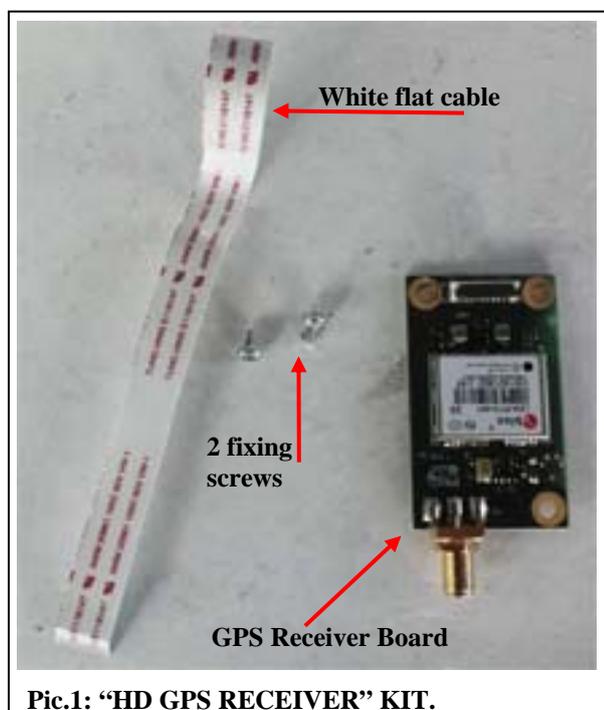


**HD PROTAB STC****HD GPS APP installation****Time: 1 h****BENCH PREPARATION:**

- a) "HD GPS RECEIVER" HW KIT,
- b) Socket wrench n. 8,
- c) Pliers,
- d) Screwdriver,
- e) "HD GPS RECEIVER" software app,
- f) SMART PC program.

**PROCEDURE: sequence numbers**

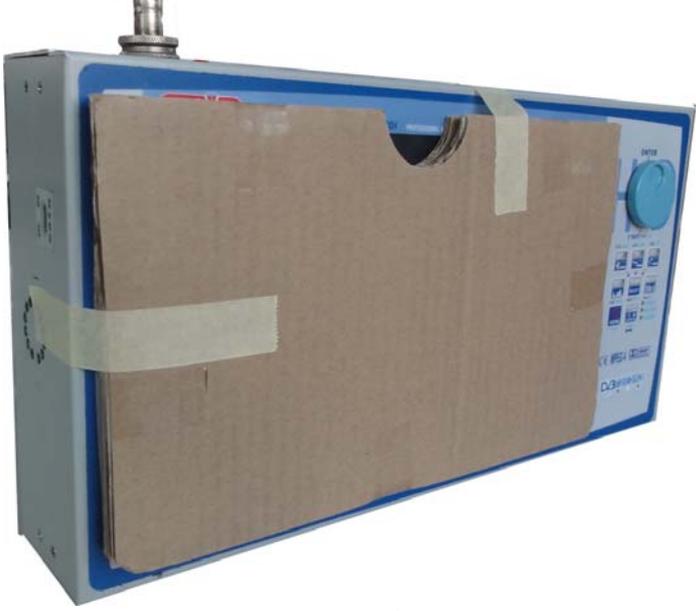
1. Inspect the HW provided with the "HD GPS RECEIVER" (see pic. 1 and pic. 2),
2. Load the software "HD GPS RECEIVER" app on the HD PROTAB analyzer using the SMART PC software,
3. Remove the HD PROTAB from its protective bag and place a protection (i.e. carton) on top of the 10.2" touch screen using for example paper glue tape (see pic. 4),
4. Remove the back metal housing shell using a screwdriver (pic. 5),
5. Disconnect the battery pack by detaching the battery cables from the motherboard (see pic. 6),
6. Identify the location where the "HD GPS RECEIVER" board has to be installed (see pic. 7),
7. Place the "HD GPS RECEIVER" board on its metal support (see pic. 8), the SMB female connector will go through the existing hole on the "IO connectivity metal panel of the HD PROTAB; FIX the "HD GPS RECEIVER" with the two screws (see pic. 8).
8. Fix to the chassis the SMB GPS golden female connector with its washer and nut using the socket wrench n. 8 (see 8. c),
9. Connect one end of the white flat cable to the "HD GPS RECEIVER" board (see pic. 9),
10. Connect the second end of the white flat cable to the mother board (see pic. 10),
11. Reconnect the Battery cable to the mother board.
12. Close the meter replacing the half metal shell and repositions all screws,
13. Switch on the HD PROTAB and verify that that on the main menu the GPS icon shows,
14. Connect the GPS antenna to the GPS receiver,
15. Touch the GPS ICON on the main menu display and control that satellite constellation is detected,
16. All the implemented features of the HD PROTAB that use the GPS antenna will now work (DRIVE TEST, LOGGER, GPS satellite constellation display).

