

Publications and Training Solutions

Course Syllabus: 523-0823320

COURSE TITLE: Pro Line Fusion Flight Line Maintenance for the King Air

PREREQUISITES:

1. Students should have a basic knowledge of aircraft avionics systems.
2. Students should be familiar with the Microsoft Windows® operating system.
3. Students should complete the Welcome to Rockwell Collins eLearning CBT.
4. Students should have a working knowledge of the English language.

PURPOSE:

This course provides King Air flight line maintenance personnel with the knowledge necessary to operate and perform flight line maintenance on the Pro Line Fusion® Avionics system.

OBJECTIVES: Upon completing this course, the student should be able to:

1. Understand the principles of operation of the King Air Pro Line Fusion Avionics system.
2. Identify the components and describe their function and operation.
3. Describe the system architecture and interface.
4. Perform fault isolation to identify a faulty Line Replaceable Unit (LRU) using built-in test diagnostics.

COURSE LENGTH: Approximately Five (5) Hours

REFERENCES:

- | | |
|---------------------------------------------------------|-------------|
| 1. King Air Pro Line Fusion Avionics Maintenance Manual | 523-0821905 |
| 2. Pro Line Fusion for King Air Fault Isolation Manual | 523-0821906 |
| 3. Pro Line Fusion for King Air Wiring Diagram Manual | 523-0821907 |

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COURSE OUTLINE

- 0. Introduction (Video)**
- 1. Overview (Familiarization)**
- 2. Touchscreen Interface (Video)**
- 3. Cursor Control Panel (Video)**
- 4. Multifunction Keyboard Panel (Video)**
- 5. Flight Guidance Panel (Video)**
- 6. Baro-Altitude Radar Tilt Knobs (Video)**
- 7. Philosophy (Familiarization)**
- 8. PFD (Familiarization)**
- 9. MFD (Familiarization)**
- 10. Phase 3 Updates (Familiarization)**
- 11. System Block Diagram (Familiarization)**
- 12. USB Flight Plan Loading (Familiarization)**
- 13. Flight Planning (Video)**
- 14. Pre-Flight (Drill and Practice)**
- 15. Engine Start (Drill and Practice)**
- 16. Before Taxi (Drill and Practice)**
- 17. Taxi (Drill and Practice)**
- 18. Takeoff (Drill and Practice)**
- 19. Initial Climb (Drill and Practice)**
- 20. Cruise (Drill and Practice)**
- 21. Descent (Drill and Practice)**
- 22. Approach (Drill and Practice)**
- 23. Go Around/Missed Approach (Drill and Practice)**
- 24. Data Loading (Video)**
- 25. Software Loading (Video)**

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26. Onboard Maintenance System (Video)

27. Options

- A. Aircraft Survivability Equipment (Familiarization)
- B. Direction Finder (Familiarization)
- C. Extended Frequency VHF (Familiarization)
- D. Externally Controlled Transponder (Familiarization)
- E. 3rd GNSS (Familiarization)
- F. MultiScan (Familiarization)
- G. RIU (Familiarization)
- H. S-AHRS (Familiarization)
- I. Special Mission CAS Messages (Familiarization)
- J. Stormscope (Familiarization)
- K. TACAN (Familiarization)

28. Tips and Tricks Videos

- A. Touchscreen Toolbar (Video)
- B. Map Features (Video)
- C. Map Rerouting (Video)
- D. Range to Altitude Arc (Video)
- E. SVS – Airport Dome (Video)
- F. Memory Keys (Video)

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EQUIPMENT TYPE:

EQUIPMENT	NOMENCLATURE	PART NUMBER
Flight Guidance Computer B200	FGC-3000	822-1108-131/132/147
Flight Guidance Panel	FGP-3000	822-1107-103
Aileron Servo	SVO-3000	822-1168-001/002
Rudder Servo	SVO-3000/85B	822-1168-002 622-5027-101
Elevator Servo	SVO-3000	822-1168-001/002
Servo Mount (Aileron)	SMT-65	622-5735-001/002
Servo Mount (Elevator)	SMT-65	622-5735-001/002
Servo Mount (Rudder)	SMT-65/85B	622-5735-001/002 622-5029-102
Elevator Trim Servo	SVO-3000	822-1168-003
Elevator Trim Servo Mount	SMT-65/65D	622-5735-002 622-6411-002
HF Transceiver	HF-9031A	822-0101-002
HF Antenna Coupler	HF-9041	622-8114-002
HF Feedline Adapter	FL-9003	685-0350-001
VHF Communication Transceiver 8.33kHz	VHF-4000	822-1468-110
VHF Communication Transceiver 8.33kHz, Data Link	VHF-4000	822-1468-310
External Compensation Unit	ECU-3000	822-1200-997
Communications Management Unit	CMU-4000	822-1739-003

