

Smart-Reach™ Mobile Wireless Bridge Installation and Quick Start Guide

The Smart-Reach Mobile wireless bridge links the mobile DVR to the wireless network.

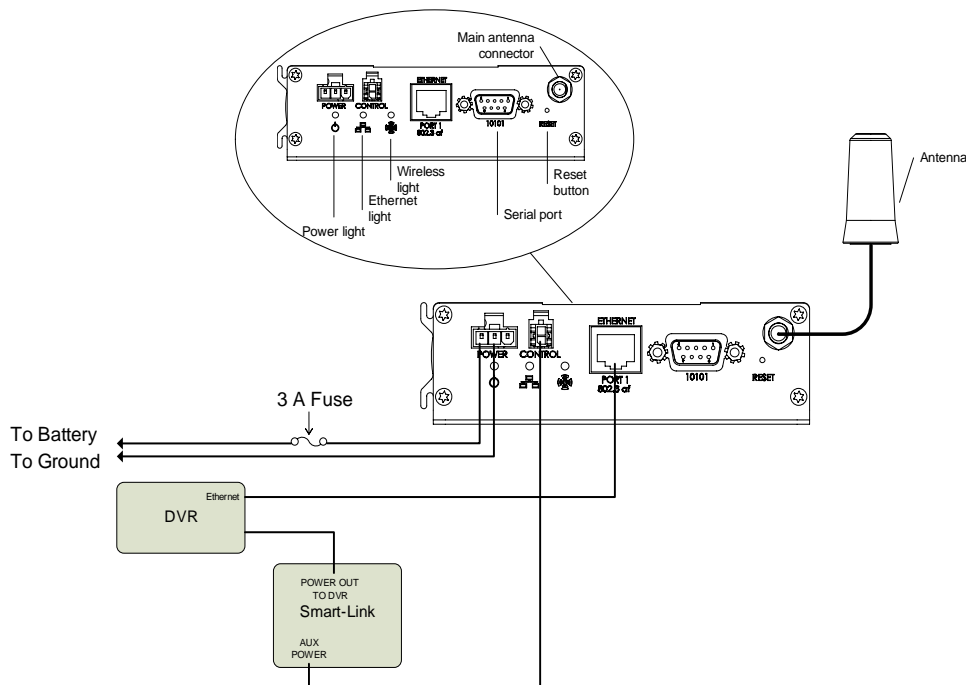
Package Contents (typical)

The contents of a typical installation package are shown below. The actual contents of your installation package may vary.



Installation

General Installation Diagram



Location Requirements

Find the appropriate location for the installation of the Smart-Reach Mobile and the antenna that meets these requirements.

- The antenna must be installed within 3 feet of the Smart-Reach Mobile.
- The Smart-Reach Mobile must be installed in a dry location.

Installing the Antenna

In a typical installation, the external antenna must be connected to the main antenna connector of the Smart-Reach Mobile (on the same side as the other connectors).



WARNING: Surge Protection and Grounding

If you plan on connecting an outdoor antenna to the Smart-Reach Mobile, make sure that proper lightning surge protection and grounding precautions are taken according to local electrical code. Failure to do so may result in personal injury, fire, equipment damage, or a voided warranty.

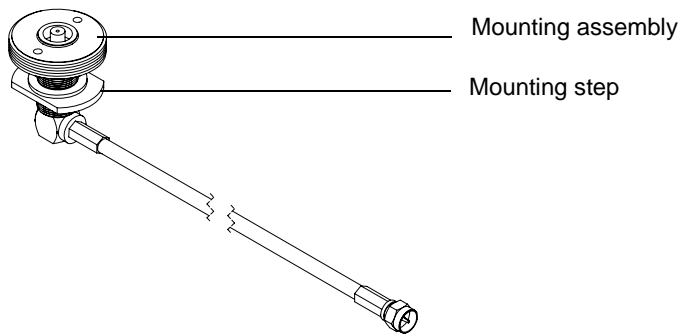
Installing the Mounting Assembly for the Antenna

The following procedure summarizes the mounting assembly installation. (For complete identification of parts and an illustrated procedure, see the product documentation that is included with the Radial/Larsen WLAN mobile LPT 2400 NMOHFW antenna.)

