

## TOMAR ELECTRONICS

### Strobecom II

#### 3065-LOPRO-R/T792HL-LOPRO-R Emitter Installation & Operation

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#### **ATTENTION**

THE STROBECOM II SYSTEM IS DESIGNED TO AID IN THE TRANSIT OF DESIGNATED VEHICLES THROUGH THE TRAFFIC CONTROL SYSTEM, TO THEIR DESTINATIONS.

IT IS IMPERATIVE THAT THE DRIVERS OF EACH TYPE OF VEHICLE THAT USES THE STROBECOM II SYSTEM BE MADE AWARE OF THE RESPONSE HE CAN EXPECT FROM THE TRAFFIC CONTROL SYSTEM.

IT IS THE RESPONSIBILITY OF THE CUSTOMER TO CONFIGURE THE SYSTEM'S RESPONSE TO EACH VEHICLE TYPE AND TO EDUCATE EACH DRIVER TO EXPECT THE APPROPRIATE RESPONSE FROM THE SYSTEM.

AT NO TIME SHOULD A DRIVER OF A VEHICLE EXPECT THAT HE IS GUARANTEED TO RECEIVE PROTECTED RIGHT-OF-WAY THROUGH TRAFFIC INTERSECTIONS. DRIVERS OF VEHICLES THAT WILL OPERATE OUTSIDE OF THE NORMAL TRAFFIC LAWS AND CONVENTIONS MUST ALWAYS TAKE RESPONSIBILITY FOR ENSURING THE SAFE PASSAGE OF HIS VEHICLE THROUGH AN INTERSECTION REGARDLESS OF THE OPERATION OR NON-OPERATION OF THE STROBECOM II SYSTEM.

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## **Strobecom II – 3065-LOPRO-R/T792HL-LOPRO-R Emitter Installation Instructions**

### **1. MODEL 3065-LOPRO-R and T792HL-LOPRO-R EMITTER DESCRIPTION**

The Model 3065-LOPRO-R or T792HL-LOPRO-R emitter (Emitter) is mounted on a vehicle and transmits vehicle identification information, to suitably equipped intersections, via optical pulses. The Emitter includes continuous diagnostic monitoring to ensure its proper operation.

The 3065-LOPRO-R/T792HL-LOPRO-R is designed for use when the emitter power supply and lighthouse need to be mounted in separate locations. It consists of the 3065-R-PS/T792HL-R-PS power supply, LOPRO-HSG-R enclosure with 970A-PRE lamp, 6C-WP2 cable, MOTO-CABLE, EMIT3-CONTCBL, and EMIT3-SWITCH.

The Emitter consists of the LOPRO-HSG-R with 970A-PRE Lamp. The LOPRO-HSG-R is a sheet metal enclosure. The 970A-PRE Lamp is the only component that requires routine maintenance and is easily field replaceable.

The 970A-PRE consists of a xenon arc tube mounted in a metallized, polycarbonate reflector and then linear vibration welded to an optically clear polycarbonate cover creating a hermetically sealed assembly.

The 970A-PRE is secured into the LOPRO-HSG-R with four stainless steel screws and a black or chrome polycarbonate bezel. Optionally, a MOTO-VLF visible light filter can be fitted over the lamp, rendering the operating emitter signal virtually invisible.

The Emitter's vehicle code is programmed via a PC compatible computer either at the factory or in the field. The Emitter can be reprogrammed thousands of times without disassembly.

The included 6C-WP2 cable connects the emitter housing to the Emitter power supply.

The EMIT3-CONTCBL connects the 3065-R-PS/T792HL-R-PS power supply to the EMIT3-SWITCH, an optional customer supplied door or parking brake switch, and the vehicles electrical power.

The EMIT3-SWITCH provides a method of turning the 3065-LOPRO-R/T792HL-LOPRO-R emitter on and off and includes an LED that provides positive visual feedback that the product is on AND operating normally.

