

Trotter Controls, Inc. FORT WORTH, TEXAS	PRODUCT DATASHEET	NUMBER DS-0001	REVISION
		MODEL 5025-0011	
TITLE DATASHEET – PILOT INTERFACE FRDS GEN II	BY JBF	CHK'D VT	SERIAL 0001 & SUBS
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REVISIONS :

None

ELIGIBLE SERIAL NUMBERS :

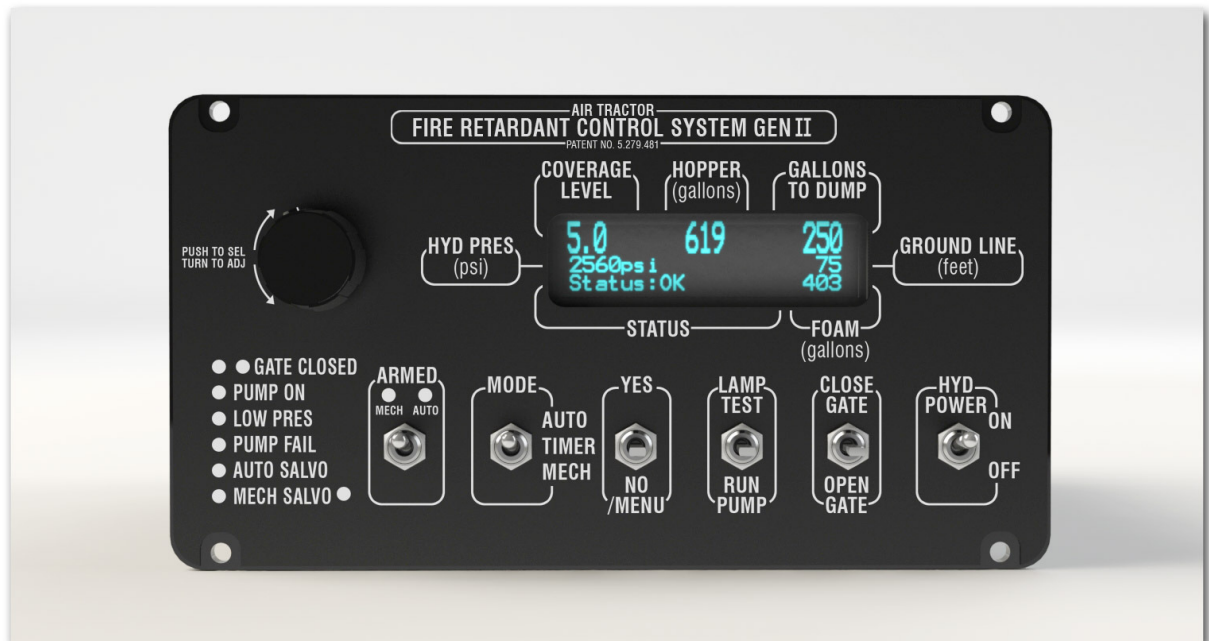
5025-0011 S/N 0001 and SUBS.

PURPOSE :

This report provides appropriate specifications for the GENII pilot interface used on the Air Tractor FRDS system.

SUMMARY :

The data listed here is compiled from various component datasheets used in the manufacture of the pilot interface assembly.



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GENERAL :

PILOT INTERFACE ASSY# 5025-0011

Rated Voltage	
Min:	20.0 VDC
Nominal:	24.0 VDC
Max:	36.0 VDC
Rated Current	
Min:	0.683 A
Nominal:	0.802 A
Inrush:	1.02 A (at startup due to capacitive inrush)
Power Consumption:	19.25 W
Recommended Supply Circuit Fuse / Breaker:	2 Amps
Dimensions:	6.50 L X 6.31 W X 2.88 H (Excludes mounting plate, connectors and switches). See Fig 1~3 for mounting and overall dimensions
Storage Temp:	-40C ~ +85C
Operating Temp:	-20C ~ +70C

