

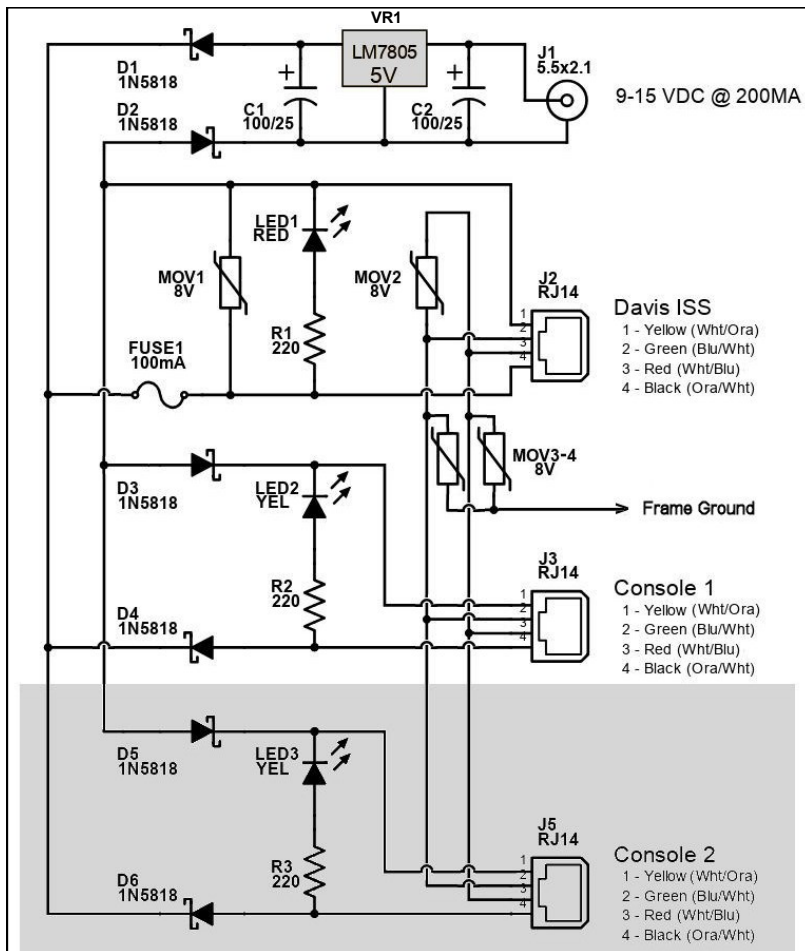
DAVIS VANTAGE PRO-2 CABLED WEATHER STATION ISS SPLITTER

Works with Davis Part Numbers 6152C and 6162C
Design by Les Turner (www.w9lrt.com)

The purpose of this circuit is to allow multiple wired Davis Vantage Pro 2 or Vantage Pro 2 Plus consoles to connect to a single ISS (Integrated Sensor Suite). The circuit provides diode isolation of the 5V ISS supply from each console and an external power source. This circuit provides redundant power supplies to the ISS.

The yellow LEDs indicate which consoles are powered. The red LED indicates power is supplied the the ISS.

Though not shown in the schematic, an LED could also be placed across the RS422 pair to indicate activity.



Parts List:

C1-2	100uf 25V Capacitor
D1-6	1N5818 Schottky Diodes
J1	Coaxial Power
5.5x2.1mm	
J2-4	RJ14 Female Panel
Jacks	
LED1	Standard Red LED
LED2-3	Standard Yellow LED
R1-3	220 Ohm .5 W Resistor
MOV1-4	8V Metal Oxide Varistor
VR1	LM7805 Regulator

The regulator will drop the 9-15VDC input to 5 volts. The regulator circuit may be omitted if you are using a well regulated 5VDC power supply.

Shottky diodes have a lower voltage drop across the junction and are used to isolate and combine each console's power with the external power adapter.

MOV1 provides surge suppression for the 5V supply to the ISS. A strong surge may cause MOV1 to short, open the fuse, and disconnect the ISS.

MOV2-4 provide surge suppression on the RS422 data pair.

The gray area of the schematic may be duplicated for additional consoles. The circuit was tested with 3 consoles, but the driver specification supports 32.

The entire splitter was constructed in a regular wall box using standard RJ14 keystone network jack inserts.

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