

M3 Vehicle Cradle

User Guide



Product Model:
A-VCR-US00-150-R00,
A-VCR-OS00-150-R00

Compatible Device:
M3 RED, GREEN and SKY

Version 2.0
Released in February 2011

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All product names and services used in the manual and product are company names, service marks, trademarks, or registered trademarks of the corresponding right owners.

Notice – General Notices

The contents of this user manual were made based on the “current state” of the product, and this manual may contain technical and editing errors or omissions.

When separate application programs are developed and provided by the product providers using the product, refer to the program user’s manual provided by the product providers.

The companies that produce separate application programs besides the basic installation programs must include the contact telephone number for inquiring about these programs on the product, program, or product box separately when distributing the equipment.

M3 Mobile does not guarantee the quality of the programs produced by third party software companies installed after the release from the factory of M3 mobile.

M3 Mobile may request programs from the program manufacturers in order to guarantee the quality of the product to meet the requests of mobile network service providers.

Notice – Revision History

Version 2.0 – Feb, 2011

- Second release of user manual for renewal vehicle cradle.

Version 1.0 – May, 2010

- First release of printed version.

Warnings and Cautions for Safety

Before You Begin

Please read the warnings and cautions for safety carefully before you begin to avoid any damages or accidents. If you are not certain on any information given in this manual, please contact your supplier.

Customer Cautions

If the device is lost or stolen, then immediately report the incident to the service provider.

Refrain from using the device while driving.

When service for the product is required, request services through the designated service center of M3 Mobile.

For inquires about the application programs and other work programs besides the hardware and the basic installation, directly contact the corresponding program manufacturers.

Do not use any battery adapter or accessories other than the designated ones provided with the product.

Free warranty service may not be allowed if failures occur due to unauthorized use or misuse of the product.



Warnings and Cautions for Safety – Cntd.

Cautions in Carrying and Storing

Do not use the product in high temperature or high humidity environments as this may quickly cause damage to the product.

The product was designed to be suitable for work environments, but avoid impacts or dropping the product. This may cause fatal damage to the product.

Fully charge the battery before using the product for the first time.

Do not modify the product

Do not try to modify the product by any means.

Modifications may cause fire, injury, electric shock, or serious damage to the equipment and users.

The warranty service is not provided for troubles due to unauthorized modification.

1. Checklist

Thank you for selecting M3 Vehicle Cradle. This guide will help you on basic usage of the product. Please check if all the contents shown below are nearby for use. RAM Mount and Cigar Jack are needed for installing and charging.



If you don't have everything, contact your supplier immediately.

Note that you can select only one RAM Mount between Fixed type and Squeezed type which is provided by M3 Mobile.

Serial cable is not provided from M3 Mobile.



Caution

Please use the correct power supply provided by M3 Mobile. Compatibility with other power supply source is not guaranteed.

