

Portatree Win Light Module

Instruction Manual

Inputs:

- Win Light on/off signal - *Win Sig*
(Max of ~25mA draw during operation)
- 12V DC Power - *12V(+)*
(Max of ~100mA draw from DC power during operation)
- DC Ground – *Gnd (-)*
- 110/220V AC Power – *110V (+)*

Outputs:

- 8 – 110/220V outputs for lights - *Lgt 1-8 (+)*
- 1 – 110/220V output for an emergency light – *Emer (+)*



Electrical Limitations:

- Amperage through 110/220V Outputs
 - Absolute Maximum: 4-amps per output
 - Recommended Operation: 2-amps or less per output
- Amperage through all Win Light Module Outputs
 - Absolute Maximum: 15-amps (amperage sum of all outputs)

Installation/Setup:

1.) Set the *Mode* and *Number of Lights* on the Win Light board

- Remove the cover from the Win Light Module
- Locate the switches marked **Lights** on the board
- Set the switches depending on the number of light outputs needed: ↓=down, ↑=up

1 Light	= ↓ ↓ ↓
2 Lights	= ↓ ↓ ↑
3 Lights	= ↓ ↑ ↓
4 Lights	= ↓ ↑ ↑
5 Lights	= ↑ ↓ ↓
6 Lights	= ↑ ↓ ↑
7 Lights	= ↑ ↑ ↓
8 Lights	= ↑ ↑ ↑ (Default)

- Locate the switches marked **Mode** on the board
- Set the switches depending on the desired operation of your win lights: ↓=down, ↑=up

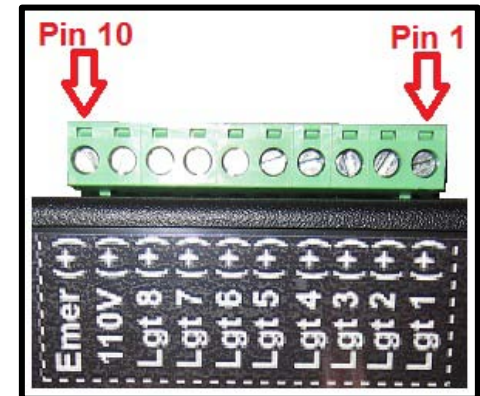
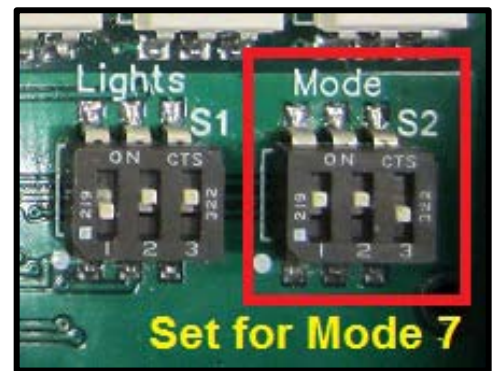
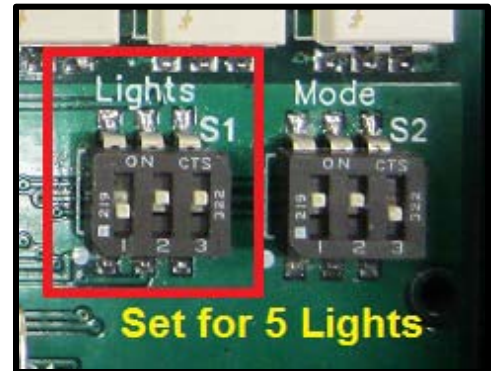
Mode 1	= ↓ ↓ ↓ (Default)
Mode 2	= ↓ ↓ ↑
Mode 3	= ↓ ↑ ↓
Mode 4	= ↓ ↑ ↑
Mode 5	= ↑ ↓ ↓
Mode 6	= ↑ ↓ ↑
Mode 7	= ↑ ↑ ↓
Mode 8	= ↑ ↑ ↑

