Installation Guide

Wireless Magnetic Parking Detectors

ClairGeo-MP2/MP3

Version: 1.0

TraffiClair Technology Co., Ltd.

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1. Standardized Construction Safety Guidelines

Based on wireless geomagnetic technology as an advanced method for detecting urban on-street parking and traffic information, the geomagnetic + 24G mm-wave dual-mode vehicle detector (hereinafter referred to as the geomagnetic detector) is a new type of vehicle detector that meets the requirements for complex environments. It enhances parking detection accuracy and has been widely used in the construction of intelligent on-street parking in many cities across China. It has also gained industry recognition. Its installation is simple, powered by industrial-grade lithium batteries, and utilizes the latest Narrowband Internet of Things (NB-IoT)/LoRa wireless communication technology, eliminating the need for wiring. Installation only requires drilling a hole in the parking space with a water drill, without causing extensive damage to the road.

Given the complex and hazardous nature of road construction environments, the following requirements are set for road construction:

1. Before entering the road construction site, construction workers must wear reflective safety vests. During nighttime construction, flashing lights must be set up.

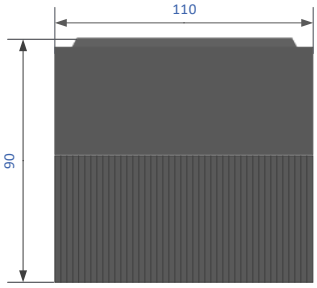
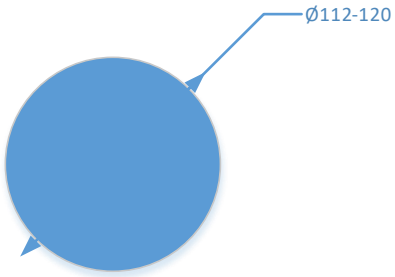
2. Before commencing road construction, a safety zone must be delineated using bollards with clear reflective films.

3. All electrical equipment and wiring must not be overloaded. Connections must be secure and tight to prevent overheating or short circuits.

4. Electrical safety: Electric drills must be equipped with leakage protectors, have complete protective casings, and effective grounding or zero connection. Rubber cables must not be damaged. Avoid unplugging tools or machinery with wet hands to prevent electric shocks.

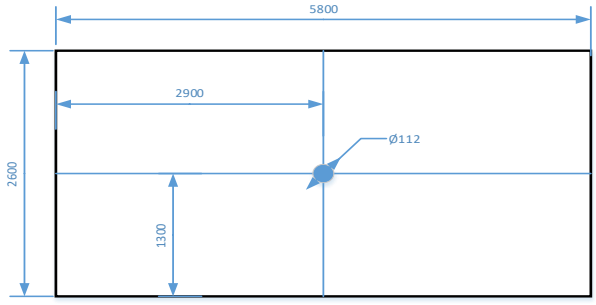
5. Vehicle usage: Vehicles used for construction (purchased, rented, or borrowed) must first comply with traffic regulations. Drunk driving, speeding, and other violations are strictly prohibited. Construction vehicles are not allowed to leave the designated construction area without company approval.

2. Dimensional Specification

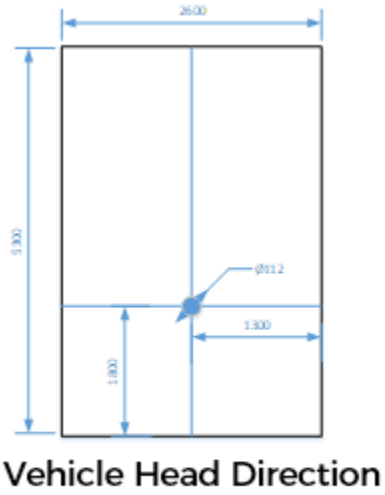
The geomagnetic dimensions are: 110*90mm.	Drill bit size for use: Optional 112-120mm (outer diameter).
	

