COGNEX

Multi-Battery Charger
Quick Start Guide

2023 June 27

Revision: 23.2.1.4

Precautions

To reduce the risk of injury or equipment damage, observe the following precautions when you install the Cognex product:

- This product is intended for industrial use in automated manufacturing or similar applications.
- The safety of any system incorporating this product is the responsibility of the assembler of the system.
- Do not install Cognex products where they are exposed to environmental hazards such as excessive heat, dust, moisture, humidity, impact, vibration, corrosive substances, flammable substances, or static electricity.
- Route cables and wires away from high-current wiring or high-voltage power sources to reduce the risk of damage or malfunction from the following causes: over-voltage, line noise, electrostatic discharge (ESD), power surges, or other irregularities in the power supply.
- This product does not contain user-serviceable parts. Do not make electrical or mechanical modifications to product components. Unauthorized modifications can void your warranty.
- Changes or modifications not expressly approved by the party responsible for regulatory compliance could void the user's authority to operate the equipment.
- Include service loops with cable connections.
- Ensure that the cable bend radius begins at least six inches from the connector. Cable shielding can be degraded or cables can be damaged or wear out faster if a service loop or bend radius is tighter than 10X the cable diameter.

- This device should be used in accordance with the instructions in this manual.
- All specifications are for reference purposes only and can change without notice.

Symbols

The following symbols indicate safety precautions and supplemental information:

WARNING: This symbol indicates a hazard that could cause death, serious personal injury or electrical shock.

CAUTION: This symbol indicates a hazard that could result in property damage.

Note: This symbol indicates additional information about a subject.

Tip: This symbol indicates suggestions and shortcuts that might not otherwise be apparent.

