DigiData

(FUEL/AIRDATA COMPUTER/INDICATOR)

P/Ns:
912802-A
912802-03A
912802-03A-G

INSTALLATION MANUAL

REV M

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PAGE CONTROL CHART

10.0 INSTALLATION DRAWINGS AND INSTALL KIT PARTS LISTS

Drawing No.	Description/Part Number	DATE	REV
4005-483	Installation, DigiData, Hi/Lo Freq. Input TTL FF P/N 912802, Page 1 of 2	05/06/99	E
4005-479	Installation, DigiData, Hi/Lo Freq. Input TTL FF P/N 912802, Page 2 of 2	07/30/98	D
4005-546	Installation, DigiData, Analog FF Option P/N 912802-03, Page 1 of 2	05/06/99	D
4005-548	Installation, DigiData, Analog FF Option P/N 912802-03, Page 2 of 2	07/30/98	C
4028-A23	Installation, DigiData, Analog FF, Grey Face P/N 912802-03-G, Page 1 of 2	05/6/99	A
4028-A24	Installation, DigiData, Analog FF, Grey Face P/N 912802-03-G, Page 2 of 2	07/30/98	–
4070-005	Installation, Serial to Argus 5000/7000 Converter P/N 937000-03	02/14/05	B
4005-642	Installation, Sine/Squarewave Converter P/N 631201	03/03/03	A
4028-005	Installation, OAT Probe Assembly Kit, P/N 681201-1	02/14/05	C
N/A	Parts List, OAT Probe Assembly Kit P/N 681201-1	04/06/07	H
N/A	Parts List, Install Kit, DigiData, P/N IK9128	07/23/98	–
4028-A19	Installation Wiring, DigiData to NAV Receivers W/RS-232	03/03/03	B
4028-A20	Installation Wiring, DigiData and Shadin Converter to Eventide Argus	07/30/98	–
4028-A21	Installation Wiring, DigiData to NAV Receivers W/RS-422, RS-485	03/03/03	A

10.0 INSTALLATION DRAWINGS AND INSTALL KIT PARTS LISTS (continued)

Drawing No.	Description/Part Number	DATE	REV
4028-A22	Installation Wiring, DigiData, Sine to Digital FF Converter, Various Aircraft	03/11/03	A
4028-207	Installation Wiring, DigiData FF	07/30/98	G
4028-373	Installation Wiring, DigiData FF	03/11/03	E
4028-716	Installation Wiring, Loop Back Harness	03/11/96	–
	AIRCRAFT SPECIFIC		
4028-820	Installation Wiring, DigiData with Analog FF Indicators	03/11/03	B
4028-936	Installation Wiring, F/ADC200, 2000 or DigiData with DC FF to Cessna Citation 500, 501, 550, S550, 551, 552	02/14/05	A
4028-937	Installation Wiring, F/ADC200, 2000 or DigiData with DC FF to Cessna Citation 525 Jet	02/14/05	A
4028-938	Installation Wiring, F/ADC200, 2000 or DigiData with Digital FF to BomBardier Learjet 24, 25D	01/17/05	A
4028-940	Installation Wiring, F/ADC200, 2000 or DigiData with DC FF to Raytheon Beechjet 400A Aircraft	02/14/05	A
4028-941	Installation Wiring, F/ADC200, 2000 or DigiData with DC FF to Westwind 1124 Models	02/14/05	A
4028-A29	Installation Wiring, F/ADC200, 2000 or DigiData with DC FF Piper Cheyenne PA31T	01/17/05	C
4028-E68	Installation Wiring, Digidata Freq. Input, FF Transducer-Converters	03/11/03	–
4028-E69	Installation Wiring, Connectors, Digidata	03/11/03	–

REVISION LOG

REV.	DATE	APP'D	CHANGE
-	10/21/93	RR	Release
A	09/09/94	SES	Miscellaneous updates
B	08/07/95	KCL	Miscellaneous updates
C	05/09/96	KCL	Miscellaneous updates
D	08/07/98	KCL	Format change, SSEC listing, software configuration update, new installation DWGs
E	06/10/99	EDJ	Update Analog K-Factor table, correct SSEC/PSEC list and alphabetize, correct SSEC/PSEC selection table, insert drawing 4028-716, replace drawings 4028-A29, 4005-483, 4028-546 and 4028-A23 with current revision. Update descriptions in drawings 4005-642 and 4028-373. Formatting changes made to manual reflecting current revision.
F	01/31/00	EDJ	Add Garmin, FormatG, to page 9.3 Loran Output Type list. Page iv changed due to adding Ragen Indicator/Transmitter to page 10-26, 4028-A29 installation wiring drawing.
G	09/12/00	KCL	Change page iii, 5-2, and 8-1 OAT probe to P/N 681201A-1, changed page 2-1 PALT to 50000 ft, change page 3-1 environmental categories, replace pages 10-10 and 10-11.
H	09/12/00	KCL	Update: Title page, pages i through v, page 5-1, page 5-4 and Drawing No 4028-A19.
J	04/18/03	EDJ	Revised Section 9 to include Configuration Selection procedure and Tables. OAT probe correction code selection was added. Updated Section 2.2.
K	02/25/05	ZK	Changed Company name. Updated Installation Dwg Section 10.
L	01/05/06	CB	Updated Company Logo, Section 5.2, Section 2.2.
M	05/20/08	ZK	Added A to Digidata part numbers due to software change and RTCA/DO-178B Level D. Changed Page 2-1.

The information in this manual is subject to change without notification. To ensure complete and current updates, note the Revision Log above and call Technical Support for updated information.

1.0 OVERVIEW

1.1 The Manual

This manual is designed to facilitate the installation of the Shadin DigiData (FUEL/AIRDATA COMPUTER/INDICATOR).

1.2 Product Information

The Shadin DigiData system is designed to provide a **combined** source of fuel and airdata. The data can be viewed on the DigiData, a navigational receiver or both. Listed below are the navigational systems that the DigiData has been designed to be compatible with. Note that not all navigational systems are capable of receiving fuel and airdata information from the DigiData but provide data necessary for some fuel management and wind calculations.

Receives Serial Data from:

ARNAV	Trimble	Bendix King
STAR 5000	2000/2000A	KLN90
FMS 7000	2100/3000	KLN90A
R5000	3100/2101	KLN90B
		KLN89/89B
		KLN900

Garmin	Northstar	IIMorrow
150, 155, 155XL, 165	M1, M2, M3	611, 612, 618
230, 230XL	60/600 GPS	NMS 2001
300, 300XL		800, 820, 360
		GX50, 55, 60

Transmits Serial Data to:

ARNAV
Bendix/King
Garmin
Trimble
IImorrow

Note: To find out which particular receiver models have airdata receive capability, contact the manufacturers.

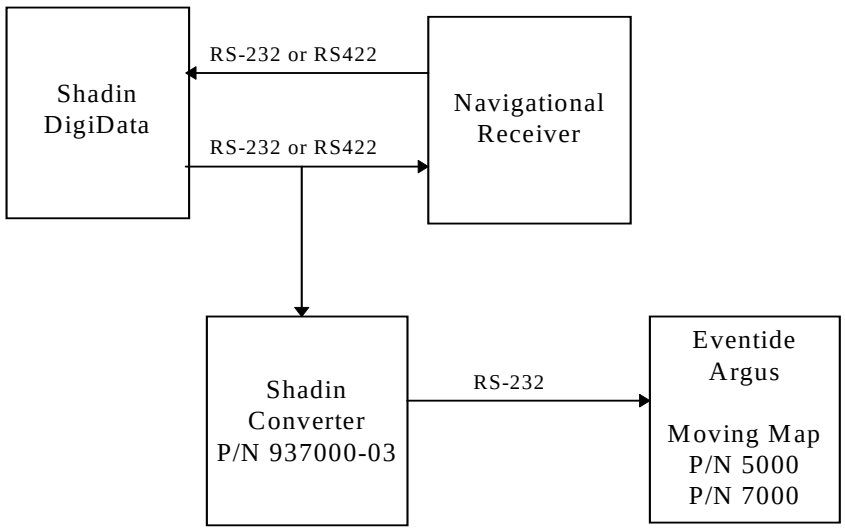
1.3 System Configuration

The DigiData is a panel mounted indicator, which communicates with a navigational receiver via the serial port. It is also connected to the pitot and static lines, OAT probe, fuel flow sensors and the aircraft heading source.

SYSTEM CONFIGURATION

1.4 DigiData, Argus Moving Map Configurations.

Shown below is the system configuration that supports output to a Eventide Argus moving map using the Shadin serial to serial data converter P/N 937000-03. The fuel and airdata are displayed on the Eventide-Argus moving map. Consult Drawing numbers 4070-005 and 4028-A20 contained in section 10.



2.0 FUEL AND AIRDATA SYSTEM SPECIFICATIONS

2.1 Input Data Range

Pitot	20 to 350 kt.
Static	-1000 to 50,000 ft.
OAT	-60°C to, +60°C
Heading	0 - 360°
Fuel Flow	1 to 450 GPH Range Selected
K Factor	500 to 130000 PPG Continuous

2.2 Output Data Range

PARAMETER	Accuracy *	RANGE
IAS	±1 Kt	20 to 350 Kt.
P.ALT	±25 ft	-1000 to 5000 ft
P.ALT	±30 ft	8000 ft
P.ALT	±35 ft	11000 ft
P.ALT	±40 ft	14000 ft
P.ALT	±45 ft	17000 ft
P.ALT	±50 ft	20000 ft
P.ALT	±75 ft	30000 ft
P.ALT	±100 ft	40000 ft
P.ALT	±125 ft	50000 ft
OAT	±1°C	-60°C to +60°C
HEADING	±1°	0 - 360 degrees
IVS	±40 ft	±10,000 ft/min.
TAS	±2 Kts	20 - 600 kt.
MACH	±.01	.2 - .95
WIND SPEED	±5 Kt	5 - 360 Kt.
WIND DIRECTION	±10°	0 - 360 degrees
FUEL FLOW	±2%	1-450 GPH

* Listed accuracy's are after warm-up is complete.

2.3 Dimensions

Size: 7.6" Deep x 3.3" Square (Face) x 3.14" Round (Can).
Mounting hole: Standard 3 1/8" Diameter.
Weight: 1.1 lbs.

2.4 Power Requirements

System Power required: 28 VDC @ 1300 mA 14 VDC @ 900 mA

2.5 Output Data

Electric Format: RS-422 or RS-232

2.5.1 Serial Output Data Parameters

Fuel Group	**Airdata Group**
L. ENG. Fuel Flow	Pressure Altitude (PA)
R. ENG. Fuel Flow	Density Altitude (DA)
Fuel Used Total	Barometric Corrected Altitude (BA)
Total Fuel Used	Indicated Air Speed (IAS)
Fuel Used L. ENG.	True Air Speed (TAS)
Fuel Used R. ENG.	Vertical Speed (IVS)
Fuel Remaining	True Air Temperature (TAT)
NM/Fuel Unit (ground)	Outside Air Temperature (OAT)
Fuel to Destination	Drift Angle
Fuel at Destination	Magnetic Heading (HDG)
	Rate of Turn (ROT)
	MACH Number
	Wind Direction and Speed

Note: Not all parameters will be available to all navigational receivers. Contact the manufacturer for display capabilities.

2.6 Limitations

2.6.1 Warm-up time

The DigiData requires a warm-up time that varies with ambient temperature:

70°C ambient	5 minutes warm-up required
15°C ambient	10 minutes warm-up required
-20°C ambient	15 minutes warm-up required
-40°C ambient	20 minutes warm-up required

If the DigiData has been configured for a fuel flow delay, fuel flow and thus fuel used information shall be unavailable at startup for the duration of the selected delay.

2.6.2 Supplemental Equipment

All Shadin F/ADC(s) and ADC(s) (including the DigiData) are not designed to replace factory installed airdata fuel flow systems or other gauges. They are not intended to be used as a primary system to drive altimeters or airspeed indicators. The F/ADC fuel section is not a fuel quantity system and therefore reports only what was manually entered by the operator.

2.6.3 Static Source Error Correction (SSEC), Pitot Source Error Correction (PSEC)

For certain models of aircraft, the Fuel/Airdata System will make corrections to pressure altitude by compensating for static source error. For some of these models, the Fuel/Airdata System will make corrections to indicated airspeed by compensating for pitot source error.

The System does not provide true and absolute readings for all circumstances. It makes no altitude corrections when the uncorrected IAS is below 100 knots, and it makes no airspeed corrections when the uncorrected IAS is below 150 knots. It does not account for other factors, such as the current useful weight, that contribute to static source error and pitot source error. Rather, the Fuel/Airdata System performs calculations based solely on indicated airspeed and pressure altitude. The SSEC / PSEC corrections were derived from specific aircraft data referred to in section 2.6.4. To configure the Shadin DigiData for a specific aircraft model refer to section 9.

2.6.4 SSEC/PSEC LISTING

Beechcraft Beechjet-400 (SSEC only)

Airplane Flight Manual, BeechJet 400, Section 6, Performance		Page 6-14
FAA approved 1/86	Altitude Correction	Figure 6-8
Revision A9 14/92	Copilot System	

Boeing 707-321B Advanced

SSEC

Airplane Flight Manual, Boeing 707, Section IV, Performance		Page 19
FAA approved 3/27/69, D6-1588	Altitude Calibration	FLAPS UP
Revision 2/4/69	Pilot & Copilot	

PSEC

Airplane Flight Manual, Boeing 707, Section IV, Performance		Page 18
FAA approved 9/20/66, D6-1588	Airspeed Calibration	FLAPS UP
	Pilot & Copilot	

Cessna Citation S550 (SSEC only)

Airplanes -0115 through -0160 Except Airplanes Incorporating SBS550-32-7 and Airplanes -0001 through-0114 Incorporating SBS550-32-1 but not SBS550-32-7.

Section IV - Performance, Standard Charts		Pages 4-17, 4-18
FAA approved	Altimeter Position Correction	Figure 4-5
Revision 37	Pilot & Copilot	

Cessna 500 (SSEC only)

Airplane Flight Manual, Cessna/Citation Model 500, Section IV, Performance		
FAA approved Aug 7/74	Altitude Correction	Figure 4-7
Revision 53 - Dated 11 Dec 85	Pilot & Copilot system	Page 4-17.1

Cessna 501 (SSEC only)

Airplane Flight Manual, Cessna/Citation I SP Model 501, Section IV, Performance		
FAA approved	Altitude Correction	Figure 4-5
Original	Pilot & Copilot system	Page 4-15

NOTE: Uses same Hardware configuration as Cessna 500

Cessna 525 (SSEC only)

Airplane Flight Manual Model 525		
	Altitude Correction	Rept FT525-4
	Pilot & Copilot system	Page 47

2.6.4 SSEC/PSEC LISTING (Continued)

Cessna 550 (SSEC only)

Airplane Flight Manual, Cessna/Citation II Model 550, Section IV, Performance

FAA approved	Altitude Correction	Figure 4-5
Original	Pilot & Copilot system	Page 4-15

Cessna 560 (SSEC only)

Airplane Flight Manual, Model 560, S/N 259 & Below, Section IV, Performance

FAA approved	Altitude Correction	Figure 4-5
Original	Pilot & Copilot system	Page 4-17

Cessna 560 (SSEC only)

Airplane Flight Manual, Model 560 , S/N 260 & Up, Section IV, Performance

FAA approved	Altitude Correction	Figure 4-5
56FMA-00	Pilot & Copilot system	Page 4-19

Douglas DC-8

SSEC

Airplane Manual, Douglas DC-8, Section IV, Performance		Page 20
FAA approved	Altitude Correction	
DAC-33161 10/1/66	Pilot & Copilot system	

PSEC

Airplane Manual, Douglas DC-8, Section IV, Performance		Page 11
FAA approved	Airspeed Correction	
DAC-33161 10/1/66	Pilot & Copilot system	

Falcon 10 (SSEC only)

Airplane Flight Manual, Section 6. Performance, 7 Position Error		Page 6-27
FAA approved 10/17/73	Position Error	
Revision 14, 6/6/78	Pilot & Copilot	

Falcon 20-C, D, E (SSEC only)

Maintenance Instruction Manual, 34-18-03		Page A48
Sept 1/77	Altitude Correction	
CS-143	Copilot system	

Falcon 20-F (SSEC only)

Maintenance Instruction Manual, 34-18-03		Section 5
DTM30528	Altitude Correction	Subsection 20
DGAC Approved	Copilot system	Page 4

2.6.4 SSEC/PSEC LISTING (Continued)

Falcon 50

SSEC

Airplane Flight Manual, Section 5. Performance		Page 5.25.2
DGAC approved	Copilot (for A/C equipped with one ADC)	
Revision 24		

PSEC

Airplane Flight Manual, Section 5. Performance		Page 5.25.2
DGAC approved	Pilot (normal) and Copilot MACH Indicators	
Revision 24		

Lear 24 (SSEC only)

Airplane Manual, LearJet Model 24, Section IV, Performance		
FAA approved 3/17/66	Altitude Correction	Figure 4-10
Revised 7/19/68	Pilot & Copilot system	Page 4-16

Lear 25D (SSEC only)

Airplane Manual, LearJet 25D/F AFM, Performance		
FAA approved 10/14/86	Altitude Correction	Figure 5-10
FM-018 Release A	Copilot system	Page 5-18

Learjet 35 (SSEC only)

Flight Manual, LearJet 35, Normal System, Flaps up, Gear up		Page 5-18
FAA approved, 4/30/76	Altitude Position Correction	Figure 5-10
Reissued 2/25/81	Pilot's Altimeter- STBY & Copilot's Altimeter	

Learjet 55 (SSEC only)

Gates Learjet 55, APM, Performance Data, Flaps up, Gear up		Page 5-20
FAA approved, 3-17-81	Altitude Position Correction	Figure 5-11
Change 13		

Lockheed Jetstar II (SSEC only)

Airplane Flight Manual, Performance Data, Weight = 32,000 Lb., Clean Configuration: Leading Edge Flaps up, Trailing Edge Flaps up, Landing Gear up		Page 4-25
FAA approved, 12/14/76	Altimeter Installation Correction	Figure 4-15

Mitsubishi MU-300 (SSEC only)

Airplane Flight Manual, Diamond IA, Section 6, Performance		
FAA approved Jan 11/84	Altitude Correction	Figure 6-8
	Copilot system	Page 6-20

2.6.4 SSEC/PSEC LISTING (Continued)

Raytheon Hawker HS125-3A (SSEC only)

Airplane Manual,		Section 5
Document No. H.S.1.10	Static Position Error	Figure 5-4
CAA Approved	Correction to Altimeter	Page 13

Raytheon Hawker HS125-700A (SSEC only)

125 Crew Manual, First Officer, Section 2, Flaps Retracted		Page 2-30
	Static Position Correction to Altimeter	Figure 6
Revision: G, 4/77		

Sabreliner 60 (SSEC only)

Sabreliner Pilot's Manual, SR 75-064, Weight = 16,000 Lb.		
9/1/76	Altitude Calibration	Figure 7-2

Sabreliner 65 (SSEC only)

Pilots Manual, SR-78-028		
	Altitude Correction	Figures 7-1 through 7-5
	Pilot & Copilot system	265-65-7-31,32A,33

Westwind 1124A (SSEC only)

Airplane Flight Manual, 1124A, Section V, Performance		
CAA approved	Altitude Correction	
Figures 5-13, Flaps 0	Copilot system	Pages V-25

NOTE: Gross Weight averaged at 18,750 lbs.

