



VSP - 81  
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VENDOR SERVICE PUBLICATIONS

**TO:** All Piper Distributors, Service Distributors, Factory Direct Dealers and Piper Field Service Facilities.

**SUBJECT:** Bendix/King Installation Bulletins No. 250 and No. 260.

**PURPOSE:** To distribute the attached Bendix/King Installation Bulletins No. 250 and No. 260 to all Piper Distributors, Service Distributors, Factory Direct Dealers and Piper Field Service Facilities.

The attached Bendix/King Installation Bulletins may affect King Radio Equipment installed in Piper airplanes. Refer to the publications for specific details.



# Installation Bulletin

## **BENDIX/KING**

GENERAL AVIATION AVIONICS DIVISION

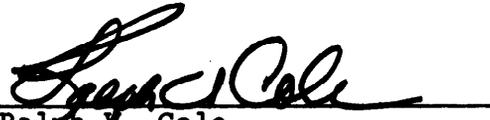


BULLETIN NO: 250 Revised  
APPLICABLE TO: KAP 100, KAP 150 and KFC 150  
Flight Control Systems

This installation bulletin is approved for incorporation in the following aircraft:

Mooney M20J and M20K	SA1561CE-D
Piper PA-28-161, PA-28-181, PA-28-236	SA1565CE-D
Piper PA-28RT-201, PA-28RT-201T	SA1563CE-D
Piper PA-32-301, PA-32-301T	SA1567CE-D
Piper 32R-301, PA-32R-301T	SA1572CE-D
Piper 34-200T, PA-34-220T	SA1575CE-D
Piper PA-46-310P	SA1778CE-D
Piper PA-60-700P	SA1777CE-D
Cessna 172P	SA1570CE-D
Cessna 172RG	SA1568CE-D
Cessna 182P, 182Q, 182R, T182	SA1770CE-D
Cessna R182, TR182	SA1571CE-D
Cessna A185F	SA1573CE-D
Cessna U206G, TU206G	SA1569CE-D
Cessna 210R, T210R	SA2050CE-D
Cessna 208	SA2053CE-D
Beech A36 (s/n E1241 and after), A36TC, B36TC	SA1574CE-D
Beech F33A	SA1789CE-D
Aerospatale Socata Trinidad TB 20, TB 10	SA1785CE-D
Partenavia AP68TP 300	SA1784CE-D
Partenavia P68C, P68C-TC	SA1791CE-D

FAA Approved

  
Ralph V. Cole  
Coordinator DAS4CE

SUBJECT: Authorizing use of approved, replacement King part number KG 258 Attitude Horizon and KI 256 Flight Command Indicators with updated KC 190, KC 191 and KC 192 Flight Computers in existing Flight Control installations.

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King Radio had revised the KG 258, KI 256 and KC 19X series Flight Computers to improve their interface capability with each other. The improvement consisted of isolation amplifiers added to the pitch and roll attitude outputs in the gyros and circuitry added to the Flight Computer gyro excitation power supply for more precise regulating of gyro excitation out of the computer.

Subsequent to the introduction of these units, King Radio determined that no appreciable benefit was achieved from the addition of these amplifiers and the units listed below are no longer produced.

The KG 258 units with this change are identified by the 060-0020-21, 22, 23, 24, 27, 28, 29 and 30 King part numbers. These units are defined as:

060-0020-21	zero degree, with both pick offs and knob adjustment, interchanges with	060-0020-01
060-0020-22	eight degrees, with both pick offs and knob adjustment, interchanges with	060-0020-02
060-0020-23	zero degree, with roll pick off only and knob adjustment, interchanges with	060-0020-03
060-0020-24	eight degrees, with roll pick off only and knob adjustment, interchanges with	060-0020-04
060-0020-27	zero degree, with both pick offs and screw adjustment, interchanges with	060-0020-07
060-0020-28	eight degrees, with both pick offs and screw adjustment, interchanges with	060-0020-08
060-0020-29	zero degree, with roll pick off only and screw adjustment, interchanges with	060-0020-09
060-0020-30	eight degree, with roll pick off only and screw adjustment, interchanges with	060-0020-10

To utilize these part number KG 258, a wiring change would be incorporated in the KAP 100 and KAP 150 Autopilot Systems. Three (3) wires must be added between the KC 190 or KC 191 and the KG 258. The wires are:

+15 VDC from P19X2-F to P2581-J  
-15 VDC from P19X2-E to P2581-K  
Signal Ground from P19X2-A to P2581-N

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These wires supply power and ground for the roll and pitch amplifiers. These flavors of KG 258's will not provide gyro reference information for the autopilot unless the wires are added to the installation.

The KI 256 revision was indicated by Mod 6. Changes to the installation were not required because the wires supplying +15 volt power and ground were already installed. Mod 6 has been superceded by Mod 7.

The updated Flight Computers are noted by Mod 8. There were no changes required in the installation for the modified computers.

No changes were required to a KFC 150 System to incorporate these units but a KAP 100 or KAP 150 System required adding three (3) wires between the Flight Computer and KG 258.

