



CartControl

Cart Containment Systems

INSTALLATION GUIDE V1.2



THE LEADING PROVIDER OF INTELLIGENT CART SOLUTIONS

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THE PROBLEM FACING TODAY'S RETAILER

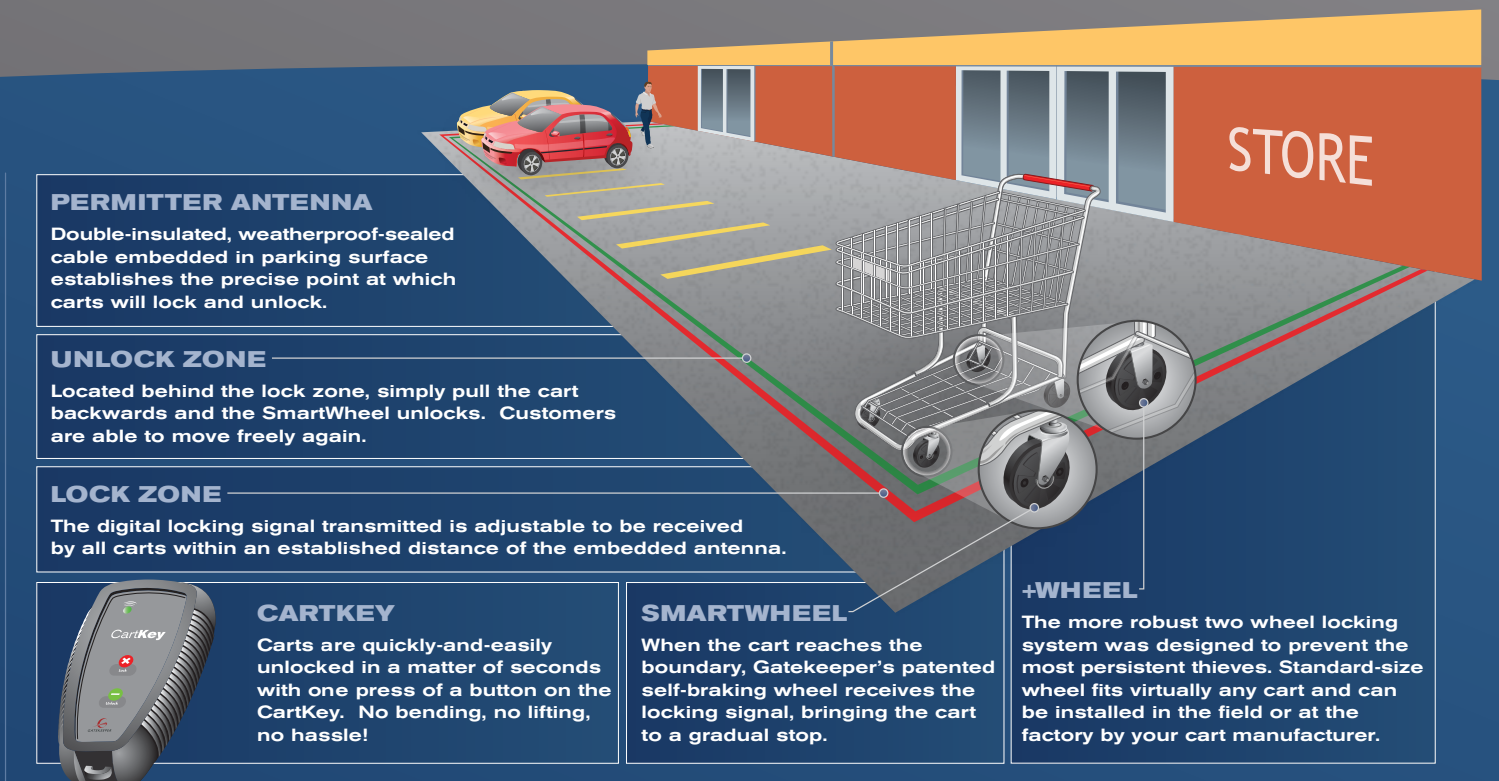
Shopping carts taken from store premises translate into a substantial revenue drain for today's retailer. The costs of retrieving, repairing, and replacing lost carts are a significant threat to profits. And, the problem doesn't stop at the bottom line. Inventory shortages affect customer satisfaction and stray carts create a nuisance for the surrounding community in addition to posing serious liability risks. The problem has become so significant that a number of cities are now mandating the stores implement a cart containment solution or face stiff penalties.

