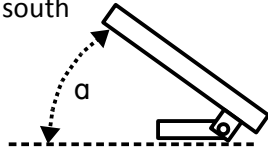




# ECOSOL/LIBRA UL-R QUICK REFERENCE



Solar panel should always face south



The angle of the panel ( $\alpha$ ) should equal the locations latitude  $\leq 10^\circ$

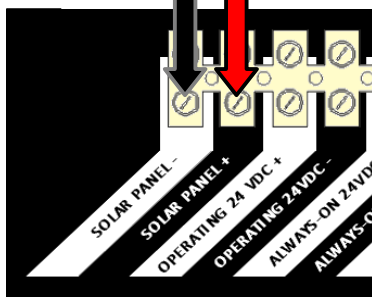
i.e.: Dallas, TX = 33°-43°; Houston, TX = 30°-40°; Phoenix AZ = 33.5°-43.5°; San Juan, PR = 18°-28°

## SOLAR PANEL INSTALLATION

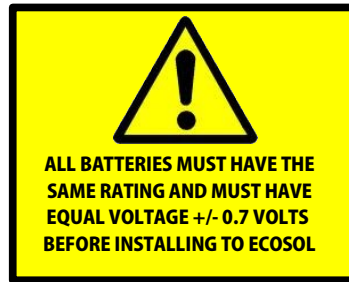
Connect the wires to the terminals labeled "Solar Panel". Cable should not exceed 15 ft (16AWG minimum).

**POLARITY MUST BE RESPECTED.**

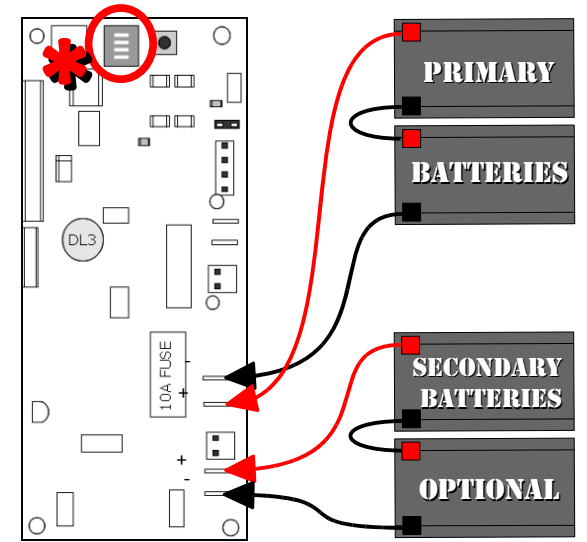
Check before connecting



## BATTERY CONNECTIONS



Dip-switch #1 must be turned on when secondary batteries are connected



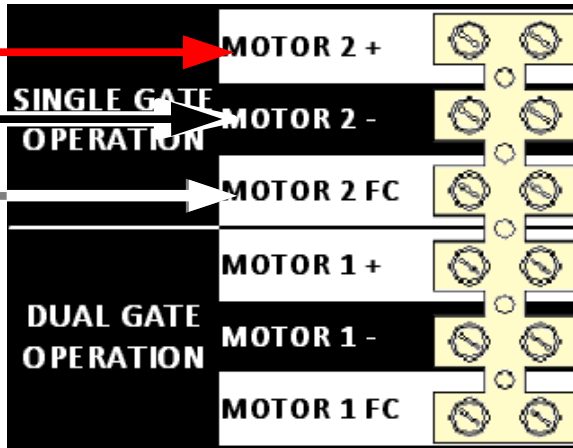
## MOTOR CONNECTIONS



For single gate operation, connect motor leads to MOTOR 2 terminals.

Second motor must be connected to MOTOR 1

On a dual gate application, MOTOR 2 will start to open before MOTOR 1. In turn, MOTOR 1 will start to close before MOTOR 2

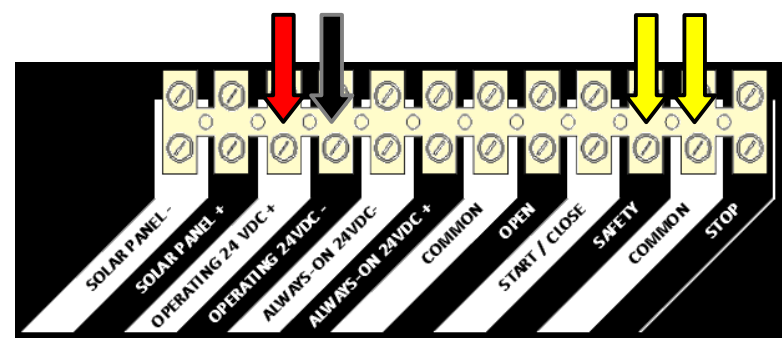


## PHOTOBEAM SENSOR CONNECTION

Photo-beam sensors should only be used as safety devices, not as free exit devices.