See operation section for descriptions of the Modes

- Replace cover on the Win Light Module

2.) Wire 10-position connector

- Lgt 1 (+)* Pin 1 – Light 1 output
- Lgt 2 (+)* Pin 2 – Light 2 output
- Lgt 3 (+)* Pin 3 – Light 3 output



Lgt 4 (+) Pin 4 – Light 4 output
Lgt 5 (+) Pin 5 – Light 5 output
Lgt 6 (+) Pin 6 – Light 6 output
Lgt 7 (+) Pin 7 – Light 7 output
Lgt 8 (+) Pin 8 – Light 8 output
110V (+) Pin 9 – 110/220V AC input
Emer (+) Pin 10 – Emergency Light (optional)

3.) Connect 10-position connector to the Win Light Module

4.) Wire 3-position connector

12V (+) Pin 1 – 12V DC input
Win Sig Pin 2 – Win Light Input Signal
Gnd (-) Pin 3 – Ground



Note 1: To turn on the win lights a grounding signal is expected on Pin 2 of the 3-position connector

Note 2: An external power supply (110V AC/DC adaptor) is included to power the Win Light Module.

Connect the positive lead (12V) to Pin 1 and the negative (Gnd) lead to Pin 3

Note 3: When using the external power supply to power the Win Light Module, a ground from the track must be connected to Pin 3 (common ground) OR a positive to Pin 1

5.) Connect 3-position connector to the Win Light Module

Operation:

The Win Light Module will begin operating when 12V power is applied to the 3-position connector. To verify that the Win Light Module is running, check that the red running light (*Run Lgt*) is flashing.

The Win Light Module will begin the selected light sequence when the Win Input Signal (Pin 2 of the 3-position connector) is grounded. To verify that the Win Light Module is receiving the Win Input Signal, check that the yellow signal light (*Sig Lgt*) turns on when the Win Input Signal is grounded.

The Win Light Module light sequence is determined by the *Mode* switches on the Win Light board. The *Mode* switches were set in Setup step 1e.

Mode 1: Each win light turns on then off in the following sequence: 1,2,3,4,5,6,7,8

If the number of lights (set in Setup step 1c) is less than 8, the sequence will end at the number of lights selected

Mode 2: Each win light turns on then off in the following sequence: 1,2,3,4,5,6,7,8,8,7,6,5,4,3,2,1

If the number of lights (set in Setup step 1c) is less than 8, the sequence will end at the number of lights selected (ex. For 4 lights the sequence would be 1,2,3,4,4,3,2,1)

Mode 3: All win lights turn on then each win light turns off in the following sequence: 8,7,6,5,4,3,2,1

If the number of lights (set in Setup step 1c) is less than 8, the sequence will begin with the number of lights selected (ex. For 4 lights, the off sequence would be 4,3,2,1)

Mode 4: Each win light turns on and stays on in the sequence 1,2,3,4,5,6,7,8 then turns off and stays

off in the sequence 8,7,6,5,4,3,2,1 (i.e. after light 8 turns on there is a pause then light 8 will turn off and begin the off sequence). If the number of lights (set in Setup step 1c) is less than 8, the sequence will end at the number of lights selected.

Mode 5: All lights turn on then off

Mode 6: First half of the lights turn on (second half off) then second half of the lights turn on (first half off)

8 Light Ex: Lights 1,2,3,4 on (lights 5,6,7,8 off) then lights 5,6,7,8 on (lights 1,2,3,4 off)

5 Light Ex: Lights 1,2,3 on (lights 4 and 5 off) then lights 3,4,5 on (lights 1 and 2 off)

Mode 7: Each win light turns on and stays on in the sequence 1,2,3,4,5,6,7,8 then turns off and stays

off in the sequence 1,2,3,4,5,6,7,8 (i.e. after light 8 turns on, light 1 will turn off and begin the turn off sequence). If the number of lights (set in Setup step 1c) is less than 8, the sequence will end at the number of lights selected.

Mode 8: Each win light turns on and stays on in the sequence 1,2,3,4,5,6,7,8. After all the lights are

on, all lights will flash on and off. If the number of lights (set in Setup step 1c) is less than 8, the sequence will end at the number of lights selected.