These changes constituted a product improvement and were not warranty reimbursable. This installation bulletin will remain in effect and will be considered authorization to use the different part number KG 258 Attitude Horizons in existing installations.

For optimum performance, a gyro alignment is required anytime an attitude gyro or flight control computer is replaced or serviced. Refer to the applicable installation or flightline maintenance manual for procedures.

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# Installation Bulletin

## **BENDIX/KING**

GENERAL AVIATION AVIONICS DIVISION



BULLETIN NO: 260 Revised

APPLICABLE TO: KFC 200 Autopilot Only  
Flight Control Systems Utilizing  
KG 258 Attitude Horizons

This installation bulletin is approved for incorporation in the following aircraft:

<u>AIRCRAFT</u>		<u>STC NUMBER</u>
Beech	95-55, 95-A55, 95-B55, 95-B55A	
	95-C55, D55, E55, E55A, 58, 58A	SA1134CE
Beech	K35, M35, N35, P35, S35	
	V35, V35A, V35B	SA1140CE
Beech	36 and A36	SA1145CE
Piper	PA-34-200T, PA-34-220T	SA1147CE
Beech	58P, 58PA, 58TC, 58TCA	SA1150CE
Piper	PA-23-250	SA1163CE
Beech	F33A	SA1164CE
Piper	PA-31, PA-31-325, PA-31-350	SA1166CE
Piper	PA-28R-200, PA-28R-201, PA-28R-201T	SA1183CE
Aerostar	600, 601, 601P, 602P	SA1184CE
Navion H		SA1190CE
Piper	PA-32R-300	SA1201CE
Cessna	210K, T210K, 210L, T210L,	
	210M, T210M, 210N, T210N	SA1202CE
Cessna	337G	SA1205CE
Mooney	M20F, M20J	SA1212CE
Rockwell	112, 112B, 112TC, 112TCA, 114	SA1229CE
Cessna	421C	SA1246CE
Bellanca	17-30A, 17-31A, 17-31ATC	SA1257CE
Cessna	310P, T310P, 310Q,	
	T310Q, 310R, T310R	SA1273CE
Cessna	340A	SA1276CE
Beech	35-C33A, 35-B33	SA1289CE
Cessna	182P and 182Q	SA1296CE
Cessna	404	SA1297CE
Grumman	GA-7	SA1425CE
Piper	PA-32RT-300 and PA-32RT-300T	SA1430CE
Cessna	414A	SA1431CE
Cessna	R182 and TR 182	SA1433CE
Beech	76	SA1455CE

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AIRCRAFTSTC NUMBER

Mooney	M20J and M20K	SA1464CE
Cessna	U206G and TU206G	SA1480CE
Cessna	P210N	SA1487CE
Beech	A36 and A36TC	SA1496CE
Piper	PA-28RT-201 and PA-28RT-201T	SA1498CE
Cessna	402C	SA1502CE
Piper	PA-44-180	SA1504CE
Piper	PA-32R-301 and PA 32R-301T	SA1522CE-D
Beech	65 (L-23F)	SA1562CE-D
Beech	B36TC	SA1564CE-D
Beech	A36 (s/n E-1946, E-2104, E-2111 and after)	
	B36TC (s/n EA-320, EA-389 and after)	SA1779CE-D
Beech	58P, 58PA, 58TC, 58TCA	SA1780CE-D
Beech	58, 58A	SA1781CE-D

FAA Approved



Ralph V. Cole  
FAA DER KC-249  
Coordinator DAS4CE

SUBJECT: Authorizing use of recently approved King part number KG 258 Attitude Horizons in EXISTING KFC 200 AUTOPILOT ONLY (KAP 200) Flight Control installations.

King Radio revised the KG 258 to improve its interface capability with some autopilot computers. These improvements consisted of additional isolation amplifiers in the pitch and roll attitude outputs in the gyro. This change required new part number designations.

Subsequent to the introduction of these units, King Radio determined that no appreciable benefit was achieved from the addition of these amplifiers, and the units listed below are no longer produced.

The KG 258 units with this change, that are useable in the KFC 200 Autopilot only, are identified by the 060-0020-21, -22, -27 and -28 King part numbers. These units are defined as:

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060-0020-21	zero degree, with both pick offs and knob adjustment, replace by	060-0020-01
060-0020-22	eight degree, with both pick offs and knob adjustment, replace by	060-0020-02
060-0020-27	zero degree, with both pick offs and screw adjustment, replace by	060-0020-07
060-0020-28	eight degree, with both pick offs and screw adjustment, replace by	060-0020-08

This installation bulletin will be considered authorization to use the different part number KG 258 in existing installations. The new part number KG 258 is not recommended for new or replacement installations since the original KPN 060-0020-01, -02, -07 and -08 KG 258 Attitude Horizons are direct replacements in existing installations.

For optimum performance, a gyro alignment is required anytime an attitude gyro of flight control computer is replaced or serviced. Refer to the applicable installation or flightline maintenance manual for procedures.

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