

**INSTRUCTION SHEET  
MODEL VC21MK MAGNETIC MOUNTING KIT  
FOR  
MODEL VC2100 LIGHT ASSEMBLY**

**SAFETY MESSAGE TO INSTALLERS AND USERS**

People's lives depend on your safe installation of our products. It is important to read, understand and follow all instructions shipped with the products. In addition, listed below are some other important safety instructions and precautions you should follow:

- To properly install mounting kit, you must have a good understanding of emergency vehicle procedures and systems.
- Inspect the mounting system periodically to ensure it is in good condition.
- Because vehicle roof construction and driving conditions vary, Federal does not recommend driving a vehicle with a magnetically mounted warning light installed. The light could fly off the vehicle causing injury or damage. Repair of damage incurred because of ignoring this warning shall be the sole responsibility of the user.
- File these instructions in a safe place and refer to them when maintaining and/or re-installing the product.

Failure to follow all safety precautions and instructions may result in property damage, serious injury, or death to you or others.

**A. UNPACKING.**

After unpacking the kit, carefully check all envelopes, shipping labels, and tags before removing or destroying them. Ensure that the parts listed in the KIT CONTENTS LIST are contained in the packing carton.

**B. KIT CONTENTS LIST.**

Qty.	Description	Part Number
4	Screw, 1/4-20, Trs. Hd., S.S.	7000A459-14
4	Nut, 1/4-20, Acorn	7054A010
4	Lockwasher, 1/4", S.S.	7075A016
4	Grommet	8542A422A
4	Spacer	8542A423A
4	Magnet	8550A012A-01
2	Terminal, Male, 1/4" QD (Yel.)	224A253
1	Terminal, Male, 1/4" QD (Blue)	224A217-02
1	Plug and Wire Assy.	175806
1	Wire Lead Assy., "Y"	1461037

**C. ASSEMBLY OF MOUNTING BRACKETS.**

To assemble magnets to the mounting brackets, proceed as follows (see figures 1 and 2):

1. Insert a rubber grommet into the hole of each magnet. Insert a 3/8" spacer into each grommet.
2. From the underside of the magnet, insert a 1/4-20 Trs. head screw and 1/4" flat washer through the previously installed spacer.
3. Place mounting bracket over exposed threads of 1/4-20 Trs. head screw. Place 1/4" internal tooth lockwasher over screw. Secure magnet to mounting bracket with 1/4-20 acorn nut.
4. Perform the previous steps until all four magnets are installed on the two mounting brackets.

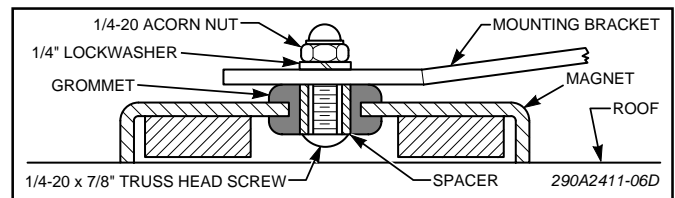


Figure 1.

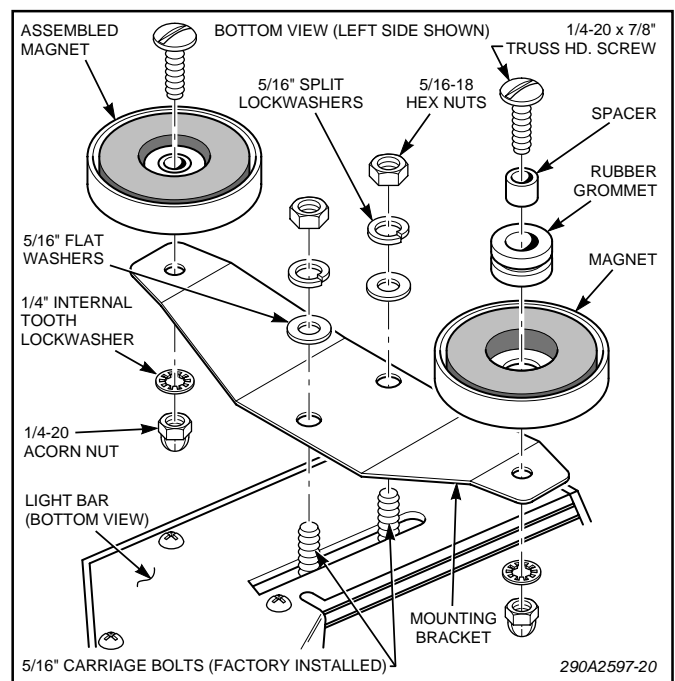


Figure 2.

