

## **TOMAR Electronics Inc.**



### **MAGNETIC MOUNTING KIT INSTRUCTION SHEET ON 970L-2102 SCORPION LIGHT BARS ONLY**

#### **INSTALLER SAFETY MESSAGE**

The safe installation of the Tomar 970L Scorpion Mini Light Bar is your first priority. All instructions listed here should be followed and common sense applied to each Light Bar installation to insure safety. Tomar field service should be called if you have any question.

Some important precautions and instructions:

- Installers should have a good understanding of automotive electrical and mechanical systems. The quality of the installation work should equal or surpass OEM standards.
- Protect the vehicle components when drilling into the sheet metal. Metal chips and sharp edges must not be left on the vehicle. Check to see that the drill bit will not damage surrounding components when it penetrates the sheet metal.
- Review all instruction sheets packed with other components of the 970L Scorpion Mini Light Bar and make sure you thoroughly understand each step of the installation before you start.
- Because vehicle roof construction and driving conditions vary, Tomar does not recommend driving a vehicle with a magnetically mounted light bar installed. The light bar could fly off the roof of the vehicle causing injury or damage. Liability for the use of the JMMK Magnetic Mounting Kit shall be the sole responsibility of the user.
- File these instructions in a safe place for future reference.

Perform a final inspection of the installation to insure that the 970L MINI Scorpion Light Bar is operating properly. Failure to follow all safety procedures and instructions

may result in serious injury, property damage or death to you or others.

#### **I. GENERAL INFORMATION**

This instruction sheet provides procedures to install the JMMK Magnetic Mounting Kit to the Tomar 970L Mini Scorpion Light Bar and mount the assembly to the vehicle. In order to complete the installation, you must have purchased the 970L Scorpion Mini Light Bar and a JMMK Magnetic Mounting Kit. Your 970L Mini Light Bar should also have the correct lamp configuration you have ordered.

#### **II. UNPACKING**

Check to see that all components shown in Figures 1 and 2 are included. Check your packing lists carefully.

#### **III. ASSEMBLY**

- A. Turn the light bar assembly upside down while protecting the top surface from scratches.
- B. Insert a rubber grommet into the center hole of each magnet. Insert a 3/8" spacer into the center hole of each grommet.
- C. Install a ¼-20 truss head machine screw from the underside of the magnet through the previously installed spacer
- D. Insert the truss head screw through the mounting hole in the end of the mounting bracket and secure with a ¼" internal tooth lock washer and ¼ - 20 acorn nut. Repeat to assemble the other three magnets.
- E. Place the light bar assembly on the vehicle roof. It should be located approximately over the drivers head and centered on the vehicle. Insure that the ends of the light bar are equidistant from the roof

