



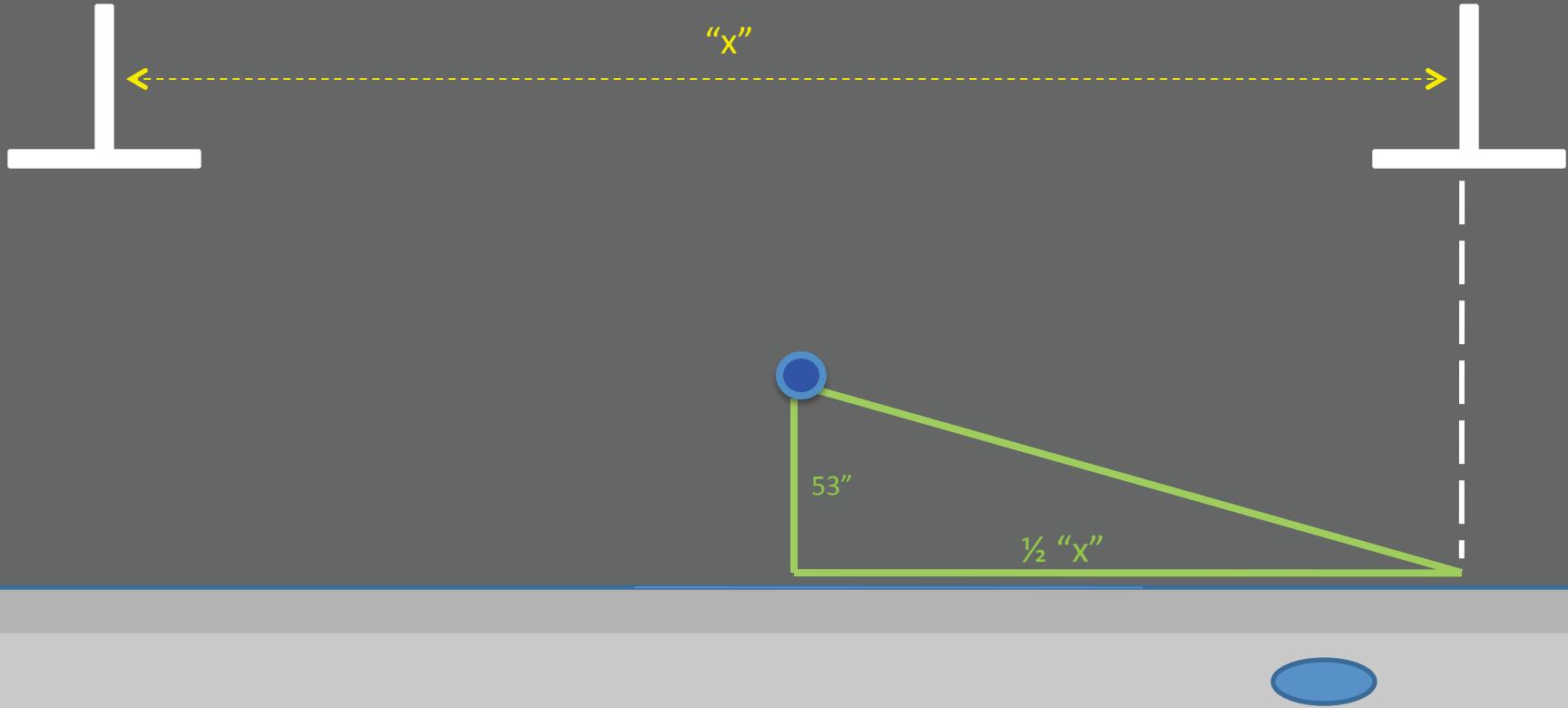
**General:** A crew of 2 to 3 persons, equipped as specified below, can typically deploy between 100 and 200 surface mount sensors per shift/day,. No special skills are required beyond basic on-site training. Streetline will provide training and on-site management of the process for crews.

**Marking Installation points:** For both surface mount and embedded sensors, measuring tools and chalk are the only requirements. There are several scenarios to deal with, each of the below will explain the requirements for dealing with each type of parking space.



