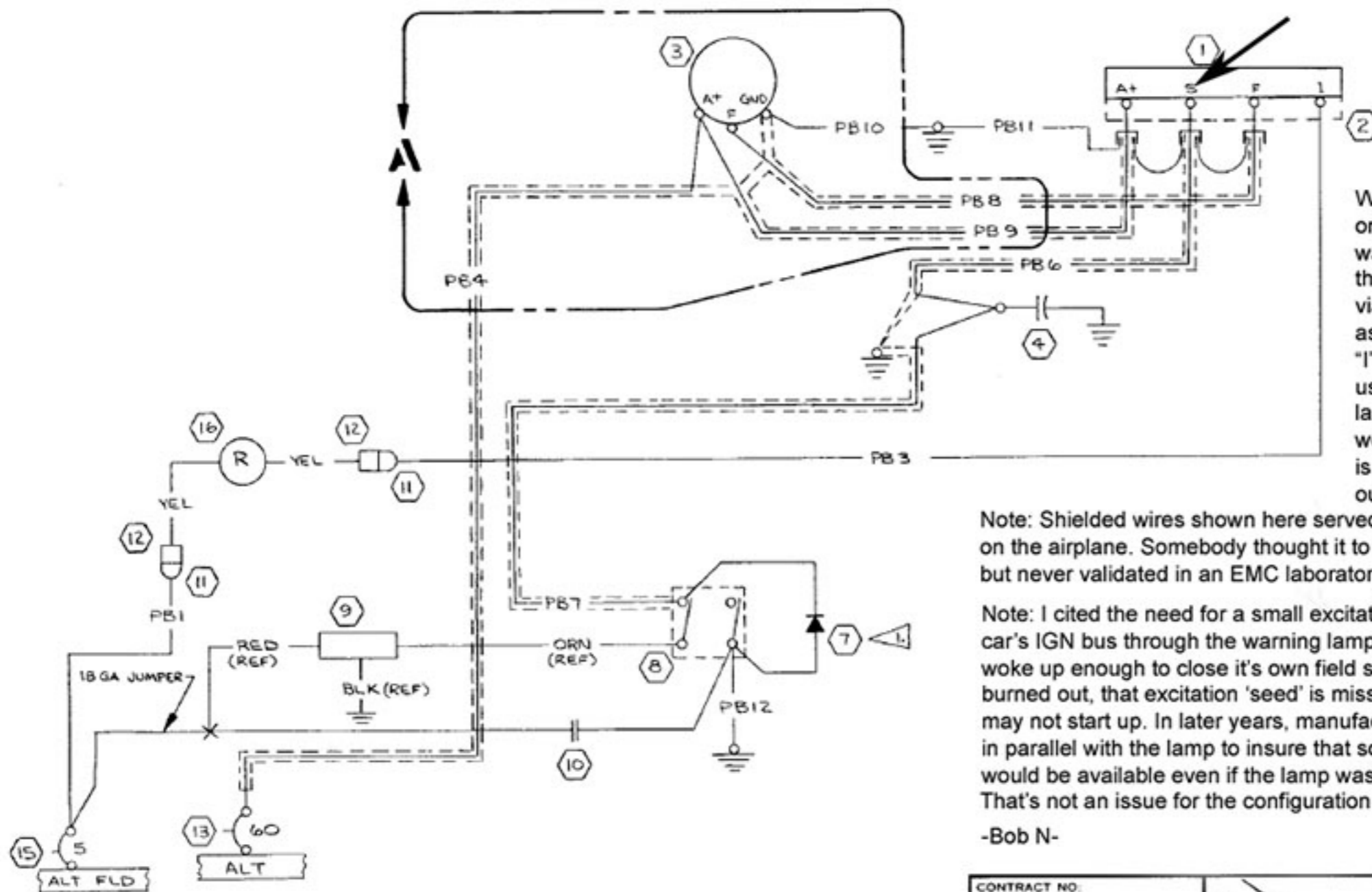


When used on terrestrial vehicles, the "S" terminal was driven by the "AUX" terminal of the alternator. AUX terminal voltage was present if and only if (1) the engine was running and (2) there was the seed of an excitation current flowing into the "I" terminal via the alternator failure warning lamp on the panel. Voltage applied to the "S" terminal energized the field excitation relay within the regulator. This feature made sure that the field relay opened when then vehicle was parked thus preventing battery depletion by the field of a non-turning alternator.

REVISION			
LET	DESCRIPTION	DATE	APPD
A	FOR REVISION SEE PAGE 4.4.0		



When pressed into service on aircraft, the "S" terminal was driven directly from the alternator control switch via over voltage management as illustrated here. The "I" terminal was optionally used to drive an ALT FAIL lamp. But the regulator works just fine if the lamp is not installed (or burned out).

Note: Shielded wires shown here served no useful purpose on the airplane. Somebody thought it to be a good idea but never validated in an EMC laboratory.

Note: I cited the need for a small excitation current from the car's IGN bus through the warning lamp to get the alternator woke up enough to close it's own field supply relay. If the lamp burned out, that excitation 'seed' is missing and the alternator may not start up. In later years, manufacturers added a resistor in parallel with the lamp to insure that some start-up current would be available even if the lamp was burned out. That's not an issue for the configuration shown above.

-Bob N-

Used to work with these guys!

Exemplar 'ford' style regulator installation on single engine Cessnas circa 1976

CONTRACT NO.		PAWNEE DIVISION 5800 E. PAWNEE WICHITA, KANSAS	
DESIGN	G. STAMM	DATE	10-1-74
GROUP	B. WARDEN	DATE	1-2-75
DRAWN	MERRICK	DATE	10-31-74
CHECK	J. YOWEL	DATE	12-6-74
STRESS			
PROJ	D. F. IVE	DATE	1-3-75
APPD	IVE		
OTHER			
Cessna AIRCRAFT CO.		TITLE WIRING DIAGRAM- ALTERNATOR SYSTEM, 60 AMP	
SIZE	C	CODE IDENT. NO.	71379
DWG. NO.	0570101		
SCALE	NONE	(SR1903)(SR1904)	PAGE: 4.4.1

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