

MaxPulse Installation Instructions

PARTS SUPPLIED:

- 1 ea Pulser Control P/N 9200-000-A
- 1 ea Fully Insulated Red Female Solderless Crimp on Connectors for 16-22 AWG Wire.
- 3 ea Fully Insulated Blue Female Solderless Crimp on Connectors for 14-16 AWG Wire.
- 1 ea Reference Panel Label
- 1 ea Install Template
- 1 ea Knob

NEW INSTALLATION:

1. Locate a convenient place for the Pulser Control. Using the Template provided, drill two holes. Drill the first one (3/8") at the location where the center of the Pulser is desired. Drill the second (anti-rotation) hole (1/8") offset to the left from the first 3/8".
2. Determine the current that the circuits will be required to carry.
3. Test Position the Pulser Control and determine the length of the wires required.
4. Remove the Pulser Control and proceed with the installation. From the **WIRE SIZE-CURRENT CAPACITY TABLE**, select the wire size required. If the installation is in an Aircraft, use only MIL-W-16878E/4 Type E, Teflon insulated, Silver-Plated Copper Wire.
5. Find the location of the power source.
6. Install a 20 amp breaker for the Pulsing circuit power source.
7. Run a Red wire from the Breaker to the MaxPulse controller positive (POS) terminal, then Select and install a Blue Female Solderless Crimp on Connector on the end of the red wire. Push the female connector onto the POS male connector on the MaxPulse controller.
8. Using the same technique that was used with the Red wire, run a Black wire from the GND male connector terminal on the MaxPulse to system ground. The common (Gnd) Wire is simply a signal wire used by the unit. It does not carry heavy currents during operation. Use a Red Female Solderless Crimp on Connector for this wire.
9. Again using the same technique that was used with the Red wire, run a Blue wire from output CKT1 to circuit #1. Select and install a Blue Female Solderless Crimp on Connector, for the wire size used, on the end of the Blue wire and push it onto the CKT1 male connector on the MaxPulse Controller. Duplicate this procedure for wiring CKT2 to circuit #2
10. With the Pulser Control inserted from the rear into the 3/8" drilled hole and with the reference label placed over the threads on the Pulser Control, install a washer and a nut to hold the Pulser Control in place. Before tightening the nut, insure that the anti-rotation plastic bump is seated in the 0.150 in (#25) hole and the reference Label is vertically aligned.
11. Install the knob using a small screw driver.

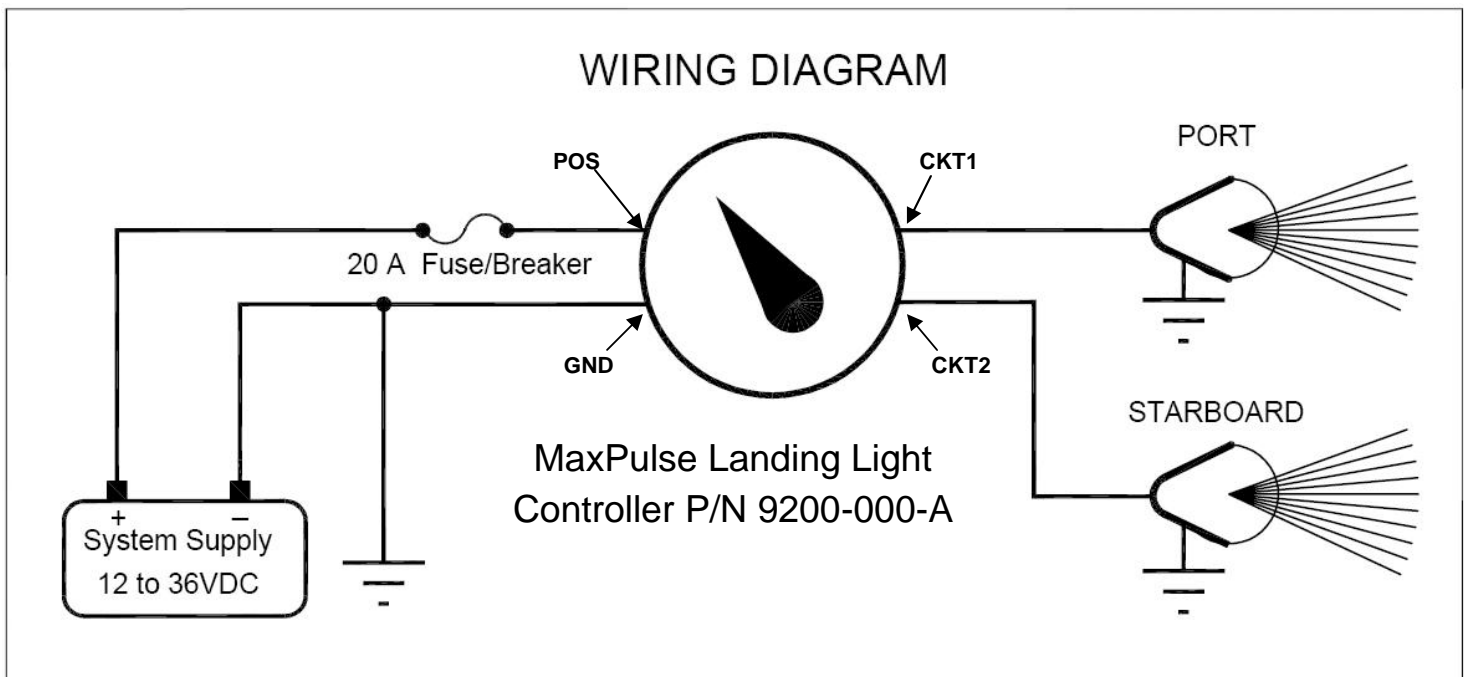
EXISTING/REPLACEMENT INSTALLATION:

1. Locate a convenient place for the Pulser Control. Using the Template provided, drill two holes. Drill the first one (3/8") at the location where the center of the Pulser is desired. Drill the second (anti-rotation) hole 0.150 in (#25) offset to the left from the first 3/8".
2. Determine the Positive supply, Pulser circuit, and chassis ground wiring.
3. Test Position the Pulser Control and determine if an additional the lengths of the wires required.
4. Insure that a 20 amp breaker for the MaxPulse Controller power source is installed in series with power source.

5. Remove the Pulser Control and proceed with the installation. From the wire size-current capacity table, select the wire size required if additional wire is required. If the installation is in an Aircraft, use only MIL-W-16878E/4 Type E, Teflon insulated, Silver-Plated Copper Wire.
6. Run Red wire from the Breaker to the MaxPulse controller positive (POS) terminal, then Select and install a Blue Female Solderless Crimp on Connector, for the wire size used. Push the female connector onto the positive male connector on the MaxPulse controller.
7. Using the same technique that was used with the Red wire, run a Black wire from the male connector terminal on the MaxPulse to system ground. The common (Gnd) Wire is simply a signal wire used by the unit. It does not carry heavy currents during operation. Use a Red Female Solderless Crimp on Connector for this wire.
8. Again using the same technique that was used with the Red wire, run a Blue wire from output CKT1 to circuit #1. Select and install a Blue Female Solderless Crimp on Connector on the end of the Blue wire and push it onto the CKT1 male connector on the MaxPulse Controller. Duplicate this procedure for wiring CKT2 to circuit #2.using a different color wire.
9. With the Pulser Control inserted from the rear into the 3/8" drilled hole and with the reference label placed over the threads on the Pulser Control, install a washer and a nut to hold the Pulser Control in place. Before tightening the nut, insure that the anti-rotation plastic bump is seated in the 1/8" hole and the reference Label is vertically aligned.
10. Install the knob using a small screw driver.

FUNCTIONAL TEST:

1. Turn the knob fully counter clockwise. Both circuits should be OFF.
2. Rotate the knob to the ON position. Both circuits should be ON
3. Rotate the knob to position A44 the circuits should alternate 44 PPM (STD)
4. Rotate the knob to position A88 the circuits should alternate 88 PPM
5. Rotate the knob to position B88 both circuits should alternate together 88 PPM
6. Rotate the knob to position A120 the circuits should alternate 120 PPM



—SPECIFICATIONS—

Voltage Range: 12 to 35VDC
Max Current: 10 A Per Circuit

Capacity Per Circuit:

- 120 Watts @ 12 VDC
- 240Watts @ 24 VDC
- 280 Watts @ 28 VDC

MaxPulse Function Modes:

- Both CKTs Off
- Both CKTs ON
- Alternate 44 PPM (STD)
- Alternate 88 PPM
- Both Flash 88 PPM
- Alternate 120 PPM