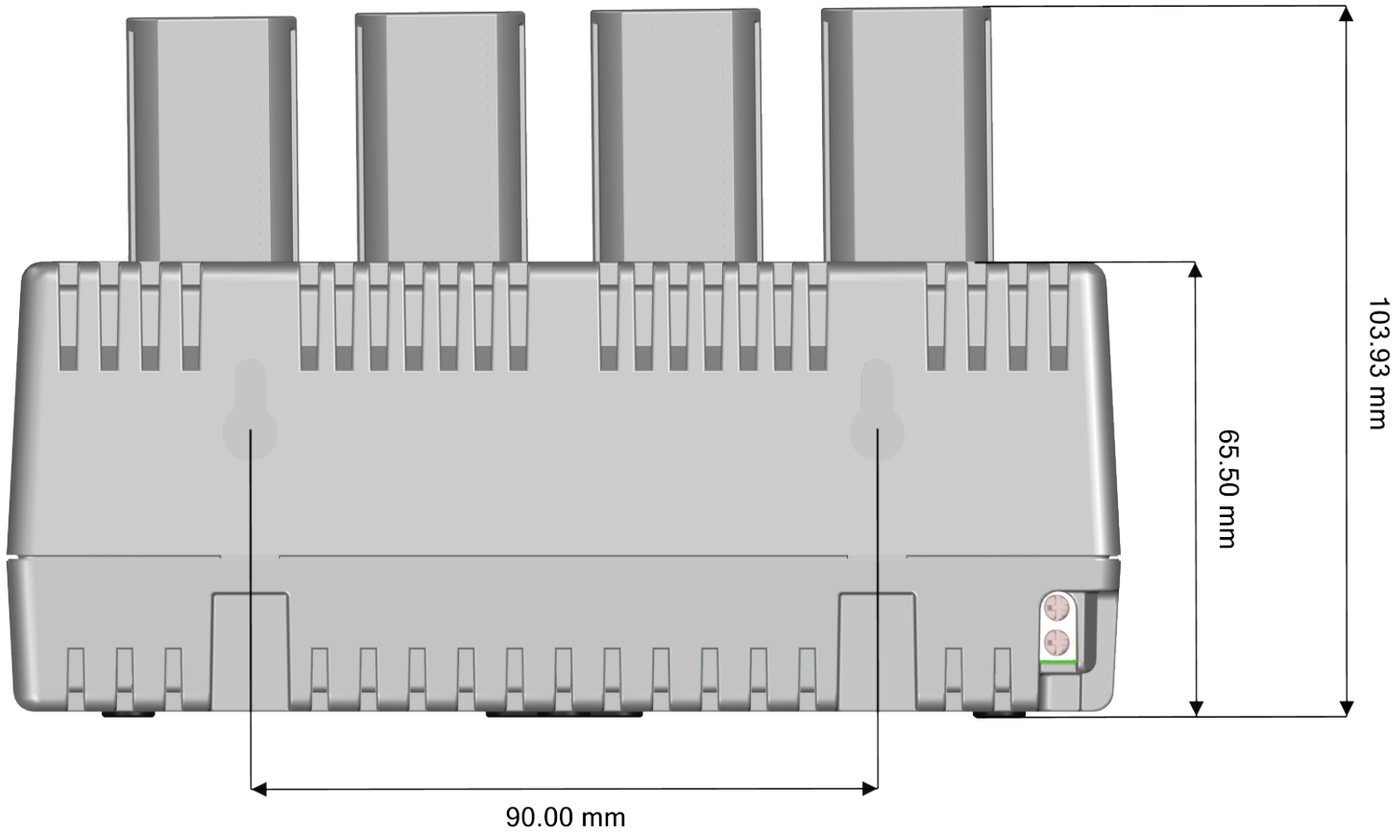
About Multi-Battery Charger

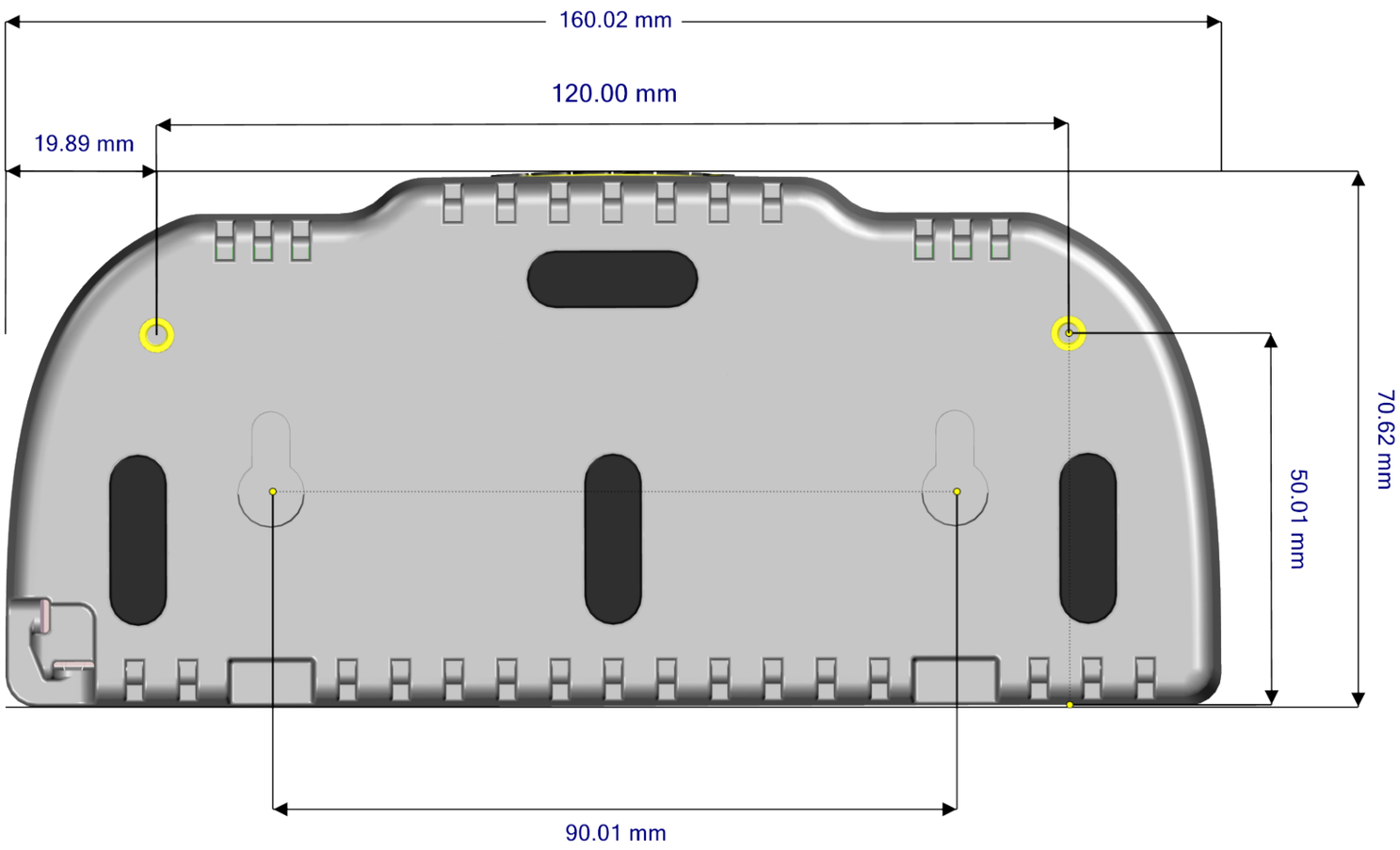
Multi-Battery Charger is an accessory to the DataMan 8700 reader. The charger is capable of charging up to four DM8700 batteries[1] simultaneously.

