

USER MANUAL



CR7020

MANUAL VERSION 1.0
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codecorp.com

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code®
REVOLUTIONIZING BARCODE READING

Note from the Code Team

Thank you for purchasing the CR7020! Approved by infection control specialists, the CR7000 series is fully enclosed and built with CodeShield® plastics, known to withstand the harshest chemicals used in the industry. Made to protect and extend the battery life of Apple's iPhone® 8 and SE (2020), the CR7020 will keep your investment safe and clinicians on the go. The DragonTrail™ glass screen provides another layer of quality for the highest level of protection on the market. Easily swappable batteries keep your case running as long as you are. Don't wait for your device to charge again—unless that's how you prefer to use it, of course.

Made for enterprises, the CR7000 series product ecosystem provides a durable, protective case, flexible charging methods, and a battery management solution so you can focus on what matters.

We hope you enjoy your enterprise mobility experience. Have any feedback? We'd love to hear from you.

Your Code Product Team

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Expect More.



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Case and Accessories

The following tables summarize the parts included within the CR7000 series product line. More product details can be found on [Code's website](#).

Product Kits

<u>Part Number</u>	<u>Description</u>
iPhone 8/SE	
CR7020-PKX2U-8SE	Code Reader Kit - CR7020 (iPhone 8/SE Case, Light Gray, Palm), Battery, Spare Battery, 3-ft. Straight USB Cable
CR7020-PKX2X-8SE	Code Reader Kit - CR7020 (iPhone 8/SE Case, Light Gray, Palm), Battery, Spare Battery
CR7020-PKXBX-8SE	Code Reader Kit - CR7020 (iPhone 8/SE Case, Light Gray, Palm), Battery Blank
CR7020-PKXXU-8SE	Code Reader Kit - CR7020 (iPhone 8/SE Case, Light Gray, Palm), Battery, 3-ft. Straight USB Cable
CR7020-PKXXX-8SE	Code Reader Kit - CR7020 (iPhone 8/SE Case, Light Gray, Palm), Battery

<u>Part Number</u>	<u>Description</u>
CRA-A172	CR7018/CR7020 5-Bay Charging Station and 3.3 Amp US Power Supply
CRA-A175	CR7018/CR7020 10-Bay Charging Station and 3.3 Amp US Power Supply
CRA-A176	Code Reader Accessory for CR7018/CR7020 - Charger Upgrade Package (Split Cable Adapter, 5-Bay Battery Charging Station)

Cables

<u>Part Number</u>	<u>Description</u>
CRA-C34	Straight cable for CR7000 series, USB to Micro USB, 3 ft (1 m)
CRA-C70	Split Cable Adapter for 10-Bay Charger

Accessories

<u>Part Number</u>	<u>Description</u>
CRA-B718	CR7018/CR7020 Battery
CRA-B718B	Code Reader Accessory for CR7018/CR7020 - Battery Blank
CRA-P31	3.3 Amp US Power Supply
CRA-P4	US Power Supply - 1 Amp USB Wall Adapter

Services

<u>Part Number</u>	<u>Description</u>
SP-CR720-E108	Code Reader Accessory for CR7020 - Replacement Top Plate for iPhone 8/SE (2020), 1 count

*Other CR7000 series [service](#) and [warranty](#) options can be found on Code's website

Unpacking and Installation

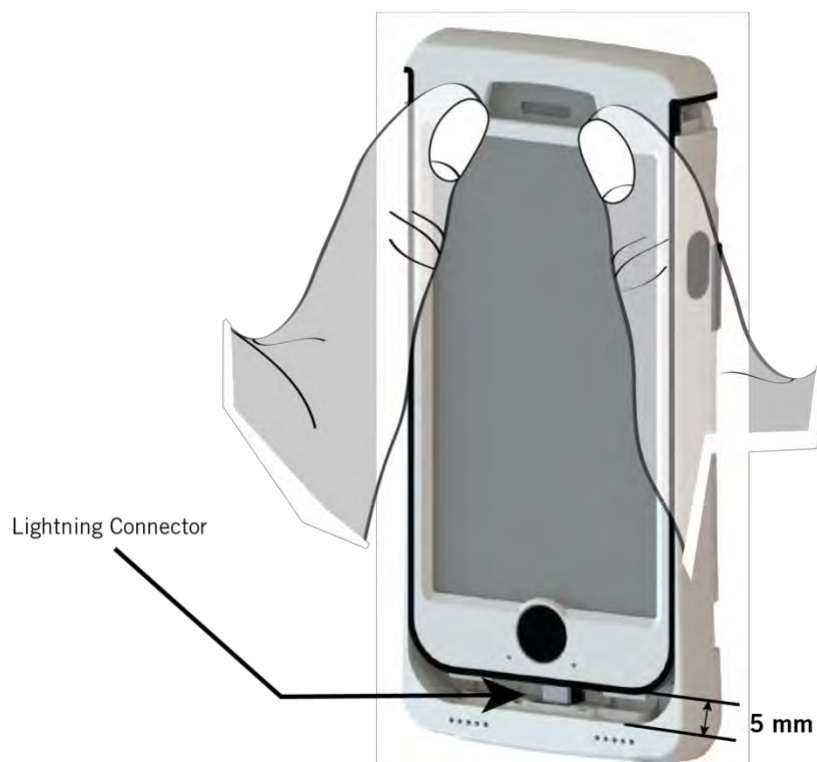
Read the following information before unpacking or assembling the CR7020 and its accessories.