- 1 Drill a 3/4" hole on a flat and metallic surface of the vehicle.
A fiberglass surface is less than optimal for installing the mounting assembly. If the vehicle skin is not metal, Seon Design will provide a ground plane. Contact Seon Design for more information.
- 2 Metal-to-metal contact between the vehicle and the mount will provide the best performance. Remove any burrs on the under side of the hole.
- 3 Screw the locking nut onto the mounting assembly, and twist the nut one-and-a-half turns. Feed the coax cable and the serrated part of the mounting assembly through the hole, going from the bottom to top side of the hole.
- 4 Pull up on the locking nut, and place the mounting step into proper alignment in the hole. Continue pulling the locking nut upwards and tighten the nut until it is finger tight. Check that the O ring between the locking nut and mounting assembly is seated properly.
- 5 Holding the mounting assembly with a spanner wrench or long nose pliers, use an adjustable or open end wrench on the locking nut and tighten firmly (60 in-lbs. or 6.8 Nm maximum). Do not overtighten.

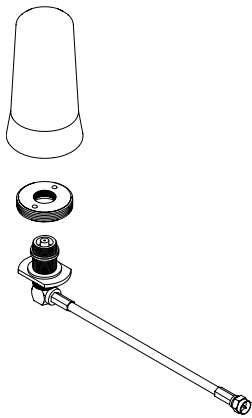
Important: For the NMO high frequency style mount shown below, remove and discard the center pin and insulator (if not already removed) before installing the antenna.





Mounting the WLAN Mobile Antenna

- 1 Place the required gasket on the base of the antenna.
- 2 Align the antenna threads with the threads of the base and turn slowly.
- 3 Stop turning when the antenna feels snug on the base. Do not overtighten.



Installing the Smart-Reach Mobile



CAUTION

Shielded Ethernet cables must be used for all connections.

- 1 Secure the Smart-Reach Mobile to the mounting surface using the four #10 × ¾ sheet metal screws or the #10 × ¾ self drilling screws and #10 external lock washers.
- 2 Connect as shown in the General Installation Diagram on page 1.
- 3 Connect the Ethernet cable to the DVR.
- 4 Connect the control cable to AUX POWER port on the Smart-Link.
- 5 Connect power connector to a good battery source.

Configuring the System

The Smart-Reach Mobile comes pre-configured for your network. The following DVR settings must be configured properly:

- 1 The network settings must be configured per instructions from Seon Design.
- 2 The power off delay time should be set long enough to allow video to be downloaded after the bus ignition is turned off, typically two hours.

Powering the System to On

- 1 Turn the vehicle ignition on.
 - When the DVR is powered on, the Power light on the Smart-Reach should flash for a short period of time, then turn on.
 - During startup, the Ethernet light flashes, indicating a proper Ethernet connection with the DVR.
 - After the DVR starts up, the Ethernet light on the DVR turns on. If the Ethernet light doesn't flash or turn on, check the Ethernet connection between the DVR and the Smart-Reach.
 - If the Smart-Reach Base is already installed, the Wireless light flashes occasionally, indicating a connection to the wireless network.
- 2 Park the vehicle in a location that is line-of-sight from the base antenna. From the base host computer, ping the IP address of the installed bridge (see Using the Ping Command on page 5).

Testing the Wireless Network

The Smart-Reach Mobile is pre-configured to operate with your wireless network.

- 1 Enable your computer's wireless network interface, and set a static IP address that doesn't interfere such as **172.24.1.10**.
For example, in Windows XP, use **Control Panel > Network Connections > Local Area Connection > Properties > Internet Protocol (TCP/IP) > Properties**.
- 2 Connect to the wireless network. For example, from the Windows XP Start menu, select **Settings > Network Connections > Wireless Network Connections**. The list of available wireless networks appears. Select Seon Network (default) and then **Connect**.
- 3 Confirm that you can browse other devices using the wireless network.

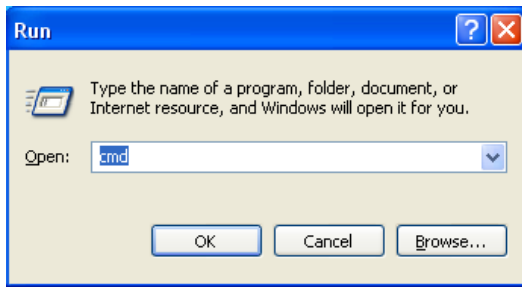
The status lights provide the following information.

