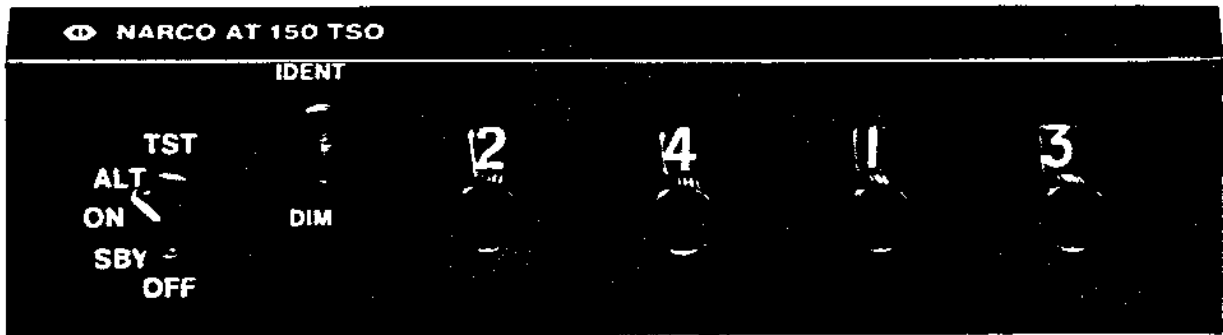


NARCO AVIONICS
AT150 TSO
TRANSPONDER



® NARCO AVIONICS INC.

270 COMMERCE DRIVE
FORT WASHINGTON, PENNSYLVANIA, 19034
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OPERATION

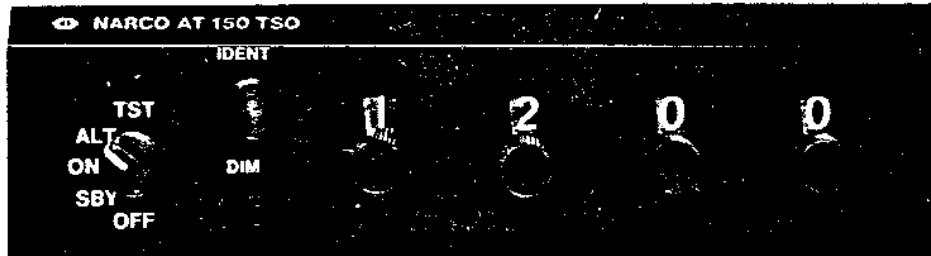


FIGURE 1-1. AT 150 TSO FRONT PANEL

Function Selector Switch

The function selector is a five position rotary switch. The five positions are:

- OFF - Turns OFF all power to the transponder.
- SBY - Turns the transponder power supply ON and applies power to the transmitter filament. When in SBY, the transponder will not reply to any interrogation.

SBY is used at the request of the air traffic controller to selectivity clear his scope of traffic. The SBY mode not only prevents the transponder from replying to interrogations, but also permits the transponder to activate the ON and ALT modes instantly.

- ON - Places the transponder in Mode A, the aircraft identification mode. In addition to the aircraft's identification code, the transponder will also reply to altitude interrogations (Mode C) with descreet signals that do not contain altitude information.
- ALT - The ALT position activates all the necessary circuitry (transponder to optional altitude digitizer and return) to respond to ATC (Air Traffic Control) altitude interrogations and aircraft identification interrogations with standard pressure altitude (29.92 inches Hg).

The ALT position may be used in aircraft that are not equipped with the optional altitude digitizer, however, the only response will be descreet signals that do not contain altitude information.

- TST - Turning the switch to the TST position injects a test signal into the transponder. This test signal tests all transponder circuitry involved in a Mode A reply and causes the IDENT/DIM button to come on at full brilliance. This full brilliance indicates that transponder has the capability of receiving and responding to interrogations. The TST function may be activated at anytime, as it does not interfere with normal operation.

The TST position is spring loaded and must be held in position during the test process. Upon release, it will automatically return to the ALT position.

IDENT/DIM

When the aircraft comes within range of a ground station, the IDENT/DIM button will blink ON and OFF. Momentarily depressing the IDENT/DIM button will activate the SPIP (Special Position Identification Pulse) signal for approximately 20 seconds. This signal will "paint" an instantly identifiable image on the controllers scope. This signal must only be used upon request of a "Squawk IDENT" from the controller. Use at any other time could interfere with another aircraft sending a SPIP. During "IDENT" periods, the IDENT/DIM button will glow constantly.

Rotating the IDENT/DIM button will control the intensity at which the button glows.

CODE SELECTOR

The CODE SELECTOR consists of four eight position switches that provide 4096 active identification codes. The identification code is selected by the controller.