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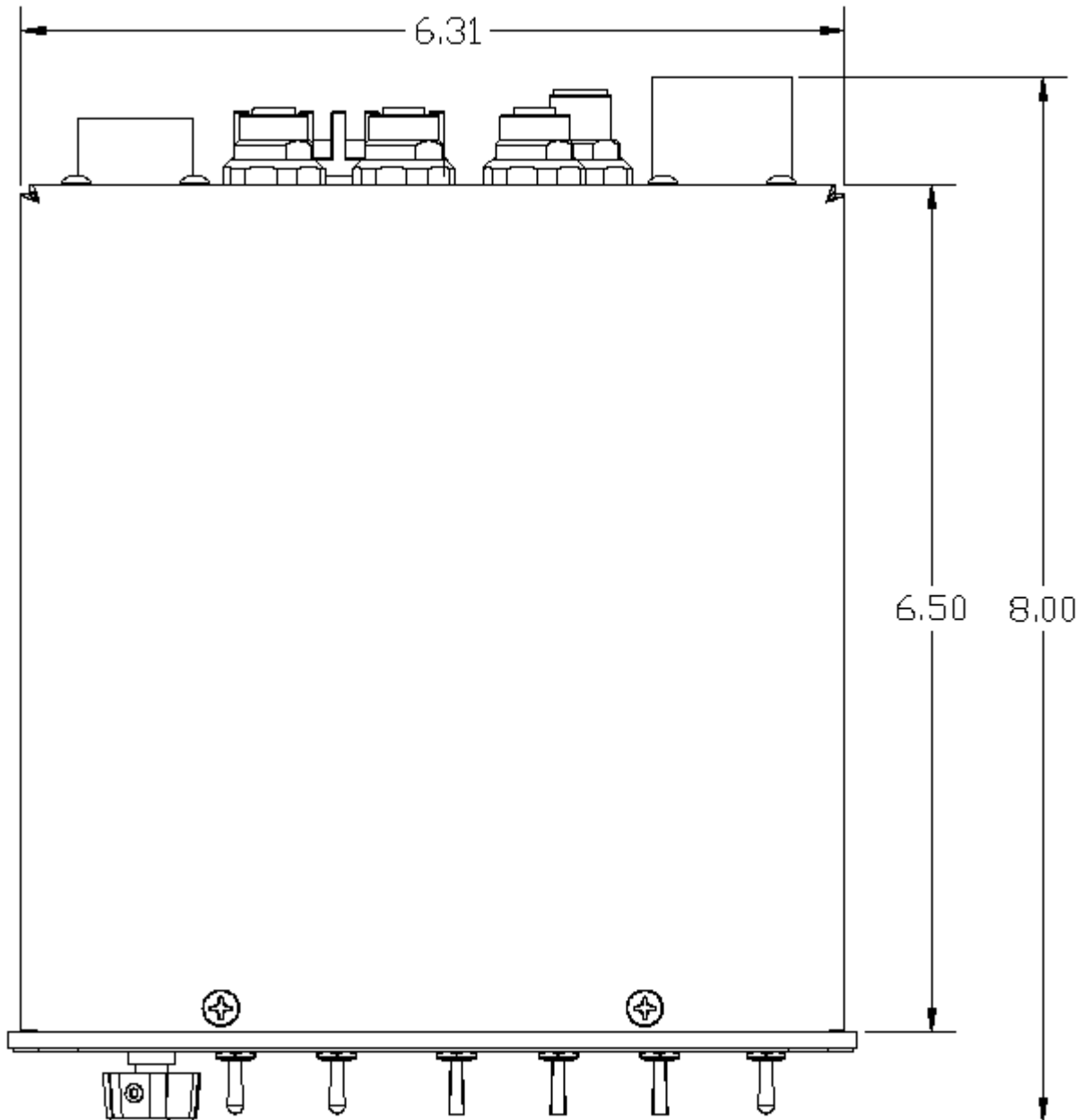


