

BendixKing



AeroCruze 230 Advanced Touchscreen, 2 or 3-Axis Autopilot

Upgrade Exclusively for BendixKing KFC 150 Autopilot Owners

Fly your Aircraft with Confidence Using a High-Precision, Easy to Use Autopilot.

Stay confident, as your easy-to-use AeroCruze 230 flies your aircraft with precision. You can use it to reduce extra workload and concentrate on tasks that require your immediate attention. It helps you manage multiple tasks when you feel like you need an extra hand in complex situations, as you fly today's airspace.

AeroCruze 230 was designed and built exclusively for the current owners of BendixKing's KFC 150/200¹. Current owners of these products can upgrade their autopilot quickly and effortlessly, without the need to purchase new servos, saving them thousands of dollars in additional costs. The installation of AeroCruze 230 is also straightforward saving additional time and money.

AeroCruze 230 brings a substantial increase in functionality and ease of use. It is the only autopilot on the market that is designed with both a touchscreen and physical knobs to make it easy to learn. It offers an intuitive user-interface with an innovative prompt when you execute a command. For example, when you push the "heading" button, the AeroCruze 230 gives you the heading that your aircraft will turn on its display. You will know exactly what the AeroCruze 230 is doing at all times.

AeroCruze 230 goes beyond the capabilities of legacy autopilots with features such as altitude hold, heading modes, and vertical speed. It also offers altitude preselect, level mode, and other features, such as a three-axis yaw damper (optional). When paired with a compatible GPS navigator, pilots can select and fly instrument approaches, including back course approaches, ILS, GPS, LOC, and VOR. Specifically, for "back course approaches", if the aircraft is equipped with a digital HSI, any course

intercepts requiring a turn greater than 105° will automatically activate the localizer back course, thereby reducing workload.

AeroCruze 230 packs a lot of features and makes your decision effortless in upgrading your KFC 150/200¹ autopilots. A sample set of features/benefits is given in the table below.

¹Available in early 2020



Table 1. AeroCruze 230 sample features and their benefits	
FEATURE	FUNCTION/BENEFITS
LVL mode button	Engages the autopilot in roll and pitch modes and brings the airplane to level flight. Can be used in emergencies or simply to roll the wings-level. Can be used in emergencies to help recover from unusual attitudes and bring the aircraft to level flight.
GPS to ILS Approach sequencing	Allows the pilot to load the approach into the FMS, enabling the FMS to give guidance to the autopilot and flight director for the entire procedure until reaching the final approach fix.
Missed Approach	Can be used to do a go-around if visibility is compromised during the trip down the final approach course. Allows you to climb, following the published missed approach procedure.
Flies holds automatically	Flies the guidance provided by the navigation source. If a hold is in the flight plan, it will be followed.
Control Wheel Steering (CWS) switch	Reduces workload by not having to continually apply positive pressure on the yoke and control column to maintain a set pitch or roll.
Takeoff/Go-Around (TOGA) button on the throttle or instrument panel	Allows the pilot to fly the aircraft manually using guidance from the flight director by disengaging the autopilot, and engaging a wings level, pitch up reference on the flight director for the aircraft to execute a safe go-around.
GPSS roll steering	Reduces work load as it eliminates the need for setting course arrow or heading bug at leg changes.
Trim In Motion alert	Provides a Trim In Motion voice alert, when it detects a significant pitch trim servo movement. An audio "TRIM IN MOTION" callout is continuously played. Helps reduce drag since the stabilizer surface and the elevator are in alignment when the aircraft is in trim.
Configurable, by installer, altitude voice alert and band limits	Offers flexible configuration by allowing the pilot to turn the altitude voice alerts off or on. While there are default values in accordance with the guidance for altitude alerting they can be configured by the installer. Based on pilot's preferences, these functions can be configured for maximum flexibility.

Simplicity

Simple to install

The AeroCruze 230 has a modular system architecture, which increases its reliability. The system components are:

1. Autonomous flight computer
2. A separate mode controller (KMC 231)
3. KG 71 to provide air data and digital attitude
4. The servo currently installed in your aircraft, as part of your current KFC 150/200/250²

This modular, “lego-like”, design makes installation easy, with no changes to the panel. Additional savings in time are afforded by reusing your existing servos in your aircraft. Since your current servos can be reused, you can expect a dramatic decrease in installation time. Another benefit of upgrading to AeroCruze 230 is gaining an additional two-year system warranty for your current servos, free of charge². The current brackets and cabling can be reused to further reduce cost of installation.

