

MX8

Hand-Held Computer

Microsoft® Windows® Mobile 6.1 Operating System

Cradle Reference Guide

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Chapter 1: Introduction

The MX8 is a rugged, portable, hand-held computer with a Microsoft® Windows® Mobile® 6.1 operating system. There are two optional cradles and an optional Multi-dock available for the MX8:

- A [desktop cradle](#) that secures the MX8, recharges batteries and enables communications between the MX8 and another device.
- A [passive vehicle-mount cradle](#) that secures the MX8 and isolates it from shock and vibration.
- A [Multi-dock](#) that secures up to four MX8s and recharges the battery in each.

About This Guide

This MX8 Cradle Reference Guide provides instruction for the end-user, installer or system administrator to follow when setting up or using an MX8 cradle or Multi-dock.

Chapter 2: Desktop Cradle

Unpacking Your Desktop Cradle

After you open the shipping carton containing the product, take the following steps:

- Check for damage during shipment. Report damage immediately to the carrier who delivered the carton.
- Make sure the items in the carton match your order.
- Save the shipping container for later storage or shipping.

The MX8 cradle is available in three configurations:

- Without a power supply. A power supply must be ordered separately.
- With a power supply and a US power cord.
- With a power supply but without a power cord. A country specific power cord must be provided.

Communications cables for the MX8 are available separately.

Overview

The MX8 desktop cradle restrains the MX8, re-charges batteries, and enables serial, audio or USB communication with a PC, scanner, printer or other peripheral device. MX8 keypad data entries can be mixed with cradle-tethered scanner bar code data entries while the MX8 is in a powered cradle. Bluetooth device connection and use, while the MX8 is docked, are managed by the MX8 Bluetooth program, not the cradle.

Using a wall AC adapter the desktop cradle can also recharge a spare MX8 battery in approximately 4 hours. The MX8 battery recharging is managed by the docked MX8 power management configuration. The MX8 can be either On or in Suspend Mode while in the cradle. Special purpose and power cables are available from Honeywell.

Wireless host/client communications can occur whether the cradle is receiving external power or not as wireless functions draw power from the main battery in the MX8.

The MX8 cradle is not certified for use in Hazardous Locations.

Preparing the Cradle for Use

Note: Keep dirt and foreign objects out of the cradle. Do not short circuit any of the charging terminals (pins), as this action could result in injury or property damage.

Honeywell recommends a stable, horizontal surface out of the way of:

- inclement weather conditions,
- extremely high concentrations of dust or wind blown debris,
- accidental knocks, bumps or other shocks to the cradle and items in the cradle bays.
- Leave enough space at cable connectors to ensure cables are protected from jostling, tugging or being disconnected by passing objects.

Note: The MX8 must have a main battery installed when it is docked in a cradle.

The main battery in the MX8 is recharged when the MX8 is docked in a powered desktop cradle.

Quick Start - Desktop Cradle

The following list outlines, in a general way, the process to follow when preparing the MX8 desktop cradle for use. Refer to the following sections in this document for more details.

1. Refer to [Install / Remove Desktop Cradle Adapter Cup](#).
2. Connect the cradle end of the power adapter cable to the Power port on the back of the cradle.
3. Attach the AC power connector to a dependable power source.
4. Attach any desired external cabled devices to the ports on the cradle.
5. The desktop cradle is ready for use.

Battery Charging in a Desktop Cradle

The MX8 main battery recharging is managed by the Power Management settings in the MX8.

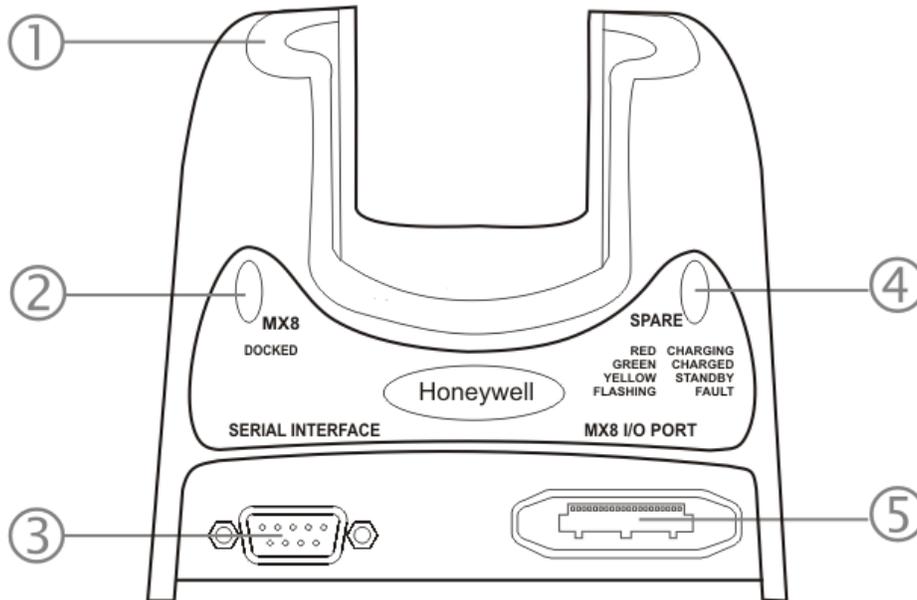
Refer to **Start > Settings > System > Power** on the MX8.

The spare battery in the spare battery well re-charges with or without an MX8 in the dock. The spare battery is fully charged in approximately four hours.

The cradle must be receiving power from an external power source before the main battery in the docked MX8 or spare battery pack charging can take place.

