

TO FUEL SYSTEM CIRCUIT DIAGRAM (Sheet 2)

Refer to Sheet 4 for Bus Master Switch Details
 Refer to Sheet 7 for EXPBUS Details
 Refer to Sheet 3 for Fuse and Breaker Details

To backup gyro, etc. (Builders Discretion)
Keep these two loads to a minimum!
 To backup equipment (Builders Discretion)

LEGEND
 Primary Distribution Circuits (Always Live)
 Starter Motor Circuits
 Alternator / Battery-Charging Circuits

Eggenfellner Aircraft Inc		DRAWING TITLE	
ISSUED 04-Sep-2003		Primary Power Distribution	
		REVISION	4.3
		SHEET	1 OF 7

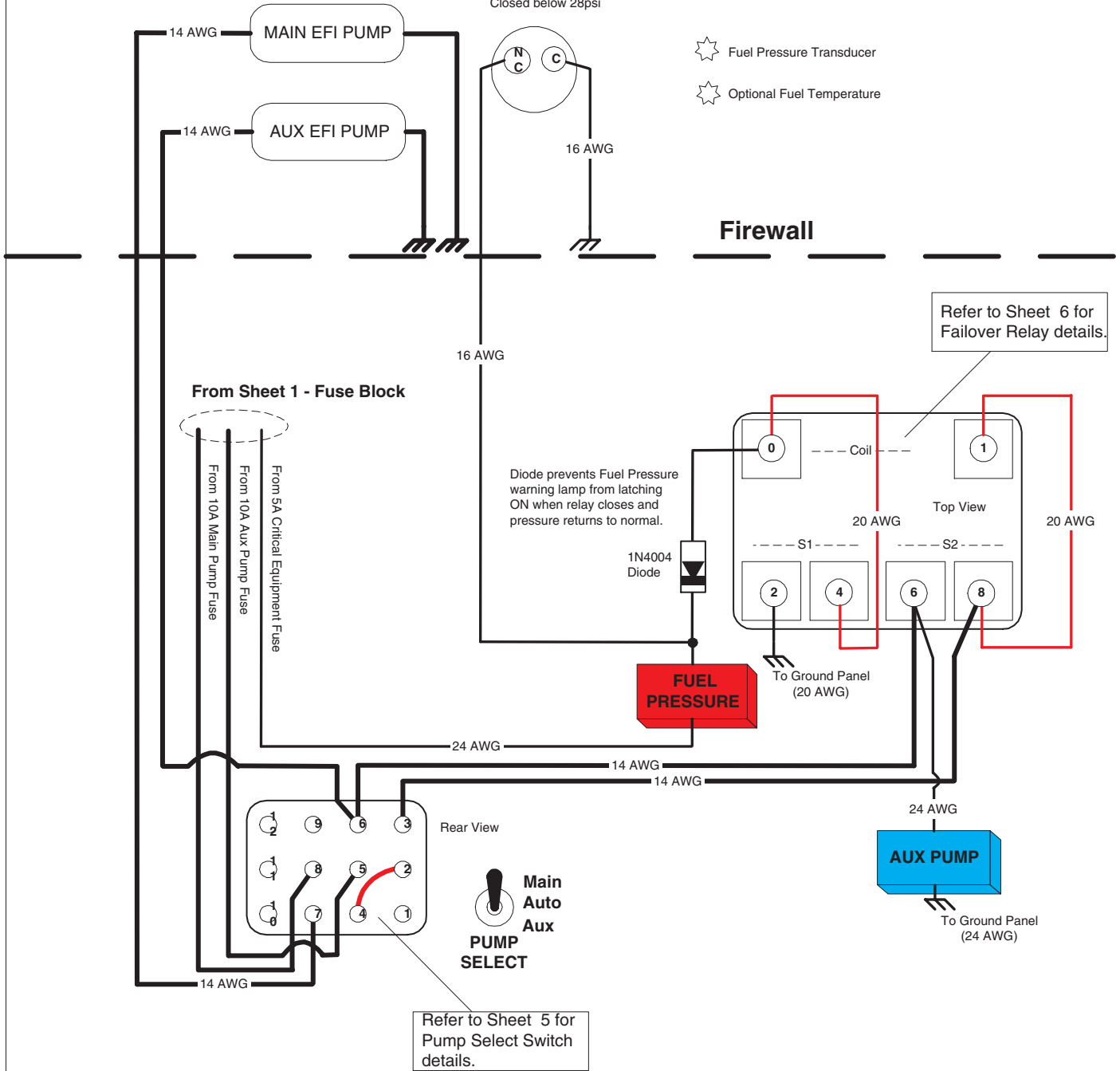
Typical EFI Pump Amperage

Unrestricted 3.5 cold, 3.1 warm
 Regulated 5.5 cold, 5.0 warm
 Blocked 8.5 cold, 9.0 warm