Sensors must be powered from OPERATING 24VDC output

Remove installed jumper. Connect the normally closed contacts to terminals SAFETY and COMMON.



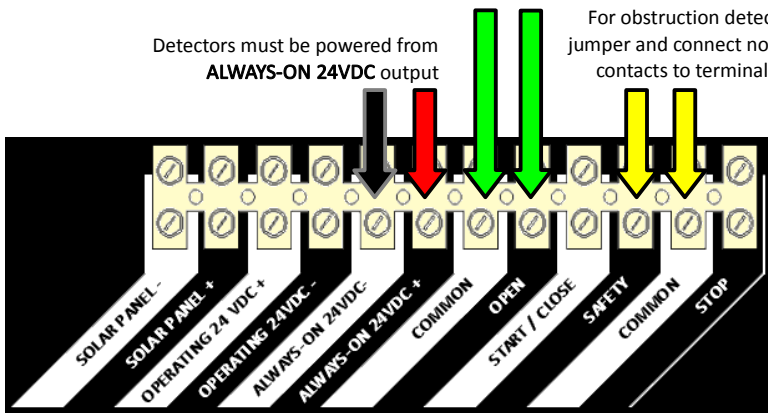
NOTE: If more than one device needs to be wired to the Safety input, they must be wired in series

## LOOP DETECTOR CONNECTIONS

For free exit application, connect the normally open contacts to terminals COMMON and OPEN

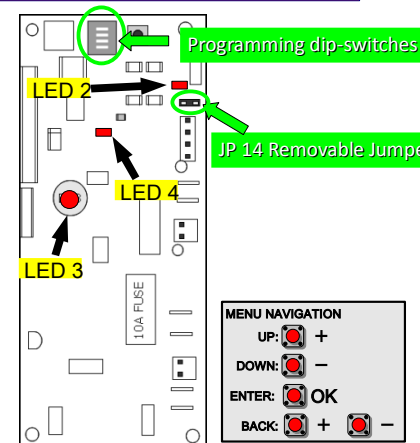
Detectors must be powered from ALWAYS-ON 24VDC output

For obstruction detection, remove jumper and connect normally closed contacts to terminals SAFETY and COMMON



NOTE: If more than one device needs to be wired to the Safety input, they must be wired in series

## SYSTEM PROGRAMMING



### LED LEGEND

- LED2 – Libra programming jumper (JP14) on
- LED3 – (1 flash/sec) Programming receiver channel 1
- (2 flashes/sec) Programming receiver channel 2
- (Steady) Hidden button programmed
- (3 flashes) Low battery

### LIBRA UL-R PROGRAMMING

#### ECOSOL PROGRAMMING

##### Dip-switch Settings

- Switch 1 – Turn on for secondary batteries connection
- Switch 2 – Enables Quick Radio Programming
- Switch 3 – Command relay delay (**MUST BE TURNED ON**)
- Switch 4 – Command relay delay

#### LIBRA UL-R PROGRAMMING

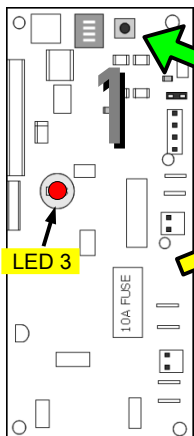
Jumper must be installed over both pins on JP14 on the ECOSOL interface board during Libra UL-R programming. Jumper **MUST BE REMOVED** after programming.

Press th OK button twice to enter programming.

Use the UP (+) and DOWN (-) buttons to navigate the menu.

Use the ENTER (OK) button to enter a programming menu area. Use the UP & DOWN button simultaneously to navigate back within the menu and/or exit programming.

## REMOTE CONTROL PROGRAMMING



1. Press RADIO LEARN BUTTON once. LED3 should blink once every second.

2. Press and hold the 2 top buttons on your transmitter until LED3 lights up solid.

3. Press the desired button on the transmitter. LED3 should blink rapidly for a second a goes back to a blink per second. If additional transmitter are to be programmed, repeat steps 2 and 3 while LED3 is blinking. System times out after 10 seconds

## Programming Menu Flow Chart