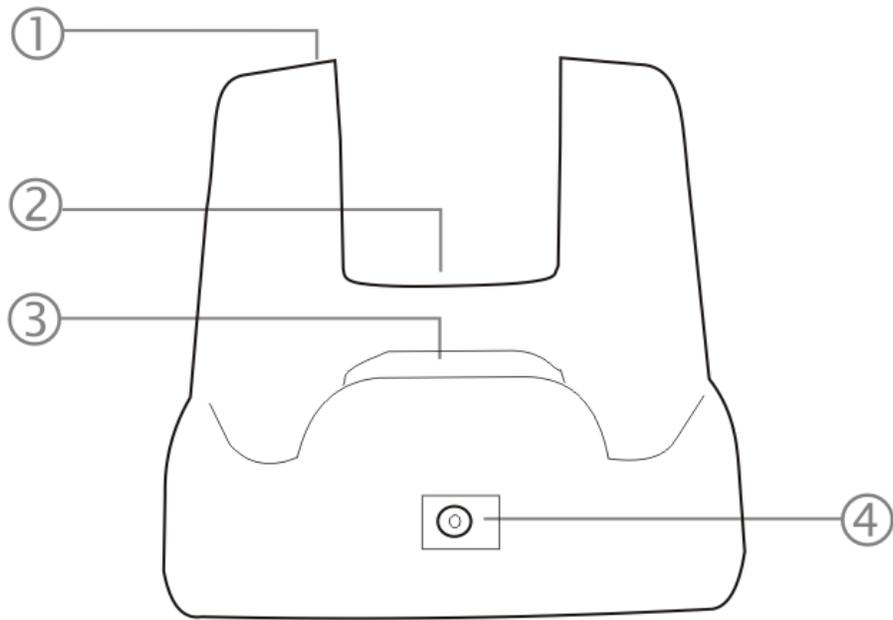
Components

Front

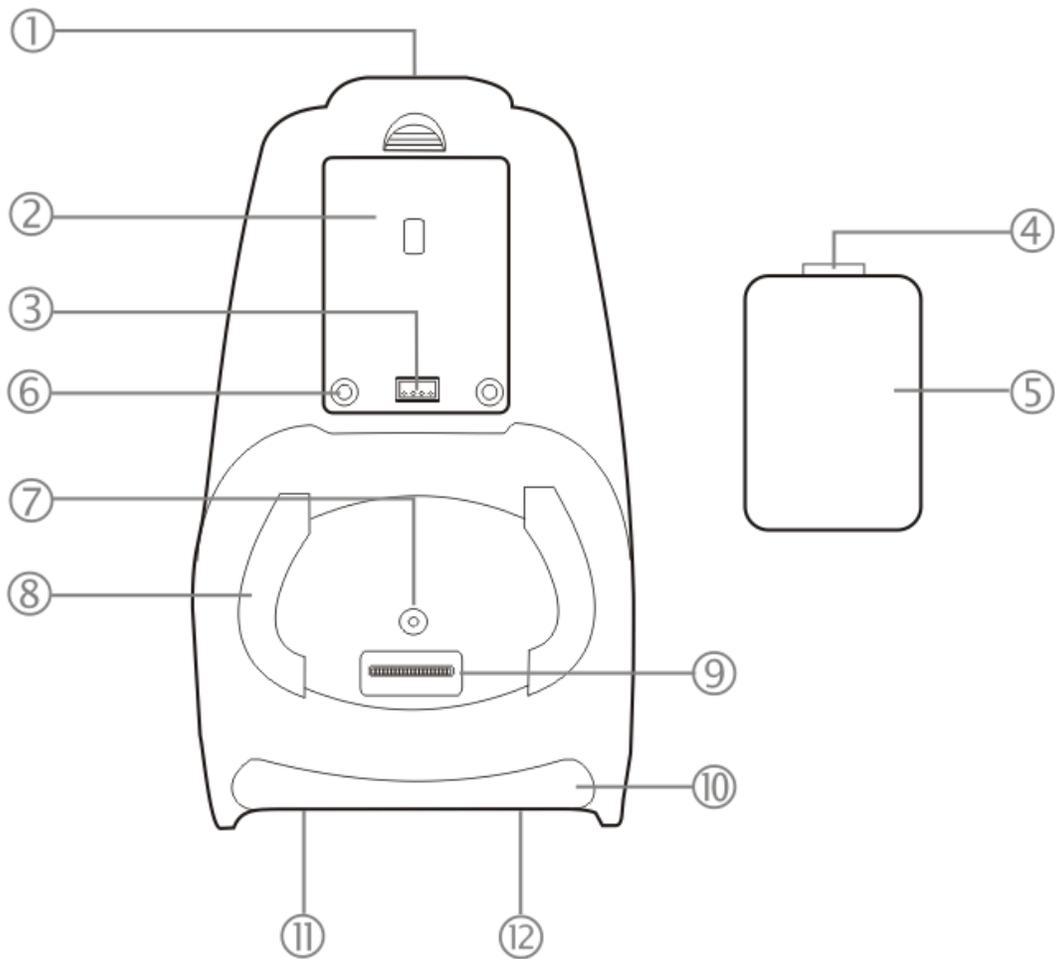


1. Docking Bay Adapter Cup
2. MX8 Docked LED
3. Serial Interface Connector
4. Spare Battery LED
5. I/O Port

Back

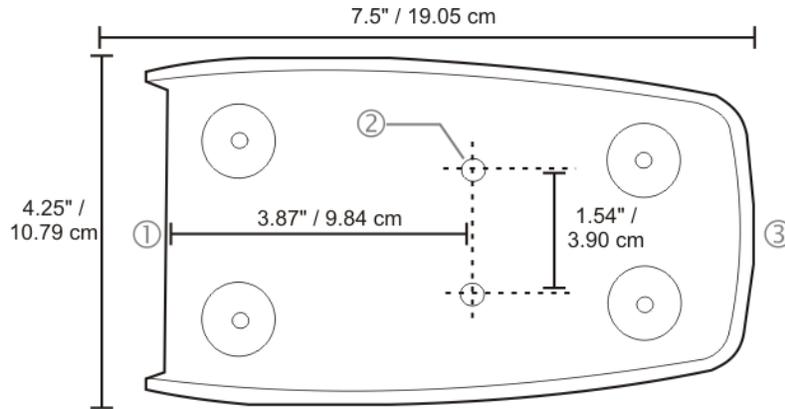


1. Docking Bay Adapter Cup
2. MX8 Cradle Connector
3. Spare Battery Charging Bay
4. Power Jack



1.	Power Supply Connector
2	Spare Battery Charging Bay
3	Spare Battery Charging Terminals
4	Spare Battery Latch
5	Spare Battery
6	Table Mounting Holes
7	MX8 Docking Bay Adapter Cup Mounting Hole
8	MX8 Docking Bay Adapter Cup
9	MX8 Cradle Connector
10	Desktop Cradle Label
11	MX8 Serial Interface Connector
12	MX8 I/O Connector

Desktop Mounting Footprint



Not to Scale

1	Front
2	Table Mounting Hole Guides
3	Back

Bolts, washers, screws, screwdriver or wrench needed when attaching the MX8 desktop cradle to a protected flat surface are not supplied by Honeywell.

Periodically check the table mounting hardware and re-tighten if necessary. Table mounting hardware can be finger-tightened.

Note: Do not over-tighten the table mounting hardware. If the cradle is cracked, it must be replaced before being placed into service. Contact [Technical Assistance](#) for help.

Install / Remove MX8 Docking Bay Adapter Cup

Equipment Required – Phillips screwdriver and torquing tool (not supplied by Honeywell). You will need a torquing tool capable of torquing up to 6 (+/- .5) in/lb. Honeywell recommends using a clean, well-lit stable surface.

The desktop cradle is shipped with the docking bay adapter cup pre-installed. If the MX8 has a rubber boot, the docking bay adapter cup must be **removed** before the MX8 is placed in the desktop cradle.

The desktop cradle can dock an MX8 with a rubber boot (MX8402BOOT or MX8403BOOT) enclosing/protecting the mobile device.

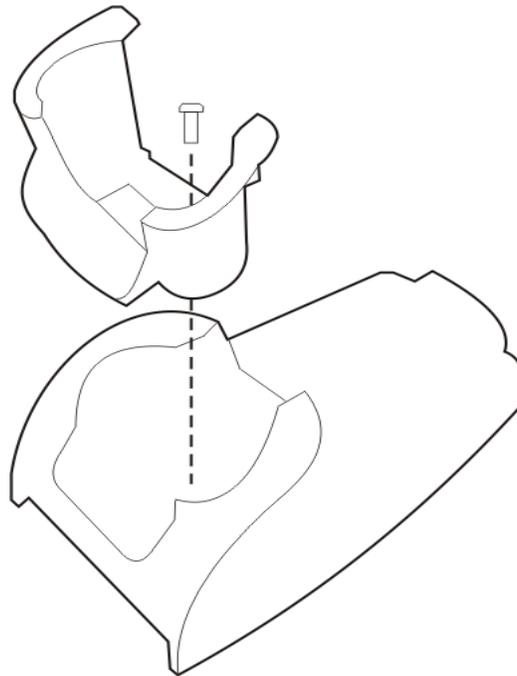
Before docking an MX8 without a rubber boot in the cradle, re-**install** the docking bay adapter cup.

