



The
SA GROUP



Garmin G1000 - Integrated Glass Flight Deck System

The Ultimate King Air Update **Garmin G1000 Retrofit** – with the latest “Turbine Renewal” options

- Fly WAAS LPV approaches to 200' minimums
- See clearly even in IFR conditions with SVT™
- GFC 700 autopilot integration
- Reduced Vertical Separation Minimum (RVSM) capability
- ADS-B compliance, geo-referenced charting and XM Weather support
- TCAS II Change 7.1
- ESP Autopilot functions
- Solid State WX Radar

A Wide Range of Features



Consolidating all the primary flight, navigation, weather, terrain, traffic, radio frequency, engine and fuel data readouts – the G1000 glass retrofit package is more than just an avionics facelift. It brings new levels of safety, efficiency and situational awareness to your King Air’s flight deck.

- LCD flight displays – dual 10-inch PFDs; large 15-inch MFD
- Dual integrated radio modules, providing WAAS-certified GPS; VHF navigation with ILS; and VHF communication with 16-watt transceivers and 25 kHz or 8.33 kHz channel spacing
- Dual Mode-S transponders with Extended Squitter (Extended-squitter version is optional on C90)
- Dual solid-state Attitude and Heading Reference Systems (AHRS)
- Dual RVSM-compliant digital air data computers
- Three-axis digital Automatic Flight Control System
- Four-color digital weather radar with stabilization
- Integrated Class-B TAWS terrain alerting with worldwide terrain and U.S. obstacles database
- XM Satellite Radio datalink receiver (subscription required)
- FliteCharts™ and SafeTaxi™
- Dual engine monitoring computers
- Dual digital audio panels
- Pedestal-mounted FMS controller
- Modular rack-mounted LRUs
- Ethernet data-bus connectivity
- All-new metal instrument panel
- RVSM certification*

The system is anchored by a 15" "big picture" Multi-Function Display (MFD), flanked by 10.4" Primary Flight Displays (PFDs) at the pilot and co-pilot positions. These vivid, high-resolution XGA (1024 x 768 pixel) colour screens offer wide side-to-side viewing angles, advanced backlighting, and crystal-sharp readability, even in bright sunlight.

On the pilot and co-pilot PFDs, an EFIS-like display of 3-axis flight dynamics synthesizes aircraft attitude, airspeed, climb rate, altimeter and horizontal course/heading information – as well as Flight Director command bar cues and mode information, when coupled with Garmin's GFC 700 automatic flight control system.



What's more, with the optional addition of Garmin's SVT™ synthetic vision technology, pilots can now fly with a realistic 3-D view of topographic features surrounding their aircraft. Using sophisticated graphics modelling, the SVT tracks the navigation system's terrain-alerting database to recreate this "virtual reality" landscape on the pilot and co-pilot PFDs. Ground and water features, airports, obstacles, traffic and more: The SVT display looks so real and lifelike, it's almost like having a clear-day "out-the-window" view of the flight situation – even in solid IFR or night time VFR conditions.

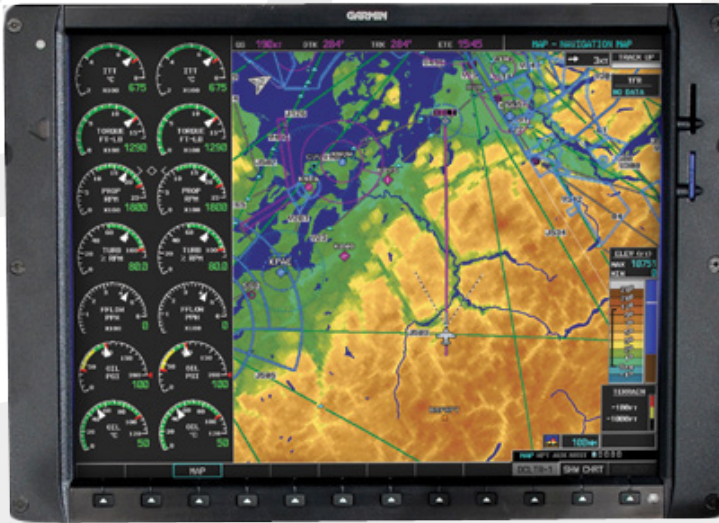
Meanwhile, looking toward the center of the panel, pilots will find essential engine and fuel systems data displayed on the G1000's big multi-function MFD – along with detailed moving-map graphics showing the aircraft's current position in relation to ground features, chart data, nav aids, flight plan routings etc.

