

**NOTE:**

**THERE MUST BE ADEQUATE AIRCRAFT DC VOLTAGE (14 OR 28 VDC) TO PERFORM THESE CHECKS. LOW VOLTAGE MAY ADVERSELY EFFECT THE FUNCTIONAL PRE-FLIGHT PROCEDURES.**

**ROLL MODE CHECK**

1. **Autopilot Master Switch--ON** (The RDY, ST, HD, LO-TRK, and HI-TRK lamps will temporarily illuminate on the annunciator panel. After 7 seconds, all lamps will be out. After 1-2 minutes the green "RDY" light illuminates indicating the autopilot can be engaged)
2. Press and release the Mode Select Knob--**WHEN "ST"** lamp illuminates--**ROTATE** turn knob left then right, observe that the control wheel moves respectively. **CENTER** the Mode Select Knob. The control wheel should remain motionless.
3. Set the DG (if installed)-- **PLACE** heading bug under the Lubber line. Press and release the Mode Select Knob, "HD" lamp illuminates.
4. Rotate heading bug-- **LEFT** then **RIGHT**, observe the control wheel moves respectively.
5. Override Test: --**GRASP** the control wheel and slowly overpower the roll servo left and right to ensure proper clutch action.

**NOTE**

**CONTROL WHEEL MOVEMENTS SHOULD BE SMOOTH. IF ANY UNUSUAL NOISE OR FEEL OCCURS IMMEDIATELY INSPECT THE INSTALLATION AND THE CLUTCH SETTING AND REPAIR AS NEEDED. DO NOT OPERATE THE AUTOPILOT UNDER THESE CONDITIONS.**

6. Nav Tracking--**TUNE** the NAV Head to a valid signal.
  - a. Press and release Mode Select Knob until LO-TRK lamp illuminates--**MOVE** OBS so the CDI needle moves left and right. Observe that the control wheel moves respectively.
  - b. Press and release Mode Select Knob, HI-TRK lamp illuminates. Perform the same test. The control wheel response should be slightly faster in this mode.

7. Press and hold the Mode Select Knob until the A/P disconnects-- **REPEAT** step 6 using the optional control wheel mounted A/P disconnect switch, when installed. As the autopilot disconnects, the "RDY" light flashes with a five-second audible beeping tone.

**PITCH MODE CHECK**

**AFTER ROLL MODE ANNUNCIATES COMPLETE (RDY, ST, HD, LO-TRK, HI-TRK) THEN:**

1. TRIM-UP, TRIM-DN, Alt,--**ALL ANNUNCIATE.**
2. Trim-Up light-- **EXTINGUISHES** after 2 seconds. All others extinguish after 7 seconds except ALT, which extinguishes after 10 seconds.
3. Engage desired roll mode-- MOVE control wheel to the neutral position
4. Select ALT mode--**PRESSING** and releasing the Remote Altitude Hold ENG/DSNG switch. The blue indicator light will illuminate.
5. Apply forward pressure to the control wheel-- **TRIM UP** light illuminates and alert tone is audible, **RELEASE** pressure. Light should go out and tone off.

**NOTE**

**SOME AIRCRAFT HAVE WEIGHTS IN THE CONTROL SYSTEM THAT MAY APPLY A FWD PRESSURE WHEN THE CONTROLS ARE RELEASED. THIS KEEPS THE "TRIM UP" LIGHT ILLUMINATED. APPLYING AFT PRESSURE TO THE CONTROLS DURING THIS CHECK WILL "UNLOAD" THIS PRESSURE ON THE SYSTEM.**

6. Apply aft (Nose up) pressure to the control wheel--**TRIM DOWN** light illuminates and alert tone is audible, **RELEASE** pressure. Light should go out and tone is off.
7. Press and release the Alt Hold ENG/DSNG switch--**BLUE** indicator should go out. (Verify disengagement of the pitch servo by moving the control wheel fwd and aft.)
8. Press and hold the Mode Select Switch--**UNTIL** the A/P disconnects-- **REPEAT** with optional control wheel mounted A/P Disconnect Switch (if installed). The RDY light flashes, you should get an audible beeping tone for approximately 5 seconds