Figure 1 ~ Top View

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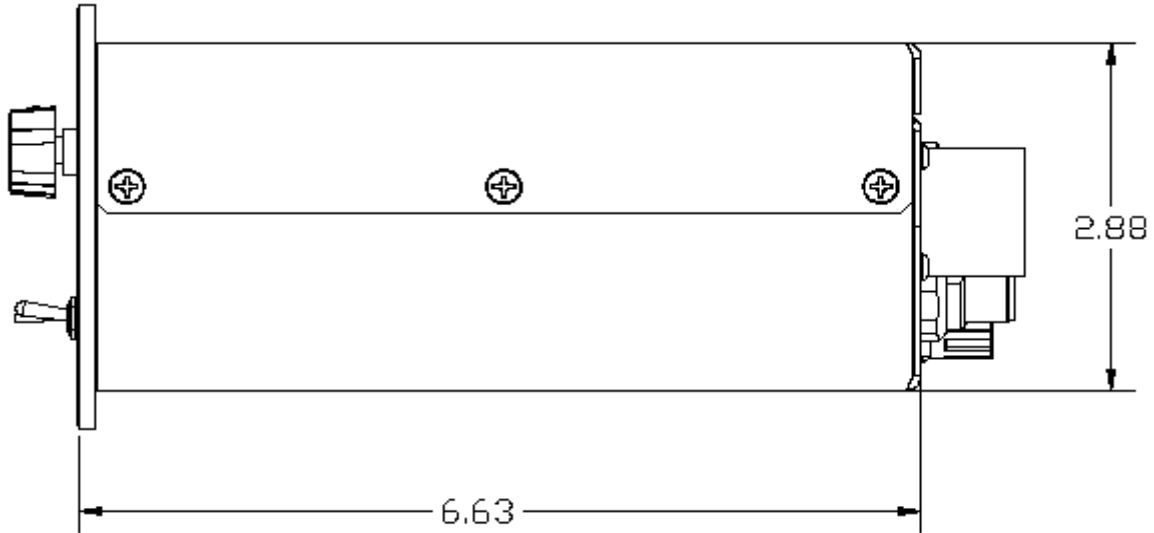