### **2. 3065-LOPRO-R/T792HL-LOPRO-R CODED EMITTER INSTALLATION**

*REFER TO TOMAR DRAWING #15953 (INCLUDED) FOR EMITTER INSTALLATION AND WIRING PICTORIAL DETAILS.*

#### **2.1 3065-LOPRO-R and T792HL-LOPRO-R INSTALLATION**

For optimum range and best performance, mount the LOPRO-HSG-R with 970A-PRE lamp emitter on top or near the top of a vehicle so that its signal is most likely to be seen over the tops of other vehicles in front.

For bail mount, drill a recommended 3/8" hole through the surface to which the emitter will be mounted. The mounting surface should be strong enough to adequately support the emitter and retain the emitter in case of a vehicle accident.

***Mounting the emitter to an inadequate surface could allow the emitter to become loose in an accident and possibly impact a vehicle passenger, causing injury. IT IS THE INSTALLER'S RESPONSIBILITY TO INSURE THE EMITTER IS SECURED ADEQUATELY.***

If the power supply is mounted on the outside of a vehicle drill a 1-1/4" hole to allow the model MOTO-CABLE to pass into the vehicle. **DO NOT CUT OFF THE CONNECTOR ON THIS CABLE. THE CONNECTOR IS NEEDED FOR PROGRAMMING THE EMITTER.**

Secure the emitter using the included bail mount stainless steel hardware. Using the swivel and rotate features, point the emitter in the direction of forward vehicle travel and aim the emitter up just a few degrees to point at the detectors mounted in the intersections.

## **Strobecom II – 3065-LOPRO-R/T792HL-LOPRO-R Emitter Installation Instructions**

Secure the 3065-LOPRO-RPS/T792HL-LOPRO-RPS power supply in a suitable location inside the vehicle. **THE POWER SUPPLY MUST BE MOUNTED IN SUCH A WAY THAT IT CANNOT BECOME LOOSE AND IMPACT VEHICLE PASSENGERS IN THE EVENT OF AN ACCIDENT.**

Engage the EMIT3-CONTCBL connector to the mating connector on the 3065-LOPRO-RPS/T792HL-LOPRO-RPS power supply. This connector is waterproof and can be operated outside the vehicle if desired. Be sure to adequately secure the EMIT3-CONTCBL. **DO NOT CUT OFF THE CONNECTOR ON THIS CABLE. THE CONNECTOR IS NEEDED FOR PROGRAMMING THE EMITTER.**

Run the other end of the EMIT3-CONTCBL through the vehicle to the location where the EMIT3-SWITCH will be located. If the EMIT3-CONTCBL penetrates any vehicle panels, take care to protect the cable from abrasion of the insulation.

Mount the EMIT3-SWITCH bracket in a location visible to the operator, using the supplied hardware.

Snap the rocker switch into the EMIT3-SWITCH bracket.

Following Tomar drawing 15953, included with this document, connect the wires of the EMIT3-CONTCBL to the EMIT3-SWITCH as shown.

**Disconnect the vehicle battery** and make the final power connections from the EMIT3-CONTCBL, the included 10-amp fuse, and the vehicle door or parking brake switch (customer supplied), to the vehicle electrical system.

Reconnect the battery and operate the EMIT3-SWITCH to the ON position.

Observe the emitter lamp for flashing, and verify that the indicator LED on the EMIT3-SWITCH is ON steady.

Activate the vehicle door or parking brake, and verify that the emitter stops flashing. The LED in the EMIT3-SWITCH should blink at a slow .5 Hz rate to indicate the 3065 has been disabled.

Return the EMIT3-SWITCH to the OFF position. Installation is complete.

If the LED in the EMIT3-SWITCH flashes at a fast 2 Hz rate during testing, refer to Section 5. — 3065/3065-R Emitter Troubleshooting for assistance.

### **3. 3065-LOPRO-R/T792HL-LOPRO-R EMITTER OPERATION**

#### **ATTENTION**

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Activate the 3065-LOPRO-R/T792HL-LOPRO-R emitter by operating the EMIT3-SWITCH to the ON position. The LED on the EMIT3-SWITCH switch should display a steady condition indicating the emitter is operating properly.