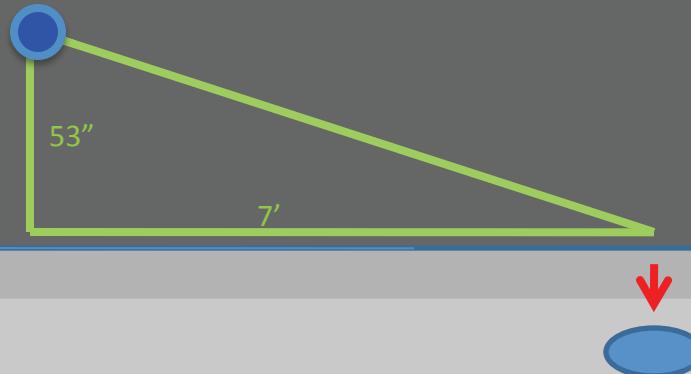
# Streetline Surface Mount Vehicle Sensors Installation Overview

## Parallel Parking: with Demarcation



If the parking space is demarcated, measure halfway back into the space from the inner edge of the front demarcation (the part that is perpendicular to the curb, as shown) and then 53" out from the curb. This is the inner edge of the sensor install point.

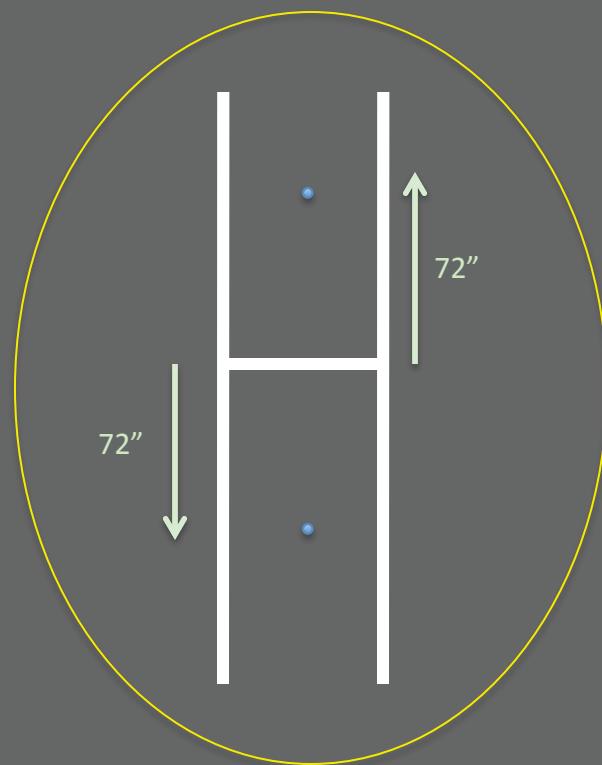
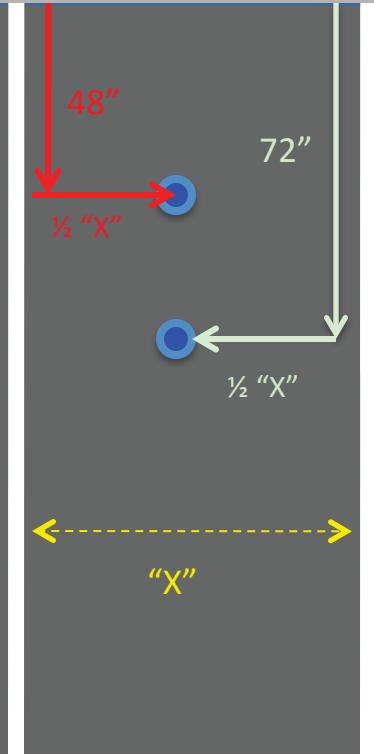
## Parallel Parking: No Demarcation



When there is no demarcation for the parking space, but only a parking meter, measure 7' feet back from the meter post into the space, along the curb, and then 53" out from the curb. This is the inner edge of the sensor install point.

Be sure you are measuring from the meter in the **CORRECT** direction—into the parking space (towards oncoming traffic) and not in front of it. **Special caution should be taken on the left side of one-way streets.**