Figure 2 ~ Side View

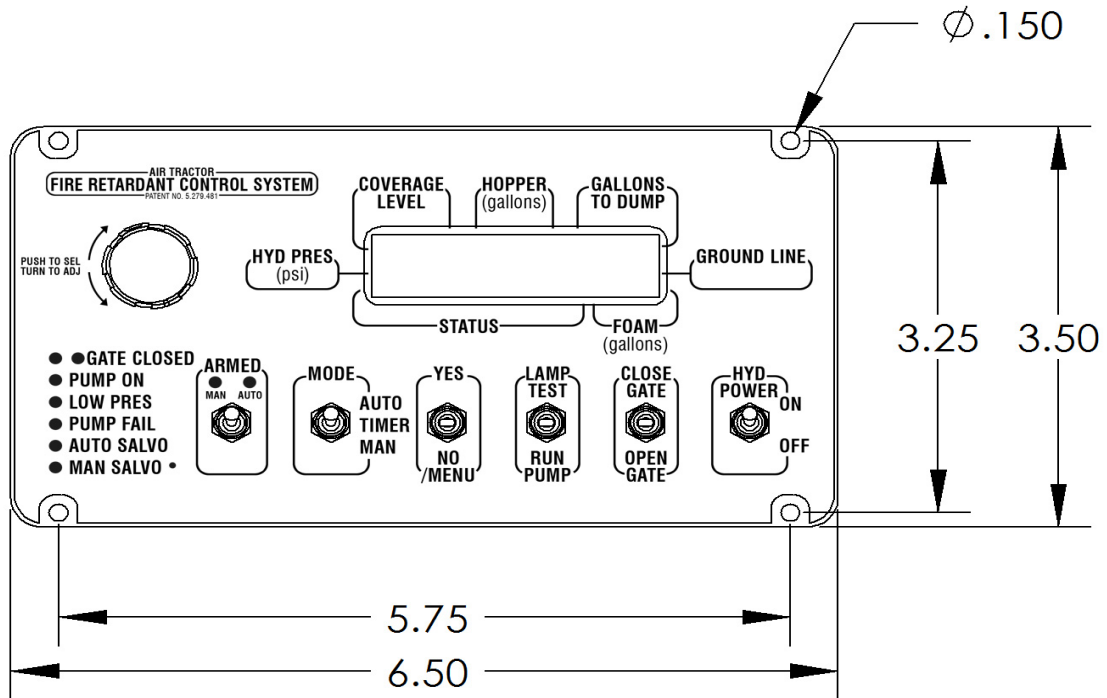


Figure 3 ~ Front View

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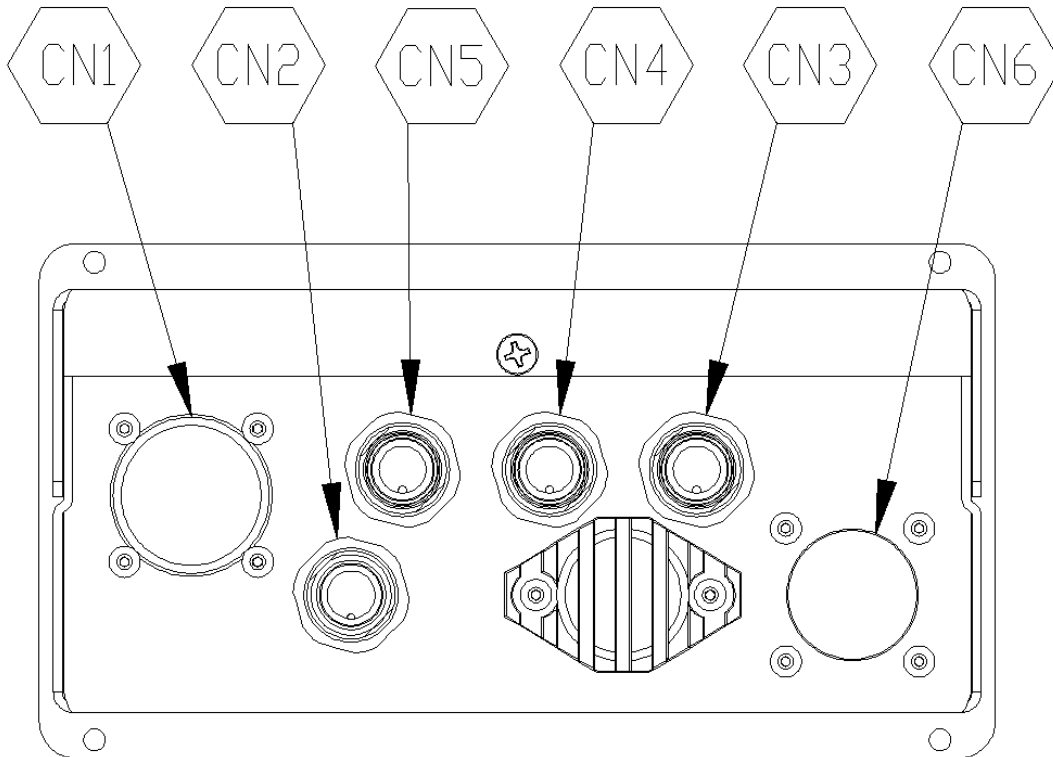


Figure 4 ~ Back View

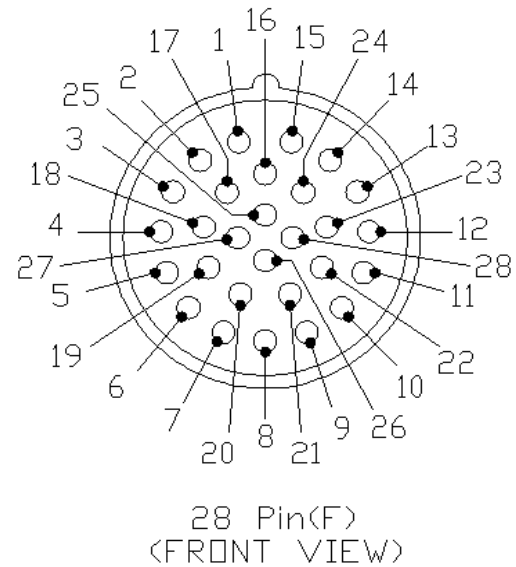
Allow approximately 4.5 inches of clearance to disconnect cables and to maintain a minimum cable-bending radius once the enclosure is installed.