Auto-Failover Pressure Switch

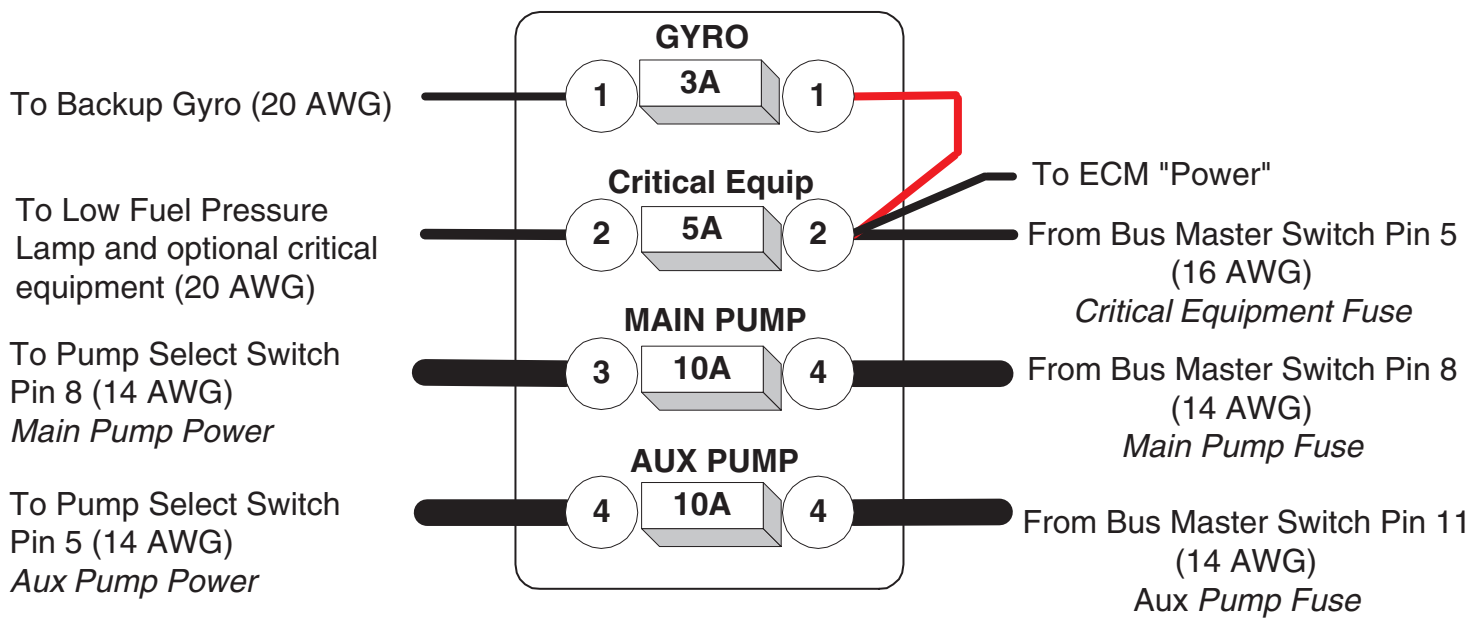
Preset Fuel Pressure Switch
 SPST-NC
 Closed below 28psi