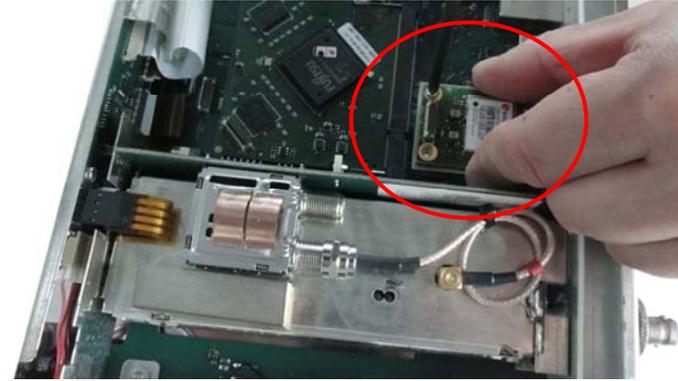
**Pic.1: "HD GPS RECEIVER" KIT.****Pic. 2: "HD GPS RECEIVER" ANTENNA.**

The HW KIT for the "HD GPS RECEIVER" is made of :

1. GPS RECEIVER BOARD with one washer and nut.
2. White flat cable
3. n.2 fixing screws
4. n.1 GPS antenna

**SW & HW HD GPS RECEIVER APP installation procedure:**

Seq. #	pictures	Description
2		<p>Install the SMART Program in your PC. This can be done by downloading the SMART programme from Rover's WEB SITE: <a href="http://www.roverinstruments.com">www.roverinstruments.com</a>.</p> <p>Download the "HD GPS RECEIVER" app to the HD PROTAB using the SMART program. Instructions to do this operation may be found in appendix A of this document.</p>
3	 <p data-bbox="531 1137 638 1167">Picture 4</p>	<p>Remove the HD PROTAB from its protective bag and place a protection (i.e. carton) on top of the 10.2" touch screen using for example paper glue tape (see pic. 4).</p>
4	 <p data-bbox="531 1809 638 1839">Picture 5</p>	<p>Remove the back metal housing shell using a screwdriver (pic. 5)</p>

Seq. #	pictures	Description
5	 <p data-bbox="531 741 639 770">Picture 6</p>	<p data-bbox="959 286 1481 405"><b>WARNING: IF THIS STEP IS SKIPPED SERIOUS DAMAGAS COULD BE CAUSED TO THE HD PROTAB ANALYZER</b></p> <p data-bbox="959 439 1481 562">Disconnect the battery pack from the HD PROTAB by detaching the battery connecting cable from the motherboard (see pic. 6),</p>
6	 <p data-bbox="531 1312 639 1341">Picture 7</p>	<p data-bbox="959 857 1433 947">Identify the location where the “HD GPS RECEIVER” board has to be installed (see pic. 7),</p> <p data-bbox="959 981 1465 1070"><b>The red arrows show the position where the two screws will fix the GPS board to the metal support.</b></p>
7	 <p data-bbox="520 1839 651 1868">Picture 8.a</p>	<p data-bbox="959 1429 1465 1485">Place the “HD GPS RECEIVER” board on its metal support (see fig. 8a and 8b)</p> <p data-bbox="959 1518 1449 1641">The SMB golden female connector will go through the existing hole on the “IO connectivity metal panel” of the HD PROTAB.</p> <p data-bbox="959 1675 1485 1731">Use the n.2 screws to fix the GPS board to the metal support.</p>

