



Geoscanners AB®



PRFPLUS-600

The PRFPLUS-600 is a specially developed support unit that enables SIR® Systems from GSSI to run the very high power transmitter model 778 at high PRF. It allows running antennas in bi-static mode with the VHP-TX 778 exceeding the maximum allowable pulse repetition frequencies and/or scan rates of radars like the SIR-2, SIR-2000, SIR-20 and SIR-3000.

The PRFPLUS-600 as a companion to the GSSI very high power transmitter VHP-TX 778 is targeted to work together with all the antennas that accept plug-in electronics with the GSSI interface. That is the models 3205 and 3207 from GSSI and SUBECHO-40, -70 and -150 from Radarteam Sweden AB.

ELECTRICAL SPECIFICATIONS:

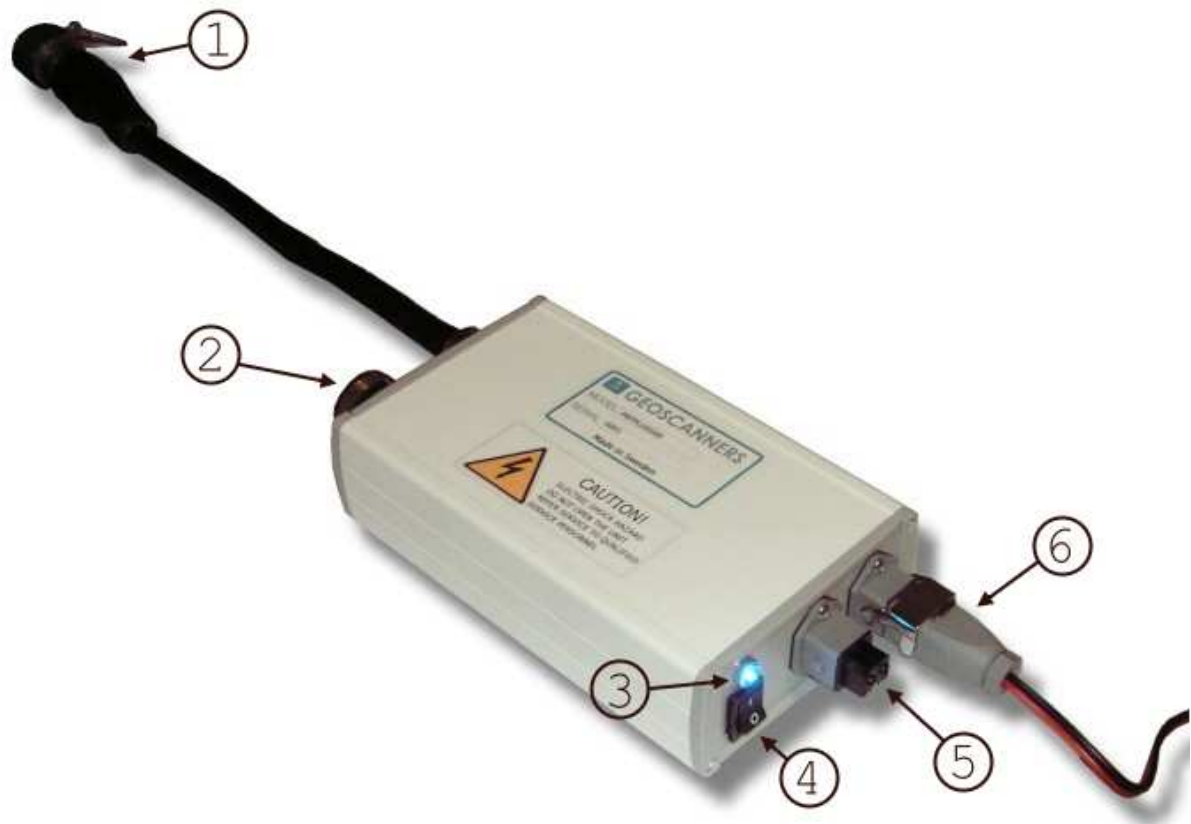
Minimum Input Voltage	10.5 V
Maximum Input Voltage	16.5 V
Maximum Input Current	778 mA
Output No. 1	Control output to 769DA2 or similar
Output No. 2	By-passed Power to Radar system