- Fuel Pressure Transducer
- Optional Fuel Temperature

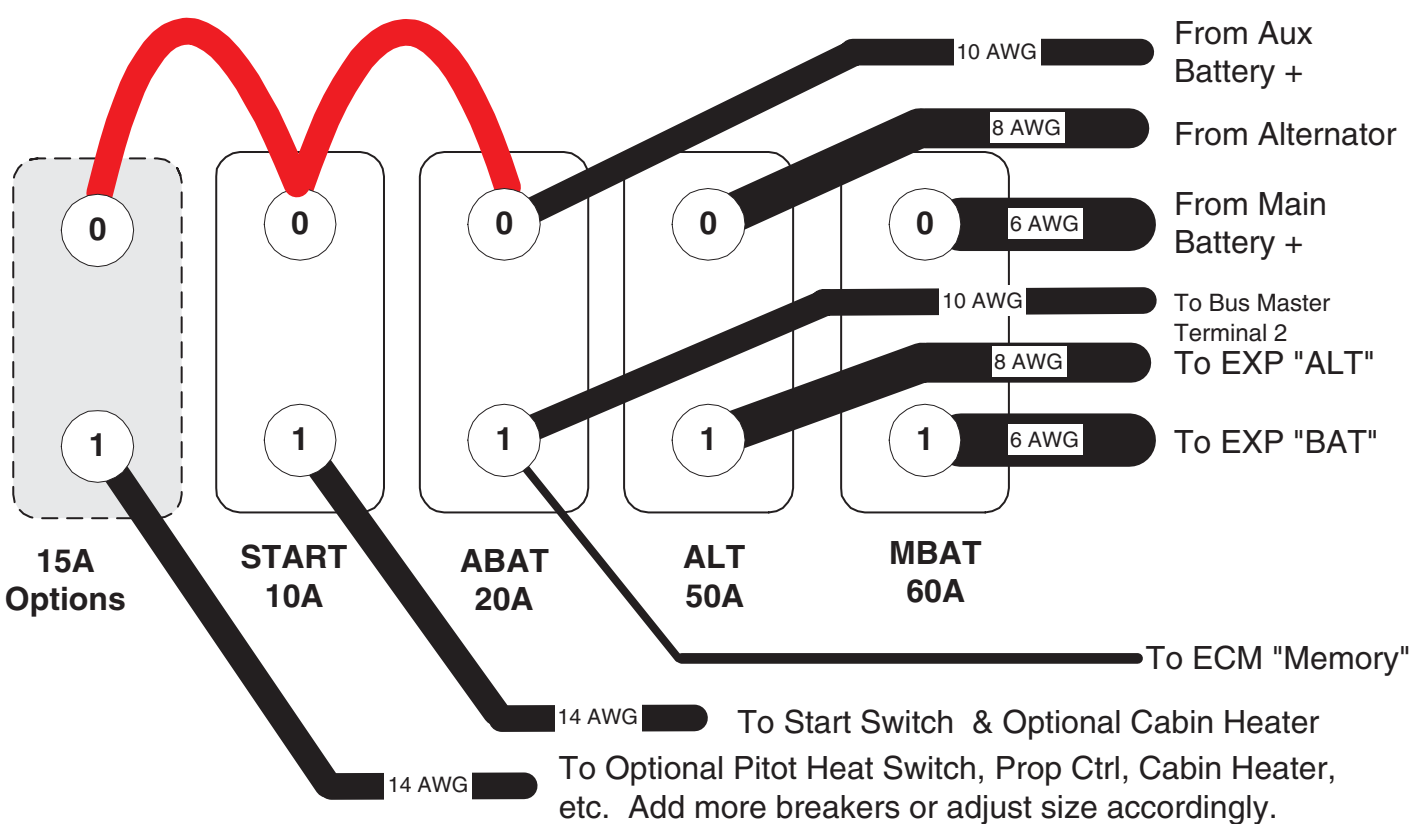


Eggenfellner Aircraft Inc		DRAWING TITLE		REVISION		4.1	
ISSUED		04-Sep-2003		Fuel System Wiring		SHEET	
						2 OF 7	

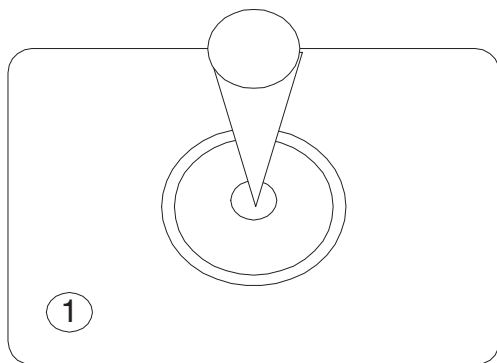
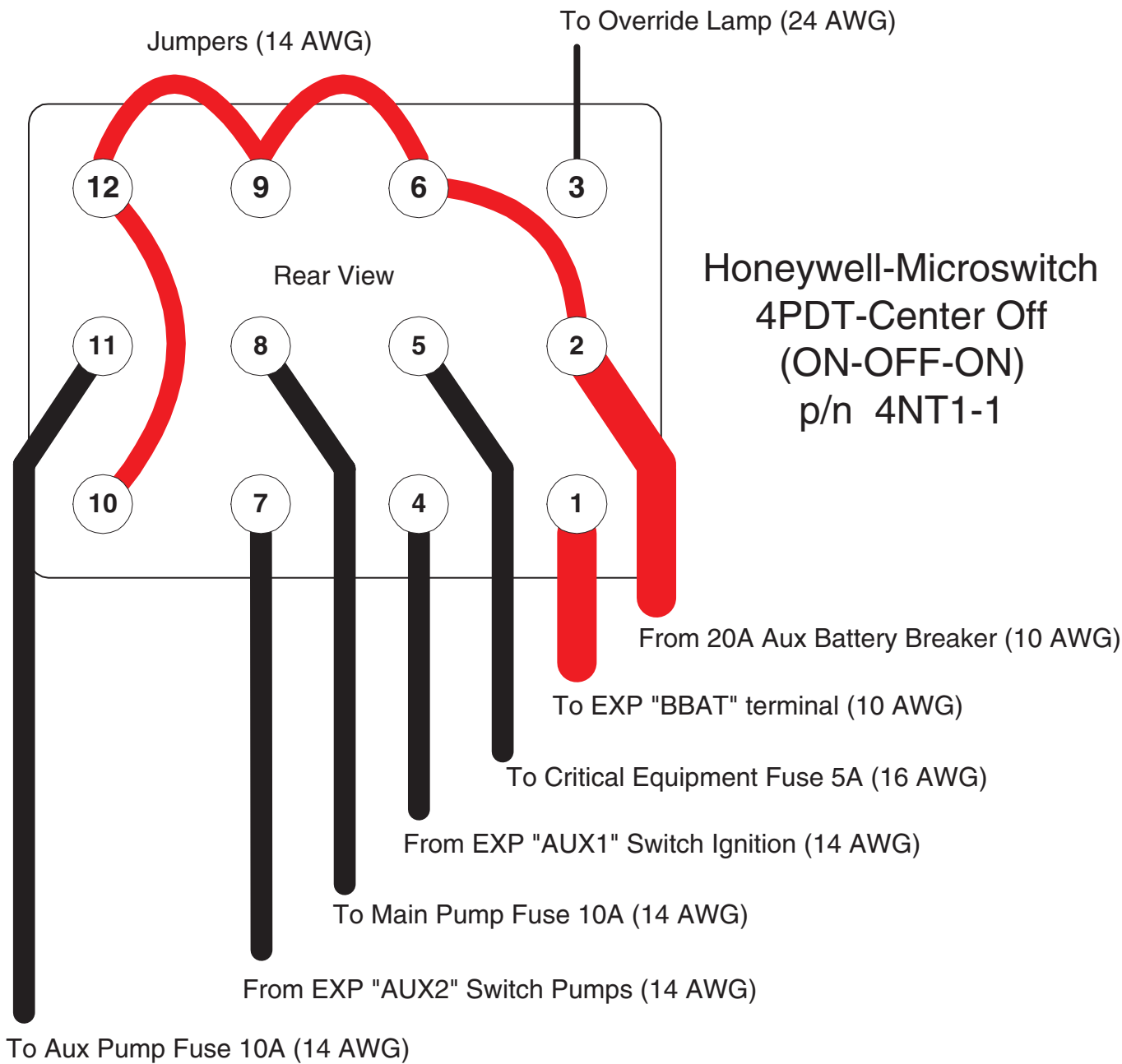
4-Position ATC Type Fuse Block



