

# **MobiRake2000**

## **Vehicle Unit**

### **Quick Installation Guide**

Version 1.0.2



Feb. 2013

# WARNINGS



In order to comply with international radio frequency (RF) exposure limits, dish antennas should be laced at a minimum of 8.7 inches (22 cm) from the bodies of all persons. Other antennas should be laced a minimum of 7.9 inches (20 cm) from the bodies of all persons.



Ultimate disposal of this product should be handled according to all national laws and regulations.



Do not locate the antenna near overhead power lines or other electric light or power circuits, or where it can come into contact with such circuits. When installing the antenna, take extreme care not to come into contact with such circuits, as they may cause serious injury or death. For proper installation and grounding of the antenna, please refer to national and local codes (e.g. U.S.:NFPA 70, National Electrical Code, Article 810, in Canada: Canadian Electrical Code, Section 54).



Only trained and qualified personnel should be allowed to install, replace, or service this equipment.



To meet regulatory restrictions, the Vehicle Unit and the external antenna must be professionally installed. The network administrator or other IT professional responsible for installing and configuring the Vehicle Unit is a suitable professional installer. Following installation, access to the Vehicle Unit should be password protected by the network administrator to maintain regulatory compliance.



Follow the guidelines in this installation guide to ensure correct operation and safe use of the Vehicle Unit.

## ■ PACKAGE CONTENTS

The package you have received should contain the following items:

- Vehicle unit .....x1
- Product CD.....x1
- Quick Installation Guide.....x1

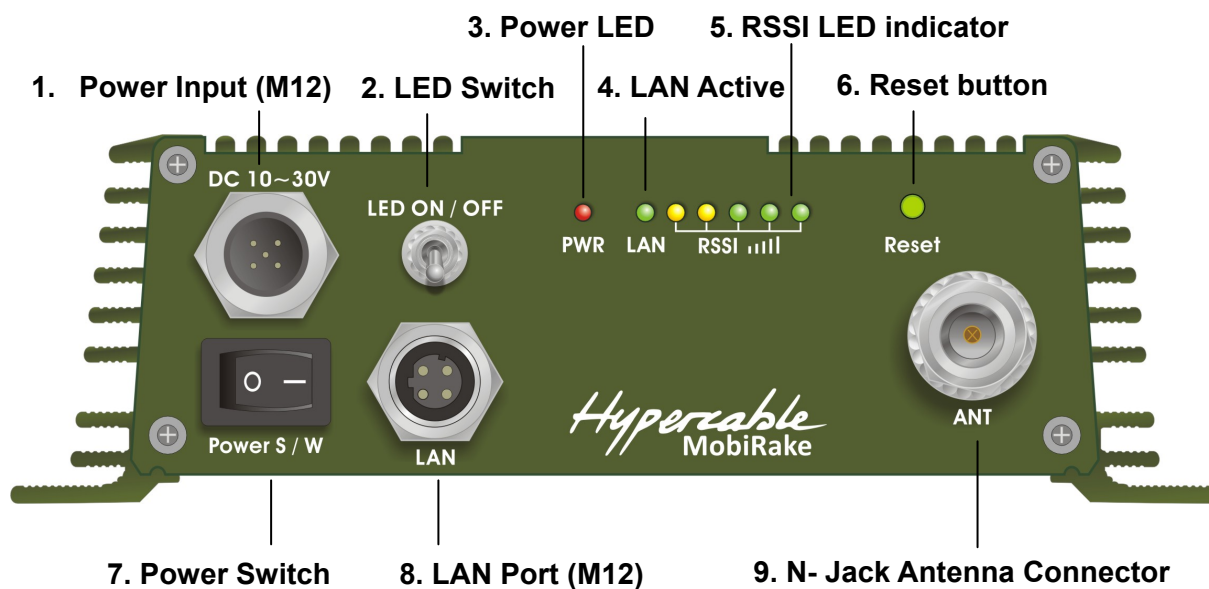


**If any item on the above list is not included or damaged, please contact your local vendor for support.**

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## ■ MECHANICAL DESCRIPTION

Please refer to the following table for the meaning of each feature.