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APPENDIX:

Table 1 ~ CN1 - Pilot Interface to/from relay enclosure.

PILOT INTERFACE (BASE)		
CN1 PIN#	J27, J24 J21, J10 {1}	DESCRIPTION
		5825-0047-01-00-01
1	J27-1	μP_AUTO_SALVO
2	J27-2	μP-V1-OPEN
3	J27-3	μP-V1-CLOSE
4	J27-4	μP-V2-OPEN
5	J27-5	μP-V2-CLOSE
6	J27-6	μP-V3-OPEN
7	J27-7	μP-V3-CLOSE
8	J27-8	μP-RUN_PUMP
9	J27-9	μP-SPARE1
10	J27-10	μP-SPARE2
11	J24-1	μP-BLEED_SOL
12	J24-2	μP-EDUMP1
13	J24-3	μP-EDUMP2
14	J24-4	NOT_DUMP_SW
15	J24-5	DUMP_SW
16	J24-6	EM_V+_SW_SUPPLY
17	J24-7	HYD_PWR_SW_&ARMED_SW
18	J24-8	I_EM_PWR1
19	J21-1	I_EM-V3-OPEN
20	J21-2	I_EM-V3-CLOSE
21	J21-3	I_EM-RUN_PUMP
22	J21-4	EM_AUTO_SALVO_ON
23	J21-5	FOAM-LVL
24	J21-6	HYD-PRESS
25	J10-1	HOPPER-LVL
26	J10-2	+V-AI-ISO
27	J10-3	GNDA
28	N/C	N/C



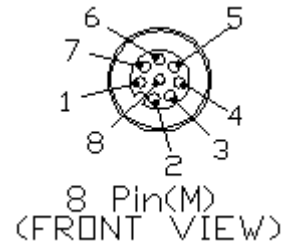
Notes:

1. J10, J21, J24, J27 are connectors on internal PCB assembly 5950-0010 and are supplied in this table for reference only.

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Table 2 ~ CN2 - Pilot interface to/from remote hopper displays.

PI - HOPPER DISPLAY		
CN2 PIN#	J1 & J36 PIN# {1}	DESCRIPTION
		5825-0051-01-00
1	J36-4	BUSY IN FROM REMOTE SLAVE
2	J36-6	RESET OUT TO REMOTE SLAVE
3	J36-5	CLOCK OUT TO REMOTE SLAVE
4	J36-2	DATA OUT TO REMOTE SLAVE
5		N/C
6		N/C
7	J1-1	+V OUT TO REMOTE SLAVE
8	J1-3	GND OUT TO REMOTE SLAVE

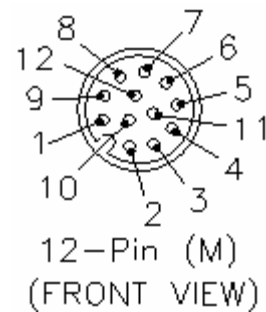


Notes: {x}

1. J1 and J36 are connectors on internal PCB assembly 5950-0010, Base I/O assy and are supplied in this table for reference only.