Primary Circuit Breakers



BY EGGENFELLNER AIRCRAFT INC.	DRAWING TITLE	REVISION	4.2
ISSUED 26-Oct-2005	Fuse and Breaker Wiring	SHEET	3 OF 7



ON

EXP Main and Aux Busses Active
 Electrical Bus Failover Armed
 Pumps & Ignition Systems ON

OFF

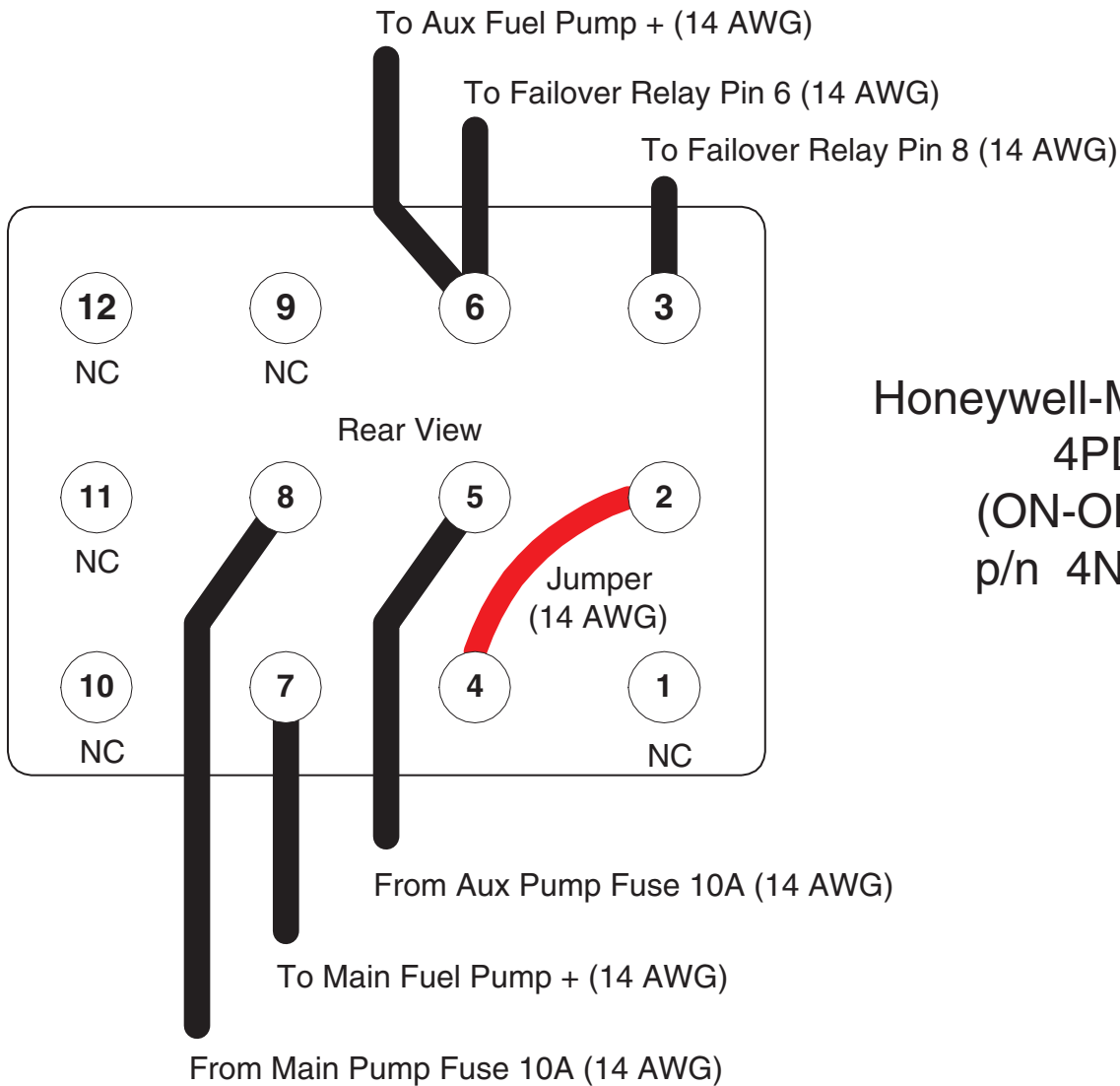
EXP Main and Aux Busses Inactive
 Electrical Bus Failover Disarmed
 Pumps & Ignition Systems OFF