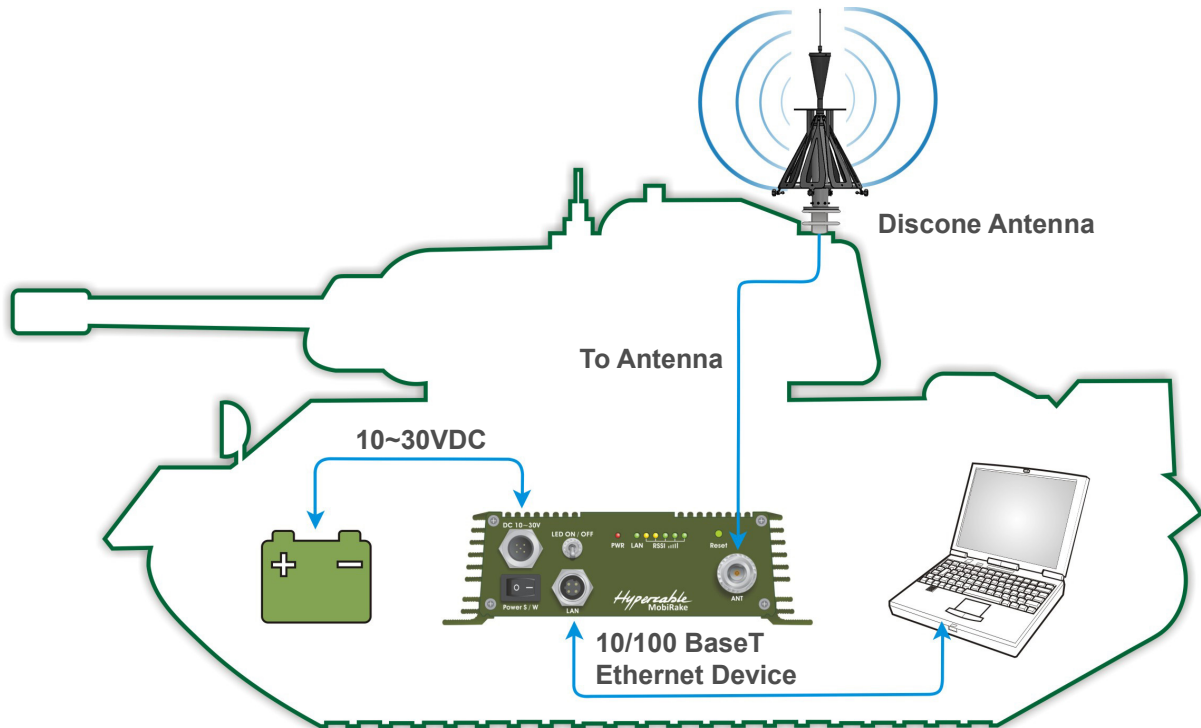


Vehicle Subscriber Unit Figure

1	<b>Power Input (M12)</b>	Feed 10~30VDC power to the Vehicle Unit via this power Jack, please follow the pin assignment for correct + / - polarity, mix that might cause the damage of radio.
2	<b>LED Switch</b>	Switch up: Turn on the LED indicators Switch down: Turn off the LED indicators
3	<b>Power LED</b>	Indicate status of power on or off.
4	<b>LAN Active LED</b>	Indicate status of LAN active
5	<b>RSSI LED indicator</b>	This function only works at CPE mode to indicate the RSSI from Basestation, 5 LEDs (levels) totally, more LEDs means stronger signal level.
6	<b>Reset button</b>	press it and hold the reset button for 5~10 seconds, the Vehicle Unit will back to factory default settings.
7	<b>Power Switch</b>	○: OFF / —: ON
8	<b>LAN Port (M12)</b>	Use the SFTP cat.5 cable with M12 connector to connect to the Vehicle Unit, and the other end to other Ethernet device such as PC or switch / router.
9	<b>N- Jack Antenna Connector</b>	Here you can attach the proper antenna with the Vehicle unit to wirelessly connect to the networks. In order to improve the RF signal radiation of your antenna, proper antenna installation is necessary.

## ■ INSTALL THE Vehicle Subscriber Unit

This section show you how to mount the Vehicle unit, please read it carefully before you start to install the hardware. Be safe and step by step to finish the hardware installation.



Hardware Installation Figure



This vehicle unit can be damaged by incorrect power application. Read and follow the installation instructions carefully before connecting the system to its power source.

### 1. Mounting the vehicle unit in the car

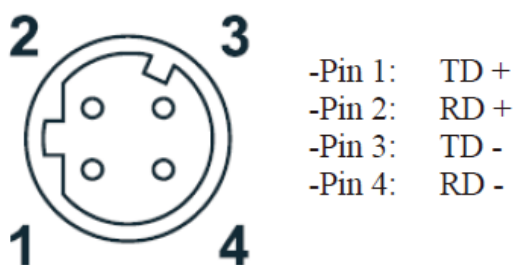


Only trained and qualified personnel should be allowed to install, replace, or service this equipment.

## 2. Connect the LAN Port (M12 connector)

This Vehicle Unit support 10/100M Ethernet connection. Attach your SFTP cat.5 Ethernet cable with the M12 connector on the Vehicle Unit, and then connect the other end of the cable to the other Ethernet devices. Please follow the below pinouts assignment for the Ethernet cable.

### TP Port



## 3. Attached the antenna

Users can attach the proper antenna to the N-type connector on the Vehicle Unit.



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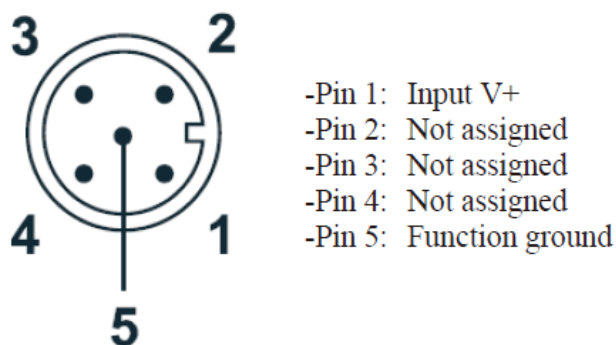
To meet regulatory restrictions, the Vehicle Unit and the external antenna must be professionally installed.

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## 4. Connect the Power Cable

Use the M12 connector to make a DC power cable to connect the Vehicle Unit and Vehicle power supply. Feed in proper voltage range DC (10~30VDC) to the Vehicle Unit with correct polarity to make sure the Vehicle Unit works well. Please refer to below pinouts assignment for correct + / - polarity, mix that might cause damage to the Vehicle Unit.

### Power input



## 5. Align the antenna by the beeper

This function only works at CPE mode to indicate the RSSI from Basestation, 5 LEDs (levels) totally, more LEDs means stronger signal level.

You can hear different tempo of beeper in different signal strength , there are 5 signal levels totally, please refer to the following list.

Signal level	1(Min)	2	3	4	5(Max)
RSSI	-92~-88dBm	-87~-78dBm	-77~-63dBm	-62~-43dBm	-42~+10dBm
LED Status	1* Yellow	2 * Yellow	2 * Yellow + 1 * green	2 * Yellow + 2 * green	2 * Yellow + 3 *green



**You should read and follow the installation instructions carefully before connecting the system to its power source. This wireless Vehicle Unit can be damaged by incorrect power supply.**

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