²Dealer verification of a working system is required.

Simple to use

The AeroCruze 230 autopilot is operated by a set of hybrid controls on the autopilot panel, using dual concentric knobs, soft buttons, a touchscreen display, plus a set of dedicated controls. Dedicated knob/button functions have been designed for frequent use functions. The autopilot touchscreen buttons control the engagement/disengagement of general functions, and control lateral and vertical modes. The panel soft-touch up/down buttons control airspeed/vertical speed targets, pitch reference, and fine altitude tuning in ALT mode. An altitude selector knob is used to preselect the desired altitude.

The panel touch controls use color references to display active functions in green, while the content within each button displays the targets that the autopilot is actively working to maintain.

Annunciation of active modes are readily displayed on the autopilot touchscreen by a green active indicator box serving as the primary, while the green text and green border serve as a secondary confirmation (excludes LVL, which displays a light blue indicator box, light blue text and light blue border). The touchscreen interface adds Level (LVL) mode, and altitude preselect. This display provides additional prompts and cues of what the system will do when modes are engaged.



Enhanced safety

AeroCruze 230 offers many safety features that help you fly with confidence and in control. At power up, it conducts an automated “built-in power-up test” to verify the integrity of the system.

When coupled to sensors such as navigators, AeroCruze 230 can seamlessly transition between flight phases, coupling to either WAAS or ILS approaches. Altitude preselect offers more precise altitude capturing, and can be used as a reminder for your altitude clearances. AeroCruze 230 offers precise turns for curved approaches and way-point transitions even in windy conditions.

The KMC 231 touch-screen Mode Control Panel has been designed to increase flight safety by informing the pilot about “what the autopilot thinks” or “what will happen next”. This way the pilot is always in complete control of the aircraft, and can override AeroCruze 230 actions easily and quickly.

Additional safety factors have been designed for a more precise and accurate reference tracking, such as AeroCruze 230’s compatibility with digital AHRS/ADC. Other safety features include:

1. Helping you in low visibility conditions during IFR by allowing you to stay coupled down to 250 feet (typical) It can significantly reduce workload during these critical phases of flight.
2. Its wing leveler operates precisely when the bank angle is less than 6 degrees; when the bank angle is greater than 6 degrees, the AeroCruze 230 will maintain that bank angle.

Value

The “value” benefits of the AeroCruze 230 stem from:

1. Low cost of installation by reusing existing servos and wiring, therefore, saving you thousands of dollars.
2. Reduced installation time – rapid final assembly will save you hours of installation time reducing labor costs.
3. Reduction in on-going maintenance costs by getting an additional two years of warranty on your existing servos and servo-mounts.

AeroCruze 230 Technical Specifications	
TECHNICAL CHARACTERISTICS	
Dimensions	6.3x1.6x11.6 in, (16.0x4.2x28.6 cm)
Weight	2.6 lbs (1.18kg)
Operating Temperature	-20°C to +55°C (-4°F to +131°F)
Operating Altitude	35,000 ft
Input Voltage	14 and 28 VDC systems (9-33VDC)
Power Consumption	2.4A @ 14VDC
CERTIFICATIONS	
	TSO C-198 Environmental: RTCA/DO-160G Software: RTCA/DO-178 Level B
STC CERTIFICATION	
The initial AML STC will cover the following airframes:	Beechcraft F33A, A36, A36TC, B36TC
	Mooney M20K, M20J, M20L
	Piper PA-32-301, PA-32-301T, PA-32R-301, PA-32R-301T
	Socata TB10, TB20
	Mooney M20M, M20R, M20S
	Piper PA-60-700P, PA-34-200T, PA-34-220T, PA-46-310P, PA-46-350P

Find Out More

To learn more, call 1.855.250.7027
to contact your local BendixKing dealer or visit
www.bendixking.com/en/products/aerocruze-230