SUPPLEMENTAL INSTRUCTIONS Installation & Set-up of Magnetic Sensor

Installation & Set-up Instructions For Magnetic Sensor

IMPORTANT: The **Magnetic Sensor** senses changes in the magnetic field 3-dimensionally, in a spherical manner, rather than in a straight line (as with Photocell/Electric Eyes). This means that the sensor will detect vehicle movement both in front of it and behind it. In 2-lane applications, sensors will need to be separated sufficiently to ensure no interference from vehicles in the second lane.

Mounting

- 1. The Magnetic Sensor is factory-installed inside a heavy duty enclosure.
- 2. Mount the Sensor in a convenient, stable, fixed location (wall, post, etc.) adjacent to the vehicle lane.

*Any movement of the sensor, after it has been programmed, will require it to be reprogrammed.

- 3. Do not mount the Sensor directly to a steel beam.
- 4. The sensor should not be mounted near a high power electrical line or a large industrial electric motor.
- 5. For proper operation the unit must be grounded, either through the electrical system's ground or via the ground wire provided.
 - *Poorly grounded equipment may give erratic performance.

Programming

Programming involves setting the Background Condition (magnetic field) and the Sensitivity level of the Sensor. Once set, these are stored in non-volatile memory and can be reset at any time, if the need arises.

Set Background Condition (No Vehicle Present):

When setting the Background Condition, *remove all vehicles from the area* and leave keys, watches, cell phones, tools and other ferrous objects at least 20 feet away from the sensor – otherwise, these items will impact the calibration of the background magnetic field.

- 1. Open the Magnetic Sensor control box and locate the sensor interface module.
- 2. Ensure there is power to the unit, i.e. check the green LED light is on.
- 3. Click the "Teach" button once. The yellow LED output indicator will flash 12 times while the background is being taught.
- 4. The sensor returns to RUN mode automatically.
- 5. If the sensor is moved, the Background Condition setting process must be repeated.

Set and Adjust Sensitivity

There are 6 sensitivity levels. Sensitivity Level 6 is the most sensitive.

- 1. Open the Magnetic Sensor control box and locate the sensor interface module.
- 2. Ensure there is power to the unit, i.e. check the green LED light is on.
- 3. <u>Quickly</u> **double**-click the "Teach" button. Count the number of times the yellow LED output indicator flashes every 2 seconds to establish the current sensitivity setting.
 - The "Out" LED flashes from 1 to 6 times every 2 seconds, indicating the sensor's current sensitivity level setting (two flashes in two seconds indicates Level 2, three flashes in two seconds indicates Level 3, etc.).
- 4. To increase sensitivity level, click the "Teach" button again and repeat this step until desired sensitivity level is attained.
- 5. To save sensitivity setting, <u>quickly</u> **double**-click the "Teach" button
- 6. The sensor returns to RUN mode automatically.

To Test

- 1. Drive a vehicle past the Sensor and verify that the "Out" LED comes on, indicating that the vehicle has tripped the Sensor. Use of a small/light vehicle for this purpose will ensure that larger vehicles will be detected later.
- 2. Adjust sensitivity, as needed.
- 3. If the sensor is moved, the Programming process must be repeated.