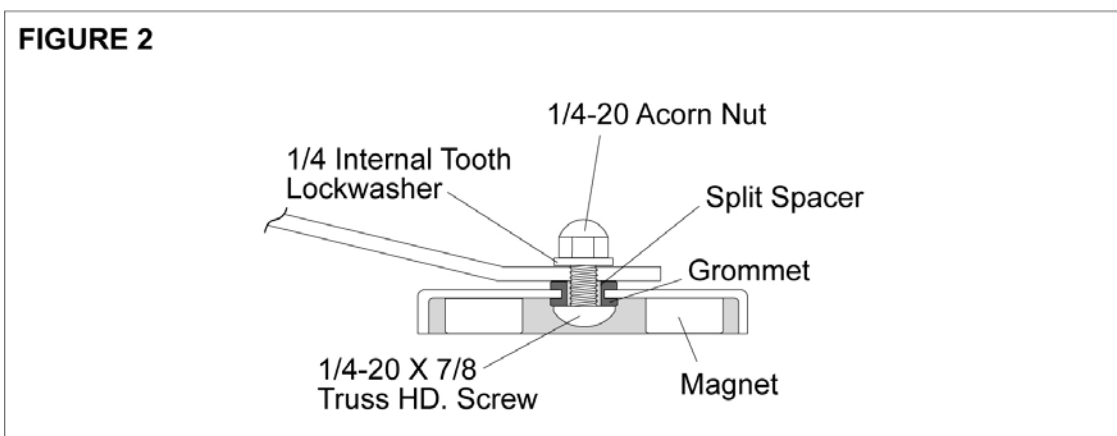
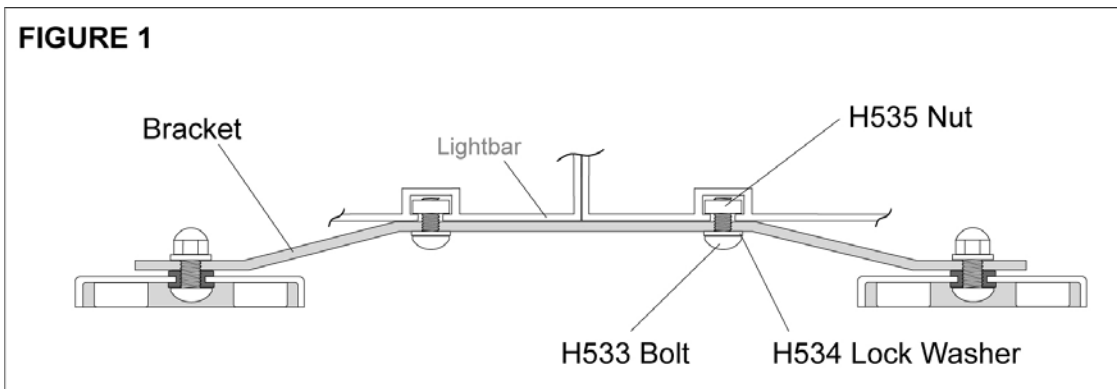
gutters and the distance from the windshield to each end of the unit is the same.

F. Inspect the entire assembly to insure that all fasteners and brackets are tight.

**WARNING!!**

The holding power of magnetic mounting systems is dependent upon surface finish, surface flatness, and thickness of the steel mounting surface. Therefore, to maximize the holding power of the magnets:

- Mounting surface and magnets must be kept clean, dry and free of foreign particles that would prevent good surface contact.
- Ensure that the mounting surface is flat. Magnets should not be used on curved surfaces.
- Magnetic mounting systems should not be used on vehicles with vinyl tops.
- To prevent sliding of light assembly on mounting surface, quick acceleration and hard stops should be avoided.
- Magnetic mounting systems should only be used on Tomar 970L Scorpion Mini Light Bars.



## TOMAR MODEL 970L-2102-0101 SWITCH CONTROL

### ELECTRICAL

#### **Input Voltage:**

10 – 16 VDC

#### **Current Draw – In SINGLE FLASH 75 ALTERNATE @ 12.8VDC:**

High Power Model      6 Amps

Low Current Model      3 Amps

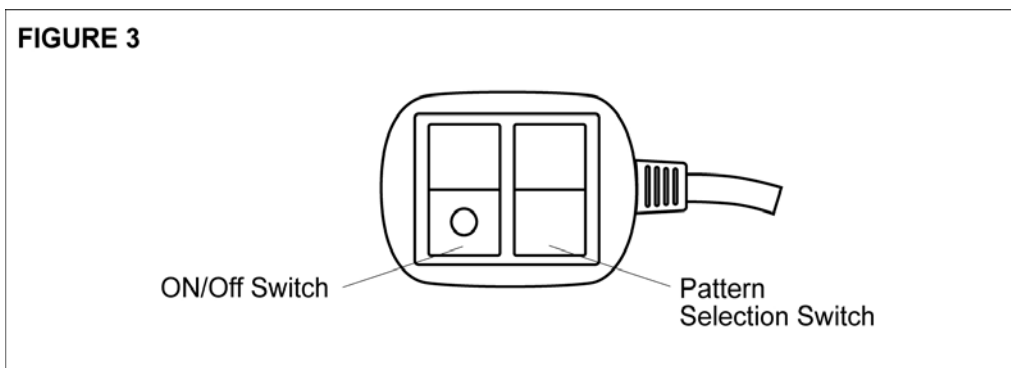
### SELECTING FLASH PATTERN

#### **Cycle Forward**

With the unit turned on, press the Pattern selection switch once and then release. Continue until the desired pattern is reached. The last pattern selected will become the default pattern.