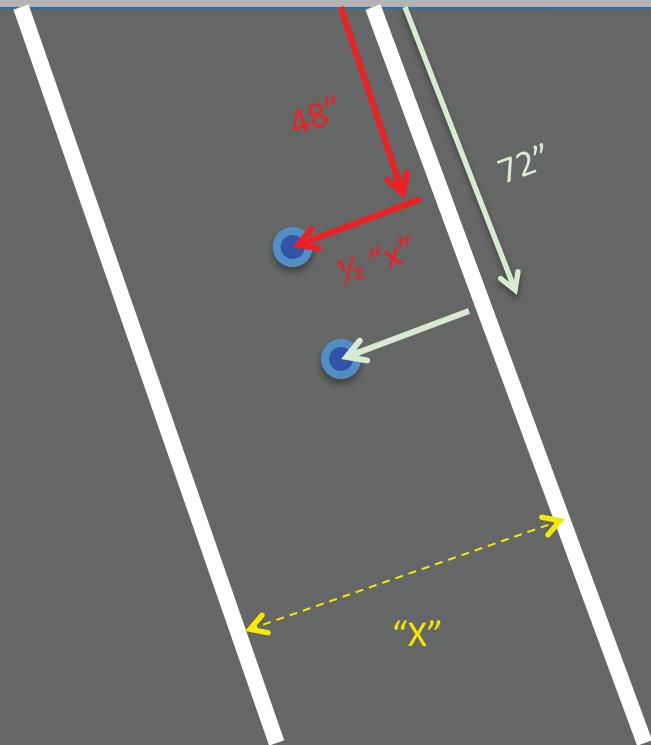
# Perpendicular Parking



There are two possible measurements for head-in or perpendicular parking. If the front of the stall is open curb, measure 48" back from the curb (or tire-stop) along either demarcation line and then go half way into the space. The center of the VS should be deployed at this spot, as shown in red.

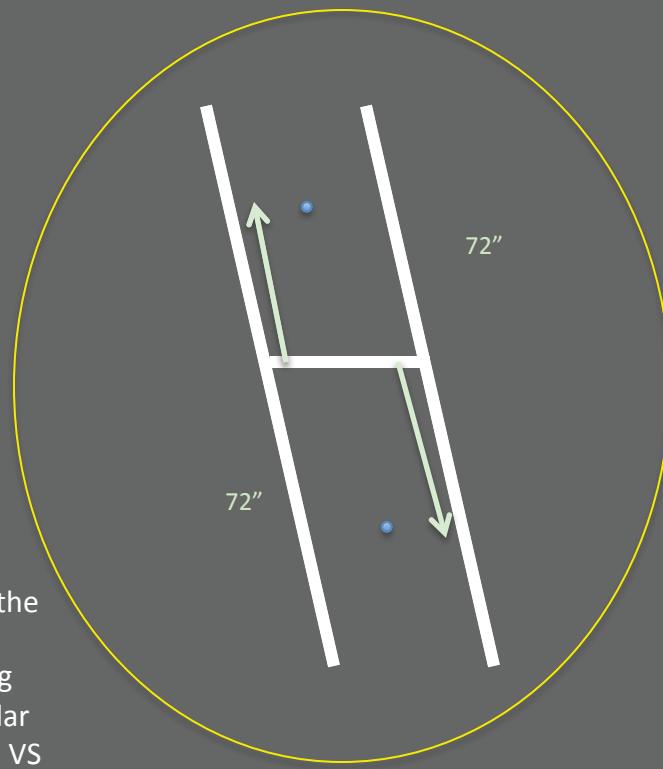
If there is a hard stop at the front of the stall such as a wall or hedge—or if the stall is one of two head-to-head stalls separated by a line (as shown in inset)—measure 72" from the stop along either demarcation line, and then proceed as above, as shown in green.

# Diagonal Parking



There are two possible measurements for diagonal parking. If the front of the stall is open curb, measure 48" back from the curb (or tire-stop) along the "upstream" space demarcation (this is the demarcation closest to oncoming traffic). Then measure half way into the space, in the direction perpendicular to the demarcation line (NOT perpendicular to the curb). The center of the VS should be deployed at this spot, as shown in red.

If there is a hard stop at the front of the stall such as a wall or hedge—or if the stall is one of two head-to-head stalls separated by a line (as shown in inset)—measure 72" back from the stop along the upstream demarcation. Then proceed as above, as shown in green.