- Four independent charging paths that can operate separately or simultaneously
- Automatic connection detection for empty batteries
- Automatic charging cycle starts without user interaction
- Maximum charging time:
    - Fast charging: 2.5 hours for DM8700 4500 mAh batteries
    - Standard charging: 5 hours for DM8700 4500 mAh batteries
- Very robust industrial construction
- Resistant against vibration and drop

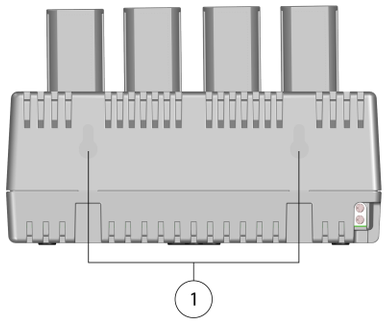
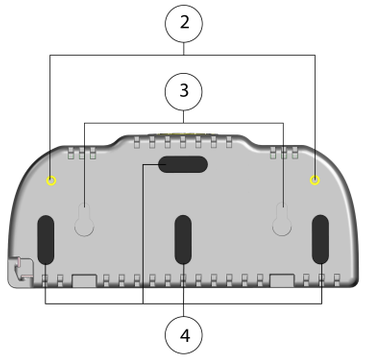
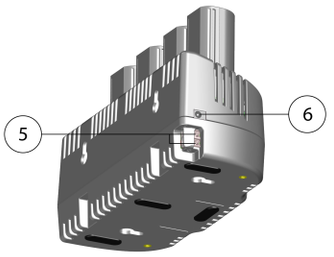
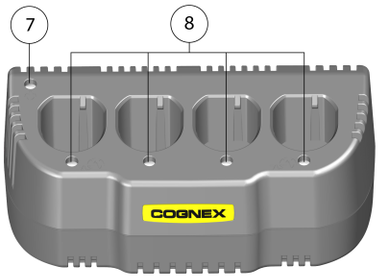
[1] The Multi-Battery Charger Kit does not include DM8700 batteries.

