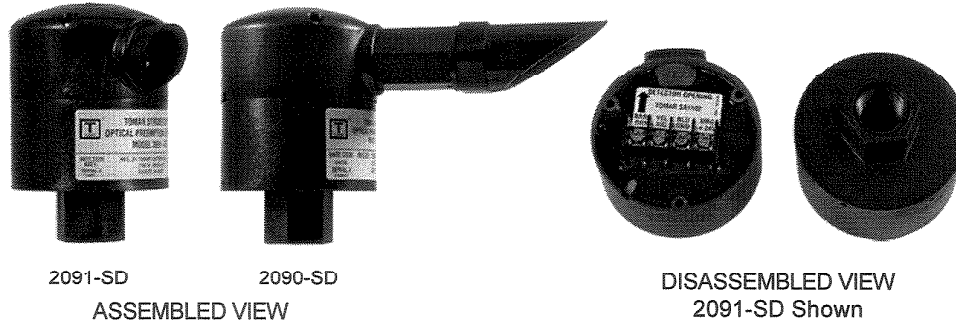


## MODEL 209X-SD Strobecom II Optical Preemption Detector INSTALLATION INSTRUCTIONS

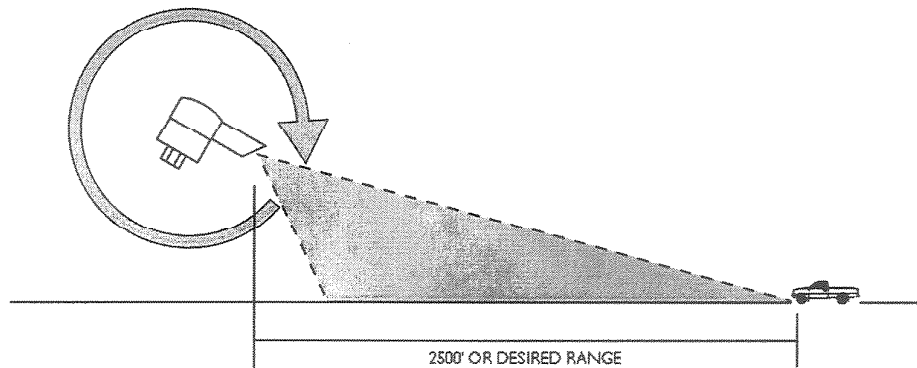


### MOUNTING

The 209x-SD is equipped with a 1/2" female NPT threaded base for mounting and an internal terminal block for wiring termination. Any mounting that is stable and allows the M913 detector cable to enter through base can be used.

The 2090-SD is recommended for mast arm mounting where a narrow field of view is required. The 2091-SD is recommended for span wire mounting and on most mast arms where a wider field of view makes aiming easier. Many styles of mounts are available for the 209x-SD for mast arm and span wire mounting. Contact your TOMAR distributor for more information.

The Strobecom II system and the 209x-SD use electronic methods for range control. For maximum range setting flexibility the 209x-SD should be mounted so its sight tube is parallel to the slope of the roadway. For extremely short approaches (under approximately 200 feet), it may be desirable to leave the electronic range adjustment at maximum and limit the 209x-SD's field of view by tipping it downward as shown below.



### WIRING—CAUTION: MAKE SURE POWER IS OFF BEFORE INSTALLING

Remove the 3 screws securing the top of the 209x-SD to gain access to the internal terminal block. Connect the orange, blue, yellow, and drain wires of the M913 detector cable per the label inside the 209x-SD. **To insure proper operation, insulate the bare drain wire to prevent contact with the connections inside the unit and any other metal.** The terminal block is equipped with wire clamping screws and no lugs or other connectors are necessary. The 209x-SD is fully protected from damage due to miswiring, however, system startup problems due to miswired heads can be difficult and expensive to troubleshoot. Double check the wiring and secure the top of the 209x-SD to the base using the 3 screws removed earlier. **DO NOT** overtighten the screws as the base may be damaged. Installation is now complete.

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## TECHNICAL BULLETIN

12/17/1998

### **TB0002 – SPAN WIRE MOUNTING OF STROBECOM DETECTORS**

Tomar Electronics, Inc., model 2090-SD and 2091-SD optical detectors are suitable for mounting either on a mast arm or from a span wire.

While the electronics inside the 2090-SD and 2091-SD detectors is encapsulated, the terminal block where cable connections are made is exposed. The mechanical design of the 2090-SD and 2091-SD includes weep holes which allow for water or condensation that does enter to escape from the detector wiring compartment.

When mounting the 2090-SD or 2091-SD upside down from a span wire, special care must be taken to prevent water from entering a mount made from a material that can corrode. If mounted improperly, oxide or rust laden water may flow from the mount into the wiring compartment of the detector, follow the detector cable, and drip directly onto the detector terminal block. The corrosion can deposit on the terminals seizing the screws and eventually leading to detector failure.

The recommended Tomar model 2091-S span wire mount will orient the detector upright preventing water from entering the detector wiring compartment eliminating the possibility of damage.

Third party supplied mounts for span wire use should be constructed to mount the detector upright or to positively prevent water entry by some other means.

**The Tomar Electronics, Inc., warranty for the 2090-SD and 2091-SD does not cover damage to the detector due to improper mounting that allows rust laden water to drip directly into the detector wiring compartment.**

Contact the Tomar Electronics, Inc. engineering department for more information.