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EQUIPMENT	NOMENCLATURE	PART NUMBER
Integrated Card Cage	ICC-3000	822-1129-001
IAPS Environmental Controller	IEC-3001	822-1167-001
Power Supply Module	PWR-3000	822-1137-001
Input/Output Concentrator	IOC-3100	822-1361-620
Option Control Module	OCM-3100	822-1484-200
Configuration Strapping Unit	CSU-3100	822-1363-002
Data Concentrator Unit	DCU-3001	822-1483-102
Remote Data Concentrator	RDC-4002	822-1533-301
Maintenance Diagnostic Computer	MDC-3110	822-1987-XXX
Adaptive Flight Display	AFD-3700	822-3065-001
Cursor Control Panel	CCP-3500	822-2754-010
Multifunction Keypad Panel	MKP-3500	822-2568-010
Aircraft Personality Module	APM-5000	822-2195-001
Baro Single Knob Panel	SKP-3500	822-3163-010
Software: Adaptive Flight Display Runtime	AFDR-3700	810-0346-001
Software: Emulated Control Display Unit	ECDA-6000	810-0233-100
Software: Flight Display System Application	FDSA-6500	810-0234-1H0001
Software: Protocol Manager Application	PMA-6000	810-0192-100
Software: Radio Tuning System	RTSA-6000	810-0048-701

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EQUIPMENT	NOMENCLATURE	PART NUMBER
Application		
Software: Airframe Parameter Configuration Table	APCT-3700	810-0422-001
Software: Integrated Modular Avionics Table	IMAT-3700	810-0352-001
Air Data Computer	ADC-3010	822-2083-002 822-1109-026 822-1109-027
Aircraft Configuration Table	ACT-3010	810-0044-009
Attitude Heading Computer	AHC-3000	822-1110-002
Flux Detector Unit	FDU-3000	822-1193-001
External Compensation Unit (FSU)	ECU-3000	822-1200-002
Software: Advanced Terrain Functions	ATF-3500	810-0348-001
Software: Advanced Terrain Functions Table	ATFT-3500	810-0385-1H0001
Tilt Single Knob Panel	SKP-3500	822-3163-020
Weather Radar Receiver Transmitter Antenna	RTA-800/852	622-8439-004 822-1050-004
Radio Altimeter	ALT-4000	822-0615-206
TCAS Receiver/Transmitter	TTR-4100	822-3075-001
TCAS Directional Antenna	TRE-920	622-8973-001
VOR/ILS/MB/ADF Receiver	NAV-4000	822-1465-001
VOR/ILS/MB Receiver	NAV-4500	822-1579-001

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EQUIPMENT	NOMENCLATURE	PART NUMBER
Single ADF Antenna	ANT-462A	622-7383-001
DME Transceiver	DME-4000	822-1466-001
Diversity Transponder	TDR-94D	622-9210-310
Diversity Transponder, ADS-B Out	TDR-94D	622-9210-501
Software: Flight Management System Application	FMSA-6010	810-0163-1H0001
Software: FMS Search and Rescue Key	SARK-3500	810-0387-001
Software: Video Key	VID-3500	810-0392-001
Software: Onboard Maintenance System Application	OMSA-6000	810-0106-250
Software: Onboard Maintenance System Table	OMST-6000	810-0099-1H0001
Software: Onboard Data Loader Application	ODLA-3500	810-0345-1H0001
Software: File Server Application	FSA-6000	810-0072-302
Software: Data Link Weather Key	DLWX-3500	810-0353-001
Software: Electronic Charts Key	ECH-3500	810-0361-001
Software: Enhanced Map Overlays Key	OVL-3500	810-0360-001
Software: Outboard IFIS Key	FSAX-3500	810-0354-001
Software: Chart Extension Key	CHTX-3500	810-0476-001
XM Weather Key	XMWK-3500	810-0355-001
Software: Information Management System Operating	IMSOS-3500E	810-0415-001

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EQUIPMENT	NOMENCLATURE	PART NUMBER
System		
Information Management System	IMS-3500	822-2999-101
Software: EICAS Application	EICAS-6000	810-0245-1H0001