

TOMAR ELECTRONICS

Strobecom II

Model 3065/3065-R Emitter Installation & Operation

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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November 2011

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Strobecom II – Model 3065/3065-R Emitter Installation Instructions

1. MODEL 3065/3065-R Emitter DESCRIPTION

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

The 3065 emitter is self-contained and modular, consisting of the 3065-HOUSING, RECT-37SWP-C Lamp, EMIT3-CONTGBL, and EMIT3-SWITCH. The RECT-37SWP-C is the only component that requires routine maintenance and is easily field replaceable.

The RECT-37SWP-C 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 3065-HOUSING is a black, glass-filled, UV-stabilized polycarbonate shell. The RECT-37SWP-C is secured into the 3065-HOUSING with four stainless steel screws. Optionally, a RECT-37-VLF visible light filter can be fitted over the lamp, rendering the operating emitter signal virtually invisible.

The 3065-HOUSING contains a power supply that is completely encapsulated in polyurethane, and is equipped with automotive waterproof connectors to ensure a long, stable, life even in the most adverse environmental conditions. The power supply is RFI filtered, polarity protected, and damage proof from mis-wiring during installation.

The 3065-R emitter 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 power supply, RECT-37SWP-C lamp, EMIT3-CONTGBL, 3C-WP2 cable, and EMIT3-SWITCH.

The emitter's vehicle code is programmed via a PC compatible computer either at the factory or in the field. The 3065/3065-R emitter can be reprogrammed thousands of times without disassembly.

The EMIT3-CONTGBL connects the 3065 power supply to the EMIT3-SWITCH, an optional customer supplied door or parking brake switch, and the vehicles electrical power. The 3065-CONTGBL is equipped with a mating sealed connector for

attaching to the 3065-HOUSING (3065) or 3065-R-PS (3065-R) assembly.

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

2. 3065/3065-R CODED Emitter INSTALLATION

REFER TO TOMAR DRAWING #12184 (ATTACHED) FOR Emitter INSTALLATION AND WIRING PICTORIAL DETAILS.

2.1 3065 INSTALLATION

For optimum range and best performance, mount the 3065 emitter on top, or near the top, of the vehicle so that its signal is most likely to be seen over the tops of other vehicles in front.

Drill a 1/2" 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 INSTALLERS RESPONSIBILITY TO INSURE THE Emitter IS SECURED ADEQUATELY.

If mounted outside the vehicle, drill a 1-1/4" hole to allow the model EMIT3-CONTGBL to pass into the vehicle. **DO NOT CUT THE CONNECTOR ON THIS CABLE OFF. THE CONNECTOR IS NEEDED FOR PROGRAMMING THE Emitter.**

Secure the emitter using the supplied 7/16" stainless steel hardware. 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.

Engage the EMIT3-CONTGBL connector to the mating connector on the 3065 emitter. This connector is waterproof and can be operated outside the vehicle if desired. Be sure to adequately secure the EMIT3-CONTGBL.

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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 12184, included with this document, connect 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 vehicles door or parking brake switch (customer supplied), to the vehicles 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.

2.2 3065-R INSTALLATION

For optimum range and best performance, mount the RECT-37SWP-C lamp on top, or near the top, of the vehicle so that its signal is most likely to be seen over the tops of other vehicles in front.

Mount the RECT-37SWP-C lamp to the vehicle with an appropriate mounting bezel or inside an emergency lightbar. The lamp, connector, and cable are 100% waterproof.

Secure the 3065-R-PS 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 emitter. This connector is waterproof and can be operated outside the vehicle if desired. Be sure to adequately secure the EMIT3-CONTCBL. **DO NOT CUT THE CONNECTOR ON THIS CABLE OFF. 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 12184, included with this document, connect 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 vehicles door or parking brake switch (customer supplied), to the vehicles 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-R 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.

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3. 3065/3065-R EMITTER OPERATION

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

If the EMIT3-SWITCH is in the ON position but the LED on the EMIT3-SWITCH 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 3065/3065-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. 3065/3065-R EMITTER MAINTENANCE

The 3065/3065-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. 3065/3065-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 3065/3065-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 the emitter control 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