#### D. INSTALLATION ON VEHICLE ROOF.

Place the light assembly on the vehicle roof at the desired location. Usually the unit should be installed approximately over the driver's head. Ensure that the light ends are equidistant from the roof gutters (see figure 3). Also, the distance from the windshield to each end of the unit should be the same. Ensure that all fasteners are properly tightened.

#### WARNING

Holding power of magnetic mounting systems is dependent upon surface finish, surface flatness, and thickness of the steel mounting surface. Therefore, to ensure proper magnetic mounting:

- Mounting surface and magnets must be kept clean, dry, and free of foreign particles that prevent good surface contact.
- Ensure that mounting surface is flat.
- Magnetic mounting system 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.

#### E. WIRING.

1. The supplied cigar lighter plug and wiring have a maximum current limit of 15-amperes. Using the current requirements shown in table 1, calculate the total current requirement with the currently installed options. If the current requirement exceeds 15-amperes, DO NOT use the cigar lighter plug and wire.

#### WARNING

Warning light failure will occur if the current requirement exceeds 15-amperes. Never use the cigar lighter plug and wiring if the total current requirement exceeds 15-amperes.

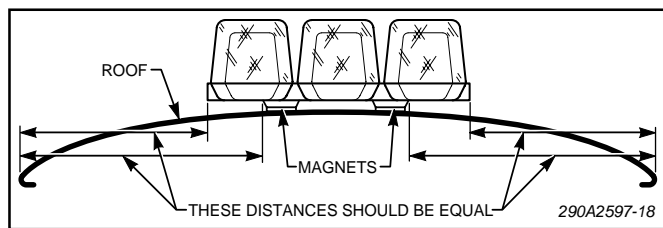


Figure 3.

2. Route the light assembly's cable toward the vehicle dash, near the cigar lighter socket. Cut the cable to the proper length.

3. Carefully remove approximately 2-inches of the cable's outer insulation. Use caution to avoid cutting the conductor's insulation.

4. Strip approximately 1/4" of insulation from the end of the red, black, and brown wires.

5. Crimp the yellow male terminals on the red and black wires. Crimp the blue male terminal on the brown wire.

6. Using the "Y" wire lead assembly, connect the plug and wire assembly to the light assembly's cable as shown in figure 4.

#### NOTE

The plug and wire assembly's ribbed lead is positive (+) 12-volts.

#### WARNING

Warning light failure will occur if the cigar lighter socket and circuitry are unable to supply 15-amperes. Ensure that the vehicle cigar lighter socket, circuitry, and fuse are capable of supplying 15-amperes.

#### F. OPERATION.

Insert the plug on the end of the cable into the cigar lighter socket.

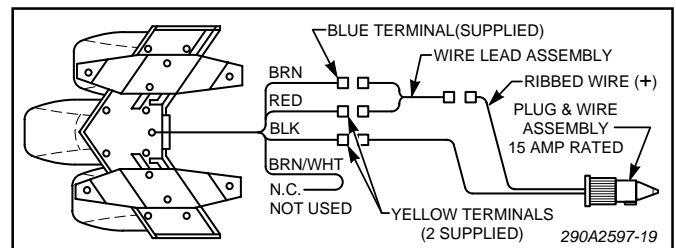


Figure 4.

Option	Current Requirement
Rotator	4.3 amperes
Oscillator	4.3 amperes
DynaRay™	4.3 amperes
Meteor™	3.9 amperes
Flashing	2.7 amperes
TD/Work	3.9 amperes

Table 1.