



*The Avidyne/S-TEC  
Alliant Integrated  
Flight Deck  
provides a  
full-featured glass  
flight deck & digital  
autopilot upgrade  
for your 90-Series  
and 200-Series  
King Air.*



*before*



*after*

**Alliant increases safety, utility, and value.**

Virtually all new General Aviation aircraft are enjoying the safety and reliability benefits of all-glass flight decks.

With the Alliant King Air Program, Avidyne and S-TEC have joined forces to create a retrofit solution for your King Air 200 and C90 that adds all the benefits of today's integrated flight decks for much less than purchasing a new aircraft.

The Alliant King Air upgrade increases safety and adds years of additional utility to your aircraft. In addition, Alliant provides long term resale value for your aircraft.



# Avidyne Envision™ – Integrated Avionics for the Retrofit Market

## More than Just a Pretty Face



Envision is Avidyne's new retrofitable Integrated Flight Deck system that is designed with the flexibility to be installed in a number of different aircraft types and configurations. Envision adds all the enhanced situational awareness and reliability benefits of an all-glass flight deck to virtually any general aviation aircraft.

Using Avidyne's Envision Integrated Displays and the STEC 2100 Intelliflight Autopilot, the Alliant Integrated Flight Deck provides state-of-the-art situational awareness, safety, reliability, and redundancy for your King Air.



Alliant uses dual Avidyne EXP5000 Primary Flight Displays (PFD) to integrate the pilot's and copilot's standard flight instruments. The dual 10.4" diagonal, large-format flat panel displays provide easy-to-interpret symbology that improves situational awareness and reduces pilot workload.

Dual EXP5000 PFDs present standard flight instrumentation including Electronic Attitude Direction Indicator (ADI), Electronic Horizontal Situation Indicator (HSI), altitude, airspeed, and vertical speed. Pilot-selectable moving map presentations of flight plan data and Bearing Pointer are within the primary field of view, greatly reducing pilot workload. The EXP5000 provides full integration with the autopilot bug controls, allowing the pilot to see the autopilot targets on the primary instruments.

EXP5000 also contains an integrated solid-state air data and attitude/heading reference system (ADAHRS) providing full redundancy as well as much higher reliability than traditional "spinning-mass" gyros.

The integrated air data computer provides a valuable full-time instantaneous wind vector displayed on the EXP5000, taking the

guesswork out of finding the right altitude to optimize your flight time and correcting for winds while entering the pattern or flying an approach.

Trend indicators provide six-second trend data for airspeed, altitude and heading, allowing you to fly more precisely with reduced workload when changing or maintaining an airspeed or altitude.



## Redundancy and Reliability

Fully-integrated, dual-independent ADAHRS systems are selectable for each EXP5000 and each ADAHRS can drive both EXP5000s. On-screen annunciations show cross-side ADAHRS selection. Advanced system monitors and Avidyne's exclusive Cross-Compare System™ (CCS) provide visual alerts in the unlikely event of a data discrepancy, providing unsurpassed redundancy and increased safety of flight. A 'Pilot Priority' switch allows the pilot to 'lock out' the co-pilot PFD controls, for peace of mind when a non-pilot is in the right seat.

## MultiFunction Display

With Alliant, you have the choice of the 10.4" EX500 or the 5.4" EX500 MultiFunction Display. The EX500/EX5000 MFDs feature high-resolution moving maps that shows flight plan information. Alliant's EX500/EX5000 MFDs include CMax™ Electronic Charts, and have interfaces to many popular airborne weather radar systems, as well as interfaces for EGPWS/TAWS, lightning and traffic.

## CMax™ – Maximizing Your Approach

Avidyne's CMax™ Electronic Charts offer a world-wide library of geo-referenced approach charts and airport diagrams, helping you manage and access critical flight information and reducing the amount of paper required on board your aircraft.

Utilizing Jeppesen's trusted JeppView™ Electronic

Airway Manual, CMax makes accessing an approach or viewing an airport diagram a breeze. At startup, your departure airport chart is automatically loaded for ease of orientation, especially at unfamiliar fields. Your destination airport diagram and the list of available approaches are automatically loaded at the time your flight plan is entered, and can be viewed easily using the auto-fill capability, or you can easily select and view any approach at any airport in the database.





Avidyne leads the industry in datalink-capable multifunction displays and the EX500 and EX5000 MFDs provide the most advanced, and easiest-to-use datalink systems you can get. Interfacing the MFD with Avidyne's MLB700 Broadcast Datalink Receiver gives pilots comprehensive, graphical information about weather conditions all across the Continental United States (CONUS).