OVERRIDE

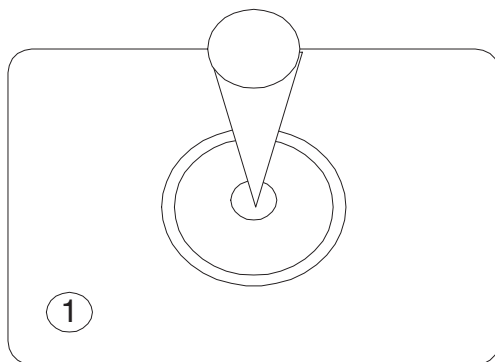
EXP Main and Aux Busses Inactive & Isolated
 Aux Battery Feeding Critical Systems
 Pumps & Ignition Systems ON

BUS MASTER

BY EGGENFELLNER AIRCRAFT INC.	DRAWING TITLE	REVISION	4.1
ISSUED	04-Sep-2003	Bus Master Switch Wiring	SHEET
			4 OF 7



Honeywell-Microswitch
 4PDT
 (ON-ON-ON)
 p/n 4NT1-12



MAIN

Main Pump ON, Aux Pump OFF
 Automatic Failover Disarmed / Reset
Engine Start Position

AUTO

Main Pump ON, Aux Pump STANDBY
 Automatic Failover Armed
Flight Position

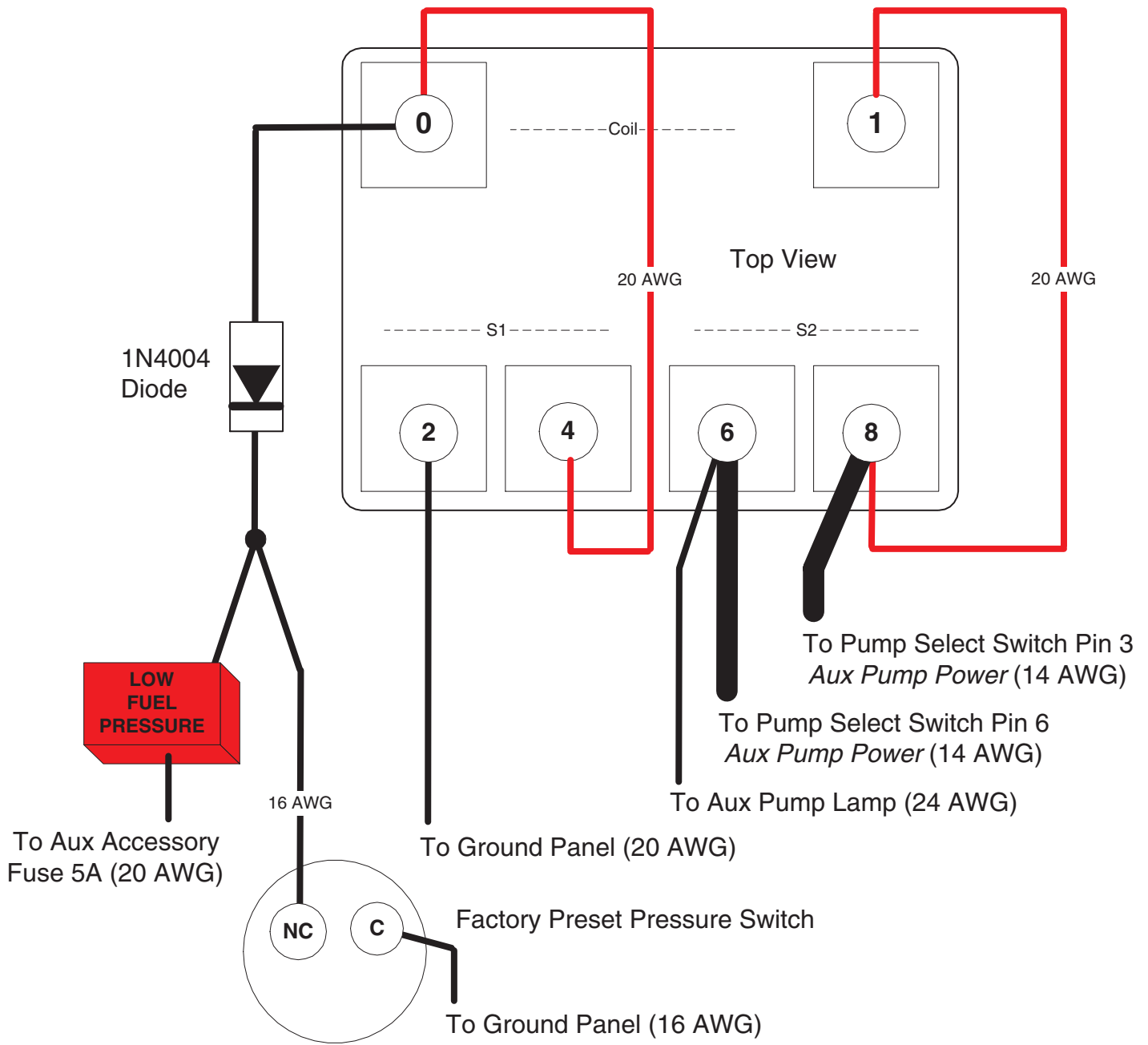
AUX

Main Pump OFF, Aux Pump ON
 Automatic Failover Disarmed

PUMP SELECT

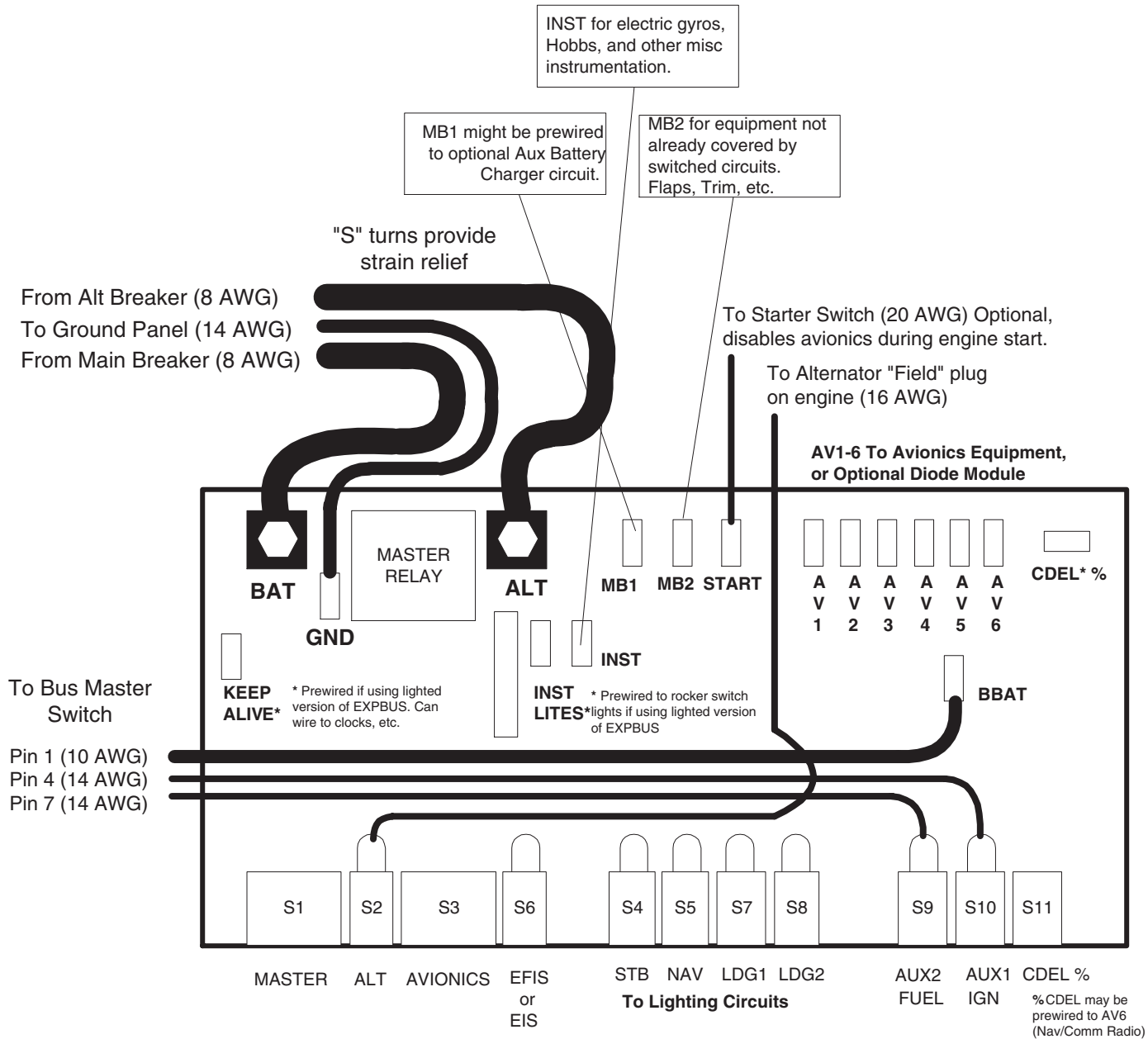
BY	GMN	DRAWING TITLE	REVISION	4.0
ISSUED	31-Oct-2002	Pump Select Switch Wiring	SHEET	5 of 7