## **Strobecom II – 3065-LOPRO-R/T792HL-LOPRO-R Emitter Installation Instructions**

If the EMIT3-SWITCH is in the ON position but the LED blinks slowly at a .5 Hz rate, the emitter may be in disable mode because the vehicle door is open or the parking brake is set. Once the door is closed or brake released, the 3065-LOPRO-R/T792HL-LOPRO-R should operate.

If the LED on the EMIT3-SWITCH begins to flash rapidly at a 2 Hz rate, the emitter lamp is getting old and is missing flashes. In this condition, the transmission of vehicle identification and preemption request is unreliable. The emitter may be left on, but the driver should understand that the intersection may not be able to decode the vehicle's emitter, and may not give the vehicle the expected response. The emitter should be serviced as soon as possible.

After activation of the emitter and verification of a steady burning indicator, no further operator intervention is required. The emitter will continuously emit the vehicle's programmed code during the vehicle's travel.

### **4. 3065-LOPRO-R/T792HL-LOPRO-R EMITTER MAINTENANCE**

The 3065-LOPRO-R/T792HL-LOPRO-R emitter should be inspected for proper operation at the beginning of every vehicle shift.

Visually confirm the solid illumination of the LED on the EMIT3-SWITCH and if possible the flashing of the emitter lamp.

Monthly, the emitter lamp should be visually inspected. Any arc lamp that is blackened over more than 30% of its length should be replaced.

If the LED on the EMIT3-SWITCH flashes quickly at a 2Hz rate, indicating a lamp that is beginning to misfire due to age, the emitter system should be taken out of service and the emitter lamp replaced immediately.

### **5. 3065-LOPRO-R/T792HL-LOPRO-R EMITTER TROUBLESHOOTING**

When a report of system failure is received from the field, the Strobecom II system must be analyzed and

the source of the failure repaired. The major components of the Strobecom II system have self-diagnostic functions that aid in troubleshooting.

The 3065-LOPRO-R/T792HL-LOPRO-R emitter is equipped with a monitoring system that continuously checks for the proper operation of the emitter lamp.

Troubleshooting the emitter is required when the status indicator located on an illuminated switch is flashing.

An indicator flashing quickly at a 2Hz rate indicates that the emitter lamp is reaching end of life and is beginning to miss flashes. Immediately replace the emitter lamp.