2.7 Part Numbering Scheme

P/N 912802 – XX – Y

DigiData

Display Face Color
Y= "Blank", Black
Y= G, Gray

Fuel Sensor Type

XX= "Blank", DIGITAL Fuel Flow

XX= 03, ANALOG (DC) Fuel Flow

XXX=XX**A**, RTCA/DO-178B Level D

3.0 CERTIFICATION

TSO-C106, TSO-C44a

Environmental Categories RTCA/DO-160B

Temp. ALT	D1
Temp. Variation	B
Humidity	A
Shock & Vibration	P,K,S
Magnetic Effect	B
Power Input	B
Voltage Spike	B
AF Conducted Susceptibility	B
Induced Signal Susceptibility	B
RF Susceptibility	A
RF Emission	B

4.0 PLACING AN ORDER

Please know the aircraft year and model number, its serial number, and the engine make and model number when you call to place orders. Information on the fuel flow system previously installed in the aircraft and any communication interface (RS-232 or RS-422) information may also prove useful.

We may request a wiring diagram of the aircraft fuel flow system and transducer and/or K-factors.

5.0 INSTALLATION PROCEDURE

5.1 General

All work must conform to AC43.13-1B or later.

5.2 DigiData Panel Location Selection

The DigiData should be panel mounted in a dry, temperature stable location with enough distance from motors, pulse generating equipment, relays and cables carrying high DC or AC current.

It may be installed in a non-pressurized and non-controlled temperature location. In considering the location, keep in mind that the DigiData requires signals from the fuel flow, the OAT probe, heading system (Arinc 407) and the pitot and static lines.

Remember to provide ample space behind the DigiData for the mating connectors and pitot and static lines.

5.3 Mounting the DigiData

Depending on the DigiData part number mount per Drawing 4005-483 and 4005-479, 4005-546 and 4005-548 or 4028-A23 and 4028-A24 found in section 10. Make sure that the DigiData is not the lowest point in the pitot and static system, to reduce the chances of collecting moisture or water in it. Form a water trap, if necessary.

5.4 Mounting the OAT Probe

1. Refer to Drawing 4028-005 and OAT Probe Assy Kit 681201-1. Use the supplied stiffener to support the probe. Keep the probe away from transmitting antennas and static ports to avoid interference.

2. Refer to Drawing 4028-207: +5V is supplied to the OAT probe from (red wire) P3:8. The OAT signal is the white (or black) wire from P3:9.

3. The sun shield must be installed for proper indication of OAT.

4. For single engine installation, avoid mounting the OAT probe on the belly of the aircraft to avoid erroneous reading due to the presence of hot exhaust gases.

5. Below is a OAT °C to mirco-ampere conversion chart. The amperage can be measured by connecting an ammeter in series between the signal wire of the OAT probe and the DigiData. This information is provided for trouble shooting purposes only.

OAT ºC	Input µA		OAT ºC	Input µA		OAT ºC	Input µA
-60	213		-20	253		+20	293
-50	223		-10	263		+30	303
-40	233		0	273		+40	313
-30	243		+10	283		+50	323

1°C = 1 µA

5.5 Connection to the Fuel Flow Sensor

1. If the aircraft is not equipped with a fuel flow source, refer to the STC covering the installation of the fuel flow transducer on the engine.

2. When connecting to any fuel transducer, Shadin recommends using a 3 conductor, 22 gauge, shielded wire with the shield terminated at the DigiData only.

3. Note that for single engines all fuel flow types should use left side inputs only.

4. *Install the transducers according to the engine STC. Use Drawing 4028-207 (Freq. Option) to connect the fuel flow transducer to the DigiData.

5. *If the aircraft is equipped with a digital fuel flow transducer (P/N 680501), use Drawing 4028-207 and the STC drawing covering the installation of the fuel flow transducer in the fuel line.

6. *If the aircraft is equipped with an existing digital fuel flow transducer (P/N 6605XX), use Drawing 4028-207 and the STC drawing covering the interconnection of the fuel totalizer to the existing fuel flow system.

7. Before hooking to an existing fuel system in a turbine or jet application, consult all installation drawings contained in this manual.

8. *If the aircraft is equipped with a Analog (DC) fuel flow system, use Drawing 4005-546, 4005-548, 4028-A23, 4028-A24 and 4028-207.

9. *If the aircraft is equipped with a sine wave pickup coil type of fuel flow transducer, use Drawing 4028-373 (Sine Wave Signal). Use the converter, SHA P/N 631201 (Drawing 4005-642).

10. Make sure that the system is initialized with the proper K factor. Consult the DigiData Operating Manual OM2802 and section 9.1 of this manual for setup.

* Consult section 10 of this manual for specific aircraft installation wiring drawings.

5.6 Connection to the Heading Source

The system is designed to interface with any ARINC-407 heading system (X,Y,Z) with no effect on the heading system or the bootstrap. Use Drawing 4005-479, 4005-548, or 4028-A24 and the table below when connecting to the bootstrap.

XYZ Heading ARINC 407	DigiData P3	Collins 328A-2A 2P1	Collins HSI331A P1	Collins MCS 65 P1	Collins 328A-5	King KI525A P2	King KSG105 P1	Sperry Gyrosyn Comp. P1	Sigma-Tek DG	Sandel SN3308	
										P2	P1
X	5	11	S	25	32	s	t	L	A	25	
Y	4	4	T	40	22	v	p	M	B	6	
Z	7	3	U	24	12	t	k	K	D		4
H	6	26	V	6	53	r	c	H	E	4	
C	7	22	W	5	57	u	f	J	H		4

The C (AC common) and Z leads are connected together internally in the DigiData.

5.7 Connection to the Pitot and Static Lines

The pitot static line should be cut and a tee is installed to tap into these lines. Use the appropriate type of fittings to match the type installed in the aircraft. Use approved practices when installing these lines and perform a leak check before returning the aircraft to service.

PITOT/STATIC adapter helpful hints

To make an adapter for the Shadin DigiData, the following parts could be used. It is recommended to use all aluminum fittings.

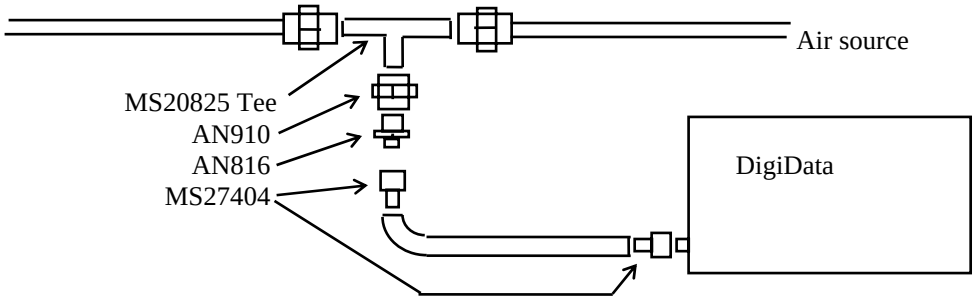
Existing Pitot/Static lines ⟶ AN910-1D ⟶ AN816-2D ⟶ #2 Hose(with female fittings)

AN910 DASH NUMBER		PIPE
BRASS	ALUM. ALLOY	SIZE
-1	-1D	1/8”
-2	-2D	1/4”
-3	-3D	3/8”
-4	-4D	1/2”
-6	-6D	3/4”
-8	-8D	1”

AN816 DASH NUMBER		TUBE	PIPE
STEEL	ALUM. ALLOY	O. D.	THREAD
-2	-2D	1/8”	1/8”
-3	-3D	3/16”	1/8”
-4	-4D	1/4”	1/8”
-5	-5D	5/16”	1/8”
-6	-6D	3/8”	1/4”
-8	-8D	1/2”	3/8”
-10	-10D	5/8”	1/2”
-12	-12D	3/4”	3/4”
-16	-16D	1”	1”

MS20825 TEE		TUBE	PIPE
STEEL	ALUM. ALLOY	O. D.	THREAD
-2	-2D	1/8”	1/8”
-3	-3D	3/16”	1/8”
-4	-4D	1/4”	1/8”
-5	-5D	5/16”	1/8”

HOSE: Stratoflex 193-2 or Aeroquip 306-2 with MS27404 (P/N 311-2D) on each end.



5.8 Connection to the Navigation Management System

1. Use the appropriate installation wiring diagram (4028-A19 or 4028-A21) to connect the DigiData Connector P1 to the navigation management system.

2. Keep the cables away from power cables, DME and transponder cables.

3. Refer to the specific Nav Receiver Installation Manuals for details.

5.9 Connection to the DC Power buss

1. Consult Installation Drawing P/N 912802 for a DigiData with digital fuel flow, P/N 912802-03 for a DigiData with DC fuel flow, or P/N 912802-03-G for a DigiData with DC fuel flow and a gray face.

2. Install a 2 amp. circuit breaker between P1:1 of the DigiData and the power buss. Mark the circuit breaker by engraving, painting or other approved method.

5.10 Post Installation Checkout

1. The pitot and static system must be checked for leaks.

2. Operate the Navigation Management System; select the altitude and airspeed pages. Use a static and pitot test system to verify the accuracy. Compare the pressure altitude and indicated air speed between the DigiData and Navigation Management System pages.

3. Select heading page. Slew compass through 360°. The error should be within ±1°.

4. Select the OAT page. Compare to the reported ambient temperature. The error should be ±1 ½ °C.

5. Run the engines and select the fuel flow page. Compare the fuel flow readout with the engine manufacturer's fuel flow charts under the ambient temperature and pressure conditions.

6.0 BASIC OPERATING INSTRUCTIONS

1. For a complete set of operating instructions consult the DigiData Operating Manual P/N OM2802.

2. Power the DigiData and the Navigation Management System.

3. After the warm-up period density altitude and PALT are available. IAS will be available but will be out of range until actual airspeed is available. Winds aloft will be available if the IAS is greater than 40 Kts and magnetic heading is within 40° of magnetic track.

4. Fuel Flow, Fuel Used, Fuel Remaining, Heading and OAT will be available after power-up.

5. Refer to the specific Nav Receiver Operator's Manual for page selection of various data.

7.0 INITIALIZATION

1. The DigiData is preprogrammed (Initialized) prior to shipping. If changes are required in the DigiData setup, use Drawing 4028-716 to create a configuration harness ("Loop-Back" harness). Refer to the Operating Manual P/N OM2802 and the Tables listed in section 9 of this manual for programming instructions. Before making changes it is advisable to record the current settings.

2. Refer to the Navigational Receiver manual for serial port setup. It is necessary to have both the DigiData and the Receiver configured correctly.

3. If you need to change the K-factor and or Offset for P/N (s) **912802-03A** or **912802-03A-G** refer to the "DigiData Analog Fuel Flow Chart" Table 1 contained in Section 9.1.

8.0 MAJOR COMPONENTS OF THE SYSTEM

1. DigiData.
2. Outside Air Temperature Probe Assembly, SHA P/N 681201-1
3. Navigational Receiver

9.0 CONFIGURING THE DIGIDATA

The DigiData Fuel Airdata Computer comes configured from the factory for a particular installation. The procedure contained in this Installation Manual is for software versions 93.10.75 and above.

9.1 Configuring Manually (Loop-back)

The unit is powered using the loop-back harness (consult drawing number 4028-716 contained in section 10). The purpose of the loop-back harness is to tie the RS-232 transmit and receive ports together. This allows the software, when the unit is powered on, to allow configuration of the unit through the front panel switches and displays.

To enter the configuration mode:

1. Connect the special configuration harness to the DigiData and connect to power source.
2. Set the rotary switch knob to Airdata position and apply power to the unit.
3. After the unit has completed the Start Up self test mode, press and hold the TEST/ENTER button until the DigiData enters the test mode. At the end of the normal test mode displays, the unit will display “System Setup” and enter the configuration mode.
4. The ADD/FULL switch is used to page through the options per figure below. Use the USED and REM buttons to scroll through the selections (or to increase/decrease the value in the case of the K-Factors and Offsets and Low Fuel Warning).
5. Once all of the desired selections have been made, press and hold the TEST/ENTER button until the message “Saving Changes” appears. The DigiData will reset, and the new selections will now be in effect.
6. Power down unit and disconnect the configuration harness.

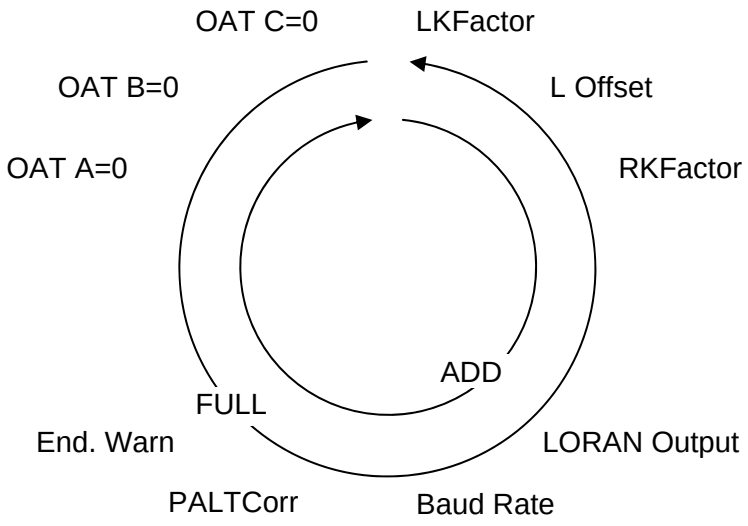


Table of Configuration Selections

Rotate to OAT Correction Code Option

FULL Switch → ADD Switch ←

Rotate to PSSEC/SSEC Option

Airdata Page Options	Configuration Selections (USED/REM Pushbuttons used to select option)	
Left K-Factor (in ppg)	**Refer to Table 1 or fuel flow transducer data sheet.**	
Left Offset	**Refer to Table 1 or fuel flow transducer data sheet.**	
Right K-Factor (in ppg)	**Refer to Table 1 or fuel flow transducer data sheet.**	
Right Offset	**Refer to Table 1 or fuel flow transducer data sheet.**	
Fuel Units	**1. Gallons** **2. Liters** **3. Pounds 5.8** **4. Pounds 6.7**	**5. Kilogram** **6. Pounds 6.5** **7. Pounds 6.3**
Engine Type	**1. Single**	**2. Twin**
Fuel Filter Type	**1. Normal (Injector)**	**2. Carburetor**
Loran Input Type	**1. Trimble** **2. Arnav** **3. Bendix** **4. Garmin** **5. Northstar**	**6. Foster** **7. IIMorrow** **8. FlowMeter**
Loran Output Type	**1. Format Z** **2. Format X** **3. Generic** **4. Surveyor** **5. Bendix C**	**6. Bendix D** **7. Shadin S** **8. Bendix B** **9. Garmin G**
Serial Communication Baud Rate	**1. 9600 baud** **2. 1200 baud**	**3. 2400 baud** **4. 4800 baud**
SSEC/PSEC Corrections	**Refer to Table 2**	
Endurance Warning Time	**1. 45 minutes** **2. 10 minutes** **3. 15 minutes** **4. 20 minutes**	**5. 25 minutes** **6. 30 minutes** **7. 35 minutes** **8. 40 minutes**
Low Fuel Warning (in fuel units)	**Select desired value when value is displayed.**	
Barometric Preference	**1. In Hg**	**2. Millibars**
OAT Temperature Probe Types	**1. Shadin=0** **2. Rosemount 1**	**3. Rosemount 2**
Fuel Flow Delay Time	**1. 0 seconds** **2. 5 seconds** **3. 10 seconds** **4. 15 seconds** **5. 20 seconds**	**6. 25 seconds** **7. 30 seconds** **8. 35 seconds** **9. 40 seconds** **10. 45 seconds**
ARINC Output Status Options	**1. NCD status**	**2. OK status**
OAT Correction Codes	**Refer to Shadin OAT correction code marked on package. Set A, B, and C to those codes when selection prompt is displayed.**	

Analog K-Factor Settings Table

DigiData Analog Fuel Flow Chart			
Manufacturer	Model	K-Factor	Offset
Beech	KingAir B200	77000	445
Beech	KingAir A100	26150	938
Beech	KingAir C90	26150	938
Beech	KingAir F90	77000	445
Beech	KingAir C90A	77000	445
Beech	KingAir 200	77000	445
Beech	BeechJet	11530	0
Beech	KingAir B100	26150	938
Beech	Beech 600	38460	0
Beech	Beech 750	30770	0
Beech	Beech 800	28840	0
Cessna	Citation, Ametek Gauge, 02C208E	16270	0
Cessna	Citation, Simmons Gauge, 393002-009	14300	0
Cessna	Citation II/SII	16260	0
Cessna	Citation III	9610	1172
Cessna	Model 525	21970	0
Piper	Cheyenne III	41950	0
Piper	Cheyenne IV	46150	0
Lear	Learjet	15380	0
Lear	Model 36 (5V)	11530	0
Lear	Model 36 (10V)	23070	0
Boeing	Boeing-737-300	1790	405
British Aero	BAE ATP	15380	0
British Aero	BAE-125-800	8240	0
British Aero	HS-125	10480	0
Canadian	CL600	6590	0
Canadian	CL601	5120	0
Dornier	DO-228	46150	0
Daussault	FALCON 10	11530	0
Daussault	FALCON 20	7690	0
Daussault	TFE-371	7690	0
Swearngen	MERLIN	38460	0
Gulfstream	GULFSTREAM II	2880	0
Gulfstream	GULFSTREAM III	2300	0
Aerospatiale	PUMA	76920	0
DHC	DHC DASH 8	19230	0
IAI	ASTRA 1125	9230	2344
IAI	WESTWIND 1124	10480	0
Sikorsky	S-76A	46150	0
Sikorsky	S-76B	28840	0
Sabre	SABRE 65	9230	2344

Table 1

SSEC and PSEC Selections Table

The following SSEC and PSEC corrections and available for the following aircraft with the listed DigiData software versions. If your aircraft model is not listed in Table 2, select "no correction".