Omron 12vdc Relay DPDT p/n 653-G7L-2AB-DC12

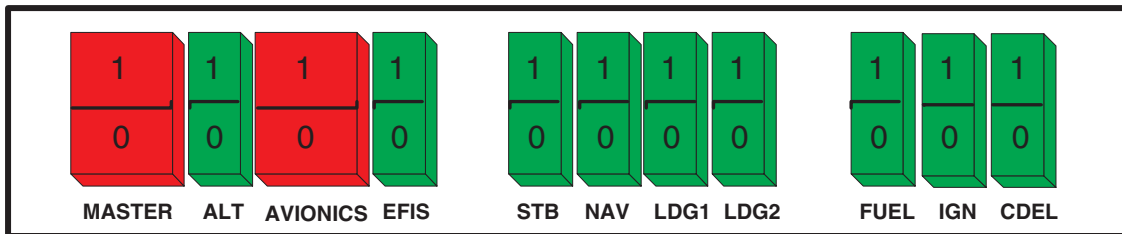


At or below 28psi, the Fuel Pressure Switch closes, grounding the Relay Coil and Low Fuel Pressure Lamp. Once the Relay Coil has ground, it latches closed via S1 contacts (pins 2 & 4) and remains closed until reset. S2 contacts (pins 6 & 8) activate the Aux Fuel Pump. The diode allows the Low Fuel Pressure lamp to turn off once the Aux Fuel Pump is providing enough pressure to re-open the Fuel Pressure Switch. The Relay is reset by briefly toggling the Pump Select Switch to MAIN, then back to AUTO. The Pump Select Switch should be set to MAIN initially to allow pressure to build up and avoid triggering Auto-Failover mode. With the Pump Select Switch set to AUTO, and fuel pressure drops below 28psi, BOTH pumps will be activated. You can fly it this way, or toggle the Pump Select Switch to AUX to turn off the suspected faulty MAIN pump.

BY	Eggenfellner Aircraft Inc.	DRAWING TITLE	REVISION
ISSUED	04-Sep-2003	Auto-Failover Relay Wiring	4.1
			SHEET
			6 of 7