3. Parking Space Detector Installation Position Instructions

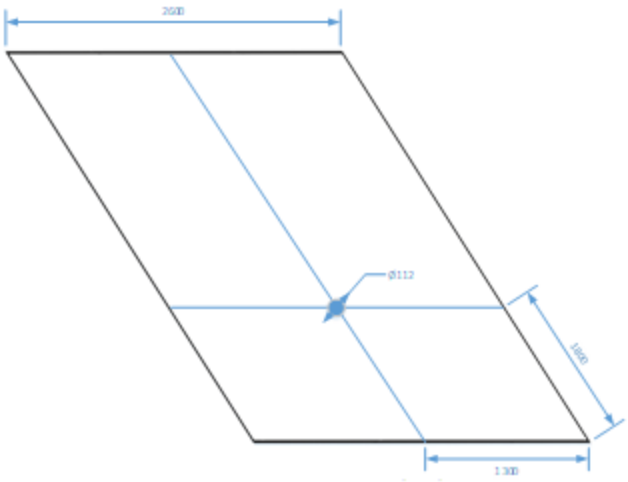
Linear Parking Space



Non-linear Parking Space



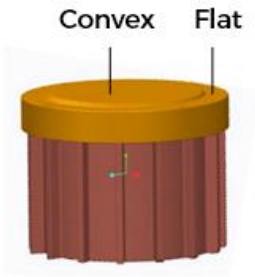
Angled Parking Space



Vehicle Head Direction

Note: For large parking spaces, the number of geomagnetic vehicle detectors can be buried according to project requirements.

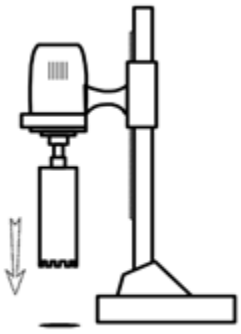
4. Detector Installation Instructions

Geomagnetic Diagram		
		

Note:

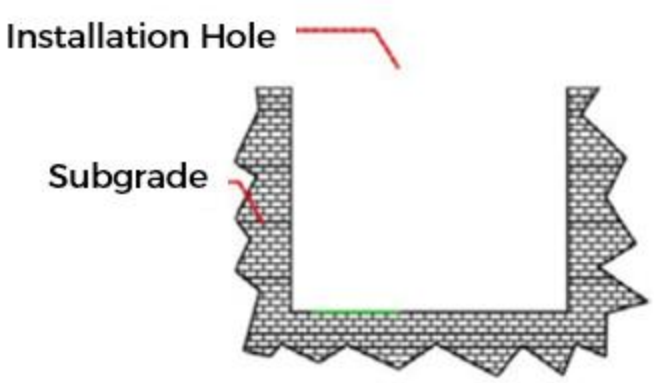
1) Record the number displayed on the device surface and note down the corresponding parking space number.
2) Avoid installing near ferromagnetic objects.
3) Insert the geomagnetic vehicle detector into the hole with the marked side facing upwards.
4) Ensure the detector is flush with the ground level, not below it. Do not cover the front of the detector with filling material. Fill the gaps with material, remove the protective film from the geomagnetic surface, and clean both the geomagnetic surface and the road surface to ensure there are no objects above the geomagnetic detector.
5) Before installation, please contact our technical support: sales@trafficlair.com.

Step 1: Reaming



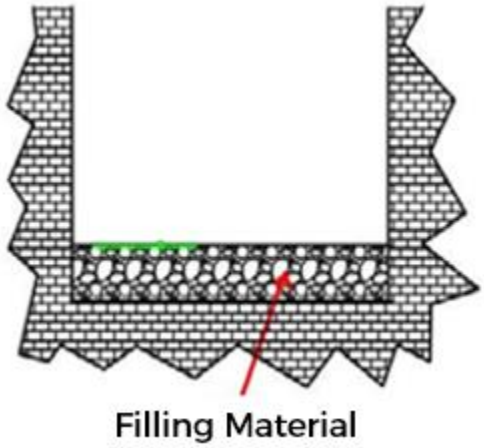
Drilling Installation Hole: Use a water drill with a diameter of no less than 112mm to drill at the specified position in the middle of the parking space to a depth of no less than 10cm.

Step 2: Bottom Hole Cleaning



Hole Preparation: Level the bottom of the hole, remove any protruding stones or concrete. Clear any accumulated water and dry the bottom of the concrete pit.