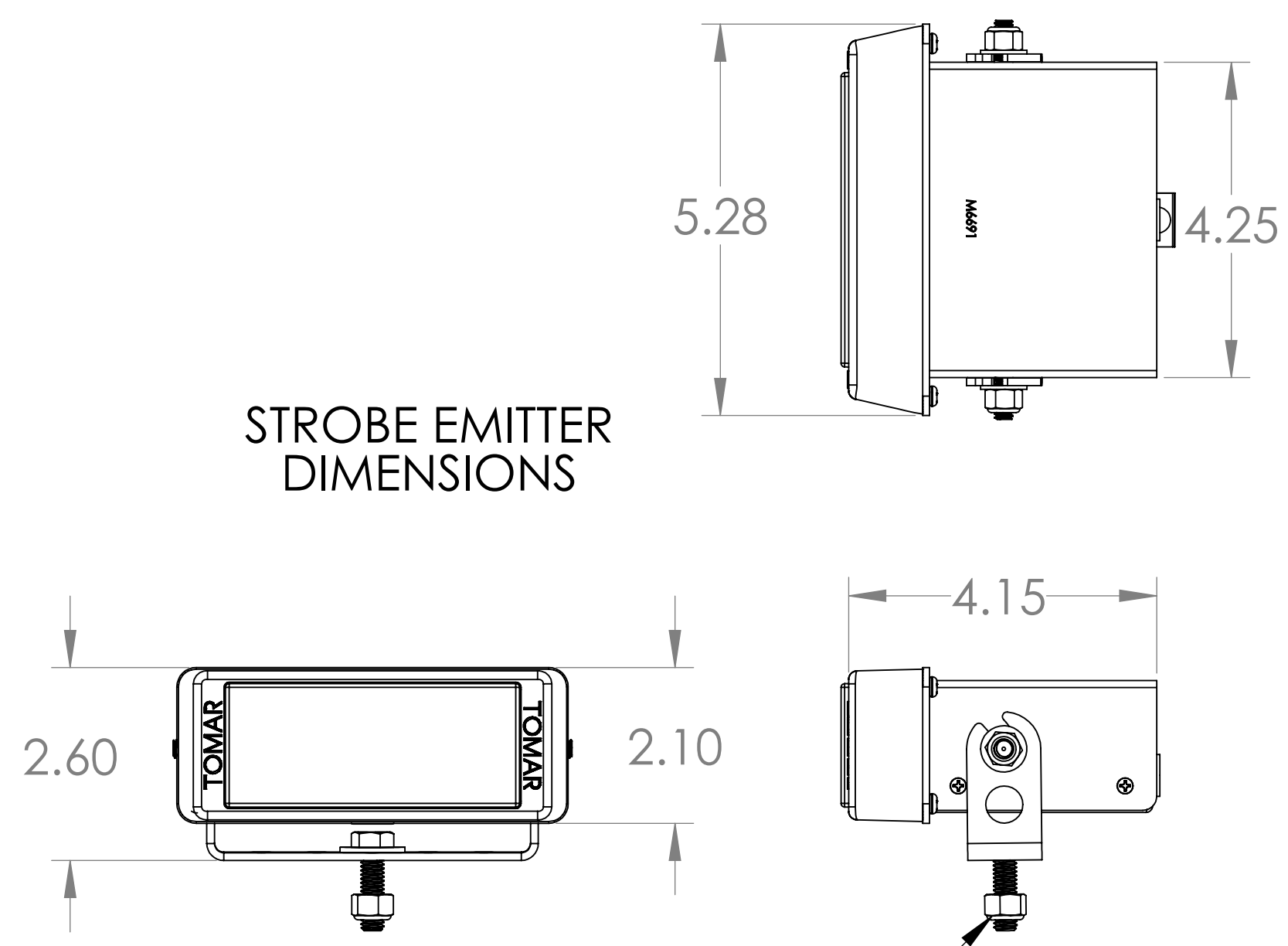
**THE EMITTER LAMP IS UNRELIABLE AND MAY NOT INITIATE PREEMPTION IN THIS CONDITION AND SHOULD BE SERVICED IMMEDIATELY.**

If the EMIT3-SWITCH is activated but the LED indicator does not illuminate, or the emitter does not generate a signal, check the following items.