Typical Switch Assignments & Labels

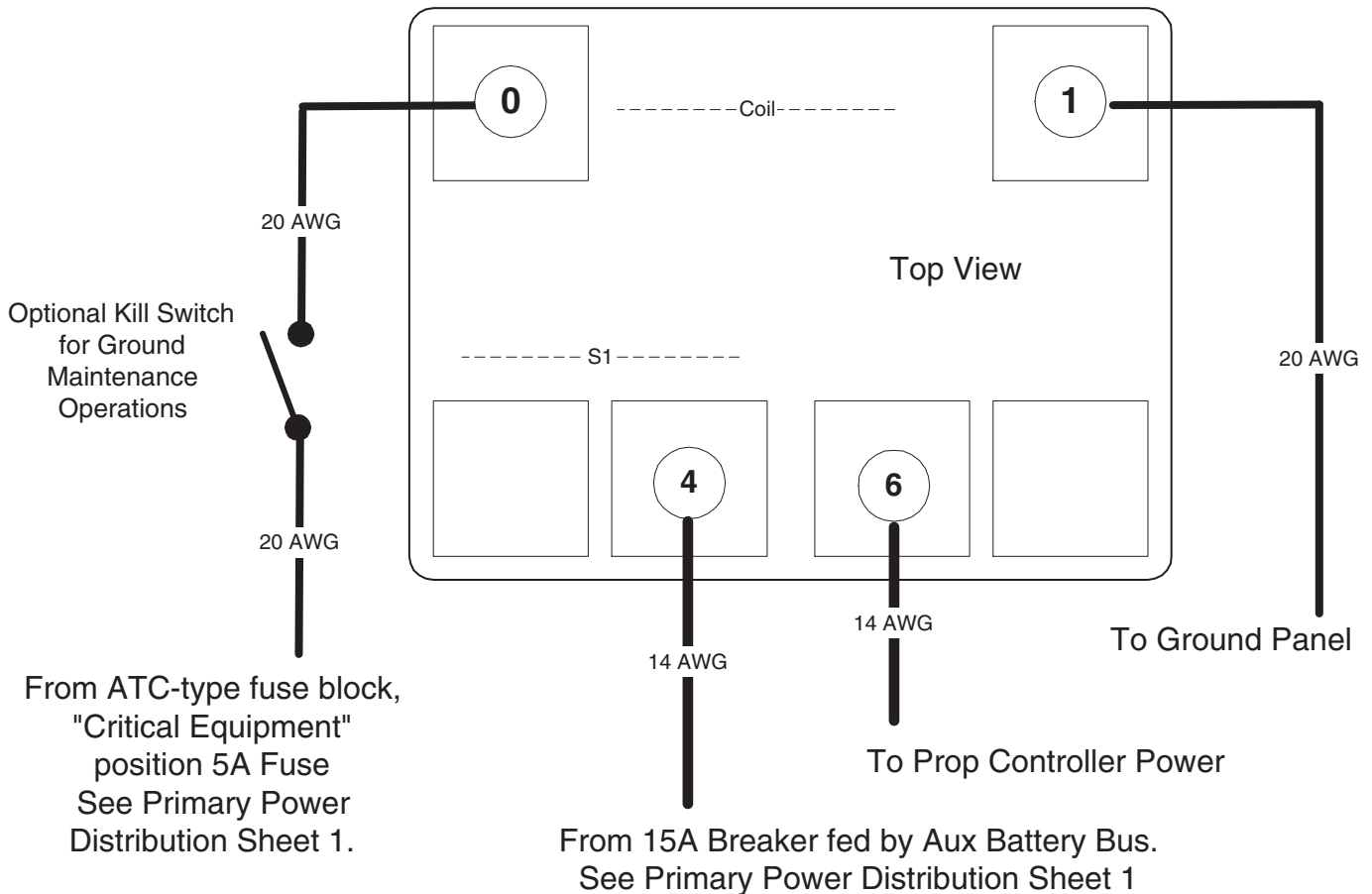


or
EIS

Note: LDG1 & LDG2 are useful only for Landing and Taxi lights due to the internal "fade-in" or "slow-on" circuit.

BY	Eggenfellner Aircraft Inc.	DRAWING TITLE	REVISION	4.1
ISSUED	04-Sep-2003	EXPBUS Wiring	SHEET	7 of 7

Omron 12vdc Relay SPST
 p/n G7L-1A-BUBJ-CB-DC12
 (\$13.00) ordered from www.onlinecomponents.com



The Prop Controller should obtain power from the AUX Battery Bus so that its operation is entirely separate from the EXPBUS unit and power is available in all modes of operation. **We do NOT recommend using the EXPBUS to power the prop controller.**

A 15A circuit breaker or fuse should be used. As an alternative, you can increase the rating of the accessory breaker designated as "START / HEATER" to 15A and share that breaker with the Prop Controller. Under normal use, the Prop Controller draws approx 2A and will not exceed 5A.

Because the Prop Controller must be "switched", you have three options:

OPTION 1: Install a single-pole, single-throw (SPST) switch for the prop controller. You must remember to turn this switch off during shutdown and on during startup. Add these steps to your checklist. An alternative is to use a switch-type circuit breaker as both a breaker and switch, although this is not the preferred method.

OPTION2: Install a single-pole, single-throw (SPST) Relay which is controlled via the essential bus. This makes the prop operation automatic, thus there is no change to your checklist. The Relay coil draws an insignificant amount of current (approx. one tenth of an amp), so simply tap into the 5A critical equipment fuse.

OPTION 3: Same as option 2, but also include a switch to allow you to turn off the prop controller for ground maintenance operations. **This is the option shown above.**

BY	Eggenfellner Aircraft Inc.	DRAWING TITLE	REVISION	1.2
ISSUED	04-Sep-2003	Prop Controller Power	SHEET	1 of 1