Table 3 ~ CN3 - I2C to/from relay box signals

PI - I2C COMM (BASE)		
CN3 PIN#	J34 & J37 PIN# {1}	DESCRIPTION
		5825-0048-01-00-01
1	J37-1	+12V_LOGIC_I2C
2	J37-2	+V_CABLE-PWR
3	J37-3	SCL
4	J37-4	SDA
5	J37-5	I2C_GND
6	J37-6	HOME-PRX1
7	J34-1	HOME-PRX2
8	J34-2	HYD_SW
9	J34-3	ARM_LT_OK
10	J34-4	GND
11	N/C	
12	N/C	



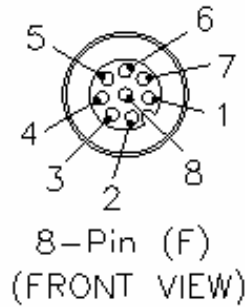
Notes: {x}

1. J34 and J37 are connectors on internal PCB assembly 5950-0010 and are supplied in this table for reference only.

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Table 4 ~ CN4 - Programming Port / Remote Armed Light

PI - PROG PORT (CORE)		
CN4 PIN#	J4/J8B PIN# {1}	DESCRIPTION 5825-0052-01-00
1	J4-1	MCLR
2	J4-2	+5V
3	J4-3	DGND
4	J4-4	AND/PGD
5	J4-5	ANI/PGC
6	J4-6	DGND
7	N/C	N/C
8	J8B-4	REMOTE ARM LT V+

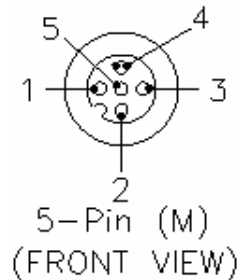


Notes: {x}

1. J4 and J8B are connectors on internal PCB assembly 5950-0009 and are supplied in this table for reference only.

Table 5 ~ CN5 - Pilot Interface to Gatebox Door Angle Sensor

PI - DOOR ANGLE (BASE)		
CN5 PIN#	J17 PIN# {1}	DESCRIPTION 5825-0049-01-00
1	1	+5V
2	2	SIG1
3	3	AGND
4	4	SIG2
5	5	SHIELD



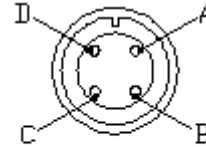
Notes: {x}

1. J17 is a connector on internal PCB assembly 5950-0010 and is supplied in this table for reference only.

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Table 6 ~ CN6 - Pilot Interface Input Power

PI - POWER IN (BASE)		
CN6 PIN#	J8 PIN# {1}	DESCRIPTION
		5825-0050-01-01
A	1	+V
B	2	IGN/START {2}
C	3	GND
D	4	SHIELD



4 Pin (M)
(FRONT VIEW)

Notes:

1. J8 is a connector on internal PCB assembly 5950-0010 and is supplied in this table for reference only.
2. Applying +24 Volts to this pin relative to GND (Pin 3), removes power from the pilot interface and system microprocessors.

Table 7 ~ FUSE SCHEDULE

FUSE SCHEDULE		
FUSE No.	FUSE RATING (Amps)	CIRCUIT PROTECTED
F1 {1}	1.0	Battery Voltage to Unit on PCB ASSY: 5950-0034
F5 {1}	0.25	Fan #2 on PCB ASSY: 5950-0034
F6 {1}	0.25	Fan #1 on PCB ASSY: 5950-0034
F13 {1}	1.0	Microprocessor voltage input, 7.3 ~ 9.0 volts on PCB ASSY: 5950-0034
F14 {1}	0.25	Analog supply from relay enclosure on PCB ASSY: 5950-0034
F15 {1}	0.5	+12V I2C power on PCB ASSY: 5950-0034
F1 {2}	1.5	POWER SUPPLY PCB ASSY: +12V_LOGIC_I2C
F1 {2}	0.5	CORE PCB ASSY# 5950-0009: +24V & +5 V
F2 {2}	0.5	CORE PCB ASSY# 5950-0009: VCCIO (PWR FOR I2C CABLE DRIVE VOLTAGE)
F3 {2}	0.5	CORE PCBv ASSY# 5950-0009: +12V (PWR FOR I2C LOGIC_LEVELS)

Notes: {x}

1. These fuses are user replaceable. They are located underneath the top cover of the pilot interface assembly.
2. These fuses must be replaced at the factory.