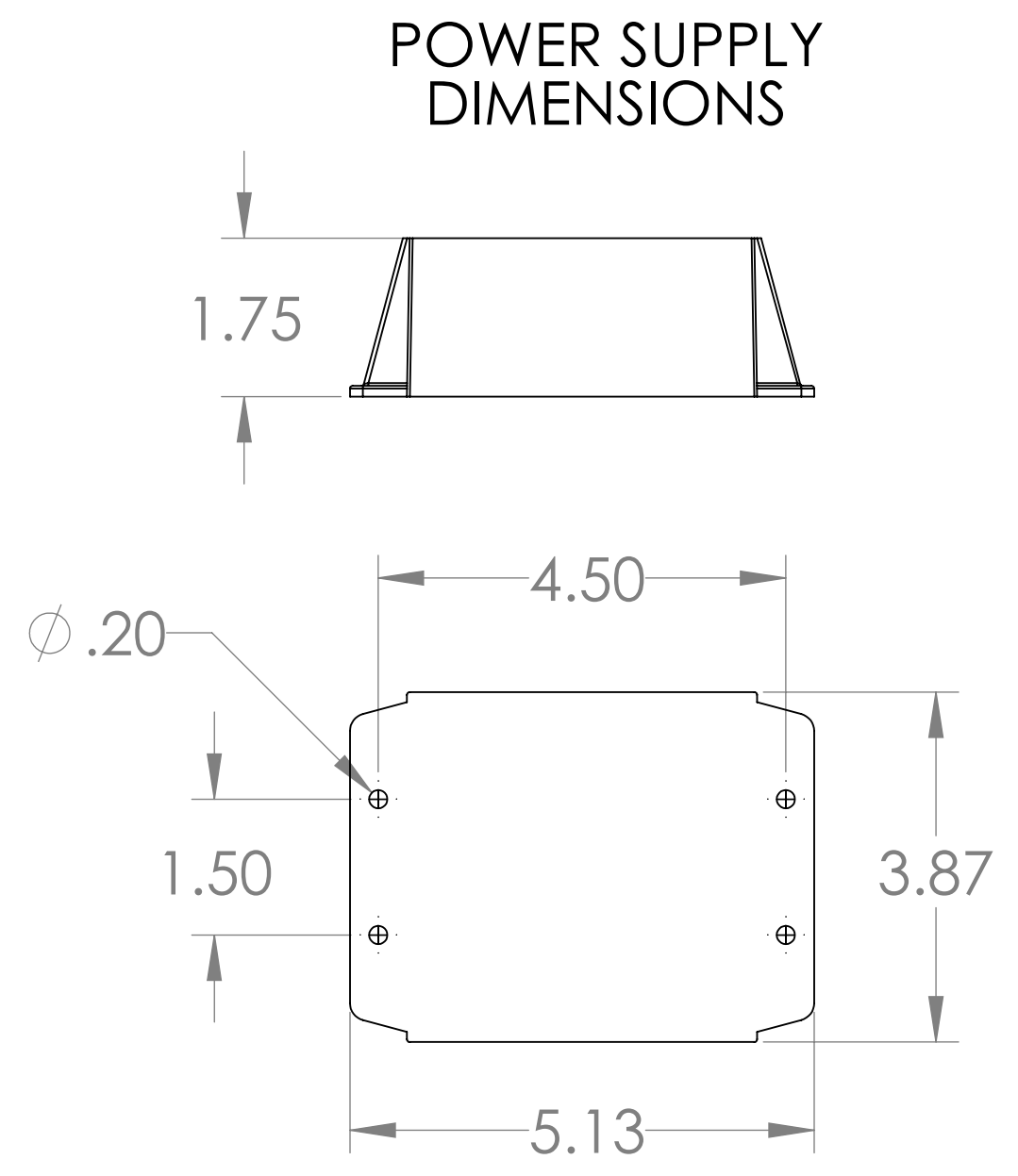
- 1) Check the 10-amp fuse.
- 2) If the 10-amp fuse is OK, measure the voltage to the RED wire of the EMIT3-CONTCL. With the EMIT3-SWITCH in the ON position, vehicle battery voltage should be applied.
- 3) Check all wiring for damage.
- 4) If all above fail replace the xxx-LOPRO-HSG or 3065-LOPRO-R/T792HL-LOPRO-R with a known good unit. Return the defective power supply to Tomar Electronics, Inc. for service.

If the EMIT3-SWITCH is activated and the LED on the EMIT3-SWITCH flashes slowly at a .5 Hz rate, check the following items:

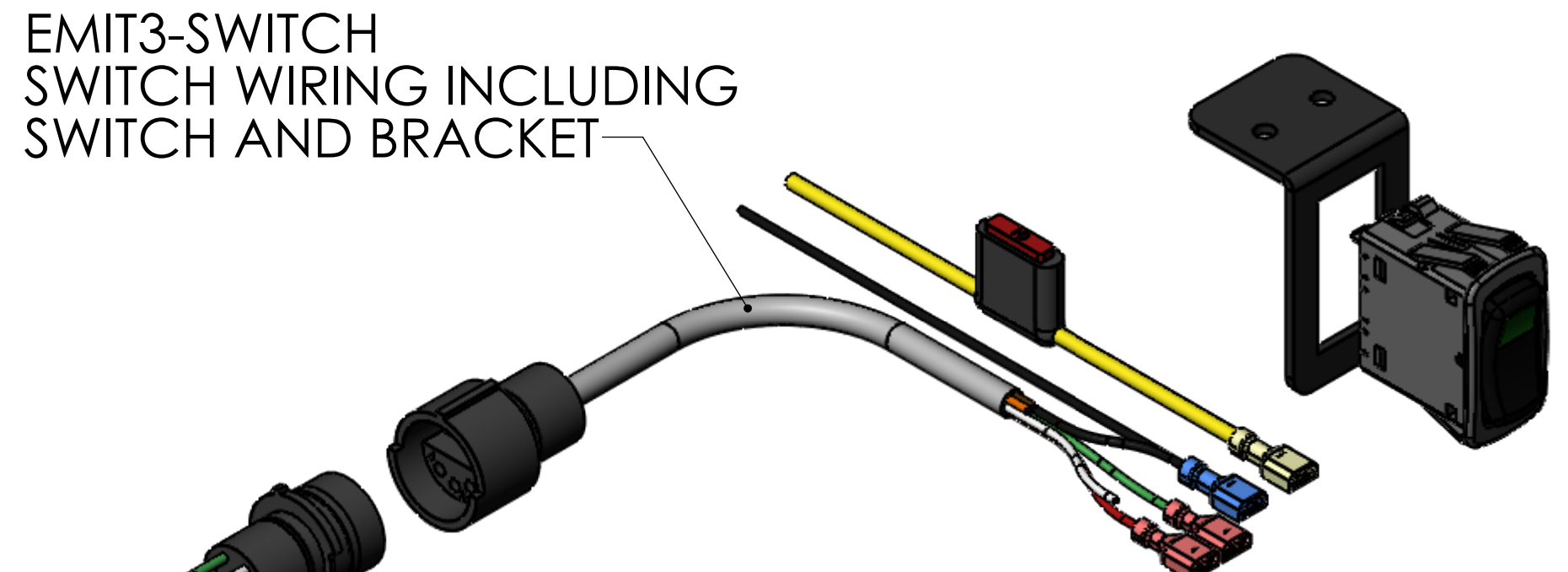
- 1) Check the door or parking brake cut-out switch for proper operation.
- 2) Check the wiring to the door or Parking brake switch.



STROBE EMITTER DIMENSIONS

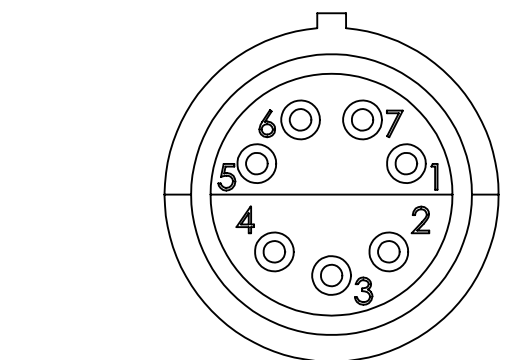


POWER SUPPLY DIMENSIONS

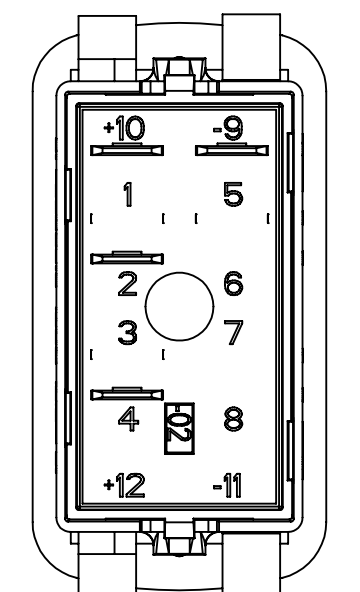


EMIT3-SWITCH SWITCH WIRING INCLUDING SWITCH AND BRACKET

EMIT3-CONTCBL CONTROL CABLE EXTENSION



CABLE CONNECTOR



SWITCH

CABLE WIRE FUNCTIONS			
PIN #	WIRE COLOR	FUNCTION	SWITCH CONN #
1	WHITE	DISABLE	N/C
2	BLUE	N/C	N/C
3	BROWN	N/C	N/C
4	ORANGE	N/C	N/C
5	BLACK	GND	9
6	RED	+POWER	2
7	GREEN	INDICATOR *	10
N/C	YELLOW	FUSE 10A	4