Install

The adapter cup is installed facing in one direction. Put the adapter cup in the MX8 docking bay, aligning the screw hole in the adapter cup with the screw hole in the MX8 docking bay.

Using a torquing screwdriver, insert the screw in the adapter cup screw hole, and torque the screw to 6 in/lbs +/- .5 in/lbs.

Periodically check the connection of the adapter cup and re-torque if necessary.



Remove

Remove the adapter cup by unscrewing the single captive screw at the front of the adapter cup.

Place both the adapter cup and the screw in a protected, safe area until needed.

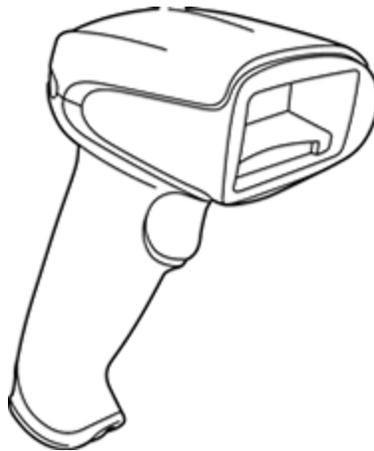
Tethered Scanners and the MX8 Cradles

An MX8 powered cradle supports tethered scanner attachment. A powered cradle provides 5V power to a tethered scanner. The MX8 passive vehicle cradle cannot support tethered scanner attachment.

Note: Pressing an MX8 Scan button has no effect on tethered bar code scanners connected to a powered desktop cradle. Tethered scanners read bar code scans only when the trigger on the tethered scanner is pressed.

A tethered scanner can be connected to the 9-pin RS232 Serial Interface port on the desktop cradle.

MX8 keypad data entries can be mixed with tethered scanner bar code data entries. Any tethered scanner that decodes the bar code internally and outputs an RS232 data stream may be used. It sends the data to the MX8 in ASCII format.



Tethered scanners send scanned data to the MX8 when the MX8 is in a powered cradle and the scanners are connected to the Serial Interface port on the cradle.

When a tethered scanner is connected to the Serial Interface port on a powered cradle, the MX8 must be configured as follows:

Start > Settings > System > Data Collection > Main then select either **Device 1**, **Device 2** or **Device 3**.

There is no software in the desktop cradle.

Bluetooth device connection and use, while the MX8 is docked, are managed by the MX8 Bluetooth client, not the cradle.

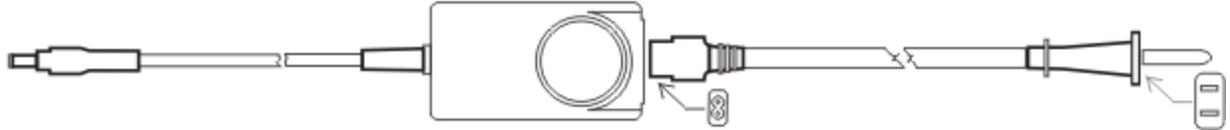
Note: The cradle must be powered by an external power source to enable tethered scanner use.

Assemble/Attach the AC Power Adapter

Note: Connect the cable to the cradle first, then to an AC source.

The external Power Supply for the cradle is shipped with the cradle. Contact [Technical Assistance](#) if there is no AC cable.

The Power connector is located on the back of the cradle.

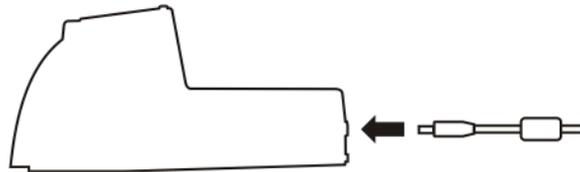


Plug the AC power plug into any AC wall outlet with a dependable power source.

Firmly press the adapter end of the power cable into the 2 pin connector on the power adapter.

Firmly press the cradle end of the power cable into the single connector on the back of the cradle.

AC power is now being supplied to the AC power adapter and the cradle.



Connect Input/Output Cables

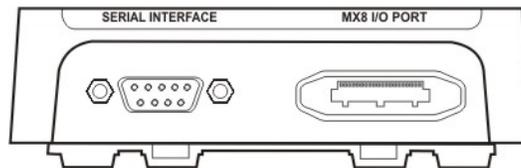
Note: Route all cables to ensure they are protected from jostling, tugging or being disconnected by passing objects.

The cradle must be receiving power from an external power source before MX8 battery charging can begin.

Attach a Serial or I/O Connector

The serial cable is connected to the port labeled **Serial Interface** on the left front of the desktop cradle.

The serial cable end can originate with a tethered scanner, a desktop/laptop PC, a printer or another serial device.



The I/O connector cable is connected to the port (male) labeled **MX8 I/O Port** on the right front of the desktop cradle.

Periodically test the connections for stability and re-tighten if necessary.

Serial Cable

Align the RS232 serial cable end (female) carefully to the **Serial Interface** port (male) on the left front of the desktop cradle.

Press the ends together and finger tighten the screws on either side of the connector. Test the connection for stability.

I/O Cable

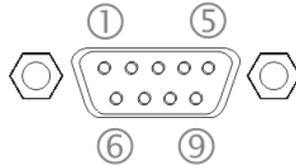
Squeeze the clips next to the connector attached to the cable to open the catches in the connector assembly. Firmly press the cable end (female) into the MX8 I/O Port connector (male) on the front of the cradle. Release the clips in the connector cable.

Test the connection for stability.

Pinout - RS232 Connector

Note: Tethered scanners must be connected to powered cradles.

The connector is industry-standard RS232 and is a PC/AT standard 9-pin D male connector.

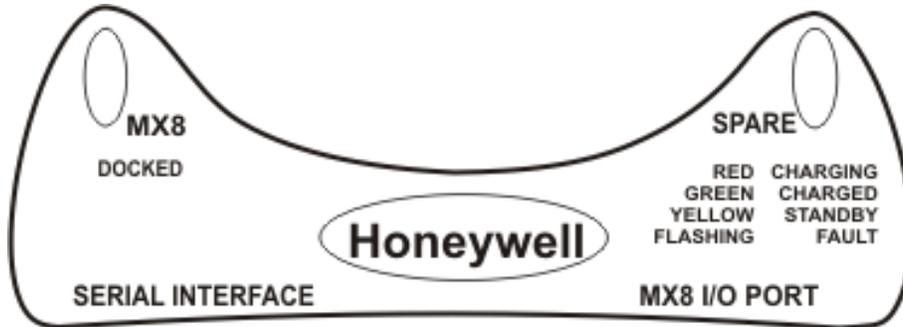


Pin	Signal	Description
1	DCD	Data Carrier Detect
2	RXD	Received Data – Input
3	TXD	Transmitted Data – Output
4	DTR	Data Terminal Ready
5	GND	Signal/Power Ground
6	DSR	Data Set Ready
7	RTS	Request to Send
8	CTS	Clear To Send
9	RI or Power	+5 VDC sourced by the Cradle

Note: Pin 9 of this port is connected to +5 VDC. Only approved cables are to be used for communication between the cradle and external devices.

