KT 76A
Bendix/King
Panel-Mounted
Transponder

AlliedSignal
AEROSPACE

The value of performance

Drawing upon a tradition of leadership in avionics technology, AlliedSignal combines reliability with value in the Bendix/King KT 76A panel-mounted transponder. A proven performer, the KT 76A has established a worldwide reputation as the standard in Mode A/Mode C identification.

The KT 76A is a Class 1A transponder and provides maximum performance at any altitude up to 35,000 feet. A compact unit, it was among the first of our avionics to incorporate Large Scale Integrated (LSI) circuitry, reducing both weight and power requirements. And, today, its design efficiency and rugged construction continue to provide the owner-operator with a near-ideal balance of performance, reliability and value.

A Closer Look

All Mode A and Mode C transponders perform the same functions: Replying to radar interrogations, providing Air Traffic Control (ATC) with positive identification, and showing your ground speed on the Controller's radar monitor. If you have an encoding altimeter or blind encoder, the transponder will transmit your altitude, as well.

Similarly, most panel-mounted Mode A/C transponders offer about the same performance characteristics. But when you look inside, the difference between the KT 76A and other units becomes obvious.

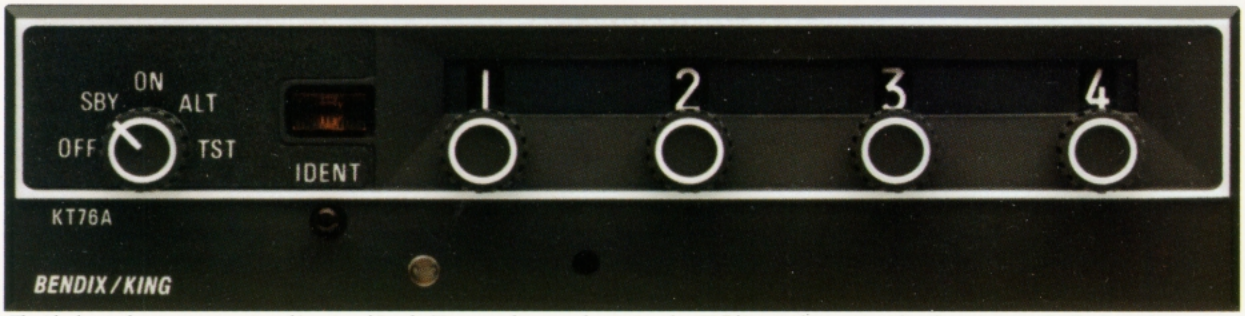
For example, the KT 76A starts with an extra-rigid, durable switchboard. Then, we make sure that all our components are easy to access. Unlike other transponders, the KT 76A can be opened like a book, to expose every part and printed circuit board—and significantly reduce maintenance costs and downtime.

And when you look inside the KT 76A, you'll find "solder masked" printed circuit boards. This technique provides trouble-free connections and ensures that all leads are fully insulated, as it protects against component overheating during manufacturing.

While other transponder manufacturers solder their LSI chips in place, the KT 76A's encoder and decoder functions are programmed into a plug-in LSI chip. This makes repair as simple as pulling out one chip and replacing it with a new one.

We've even designed the KT 76A to be flexible. While the IDENT button is readily accessible on the front of the faceplate, a remote button can be installed in an even more convenient location (such as the control yoke), reducing pilot workload during busy approaches or departures.

Due, in part, to this attention to detail, the KT 76A has become one of the most successful transponders in general aviation history. Since its introduction, more than 130,000 KT 76 and 76A transponders have been installed.



The ideal complement to your aircraft's suite of Bendix/King panel-mounted avionics, the KT 76A provides positive identification to Air Traffic Control or TCAS-equipped aircraft.

Bendix/King Encoding Altimeters

In today's rapidly-evolving ATC environment, altitude encoding or reporting by transponder has become more than a convenience—it's virtually a necessity. And AlliedSignal offers you a choice of Bendix/King altitude reporting systems to meet the needs of general aviation aircraft.

If you need a unit to provide accurate electronic outputs for your altimeter-dependent flight control or transponder system, consider the KEA 346 Encoding Altimeter. As a more affordable option, consider the KEA 130A.

Either way, the choice is yours. Whether you're operating a light single or a cabin-class aircraft, there's a competitively-priced, TSO'd Bendix/King encoding altimeter to meet your needs.