CORRECTION For SSEC/PSEC Select:	DigiData Display	DigiData Software Version:
- No correction	None	ALL
- MITSUBISHI MU-300	MU-300	93.10.29 - and up
- CESSNA CITATION 500/501	Cit. 501	93.10.29 - and up
- CESSNA 525	Cess 525	93.10.29 - and up
- CESSNA 550	Cess 550	93.10.29 - and up
- Citation 560 SN <=259	Ces 560a	93.10.29 - and up
- Citation 560 SN >=260	Ces 560b	93.10.29 - and up
- Citation 650	Cit. 650	93.10.29 - and up
- Sabreliner 65	Sabre 65	93.10.29 - and up
- WestWind 1124A	WestWind	93.10.29 - and up
- Lear 24	Lear 24	93.10.29 - and up
- HS 125-3A	HS125-3A	93.10.29 - and up
- Falcon 20-F	Falc20-F	93.10.29 - and up
- Falcon 20-C, D, E	F20-CDE	93.10.29 - and up
- Lear 25D	Lear 25D	93.10.29 - and up
- Douglas DC-8	Doug DC8	93.10.58-and up
- Beechjet 400	Bchjt400	93.10.63-and up
- Boeing 707-321B	707321BA	93.10.63-and up
- Cessna Citation S550	Cit. S550	93.10.63-and up
- Falcon 10	Falcon 10	93.10.63-and up
- Falcon 50	Falcon 50	93.10.63-and up
- Hawker HS125-700A	125-700A	93.10.63-and up
- Learjet 35	Lear 35	93.10.63-and up
- Learjet 55	Lear 55	93.10.63-and up
- Sabreliner 60	Sabre 60	93.10.63-and up
- Lockheed Jetstar II	JetStar2	93.10.63-and up

Table 2

Navigational Receiver Types

Below find a listing of the DigiData input / output selection definitions.

Input Type:

- Trimble (9600 baud)
- ARNAV (9600 baud)
- Bendix (IIMorrow Apollo NMS2001, 800, 820, GX50/55/60, 9600 baud)
- Garmin (9600 baud)
- Northstar (1200 or 9600 baud, 1200 is the default for the Northstar)
- Foster (1200 baud)
- IIMorrow 611, 612 and 618 (1200 baud)
- FlowMeterDO NOT USE

Output Type:

- Format Z - Trimble and Garmin
- Format G - Garmin
- Format X - ARNAV
- Generic - DO NOT USE
- Surveyor
- Bendix D - DO NOT USE
- Bendix C - Bendix/King fuel and airdata without Barometric Interface
- Shadin S - IIMorrow GX50, 55, 60, CNX 80
- Bendix B - Bendix/King fuel data
- Format G - Garmin

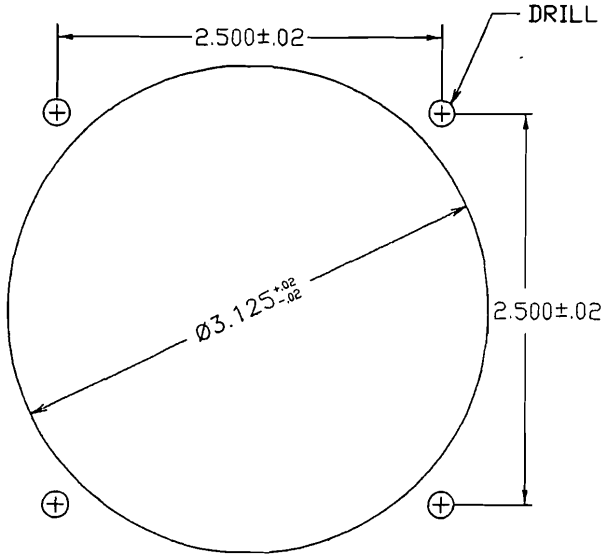
Table 3

SECTION 10

INSTALLATION DRAWINGS AND INSTALL KIT PARTS LISTS

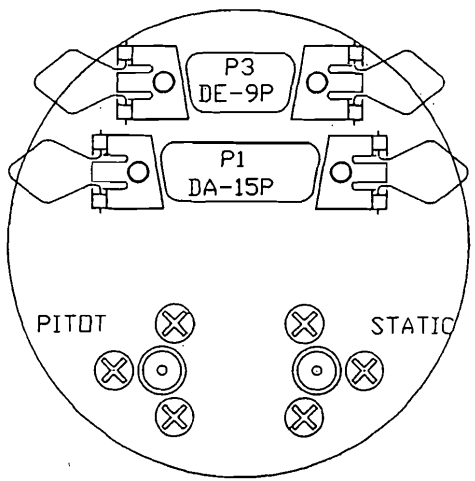
NOTES:

1. P1:3, TRANSDUCER POWER FOR LEFT AND RIGHT ENGINE.
2. FOR SINGLE ENGINE APPLICATION USE P1:15 LEFT FUEL FLOW DIGITAL SIGNAL IN ONLY.



P1, MALE 'D' CONN. INDICATOR

1	+28V DC INSTRUMENT POWER
2	INSTRUMENT GROUND
3	FLOW TRANSDUCER POWER (+12V OUT) 1
4	NC
5	TX, RS-232 COMM.
6	TX, SDA+ RS-422 COMM.
7	NC
8	TX, SDB- RS-422 COMM.
9	RX, SDA+ RS-422 COMM.
10	SIGNAL GROUND, RIGHT FF
11	SIGNAL GROUND, LEFT FF
12	RX, RS-232 / SDB- RS-422 COMM.
13	RIGHT FUEL FLOW DIGITAL SIGNAL IN
14	NC
15	LEFT FUEL FLOW DIGITAL SIGNAL IN 2



P3, HEADING / O.A.T. CONN. (OPTIONAL)

1	NC
2	NC
3	NC
4	Y SIGNAL
5	X SIGNAL
6	H SIGNAL
7	C SIGNAL
8	O.A.T. POWER
9	O.A.T. SIGNAL

ECO #	REV.	DATE
807/021	D	7/30/98
505/020	C	5/15/96
N/A	B	9/9/94
N/A	A	8/30/94

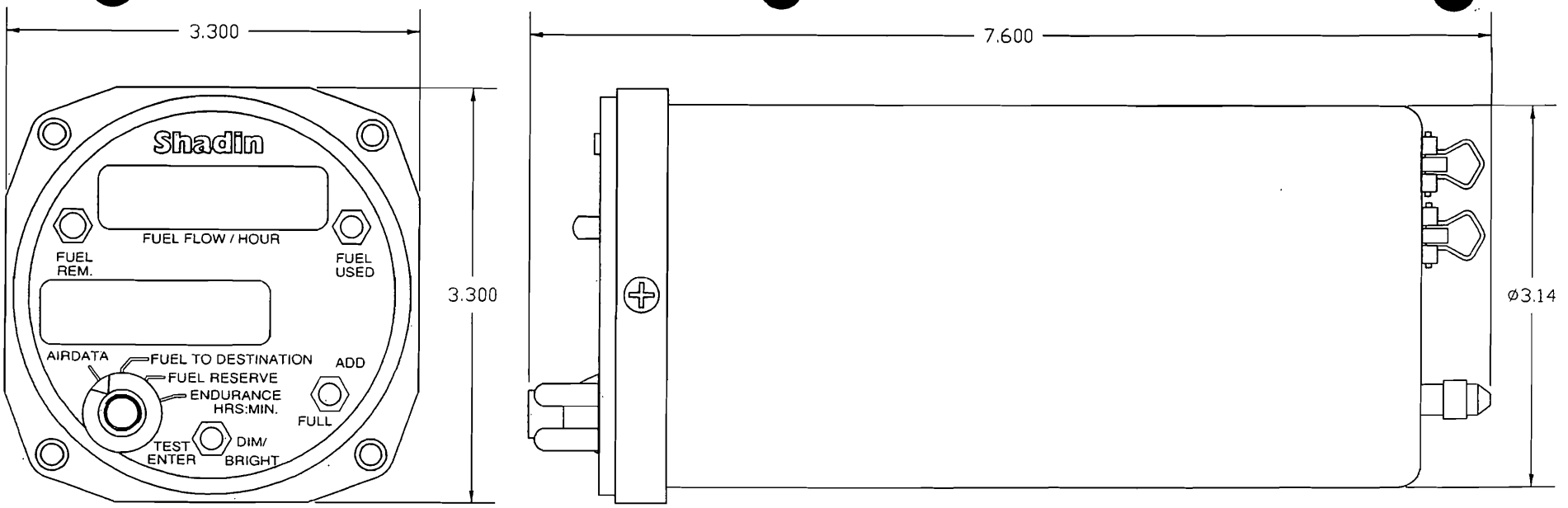
SCALE: NONE

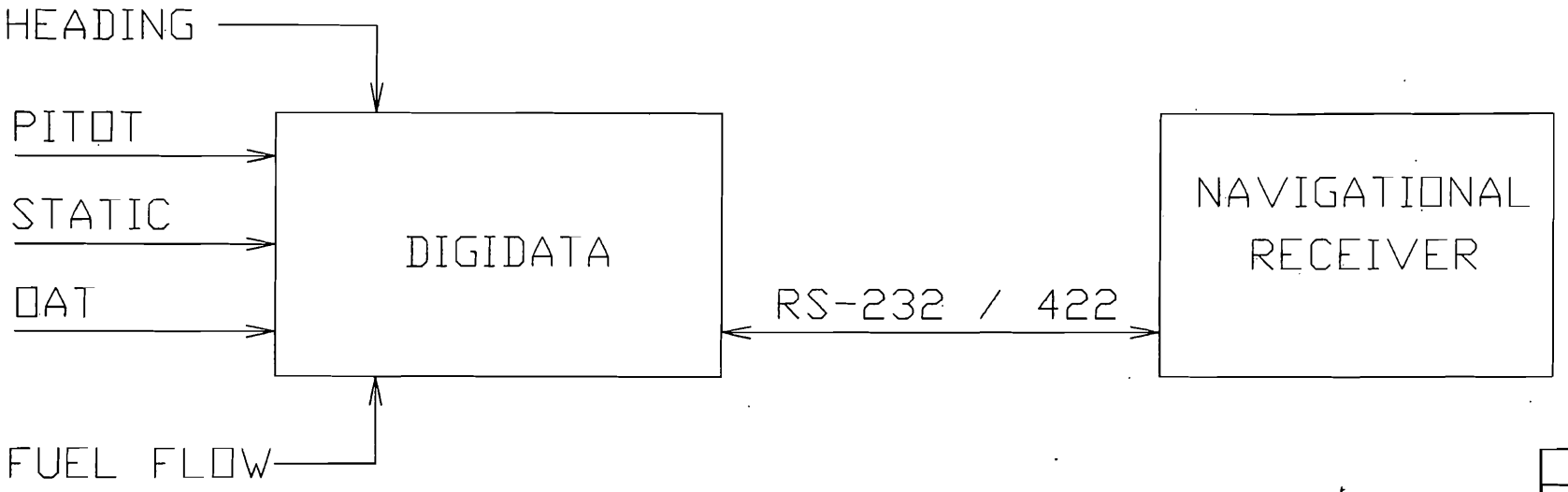
DRAWING DATE	9/10/93
DRAFTER	DAP
APPROVED	RR
FILE NAME	912802EJ.DWG
DIRECTORY	912802
SHEET	2 OF 2

SHADIN MINNEAPOLIS, MN 55426

INSTALLATION, DIGIDATA, HI/LO FREQ INPUT TTL FF

DRAWING NO.	SIZE		REV
4005-479	A	P/N912802	D





D	2
E	1
REV.	PAGE

PAGE HISTORY

ECO #	REV.	DATE	BY	APP'D	DESCRIPTION
9904/038	E	5/6/99	PAB	pg	REMOVED 'LEFT' & 'RIGHT' FROM FACEPLATE VIEW, ADDED LOGO, SWITCH BOOTS, AND BEZEL SCREW
9807/021	D	7/30/98	PAB	KCL	REMOVE SPECS, ADD DIMENSIONS
9605/020	C	5/15/96	WMP	RR	CORRECT IAS, P.ALT, ADD RATE OF TURN, 'AIRDATA' TO 'DIGIDATA'
N/A	B	9/9/94	DAP	RR	REMOVED CONNECTOR INFORMATION
N/A	A	8/30/94	WMP	RR	BASELINE RELEASE

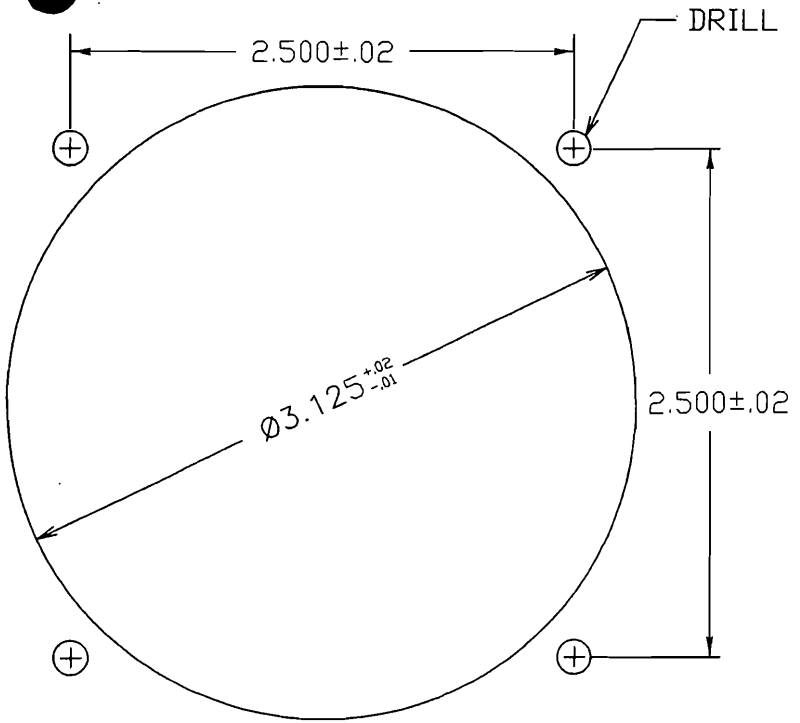
SCALE: NONE

DRAWING DATE 10/21/93
DRAFTER DAP
APPROVED RR
FILE NAME 912802EJ.DWG
DIRECTORY 912802
SHEET 1 OF 2

SHADIN MINNEAPOLIS, MN 55426

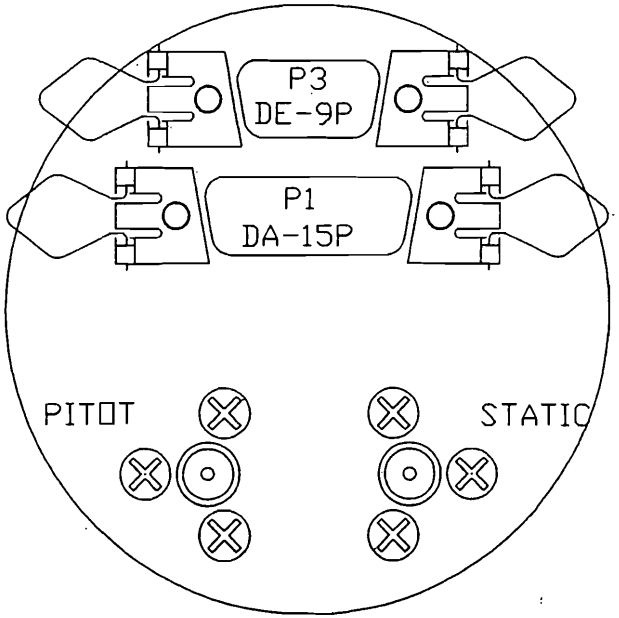
INSTALLATION, DIGIDATA, HI/LO FREQ INPUT TTL FF

DRAWING NO.	SIZE		REV
4005-483	A	P/N912802	E



P1, MALE "D" CONN. INDICATOR

1	+28V DC INSTRUMENT POWER
2	INSTRUMENT GROUND
3	NC
4	NC
5	TX, RS-232 COMM.
6	TX, SDA+ RS-422 COMM.
7	RIGHT ANALOG FUEL FLOW IN (-)
8	TX, SDB- RS-422 COMM.
9	RX, SDA+ RS-422 COMM.
10	GROUND
11	GROUND
12	RX, RS-232 / SDB- RS-422 COMM.
13	RIGHT ANALOG FUEL FLOW IN (+)
14	LEFT ANALOG FUEL FLOW IN (-)
15	LEFT ANALOG FUEL FLOW IN (+)



P3, HEADING / O.A.T. CONN. (OPTIONAL)

1	NC
2	NC
3	NC
4	Y SIGNAL
5	X SIGNAL
6	H SIGNAL
7	C SIGNAL
8	O.A.T. POWER
9	O.A.T. SIGNAL

ECO #	REV.	DATE
9807/021	C	7/30/98
9605/020	B	5/15/96
9608/066	A	3/26/96

DO NOT SCALE DRAWING

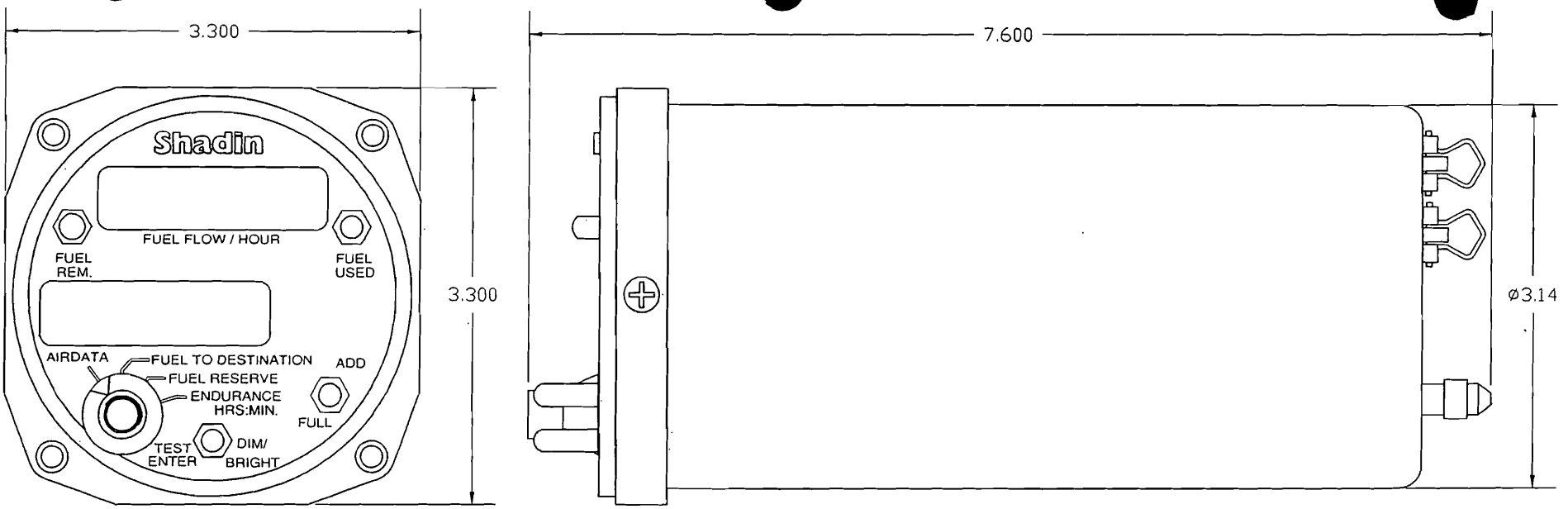
DRAWING DATE	9-10-93
DRAFTSMAN	DAP
APPROVED	RR
FILE NAME	912802-03DJ.DWG
DIRECTORY	912802
SHEET	2 OF 2

