Light Mast Troubleshooting Guide

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www.thermalintelligence.com/support-content

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Mast Won’t Go Up or Down

Refer to Light Mast Wiring Diagram on Page 6 for Troubleshooting
Note: 12 volts is nominal and voltage readings will vary with battery voltage (11V DC – 14V DC)

Troubleshooting Steps
Verify 40 amp circuit breaker is in the closed position (located inside the driver’s side of the cabinet, just above the battery beside the generator)
↓
Verify battery connection and voltage
↓
Check voltage at winch
↓
If voltage is present at the winch when the toggle switch is activated in either direction, you have a winch failure (replace winch)
↓
If voltage is not present, proceed to the next page

Mast Goes Up But Not Down

Refer to Light Mast Wiring Diagram on Page 6 for Troubleshooting
Note: 12 volts is nominal and voltage readings will vary with battery voltage (11V DC – 14V DC)

Troubleshooting Steps
Use a multimeter on the DC voltage setting to test the toggle switch.

↓

Put the negative lead on the black stud on the solenoid, and the positive lead to the blue conductor at the top of the toggle switch. Press the toggle switch down.

↓

If you see 0 volts, replace the toggle switch, If you see 12 volts, replace the solenoid

If you need to get the light tower down for an emergency, you can switch polarity at the winch and press up on the toggle switch for the light tower to come down.

Mast Goes Down But Not Up

Refer to Light Mast Wiring Diagram on Page 6 for Troubleshooting
Note: 12 volts is nominal and voltage readings will vary with battery voltage (11V DC – 14V DC)

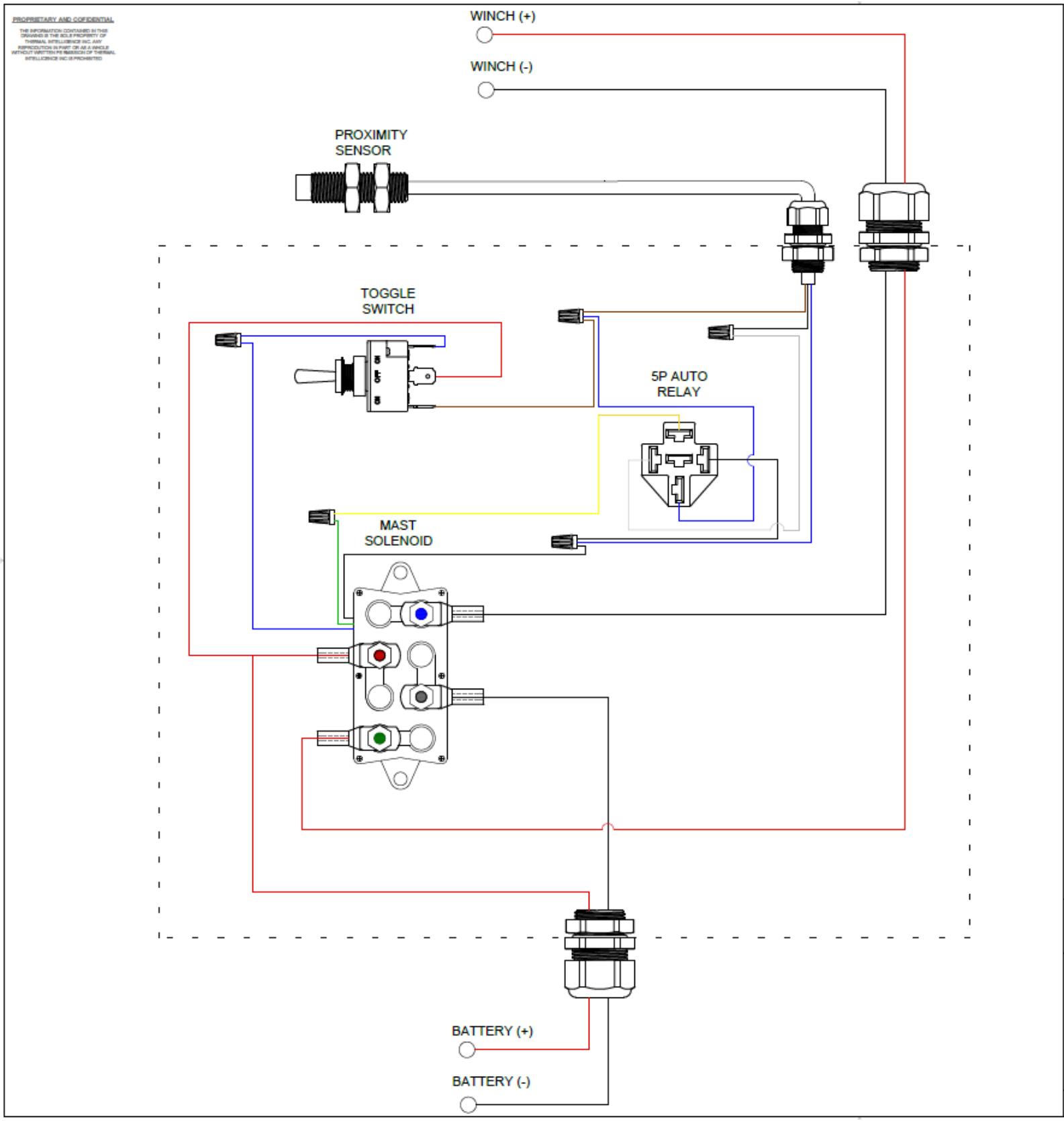
Troubleshooting Steps
Press up on the toggle switch. Verify that the yellow light on the proximity sensor located on the left side of the mast turns on.

