

SECTION 9**Supplement AVE7****Bendix King Transponder KT 76C**

When a Bendix King Transponder KT 76C is installed in the AQUILA AT01, this Supplement is applicable and must be inserted in the Supplements Section (Section 9) of the Pilot's Operating Handbook. Information in this supplement either adds to, supersedes, or deletes information of the basic AQUILA AT01 Pilot's Operating Handbook.

Approved by:  Th. V. Sen Date: 09. Juli 03

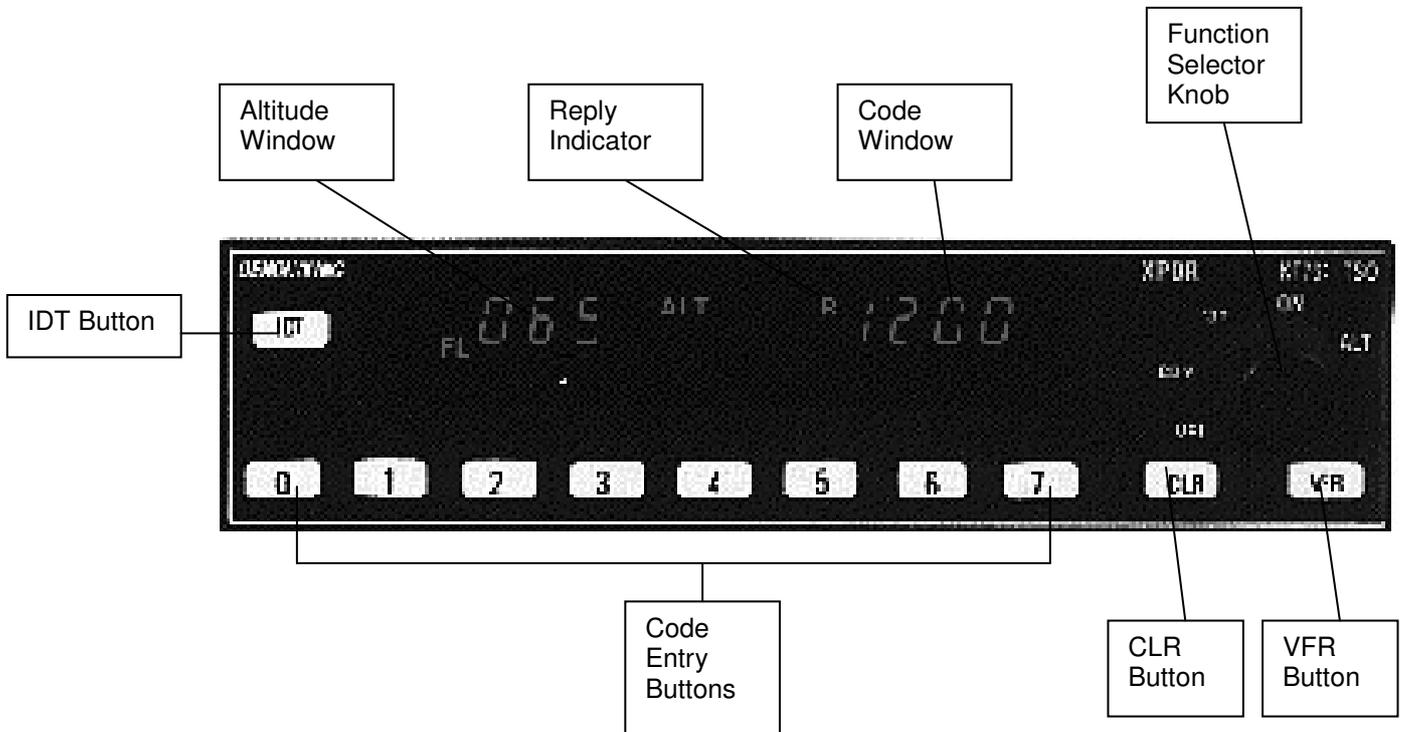
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1. KT 76C Front View