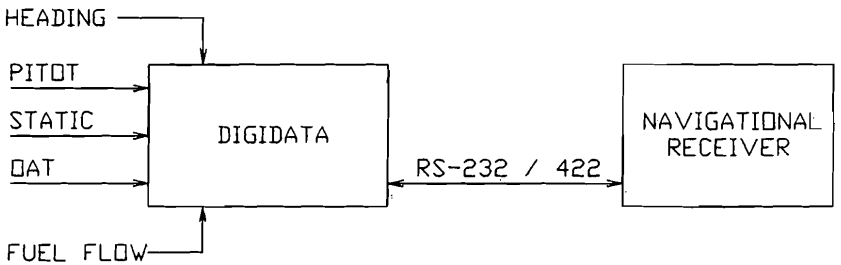
SHADIN MINNEAPOLIS, MN 55426

INSTALLATION, DIGIDATA,

ANALOG FF OPTION

DRAWING NO.	SIZE		REV.
4005-548	A	P/N 912802-03	C





ECO #	REV.	DATE	BY	APP'D	DESCRIPTION
9904/010	A	5/6/99	PAB	PG	REMOVE 'LEFT' & 'RIGHT' FROM FACEPLATE VIEW, ADDED LOGO, SWITCH BOOTS, AND BEZEL SCREW
9807/021	-	7/30/98	PAB	KCL	BASELINE RELEASE

SCALE: NONE

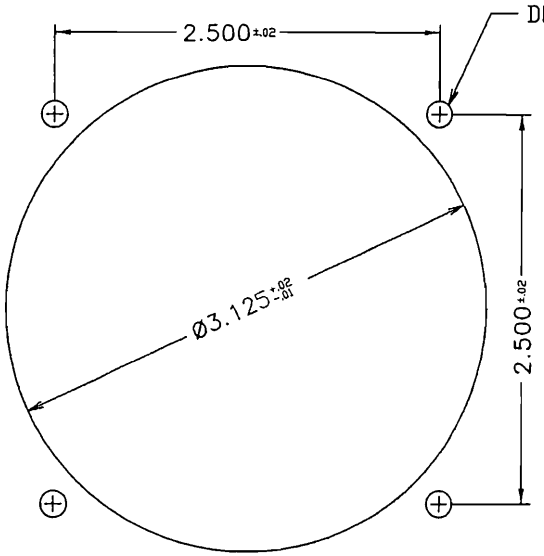
DRAWING DATE 7/30/98
DRAFTER PAB
APPROVED KCL
FILE NAME 9128203GAJ.DWG
DIRECTORY 912802
SHEET 1 OF 2

SHADIN MINNEAPOLIS, MN 55426

INSTALLATION, DIGIDATA, ANALOG FF, GREY FACE

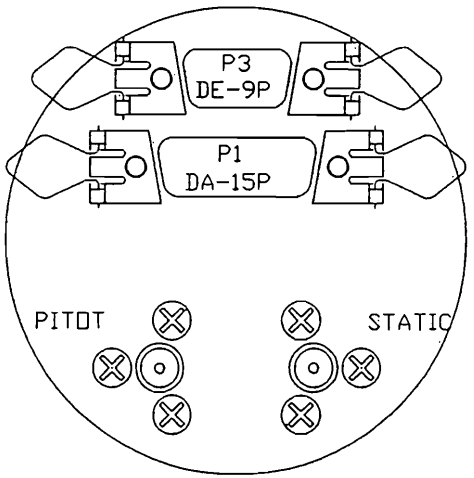
DRAWING NO. 4028-A23 | SIZE A | P/N 912802-03-G | REV A

REV PAGE PAGE HISTORY



P1, MALE 'D' CONN. INDICATOR

1	+28V DC INSTRUMENT POWER
2	INSTRUMENT GROUND
3	NC
4	NC
5	TX, RS-232 COMM.
6	TX, SDA+ RS-422 COMM.
7	RIGHT ANALOG FUEL FLOW IN (-)
8	TX, SDB- RS-422 COMM.
9	RX, SDA+ RS-422 COMM.
10	GROUND
11	GROUND
12	RX, RS-232 / SDB- RS-422 COMM.
13	RIGHT ANALOG FUEL FLOW IN (+)
14	LEFT ANALOG FUEL FLOW IN (-)
15	LEFT ANALOG FUEL FLOW IN (+)



P3, HEADING / O.A.T. CONN. (OPTIONAL)

1	NC
2	NC
3	NC
4	Y SIGNAL
5	X SIGNAL
6	H SIGNAL
7	C SIGNAL
8	O.A.T. POWER
9	O.A.T. SIGNAL

ECO #	REV.	DATE
9807/021	-	7/30/98

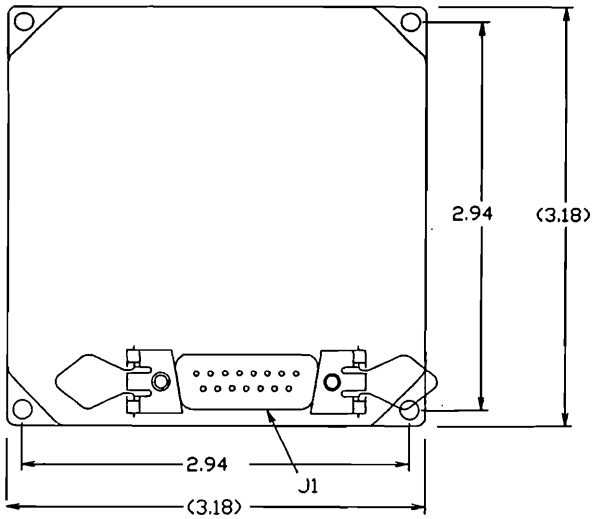
SCALE: NONE

DRAWING DATE	7/30/98
DRAFTER	PAB
APPROVED	KCL
FILE NAME	91280203GAJ.DWG
DIRECTORY	912802
SHEET	2 OF 2

SHADIN MINNEAPOLIS, MN 55426

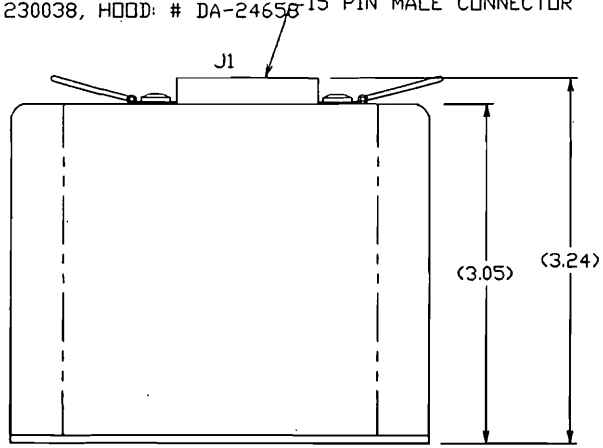
INSTALLATION, DIGIDATA, ANALOG FF, GREY FACE

DRAWING NO.	SIZE		REV
4028-A24	A	P/N 912802-03-G	—



1. THE CONVERTER CAN BE MOUNTED IN ANY ORIENTATION
2. 4" SPACING IS REQUIRED ABOVE CONNECTOR
3. NO COOLING IS REQUIRED
4. THE CONVERTER CAN BE INSTALLED IN A PRESSURIZED OR NON-PRESSURIZED AREA, PROVIDING TEMPERATURE DOES NOT DROP BELOW -20°C
5. 1 AMP CIRCUIT BREAKER IS REQUIRED
6. NO SHOCK MOUNT REQUIRED
7. USE HARDWARE PROVIDED IN INSTALL KIT P/N IK9337 TO ASSEMBLE MATING CONNECTOR.

MATING CONNECTOR:
SHADIN P/N 230036, 17-DA15S
SHADIN P/N 230038, HOOD: # DA-24658



SELECTOR TABLE
RS232 RX : TIE J1:7 TO J1:1
RS422 RX : DEFAULT (NO JUMPER REQ'D)
SINGLE ENGINE : J1:7 TO J1:2
TWIN ENGINE : DEFAULT (NO JUMPER REQ'D)

WEIGHT: 8 oz.
POWER CONSUMPTION:
210 ma. @ 28v DC

CONNECTOR KEY

PIN	FUNCTION	
1	RS232 OR RS422 SELECT	SEE SELECTOR TABLE
2	TWIN OR SINGLE ENGINE SELECT	
3	N.C.	
4	N.C.	
5	N.C.	
6	N.C.	
7	SELECT POWER (OUTPUT)	
8	+14 TO 28 V DC POWER IN	
9	N.C.	
10	SIGNAL GROUND	
11	RS422 RX+	FROM SHADIN ADC (USE RS-232 OR RS-422, NOT BOTH)
12	RS422 RX-	
13	RS232 RX	
14	RS232 TX, TO ARGUS 5000/7000	
15	POWER GND	

ECO #	REV.	DATE	BY	APP'D	DESCRIPTION
0501/032	B	2-17-05	PAB		UPDATED TITLE BLOCK; "CONVERTER" WAS "TXMTR"
9801/025	A	10/12/98	DMD	PG	ADDED NOTE 7, CORRECTED HEIGHT, PROVIDED SHADIN P/N FOR MATING CONN.
9707/023	-	7/15/97	PAB	PG	BASELINE RELEASE

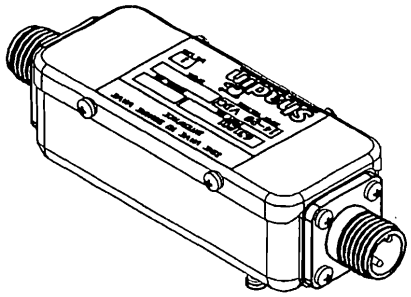
UNLESS OTHERWISE NOTED DIMENSIONS ARE IN INCHES
TOLERANCES: X.X = ±0.1, X.XX = ±0.01
FINISH: N/A
MATERIAL: N/A
SCALE: NONE

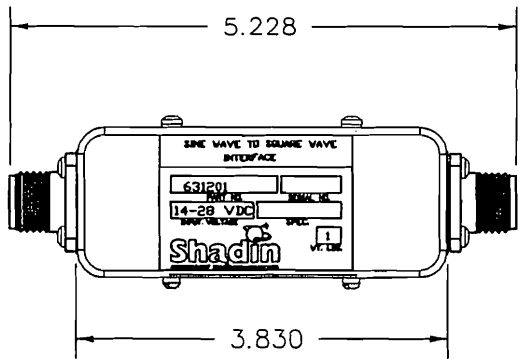
DRAWING DATE: 7/14/97
DRAFTER: PAB
APPROVED: PG
FILE NAME: 937000-03BJ.DWG
DIRECTORY: 937000-03
SHEET 1 OF 1

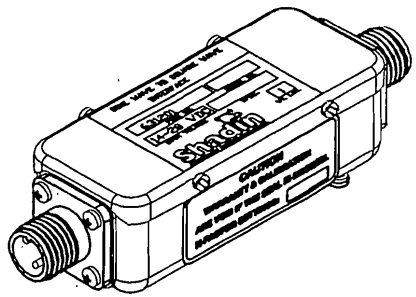
SHADIN MINNEAPOLIS, MN 55426

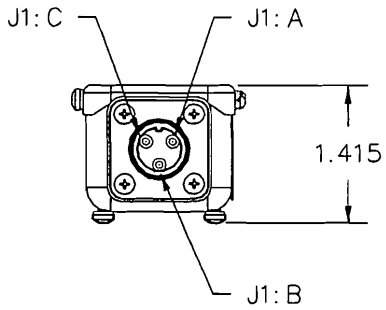
INSTALLATION, SERIAL TO ARGUS 5000/7000 CONVERTER

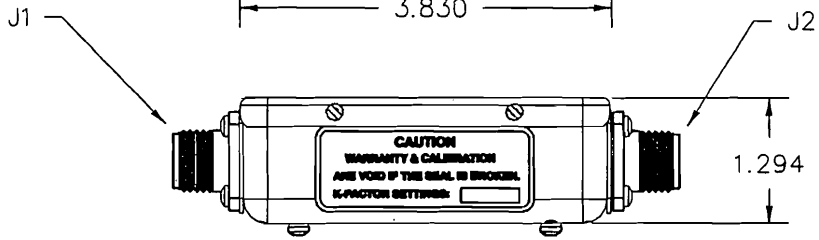
DRAWING NO. 4070-005 | SIZE A | P/N 937000-03 | REV B

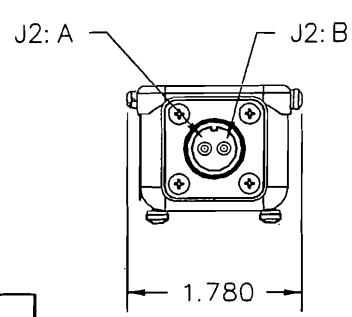












CONNECTIVITY TABLE		
PIN	J1	J2
A	FUEL FLOW POWER INPUT	AC FUEL FLOW SIGNAL
B	FUEL FLOW SIGNAL	AC FUEL FLOW SIGNAL
C	FUEL FLOW GROUND	N/A

NOTES:

1. ALL DIMENSIONS FOR REFERENCE ONLY.

ECO #	REV.	DATE	BY	APP'D	DESCRIPTION
211/004	A	3/3/03	PAB	BAL	ADDED DIMENSIONS & ISOMETRIC VIEW; REDRAWN.
508/053	–	8/30/95	DDF	SES	BASELINE RELEASE

3D CAD FILE AVAIL: YES SCALE: 1 : 2

DRAWING DATE 6/8/95
DRAFTER DDF
APPROVED SES
FILE NAME 631201AJ.DWG
DIRECTORY 631201
SHEET 1 OF 1

SHADIN MINNEAPOLIS, MN 55426

INSTALLATION, SINE/ SQUAREWAVE CONVERTER

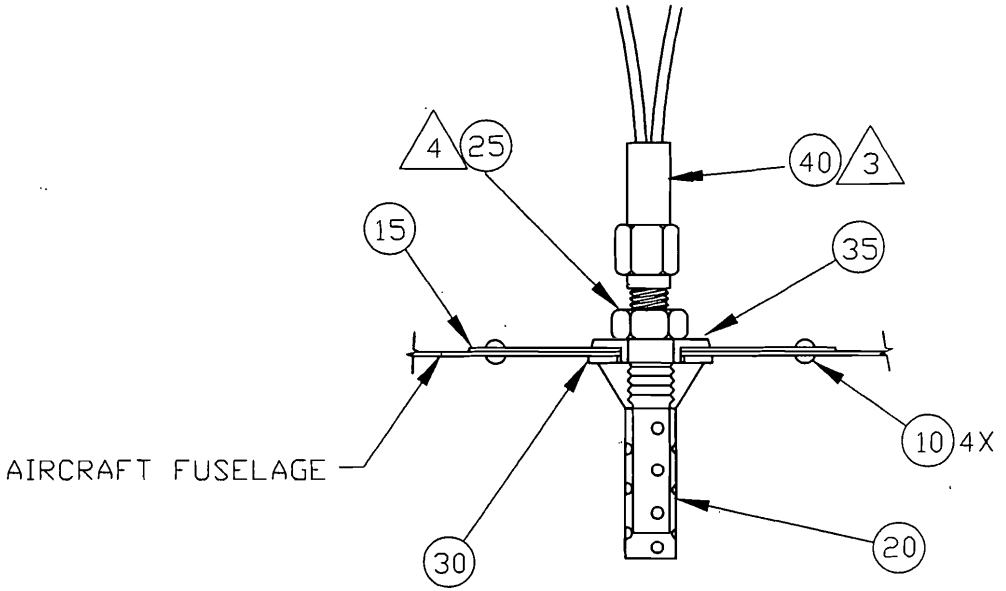
DRAWING NO. 4005-642 | SIZE A | P/N 631201 | REV A

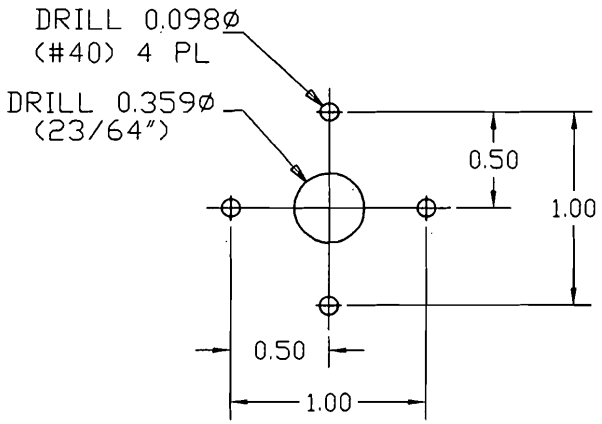
NOTES:

1. REFERENCE P/N 681201-1 OAT PROBE ASSEMBLY KIT
2. AVOID INSTALLING OAT PROBE IN OR NEAR:
   - PROP AIRSTREAM
   - ENGINE EXHAUST FLOW PATH
   - CABIN HEATERS EXHAUST FLOW PATH
   - TRANSMITTING ANTENNAS (DME, TXP, COMM.)
   - DARK PAINTED AREAS

△3 OAT PROBE, P/N 681201

△4 TORQUE NUT, FN 25, TO 1.3 IN-LBS (MAX)





DETAIL A

MOUNTING HOLE DETAIL

ECO #	REV.	DATE	BY	APP'D	DESCRIPTION
0501/032	C	2-14-05	PAB		UPDATED TITLE BLOCK & NOTE 4; ADDED 'KIT' TO TITLE
0111/001	B	11/14/01	PAB	KCL	STANDARDIZED DWG FORMAT TO MIMIC DWG NO. 4012-177
0002/036	A	3/11/96	WMP	PG	CONVERT TO CAD; ADD NOTES 1 AND 3
N/A	-	4/8/91	DAP	SES	BASELINE RELEASE

