

INSTRUCTION SHEET



KEPCO

MSP 28-1

INSTALLATION MODEL MSP 28-1

Figure 1 illustrates an exploded view of the Kepco Model MSP 28-1 LED panel (1/8 rack). To make this unit functional, the unit must be disassembled to facilitate the insertion of resistors matched to the associated power supply/ies. Figure 2 illustrates the schematic. Figure 3 illustrates component location. Proceed as follows:

1. Disassemble unit (see Figure 1) by removing two 6-32 x 1/4 ACF. ST. nuts (P/N 102-0004), associated washers (P/N 103-0015) and spacers (P/N 104-0227).
2. Calculate the value (in ohms) of resistors R1, R2 (locations R2, R3 on the P.C. Board), with respect to the power supply voltage (Vn) and the operating characteristics of the LED DS1, DS2 (locations DS2, DS3 on the P.C. Board). Refer to Table 1 for resistor values and Kepco part numbers associated with standard Kepco power supply output voltages.
 - where Vn = voltage across resistor/LED network (power supply output voltage)
 - where VF = forward voltage across LED (approximately 2V)
 - where IF = forward current across LED (approximately 20mA)

The following is an example for a resistor value associated with a 5 volt power supply:

$$\text{resistor value (in ohms)} \quad R_n = \frac{V_n - V_F}{I_F} = \frac{5V - 2V}{20mA} = 150 \text{ ohms}$$

Calculate the power rating (in watts) as follows:

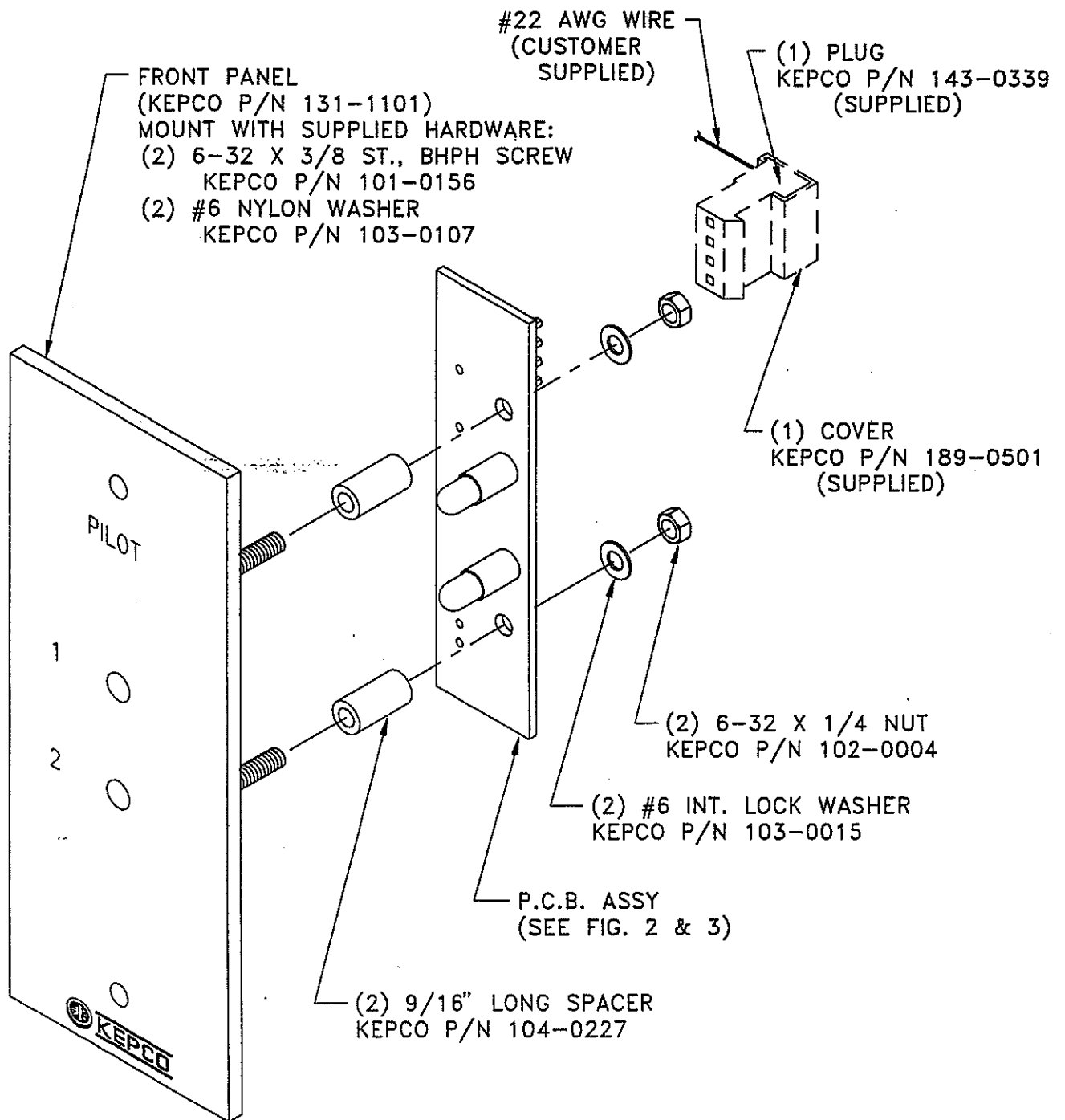
$$W_n = 2 \times I_F \times (V_n - V_F) = 2 \times 20mA \times (5V - 2V) = 0.12W^*$$

