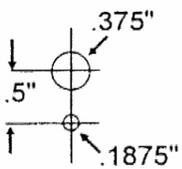


Unit Ordered	Model No.	RL (Ohms) Minimum Load Resistance
	18TB-1-15	8
	18TB-1-25	4.8
	18TB-2-15	16
	18TB-2-25	9.6

For resistive loads such as strip or coil type industrial heaters a minimum load resistance RL, is always implied by the voltage and the current rating of your power control. Dividing the maximum output voltage (i.e. the input voltage) by the current rating will give you this value. Ohm's Law,  $E=I \cdot R$

**MOUNTING INSTRUCTIONS**



**POWER MODULE:** Mount the unit to a metal panel in a vertical orientation to natural convection cooling air to flow up through the cooling fins. For mounting hole location, see dimension chart on back of this instruction sheet.

**CONTROL POTENTIOMETER:** The control potentiometer can be mounted up to 50 ft. from the power control. Any two conductor cable No 22 AWG or larger will suffice. See mounting hole dimensions on back of this instruction sheet.

**CONNECTING THE LOAD**

Run the black (hot) lead from your source to the 18TB and connect it to terminal 1 (line). Continue to run the hot lead from terminal 4 (load) to your load. Run the white (neutral) lead from your source to your load. The power circuit of the 18TB is connected in series with your load. See connection diagram on back of this instruction sheet.

**FUSING**

To provide for many years of reliable operation these units are fused at their maximum rating. These "2 millisecond" fuses provide short circuit protection as well as long term overload protection.



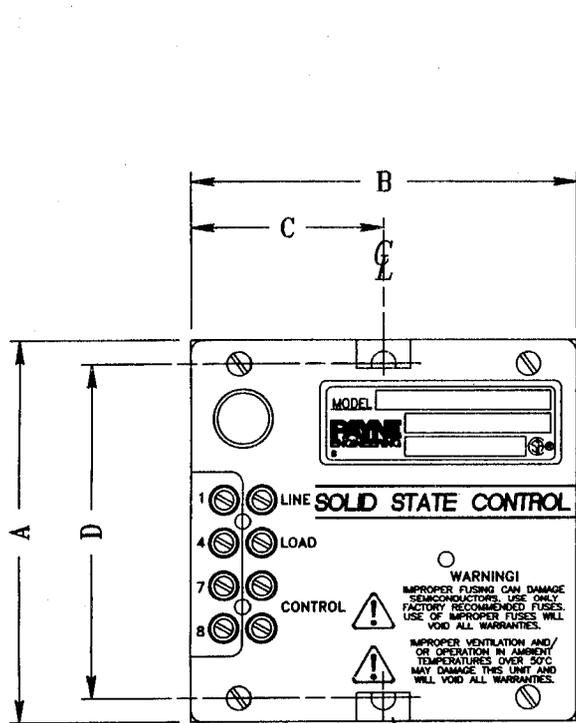
**IMPORTANT! USE ONLY PAYNE ENGINEERING RECOMMENDED FUSES**

**TESTING**

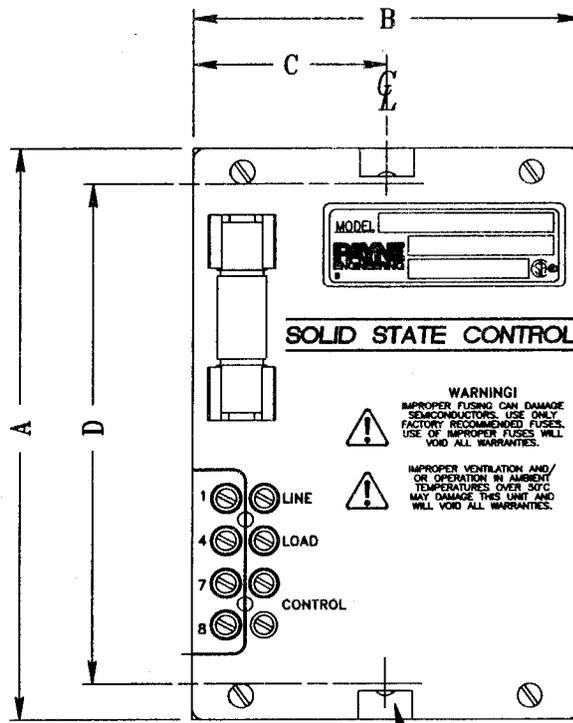
Thyristors require a small amount of current flowing through them in order to remain in the ON condition when applying power to the load. Therefore, with no load connected to the output terminals you cannot reliably check the operation of the unit. A 0.5 amp load connected to the unit is generally sufficient to check the power control prior to placing it in service.