UNLESS OTHERWISE NOTED DIMENSIONS ARE IN INCHES
TOLERANCES: ±0.01

FINISH: N/A

MATERIAL: N/A

SCALE: NONE

DRAWING DATE 4/8/91
DRAFTER DAP
APPROVED SES
FILE NAME 681201-1CJ.DWG
DIRECTORY 681201-1
SHEET 1 OF 1

SHADIN MINNEAPOLIS, MN 55426

INSTALLATION, OAT PROBE ASSEMBLY KIT

DRAWING NO. 4028-005 | SIZE A | P/N681201-1 | REV C

Shadin Avionics
Filename: 681201-1HP.doc
DIRECTORY: 681201-1

Report: 4032D
ECO Date: April 4, 2007
Rev: H
Sec.: IX

ECO #: 0704/002
Release date: 4-6-07
Approved: ZM

PARTS LIST

Drawing #s: 4028-005 Rev C

Part #: **681201-1**
Description: **OAT PROBE ASSEMBLY KIT**

FN	P/N	QTY.	DESCRIPTION	MFG.	MFG.#	DESIGNATION	COMMENTS
10	511201	4	RIVET, AN4703-4 or MS20470AD3-4				
15	543216	1	OAT STIFFENER RING	SHA	4032-082		
20	670503	1	SHIELD, Temp Sensor Assy	SHA	4005-265		
25	670504	1	NUT, Temp Sensor	SHA	4005-266		
30	670505	1	WASHER, Flat OAT	SHA	4005-303		
35	670506	1	WASHER, Shoulder OAT	SHA	4005-304		
40	681201	1	OAT PROBE	SHA	4005-794		

10 items

Shadin
FILE NAME: IK9128-P.DOC
DIRECTORY: IKXXXX

Report: 4028A
ECO Date: June 5, 1997
Rev: –
Sec.: IX

ECO # 9706/013
Release date: 07/23/98
Approved: PG

PARTS LIST

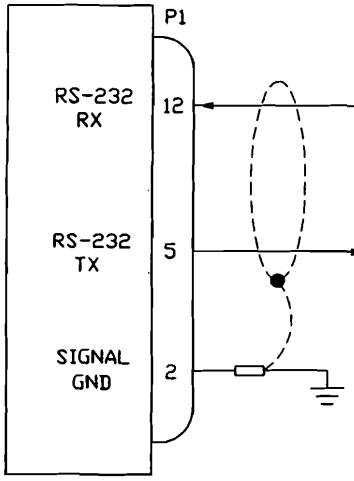
Drawing #s: n/a

Part #: **IK9128**
Description: **INSTALL KIT, DIGIDATA**

FN	P/N	QTY.	DESCRIPTION	MFG.	MFG.#	DESIGNATION	COMMENTS
5	230018	1	CONNECTOR, 9 Pin D-Sub		117-DE-9S		
10	230020-4	1	HOOD 9 Pin D SUB Cinch		DE-24657		
15	230036	1	CONNECTOR, 15 Pin D SUB Socket	APH	17D-A15S		
20	230038	1	CONNECTOR, Hood 15 Pin D SUB		DA-24658		
25	230019H-1	4	LATCH Clip Modified		17-529		
30	511002	4	SCREW, 4-40X1/4" Phil Pan HD SS				
35	512007	4	NUT, 4-40 3/16X1/16X.062 SS				
40	541001	4	WASHER. #4 Split Lock SS				
45	PK1002	1	BAG, 3X4X4 Mil Zip Lock				
50	PK1005	1	BAG, 4X6X4 Mil				

22 items

912802
912802-03
912802-03-G



GARMIN 430 P4001	GARMIN 530 P5001	BENDIX/ KING KLN90 KLN90B	BENDIX/ KING KLN89	GARMIN 150, 155, 155XL, 165, 250, 250XL 300, 300XL	LNS 6000	BENDIX/ KING KLN 900	FOSTER 7000	IIMORROW 360	IIMORROW NMS2001	IIMORROW 820	IIMORROW GX 50, 60	ARNAV FMS7000, R5000 STAR5000	MAGELLAN SKYNAV 5000 A	MAGELLAN SKYNAV 5000 B	IIMORROW GX 55
TX 56	TX 56	TX 13	TX 2	TX 24	TX 25	TX 6	TX A	TX 8/1	TX (SOFTWARE SELECT) 19/37	TX 6	TX 5	TX 3	TX 12	TX 25	TX 6
RX 57	RX 57	RX 36	RX 1	RX 17	RX 26	RX 38	RX R	RX 20/14	RX 21/38	RX 7	RX 4	RX 4	RX 11	RX 23	RX 7

ECO #	REV.	DATE	BY	APP'D	DESCRIPTION
0211/004	B	3/3/03	PAB	BAL	PIN 2 WAS PIN 10; ADDED GND TO PIN 2
0009/004	A	9/12/00	PAB	KCL	ADDED GARMIN 430 & 530 COLUMNS
9807/021	-	7/30/98	DMD	KCL	BASELINE RELEASE

NOT TO SCALE

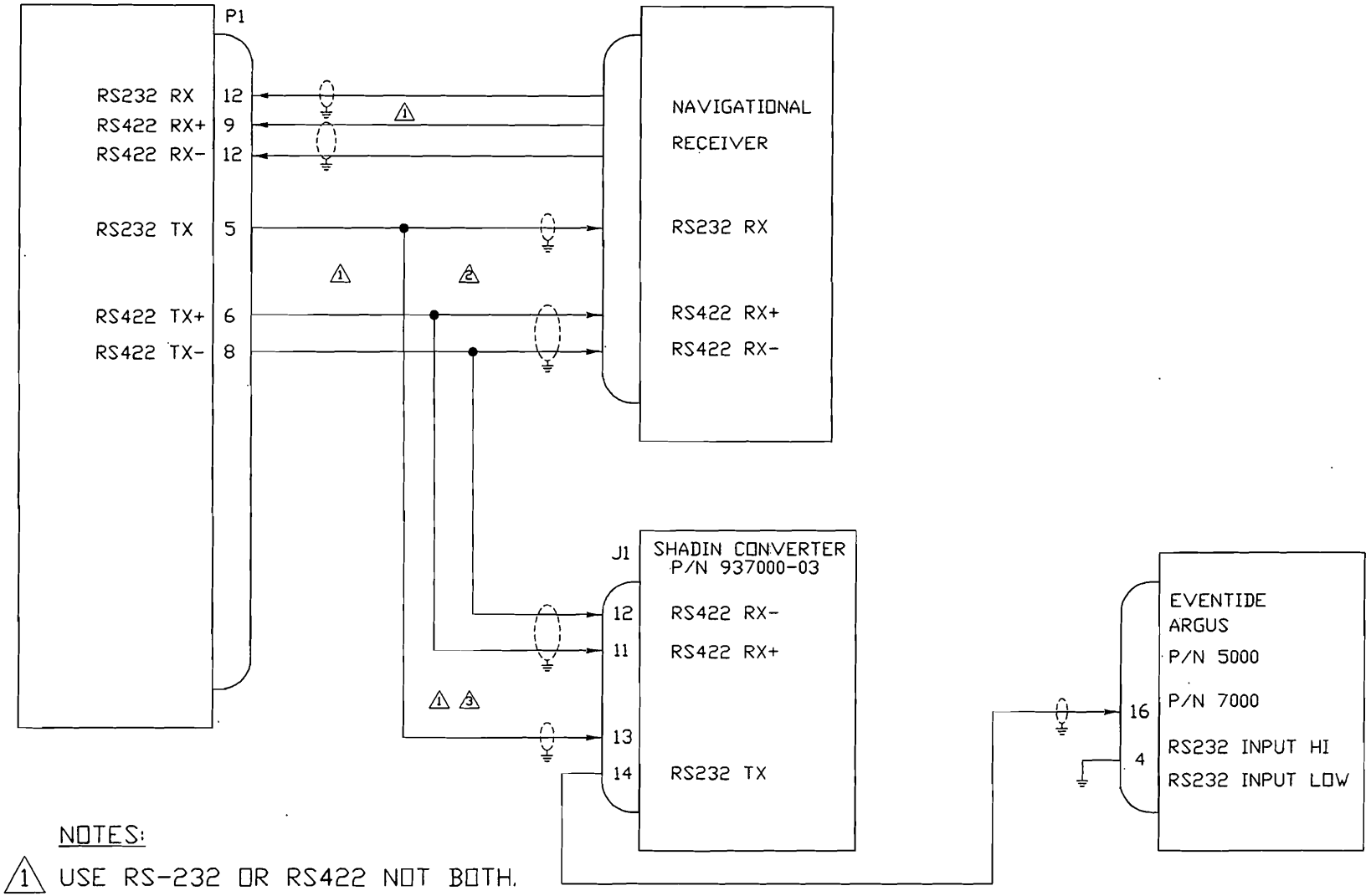
DRAWING DATE 7/30/98
DRAFTER DMD
APPROVED KCL
FILE NAME 4028-A19BJ.DWG
DIRECTORY 4028
SHEET 1 OF 1

SHADIN MINNEAPOLIS, MN 55426

INSTALLATION WIRING, DIGIDATA
TO NAV RECEIVERS W/RS-232

DRAWING NO. 4028-A19 | SIZE A | P/N ——— | REV B

912802
912802-03
912802-03-G



NOTES:

1. USE RS-232 OR RS422 NOT BOTH.
2. CONNECT SHADIN CONVERTER P/N 937000-03 IN PARALLEL WITH NAVIGATIONAL RECEIVERS SERIAL DATA INPUT.
3. CONSULT DRAWING NUMBER 4070-005 FOR WIRING AND STRAPPING INFORMATION.

ECO #	REV.	DATE	BY	APP'D	DESCRIPTION
9807/021	-	7/30/98	DMD	KCL	BASELINE RELEASE

NOT TO SCALE

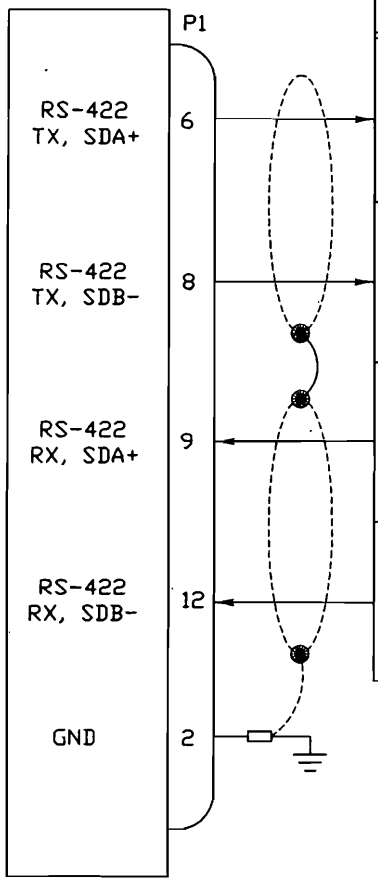
DRAWING DATE	7/30/98
DRAFTER	DMD
APPROVED	KCL
FILE NAME	4028-A20-J.DWG
DIRECTORY	4028
SHEET	1 OF 1

SHADIN MINNEAPOLIS, MN 55426

INSTALLATION WIRING, DIGIDATA AND SHADIN CONVERTER TO EVENTIDE ARGUS.

DRAWING NO.	SIZE	P/N	REV
4028-A20	A	P/N ———	—

912802
912802-03
912802-03-G



TRIMBLE 1000, 2000, 3000	TRIMBLE 2100, 2101, 3100	NORTSTAR M1A M2 M3 60/600										
RX, SDA+ 16	RX, SDA+ 7	N/A										
RX, SDB- 4	RX, SDB- 8	N/A										
TX, SDA+ 15	TX, SDA+ 37	TX, SDA+ 11										
TX, SDB- 3	TX, SDB- 5	TX, SDB- 6										

ECO #	REV.	DATE	BY	APP'D	DESCRIPTION
0211/004	A	3/3/03	PAB	BAL	PIN 2 WAS PIN 10; ADDED GND TO PIN 2
9807/021	-	7/30/98	DMD	KCL	BASELINE RELEASE

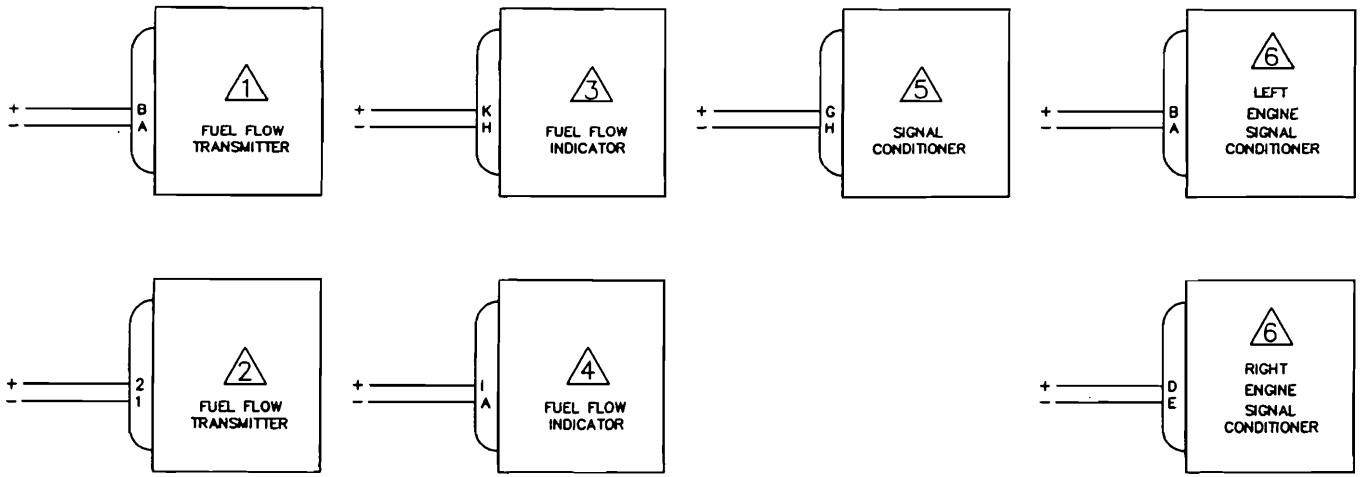
NOT TO SCALE

DRAWING DATE 7/30/98
DRAFTER DMD
APPROVED KCL
FILE NAME 4028-A21AJ.DWG
DIRECTORY 4028
SHEET 1 OF 1

SHADIN MINNEAPOLIS, MN 55426

INSTALLATION WIRING, DIGIDATA
TO NAV RECEIVERS W/RS-422, RS-485

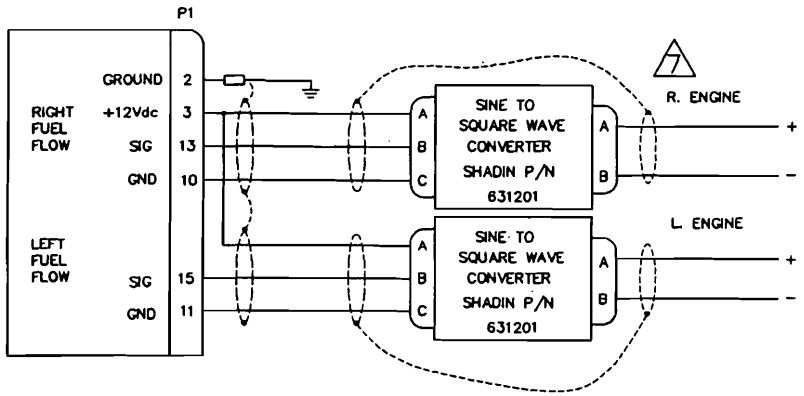
DRAWING NO. 4028-A21 | SIZE A | P/N ——— | REV A



NOTES:

1. AEROSPATIALE AS332 SUPER PUMA WITH FAURE–HERMAN FUEL FLOW TRANSMITTERS P/N TN(A)–512–231–1. K–FACTOR=1,940 PPG.
2. AEROSPATIALE AS365N2 DAUPHIN WITH FAURE–HERMAN FUEL FLOW TRANSMITTERS P/N TN(A)S–1024–118. K–FACTOR=3,880 PPG.
3. FAIRCHILD SA226 WITH FUEL FLOW INDICATOR P/N DSF1549–2, –4, –5. K–FACTOR=26,800 PPG.
4. ROCKWELL COMMANDER 690 AND 695 WITH INDICATOR P/N(S) 850590–1, –507, DSF1549 OR D5154–9. TRANSMITTER P/N(S) 850590–513, –515, TFF2905–11 OR 151906–001. K–FACTOR=27,600 PPG.
5. MITSUBISHI MU–300 AND MODEL 400 BEECHJET WITH SIGNAL CONDITIONER P/N 45AS86801–003. K–FACTOR 5,150 PPG.
6. MITSUBISHI MU–2 WITH FOXBORO PC–620 FUEL FLOW SYSTEM P/N PC–620–0098 SIGNAL CONDITIONER. K–FACTOR=33,800 PPG.
7. SHIELDING SHOULD BE CONTINUOUS. TERMINATE AT DIGIDATA.

