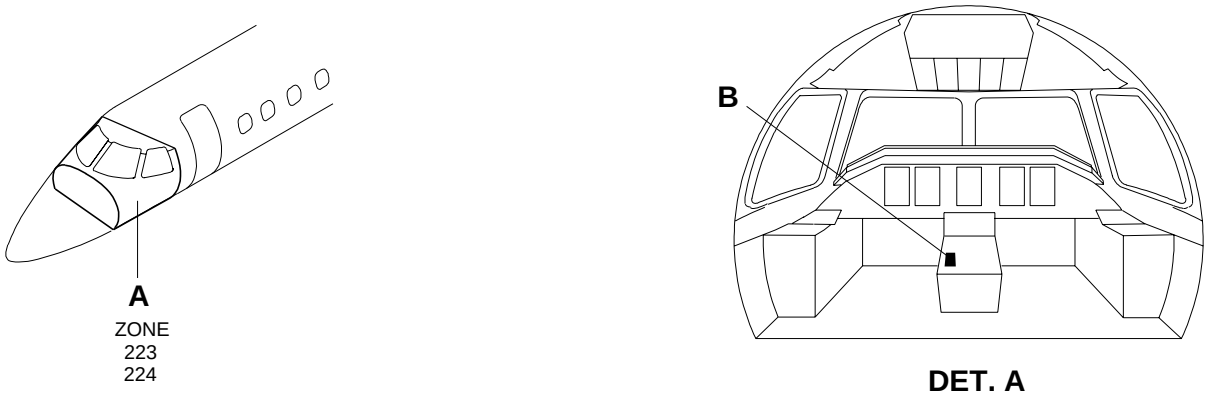
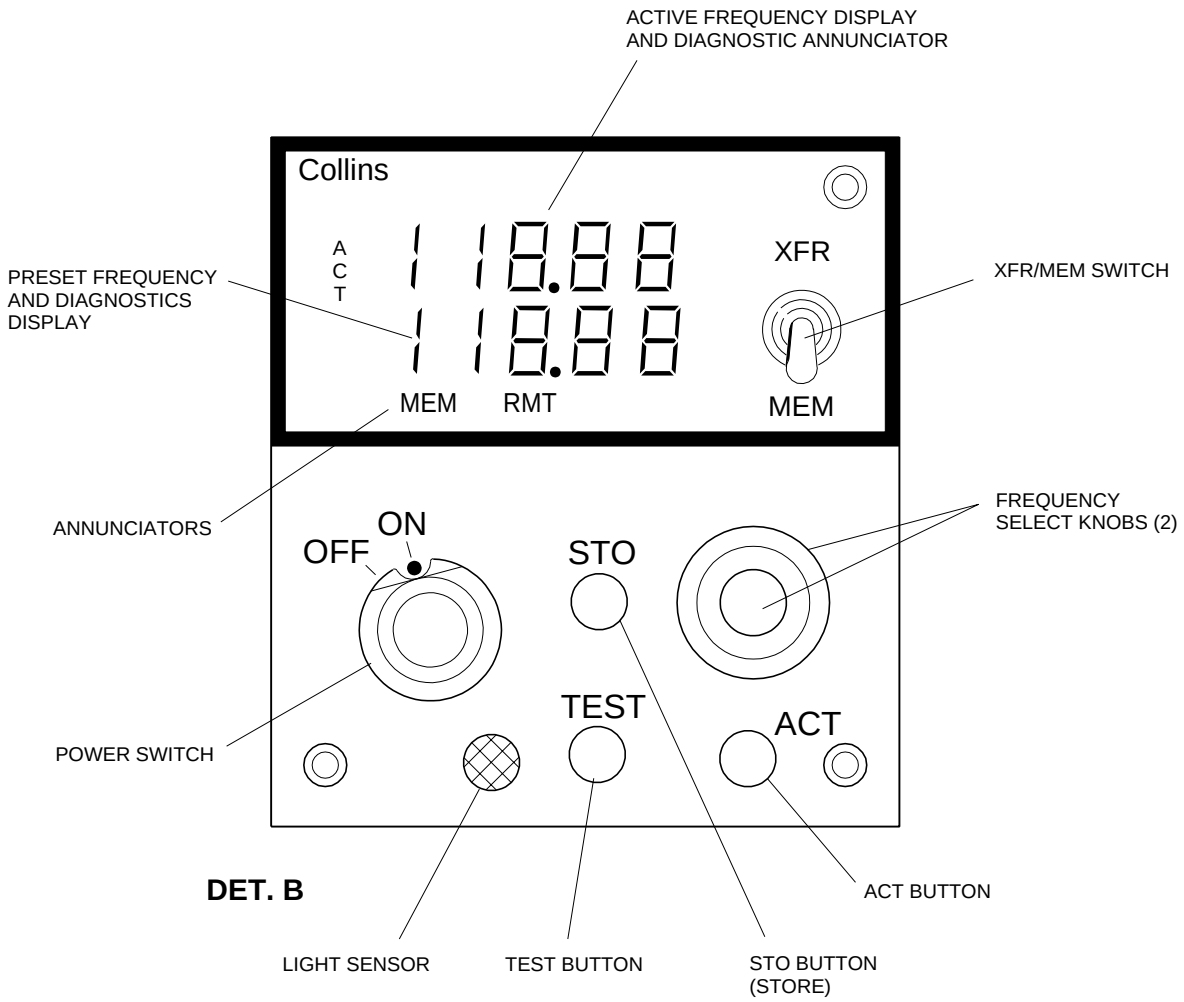
*EFFECTIVITY: AIRCRAFT WITH VHF/NAV3 INSTALLED*
VHF/NAV 3 Control Panel - Model CTL-32
Figure 505

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