THE GATEKEEPER SOLUTION

Fortunately, there is a solution to this growing problem. The CartControl and CartControl+ Cart Containment Systems effectively addresses the challenge of containing carts while preserving a user-friendly shopping experience. The CartControl and CartControl+ Systems leverage innovative technology, state-of-the-art components, and a team of highly-trained service professionals to provide the most comprehensive cart containment system on the market.

INSTALLATION AND IMPLEMENTATION

Gatekeeper Systems takes pride in providing the highest quality installations that reflect out industry-leading experience, expertise, and commitment to professionalism. The experience we've gained performing flawless installations all over the world translates into a core philosophy that serves as the foundation for every CartControl and CartControl+ System installation.



- The CartControl and CartControl+ installations begin with a thorough site survey performed by an experienced field service professional. Based on the survey, Gatekeeper creates a detailed site plan for the installation.
- The highest priority is placed on creating the most effective and efficient installation with minimum intrusion or disturbance. Gatekeeper adheres to the Universal Building Code as well as all state and county building regulations.
- Gatekeeper holds a comprehensive \$2 million insurance policy for installation.
- Special care is taken to preserve all handicap parking and access ramps.
- Gatekeeper is ready to work with property managers/owners to accommodate any specific installation requirements.

Installation

Once the site plan is finalized and approved by the proper authorities, the installation to be performed during off-peak hours to avoid disruption of business. Upon arrival, a team of certified Field Service Technicians will prepare the site for installation. In order to safeguard patrons, work areas are clearly designated and protected. *There are three main components to the system:*

CENTRALTRANSMITTER

What is it? The CentralTransmitter is a compact, rugged steel enclosure that houses the digital circuitry responsible for generating the locking signal.

What does it do? The unit transmits a digitally-encoded radio frequency (RF) signal that travels through a cable embedded in the ground along the designated perimeter boundary. The signal triggers the SmartWheel installed on each shopping cart to lock whenever the cart reaches the boundary.

How is it installed? The CentralTransmitter is typically wall-mounted in a secure area inside the store, most often in the receiving area or one of the store offices. Small holes are drilled in the wall to securely fasten the transmitter. An additional exit hole is drilled to enable the cable to travel outside the store.



CUSTOMER AWARENESS COMPONENT

What is it? A series of bright yellow stripes are painted at all major exit points along the parking lot perimeter. The striping features distinctive “no cart” symbols. In addition to the striping, metal signs are installed throughout the parking lot to caution customers that their carts will lock if taken beyond the perimeter boundary.



What does it do? Striping and signage is designed to properly notify customers about the presence of the system and to serve as a reminder to customers that their shopping carts will lock if the attempt to cross the perimeter boundary.

How is it installed? Perimeter striping is uniformly measured, masked, and painted with highway-grade traffic paint. Signs are attached to existing light stanchions and/or signposts in the parking lot. Signs will not be mounted on any structure outside of the store's parking lot domain.



Property owner/manager, Gatekeeper will schedule the installation to avoid any interruption of normal business operation.

Gatekeeper will perform a final review of the site plan and address any concerns and avoid any disturbance to tenants, all

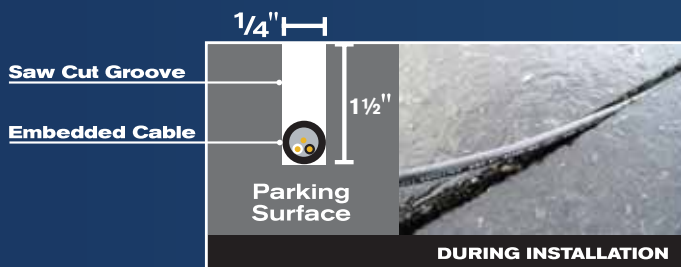
consist of three main elements to each CartControl and CartControl+ System installation.

PERIMETER ANTENNA

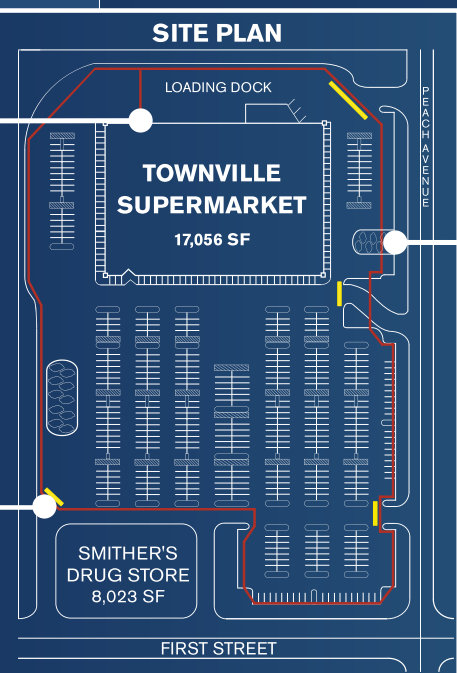
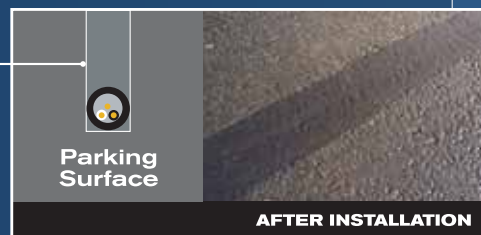
What is it? The Perimeter Antenna is a one-quarter-inch diameter, double-insulated cable that runs from the CentralTransmitter, around the perimeter, and back to the transmitter. The cable is embedded in the existing parking lot surface in order to protect it from traffic and the elements.