DIGITAL/FREQUENCY
912802



ECO #	REV.	DATE	BY	APP'D	DESCRIPTION
0211/004	A	3/11/03	PAB	BAL	ADDED NOTE 7 & P1:2
9807/021	–	7/30/98	DMD	KCL	BASELINE RELEASE

SCALE: NONE

DRAWING DATE	7/30/98
DRAFTER	PAB
APPROVED	KCL
FILE NAME	4028–A22A1.DWG
DIRECTORY	4028
SHEET	1 OF 1

SHADIN MINNEAPOLIS, MN 55426

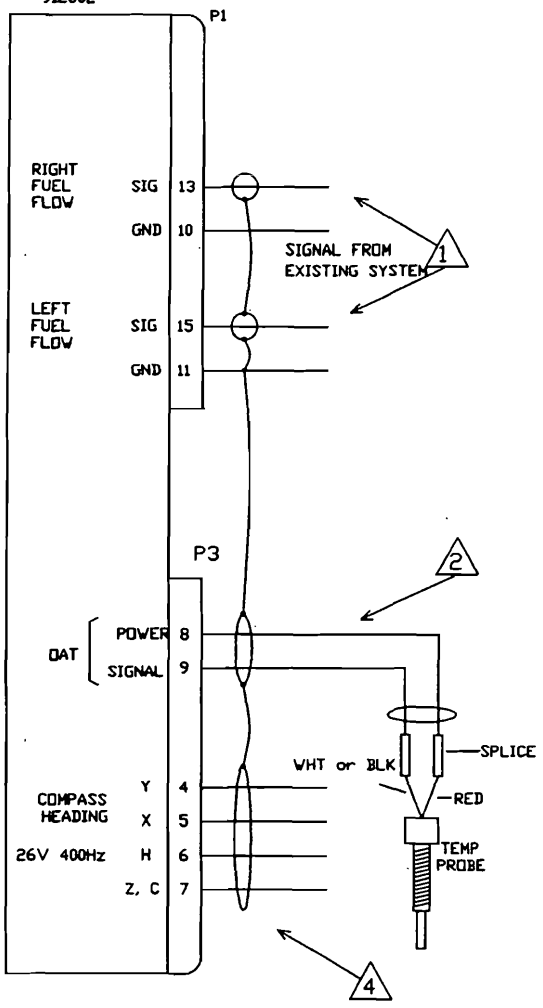
INSTALLATION WIRING, DIGIDATA, SINE TO DIGITAL FF CONV, VARIOUS AIRCRAFT

DRAWING NO.	SIZE	P/N	REV
4028–A22	A	——	A

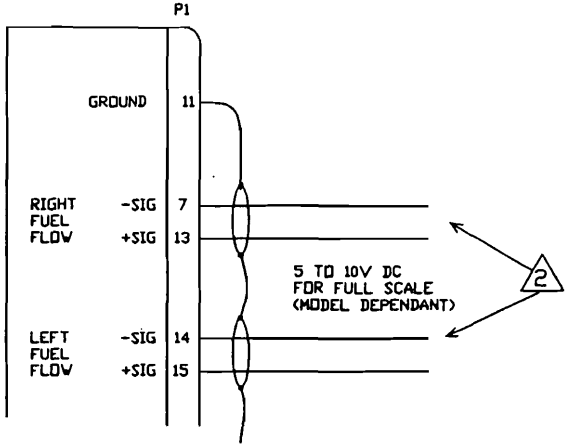
NOTES

1. USE LEFT FUEL FLOW ONLY WHEN INSTALLING ON SINGLE ENGINE AIRCRAFT

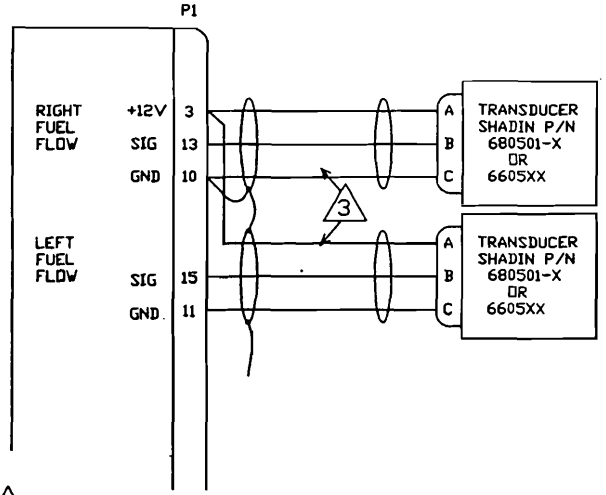
HIGH LEVEL FUEL FLOW OPTION (HI/LO FREQ INPUT TTL)
912802 (DIGITAL)



D.C. FUEL FLOW OPTION (ANALOG)
912802 -03

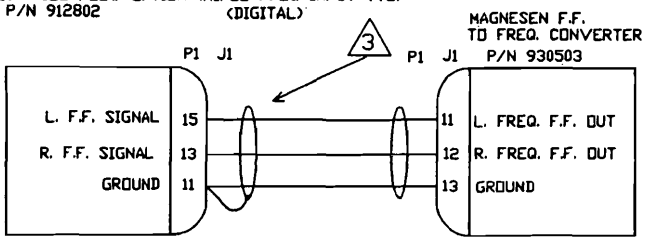


FREQ. FUEL FLOW OPTION (HI/LO FREQ INPUT TTL)
912802 (DIGITAL)



FREQ. FUEL FLOW OPTION (HI/LO FREQ INPUT TTL)
P/N 912802 (DIGITAL)

MAGNESEN F.F. TO FREQ. CONVERTER P/N 930503



1 — WIRE: 1 COND SHIELDED -MIL-C-27500-22TG1T14

2 — WIRE: 2 COND SHIELDED -MIL-C-27500-22TG2T14

3 — WIRE: 3 COND SHIELDED -MIL-C-27500-22TG3T14

4 — WIRE: 4 COND SHIELDED -MIL-C-27500-22TG4T14

ECO #	REV.	DATE	BY	APP'D	DESCRIPTION
9807/021	G	7/30/98	PAB	KCL	REMOVE PAGE 2, P1:3 WAS 15V
9603/066	F	3/26/96	WMP	SES	REMOVE LIST OF MATERIALS
9602/050	E	3-11-96	WMP	SES	ADD GND's ON P1
9502/007	D	2-9-95	SES	SES	CORRECT P/N's
9409/004	C	9-8-94	WMP	SES	LABEL CONFIGURATIONS & WIRE SPECS; +12V BECOMES +15V
n/a	B	7-12-94	DAP	SES	ADDED '*' NOTE.
n/a	A	6-23-94	DAP	SES	MOVED XDCR POWER TO PIN 3

DO NOT SCALE DRAWING

DRAWING DATE 7-14-92
DRAFTSMAN J. McMILLAN
APPROVED SES
FILE NAME 4028-207GJ.DWG
DIRECTORY 4028
SHEET 1 OF 1

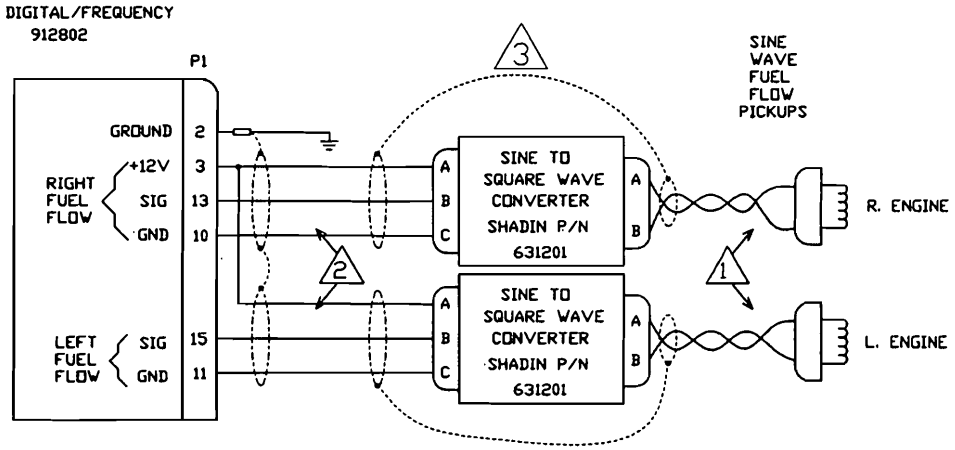
SHADIN MINNEAPOLIS, MN 55426

INSTALLATION WIRING, DIGIDATA FF

DRAWING NO. 4028-207 | SIZE A | P/N ——— | REV. G

NOTES:

1. WIRE: 2 COND, SHIELDED MIL-C-27500-22TG2T14
2. WIRE: 3 COND, SHIELDED MIL-C-27500-22TG3T14
3. SHIELD SHOULD BE CONTINUOUS GROUNDED BACK TO DIGIDATA.



ECO #	REV.	DATE	BY	APP'D	DESCRIPTION
0211/004	E	3/11/03	PAB	BAL	ADDED PIN 2 & NOTE 3; MODIFIED SHIELD GROUND CONFIG; EDITED NOTES 1 & 2
9807/021	D	7/30/98	PAB	KCL	SEPARATE FROM 4028-207 DRAWING
9602/050	C	3/11/96	WMP	SES	ADD GND ON P1
9502/007	B	2-9-95	DAP	SES	CORRECT P/NS
9409/012	A	9-21-94	DAP	SES	LABEL CONFIGURATION, 12VDC TO 15VDC
9409/004	-	9-9-94	DAP	SES	RELEASE

DO NOT SCALE DRAWING

DRAWING DATE 9-9-94
DRAFTSMAN WMP
APPROVED SES
FILE NAME 4028-373EJ.DWG
DIRECTORY 4028
SHEET 1 OF 1

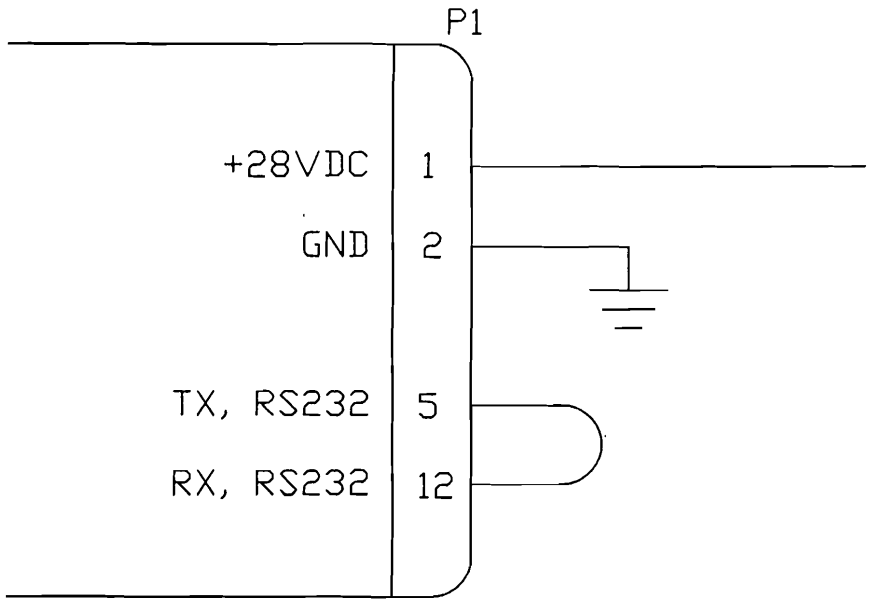
SHADIN MINNEAPOLIS, MN 55426

INSTALLATION WIRING, DIGIDATA, FF

DRAWING NO. 4028-373 | SIZE A | P/N ——— | REV. E

NOTES:

1 CONSULT OPERATIONS MANUAL FOR DIGIDATA PROGRAMMING INSTRUCTIONS.



ECO #	REV.	DATE	BY	APP'D	DESCRIPTION
9602/055	-	3/11/96	WMP	SES	BASELINE RELEASE

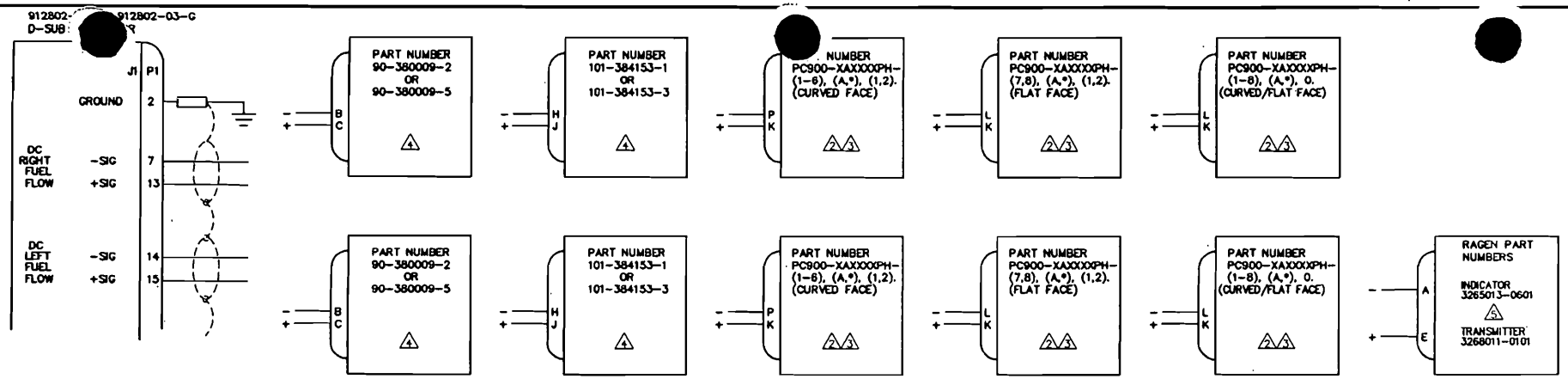
SCALE: NONE

DRAWING DATE	2/23/96
DRAFTER	WMP
APPROVED	SES
FILE NAME	4028-716-J.DWG
DIRECTORY	4028
SHEET	1 OF 1

SHADIN MINNEAPOLIS, MN 55426

INSTALLATION WIRING, LOOP BACK HARNESS

DRAWING NO.	SIZE	P/N	REV
4028-716	A	------	—



NOTES:

1. THIS SCHEMATIC IS USED FOR KNOWN BEECH KING AIR MODELS. SOME INDICATORS ARE NOT LISTED BUT MAY BE INTERFACED. CALL SHADIN TECH SUPPORT IF YOU DO NOT SEE THE PART NUMBER OF YOUR INDICATOR LISTED. INDICATOR PART NUMBERS POSSESSING A PREFIX OF "PC900-" ARE XOTECHNOLOGIES TYPE INDICATORS. THE LAST DIGIT REPRESENTS THE INDICATOR AUXILIARY RATE OUTPUT (1 NUMBER). SHADIN SUPPORTS THE "-1" MODELS ONLY.

2. XOTECHNOLOGIES INDICATOR P/N PC900-XAXXXXPH-XX0 IS NOT SUPPORTED. THE AUXILIARY RATE OUTPUT OF THIS UNIT IS 0-1 mA. INDICATOR P/NS THAT END WITH A "-XX2" WILL ENCOUNTER A DEGRADATION IN PERFORMANCE DUE TO THE AUX. RATE OUTPUT OF 0-5.333 VDC. INDICATOR P/NS ENDING WITH AN "*" ARE UNKNOWN.

3. THE FOLLOWING XOTECHNOLOGIES INDICATOR P/NS POSSESS A K-FACTOR KNOWN TO SHADIN:

			ADC200/2000 SWITCH SETTINGS			
PART NUMBER	K-FACTOR/OFFSET	AUX RATE OUTPUT	SW1	SW2	SW3	SW4
PC900-1A0600-XX1	38,460/0	0-5 VDC	0	4	0	0
PC900-1A0750-XX1	30,770/0	0-5 VDC	0	5	0	0
PC900-1A0800-XX1	28,850/0	0-5 VDC	0	6	0	0

4. THE FOLLOWING BEECH INDICATOR P/NS POSSESS A K-FACTOR KNOWN TO SHADIN:

		ADC200/2000 SWITCH SETTINGS			
PART NUMBER	K-FACTOR/OFFSET	SW1	SW2	SW3	SW4
90-380009-2	77,000/416	0	0	0	1
90-380009-5	77,000/416	0	0	0	1
101-384153-1	30,777/0	0	5	0	0
101-384153-3	30,777/0	0	5	0	0

5. PROGRAM DIGIDATA FOR LEFT/RIGHT K-FACTOR TO 46160 PPG, LEFT/RIGHT OFFSET TO 0. THIS CONFIGURATION IS TYPICAL FOR PIPER CHEYENNE MODEL PA 31T.

6. USE SHIELDED WIRE, BUT GROUND ONLY ON ADC UNIT END TO PREVENT A GROUND LOOP.

ECO #	REV.	DATE	BY	APP'D	DESCRIPTION
0211/004	B	3/11/03	PAB	BAL	ADDED NOTES 4-5 & RAGEN INDICATORS; PIN 2 GND WAS PIN 11
0803/022	A	3/26/98	SRB	KCL	CHANGE NOTE 3 FOR P/N 90-380009-5 FROM 26150/938, REMOVE DWG P/N 912802-03
0706/007	-	6-13-97	PAB	KCL	BASELINE RELEASE

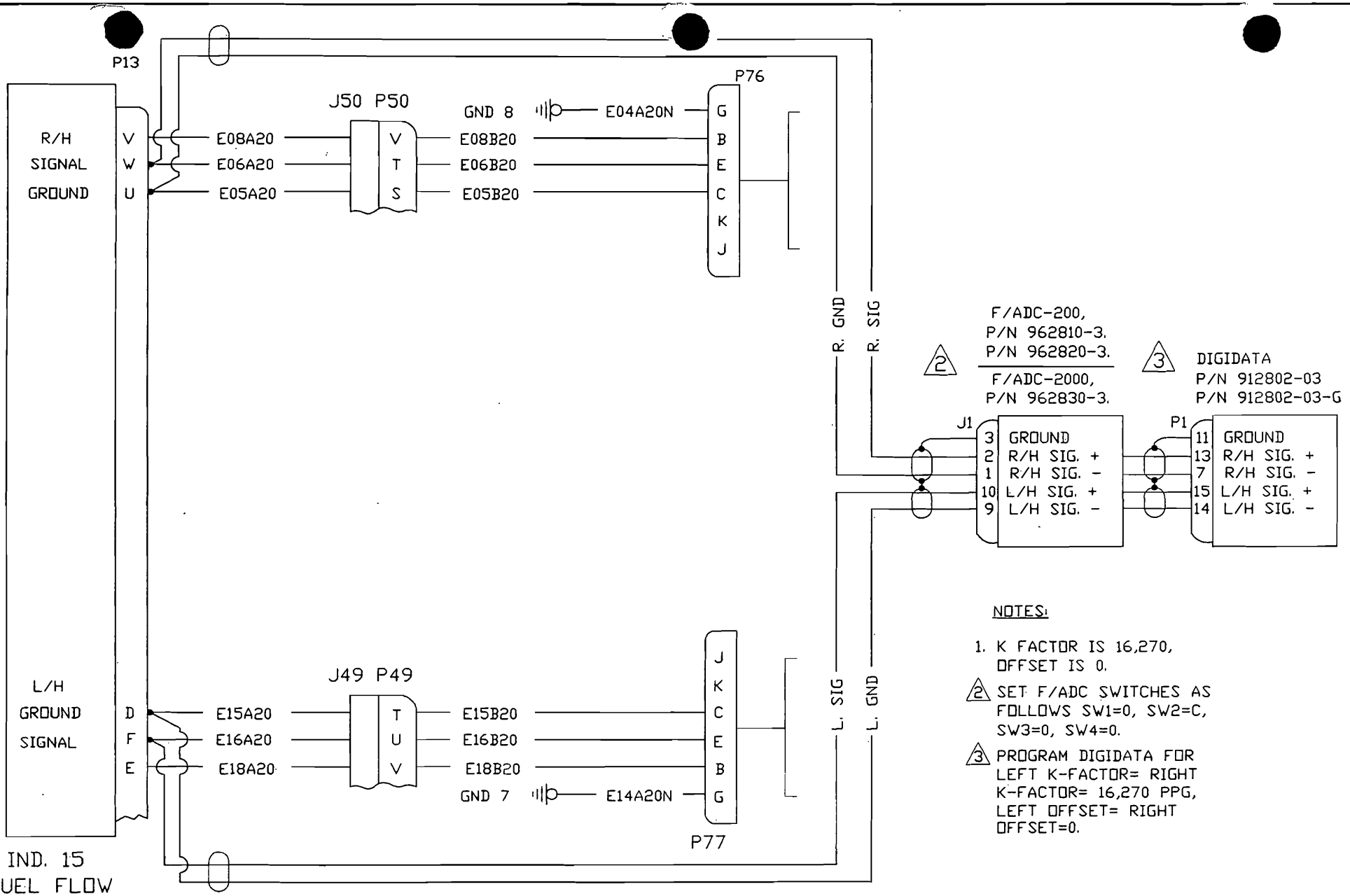
SCALE: NONE

DRAWING DATE 6/9/97
DRAFTSMAN PAB
APPROVED KCL
FILE NAME 4028-820BJ.DWG
DIRECTORY 4028
SHEET 1 OF 1

SHADIN MINNEAPOLIS, MN 55426

INST WIRING, DIGIDATA WITH ANALOG FUEL FLOW INDICATORS

DRAWING NO. 4028-820 | SIZE A | P/N ——— | REV B



NOTES:

1. K FACTOR IS 16,270, OFFSET IS 0.
2. SET F/ADC SWITCHES AS FOLLOWS SW1=0, SW2=C, SW3=0, SW4=0.
3. PROGRAM DIGIDATA FOR LEFT K-FACTOR= RIGHT K-FACTOR= 16,270 PPG, LEFT OFFSET= RIGHT OFFSET=0.

