



The pcb assembly needs to be mounted indoors or in a weatherproof enclosure.

Operating voltage range: 10-56VDC

Maximum output current: 10 Amps

Input fuse: 10 Amps

See page 2 for more information on product, indicators and operation.

The ST1-SP is a single axis light seeking tracker control with manual control and south park switch inputs.

NOTES ON OPERATION

Status indicator leds:

PWR Power On

PRK (on continuously) Low light level, in park mode.

PRK (flashing twice per second) Park move delay being timed out.

PRK (flashing 10 times per second) Output has been overloaded, in protect mode for 1 hr—no movement.

PAUSE (on continuously) Not enough light to track, no movement.

PAUSE (flashing) Timing out 2 minute delay between tracking movements.

Other leds:

W (green) West drive on—array should be moving west.

E (yellow) East drive on—array should be moving east.

W & E (red) Respective limit input active—movement should be stopped.

Manual Control (orange) Manual mode selected by external toggle switch.

"62" (red) South Park switch closed—this is a status from the control circuit, not a direct switch connection.

Dip Switches (note: the block of 4 dip switches is called S1 and the sections are S1-1 through S1-4)

S1-1 Set up/ Run—in set up mode (OFF), there are no delays in the tracking operation; in the run position (ON), there is a 2 minute delay added between tracking corrections. This is to reduce nuisance corrections in variable cloud conditions. There is a 10 minute delay in PARK movement. ***For normal unattended operation, this switch must be ON.***

S1-2 East/ Last (park) selection. In the east position (OFF), when the ambient light level drops below the park threshold, the control sends the array to the east limit to await the next day. ***In the "last" position (ON), the control sends the array to the South Park position.***

S1-3 Not used.

S1-4 Accuracy: OFF=highest accuracy; ON=degraded accuracy. Use degraded accuracy to stop east west oscillation in "fast drive" systems or to reduce pointless movement in variable cloud conditions.

Light Sensitivity trimpot (has maximum mechanical rotation of 270°--use small screwdriver and be gentle) product shipped with this control at mid-range:

Minimum sensitivity—direct, unobstructed sunlight hitting the remote sensor is required for tracking.

Maximum sensitivity—diffuse daylight will invoke tracking. At maximum sensitivity, expect to see the array pointing "up" on overcast days and expect it to follow "holes in the clouds" on days with bright broken cumulus.

If your drive system has built-in limit switches, the limit switch inputs on the control card can be left open and will have no effect on operation.

IMPORTANT SET UP NOTE: The South Park switch must be closed OR the tracking array must be east of South Park switch closure to comply with the power on defaults in the control circuit. Failure to comply with this requirement may result in the control parking the array at west limit.