Dimensions




160.02 mm
120.00 mm
19.89 mm
70.62 mm
50.01 mm
90.01 mm

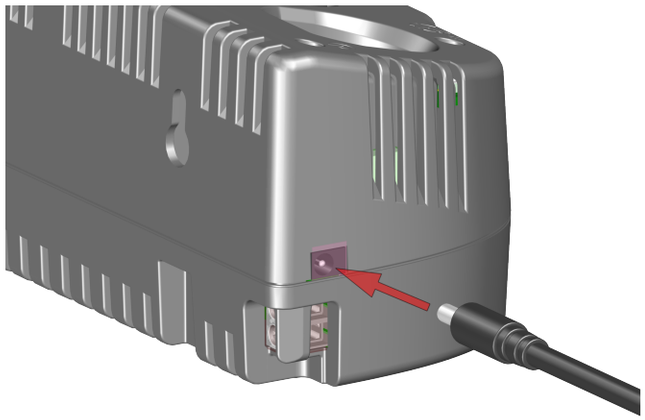
Multi-Battery Charger Layout

Layout		
1	Mounting keyholes	
2	M3 threaded inserts	
3	Mounting keyholes	
4	Rubber feet to prevent slipping	
5	24 V Screw Lock connector	
6	24 V Jack connector	
7	Power indicator	
8	Battery charging indicators	

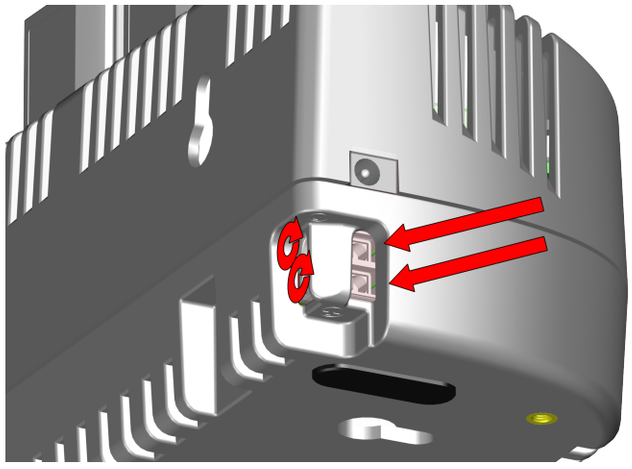
Connecting Power

To connect a power supply to the battery charger:

- Connect the 24 VDC power supply to the 24 V Jack connector.



- If you do not have a 24 VDC power supply with a Jack connector, first loosen the terminal locking screws, connect two wires to the 24V terminal block, and then secure the wires using the locking screws.



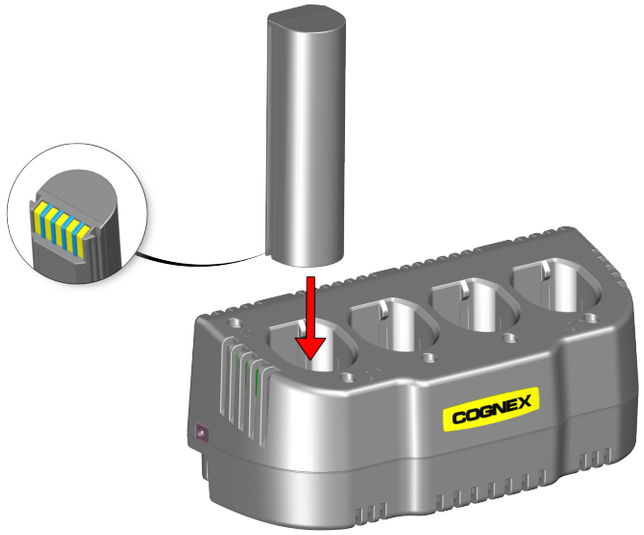
Note: Make sure that the device is oriented vertically. Do not mount the device at an angle.

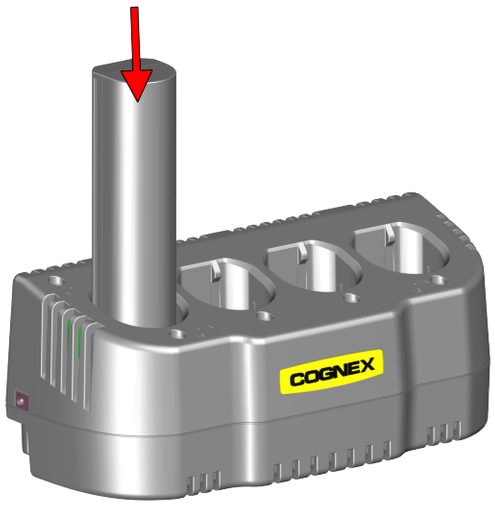
Charging Batteries

Multi-Battery Charger has two charging modes:

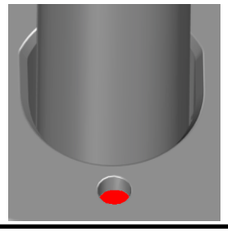
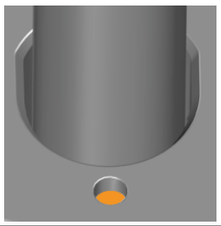
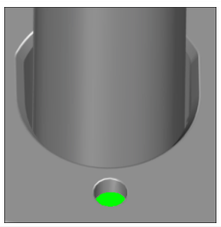
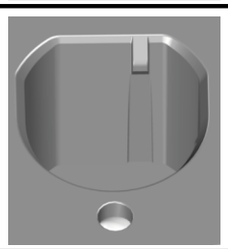
- Fast charging
- Standard charging

To initiate either of the charging modes, insert DM8700 battery into an empty charging slot with the connector plates of the battery pointing down.





Charging indicator color codes

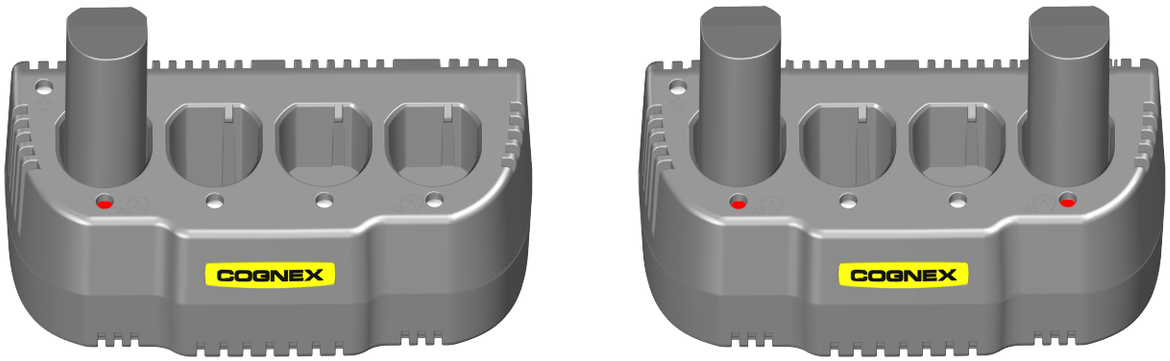
Color	Battery charging indicator	Status
RED		Fast charging
ORANGE		Standard charging
GREEN		Done charging
OFF		No battery

Fast Charging

Fast charging is only available in two slots, in the far right and left slots.

Note: If batteries are also inserted into the standard charging slots, fast charging is disabled, and only standard charging is possible, even in the fast charging slots.

1. Place the batteries into either or both of the two fast charging slots. Up to two batteries can use fast charging at a time.