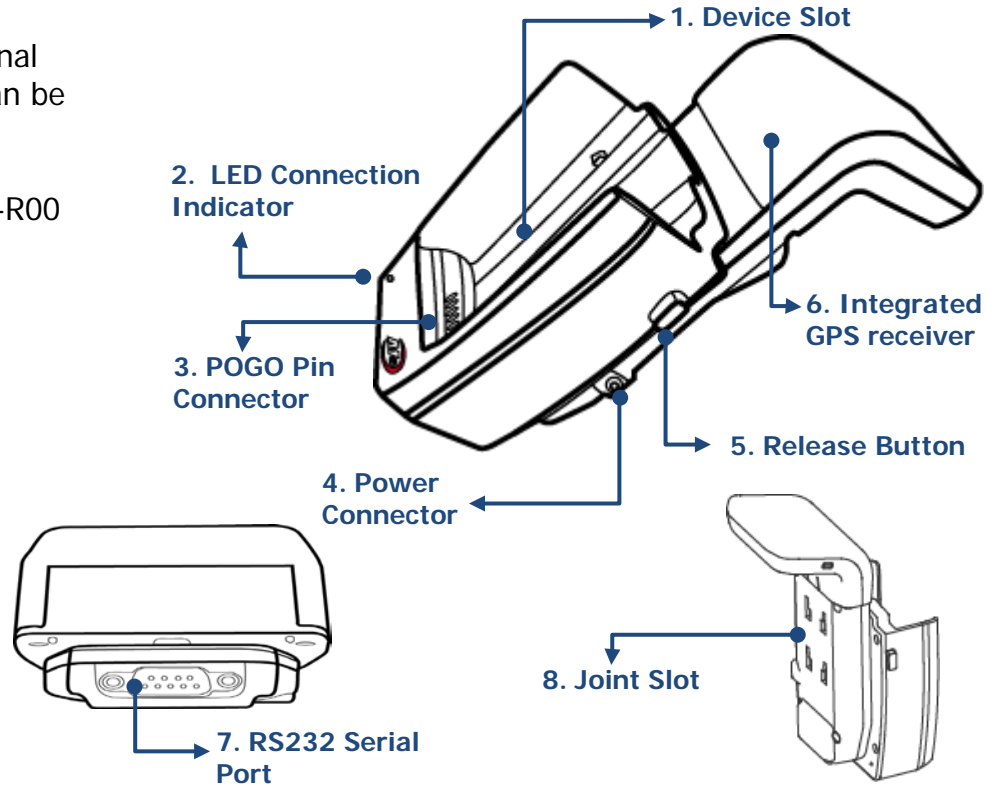
2. Usage – Description

A-VCR-US00-150-R00 is one of the M3 Mobile's optional accessories for ease of usage in vehicle. External GPS can be used.

A-VCR-OS00-150-R00 is identical to A-VCR-US00-150-R00 model except the USB port. USB Host and GPS receiver cannot be used.

Description

Refer to next images ([A-VCR-US00-150-R00](#)) for Vehicle Cradle parts and descriptions.



2. Usage – Description continued.

1. **Device Slot** – A PDA slides into the slot for charging, data transfer and ActiveSync.
2. **LED Connection Indicator** – Connection status of the Cigar Jack and the vehicle cradle is displayed by red LED.
Note that the LED on the PDA will show the charging status of PDA.
3. **POGO Pin Connector** – Used for data communication with PDA such as ActiveSync.

1	2	3	4	5	6	7	8	9
USB D-	USB D+	USB VBUS	COM6_DET (N/A)	RXD (N/A)	TXD (N/A)	USB ID	GND	5V

4. **Power Connector** – Power supply connector.
5. **Release Button** – Press and hold to slide out PDA from Vehicle Cradle.
6. **Integrated GPS receiver** – Information of time and location can be obtained by receiving satellite signal.
When the integrated GPS receiver is detached, then USB host function is available using COM8.
7. **RS232 Serial Port** – This RS232 port enables serial communication. Use COM0.
8. **Joint Slot** – Vehicle Cradle is joined to RAM Mount.

2. Usage – Specification

Model	Vehicle Cradle	
Compatible PDA(s)	M3 RED, GREEN and SKY	
Connecting LED	Red - Connected between the Cigar Jack and the Vehicle Cradle	
Adapter Input	DC 10 ~ 26V	
Adapter Output	DC 5.2V / 2A	
Power Connector	Cigar Jack Type	
USB	Host	Supported (A-VCR-US00-150-R00 only)
	Client	Not supported
Serial Port	Supported	
Cradle/PDA connector	9 PIN POGO Connector. Refer to 'Usage – Description No.3 Pin Connector' for pin I/O information.	



Note USB Host function and data information receiving from satellite are **only available in A-VCR-US00-150-R00** model.