Cradle LEDs

When the desktop cradle AC/DC power supply cable begins to supply power to the cradle, the cradle LEDs flash yellow, red, green for three seconds then turn off. The cradle is ready for use.



Docked LED

When Docked LED is ...	It means
Off	MX8 not inserted or no power applied
Red	MX8 docked and power applied.

The cradle must be connected to a power source.

Spare Battery LED

When Spare LED is ...	It means
Off	Battery pack not inserted or no power applied
Green	Battery pack fully charged
Red	Battery pack charging
Yellow / Amber	Battery pack temperature out of range
Flashing Red	Battery pack fault or failure

Note: The cradle must be connected to AC power. Spare battery charging does not require an MX8 be docked in the docking bay.

MX8 Mobile Device System Status LED

The MX8 System Status LED is located at the top of the keypad.

When the LED is . . .	The Status is . . .	Comment
Blinking Red	Power Fail	Replace the main battery with a fully charged main battery. Or Connect the MX8 to external AC power to allow the internal charger to charge the main battery e.g., dock in a powered cradle.
Steady Red	Main Battery Low	Low Battery Warning. Replace the main battery with a fully charged main battery. Or dock the MX8 in a powered cradle.
Blinking Green	Display Off	No user intervention required.
No Color	Good	No user intervention required.

Docking and Undocking the MX8

When the MX8 is in Suspend Mode it wakes up when it is docked in a powered cradle. There is no change in mode state settings or behavior when the MX8 is docked in a cradle without a power source.

MX8 mode states while the MX8 is in a powered cradle e.g., suspend, resume, display backlight, etc., are managed by the MX8 OS Power settings.

If the cradle is not permanently attached to the work surface, stabilize the cradle with one hand while inserting or removing the MX8 with the other hand.

The MX8 is inserted into the charging pocket with the keypad facing forward.

Dock the MX8

Remove any cables attached to the base of the MX8.

Carefully press the MX8 straight down into the docking bay until the multi-pin connector at the base of the MX8 clicks into place with the multi-pin charging/communication connector at the bottom of the docking bay. The MX8 cradle is designed to secure the MX8 facing front.

The cradle's Docked LED illuminates.

Undock the MX8

Remove the MX8 from the cradle by pulling it straight up and out of the docking bay. If necessary, brace the cradle with one hand while the other hand removes the MX8.

The cradle's Docked LED turns Off.

Insert / Remove a Spare Battery

Prerequisites: The steps outlined in [Assemble/Attach the AC Power Adapter](#) have been completed and the cradle has a dependable power source. The cradle has been bolted to a stable surface, if required.

Note: Do not drop or slam the spare battery into the charging pocket. Damage may result.

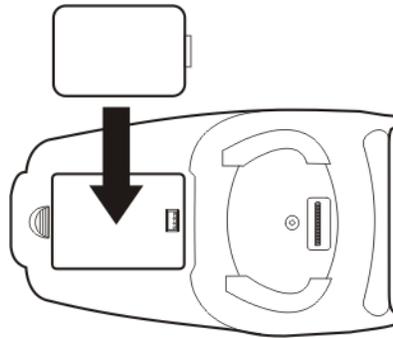
A fully depleted spare battery recharges in approximately four hours in the MX8 powered cradle. Charging time may take longer if a tethered scanner, connected to the Serial port and drawing power from the cradle, is used.

The spare battery well is molded in the shape of the MX8 main battery. The spare battery can be inserted in the battery well in only one direction.

When there is an MX8, with or without a handle, docked in the cradle, a spare battery can still be inserted in the charging bay.

You do not need to undock the MX8 before inserting or removing a Spare battery.

Stabilize the cradle with one hand when inserting/removing the Spare battery, if necessary.



Insert Spare Battery

Hold the battery with the charging terminals facing down, toward the charging pocket.

Tilt the end (without the latch) of the spare battery pack into the upper end of the battery charging pocket, and firmly press down on the other end (with the latch) until the battery is fully inserted into the battery well.

Push down on the spare battery until the catch clicks into place, securing the spare battery in the battery bay. This will ensure the charging contacts on the spare battery connect with the re-charging contacts in the battery bay.

The Spare charging bay LED illuminates.

Remove Spare Battery

A green Spare battery LED signifies the spare battery is charged.

Remove the Spare battery by sliding the latch in and pulling the Spare battery up, with a hinging motion, and out of the charging bay.

The Spare charging bay LED turns Off.

MX8 Desktop Cradle Help

The following is intended as an aid in determining whether the MX8 battery pack or the cradle battery charger may be malfunctioning.

Problem	Cause	Solution
Battery pack does not fit in battery well.	Different manufacturer's battery pack, or there is an object in the battery well.	Check if the battery pack is Honeywell part number 161376-0001. If not, do not use. Remove the object from the battery well.
No battery pack in spare battery charging well, but the charging LED is on.	Dirt or foreign objects are in the battery well.	Unplug cradle from outlet. Remove any dirt or foreign objects from battery well. If the LED continues to stay ON, the cradle may be defective. Return charger to an authorized Honeywell service center.
Cradle is plugged into a live outlet, battery pack is inserted, but RED LED is OFF and no other LEDs are on, or all LEDs are off.	Battery pack is not making contact with charging terminals in the battery well. Faulty battery pack. New battery pack, same result.	Push battery pack in firmly. Do not "slam" the battery pack into the battery well. Replace battery pack. Contact Honeywell for replacement options.
When you first put a fully charged battery pack in the battery well, the RED LED comes on, indicating the battery pack is charging.	During the first few minutes, the charger checks the battery pack for correct voltage and charge state. During this time the LED is RED and is continuously ON. After charging is complete, the LED is GREEN.	There is nothing wrong with the battery pack or charging pocket.
LED is flashing RED at any station. LED is flashing RED at any station.	Current could not be sourced through the battery pack due to age, exhaustion or damage to the cell(s). Or The battery pack does not communicate with the charger.	Contact Honeywell for battery pack replacement options.
	The charger's timeout period has expired.	Make sure that the battery pack temperature is within specification and retry charging. If problem repeats, contact Honeywell for battery pack replacement options.
Solid YELLOW LED when battery pack is inserted in the cradle.	The battery pack is too hot or too cold to charge.	Remove battery pack from the cradle and allow it to adjust to room temperature. If the battery pack is left in the cradle, it will cool down or warm to a temperature upon which the cradle will begin the charge cycle. However, depending on the temperature of the MX8 battery, it may take 2-3 hours to adjust. The battery pack can cool down faster if the

Problem	Cause	Solution
		battery is not in the battery well.
MX8 docked in cradle but cannot work with accessory cables connected to cradle.	MX8 not fully seated in cradle Foreign objects inside docking bay or cable connectors	Reseat the MX8 fully into the docking bay. Remove the foreign objects and reseat the MX8 into the docking bay.
MX8 docked in cradle but Docked LED does not light up.	MX8 not fully docked. Power supply not connected.	Check the docking bay is clear of foreign objects and reseat the MX8 fully into the docking bay. Check that power is applied to the Power Jack at the rear of the MX8 Desktop Cradle.