What does it do? The Perimeter Antenna carries the locking signal from the CentralTransmitter and establishes the precise point at which carts will lock.

How is it installed? In order to embed the cable in the existing parking lot surface, a small, precision saw cut is made around the designated parking lot perimeter. The groove is one-quarter-inch wide and one-and-a-half-inch deep. After the groove is cleaned of all debris, the cable is embedded and the groove is sealed to the original surface level using a weatherproof sealant that matches the color of the existing surface—be it asphalt or concrete.



Groove Sealed and Levelled



If it is necessary to route the antenna cable through a landscaped area, the area is carefully excavated to a depth of six-to-eight inches. The cable is encased in PVC pipe and placed in the ground, after which the landscaped area is restored. All transitions between asphalt, concrete,



landscaping, and building are carefully planned and seamlessly installed.

At any point where the cable travels up, down, or over any structure, it will be encased in steel tubing known as conduit, in order to protect the cable from impact or corrosion. The conduit is routed as discreetly as possible to maintain the building's architectural integrity.

COMMON QUESTIONS AND CONCERNS

Will a trench be dug in the parking lot? No. The Perimeter Antenna cable is only a quarter-inch in diameter, so only a small quarter-inch wide by one-and-half-inch deep saw cut is required. Gatekeeper uses a compact, precision saw-cutting machine to achieve the straightest, most uniform groove lines. Once the groove is sealed the area is thoroughly cleaned.

Will the locking signal interfere with any other electronic devices? The CartControl or CartControl+ signal are Very Low Frequency (VLF) and are encrypted for the specific purpose of locking Gatekeeper customized shopping cart wheels. All CartControl and CartControl+ components comply with FCC Part 15.

How long does the installation take? The majority of installations are completed in only a few days.

Will the embedded antenna groove cause the asphalt to “heave” in extremely cold weather? No. “Heaving” is caused by weather seeping into the ground, freezing, and pushing up pavement. To ensure that all saw cut grooves are impermeable to water a waterproof sealant is used.

TECHNICAL SPECIFICATIONS



SMARTWHEEL AND +WHEEL

Form Factor:	Standard-size wheel with replaceable non-marring anti-static rubber tread, sealed precision ball bearings, and standard caster.
Dimensions:	5" diameter x 1.25" width.
Power Source:	One replaceable CR123A 3-volt lithium battery.
Electronics Housing: (Hubs)	High-tensile strength reinforced plastic with glass strands for extra strength and durability; dual O-rings provide watertight seal.
Load Rating:	180 lbs.
Battery Life:	Approximately 4,000 cycles (one lock and one unlock).
Environmental:	Operating Temperature Range: -10° F to 140° F.



CENTRALTRANSMITTER

Form Factor:	High-strength steel enclosure protected by key lock.
Dimensions:	12.5" high x 10.5" wide x 4.5" deep.
Power Supply:	110/220 Alternating current transformer; ETL/CSA/CE Certified.
Signal Output:	Below 9 KHZ (VLF) and complies with FCC Part 15.
Output Current:	1 AMP peak-to-peak.



CARTKEY

Form Factor:	Water-tight, high-strength plastic with shock-resistant rubber boot; touch pad features two individual sealed dome switches labeled “Lock” and “Unlock”.
Dimensions:	6.25" high x 3.5" wide x 1.25" deep.
Power Source:	Field-serviceable CR123A 3-volt lithium battery identical to the one installed in the SmartWheel and +Wheels.
Signal Output:	Below 9KHZ (VLF) and complies with FCC Part 15.
Signal Range:	4' maximum range; optimal signal range: 18" – 48".



PERIMETER ANTENNA

Cable:	14-guage (AWG), double-insulated wire.
Dimensions:	Outside diameter: 0.25".

Keep Your Fleet with Gatekeeper's Cart Containment Systems

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