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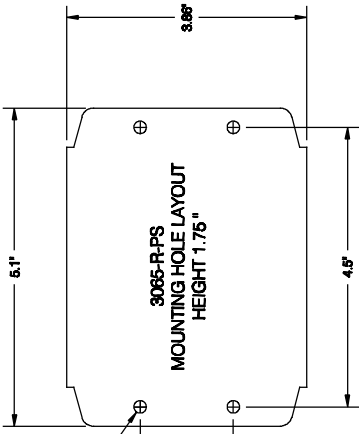
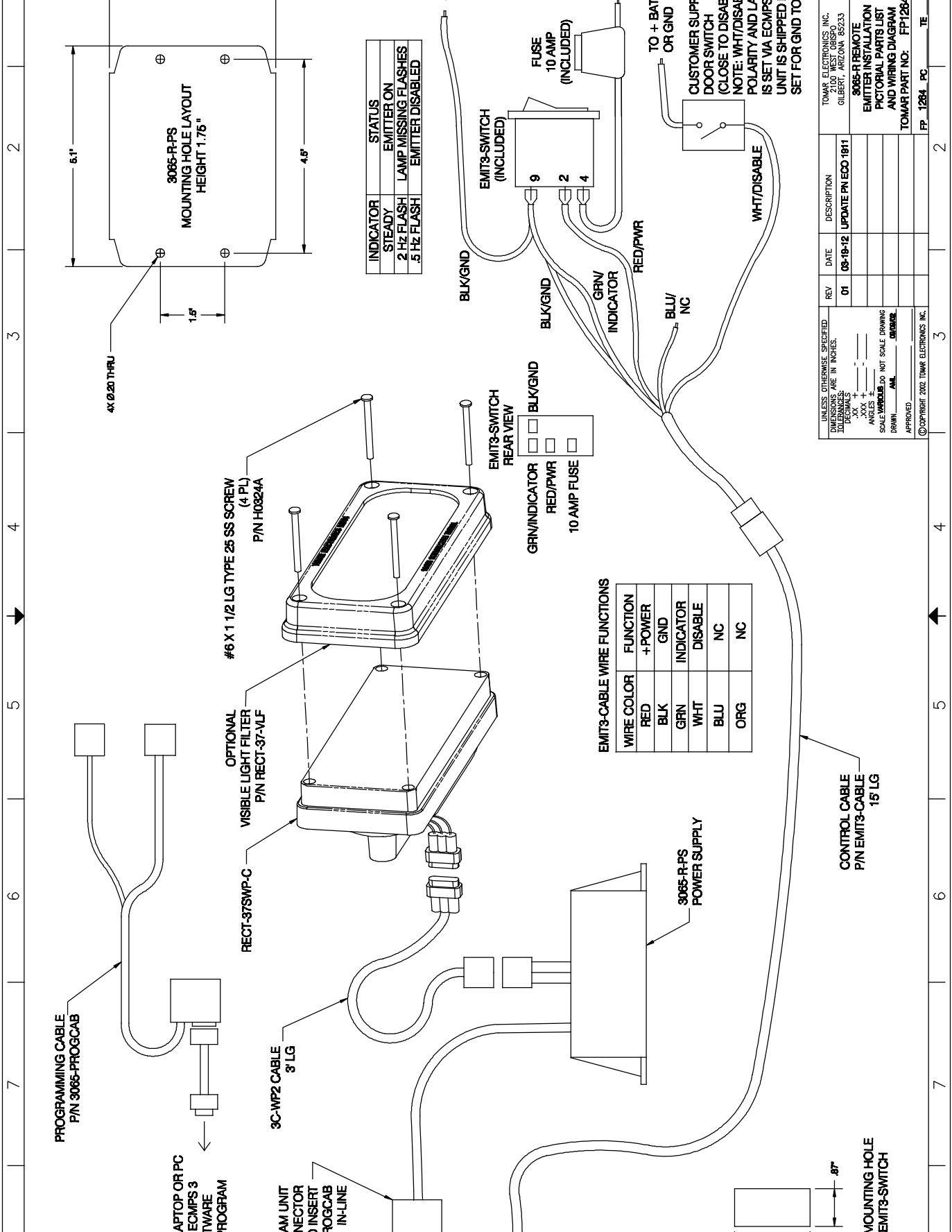
CONDITION AND SHOULD BE SERVICED IMMEDIATELY.

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 3065-HOUSING or 3065-R-PS power supply with a known good unit. Return the defective power supply to Tomar Electronics, Inc. for service.

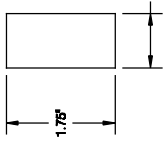
If the EMIT3-SWITCH is activated and the LED on the EMIT3-SWITCH flashes slowly at a .5 Hz rate, check the following items:

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



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

WIRE COLOR	FUNCTION
RED	+POWER
BLK	GND
GRN	INDICATOR
WHT	DISABLE
BLU	NC
ORG	NC



UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES. DIMENSIONS IN PARENTHESES ARE IN MILLIMETERS.

SCALE: XXXX ± .0001

ANGLES ± .0001

SCALE VARIABLES DO NOT SCALE DRAWING

DRAWN: [Signature]

APPROVED: [Signature]

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REV	DATE	DESCRIPTION
01	05-18-12	UPDATE PN ECO-1811

TOMAR ELECTRONICS, INC.
3000 N. GILBERT AVE.
GILBERT, ARIZONA 85233

3065-R REMOTE
EMITTER INSTALLATION
PICTORIAL PARTS LIST
AND WIRING DIAGRAM

TOMAR PART NO: FP1284

DRAWING NO. REV
12184 01

1 OF 1

TO LAPTOP OR PC
USE ECMPS 3
SOFTWARE
TO PROGRAM

TO PROGRAM UNIT
OPEN CONNECTOR
AND INSERT
3065-PROGCAB
IN-LINE

3065-R FPS
POWER SUPPLY

CONTROL CABLE
P/N EMIT3-CABLE
15' LG

EMIT3-SWITCH
REAR VIEW

EMIT3-SWITCH
(INCLUDED)

FUSE
10 AMP
(INCLUDED)

TO + BAT FUSED
OR GND

CUSTOMER SUPPLIED
DOOR SWITCH
(CLOSE TO DISABLE EMITTER)
NOTE: WHT/DISABLE WIRE
POLARITY AND LATCHING
IS SET VIA ECMPS 3 SOFTWARE.
UNIT IS SHIPPED FROM FACTORY
SET FOR GND TO DISABLE

INDICATOR

BLK/GND

GRN/INDICATOR

RED/PWR

BLU/NC

WHT/DISABLE

BLK/GND

GRN/GND

RED/PWR

10 AMP FUSE

OPTIONAL
VISIBLE LIGHT FILTER
P/N RECT-37-VLF

RECT-37SWP-C

#6 X 1 1/2 LG TYPE 25 SS SCREW
(4 PL)
P/N H0824A

4X Ø.20 THRU

5.1"

3.86"

4.6"

1.5"

1.76"

.87"

1

2

3

4

5

6

7

8

A

B

C

D