Maintenance

Inspect the rubber feet and replace them if missing, broken or cracked. Check the cradle regularly for excessive wear at pressure points. If the cradle is mounted to a stable surface, check surface mounting connections periodically and re-tighten as necessary.

If the cradle becomes cracked or broken at any time, it must be taken out of service and replaced. Contact [Technical Assistance](#) for a replacement cradle.

There are no serviceable parts in the desktop cradle. Do not attempt to open the unit.

Cleaning

Do not use paper towels or harsh-chemical-based cleaning fluids since they may result in damage to the surfaces and/or battery charging terminals (pins).

Use a clean soft cloth to wipe any dirt, moisture or grease from the MX8, spare battery packs, charging contacts (pins) or the cradle.

Do not use any liquid to clean the battery pack, MX8, cradle, or charging pockets. Spray or dampen the cleaning cloth with liquids/sprays. If possible, clean only those areas which are soiled.

Lint/particulates can be removed from the connectors, charging terminals and charging/docking pockets with clean, filtered canned air.

Technical Specifications – Desktop Cradle

Note: Do not store MX8 batteries above 140°F (60°C) for extended periods.

Weight	18 oz / 500 grams
Dimensions	H 3.6 in x W 4.3 in; x L 7.5 in
Temperature	
Operating	32° F to 122° F / 0° C to 50° C (charger On, no charging in progress)
Charging	50° F to 104° F / 10° C to 40° C (spare battery charger is charging)
Storage	-4° F to 158° F / -20° C to 70° C
Humidity	5% to 90% (non-condensing) at 104° F / 40° C
IEC 60529	Compliant to IP40
Ports	Power, MX8 I/O and serial port



Chapter 3: Charging Multi-dock

Unpacking Your Charging Multi-dock

After you open the shipping carton containing the product, take the following steps:

- Check for damage during shipment. Report damage immediately to the carrier who delivered the carton.
- Make sure the items in the carton match your order.
- Save the shipping container for later storage or shipping.

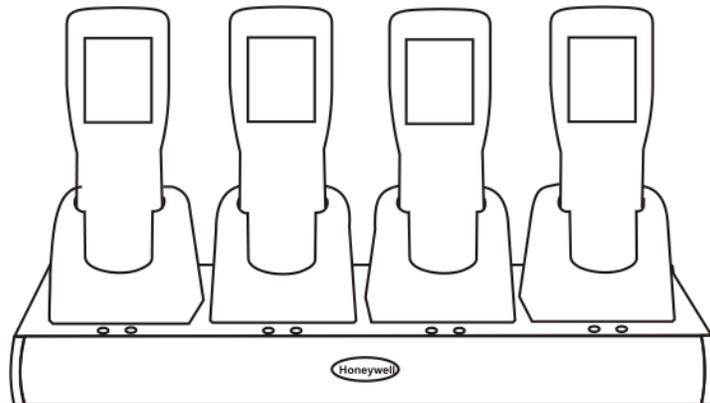
The MX8 cradle is available with or without a power cord. If ordered without a power cord, a country specific power cord is required.

Overview

The MX8 Charging Multi-dock is designed to secure the MX8 in the docking bay and to charge the main battery in the MX8 at the same time. A powered Charging Multi-dock can simultaneously recharge the main batteries in up to four MX8s. Each docking bay can accept an MX8 with or without a protective boot and with or without a trigger handle or handstrap.

Wireless host/client communications can occur whether the Charging Multi-dock is receiving external power or not as wireless functions draw power from the main battery in the MX8.

The MX8 Charging Multi-dock is not certified for use in Hazardous Locations.



Note: The MX8 must have a main battery installed when it is docked.

Quick Start - Setup Charging Multi-dock

The following list outlines, in a general way, the process to follow when preparing the MX8 Multi-dock for use. Refer to the following sections in this document for more details.

1. [Place the Multi-dock on a stable surface.](#)
2. [Install / Remove Docking Bay Adapter Cup.](#)
3. [Assemble the AC Adapter.](#)
4. The Charging Multi-dock is ready for use.

Preparing the Multi-dock for Use

Note: Keep dirt and foreign objects out of the docking bays. Do not short circuit any of the charging terminals (pins) in the docking bays, as this action could result in injury or property damage.

Honeywell recommends a stable, horizontal surface out of the way of:

- inclement weather conditions,
- extremely high concentrations of dust or wind blown debris,
- accidental knocks, bumps or other shocks to the multi-dock and items in the docking bays.

Leave enough space at the multi-dock power connector to ensure the power supply and power cable are protected from jostling, tugging or being disconnected by passing objects. Do not place the Charging Multi-dock in a closed area with restricted airflow.

Install / Remove Docking Bay Adapter Cup

Equipment Required – Phillips screwdriver and torquing tool (not supplied by Honeywell). You will need a torquing tool capable of torquing up to 6 (+/- .5) in/lb.

The charging multi-dock is shipped with the docking bay adapter cup pre-installed. If the MX8 has a rubber boot, the docking bay adapter cup must be **removed** before the MX8 is placed in the docking bay.

The charging multi-dock can hold an MX8 with a rubber boot (MX8402BOOT or MX8403BOOT) enclosing/protecting the mobile device.

Before docking an MX8 without a rubber boot in the cradle, re-**install** the docking bay adapter cup.

[See Also: "Install / Remove MX8 Docking Bay Adapter Cup"](#)

Install

The adapter cup is installed facing in one direction. Put the adapter cup in the docking bay, aligning the screw hole in the adapter cup with the screw hole in the docking bay.

Using a torquing screwdriver, fasten the single captive screw in the adapter cup screw hole, and torque the screw to 6 in/lbs +/- .5 in/lbs.

Periodically check the connection of the adapter cup and re-torque if necessary.

Remove

Remove the adapter cup by unscrewing the single captive screw at the front of the adapter cup.

Place both the adapter cup and the screw in a protected, safe area until needed.

Assemble the AC Power Adapter

The AC adapter 4 pin barrel connector is L-shaped and keyed to send the cable from the Multi-dock power connector to the back of the Charging Multi-dock.

To apply AC power to the Charging Multi-dock follow the steps below in sequence.

1. Plug the male 3 prong AC adapter cable end of the AC power assembly into an AC power source (e.g., wall outlet).
2. Press the female end of the power cable into the male connector on the AC adapter. When AC power is being supplied to the AC adapter, the LED on the power adapter illuminates green.
3. Line up the pins on the 4-pin barrel connector end of the cable with the pins in the power connector on the side of the Multi-dock. Push the barrel connector into the power port until it is seated firmly.
4. External power is now being supplied to the Charging Multi-dock.

The Charging Multi-dock is ready for use.

LED Indicators

There are two LEDs per docking bay. When the multi-dock is connected to a power source:

1. The LED on the left, when illuminated red, indicates the MX8 is properly seated in the docking bay.
2. The LED on the right, when illuminated green, indicates the docking bay is receiving power.

When both docking bay LEDs are off, an MX8 is not docked and power is not available to the docking bay.

When all LEDs are off, power is not applied to the multi-dock.

MX8 System Status LED

The MX8 System Status LED is located at the top of the keypad.