GS 100 kts	Scale	Time 17:17:18				
TRK 038°		UTC 21:17:18				
WPT	BRG	DTK	NM	ETE	ETA	METAR
To: SIE	038°	038°	38.8	0:23	17:40	KWWD
Wx:			109.4			KBLM
JFK	039°		142.5	1:25	18:42	KJFK
Wx:			199.7			KOXC
Wx:			314.4			KVSF
Dest: KBTW	019°		374.3	3:44	21:01	KBTW
METAR Conditions at KBTW						
Cloud:	3500 feet few		Age:	10 minutes		
	9000 feet scattered		Wind:	260° at 4 kts		
Weather:	none		Gust:	none		
			Visibility:	10SM		
			Temp/Dew:	24°C / 14°C		
			Altimeter:	29.82 inches of Hg		
Map Radar TAWS Chart Trip Nrst Aux Page Select						

The trip page shows all waypoints in the flight plan, along with graphical and textual METARs at each reporting waypoint.

Using the industry-leading WSI InFlight® Weather Service, and the SIRIUS® Satellite Radio Network, the EX500 and EX5000 MFDs display critical, near-real time information for pilots including WSI's exclusive high-resolution NOWrad® radar mosaic, overlaid right on the moving map. The satellite datalink weather system also provides Storm Track Vectors, Hail Warnings, AIRMETs, SIGMETs, graphical and textual METARs, TAFs, Temperatures and Winds Aloft, and Lightning from the United States Precision Lightning Network.

Winds & Temps Aloft Forecast for KBTW					
FL030	240°/10kts	15°C	FL240	255°/50kts	-24°C
FL060	255°/20kts	8°C	FL300	255°/80kts	-39°C
FL090	240°/25kts	5°C	FL340	255°/105kts	-47°C
FL120	240°/30kts	0°C	FL390	255°/90kts	-53°C
FL180	255°/40kts	-12°C	FL410	255°/70kts	-53°C

EX500/EX5000 shows Winds & Temperatures Aloft to help determine best cruising altitude.

**SIRIUS Satellite Radio**

Access more than 130 channels of digital-quality music, sports, news, and talk radio through your aircraft's audio system. Audio content can be selected from anywhere in the aircraft using the RC70 wireless RF remote control.



**All-Digital, Attitude-Based Autopilot**

The S-TEC IntelliFlight™ 2100 is a full-featured digital, multi-axis, attitude-based autopilot.

The IntelliFlight 2100 features all the advanced modes you come to expect on a high-end digital autopilot including: GPS Roll Steering (GPSS), Heading Hold, NAV & Approach Modes, Altitude Hold with Altitude Trim, Indicated Airspeed (IAS) Hold, Vertical Speed Select & Hold, Course Intercept Capability, and Yaw Damper.



Incorporating the most advanced features and functionality ever introduced into a general aviation

autopilot system, the new-generation IntelliFlight™ 2100 Digital FlightControl System (DFCS) is the culmination of S-TEC's nearly 30 years as the worldwide leader in autopilot innovation.

The advanced functionality found in the IntelliFlight 2100, combined with Avidyne's Envision™ integrated avionics suite provide King Air 200 and C90 pilots with a level of capability that they could previously only hope for and complement them with an ease of operation that is unmatched by any comparable system.

In creating the IntelliFlight 2100, S-TEC didn't just design a new autopilot, it engineered an integral part of the Alliant Integrated Flight Deck that would take full advantage of the advanced capabilities offered by the Avidyne Envision PFD.

For example, the IntelliFlight 2100 features Indicated Air Speed (IAS) Hold and Control Wheel Steering (CWS) functions. After selecting the target climb or descent airspeed on the Envision PFD, the IAS Hold function allows you to direct the autopilot to hold the desired Indicated Air Speed by simply pressing the IAS button on the IntelliFlight's control panel. The function makes it easy to maintain specific airspeed management during climbs and descents.

Another feature of the IntelliFlight 2100 is Control Wheel Steering. When the autopilot is engaged, a switch on the yoke activates IntelliFlight's CWS function, which disengages the servos, allowing the pilot to maneuver the aircraft as desired. When the CWS switch is released, the servos will re-engage and return to normal operation.

The IntelliFlight 2100 also offers all the other capabilities pilots expect in a top-tier digital flight control system including GPS Roll Steering (GPSS), Heading Hold, NAV and Approach Modes, Altitude Pre-select, Altitude Hold with Auto-Trim, Vertical Speed (VE), Course Intercept Capability and Yaw Damper.

While the IntelliFlight 2100 is one of the most advanced autopilots available it is also one of the easiest to use. Like every S-TEC autopilot, this advanced digital flight control system is designed around putting you in control of your aircraft through every phase of flight.

