SUPPLEMENTAL INSTRUCTIONS
Installation & Set-up of Magnetic Sensor

On Back: RADAR and DART Systems Metering Manifold Adjustment

Installation & Set-up Instructions For Magnetic Sensor

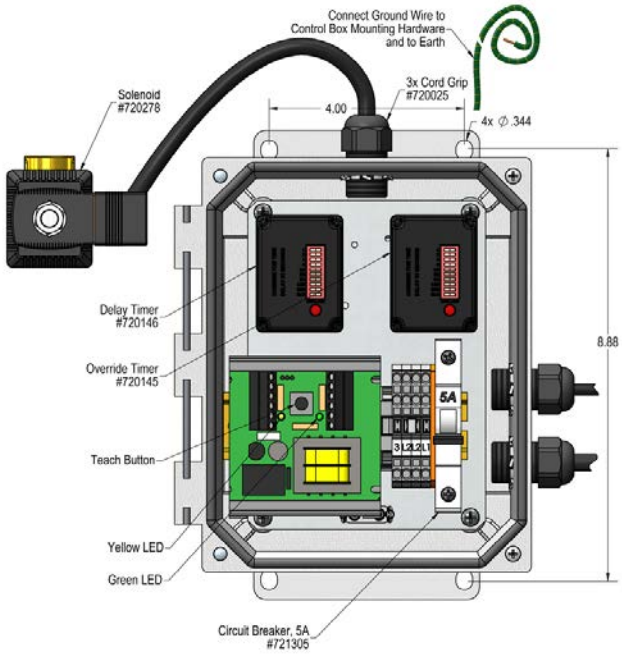
IMPORTANT: The **Magnetic Sensor** senses changes in the magnetic field 3-dimensionally, in a spherical manner, rather than in a straight line (as with Photocell/Electric Eyes). This means that the sensor will detect vehicle movement both in front of it and behind it.
In 2-lane applications, sensors 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**.

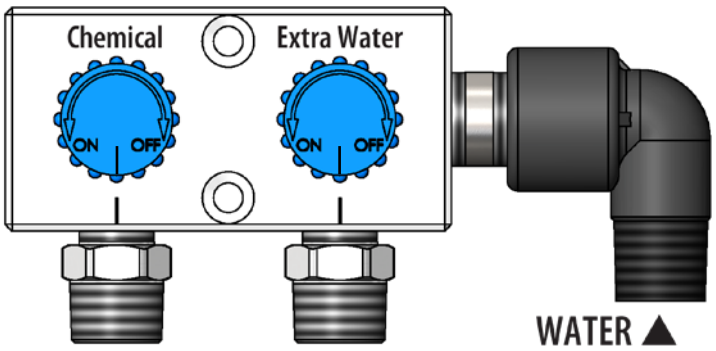
1. Open the Magnetic Sensor control box and locate the sensor interface module.
2. Ensure there is power to the unit, i.e. check the green LED light is on.
3. Quickly **double-**click the "Teach" button. Count the number of times the yellow LED output indicator flashes every 2 seconds to establish the 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, quickly **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.**

RADAR AND DART SYSTEMS METERING MANIFOLD ADJUSTMENT

How to Set Your Dilution Ratio



FACTORY PRESETS

Air Pressure is factory preset at 60 PSI.

This is the optimum pump pressure.
Test "as is" before making any air adjustments.

Chemical and Extra Water Knobs

Each knob is preset to two full counterclockwise rotations from fully closed. Leave the knobs at this setting for priming the pump.

↺ x2

PRIME THE PUMP — Activate the unit until air can no longer be seen in any of the tubes leading to the pump.

Hint: Before making adjustments, use a permanent marker to mark the start point on each knob and on the metering manifold body, as shown above.

TEST FACTORY PRESETS

TO TEST *(See page two of Installation and Operation Instructions --the I&O-- for details specific to your system.)*

1. Perform "test runs" with water only and make any necessary timer adjustments.

(Note for RADAR Systems with electric eyes: The gap between the cab and truck bed can cause the system to shut off when the infrared beam is no longer interrupted. To avoid this, position the electric eyes so the beam crosses the path of the truck at an angle.)

2. After several successful test runs have been made you are ready to set the chemical dilution.
3. Immerse chemical suction tube into the chemical container.

SET THE CHEMICAL DILUTION

- To increase flow, turn knobs *counterclockwise* ↺.
- To decrease flow, turn knobs *clockwise* ↻.
- Below are two examples of how to get a weaker dilution and a stronger dilution.

Weaker Dilution *(Starting at factory preset position)*

1. Leave the water knob at the factory preset position.
2. Turn the chemical knob 1/4 rotation (90°) clockwise. Observe results. Repeat until the chemical dilution is at its weakest.

CHEMICAL ↻ 1/4 Rotation

WATER @ Factory Preset

Stronger Dilution *(Starting at factory preset position)*

1. Leave the chemical knob at the factory preset position.
2. Turn the water knob 1/4 rotation (90°) clockwise. Observe results. Repeat until the desired result is achieve.

CHEMICAL @ Factory Preset

WATER ↻ 1/4 Rotation

RADAR™ RAPID DRIVE THRU ASPHALT RELEASE

DART™ DRIVE THRU ASPHALT RELEASE, TIMED