**WARNING! HIGH VOLTAGE ALWAYS PRESENT ON ALL TERMINALS**



Dia.  
FIG. A

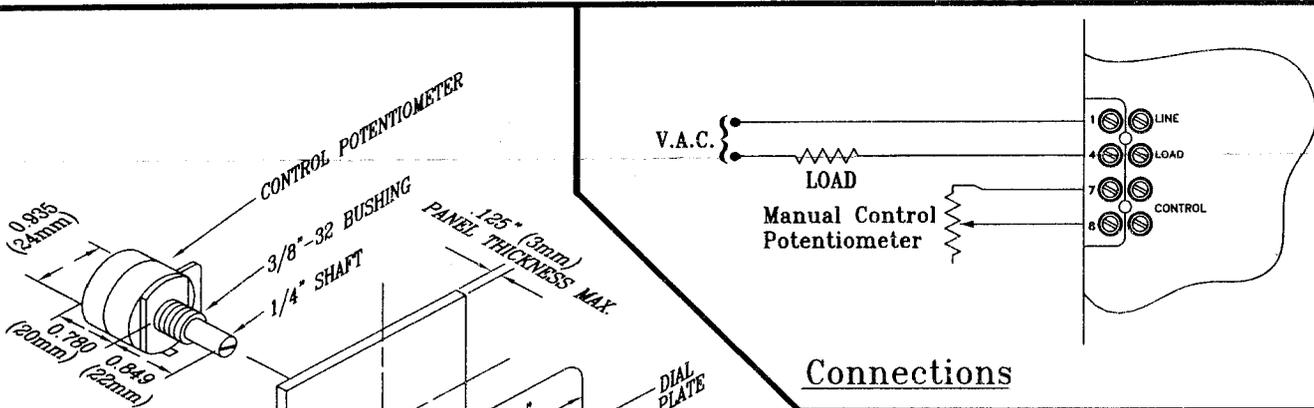


Dia.  
FIG. B

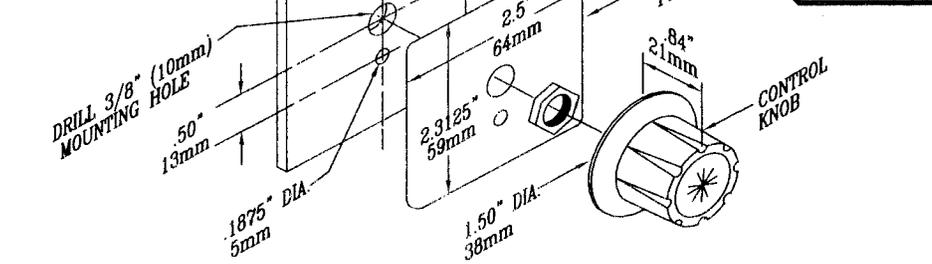
MODEL NO.	A	B	C	D	Depth	Dia.	Fig.
18TB-1-15	4.000	4.000	2.000	3.500	2.625	0.250	A
-2-15	102	102	51	89	67	6	A
18TB-1-25	6.000	4.000	2.000	5.500	2.875	0.250	B
-2-25	152	102	51	140	73	6	B

Dimensions

IN.  
MM



Connections



Control Pot. Mounting

Dwg. No.	18T/6.002F	
Model 18TB Solid State Power Control		
installation diagram		
Drn By:	RLW	4/69
App By:	RLW	01/05/93
<b>PAYNE ENGINEERING</b> Box 70, Scott Depot, W.Va. 25560 PH 304/757-7353 CABLE-PAYNENGRG TELEX 88-5452 FAX 304/757-7305		

Rev.	F	ADD POT. MOUNTING DETAIL	12/96
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