*use nearest larger standard size (1/4 or 1/2 Watt).

OUTPUT VOLTAGE	RESISTOR	KEPCO P/N
2V	10Ω, 5%, 1/4w	115-2643
5V	150Ω, 10%, 1/2W	115-0543
9V	390Ω, 5%, 1/2W	115-0883
12V	560Ω, 5%, 1/2W	115-0888
15V	750Ω, 5%, 1W	115-2438
24V	1.1KΩ, 5%, 1W	115-0545
28V	1.5KΩ, 10%, 1W	115-0664
48V	2.7KΩ, 10%, 2W	115-2465

TABLE 1 KEPCO MSP SERIES LED PANELS, RESISTOR SELECTION

3. Position and solder resistor in place (see Figure 3).
4. Reassemble unit (see Figure 1).



NOTE:
CONNECTIONS TO PLUG (143-0341) VIA #22 AWG WIRE
ARE MADE USING AMP TOOL 59804-1 (IF AMP TOOL UNAVAILABLE,
USE SMALL SLOT BLADE SCREWDRIVER)

FIGURE 1 KEPCO MODEL MSP 28-1, EXPLODED VIEW

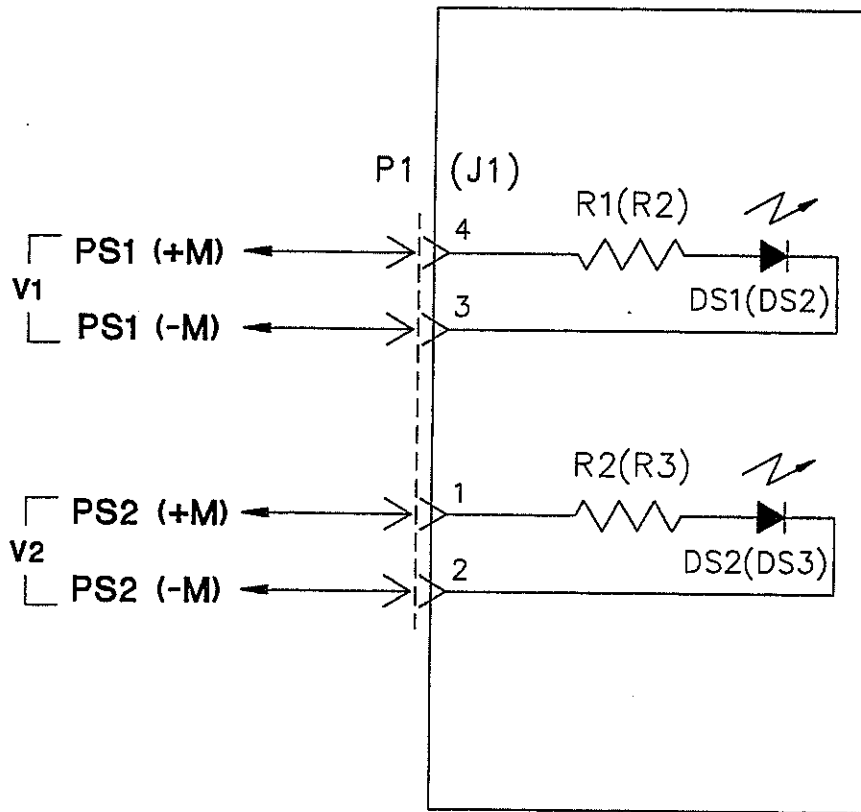
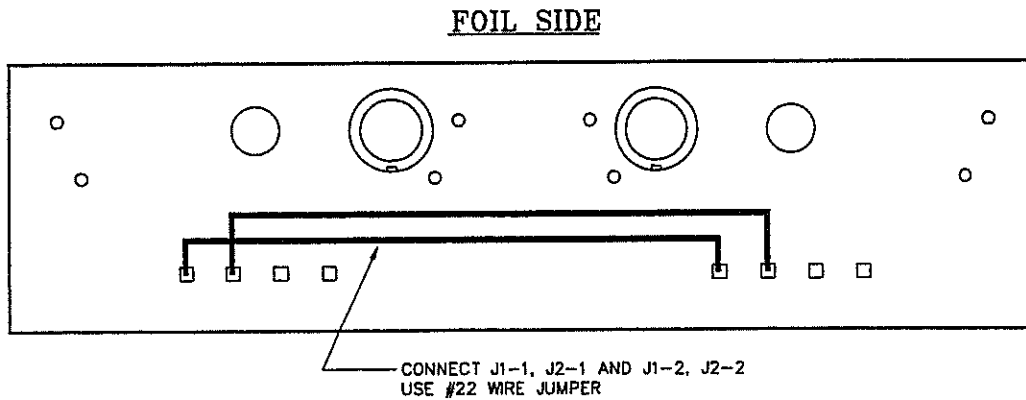
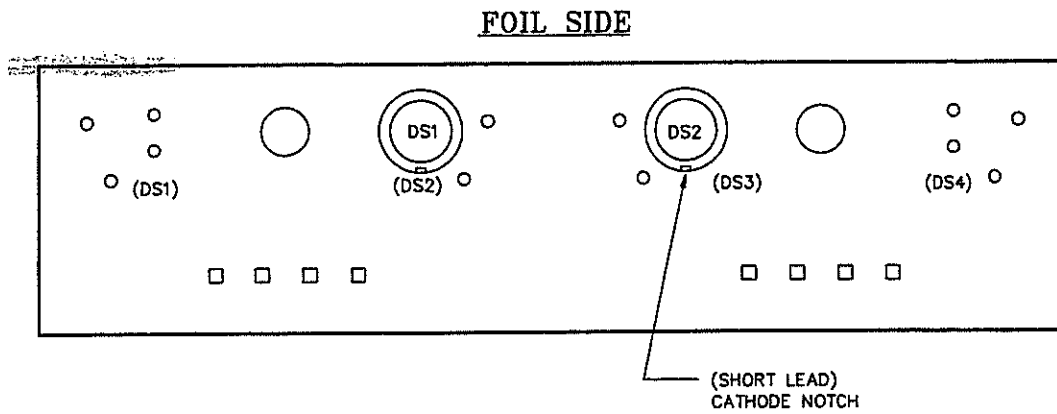
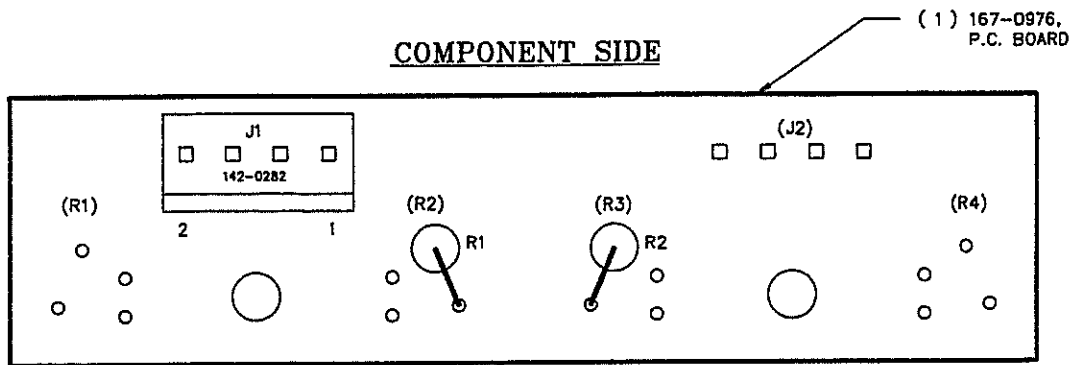


FIGURE 2 KEPCO MODEL MSP 28-1, SCHEMATIC DIAGRAM



NOTE: SCHEMATIC DESIGNATIONS IN PARENTHESIS REPRESENT
ACTUAL SILK SCREEN, DISREGARD THESE NUMBERS

FIGURE 3 KEPCO MODEL MSP 28-1, COMPONENT LOCATION