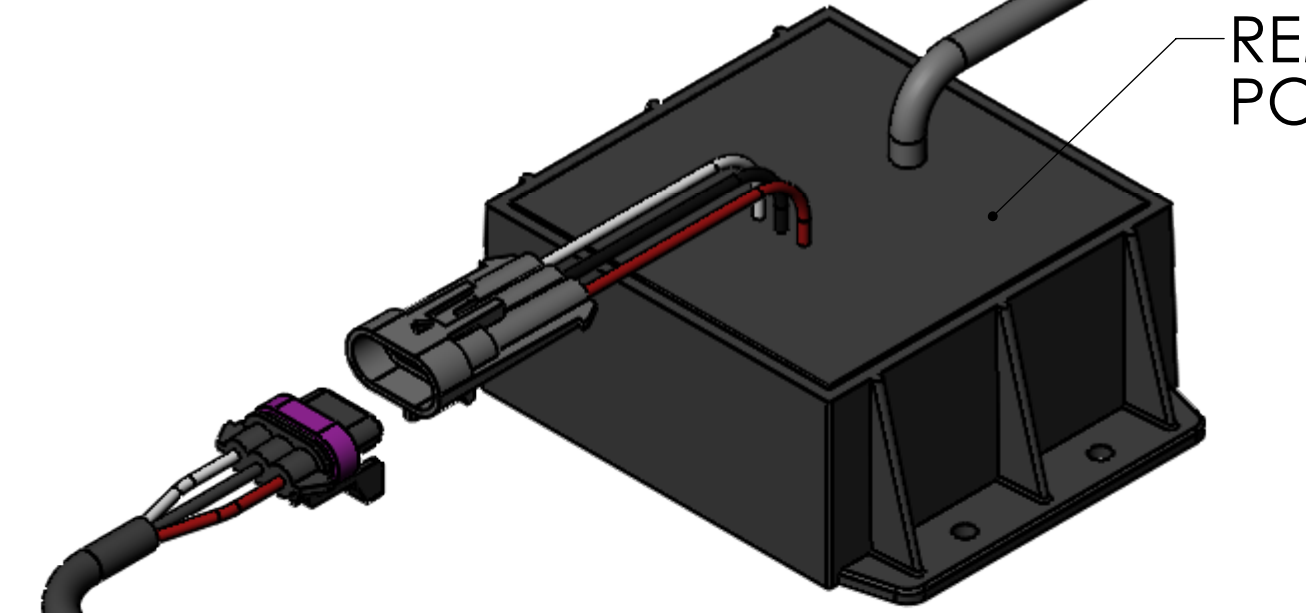
\* CONNECT TO CUSTOMER SUPPLIED DOOR SWITCH CLOSE SWITCH CONTACTS TO DISABLE EMITTER. WHITE DISABLE WIRE POLARITY AND LATCHING IS SET VIA ECMPS 3 SOFTWARE. FACTORY PRESET FOR GND TO DISABLE.

\*\* WHEN USING THE ILLUMINATED SWITCH AS INDICATOR, SEE INDICATOR STATUS TABLE BELOW

INDICATOR STATUS TABLE	
INDICATOR	STATUS
STEADY ON	EMITTER ON
2 Hz FLASH	LAMP MISSING FLASHES
.5 Hz FLASH	EMITTER DISABLED