From takeoff to touchdown, the S-TEC IntelliFlight 2100 DFCS combined with Avidyne's Envision System creates the ultimate flight management system for King Air 200 and C90 owners and operators.

## Specifications

Size	Depth	Height	Width	Weight
<b>EXP5000(ea)</b>	9.4in 23.9cm	8.5in 21.6cm	10.7in 27.2cm	12.0lbs 5.45kgm
<b>EX500</b>	10.75in 27.03cm	4.35in 11.04cm	6.25in 15.9cm	7.2.0lbs 3.24kgm
<b>EX5000</b>	8.5in 21.6cm	10.7in 27.2cm	4.62in 11.7cm	6.75 lbs. 3.07kgm
<b>STEC2100</b>	8.0in 20.3cm	1.7in 4.31cm	6.25in 15.9cm	2.6lbs 1.62kgm

(behind panel)

### TSO Compliance

TSO-C2d	Airspeed Instruments
TSO-C3d	Turn & Slip Instruments
TSO-C4c	Bank & Pitch Instruments
TSO-C6d	Magnetic Direction Instruments
TSO-C8d	Vertical Velocity Instruments
TSO-C10b	Altimeter, Pressure Actuated
TSO-C37d	VHF Radio Communications Transmitting Equipment
TSO-C38d	VHF Radio Communications Receiving Equipment
TSO-C43c	Temperature Instruments
TSO-C63c	Airborne Weather Radar
TSO-C106	Air Data Computer
TSO-C110a	Airborne Passive Thunderstorm Detection
TSO-C113	Airborne Multipurpose Electronic Display
TSO-C147	Traffic Advisory System (TAS)
TSO-C157	Flight Information Systems-Broadcast (FIS-B)

**System Power** 6.0 A @ 28VDC

### Operating Altitude

Up to 25,000 ft. (cabin pressure)

### Operating Temperature

-20C to +55C  
+70C Short term

### Warranty

2 years parts & labor included  
Extended warranty service available



Avionics installations require special skills and test equipment. Avidyne's limited warranty is valid only for equipment installed by an authorized Authorized Avidyne Distributor. Avidyne reserves the right to make changes to product specifications and design features without notice. Avidyne® is a protected trademark of Avidyne Corporation. All other trademarks are the property of their respective companies.

For information about Alliant King Air call 866.623.4691 or visit [www.alliantkingair.com](http://www.alliantkingair.com)



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## Functionality

### EXP5000 PFD

- 10.4" Diagonal, Color Active-Matrix LCD
- Sunlight readable
- 800 x 600 pixels, 65,536 colors

### EX500 MFD

- 5.5" Diagonal, Color Active-Matrix LCD
- Sunlight readable
- 616 x 350 pixels, 65,536 colors

### EX5000 MFD

- 10.4" Diagonal, Color Active-Matrix LCD
- Sunlight readable
- 800 x 600 pixels, 65,536 colors

### Autopilot/Flight Director

- S-TEC IntelliFlight 2100

### GPS/FMS/VLOC interface

- Garmin 430/530 Series

### Datalink Interface

- Avidyne MLB700 Broadcast Datalink Receiver – for WSI InFlight® Aviation Weather and SIRIUS® Satellite Radio
- Heads Up Technologies XMD-076/A for Baron Services weather and XM Satellite Radio

### CMax Electronic Charts

- Jeppesen JeppView®

### Lightning Interface

- Avidyne TWX670 Tactical Lightning Detection
- L3 WX-500 Stormscope®

### Traffic Interface

- Avidyne TAS600/TAS610/TAS620 TAS
- Ryan 9900B/9900BX TAS
- Honeywell KIA870/KMH880 TAS/IHAS
- L3 Skywatch/Skywatch HP TAS
- Garmin GTX 330 TIS Transponder
- L3 791 TCAS I
- Honeywell CAS 66A TCAS I

### Terrain Awareness

- Color-Contoured Terrain Base Map Built in – Americas Terrain & US Obstacle Data
- International Terrain Data (Optional)

### EGPWS/TAWS Interface

- Honeywell MK V, VI, VII, VIII
- Honeywell KMH880 IHAS
- Honeywell KGP560 G.A.

### EX500 Radar Interface

- Collins WXR250/270/300
- Bendix RDR130/150/160
- Bendix RDR1100/1200/1300
- Bendix RDS81/82/82VP/84/84VP/86/86VP
- Bendix/King RDR2000/2100

### EX5000 Radar Interface

- Bendix/King RDR 2000/2100
- Bendix RDS 81/82/82VP/84/84VP/86/86V

### ADF Interface

- Bendix/King KR87
- Chelton Series III DFS43A

### Radar Altimeter Interface

- Collins ALT50 series
- Collins ALT 55 Series w/RAC870
- Collins ALT 1000 Series