



# Nexgen and Nexgen2

*Specification Guide*

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# Nexgen2 Collector Keys

Nexgen2 Collector Keys are direct replacements for the original Nexgen key. These keys are designed for the demanding needs of the route management industry. Nexgen2 Collector Keys are extremely durable, and come with water-resistant all-metal housing with a potted circuit board for extreme environmental protection.



## **Nexgen2 Collector Keys can be programmed to perform any one of the four following functions:**

- User: Standard function to unlock cylinders
- Audit: Upload audit data from cylinder to database
- Operator with Audit: Unlock cylinders and collect audit from cylinders
- Collector: Used in parking applications where canisters are being utilized

Nexgen2 Collector Keys support dynamic memory allocation to maximize functionality.

### **In User Mode**

- Stores a minimum of 14,000 cylinders to be opened – this may be a route or cylinder list
- Stores a minimum of 10,000 audit events
- The more cylinders you store the fewer events you will store, and vice-versa.

### **In Collector Key Mode**

- Stores a minimum of 13,000 cylinders (with one canister programmed).
- Stores a minimum of 10,000 key audits (for one canister and one cylinder programmed).
- The more cylinders you store the fewer events you will store, and vice-versa.

### **Nexgen2 Collector Keys communicate via BLE (Bluetooth Low Energy).**

- Touch-activated feature to turn BLE communication on or off
- Keys automatically shut down BLE communication after a set period of time of inactivity to conserve battery life.
- Keys communicate via a mobile application on either Apple iOS or Android OS.
  - Activation period can be set from one day to 365 days
  - Start and end time of day and days of week can be selected per key
  - Rechargeable Battery life lasts up to 3,500 cylinder openings on a full charge
  - Low Battery level indication via LED is reported during cylinder opening and at time of programming
  - Extremely durable steel key tip that is replaceable
  - Three easily replaceable data contacts: gold-plated, spring loaded, pogo-pin style.
  - Dimensions: Diameter = 1-5/8"; Length = 4-3/8"
  - Weight: .481lbs.

# Lock Cylinder Specifications

Nexgen lock cylinders are designed with a stainless steel plug face and shell to withstand the harsh environmental conditions in the vending and parking industries.

- Absence of keyway deters vandalism; prevents loss from surreptitious key duplication
- Cylinders have a stainless steel plug face and shell that resist adverse environmental conditions
- Non-volatile memory stores 2,000 audit events (oldest record deleted after 2,000 events)
- Locks support a FIFO system (First in, first out)
- Automatically “stores” unauthorized entry attempts from keys that:
  - Are not in the correct system – [Key] NOT IN SYSTEM
  - Are outside scheduled date, time, or day of week – [Key] OUT OF SCHEDULE
  - Not programmed to open specific cylinder – [Lock] NOT ON ROUTE
- Security
  - Cylinder has drill resistant inserts to guard against drilling attacks
  - Cylinder has break-away plug face to fail secure in the event of over-torquing attacks
- Cylinders are available in a variety of cylinder configurations including, but not limited to, 7/8” and 1-1/8” cam locks springbolt and deadbolt T-Handle popout cylinders, Euro profile, and Rim Cylinders, parking meter doors, etc.
- Cylinders are available in G8R padlock. Removable core kits may also be equipped with Nexgen cylinders
- See page 4 below for hardware test data



# Nexgen Programmers

## Nexgen2 Multi-Key Programmer

The Multi-key programmer is designed to store, charge, and program up to nine Nexgen2 keys.



- Utilizes the new Multi-Key client service (downloaded from XT Web Manager)
  - Allows for simultaneous key programming
  - Allows Admin to choose key programming priority
- The programmer has nine Key Programming/Charging Ports
  - Ports are not powered until key is inserted and rotated
- The programmer plugs into a standard USB port and uses an AC power supply (both USB cable and power supply are included)
- Multiple units are be used per system (requires open USB port)
- Each key port has a dedicated LED to show charging and programming status.
- Supports Desktop and Wall Mount Installations
- Contains Micro USB Port
- Power Supply(included)
  - Input: 100-240V 0.6A 50-60Hz
  - Output: 12VDC 2.0A
- Heavy-duty steel enclosure for durability and includes rubber feet for stability
- Dimensions: 9-5/8" x 8-1/4" x 1-7/8"
- Weight: Approximately 4.75lbs.

## Nexgen2 Desktop Programmer

The Desktop Programmer allows for ease of Nexgen2 key programming via USB connection to a Windows-based PC.



- Small footprint for easy transport
- Durable plastic housing
- Powered via micro-USB cable
- Nexgen2 key interface/dock for programming
- Charges and programs Nexgen2 keys
- LED for programming/charging feedback
- Dimensions 2.77" x 1.76" x .75"

# Cylinder and Key Technical Specifications

The following summarizes the Design Qualification and Specifications of the Nexgen Cylinders and Keys incorporating Medeco's NEXGEN Technology:

## **Environmental Qualification – NEXGEN Cylinders**

- Extreme high temperature: 160° F (60°C)
- Extreme low temperature: -40°F (-40°C)
- Extreme temperature cycling: -40°F to 160°F
- Salt Fog: Greater than 48 hours, in accordance with ASTM-B-117

## **Electronic Testing – NEXGEN Cylinders, Keys, and Key Docking Stations**

- ESD Protection: +/- 15kV
- Over-voltage Protection: Cylinder Security Protected

## **Mechanical Qualification – NEXGEN Cylinders**

- Plug Front Breakaway Torque: Plug front successfully spins and cylinder remains secure (90 In-Lb)
- Shock and Vibration: Test samples withstood the vibration conditions specified without physical damage, and exhibited normal performance
- Drill Testing: High resistance to high-speed steel and carbide drills.
- Drop Testing: Key and Cylinder resistant to over 6-foot drop

## **Independent Vibration Testing – NEXGEN Cylinders**

- Sine Sweep
  - 5 to 2000 Hz, at an input level of 1G.
  - Front to Back Axis
  - Side to Side Axis
  - Top to Bottom Axis
- Slow Sweep – Resonant Frequency
  - 10% to +10% of sample resonant frequency, at an input level of 1G
- Slow Sweep – Low Frequency
  - 69Hz to 84Hz, at an input level of 1G

## **CE Approval – NEXGEN Cylinders**

- Radiated Emissions – Generic (EN 61000-6-4:2001/CISPR 11:1999 Class A)
- Electrostatic Discharge Immunity (EN 61000-6-2:2001/IEC 61000-4-2:2001)
- Radiated Disturbance Immunity (EN 61000-6-2:2001/IEC 61000-4-3:1995, A2:2000)

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