When the LED is . . .	The Status is . . .	Comment
Blinking Red	Power Fail	Connect the MX8 to external AC power to allow the internal charger to charge the main battery e.g., dock in a powered multi-dock. or Replace the main battery with a fully charged main battery.
Steady Red	Main Battery Low	Low Battery Warning. Replace the main battery with a fully charged main battery. or Dock the MX8 in a powered multi-dock.
Blinking Green	Display Off	No user intervention required.
No Color	Good	No user intervention required.

Dock and Undock the MX8

Refer to the previous section titled [Install / Remove Docking Bay Adapter Cup](#).

Note: When the MX8 is in Suspend Mode it wakes up when it is docked in a powered multi-dock. There is no change in mode state settings or behavior when the MX8 is docked in an unpowered multi-dock. MX8 mode states while the MX8 is in a powered multi-dock e.g., suspend, resume, display backlight, etc., are managed by the MX8 OS Power settings.

If the multi-dock is not permanently attached to the work surface, stabilize the multi-dock with one hand while inserting or removing the MX8 with the other hand.

Remove any cables attached to the base of the MX8. Remove holsters, carry cases, and voice cases from the MX8 before docking.

Dock the MX8

The MX8 is inserted into the docking bay with the keypad facing forward.

Carefully press the MX8 straight down into the docking bay until the multi-pin connector at the base of the MX8 clicks into place with the multi-pin charging connector at the bottom of the docking bay. The MX8 cradle is designed to secure the MX8 facing front.

The docking bay LED illuminates.

Undock the MX8

Remove the MX8 from the multi-dock by pulling it straight up and out of the docking bay. If necessary, brace the multi-dock with one hand while the other hand removes the MX8.

The docking bay LED turns Off.

Maintenance

Inspect the feet and replace them if missing, broken or cracked. Check the multi-dock regularly for excessive wear at pressure points. If the multi-dock is mounted to a stable surface, check surface mounting connections periodically and re-tighten as necessary.

If the multi-dock becomes cracked or broken at any time, it must be taken out of service and replaced. Contact [Technical Assistance](#) for a replacement multi-dock.

There are no serviceable parts in the charging multi-dock. Do not attempt to open the unit.

Cleaning

Do not use paper towels or harsh-chemical-based cleaning fluids since they may result in damage to the surfaces and/or battery charging terminals (pins).

Use a clean soft cloth to wipe any dirt, moisture or grease from the MX8, charging contacts (pins) or the multi-dock.

Periodically wipe the multi-dock with a dry lens tissue or other cleaning materials suitable for optical applications: such as eyeglasses.

Lint/particulates can be removed from the connectors, charging terminals and charging/docking bays with clean, filtered canned air.

Help

If the multi-dock does not operate after you have followed the previous operating instructions, then please try the following:

- Check the system power.
- Check for loose cable connections.
- Check to make sure the MX8 is fully inserted into the docking bay.

Safety Guidelines and Cautions

- It is recommended that a grounded three (3) prong AC outlet be used to power this device. The user should insure that the AC outlet is grounded before using this device. If you are not sure that the AC outlet has appropriate ground, we suggest that a qualified electrician be called for verification.
- Do not pour, spray or spill any liquid into or on the multi-dock. If liquid does come in contact with the multi-dock, immediately un-plug the multi-dock and remove any mobile devices in the docking bays.
- For Indoor Use Only.
- Before using this multi-dock, please read all instructions and cautionary notations on the multi-dock and on the MX8.
- To reduce risk of injury, only use authorized battery products in the MX8. Other non-approved batteries may cause personal injury and / or damage to the equipment.
- Do not expose the multi-dock to excessive moisture, temperature extremes or direct sunlight.
- Place multi-dock in a well ventilated area, which is free of foreign materials.
- To reduce risk of electric shock, unplug multi-dock from power source before cleaning.
- Dispose of used batteries in accordance with your state or local hazardous material laws.
- Dispose of multi-dock correctly according to local regulations to comply with WEEE regulations.
- Do not disassemble, incinerate, modify, or short circuit the multi-dock, any battery, or related components.

Technical Specifications – Charging Multi-dock

Note: Do not store the Multi-dock above 158°F (70°C) for extended periods.

Weight	3.6 lbs / 1.6 Kg
Dimensions	Length 19 in (480mm) Width 6.25 in (160mm) Height 5.25 in (135mm)
Temperature	
Operating	0°C to +50°C (+32°F to +122°F) (non-condensing)
Storage	-20°C to +70°C (-4°F to +158°F)
Power Supply	AC Input: 100-240V ~ 1.8A, 50-60Hz DC Output: 5V, 9A Max



Chapter 4: Passive Vehicle Mount Cradle

Unpacking Your Passive Vehicle Mount Cradle

After you open the shipping carton containing the product, take the following steps:

- Check for damage during shipment. Report damage immediately to the carrier who delivered the carton.
- Make sure the items in the carton match your order.
- Save the shipping container for later storage or shipping.

The MX8 passive vehicle cradle consists of:

- Cradle bracket
- U-bracket
- 2 knobs
- Hook and loop fabric to secure the MX8

An optional RAM assembly consists of:

- RAM ball base for vehicle mount
- RAM arm
- RAM base to attach U-bracket
- 4 each: bolts, nuts and washers

The installer must supply hardware to attach either the U-bracket or the RAM ball base to the vehicle.

Communications cables for the MX8 are available separately.

Overview

The MX8 passive vehicle mount cradle restrains the MX8.

Wireless communication is available as long as the mobile device has sufficient energy in the main battery pack and a clear signal path.

The passive vehicle cradle is lined with strips of hook-and-loop fabric to ensure a snug fit between the MX8 and the inside of the cradle.

The cradle can secure an MX8 with or without a rubber boot by inserting or removing the [Velcro slides](#) attached to the inside of the docking well.

The MX8 passive vehicle cradle does not have power, MX8 serial or input/output connectors.

There are two mounting options for the cradle:

- [U-bracket mounting](#)
- [RAM ball Arm mounting](#)

Note: Do not put the MX8 into the cradle until the cradle is securely fastened to the surface.

Preparing the Passive Vehicle Cradle for Use

The passive vehicle mounted cradle should be mounted in an area in the vehicle where it:

- Does not obstruct the driver's vision or safe vehicle operation .
- Will be protected from rain or inclement weather.
- Will be protected from extremely high concentrations of dust or wind-blown debris.
- Can be easily accessed by a user seated in the driver's seat while the vehicle is not in operation.

Quick Start

The following list outlines, in a general way, the process to follow when preparing the MX8 passive vehicle cradle for use. Refer to the following sections in this document for more details.

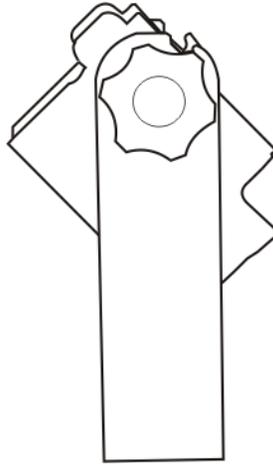
1. Attach the [RAM bracket](#) or [U-bracket](#) mounting device to the vehicle.
2. Attach the MX8 passive cradle to the vehicle mounted bracket using the Angle Adjust knobs.
3. Adjust the cradle to the best viewing angle using the Angle Adjust knobs.
4. The Passive Vehicle Mount cradle is ready for use.