Seq. #	pictures	Description
8	 <p data-bbox="520 745 647 779">Picture 8.b</p>	<p data-bbox="959 309 1453 376">“HD GPS RECEIVER” board fixed to the HD PROTAB motherboard.</p>
	 <p data-bbox="520 1458 647 1491">Picture 8.c</p>	<p data-bbox="959 954 1461 1111">On the “IO connectivity metal panel” of the HD PROTAB the GPS SMB golden female connector will show. It must be fixed to the chassis with its washer using the socket wrench n. 8 (see pic. 8. c)</p>

Seq. #	pictures	Description
9	 <p data-bbox="517 551 651 580">Picture 9. a</p>	<p>Connect one end of the white flat cable to the “HD GPS RECEIVER” board (see pictures 9).</p>
	 <p data-bbox="517 938 651 967">Picture 9. b</p>	<p>Pic. 9B. Shows the flat cable inserted in the connector.</p>
	 <p data-bbox="517 1357 651 1386">Picture 9.c</p>	<p><b>IMPORTANT</b> make sure that the blu side of the white flat cable faces the front of the board.</p>
10	 <p data-bbox="517 1924 651 1953">Picture 10</p>	<p>Connect the second end of the white flat cable to the mother board (see pic. 10).</p> <p>Follow the same procedure described above to fix the second end of the white flat cable.</p>

Seq. #	Description
11-12- 13-14- 15-16	<ul style="list-style-type: none"> <li>• Reconnect the Battery cable to the mother board (see Pic. 5).</li> <li>• Close the meter with the half metal shell and repositions all screws.</li> <li>• Switch on the HD PROTAB and verify that that on the main menu the GPS icon shows.</li> </ul>
	
	<ul style="list-style-type: none"> <li>• Connect the GPS antenna (see Pic. 2) to the GPS receiver.</li> <li>• Touch the GPS ICON and verify that satellite constellation is detected. The GPS antenna must be placed outdoors.</li> </ul>
	
	<ul style="list-style-type: none"> <li>• All the implemented HD PROTAB features that uses the “HD GPS RECEIVER” app will now work: <ul style="list-style-type: none"> <li>- LOGGERS with GPS,</li> <li>- GPS satellite constellation display,</li> <li>- DRIVE TEST,</li> <li>- Network Delay Measurements for DVB-T.</li> </ul> </li> </ul>

## APPENDIX A

### SW APP LOADING PROCEDURE:

#### WARNINGS:

1. Before loading a SW APP in your instrument, **close all applications running on your PC**: email, internet WEB browser, application programs, etc.;
2. Verify that the battery is charged and that the instrument is connected to the mains and most of all do not switch off or unplug the instrument during the APP loading. The instrument will automatically shut down after the APP has been loaded.

#### PROCEDURE:

1. Verify that you have installed on your PC the latest version of PC **S.M.A.R.T. PRO** interface program, available for free on our website;
2. Start the ROVER S.M.A.R.T. PRO program on your PC;
3. Click on "**Instrument**" and then on "**Connect Instrument**";
4. Click again on "**Instrument**" and then on "**Load Options**";
5. Select the "**APP**" file (this application file has the extension name ".bin");
6. Click on "**Open**" and wait until the loading is completed;
7. Switch the meter off and turn it on again and verify that the APP is working correctly.

**Note:** If the animated folder on your PC display that indicates that the APP loading is in progress seems to be blocked, do not stop the APP loading because this process is still in progress and will be completed normally.

#### ATTENTION:

In the event that the APP loading is interrupted or fails to be successful, we suggest that you check the USB cable connections and repeat the update procedure again from the beginning.