Operating Temperature range: -20°C to +50 °C

Internal Temperature Protect: +85 °C

Storage Temperature: -40°C to +100°C

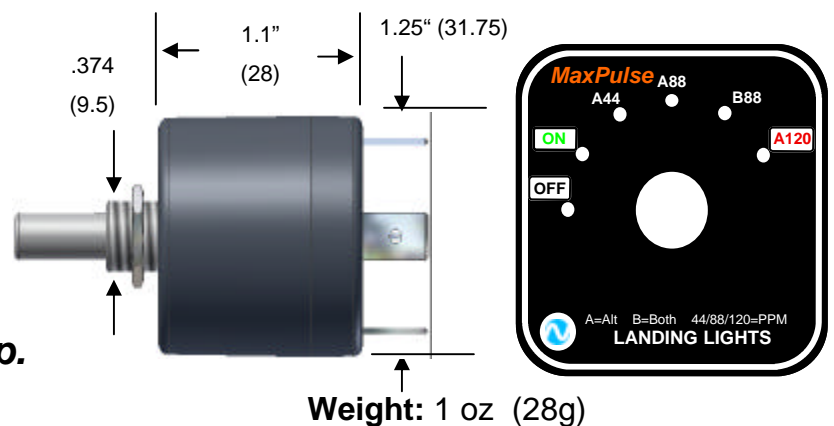
Maximum Internal Temperature: @10 A
+25 °C above Ambient.

Enclosure Material: Bayer FR110 Resin

Meets UL 94 Flame Rating: V-2 (0.03in) V-0 (0.059in)
5VB (0.098in) 5VA (0.13in)

Order: MaxPulse P/N 9200-000-A

FAA STC Pending



Seaton Engineering Corp.

Spokane Valley, WA 99016

509.928.0633

ONE YEAR LIMITED WARRANTY

SEC will repair or replace, at its expense and at its option any device manufactured by SEC which in the normal use has proven to be defective in workmanship or material, provided that the customer returns the product prepaid to SEC along with proof of purchase of the product within two years and provides SEC with reasonable opportunity to verify the alleged defect by inspection. SEC will not be responsible for any asserted defect which has resulted from misuse, abuse or over stressing above the published specifications. SEC will under no circumstances be liable for incidental or consequential damages resulting from the defective products. This warranty is SEC's Sole warranty and sets forth the customer's exclusive remedy, with respect to defective products; all other warranties, express or implied, whether of merchantability, fitness for purpose, or otherwise, are expressly disclaimed by SEC.

Seaton Engineering Corp. Spokane Valley, WA

General Engineering Data Regarding Wire Sizes and Current Capacities

WIRE AND CABLE DERATING CRITERIA FROM MIL-STD-975

AWG	Diameter	Diameter	Ohms Per	Ohms Per	Maximum	AWG	Derated Current	
Gauge	Inches	mm	1000 Ft	km	Ampere	Gauge	Single	Bundled
14	0.0641	1.6281	2.525	8.282	32	14	19.0	8.5
15	0.0571	1.4503	3.184	10.4435	28	15	16.6	7.4
16	0.0508	1.2903	4.016	13.1725	22	16	13.0	6.5
17	0.0453	1.1506	5.064	16.6099	19	17	11.2	5.6
18	0.0403	1.0236	6.385	20.9428	16	18	9.2	5.0
19	0.0359	0.9119	8.051	26.4073	14	19	8.1	4.4
20	0.032	0.8128	10.15	33.292	11	20	6.5	3.7
21	0.0285	0.7239	12.8	41.984	9	21	5.3	3.0
22	0.0254	0.6452	16.14	52.9392	7	22	4.5	2.5

Notes:

- Derated current ratings are based on an ambient temperature of 70°C or less in a hard vacuum of 10⁻⁶ torr.
- The derated current ratings are for 200°C rated wire, such as Teflon [®] insulated (Type PTFE) wire, in a hard vacuum of 10⁻⁶ torr.
- a. For 150°C wire, use 80% of value shown in Table.
- b. For 135°C wire, use 70% of value shown in Table.
- c. For 105°C wire, use 50% of value shown in Table.
- The current rating for bundles or cables are based on bundles of 15 or more wires. For smaller bundles, the allowable current shall be determined by $IBW = ISW \times (29-N)/28$ where N = number of wires, IBW = current, bundled wire and ISW = current, single wire.