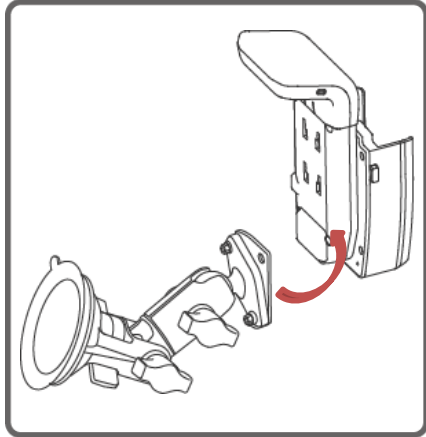
2. Usage – Specification

GPS Specification

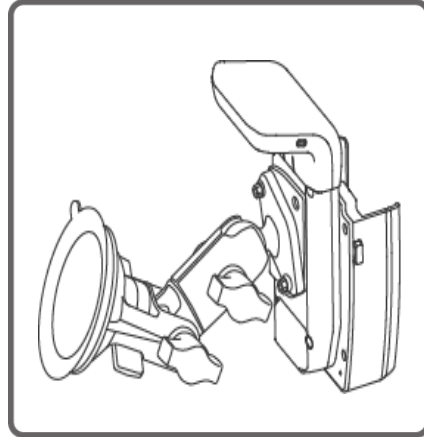
GPS receiver type	SiRF star™ III GPS (L1 Frequency, C/A Code, 20 Channel GPS)	
Accuracy in location	under 10m 3D rms accuracy	
Maximum Speed	515m/s max speed	
Maximum Altitude	18,000m max height	
First data Receiving time	Cold start	60sec
	Warm Start	40sec
	Hot Start	8sec
Re-receiving time	5sec (typical)	
Receive sensitivity	-156dBm	
Protocol	NMEA 0813 / 9,600bps	

2. Usage – How to use

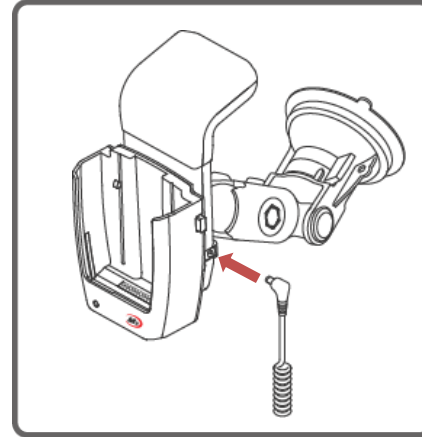
With Squeezed type of RAM Mount



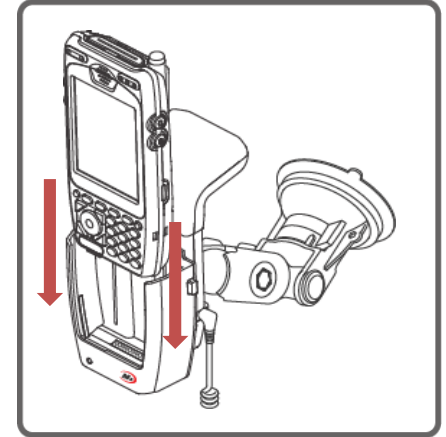
Step 1. First, join the RAM Mount to the joint slot located at the back of the Vehicle Cradle.



Step 2. Turn the knob from OFF to ON to attach the RAM Mount on the windscreen. Adjust the angle using the fastening knobs of RAM Mount.



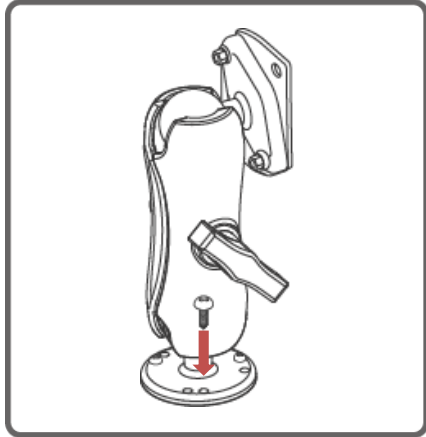
Step 3. Plug in the Cigar Jack cable to Cigar Jack of the vehicle and DC Jack to power connector of the vehicle cradle



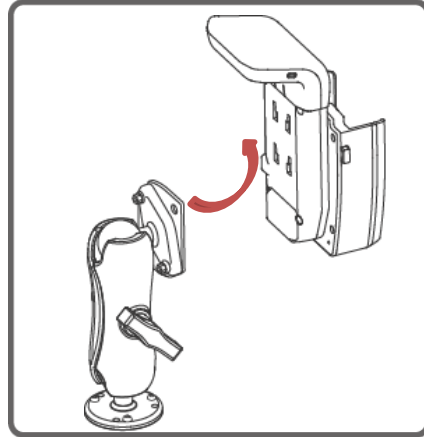
Step 4. Slide PDA into the Vehicle Cradle. It clicks when a PDA is on the right position. After use, press and hold the Release Button to slide out the PDA from the Vehicle Cradle.