Inserting iPhone

The CR7020 houses Apple's iPhone 8/SE (2020) models.



The CR7020 case will arrive with the top and bottom carriage connected. With a thumb on the right and left side of the speaker opening, push up approximately 5 millimeters to clear the lightning connector.

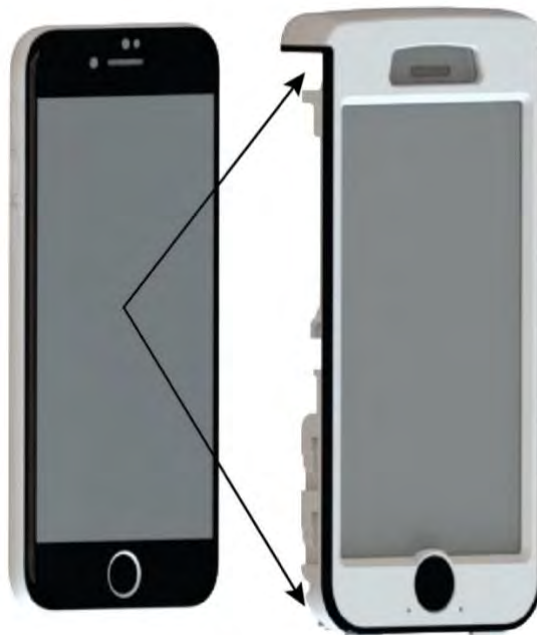


Pull the top plate toward you, away from the bottom carriage. Do NOT try to slide it all the way up.



Before inserting the iPhone, thoroughly clean the iPhone screen and both sides of the glass screen protector. Screen responsiveness will be hindered if the screens are dirty.

Insert the iPhone into the top plate; it will click into place.



Replace the top plate into the bottom carriage directly above the lightning connector, similar to the removal process; the top plate will be inserted approximately 5 millimeters from the edge of the bottom carriage. Push down on the top plate to secure the iPhone onto the lightning connector and seal the case.

Do NOT try to slide it down from the top.



Your CR7020 case will come with two screws and a 1.3 mm hex key. For larger deployments, it is recommended to procure a specialized tool for quick assembly.

Insert the screws to secure phone and case. The following URLs will direct you to recommended tools for installing the provided screws.

- Ultra-Grip Screwdriver
 - <https://www.mcmaster.com/7400A27>
- 8 Piece Hex Screwdriver Set
 - <https://www.mcmaster.com/57585A61>



Inserting/Removing Batteries/Battery Blanks

Only Code's CRA-B718 batteries are compatible with the CR7020/CR7018 cases. Insert a B718 battery or B718B Battery Blank into the cavity; it will click into place.



The fuel gauge LEDs will light up, indicating the battery's state of charge. If the LEDs do not light up, fully charge the battery before using.

To verify the battery is properly connected, a lightning bolt will be located on the iPhone's battery, signifying a charge status and successful battery installation. To remove the battery, push both battery compartment latches inward until the battery pops out. Pull the battery from the cavity.



Charger Assembly and Mounting

The CR7020/CR7018 chargers are designed to charge the B718 batteries. Customers can purchase 5 or 10-bay chargers. Two 5-bay chargers are mechanically interlinked to create the 10-bay charger. 5 and 10-bay chargers use the same power supply (CRA-P31), but have different cables: the 5-bay charger has a single, linear cable where the 10-bay charger requires a two-way splitter cable (CRA-C70).

Note: Use only cables supplied by Code to ensure proper communication and adequate charge rates. Only Code cables are guaranteed to work. Damage caused using third-party cables will not be covered under warranty.

5-Bay Charger Installation

The 5-bay charging station will hold and charge 5 batteries from zero to full charge within 3 hours. The CRA-A172 charger kit comes with a 5-bay charger, cable and power supply. Insert the cable into the female port on the bottom-side of the charger. Route the cable through the grooves and connect it to the power supply.