2. General Description

The Bendix/King Transponder KT 76C is a radio transmitter and receiver, which operates on radar frequencies. Receiving ground radar interrogations at 1030 MHz, it returns a coded response of pulses to ground-based radar on a frequency of 1090 MHz. As with other mode A/mode C transponders, the KT 76C replies with anyone of 4.096 codes, which differ in the position and number of the pulses transmitted. By “replying” to ground transmissions, your KT 76C enables ATC computers to display aircraft identification, altitude and ground speed on Enroute, Approach or Departure Control radar screens. When the IDENT button is pressed, your aircraft will be positively identified to the Air Traffic Controller.

The KT 76C is mounted into the center of the instrument panel, the antenna is located at the right bottom of fuselage under the co-pilot seat.

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3. Operating the KT 76C

Before starting your aircraft's engine, make sure that the KT 76C Function Selector Knob is in the OFF position or the avionic master switch is switched OFF.

After starting the engine:

- (1) Avionic Master ON
- (2) Function Selector Knob STBY
Give your transponder 45 sec to become operational.
- (3) Select the proper reply code by pressing the desired Code Entry Buttons.
- (4) The reply code will be displayed in the code window.
- (5) Before Take Off rotate the Function Selector Knob to ALT (altitude) position for Mode C altitude reporting to ATC.

A panel-mounted circuit breaker (Transponder) is provided to stop the power supply in the event of an electrical overload (an internal short circuit, etc.).

3.1. Mode A Operation

- (a) Select the proper reply code by pressing the Code Entry Buttons.

NOTE

On principle, the control knobs must be operated only in the STBY mode to prevent an inadvertent adjustment and transmitting, even if momentarily, of a reply code that is reserved for emergencies.

- (b) Turn the function selector from STBY into the ON position.

The Transponder now returns response with the adjusted reply code.

3.2. Mode C Operation

For the mode C operation, a blind encoder or an encoding-altimeter is required.

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- (a) Select the proper reply code by pressing the Code Entry Buttons (in the STBY mode).
- (b) Turn the Function Selector from STBY into the ALT position.

The Transponder returns response with the adjusted reply code and additionally transmits altitude information.

The Transponder displays Flight Level Altitude, marked by the letters "FL" and a number in hundreds of feet on the left side of the display. For example the reading "FL 065" corresponds to the altitude of 6,500 feet referenced to 1013 (hPa) at sea level.

3.3. Squawk Ident

On request of the Air Traffic Control (Squawk IDENT), the IDT pushbutton is to be pressed briefly. The Transponder now responds for 18 seconds with a special reply impulse that allows the identification of the aircraft on Air Traffic Control radar screens immediately. The reply indicator on the display will illuminate continuously during the ident interval.

3.4 CLR Button

Code entry mistakes are corrected one digit at a time, by pressing the CLR-button and reentering the correct code. The last active code will be displayed if a complete four-digit code has not been entered and there is no activity on any of the code entry buttons, the VFR button or the CLR button for four seconds.

3.5 VFR Button

Momentarily pressing the VFR-button will enter a pre-programmed VFR-code in the code window. Pressing and holding the VFR button for two seconds will cause the last active code to be displayed.

3.6 Reply Indicator

The reply indicator "R" blinks to indicate that the KT 76C is functioning properly and replying to interrogations.

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4. General Notes

In order to increase the service life of KT 76C it should not be on during engine start and engine shut-down since electrical surges may cause damage to the unit.

NOTE

- On principle, the code entry knobs must be operated only in the STBY mode to prevent an inadvertent adjustment and transmitting, even if momentarily, of a reply code that is reserved for emergencies.
- Do not operate the Transponder with the codes 75**, 76** and 77**, since these are reserved for specific purposes, e.g. for emergencies.

The following codes are reserved for emergencies:

7500 Hijacking
7600 Communications Failure
7700 Emergency

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