TRISTAR LED INDICATIONS

LED Display Explanation:

G = green LED is lit
Y = yellow LED is lit
R = red LED is lit
G/Y = Green and Yellow are both lit at the same time
G/Y - R = Green & Yellow both lit, then Red is lit alone
Sequencing (faults) has the LED pattern repeating until the fault is cleared

1. General Transitions:

• Controller start-up	G - Y - R (one cycle)
• Pushbutton transitions	blink all 3 LED's 2 times
• Battery service is required	all 3 LED's blinking until service is reset

2. Battery Status

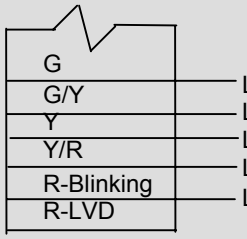
• General state-of-charge	*see battery SOC indications below*
• PWM absorption	G blinking (1/2 second on / 1/2 second off)
• Equalization state	G fast blink (2 to 3 times per second)
• Float state	G slow blink (1 second on / 1 second off)

Battery State-of-Charge LED Indications (when battery is charging):

• G on	80% to 95% SOC
• G/Y on	60% to 80% SOC
• Y on	35% to 60% SOC
• Y/R on	0% to 35% SOC
• R on	battery is discharging

LOAD CONTROL

2. Load Status



	12V	24V	48V
LVD+	0.60V	1.20V	2.40V
LVD+	0.45V	0.90V	1.80V
LVD+	0.30V	0.60V	1.20V
LVD+	0.15V	0.30V	0.60V

The load status LED's are determined by the LVD voltage plus the specified transition voltages. As the battery voltage rises or falls, each voltage transition will cause a change in the LED's.

3. Faults & Alarms

• Short circuit - solar/load	R/G - Y sequencing
• Overload - solar/load	R/Y - G sequencing
• Over-temperature	R - Y sequencing
• High voltage disconnect	R - G sequencing
• Reverse polarity - battery	no LED's are lighted
• Reverse polarity - solar	No fault indication
• DIP switch fault	R - Y - G sequencing
• Self-test faults	R - Y - G sequencing
• Temperature probe (RTS)	R/Y - G/Y sequencing
• Battery voltage sense	R/Y - G/Y sequencing