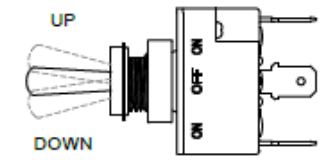
↓

If the light turns on, proceed to the next step. If it does not turn on, use a multimeter on the DC Voltage setting to test the Toggle Switch. Put the negative lead on the black stud of the solenoid and the positive lead to the brown conductor at the bottom of the toggle switch. Press the toggle switch up. If you see 0 volts, replace the toggle switch, If you see 12 volts, replace the proximity sensor

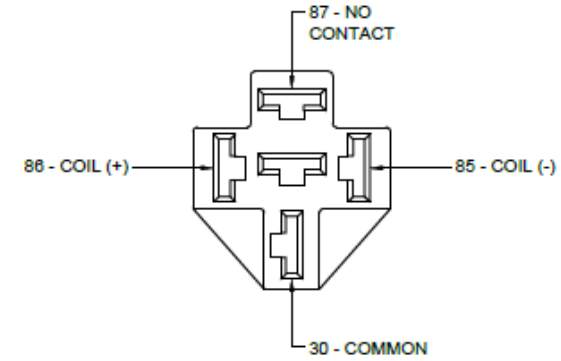
↓

Use a multimeter on the DC voltage setting to check the 5P automotive relay.
Put the negative lead on the black stud of the solenoid and the positive lead inside the crimp containing the 5P automotive relay N/O (87) and solenoid coil green conductors. Ensure good contact and press up on the toggle switch.
If you read 0 volts, verify the crimp connections to the 5P automotive relay. If connections are good, replace the 5P automotive relay.
Note: if sourcing replacement parts yourself, the relay must be sealed (potted) to avoid premature failure.
If you read 12 volts, replace the solenoid.





*NOTE: SPDT MOMENTARY TOGGLE SWITCH MUST BE WIRED AS SHOWN (BLUE CONDUCTOR ON THE TOP ¼" SPADE CONNECTION, RED TO THE MIDDLE AND BROWN ON THE BOTTOM CONNECTION).



*NOTE: AUTOMOTIVE RELAY WIRING HARNESS COLORS ARE NOT STANDARDIZED AND MAY VARY. PLEASE REFERANCE THE ABOVE PIN OUT TO ENSURE THE CORRECT WIRING OF THE RELAY. IF THE RELAY IS WIRED INCORRECTLY THE MAST WILL NOT GO UP.

THERMAL INTELLIGENCE

UNLESS SPECIFIED:	
LASER	(0.005)"
PLASMA	(0.032)"
TUBE	(0.01)"
BEND ANGLE	(1.0)DEG
FLANGE	(0.02)"
BAND SAW	(0.032)"
COLD SAW	(0.005)"
MACHINING	(0.005)"
WELDMENTS	(0.032)"
DECIMAL	(0.005)"

PROJECT BASECAMP/ BASECAMP XL

DESCRIPTION: MAST WIRING DIAGRAM

PART. NO. NA

MATERIAL NA

DATE 2024-01-30 | REV 1.2

DRAWN J.WILSON | SCALE NTS | WEIGHT NA | SHEET <Sheet>