ECO #	REV.	DATE	BY	APP'D	DESCRIPTION
0501/032	A	1-19-05	PAB		UPDATED TITLE BLOCK
9803/025	-	3/26/98	SRB	KCL	BASELINE RELEASE

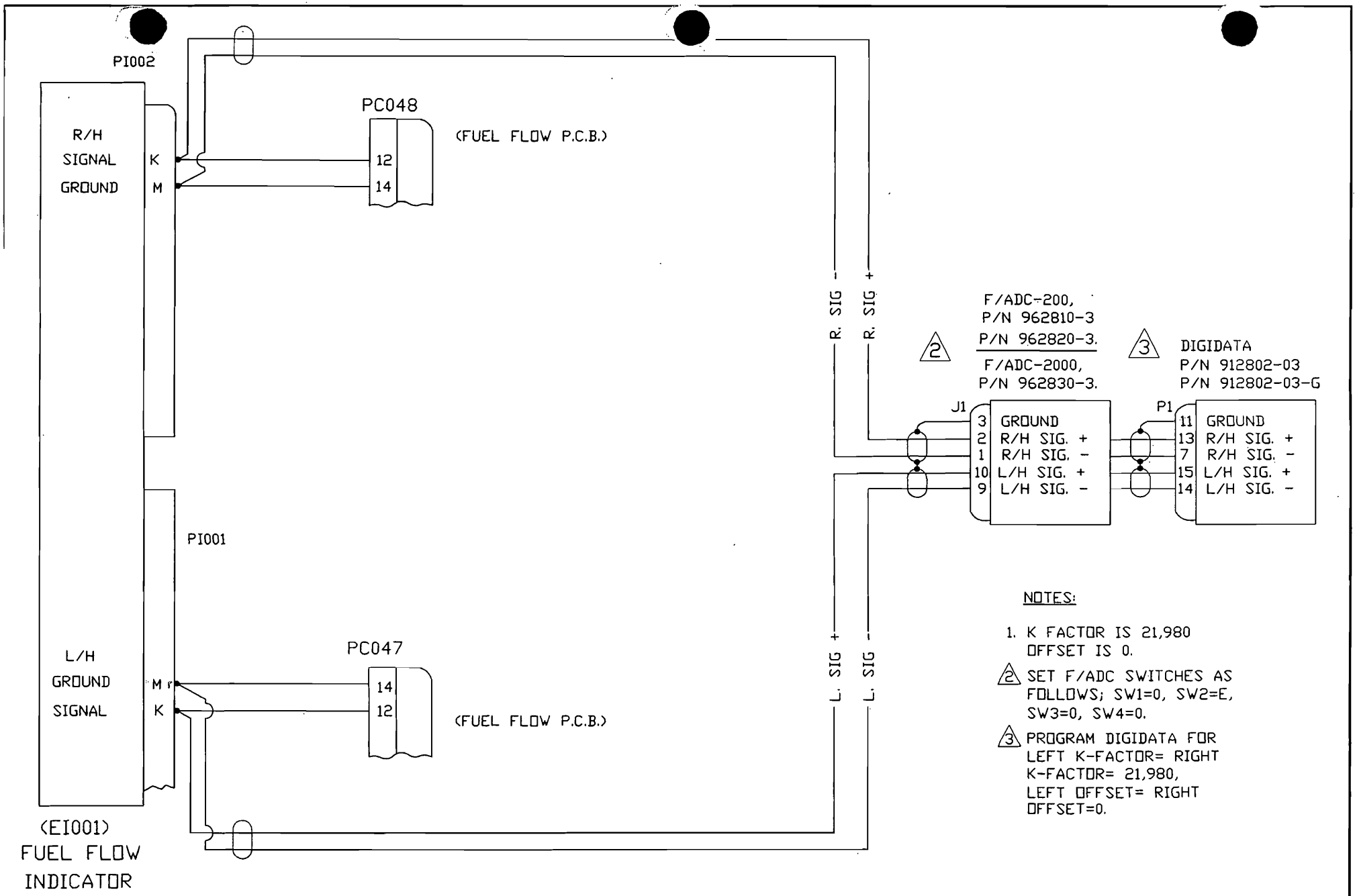
NOT TO SCALE

DRAWING DATE	3/24/98
DRAFTER	SRB
APPROVED	KCL
FILE NAME	4028-936AJ.DWG
DIRECTORY	4028
SHEET	1 OF 1

SHADIN MINNEAPOLIS, MN 55426

INSTALLATION WIRING, F/ADC200, 2000 OR DIGIDATA WITH DC FF TO CESSNA CITATION 500, 501, 550, S550, 551, 552.

DRAWING NO.	SIZE	P/N	REV
4028-936	A	———	A



NOTES:

1. K FACTOR IS 21,980
   OFFSET IS 0.
2. SET F/ADC SWITCHES AS FOLLOWS; SW1=0, SW2=E, SW3=0, SW4=0.
3. PROGRAM DIGIDATA FOR LEFT K-FACTOR= RIGHT K-FACTOR= 21,980, LEFT OFFSET= RIGHT OFFSET=0.

ECO #	REV.	DATE	BY	APP'D	DESCRIPTION
0501/032	A	8-19-05	PAB		UPDATED TITLE BLOCK
9803/025	-	3/26/98	SRB	KCL	BASELINE RELEASE

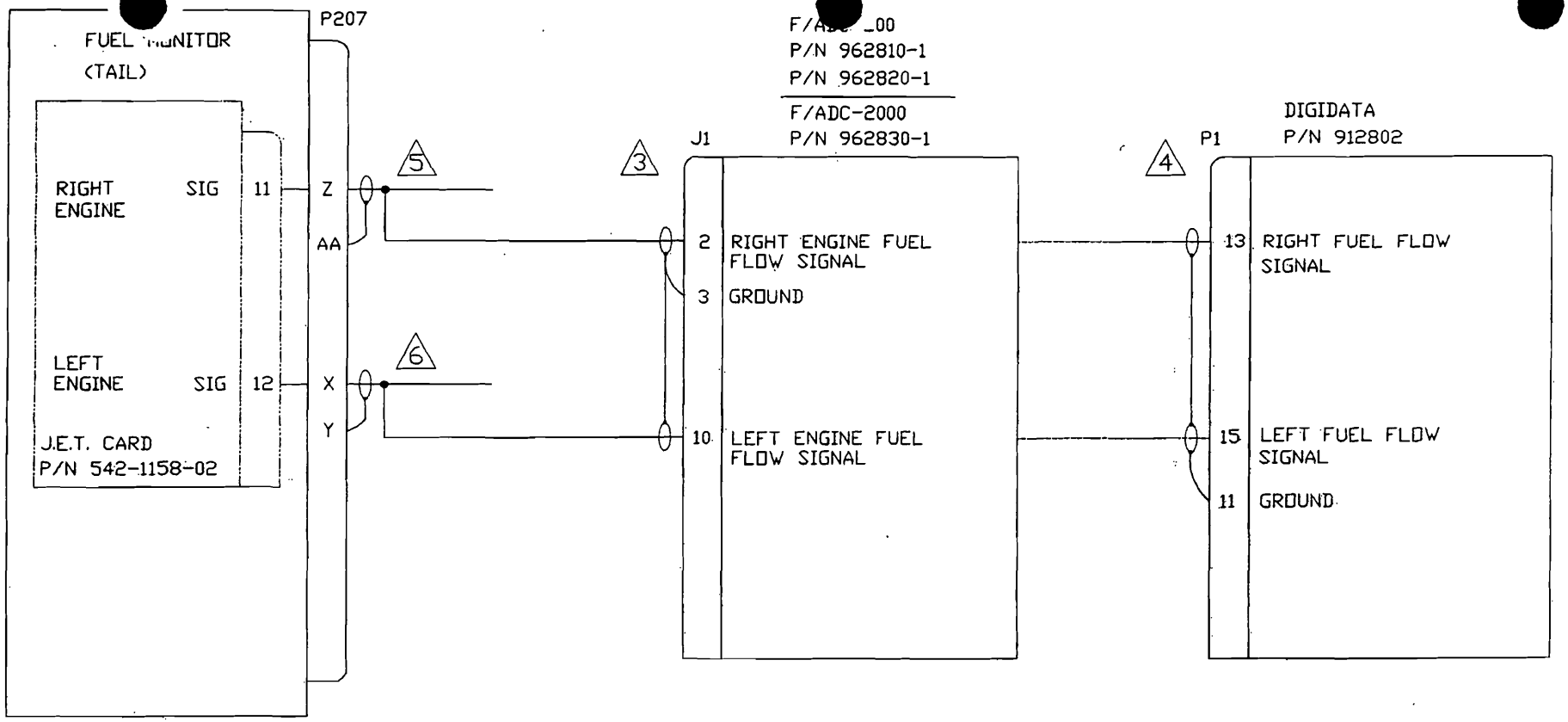
NOT TO SCALE

DRAWING DATE	3/24/98
DRAFTER	SRB
APPROVED	KCL
FILE NAME	4028-937AJ.DWG
DIRECTORY	4028
SHEET	1 OF 1

SHADIN MINNEAPOLIS, MN 55426

INSTALLATION WIRING, F/ADC200, 2000 OR DIGIDATA WITH DC FF TO CESSNA CITATION 525 JET

DRAWING NO.	SIZE	P/N	REV
4028-937	A	P/N ———	A



NOTES:

1. THIS INSTALLATION APPLICABLE TO AIRCRAFT WITH J.E.T. FUEL MODULE PART NUMBER 542-1158-02 ONLY. J.E.T. MODULE NOS. 542-1158-01 MAY BE CHANGED TO 542-1158-02 BY J.E.T. SB542-1158-7B.
2. K-FACTOR IS 860.

△3 SET F/ADC SWITCHES AS FOLLOWS; SW1=D, SW2=D, SW3=D, SW4=D.

△4 PROGRAM THE DIGIDATA FOR LEFT K-FACTOR = RIGHT K-FACTOR = 860 PPG, LEFT OFFSET = RIGHT OFFSET = 0.

△5 J.E.T. CARD PIN 11 CORRESPONDS TO FUEL MONITOR PIN Z.

△6 J.E.T. CARD PIN 12 CORRESPONDS TO FUEL MONITOR PIN X.

ECO #	REV.	DATE	BY	APP'D	DESCRIPTION
0501/006	A	1/17/05	PAB	ZK	CORRECTED NOTES 1, 5, & 6
9803/025	-	3/26/98	SRB	KCL	BASELINE RELEASE

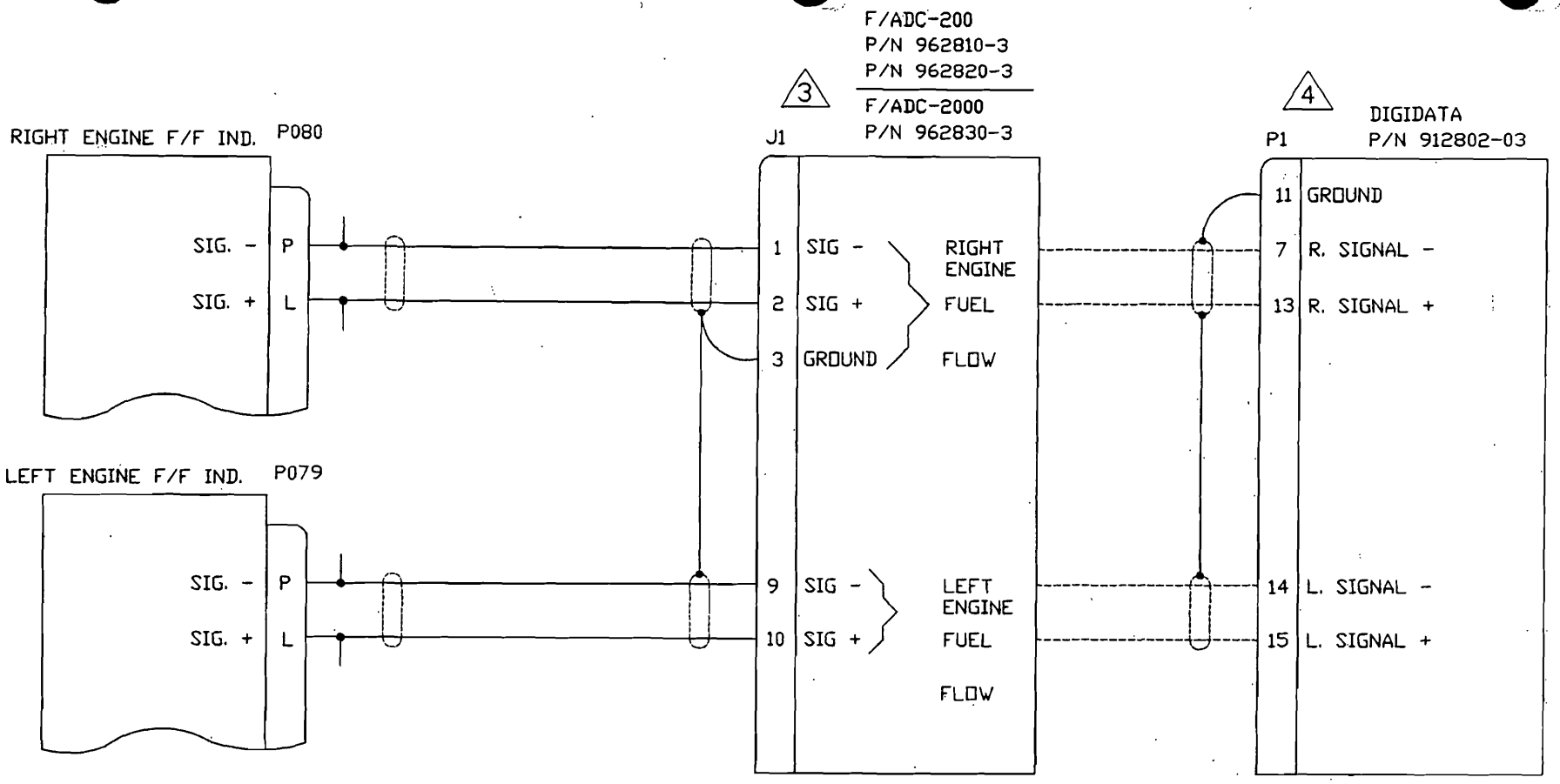
NOT TO SCALE

DRAWING DATE 3/24/98
DRAFTER SRB
APPROVED KCL
FILE NAME 4028-938AJ.DWG
DIRECTORY 4028
SHEET 1 OF 1

SHADIN MINNEAPOLIS, MN 55426

INSTALLATION WIRING, F/ADC200, 2000 OR DIGIDATA WITH DIGITAL FF TO BOMBARDIER LEARJET 24, 25D.

DRAWING NO. 4028-938 | SIZE A | P/N ——— | REV A



NOTES:

1. FOR AIRCRAFT SERIAL NOS. RK-45, RK-49 AND AFTER WITH FUEL INDICATOR PART NO. PC900-3B2000-PH1.
2. K-FACTOR IS 11.54 (11,540 PPG), OFFSET IS 0.
3. SET F/ADC SWITCHES TO: SW1 = 0, SW2 = 2, SW3 = 0, SW4 = 0.
4. PROGRAM DIGIDATA FOR LEFT K-FACTOR = RIGHT K-FACTOR = 11,540 PPG, LEFT OFFSET = RIGHT OFFSET = 0.