Preloaded Garmin SafeTaxi® and FliteCharts® come standard with the package. So pilots can fly in a virtually "paperless" flight deck environment. The FliteCharts® provide electronic versions of AeroNav terminal procedures and approach plates for more than 2,900 U.S. airports. SafeTaxi® makes ground ops easier by offering detailed airport diagrams for over 850 locations, combined with automatic display of your aircraft's exact location on the field.

As an alternative, pilots can select optional Jeppesen-style ChartView™ instrument approach plates and airport surface charts for the G1000 (subscription required). ChartView™ is unique in its ability to overlay a geo-referenced aircraft symbol on the electronic approach chart, providing a helpful visual crosscheck of your progress inbound.

Individual Display of Data

The G1000's MFD map display is designed to interface with a growing array of remote sensors and tracking systems, making it easy for pilots to overlay graphical weather, lightning, traffic, terrain and other avoidance system advisories.



Sensor functions are selectable, letting the pilot add or deselect overlays, and thus “build at will” the map view he or she prefers for any given phase of flight. Class B TAWS terrain alerting comes standard. So does real-time weather data link capability, via XM Satellite Radio and its XM WX Satellite Weather service (subscriptions required). With the XM link, NEXRAD weather, METARs, TAFs, TFRs, winds aloft, echo tops, surface precipitation, lightning strikes, storm cell data, and more, can be received and displayed anywhere in the U.S., regardless of altitude.

Garmin's XM data link capability is the ideal supplement to the tactical weather guidance provided by Garmin's GWX70 Solid State RADAR digital color radar. At 6.5 kilowatts, it packs the power to penetrate serious weather. This fully stabilized 4-color radar features pilot-adjustable horizontal scans from 20 to 90 degrees – plus a useful vertical scanning mode to help analyze storm tops, gradients and cell buildup activity at various altitudes.

Other standard features of the G1000 avionics suite include WAAS-certified GPS navigation, dual integrated solid-state Attitude and Heading Reference Systems (AHRS), and dual integrated RVSM-capable digital air data computers. For the King Air 200 series, Garmin's G1000 installation also includes Reduced Vertical Separation Minimums (RVSM) full operational access to the now-more-restrictive flight levels between 29,000 and 41,000 feet.

Superior Flight Control System

With its ultra-smooth 3-axis servo control inputs, Garmin's all-digital GFC 700 flight control system provides the G1000 with a superior level of integration and response – combining sophisticated modes and functions, AHRS-based situational reference, and dual-channel, self-monitoring safety features once found only on high-end business jets.

Using pre-stored data from your King Air's flight manual to optimize performance over the entire airspeed regime, this advanced flight director/autopilot system offers precise lateral and vertical navigation guidance for all phases of flight. Airspeed holds, VNAV profiles, automatic nav-to-nav captures, holding patterns, procedure turns, Go-Arounds, and more – the list of capabilities is unprecedented in this class of autopilot.

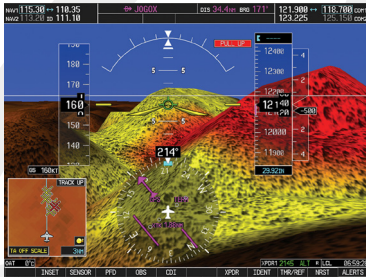


Pilots will appreciate the positive, consistent response afforded by airspeed-scheduled trim – as well as the silky smooth roundouts and vertical intercepts that the system's advanced software modeling provides on climbs and descents.