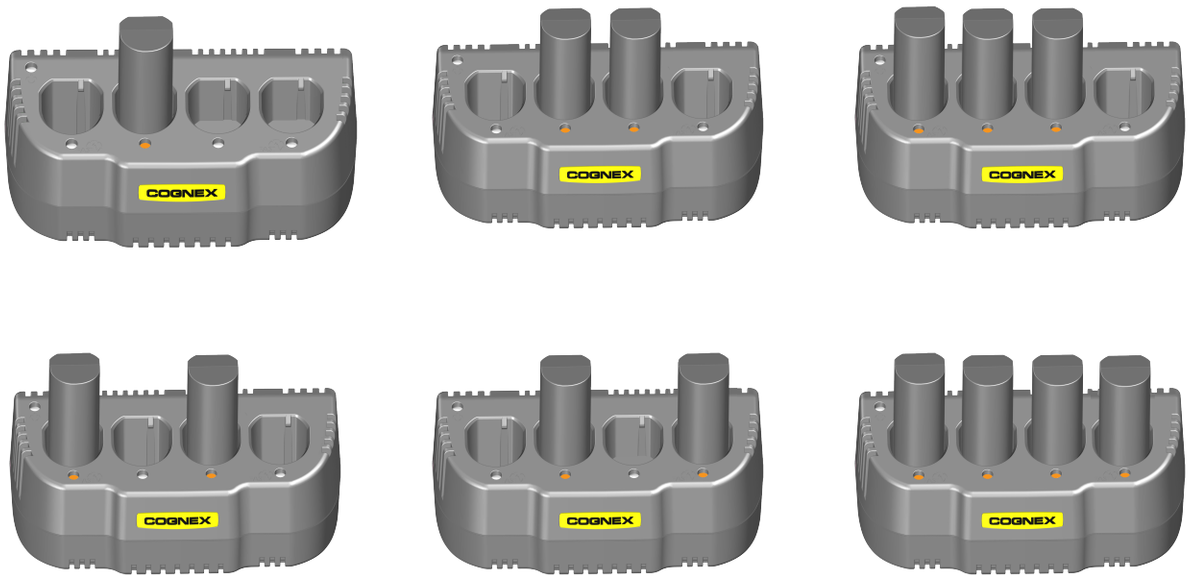
2. Press down the battery until you hear the battery snap in place.
3. If the charger is connected to a power source and the battery needs charging, the fast charging sequence starts automatically, indicated by red battery charging indicators. Fully charged batteries are indicated by green battery charger indicators.
4. To remove a battery from the charger, simply pull out the battery from the charging slot.

Standard Charging

All slots are capable of standard charging, but the second and the third slots are only capable of standard charging.

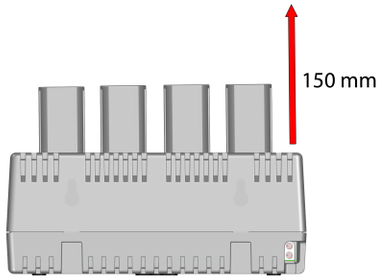
1. Insert one or more batteries into the empty charging slots with the connector plates of the batteries pointing down.
2. Press down the battery until you hear the battery snap in place.
3. If the charger is connected to a power source and the batteries need charging, the charging sequence starts automatically, indicated by orange battery charging indicators. Fully charged batteries are indicated by green battery charger indicators.
4. To remove a battery from the charger, simply pull out the battery from the charging slot.

Examples for standard charging:

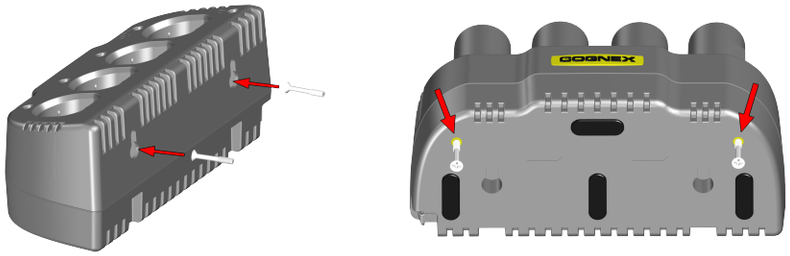


Mounting

When mounting the battery charger, leave at least 150 mm (5.9 inch) above the unit to allow batteries to be inserted and removed.



Use the mounting keyholes or the M3 threaded inserts to securely mount the Multi-Battery Charger on a wall, or other flat, solid surfaces.



Make sure that the wires are not pinched or bent and the charger is not mounted in a corner.

Note: Make sure that the device is oriented vertically. Do not mount the device at an angle.

