



King Air 350 Avionics Upgrade, Paint, and Interior Refurbishment

Specifications

The following specifications are to procure a one-time avionics upgrade, paint refurbishment, and interior refurbishment for TDOT's King Air 350. An avionics upgrade will provide TDOT pilots and passengers with a safer, more efficient, and modern aircraft. Paint and interior refurbishment are needed due to current installments being over 10 years old and showing excessive wear. The awarded vendor will be responsible for the provision and installation of all identified systems, components, and materials required to complete the refurbishment in full.

Definitions:

- **Avionics**—Refers to an aircraft's instrumentation, navigation equipment, autopilot, and communications equipment.
- **Pro Line 21 suite**—Integrated avionics package that includes all the aircraft's avionics.
- **Pro Line Fusion Avionics Suite with IS&S ThrustSense Autothrottle System** —Upgrade to the Pro Line 21 integrated avionics package that includes all the aircraft's avionics systems. The Autothrottle system provides automatic control of each engine's power through commanding the thrust levers to achieve the desired torque or airspeed based on the aircraft's phase of flight and the pilot defined mode of operation.
- **Radome**—A housing that protects the antenna assembly of a radar set on an airplane.
- **Bright work**—Polished or plated metalwork.
- **A&P**—Airframe and Powerplant (A&P) mechanics are certified general mechanics who can independently perform many maintenance tasks on planes. They repair and maintain most parts of an aircraft, including the engines, landing gear, brakes, and air-conditioning system.
- **Visual Flight Rules (VFR)**—A set of regulations and required aircraft equipment set forth by the FAA to mandate aircraft flying in visual conditions.
- **Instrument Flight Rules (IFR)**—A set of regulations and required aircraft equipment set forth by the FAA to mandate aircraft flying in non-visual conditions.
- **RVSM**—Reduced Vertical Separation Minimum (RVSM) Airspace reduces the vertical separation above flight level (FL) 290 from 2000-ft minimum to 1000-ft minimum, allowing aircraft to fly more optimum profiles safely, gain fuel savings and increase airspace capacity. The critical area is distinguished by industry standard markings as laid out by FAA standards and aircraft manufacturer guidelines.

- SC—Studio Collection. It means it is a "standard" material for an interior scheme.

Avionics:

Remove the following avionics items from aircraft:

Description	Quantity
Pro Line 21 Avionics Suite	1
Any other components associated with the equipment upgrade that requires removal	

Install the following avionics items into the aircraft:

Description	Quantity
Pro Line Fusion Avionics Suite with IS&S ThrustSense Autothrottle System	1

Paint refurbishment:

The vendor shall follow all standard industry practices for the painting of multiengine turbo-prop aircraft such that the aircraft presents a “like new” appearance when completed. Below is a detailed image of the desired paint scheme and colors to be used.

The top coat finish and color stripes will be either Axalta; Sherwin Williams; Jet-Glow; Akzo Noble polyurethane paint or equal. The finish shall conform to the paint manufacturer’s specifications. Paint colors will be as follows:

- Matterhorn White (CA8800/i1194) or equivalent
- Arista Blue (AX 764838) or equivalent
- Ferrara Red (AX 751332) or equivalent
- Dark Gray (AX 803719) or equivalent

Paint scheme will include a split base plus two additional color stripes. Layout and colors as follows:

NOTES

Renderin : 2

NOTE: The pages in this sketch define the decorative graphics to be painted on this aircraft. Data required for aircraft certification is to be found on the applicable engineering exterior markings drawing.

P.A. No. C15551

Exterior Paint Rendering



FL-558

SCALE 1:40

REGISTRATION NUMBER

SIZE/STYLE: 12" Slanted Rounded #1, Drop Shadow#2

09A-Var1-360 Complex Split Base

Signature: [Redacted]
 Email: TDOT.COMMISSIONERS.office@fl.gov

Customer Approval

Note: Dimensions shown are approximate to assist in locating masking tapes.

KINGAIR 360

FL 558

DATE: 8/30/2023
 DESIGNER: JAS

PAINT COLORS

(R=J Matterhorn White
 Arista Blue
 Ferrara Red
 GI:] Dark Gray

Purchaser Initials [Redacted]

CODE

CAB800/1194
 AX 764838
 AX 751332
 AX 8037..!fiJ]

Seller Initials [Redacted]

A 12" blue circle with three white stars shall be painted on each side of the vertical tail fin. Outside the blue circle will be a 3/4" white space and then a 3/4" red circle. The position of the logo will match the existing logo location and orientation (see above images). RVSM critical areas shall be repainted in accordance with current FAA specifications/regulations.

The paint shop will be responsible for any damages it causes to the aircraft.

All paint work shall be inspected, and any paint imperfections shall be reworked prior to delivery.

An airworthy inspection entry will be made in the aircraft logbook along with paint color numbers.

Registration Numbers: US registration numbers shall be laid out per FAA regulations with lifted off shadows. The registration number will remain the same as current one on the aircraft: **N110EC**

Placards: All operational required placards must be applied.

Hazardous Material Disposal Fees: To be included in the base price.

Detail and Preflight Inspection: After tape and masking materials are removed, all windows are cleaned, bright work is polished, de-ice boots are cleaned and dressed; flight control inspection and a gear retraction must be performed in accordance with the aircraft's maintenance manual. All completed logbook entries and touch-up kit shall be delivered with the aircraft upon departure.

Interior Refurbishment:

Materials and FAA Material Documentation: All fabrics, leather and materials used will meet or exceed all FAR regulations for King Air 350 aircraft. FAA 8110's with burn test results will be provided per FAA regulations.