Components

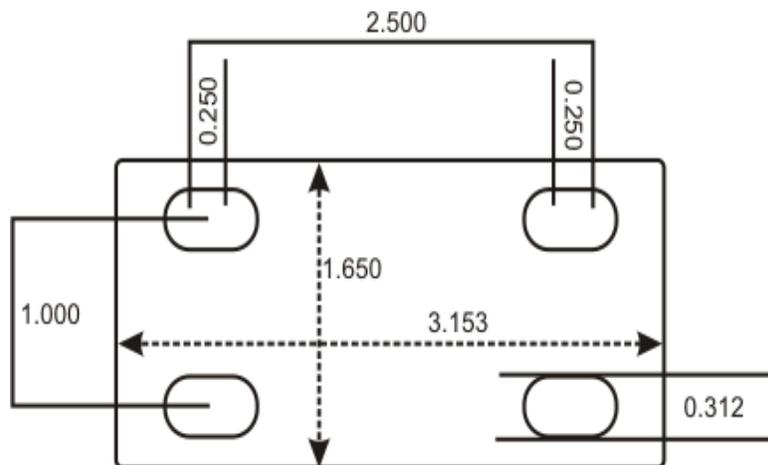
Note: Bolts, washers, and wrench needed when attaching the MX8 to the vehicle are not supplied by Honeywell.

Passive Vehicle Mount Cradle and U-Bracket, Assembled

Note: Honeywell does not supply the bolts or washers needed when mounting the cradle assembly to the vehicle chassis. Use bolts with a maximum 10/32" (0.3125) diameter



U-Bracket Footprint

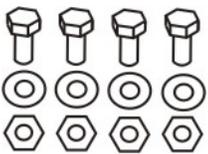
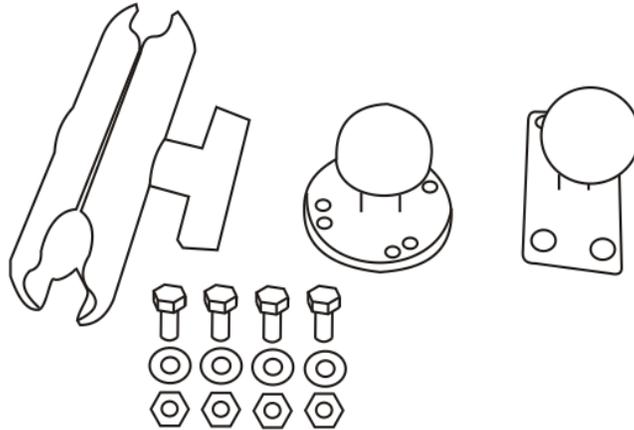


Passive Cradle and RAM Ball and Arm, Assembled

Note: Honeywell does not supply the bolts or washers needed when mounting the cradle assembly to the vehicle chassis.
Use bolts with a maximum 10/32" (0.3125) diameter.

See Also: "Components"

RAM Assembly Components



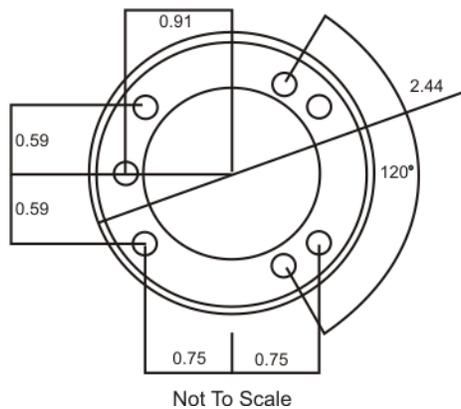
Mount the cradle U-bracket to the upper RAM ball assembly with the bolts, washers and nuts supplied by Honeywell.

Qty 4 – Hex Cap 1/4-20 x 3/4 bolts

Qty 4 – 1/4 flat washer

Qty 4 – 1/4-20 nylon insert lock nuts

RAM Assembly Footprint

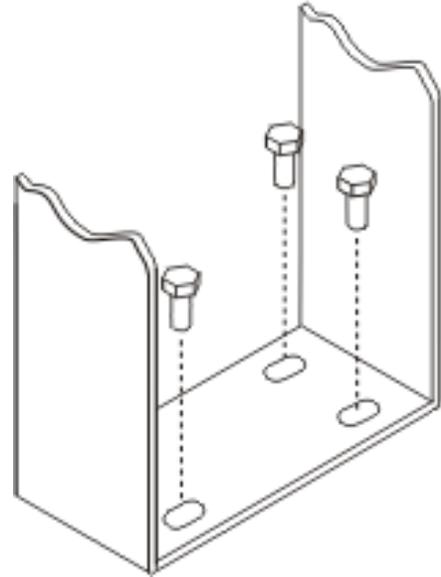


Install the Cradle U-Bracket

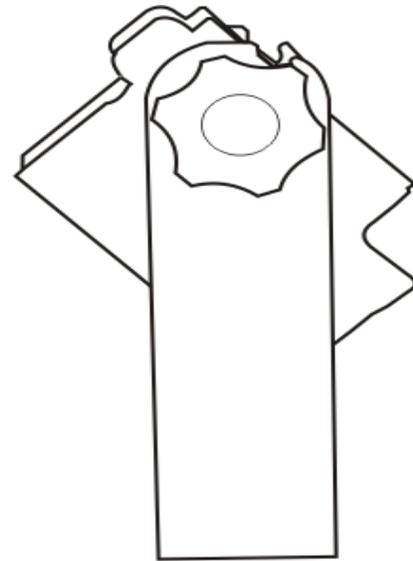
Note: Honeywell does not supply the bolts or washers needed when mounting the cradle assembly to the vehicle chassis. Use bolts with a maximum 10/32" (0.3125) diameter.

See Also: ["Components"](#)

Attach the U-Bracket to the vehicle, making sure it does not impede safe operation of the vehicle.



Attach the Passive Cradle to the U-Bracket using the Angle Adjust knobs. Use both knobs to loosen and tighten the cradle to the U-bracket while determining the best viewing angle.

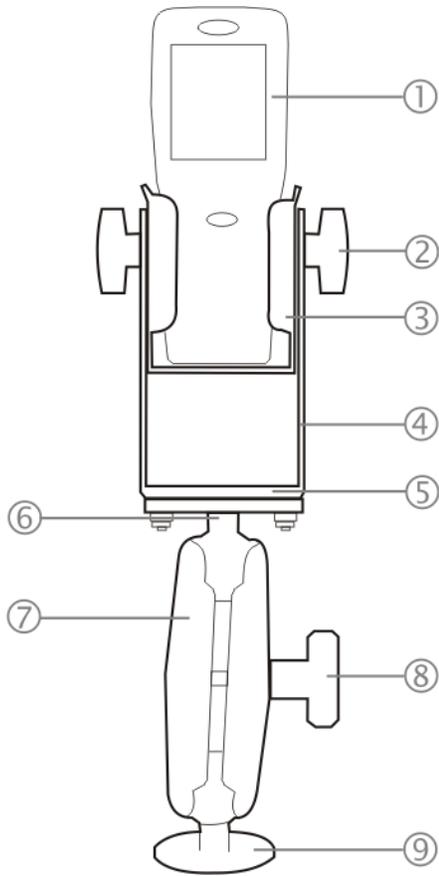


The passive vehicle mounted cradle is ready for use.