2. Usage – How to use

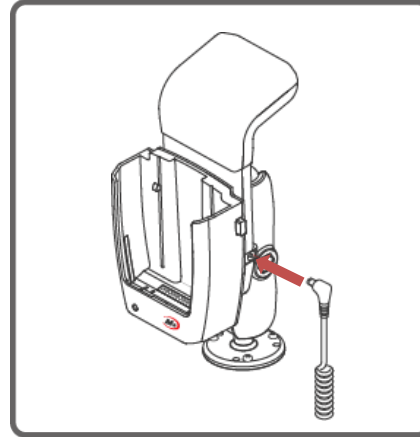
With Fixed type of RAM Mount



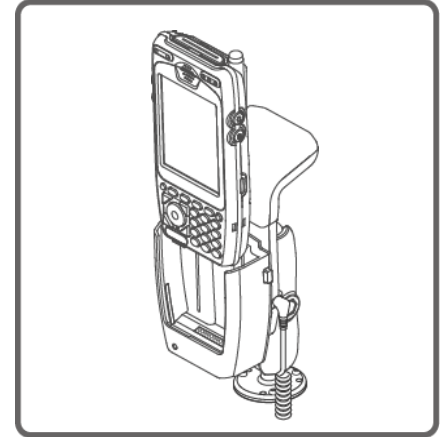
Step 1. First, use screws to fasten the RAM Mount on the dashboard.



Step 2. Join the RAM Mount to the slot located at back of the Vehicle Cradle. Then, adjust the angle using the fastening knob of the RAM Mount.



Step 3. Plug in the Cigar Jack cable to Cigar Jack of the vehicle and DC Jack to power connector of vehicle cradle



Step 4. Slide PDA into the Vehicle Cradle. It clicks when a PDA is on the right position. After use, press and hold the Release Button to slide out the PDA from the Vehicle Cradle.

3. FAQ and Troubleshoot – Charging

This chapter provides frequently asked questions and its corresponding answers.

Charging

Q1. How to charge PDA using the cradle?

Step 1. Plug in the Cigar Jack cable to Cigar Jack of the vehicle and DC Jack to power connector of vehicle cradle.

Step 2. Insert the PDA to device slot to start charging the PDA.

Q2. Charging Status

Connection status of the Cigar Jack and the vehicle cradle is displayed by red LED.

LED on upper left corner (for RED and GREEN) or upper right corner (for SKY) indicates the charging status of the battery attached to the PDA.



Caution

1. Use the correct Cigar Jack cable with 5.2V, 2A output provided by M3 Mobile.
2. Incongruent change of battery can cause the explosion.
3. When attached battery is completely discharged, plug charger to main body, then reset the device to check if the screen is back on. Leave at least for 10 min in charging state before use.

3. FAQ and Troubleshoot – Serial Comms.

Serial Communication

Q1. Cannot use serial communication through cradle. What should I check?

A1-1. Check if the serial cable is properly connected on both sides.

A1-2. Check if necessary driver(s) installed on the PC or equivalent hardware.



Note Com0 is used for the serial communication.

Services and Support

Should you require any services or technical support on M3 Mobile's products, contact your supplier or visit M3 Mobile technical support webpage <http://support.m3mobile.co.kr>. Desired or relevant manuals can be downloaded from **Knowledge Center** or **FAQ** in technical support webpage.

For DOA or RMA, please send the defective product to suitable address **AFTER** consulting the supplier.

M3 Mobile Co., Ltd.

Headquarter

M3 Bldg., 735-45,
Yeoksam-Dong, Gangnam-Gu,
Seoul, 135-080, Korea
Tel: +82 2 574 0037 Fax: +82 2 558 1253

Service Center

Chun-ui Techno Park 201-610,
202, Chun-ui Dong, Won-Mi gu, Buchoen,
Gyeonggi Do, 420-857, Korea
Tel: +82 32 326 0030 Fax: +82 32 623 0035

Thank you for choosing M3 Mobile's product!