Specifications

Specifications	
Weight	180 g (without batteries)
Operating Temperature	0°C – 45°C (32°F – 113°F)
Storage Temperature	-40°C – 60°C (-40°F – 140°F)
Maximum Humidity	10 – 90% RH
Storage humidity	10 – 95% RH
Environment Standards:	RoHS 2011/65/EU WEEE Directive 2002/96/EC
Vibration Tolerance	0.2'' (5.1 mm) p-p from 5 Hz to 22 Hz Acceleration of 5 g from 22 Hz to 300 Hz Environment temperature: 20 +/- 5°C
Drop Tolerance	Drops from 1m: 4 drops / 6 side. Total 24 drops. Without battery.
Supported Batteries	DM8700 battery 4500 mAH

Power	input	• THT style 1.3/3.5 mm DC Jack • 5 mm pitch Terminal Block Header - recommended wire diameter is 14-18 AWG
	requirements	24 VDC, min 1.0A
	consumption	up to 24W
Functional Specifications	Charging four DM8700 battery simultaneously Battery charge :10 ~ +45°C (Standard Charge) 0~10°C, 45~60°C (JEITA Charging) Battery discharge :-20 ~ +60°C Charging slots: - 2pcs fast charging slot with 2.5 A charger current - or 4 pcs normal charging slot with 1.25 A charger current One battery charging time: - fast charging slot: 2.5 hours - normal charging slot: 5 hours	

Regulations/Conformity

Note: For the most current CE declaration and regulatory conformity information, see the Cognex support site: cognex.com/support.

Safety and Regulatory	
Manufacturer	SINBON No. 582, Kuo Hwa Road, Miaoli 360, Taiwan
Designer	Cognex Corporation One Vision Drive Natick, MA 01760 USA
CE	Multi-Battery Charger: Regulatory Model: Ibase This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take immediate measures. This equipment complies with the essential requirements of the EU Directive 2014/30/EU. Declarations are available from your local representative.
EU RoHS	Compliant to the most recent applicable directive.
FCC	FCC Part 15, Class A This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.
Korea	Multi-Battery Charger: Regulatory Model: Ibase 이 기기는 업무용 환경에서 사용할 목적으로 적합성평가를 받은 기기로서 가정용 환경에서 사용하는 경우 전파간섭의 우려가 있습니다.
NRTL	TÜV RH AM SCC/NRTL OSHA Scheme for UL/CAN 62368-1.
CB	TÜV RH AM, IEC/EN 62368-1. CB report available upon request.

China RoHS

	Hazardous Substances 有害物质					
Part Name 部件名称	Lead (Pb) 铅	Mercury (Hg) 汞	Cadmium (Cd) 镉	Hexavalent Chromium (Cr (VI)) 六价铬	Polybrominated biphenyls (PBB) 多溴联苯	Polybrominated diphenyl ethers (PBDE) 多溴二苯醚
Regulatory Model **Ibase**	X	O	O	O	O	O

This table is prepared in accordance with the provisions of SJ/T 11364.
这个标签是根据SJ / T 11364 的规定准备的。

O: Indicates that said hazardous substance contained in all of the homogeneous materials for this part is below the limit requirement of GB / T26572 - 2011.
表示本部件所有均质材料中含有的有害物质低于GB / T26572 - 2011 的限量要求。

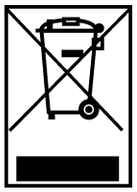
X: Indicates that said hazardous substance contained in at least one of the homogeneous materials used for this part is above the limit requirement of GB / T26572 - 2011.
表示用于本部件的至少一种均质材料中所含的危害物质超过GB / T26572 - 2011 的限制要求。

For European Community Users

Cognex complies with Directive 2012/19/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 4 July 2012 on waste electrical and electronic equipment (WEEE).

This product has required the extraction and use of natural resources for its production. It may contain hazardous substances that could impact health and the environment, if not properly disposed.

In order to avoid the dissemination of those substances in our environment and to diminish the pressure on the natural resources, we encourage you to use the appropriate take-back systems for product disposal. Those systems will reuse or recycle most of the materials of the product you are disposing in a sound way.


The crossed out wheeled bin symbol informs you that the product should not be disposed of along with municipal waste and invites you to use the appropriate separate take-back systems for product disposal.

If you need more information on the collection, reuse, and recycling systems, please contact your local or regional waste administration.

You may also contact your supplier for more information on the environmental performance of this product.