ECO #	REV.	DATE	BY	APP'D	DESCRIPTION
0501/032	A	2-19-98	PAB		UPDATED TITLE BLOCK
9803/025	-	3/26/98	SRB	KCL	BASELINE RELEASE

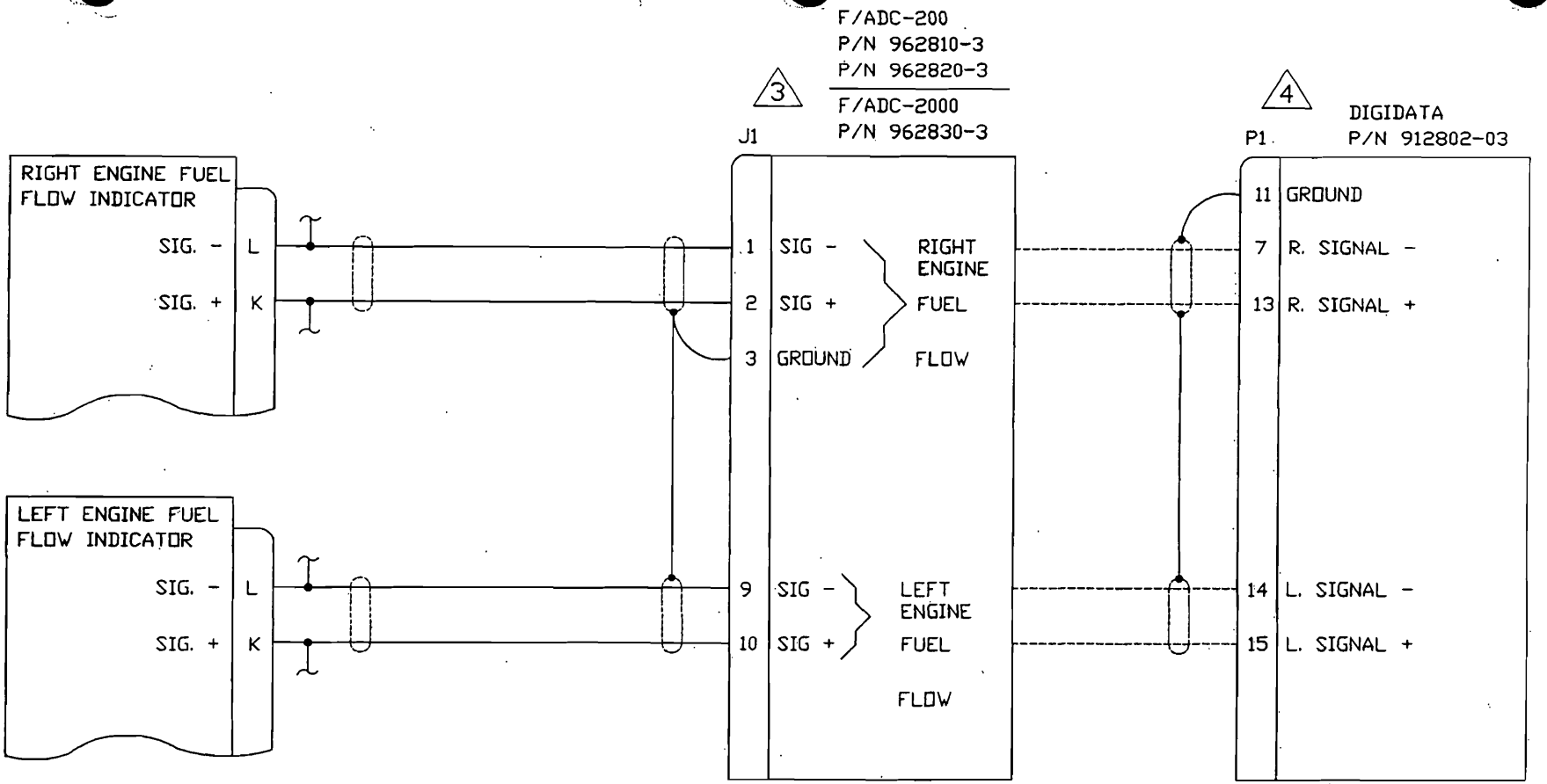
NOT TO SCALE

DRAWING DATE	3/24/98
DRAFTER	SRB
APPROVED	KCL
FILE NAME	4028-940A.DWG
DIRECTORY	4028
SHEET	1 OF 1

SHADIN MINNEAPOLIS, MN 55426

INSTALLATION WIRING, F/ADC-200, 2000 OR DIGIDATA WITH DC FF TO RAYTHEON BEECHJET 400A AIRCRAFT

DRAWING NO.	SIZE	P/N	REV
4028-940	A	——	A



NOTES:

1. FOR AIRCRAFT WITH THE FOLLOWING INDICATOR/TRANSMITTERS;
   A. INDICATOR PART NO. (RAGEN) 1291-2
   B. TRANSMITTER PART NO. (GULL) 151-909-001
2. K-FACTOR IS 10.49 (10,490 PPG), OFFSET IS 0.
3. SET AIRDATA SWITCHES AS FOLLOWS; SW1 = 1, SW2 = 8, SW3 = 0, SW4 = 0.
4. PROGRAM DIGIDATA FOR LEFT K-FACTOR = RIGHT K-FACTOR = 10,490 PPG, LEFT OFFSET = RIGHT OFFSET = 0.

ECO #	REV.	DATE	BY	APP'D	DESCRIPTION
0501/032	A	2-19-05	PAB	[illegible]	UPDATED TITLE BLOCK
9803/025	-	3/26/98	SRB	KCL	BASELINE RELEASE

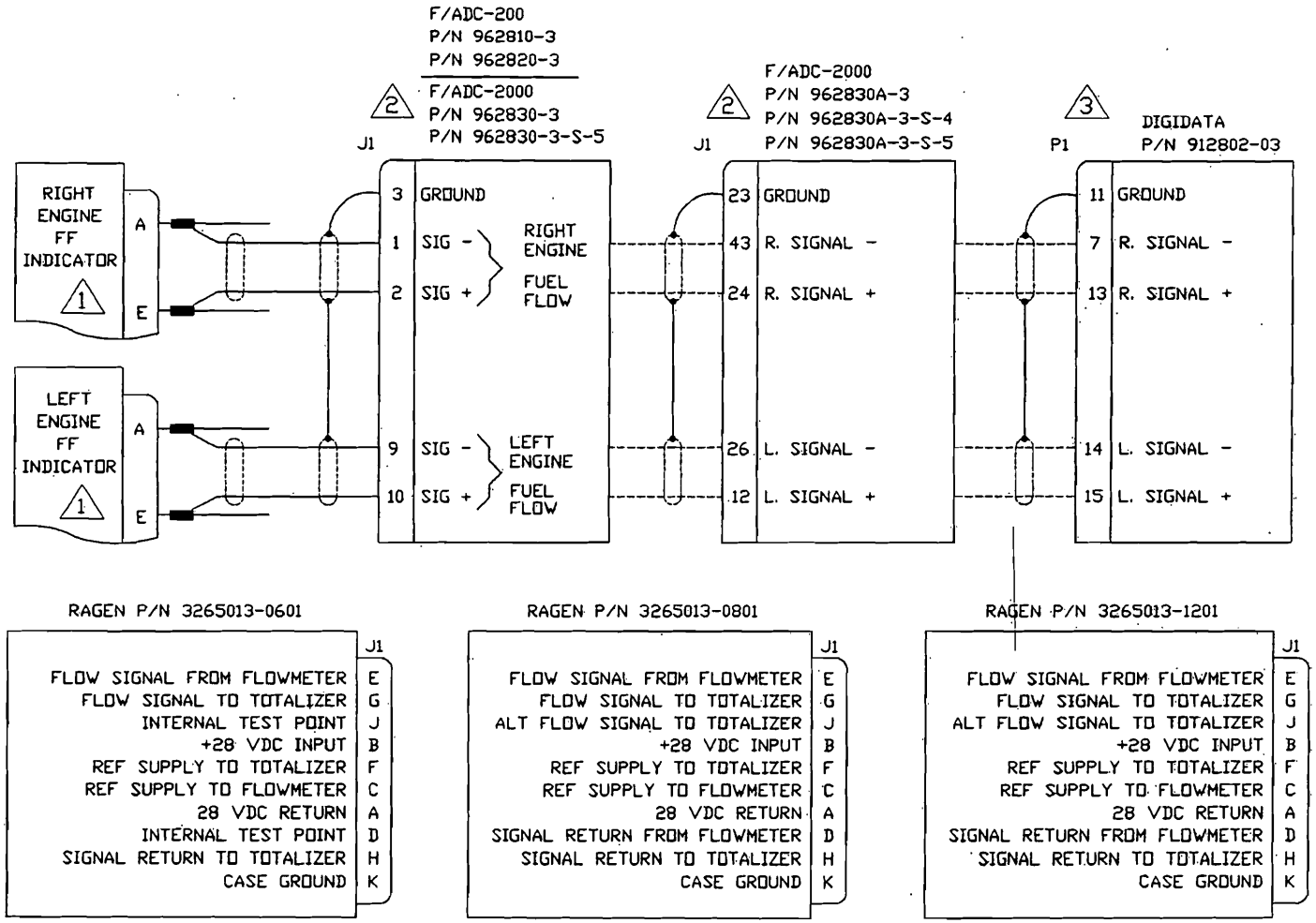
NOT TO SCALE

DRAWING DATE 3/25/98
DRAFTER SRB
APPROVED KCL
FILE NAME 4028-941A.DWG
DIRECTORY 4028
SHEET 1 OF 1

SHADIN MINNEAPOLIS, MN 55426

INSTALLATION WIRING, F/ADC-200; 2000 OR DIGIDATA WITH DC FF TO WESTWIND 1124 MODELS

DRAWING NO. 4028-941 | SIZE A | P/N ——— | REV A



NOTES:

1. FOR AIRCRAFT WITH THE FOLLOWING INDICATOR/TRANSMITTERS, SEE TABLE FOR INDICATOR WIRING.
   INDICATOR PART NO. (RAGEN) 3265013-0601 w/TRANSMITTER PART NO. (RAGEN) 3268011-0101.
   INDICATOR PART NO. (RAGEN) 3265013-0801 + 3265013-1201 w/TRANSMITTER PART NO. (RAGEN) TFF-2905-9 OR PIPER P/N 489-487.
2. SET AIRDATA SWITCHES AS FOLLOWS; SW1 = 1, SW2 = 1, SW3 = 0, SW4 = 0.
3. PROGRAM DIGIDATA FOR LEFT K-FACTOR = RIGHT K-FACTOR = 46,160
   PPG, LEFT OFFSET = RIGHT OFFSET = 0.

ECO #	REV.	DATE	BY	APP'D	DESCRIPTION
4501/006	C	1/17/05	PAB	ZK	ADD IND 3265013-0801, & RAGEN P/N TABLES
4001/016	B	1/31/00	LJM	EDJ	ADD IND 3265013-1201, XMTR TFF-2905-9 TO NOTE 1.
3901/015	A	1/20/99	DMD	KCL	ADD P/NS 962830A-3-S-5, 962830-3-S-5
3808/012	-	8/7/98	DMD	KCL	BASELINE RELEASE

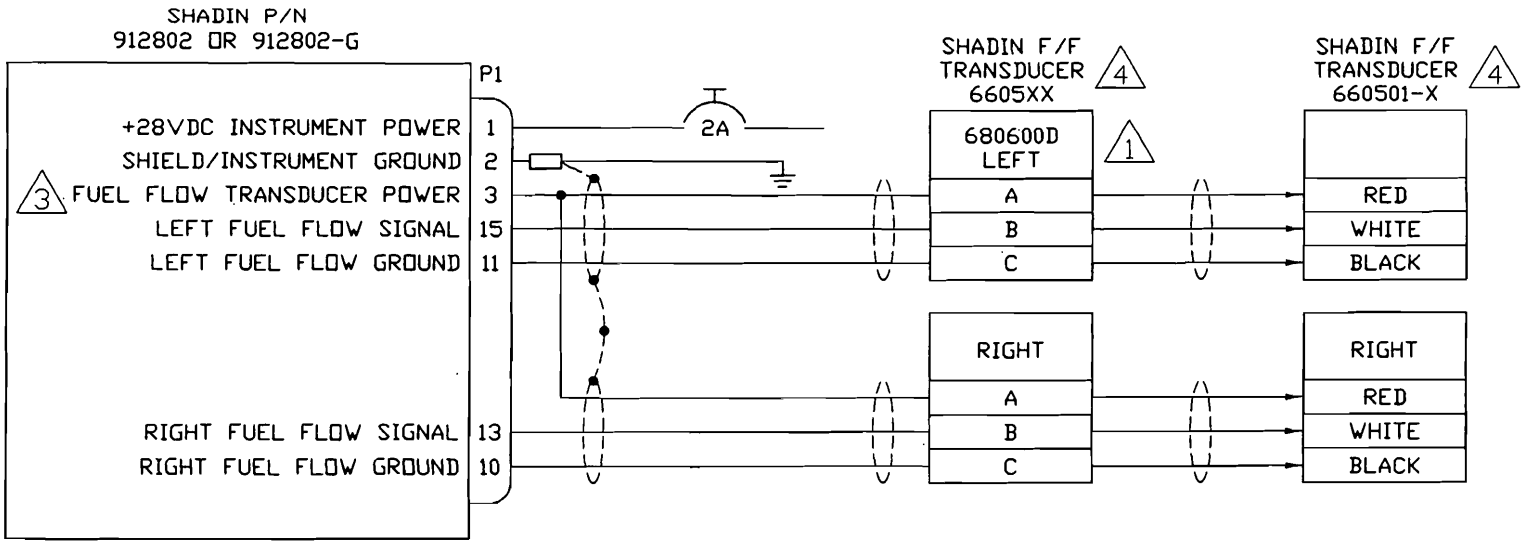
NOT TO SCALE

DRAWING DATE 8/7/98
DRAFTER DMD
APPROVED KCL
FILE NAME 4028-A29C.1.DWG
DIRECTORY 4028
SHEET 1 OF 1

SHADIN MINNEAPOLIS, MN 55426

INSTALLATION WIRING, F/ADC-200, 2000 OR DIGIDATA WITH DC FF PIPER CHEYENNE PA31T

DRAWING NO. 4028-A29 | SIZE A | P/N ——— | REV C



NOTES:

1. WHEN INSTALLING UNIT IN SINGLE ENGINE AIRCRAFT, USE LEFT FUEL FLOW ONLY.
2. ALL SHIELD GROUNDS MUST BE CONTINUOUSLY ROUTED BACK TO DIGIDATA.
3. PIN 3 OF CONNECTOR P1 (P1:3) SUPPLIES POWER TO BOTH LEFT AND RIGHT FUEL FLOW TRANSDUCERS.
4. IF A FUEL FLOW HAS BEEN PREVIOUSLY INSTALLED AND CONNECTED TO ANOTHER SYSTEM, CONNECT ONLY THE SIGNAL LINES (P1:13 & P1:15) OF THE TRANSDUCERS.

ECO #	REV.	DATE	BY	APP'D	DESCRIPTION
211/004	-	3/11/03	PAB	BAL	BASELINE RELEASE

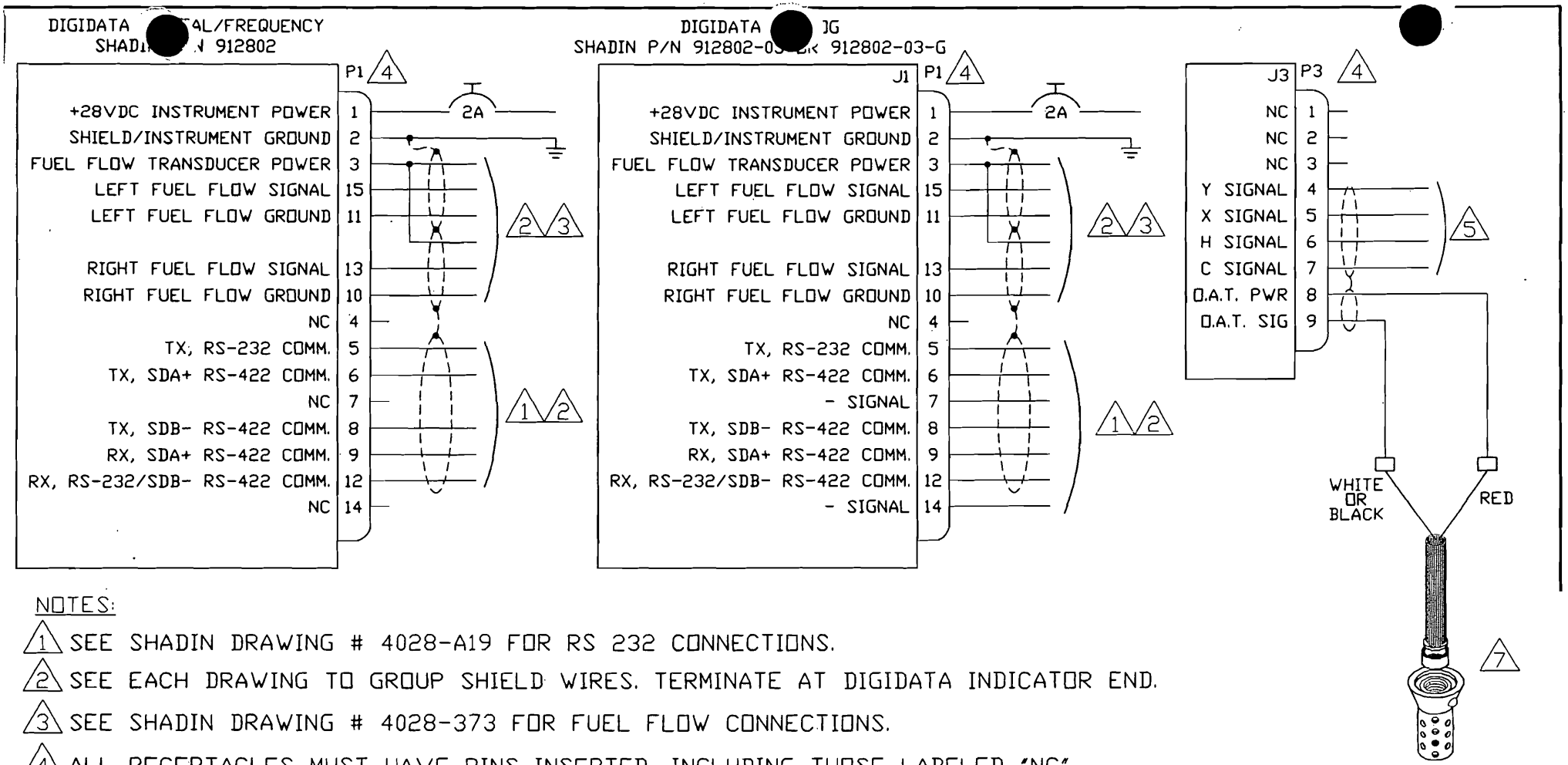
SCALE: NONE

DRAWING DATE	12/4/02
DRAFTER	PAB
APPROVED	BAL
FILE NAME	4028-E68-JDWG
DIRECTORY	4028
SHEET	1 OF 1

SHADIN MINNEAPOLIS, MN 55426

INSTALLATION WIRING, DIGIDATA FREQ INPUT, FUEL FLOW TRANSDUCER - CONVERTERS

DRAWING NO.	SIZE	P/N	REV
4028-E68	A	------	-



NOTES:

1. SEE SHADIN DRAWING # 4028-A19 FOR RS 232 CONNECTIONS.
2. SEE EACH DRAWING TO GROUP SHIELD WIRES. TERMINATE AT DIGIDATA INDICATOR END.
3. SEE SHADIN DRAWING # 4028-373 FOR FUEL FLOW CONNECTIONS.
4. ALL RECEPTACLES MUST HAVE PINS INSERTED, INCLUDING THOSE LABELED "NC".
5. NO Z IS SHOWN ON CONNECTOR. TIE Z & C TOGETHER AT ARINC 407 SOURCE.
6. SEE SHADIN DRAWING # 4028-820 FOR ANALOG FUEL FLOW INDICATORS.
7. SEE DRAWING # 4012-177 FOR SHADIN P/N 681201-1 FOR OAT PROBE INSTALLATION.

ECO #	REV.	DATE	BY	APP'D	DESCRIPTION
0211/004	-	3/11/03	PAB	BAL	BASELINE RELEASE

SCALE: NONE

DRAWING DATE	12/4/02
DRAFTER	PAB
APPROVED	BAL
FILE NAME	4028-E69-J.DWG
DIRECTORY	4028
SHEET	1 OF 1

SHADIN MINNEAPOLIS, MN 55426

INSTALLATION WIRING/CONNECTORS, DIGIDATA

DRAWING NO.	SIZE	P/N	REV
4028-E69	A	------	-