KEA 346 Encoding Altimeter

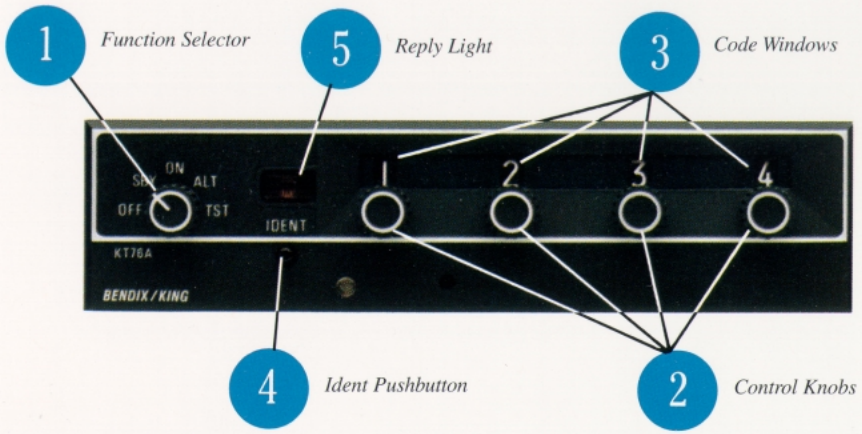
Certificated to 50,000 feet, the KEA 346 servoed encoding altimeter provides highly accurate electronic outputs for altimeter-dependent flight control and transponder systems. Its features include internal lighting and dual barometric scales (millibars and inches Hg), which can be set simultaneously by a single knob. Electrically powered, it requires a standby barometric altimeter.

KEA 130A Encoding Altimeter

Ideal for new installations, the KEA 130A displays your aircraft's altitude to 35,000 feet. Reporting altitude information (corrected to a barometric setting of 29.92 inches Hg) to ATC via your transponder, the KEA 130A features dual barometric scales and offers internal lighting as an option.

KEA 346

KEA 130A



About Transponders

Your Bendix/King transponder 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 76A replies with any one of 4,096 codes, which differ in the timing and number of pulses transmitted. By "replying" to ground transmissions, your KT 76A 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.

Operating the KT 76A

To operate your KT 76A, first be sure that the Function Selector Knob **(1)** (or your avionics master switch) is turned OFF before starting the aircraft's engine(s). Then, select the proper reply code by rotating the four Control Knobs **(2)**. The reply code will be displayed in the Code Windows **(3)**.

After engine start, turn the Function Selector to SBY (Standby), giving your transponder about 45-50 seconds to become operational. As soon as you are airborne, turn the Function Selector to ON, which places the KT 76A in normal Mode A operation.

If your aircraft is equipped with an encoding altimeter, turn the Function Selector to the ALT (Altitude) position, for altitude reporting (Mode C) to ATC. Altitude reports are automatically updated in 100-foot increments, from – 1,000 feet to 35,000 feet.

Important Codes

Here are some of the more important ATC reporting codes you should know:

Code 7700: Reserved for emergencies. Use it to gain immediate attention and help from Air Traffic Control monitoring your location.

Code 7600: Signifies communications failure. Use it to tell the controller that your COMM radio is not working. If you can still receive transmissions, respond to ATC with your transponder, following ATC instructions.

Code 7500: Used to report a hijacking.

Code 0000: Reserved for military aircraft. Do not use this code!

Squawk Ident

When you are asked to "ident" by ATC, briefly press the Ident pushbutton **(4)**. Your aircraft will be positively identified to the Air Traffic Controller.

Reply Light

During normal operation, the flashing Reply Light **(5)** indicates that the KT 76A is functioning properly and replying to interrogations from ground radar. Interrogations occur at 10-15 second intervals, corresponding to each radar sweep. Frequently, the reply light will blink almost continuously, meaning that the transponder is responding to interrogations from several radar stations.

Tear off this section along this line and fold in center for convenient Pilot's Operating Manual.

AlliedSignal Commercial Avionics Systems
400 North Rogers Road, Olathe, KS 66062-1212
Telephone (913) 782-0400 FAX 913-791-1302

AlliedSignal
AEROSPACE

http://www.alliedsignal.com/aerospace

KT 76A
Bendix/King
Panel-Mounted
Transponder

AlliedSignal
AEROSPACE

Specifications

TSO C74b, RTCA DO-138

Temperature Range:	–15° C. to +55° C. for continuous operation
Weight:	3.1 lbs. (1.41 kg) including mounting rack and KA 60 antenna
Installation Space:	6.25 in. (15.87 cm) x 1.63 in. (4.14 cm) x 10.00 in. (25.40 cm)
Power Requirements:	14 volt-1.8 A Max. 1.1 A Standby 28 volt changeover kit available
Altitude:	Tested up to 35,000 feet, which exceeds TSO requirements
Transmitter Frequency:	1090 MHz ±3 MHz
Transmitter Power:	200 watts peak minimum
Receiver Frequency:	1030 MHz (crystal controlled local oscillator)
Receiver Sensitivity:	–74 dBm (Nominal) –72 dBm (minimum for 90% reply)
Mode A Capability:	4096 identity codes plus Special Identification Pulse
Mode C Capability:	Accepts standard ICAO Altitude Transmission Code digitizer output, reporting in 100-foot increments from –1000 feet throughout the operating range

3/95 006-08244-0012 20K Printed in U.S.A.

Policy Notice: In keeping with AlliedSignal's goal of constant product improvement, product specifications and design features may be altered without notice. Since avionics installation requires special skills, tools and equipment, our limited warranty is valid only for equipment installed in accordance with our sales policy.

AlliedSignal Commercial Avionics Systems
400 North Rogers Road, Olathe, KS 66062-1212
Telephone (913) 782-0400 FAX 913-791-1302

AlliedSignal
AEROSPACE

http://www.alliedsignal.com/aerospace