Step 3: Add Filling Material

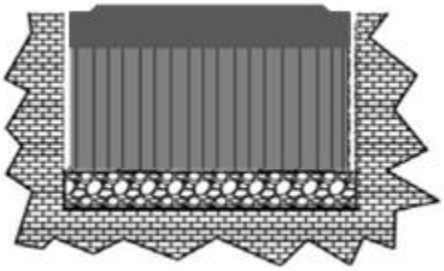


Add Filling Material: Mix fine sand and cement in a 1:1 ratio and place it at the bottom of the hole. Compact it with a specialized hammer until the surface is flush with the road surface. Then, pour cement slurry into the hole.

Step 4: Record Device ID Number

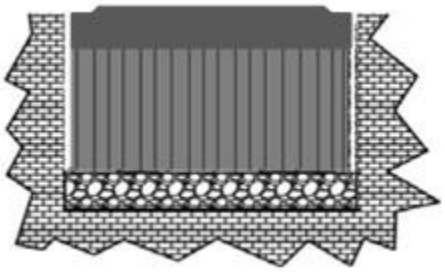
Record ID: Please record the detector ID number in the corresponding construction record table or a dedicated table. For example, Detector ID: 91360023.

Step 5: Install Detector



Install Detector: Place the detector into the installation hole with the front side facing up (the side with the logo). Gently tap with a rubber mallet to allow the detector to sink and the cement slurry to overflow, ensuring the surface is flush with the ground.

Step 6: Clean Concrete

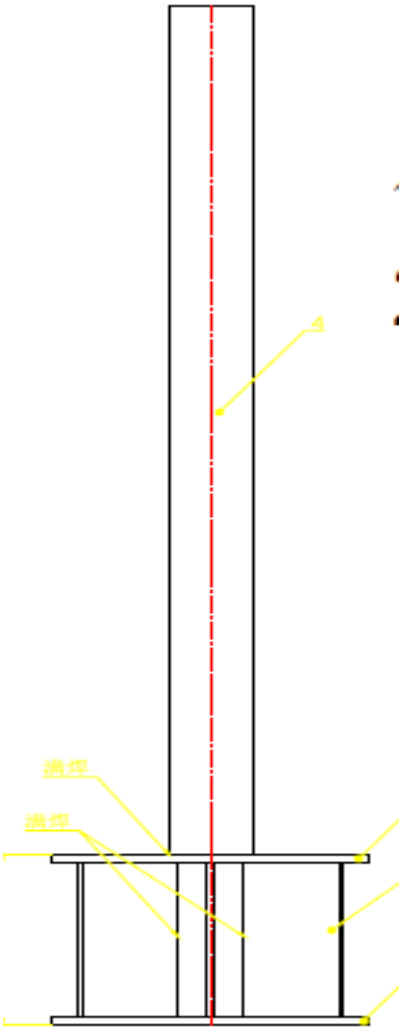


Clean Detector Surface: Remove the overflowed concrete and surrounding stones, peel off the protective film from the surface, and wipe the detector surface clean with a clean cloth.

Installation Completed Diagram



Installation Hammer Diagram


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5. Construction Tools

Attachment: Tools Required for Detector Installation

	Name	Attributes	Notes
Equipment Type	Detectors	Essential	Daily Installation Requirements
Tool Category	Car Mover (Mechanical Type)	Essential	For car moving, 4 are required.
	Notebook, Pen	Essential	
	Flashlight	Nighttime Essentials	
	Traffic Baton	Nighttime Essentials	
	Reflective Cone	Nighttime Essentials	Safety Requirements
	Reflective Vest	Nighttime Essentials	Safety Requirements
	Large "One-Way" Traffic Cone	Essential	
	Water Drill	Essential	
	Water Drill Bit	Essential	Between ∮112-120mm
	Hammer, Chisel	Essential	Two of each for Core Sampling
	Generator	Essential	Powering the Water Drill
	Power Cord	Essential	Powering the Water Drill
	Bucket	Essential	Cooling Water Drill
	Measuring Tape	Essential	Five-Meter Range
	Gloves	Optional	
	Clean Water	Essential	
	Specialized Hammer	Essential	
	Rubber Mallet	Essential	
	Fine Sand	Essential	Cement and Fine Sand Mixture for Filling
	Cement	Essential	Cement and Fine Sand Mixture for Filling
	Brush	Essential	
Manual Labor Category	Clearance Vehicle		Scrapped Vehicles, Immobile Vehicles