## **Materials**

- One SL Surface Mount Vehicle Sensor (VS) per parking space
- Approximately 2-3-oz of Epoxy *see Materials list for specifications*

*Contractor Trick- Keep rubbing alcohol with the crews doing the sensor install, its great for removing epoxy from hands, sensors and tools careful not to remove any labels on the sensor though!*

- Duct Tape

- Heavy duty degreaser and water for very soiled areas

## **Equipment**

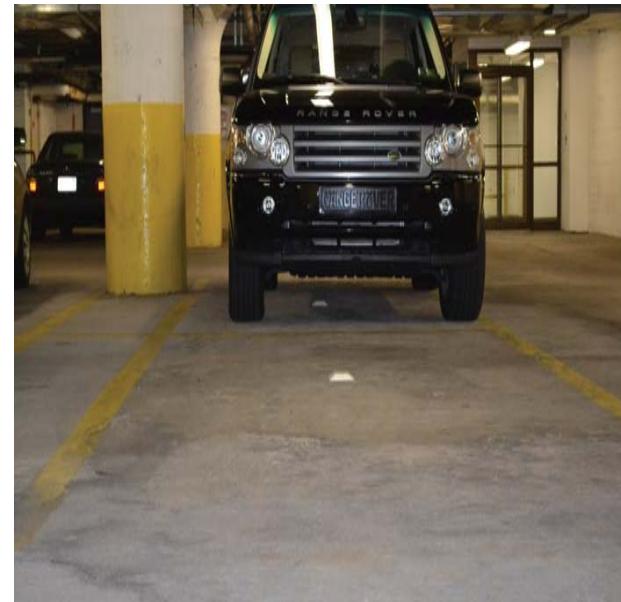
- Wire Brush

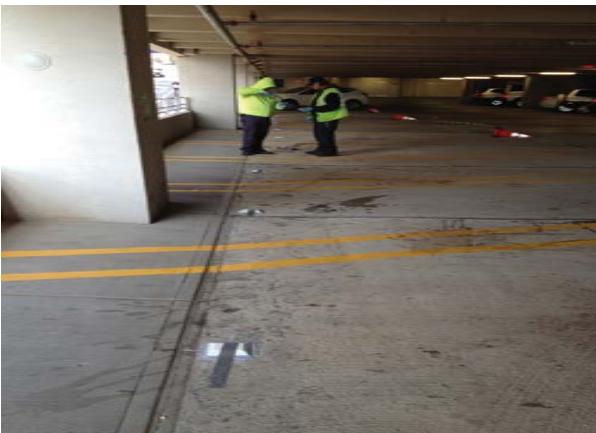
- Hand held torch or propane fired “weed torch” to dry mounting locations when necessary.

*Care should be taken not to burn the existing surface if a torch is used.*

- A heavy duty construction air compressor can prove useful in clearing debris, drying and driving site equipment.

- Pressure washer for heavy soiled areas.





- The sensor is located over the center of the location mark, spaces should be marked prior to setting any sensors.
- The area directly around and surrounding the proposed location for the sensor should be cleaned and free of loose debris, oil and grease, a wire brush is the best method to clean and prepare the pavement surface to accept proper adhesion of the epoxy. Heavy oil and grease will need to be removed with a degreaser and pressure washer (*if the area is not properly prepared the epoxy will not adhere and the sensor may come loose*)
- Place 2-3-oz of well mixed epoxy onto the bottom of the senor, making sure the entire bottom is evenly coated with a  $\frac{1}{4}$ " thick layer of of epoxy.
- Making sure the small indentation on the sensor is facing the curb place the sensor onto the proper location.
- When placing a sensor on a sloped surface, first lay the downhill side on the surface to help force the epoxy back uphill this will distribute the epoxy more evenly* (the epoxy is very fluid so care should be taken to assure even distribution, a slight twisting motion after the sensor is placed will help ensure the epoxy is evenly placed)
- Excess epoxy must be cleaned from the edges,(no more than  $\frac{1}{2}$ " up the sensor sides no gaps or cracks around the sensor should be left which would allow water and debris to infiltrate the pavement surface. The epoxy should naturally create the necessary seal, in the case it does not, use an appropriate rapid cure caulking.
- Place a 8-10" strip of duct tape on the top of the senor and down to the pavement, *only place on the top of the sensor avoid the epoxy*, this will hold the sensor in place until the epoxy cures
- Traffic should be kept off of sensor until the epoxy is fully cured, *typically epoxy will cure in approximately 30 min* remove the duct tape, recheck all sides to assure a complete seal around the base. The space can now be opened.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

Please do not modify the product without first contacting Streetline for approval. Modification of the product may result in violation of FCC regulations.

## Streetline SL-SPS Vehicle Sensor



FCC ID: V2ISL-SPS

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.