Periodically test the mounting device and tighten bolts and/or knob as needed.

If the cradle becomes cracked or warped it must be replaced before the cradle is put back in service.

Install the RAM Bracket



1. MX8
2. Angle Adjust Knobs
3. Passive Cradle
4. U-Bracket
5. Mounting Hex Bolt
6. Upper RAM Ball Assembly
7. Arm
8. Thumbscrew
9. Lower RAM Ball Assembly

1.	Attach the lower RAM ball assembly to the vehicle, making sure it does not impede safe operation of the vehicle.
2.	Fasten the upper RAM ball assembly to the base of the U-bracket using the supplied bolts, washers and screws.
3.	Loosen the turnscrew on the RAM arm, place the lower socket over the vehicle mount RAM ball, then the other arm socket over the RAM ball on the U-bracket. 
4.	Tighten the arm turnscrew until the U-bracket is secured to the RAM arm and the vehicle.
5.	Attach the Passive Cradle to the U-Bracket using the Angle Adjust knobs. Use both knobs to loosen and tighten the cradle to the U-bracket while determining the best viewing angle.

The passive vehicle mounted cradle is ready for use.

Periodically test the mounting device and tighten bolts and/or knob as needed. If the cradle becomes cracked or warped it must be replaced.

Velcro Slides

The MX8 cradle has two Velcro slides in the passive cradle docking bay.

- Remove the Velcro slides to secure an MX8 with a rubber boot.
- Insert the Velcro slides to secure an MX8 without a rubber boot.

Note: Do not put the MX8 into the cradle until the cradle is securely fastened to the surface.

Cleaning

Do not use paper towels or harsh-chemical-based cleaning fluids since they may result in damage to the surfaces and/or battery connectors.

Use a clean soft cloth to wipe any dirt, moisture or grease from the MX8, charging contacts or the passive cradle. Do not use any liquid to clean the cradle. Spray or dampen the cleaning cloth with the liquid/spray. If possible, clean only those areas which are soiled. Lint/particulates can be removed from the connectors and docking pockets with clean, filtered canned air.



Chapter 5: Technical Assistance

If you need assistance installing or troubleshooting your device, please contact us by using one of the methods below:

Knowledge Base: www.hsmknowledgebase.com

Our Knowledge Base provides thousands of immediate solutions. If the Knowledge Base cannot help, our Technical Support Portal (see below) provides an easy way to report your problem or ask your question.

Technical Support Portal: www.hsmsupportportal.com

The Technical Support Portal not only allows you to report your problem, but it also provides immediate solutions to your technical issues by searching our Knowledge Base. With the Portal, you can submit and track your questions online and send and receive attachments.

Web form: www.hsmcontactsupport.com

You can contact our technical support team directly by filling out our online support form. Enter your contact details and the description of the question/problem.

Telephone: www.honeywellaidc.com/locations

For our latest contact information, please check our website at the link above.

Product Service and Repair

Honeywell International Inc. provides service for all of its products through service centers throughout the world. To obtain warranty or non-warranty service, please visit www.honeywellaidc.com and select **Support > Contact Service and Repair** to see your region's instructions on how to obtain a Return Material Authorization number (RMA #). You should do this prior to returning the product.

Limited Warranty

Honeywell International Inc. ("HII") warrants its products to be free from defects in materials and workmanship and to conform to HII's published specifications applicable to the products purchased at the time of shipment. This warranty does not cover any HII product which is (i) improperly installed or used; (ii) damaged by accident or negligence, including failure to follow the proper maintenance, service, and cleaning schedule; or (iii) damaged as a result of (A) modification or alteration by the purchaser or other party, (B) excessive voltage or current supplied to or drawn from the interface connections, (C) static electricity or electro-static discharge, (D) operation under conditions beyond the specified operating parameters, or (E) repair or service of the product by anyone other than HII or its authorized representatives.

This warranty shall extend from the time of shipment for the duration published by HII for the product at the time of purchase ("Warranty Period"). Any defective product must be returned (at purchaser's expense) during the Warranty Period to HII factory or authorized service center for inspection. No product will be accepted by HII without a Return Materials Authorization, which may be obtained by contacting HII. In the event that the product is returned to HII or its authorized service center within the Warranty Period and HII determines to its satisfaction that the product is defective due to defects in materials or workmanship, HII, at its sole option, will either repair or replace the product without charge, except for return shipping to HII.

EXCEPT AS MAY BE OTHERWISE PROVIDED BY APPLICABLE LAW, THE FOREGOING WARRANTY IS IN LIEU OF ALL OTHER COVENANTS OR WARRANTIES, EITHER EXPRESSED OR IMPLIED, ORAL OR WRITTEN, INCLUDING, WITHOUT LIMITATION, ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, OR NON-INFRINGEMENT.

HII'S RESPONSIBILITY AND PURCHASER'S EXCLUSIVE REMEDY UNDER THIS WARRANTY IS LIMITED TO THE REPAIR OR REPLACEMENT OF THE DEFECTIVE PRODUCT WITH NEW OR REFURBISHED PARTS. IN NO EVENT

SHALL HII BE LIABLE FOR INDIRECT, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, AND, IN NO EVENT, SHALL ANY LIABILITY OF HII ARISING IN CONNECTION WITH ANY PRODUCT SOLD HEREUNDER (WHETHER SUCH LIABILITY ARISES FROM A CLAIM BASED ON CONTRACT, WARRANTY, TORT, OR OTHERWISE) EXCEED THE ACTUAL AMOUNT PAID TO HII FOR THE PRODUCT. THESE LIMITATIONS ON LIABILITY SHALL REMAIN IN FULL FORCE AND EFFECT EVEN WHEN HII MAY HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH INJURIES, LOSSES, OR DAMAGES. SOME STATES, PROVINCES, OR COUNTRIES DO NOT ALLOW THE EXCLUSION OR LIMITATIONS OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.

All provisions of this Limited Warranty are separate and severable, which means that if any provision is held invalid and unenforceable, such determination shall not affect the validity of enforceability of the other provisions hereof. Use of any peripherals not provided by the manufacturer may result in damage not covered by this warranty. This includes but is not limited to: cables, power supplies, cradles, and docking stations. HII extends these warranties only to the first end-users of the products. These warranties are non-transferable.

The duration of the limited warranty for the MX8 is 1 year.

The duration of the limited warranty for the MX8 Desktop Cradle is 1 year.

The duration of the limited warranty for the MX8 Passive Vehicle Cradle is 1 year.

The duration of the limited warranty for the MX8 Battery Charger is 1 year.

The duration of the limited warranty for the MX8 3000mAh Li-Ion Battery is 6 months.

The duration of the limited warranty for the MX8 Charging Multi-Dock is 1 year.

The duration of the limited warranty for the MX8 AC power supply and cables is 1 year.

The duration of the limited warranty for the MX8 cables (USB, Serial, Communication, Power) is 1 year.

The duration of the limited warranty for the MX8 fabric accessories (e.g., belt, case, holster) is 90 days.



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E-EQ-MX8WMOGWW
Rev E
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