Light	State	Description
Power	On	Smart-Reach Mobile is fully operational.
	Flashing	Smart-Reach Mobile is starting up. If the power light continues to flash after several minutes, the firmware has failed to load. Reset or power cycle the Smart-Reach Mobile. If this condition persists, contact Seon Customer Service at service@seon.com .
	Off	Smart-Reach Mobile has no power.
Ethernet	On	Illuminates for a short time when the link is established.
	Flashing	Ethernet port is transmitting or receiving data.
	Off	Ethernet port is not connected or there is no activity.

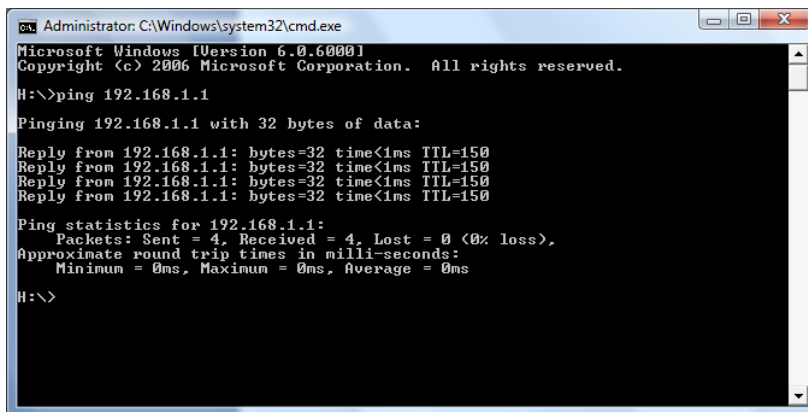
Light	State	Description
Wireless	Blinking rapidly	Smart-Reach Mobile is searching for an access point.
	Flashing	Wireless port is transmitting or receiving data.

Using the Ping Command

- 1 For example, in Windows XP, on the Start menu, click Run.



- 2 Type cmd and click OK.
- 3 In the command line type `ping xxx.xxx.xxx.xxx` (the IP address of the machine you wish to contact).
- 4 If you successfully ping the machine, you will get a reply as shown.



- 5 If your ping is not successful, your requests will time out or you will receive a notice that the recipient could not be contacted.

Configuration

The Smart-Reach Mobile wireless bridge has pre-configured Seon default settings. To make minor changes to the configuration, read through this section. The Smart-Reach Mobile is managed via its Web-based management software using Microsoft® Internet Explorer® 7.0 or Mozilla Firefox® 2.0 or higher versions.



CAUTION: Wireless Security

To provide easy wireless access to the Web-based management interface, the Smart-Reach Mobile ships with all wireless security options disabled. Seon strongly recommends that once the Smart-Reach Mobile is installed, you enable a wireless security option to properly safeguard the wireless network.

Configuring the Network Settings of your Computer

- 1 Connect the LAN port on your computer to the Ethernet port on the Smart-Reach Mobile.
The Smart-Reach Mobile supports automatic crossover detection. However, problems can occur when connected to older 10BaseT-only interfaces. A crossover cable may be needed when connecting to older network interface cards (NICs).
- 2 Configure your computer to use a static IP address in the range **172.24.1.2** to **172.24.1.254**. (These IP addresses are typical.) The subnet mask, default gateway and DNS server are configured automatically.
For example, in Windows XP, use **Control Panel > Network Connections > Local Area Connection > Properties > Internet Protocol (TCP/IP) > Properties**.
- 3 Disable any wireless connections on your computer.

Accessing the Smart-Reach Mobile

- 1 Configure your computer to reconnect the unit.
For example, in Windows XP, use **Control Panel > Network Connections > Local Area Connection > Properties > Internet Protocol (TCP/IP) > Properties**, and enter an IP address in the same subnet.
- 2 Relaunch the Smart-Reach Mobile management tool.



CAUTION: Wireless Security

To provide easy wireless access to the management interface, the Smart-Reach Mobile ships with all wireless security options disabled. Seon strongly recommends that once the Smart-Reach Mobile is installed, verify the wireless security option to properly safeguard the wireless network.

Important: To perform any additional configuration, assign an IP address, or to reset the Smart-Reach Mobile wireless bridge, and operating information, contact Customer Service.

FCC Information to the User

This equipment has been tested and found to comply with the limits for a 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. If not installed and used in accordance with the instructions, it may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment causes 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 the receiver.
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- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experience radio/TV technician for help.

Customer Service Contact Information

Toll free telephone 1-877-630-7366 or telephone 604-941-0880 Email: service@seon.com

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