Looking to the future, these progressive flight control features bring an awesome level of support to the G1000's "Gamma-3" WAAS-certified GPS navigation technology. Thanks to WAAS – the FAA's Wide Area

Augmentation System – thousands of previously fair-weather-only airports now have the potential to offer GPS-guided "glidepath" approaches down to ILS-comparable minimums (200-ft. decision height, 1/2-mile visibility) – without reference to ground-based navigation aids of any kind. Suddenly, the world of IFR is open to more all-weather landing options than ever. And your G1000-equipped King Air is all set to make the transition without missing a beat.

Information at Your Fingertips



Optional Garmin SVT™ Synthetic Vision Technology provides a 3-D view of potentially hazardous topography - highlighted by an amber or red color overlay where flight-into-terrain risks exist.



Optional ChartView™ lets pilots accurately overlay their aircraft's position on approach procedures and airport diagrams. Standard Instrument Departure and Arrival charts (SIDs and STARs) are also provided. (Requires Jeppesen subscription)



World Wide Weather Data-Link and SATCOM.



TCAS/TAS/TIS traffic technologies depict targets in 3-D perspective, so you can visually gauge how high and how close they are. Plus, the familiar color- and shape-cued TCAS symbology grows larger as it gets nearer – making traffic conflicts easier to see and identify.



Any towers or obstacles that may encroach upon the flight path are color-highlighted and clearly displayed with height-appropriate symbology.



Runway designations and thresholds are superimposed on terrain data; Unique runway highlighting and enhancements improves runway visibility from a distance.

EASA Approved for KA 200 & 300 Series



The Garmin G1000 is EASA approved for installation in King Air 200/B200, 300 and 350 and the retrofit will bring whole new life into your King Air, offering a range of improving features:

- Dual integrated radio modules, providing WAAS-certified GPS; VHF navigation with ILS; and VHF communication with 16-watt transceivers and 25 kHz or 8.33 kHz channel spacing
- Dual Mode-S transponders with Traffic Information Service (TIS) capability and ADS-B compliant and certified
- Dual solid-state Attitude and Heading Reference System (AHRS)
- Dual RVSM-compliant digital air data computers (OPS Approval Required)
- Three-axis digital Automatic Flight Control System
- Four-color digital weather radar with stabilization
- Integrated Class-A&B TAWS terrain alerting with worldwide terrain and U.S. and Europe obstacles database
- Optional Garmin SVT™ Synthetic Vision Technology
- Optional World Wide Weather Data-link and SATCOM
- Optional FliteCharts™ and SafeTaxi™
- Supports optional ChartView™ (Requires Jeppesen subscription)
- Alphanumeric FMS style keypad
- TCAS-II display capability (Garmin TCAS-II)

COMPLETE TURN-KEY SOLUTIONS

Scandinavian Avionics provides complete turn-key G1000 retrofit solutions for your King Air series aircraft:

➤ **Equipment**

Supply of complete Garmin G1000 package including installation and accessory.

➤ **Installation**

Installation of the Garmin G1000 at one of our SA EASA Part 145 approved facilities around the world.

➤ **Certification**

Supply of existing STC or development of new STC depending on the aircraft type.

➤ **Training**

Garmin G1000 familiarization training.

If you need more information or are interested in discussing your possibilities of retrofitting your King Air aircraft with the Garmin G1000, please feel free to contact us.



Scandinavian Avionics provides complete turn-key avionics solutions, including avionics logistics and parts support, maintenance (MRO), certification, design & engineering, installation, product development, training and consultancy services with the primary business platforms being larger helicopters, corporate aircraft, regional airliners and defense electronics.

Scandinavian Avionics is the headquarters of The SA Group – an experienced avionics organization with divisions in Sweden, Norway, Czech Republic, Greece, Malaysia, Bahrain, India and CIS in process. Since the foundation in Billund, Denmark in 1978, core values like quality, reliability and flexibility have been deeply rooted in the organization and are the main reasons for the excellent reputation among aircraft operators around the world today.