The interior design concept will be Textron's **New Pewter:**

Hardware Finish: High Tech Finishing, HT-820, High Gloss Pewter or equivalent

Cabinetry, Sidewall, Armrest Dividers, and Doors: Carl Booth, High Gloss Wood Veneer, WS-926, Adaman Composite Ebony or equivalent

Lower Sidewall (Upper Accent): (SC)Zinc, Ansel, Z177/09, Silver Grey or equivalent

Aft Bulkhead: (SC)Architex, Organza, Ash or equivalent

Window Reveal: (SC)Romo, Asuri, 7726/21, Feather Grey or equivalent

Headliner/PSU: Tapis, Ultraleather Pro, ULPROFR3413, Artic or equivalent

Seats, Lower Sidewall, Lower Sidewall (Middle Accent), Table Top Insert: (SC)Moore & Giles Leather, Athens, 7051AHPG-FT, Pewter Grey (**Crew seats will have Sheepskin Cover Assembly installed**) or equivalent

Seat Insert: (SC)Moore & Giles Leather, Athens, Mini Vertex Perf, Pewter Grey 7051AHPG-FTMV or equivalent

Carpet: (SC)AIP, Destination Mist LW, WO8235-10/59774 or equivalent

All Seat Belts and Shoulder Harnesses: Re-web crew and cabin seatbelts and shoulder harnesses using Aircraft Belts, Poly 704 Fog or equivalent.

Airstair Step Treads: Perone, STT-4112 Black Step Mat on the treads and Professional Plastics, 1/8 or equivalent.

- **Airstair:** Step treads shall be replaced and steps shall be repaired as required. Flanking panels will be covered per customer preference. Chains shall be covered in leather. Wind lace around door shall be covered in coordinated leather. Doorframe, threshold, and snubber shall be cleaned and polished.
- **Cockpit:** Instrument panel, overhead panels, and circuit breaker panels will be cleaned and upgraded per specifications at the beginning of this document. Control columns and console pedestal will be painted black. Glare shield will be recovered. Cockpit plastic window frames to be repaired as needed and headliner panel will be painted to color coordinate with new headliner

material in cabin area. Lower sidewalls will be upholstered in selected leather. Cabin carpeting will extend into cockpit area with sewn-in heel pads at foot pedals.

- **Crew seats:** Will be stripped down to frames, sanded, and painted to match new leather. Seat foam will be rebuilt and sculpted to new customer approved seat design to include lower seat back lumbar padding. Crew seats will have sewn-in sheepskin inserts. Seat belts will be re-webbed in a color to coordinate with new leather; existing belt buckles will be retained.
- **Cabin Seats:** All cabin seats to include any divan, jump seat or potty seat will be stripped of old material to the frames, sanded and painted to match new leather color. Seat base close outs will be fabricated and covered in coordinated leather. Mechanical functions shall be checked for defects, noted, and repaired upon customer approval of additional costs of parts and labor. Seat foam will be rebuilt and sculpted as part of the Textron New Pewter interior design concept. All existing hardware will be retained to include seat belt buckles. Seat belt webbing will be replaced to match new seat leather.
- **Headliner and Window Line Panels:** Cabin headliner panels and window line panels will be removed, stripped of existing foam and material, and cleaned before re-applying new insulating foam and customer selected material. The oxygen system, indirect lighting, reading lights and air gaspers will be retained, cleaned and re-installed.
- **Lower Sidewalls:** The panels will be covered with material as listed in the beginning of this section. Any vents will be retained, cleaned, and repainted black.
- **Carpet:** All existing carpet will be removed. New carpet will be cut and edges surged to prevent unraveling. A duplicate rear passenger (entryway and isle) carpet shall be provided.
- **Placards and Detailing:** All interior placards will be applied per aircraft maintenance manual. Cabin systems, seats and cabinetry drawers/doors will be checked for proper function. Cup holders and drawers will be cleaned, and new inserts applied. Carpet will be vacuumed.
- **Cabinetry Refurbishment:** Remove existing cabinet laminate and replace with pre-selected laminate. All existing hardwood trim will be sanded and refinished to match as close as possible to the new laminate. All interior laminate will be sanded and painted per customer selection. Drawer shall be replaced. Any broken hardware, moldings or cabinet components will be noted on a change order for customer approval before work commences.

All work (avionics, paint, and interior) shall be completed in 6 months or less of the aircraft being delivered to the selected shop. Delivery to the selected shop is anticipated in November 2024. TDOT will correspond with the selected vendor on delivery as November approaches.

Awarded facility must be an FAA certified station and must have previously installed the requested avionics package, painted, and upholstered the King Air 350 type aircraft.

All materials used will meet or exceed FAR regulations for the type aircraft. FAA 8110's with burn test results will be provided for materials used in the interior. Upon completion detailed logbook entries will be provided including all paint manufacturers and color numbers, all interior fabric and material manufacturers color numbers and dye lot information. Aircraft logbook entries to include an airworthy statement with approval for return to service per current FAR's.

All newly installed avionics equipment must be fully functional and meet all FAA regulatory requirements for operations in Visual Flight Rules and Instrument Flight Rules upon upgrade completion.

All work must be accomplished by certified avionics technicians and/or A&Ps and appropriate aircraft logbook entries made to ensure that all FAA requirements are complied with, and the aircraft must be in an FAA airworthy condition upon completion.

Vendor shall have a fully equipped facility for TDOT aircraft services within 250 nautical miles of John C. Tune Airport (JWN). The State reserves the right to verify / inspect the vendor's facility.

The aircraft will be repositioned from the State hangar located at 7335 Centennial Blvd, Nashville, TN 37209 by TDOT Flight Services staff to the airports of the company awarded the bid for the work to be performed.