#### **Reset to Pattern #1**

With the unit turned on, press and hold the Pattern selection switch for more than three seconds. The unit will flash three times then return to Pattern #1 to indicate that it has reset. Pattern #1 will become the default pattern.



Note: If ordered with a straight cord (no cigar plug) tapping the white wire to +12 will have the same effect as pressing the pattern selection switch.

**SELECTABLE FLASH PATTERNS**

| <b>PATTERN #</b> | <b>FLASH PATTERNS</b>            | <b>RATES</b> |              |
|------------------|----------------------------------|--------------|--------------|
| 01)              | FRONT REAR SIDE ALTERNATING      | NEOBE 150    | ***DEFAULT** |
| 02)              | FRONT REAR SIDE ALTERNATING      | NEOBE 75     |              |
| 03)              | FRONT REAR SIDE ALTERNATING      | DOUBLE 250   |              |
| 04)              | FRONT REAR SIDE ALTERNATING      | DOUBLE 125   |              |
| 05)              | FRONT REAR SIDE ALTERNATING      | SINGLE 375   |              |
| 06)              | FRONT REAR SIDE ALTERNATING      | SINGLE 150   |              |
| 07)              | FRONT REAR SIDE ALTERNATING      | SINGLE 75    |              |
| 08)              | FRONT REAR ALTERNATING           | NEOBE 150    |              |
| 09)              | FRONT REAR ALTERNATING           | NEOBE 75     |              |
| 10)              | FRONT REAR ALTERNATING           | DOUBLE 250   |              |
| 11)              | FRONT REAR ALTERNATING           | DOUBLE 125   |              |
| 12)              | FRONT REAR ALTERNATING           | SINGLE 375   |              |
| 13)              | FRONT REAR ALTERNATING           | SINGLE 150   |              |
| 14)              | FRONT REAR ALTERNATING           | SINGLE 75    |              |
| 15)              | FRONT REAR ALTERNATING WITH SIDE | NEOBE 150    |              |
| 16)              | FRONT REAR ALTERNATING WITH SIDE | NEOBE 75     |              |
| 17)              | FRONT REAR ALTERNATING WITH SIDE | DOUBLE 250   |              |
| 18)              | FRONT REAR ALTERNATING WITH SIDE | DOUBLE 125   |              |
| 19)              | FRONT REAR ALTERNATING WITH SIDE | SINGLE 375   |              |
| 20)              | FRONT REAR ALTERNATING WITH SIDE | SINGLE 150   |              |
| 21)              | FRONT REAR ALTERNATING WITH SIDE | SINGLE 75    |              |
| 22)              | LEFT RIGHT ALTERATING            | NEOBE 150    |              |
| 23)              | LEFT RIGHT ALTERATING            | NEOBE 75     |              |
| 24)              | LEFT RIGHT ALTERATING            | DOUBLE 250   |              |
| 25)              | LEFT RIGHT ALTERATING            | DOUBLE 125   |              |
| 26)              | LEFT RIGHT ALTERATING            | SINGLE 375   |              |
| 27)              | LEFT RIGHT ALTERATING            | SINGLE 150   |              |
| 28)              | LEFT RIGHT ALTERATING            | SINGLE 75    |              |
| 29)              | CIRCULAR                         | NEOBE 150    |              |
| 30)              | CIRCULAR                         | NEOBE 75     |              |
| 31)              | CIRCULAR                         | DOUBLE 250   |              |
| 32)              | CIRCULAR                         | DOUBLE 125   |              |
| 33)              | CIRCULAR                         | SINGLE 375   |              |
| 34)              | CIRCULAR                         | SINGLE 150   |              |
| 35)              | CIRCULAR                         | SINGLE 75    |              |
| 36)              | ALTERNATING ALL ON/OFF           | NEOBE 150    |              |
| 37)              | ALTERNATING ALL ON/OFF           | NEOBE 75     |              |
| 38)              | ALTERNATING ALL ON/OFF           | DOUBLE 250   |              |
| 39)              | ALTERNATING ALL ON/OFF           | DOUBLE 125   |              |
| 40)              | ALTERNATING ALL ON/OFF           | SINGLE 375   |              |
| 41)              | ALTERNATING ALL ON/OFF           | SINGLE 150   |              |
| 42)              | ALTERNATING ALL ON/OFF           | SINGLE 75    |              |