LED charge indicators reside on both sides of each battery bay to quickly check the charge status from any angle.



Note: There is a delay of up to thirty minutes between the battery gauge indicating it's fully charged and the charger LEDs switching from blinking to solid. LED indicator definitions are presented in the "Inserting Batteries into the Charger" section.

10-Bay Charger Installation

The 10-bay charging station will hold and charge 10 batteries from zero to full within five hours. The CRA-A175 charger kit will come with two 5-bay chargers, a splitter cable adapter and power supply.

Interlink the two 5-bay chargers by sliding one into the other.



The split cable adapter will have one longer end. Insert the longer end of the cable into the charger's female port furthest from the power supply. Route the cable through the groove on the bottom side of the charger.



Inserting Batteries into the Charger

The B718 batteries can only be inserted one direction. Ensure the metal contacts on the battery meet with the metal contacts within the charger.

LED indicators and meaning:

1. **Blinking** – battery is charging
2. **Solid** – battery is fully charged
3. **Colorless** – there is no battery present or, if a battery is inserted, a fault may have occurred. If a battery is securely inserted into the charger, and the LEDs do not light up, try reinserting the battery or insert it into a different bay to verify if the issue resides with the battery or the charger bay.

Note: The charger LEDs may take up to 5 seconds to respond after inserting a battery.

Battery Charging and Best Practices

It is recommended to fully charge each new battery before the first use even though a new battery may have residual power upon receiving.

Battery Charging

Place the B718 battery into the charging station.

The battery can also be charged within the CR7020 case via Code's micro-USB cable (CRA-C34). The case will charge faster if the USB cable is plugged into Code's USB wall adapter (CRA-P4). It will take approximately 3 hours to fully charge using this method.



Micro-USB Charging Port

The battery fuel gauge LEDs will light up, indicating the battery's state of charge. The table below presents the charge definition per LED. The LEDs will turn off after approximately 15 minutes once the battery is fully charged.

LED Indicator	Definition	
No LED turns on	Fuel exhausted	
One LED rapidly flashing	1% - 10% charge	
One LED blinking	>10% - 19% charge	
One LED solids, one blinking	>19% - 39% charge	
Two LED solids, one blinking	>39% - 69% charge	
Three LED solids, one blinking	>69% - 99% charge	
Four LEDs solid	100% charge	

Note: If the battery gets extremely low on power, it will enter shutdown mode. The fuel gauge will shut off in this mode. The battery must charge up to 30 minutes before the fuel gauge will reestablish communication.

Battery Best Practices

To efficiently use the CR7020 case and battery, the iPhone should be kept at or near full charge. The B718 battery should be used for power draw and swapped when nearly depleted.

Allowing the iPhone to deplete burdens the system. The case is designed to keep the iPhone charged. Placing a fully-charged B718 battery into a case with a half or nearly dead iPhone makes the battery work overtime, creating heat and draining power from the B718 battery rapidly. If the iPhone is kept nearly full, the B718 slowly delivers current to the iPhone allowing the system to last longer.

The B718 battery will last approximately 6 hours under high-power consumption workflows. Take note that the amount of power draw depends upon the applications being actively used or open in the background. For maximum battery usage, exit unneeded applications and dim the screen to approximately 75%.

For long-term storage or shipping, remove the battery from the case.

Maintenance and Troubleshooting

Approved Disinfectants

Please review the [approved disinfectants](#).

Routine Cleaning and Disinfection

The iPhone screen and screen protector should be kept clean to maintain device responsiveness. Thoroughly clean the iPhone screen and both sides of the CR7020 screen protector before installing the iPhone and as they get dirty.

Approved medical disinfectants can be used to clean the CR7020. Do not submerge the case in any liquid or cleaner. Simply wipe it with the approved cleaners and allow it to air dry.

Troubleshooting

If the case isn't communicating to the phone, restart the phone, remove and reinsert the battery and/or remove the phone from the case and reinsert it.

If the battery gauge does not respond, the battery may be in shutdown mode due to low power. Charge the case or battery for approximately 30 minutes; then check if the gauge establishes LED feedback.

Contact Code for Support

For product issues or questions, please contact Code's support team.

<https://codecorp.com/support/rma-request>

Warranty

The CR7020 comes with a 1-year standard warranty. You can extend the [warranty and/or add RMA services](#) to meet your workflow needs.

Legal Disclaimer

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The software and/or products of Code Corporation include inventions that are patented or that are the subject of patents pending. [Relevant patent information is available on our website.](#)

The Code Reader software is based in part on the work of the Independent JPEG Group.

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Statement of Agency Compliance

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. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:



- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Industry Canada (IC)

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Industrie Canada (IC)

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.