

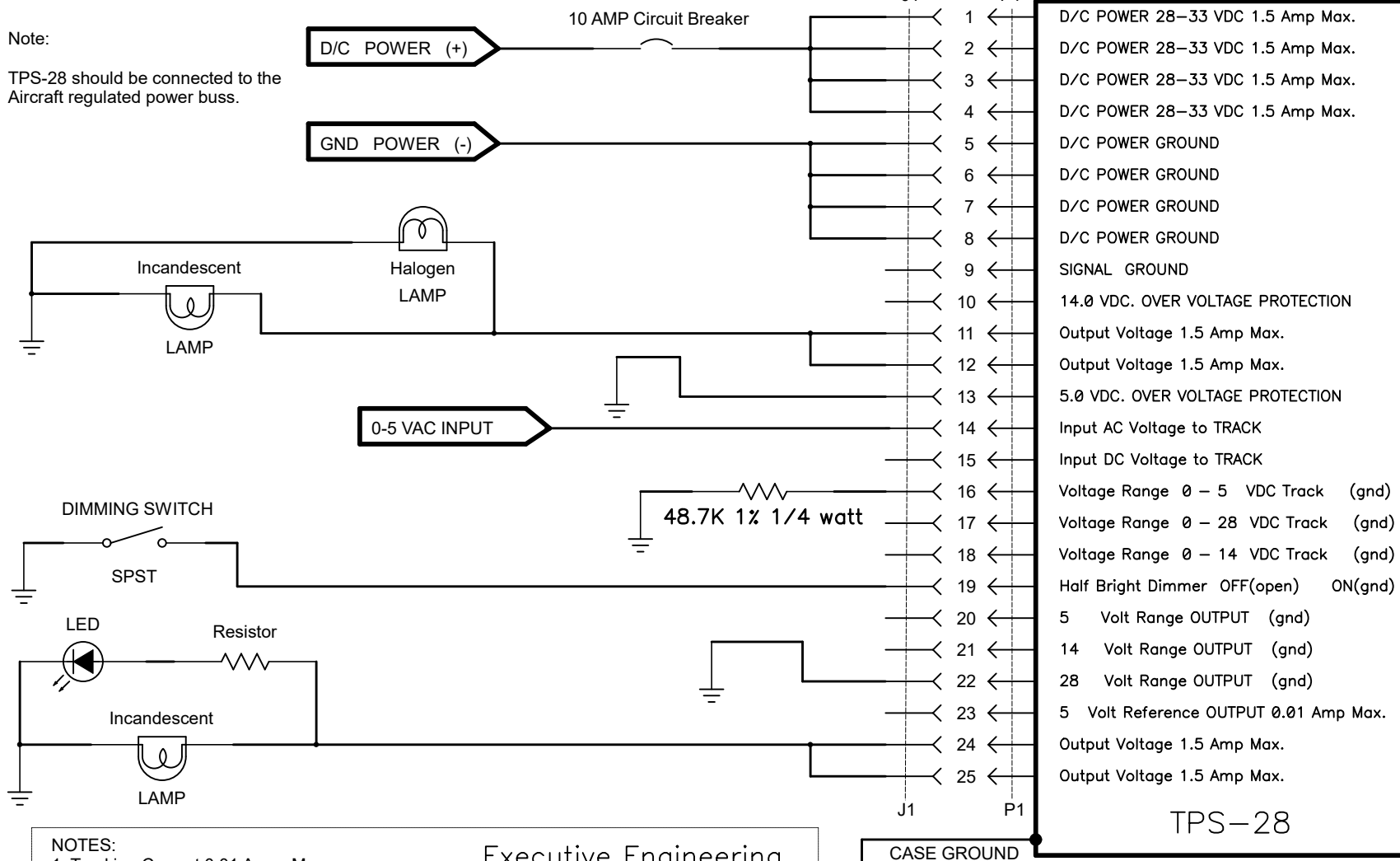
## **What 5 Volt AC Tracking Schematic should I use with the TPS-28D..?**

This depends on how accurate you want to track your AC 5 Volts on the low end of the dimming. If your using Night Vision Equipment then you should be using schematic number ( **T5AC-T-5** ) ( **T5AC-T-14** ) ( **T5AC-T-28** ) The T1 transformer acts as an amplified voltage to the TPS-28 and extends the range of tracking of the 5 Volts AC in the sampling circuits in the TPS-28. This give you much better tracking on the lower end of the dimmer voltage.

If your just looking for Tracking 5 Volts AC and you don't care about the lower 10% of the dimming range then schematic ( **T5AC-T-5-V2** ) ( **T5AC-T-14-V2** ) ( **T5AC-T-28-V2** ) will work for your needs. The TPS-28D will track the 5 Volts AC down very well until about the lower 10% of the 5 Volts AC and then the tracking becomes none linear. For some customer this is fine because they never dim the lamps to almost off and they don't use Night Vision Equipment in their aircraft.

If you have any question feel free to contact Executive Engineering.

Note:  
TPS-28 should be connected to the Aircraft regulated power buss.



1	←	D/C POWER 28-33 VDC 1.5 Amp Max.
2	←	D/C POWER 28-33 VDC 1.5 Amp Max.
3	←	D/C POWER 28-33 VDC 1.5 Amp Max.
4	←	D/C POWER 28-33 VDC 1.5 Amp Max.
5	←	D/C POWER GROUND
6	←	D/C POWER GROUND
7	←	D/C POWER GROUND
8	←	D/C POWER GROUND
9	←	SIGNAL GROUND
10	←	14.0 VDC. OVER VOLTAGE PROTECTION
11	←	Output Voltage 1.5 Amp Max.
12	←	Output Voltage 1.5 Amp Max.
13	←	5.0 VDC. OVER VOLTAGE PROTECTION
14	←	Input AC Voltage to TRACK
15	←	Input DC Voltage to TRACK
16	←	Voltage Range 0 - 5 VDC Track (gnd)
17	←	Voltage Range 0 - 28 VDC Track (gnd)
18	←	Voltage Range 0 - 14 VDC Track (gnd)
19	←	Half Bright Dimmer OFF(open) ON(gnd)
20	←	5 Volt Range OUTPUT (gnd)
21	←	14 Volt Range OUTPUT (gnd)
22	←	28 Volt Range OUTPUT (gnd)
23	←	5 Volt Reference OUTPUT 0.01 Amp Max.
24	←	Output Voltage 1.5 Amp Max.
25	←	Output Voltage 1.5 Amp Max.

TPS-28

CASE GROUND

- NOTES:
1. Tracking Current 0.01 Amps Max.
  2. Max. circuit breaker size 15 Amps.
  3. Signal ground is used for adjustable resistor return.
  4. Dimmer switch will work in any mode of operation.
  5. Max. wire size is 18 GA for crimp pins.
  6. DO NOT exceed 4 Amps. per Pin IN / OUT
  7. Most LED's need Current limiting resistors, common values are 470 Ohms for 5 volts, 1K for 12 volts, 2.7K for 28 volts this gives 10ma of current for that LED.
  8. Case of TPS-28 should be connected to ground.

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Title 0-5 VAC TRACKING / 0-28 OUPUT VOLTS		
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