5/16-18 MOUNTING BOLT

REMOTE MOUNT POWER SUPPLY



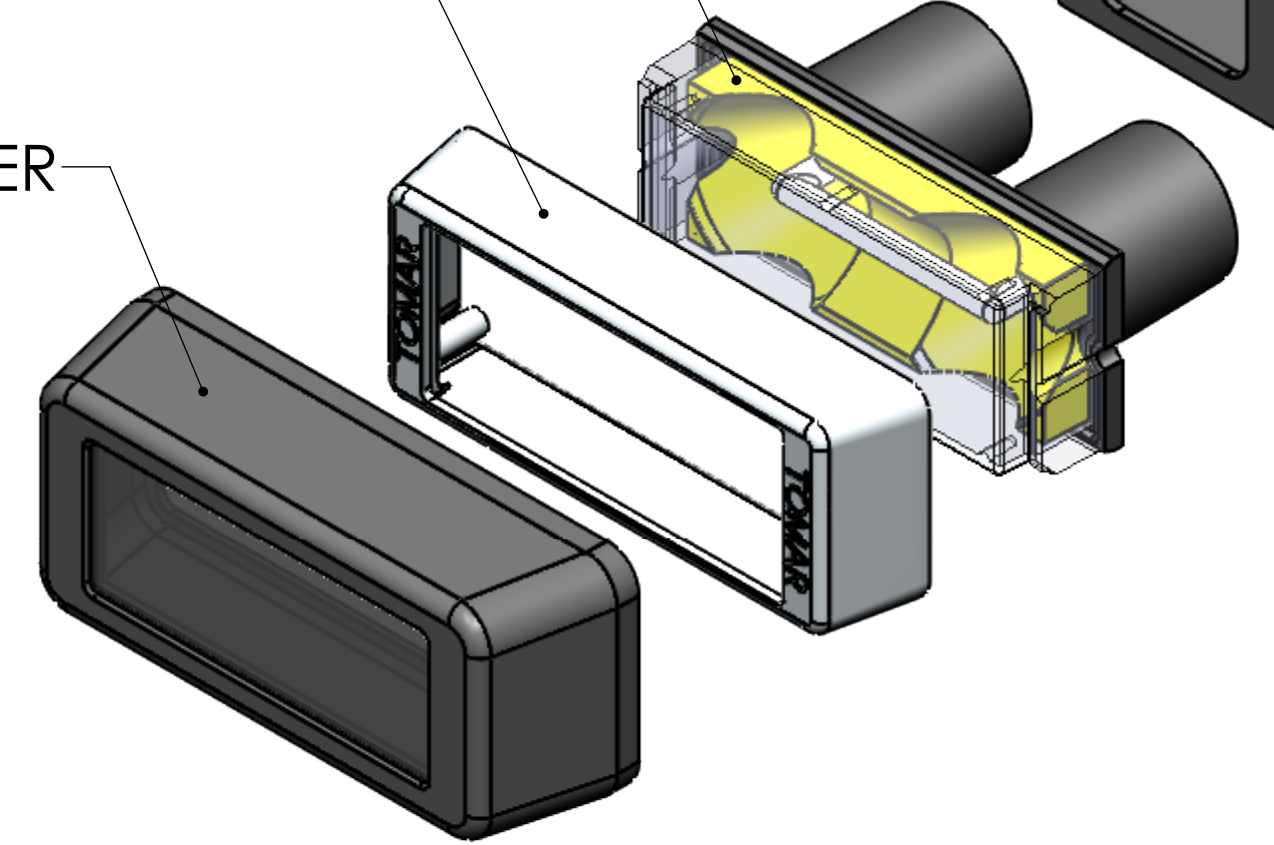
H0200A X4 BEZEL SCREWS

6C-WP2 CABLE

970A-PRE STROBE LAMP

970-BZL-BLK BLACK BEZEL  
970-BZL-CRM CHROME BEZEL

MOTO-VLF OPTIONAL VISIBLE LIGHT FILTER



MODEL NUMBER
TOMAR MODEL
3065-LOPRO-R
T792HL-LOPRO-R

UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN INCHES  
TOLERANCES ARE:  
DECIMALS  
.XX +/-  
.XXX +/-  
.XXXX +/-  
ANGLES +/-  
DRAWN RGM 1/17/2019  
APPROVED \_\_\_\_\_  
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DO NOT SCALE DRAWING

REV	DATE	DESCRIPTION

TOMAR ELECTRONICS INC.  
2100 WEST OBISPO  
GILBERT, ARIZONA 85233

PREEMPTION EMITTER  
LOPRO MNT W/REMOTE  
ASSEMBLE & WIRE

TOMAR PART NO: SEE TABLE

SCALE N/A

	DWG. NO.	REV.
	15953	00
SHEET 1 OF 1		