MECHANICAL SPECIFICATIONS:

Dimensions (LxWxH) mm/inch	175x106x45 (mm) / 6.9x4.1x1.7(inch)
Weight Kg/Lbs	0.6 kg / 1.32 Lbs
Ingress Protection Rating	IP51

ENVIRONMENTAL SPECIFICATIONS:

Maximum Temperature °C / °F	+40 °C / +104 °F
Minimum Temperature °C / °F	-10 °C / +14 °F
Maximum Humidity (non-condensing)	96% RH
RoHS Compliant	YES



OPERATING INSTRUCTIONS:

1. Connect the control cable (1) from the PRFPLUS-600 to the radar system.
2. Connect the antenna control cable to the output (2) from the PRFPLUS-600.
3. Attach the antenna control cable to the plug-in electronics 769DA2 or similar.
4. Remove the short coax from the transceiver and connect a coax to the BNC connector labeled "OUT". Connect the other end of the coax to the very high power transmitter 778.
5. Make sure that the transceiver and the very high power transmitter are firmly attached to the antennas.
6. Check that the On/Off switch (4) on the PRFPLUS-600 is in the off position.
7. Attach the power cable to the PRFPLUS-600 power input (6).
8. Turn on the PRFPLUS-600 by the switch (4) in the front of it. And wait approximately half a second. The blue led (3) should light up indicating that everything is ok.
9. Turn on the radar unit and proceed with the survey.

FAULT CONDITIONS:

The PRFPLUS-600 is prepared to detect several fault conditions and indicate about them to the operator via the front panel led and the radar system if it was attached. The blue front panel led gives the following codes depending on the detected fault condition:

1. The LED flashes approximately once per second – that indicates the battery voltage is above 16.5 and therefore the unit will not operate properly.
2. The LED flashes approximately twice per second – that indicates the battery voltage is below 10.5 and therefore the unit will not operate properly.
3. The LED flashes approximately three times per second – that indicates the high voltage is overloaded or a short circuit is present at the output.

Independently of the fault condition the PRFPLUS-600 always remove the power going to the very high power transmitter in order to protect the electronics from damage. The PRFPLUS-600 will not resume operation until the power has been recycled.

The PRFPLUS-600 is transparent to the radar system and no special measures should be taken from the radar side to ensure proper operation of the PRFPLUS-600.

The PRFPLUS-600 has been extensively tested together with the VHP-TX 778. Despite the fact that the very high power transmitter works at 100 kHz and 120 scans/seconds rate it is advised to run it at 80 scans/seconds or less when using 100 kHz pulse repetition frequencies. The reason for this is that the electronics in the VHP-TX 778 at higher scans rates gets hot and it can lead to unreliable operation.

TERMS OF USE:

Geoscanners AB has made all reasonable efforts to ensure that all information provided through this document is accurate at the time of inclusion; however, there may be inadvertent and occasional errors for which Geoscanners AB apologizes.

Geoscanners AB accepts no liability for any inaccuracies or omissions in this document and any decisions based on information contained in this document are the sole responsibility of the reader. Geoscanners AB accepts no liability for any direct, special, indirect, or consequential damages, or any other damages of whatsoever kind, resulting from whatever cause through the use of any information obtained either directly or indirectly from this document.

This document may not be copied, reproduced, re-published, downloaded, posted, broadcast or transmitted in any way except for your own personal use. Any other use requires the prior written permission of Geoscanners AB. You agree not to adapt, alter or create a derivative work from any of the material contained in this document or use it for any other purpose other than for your personal use. You agree to use this document only for lawful purposes, and in a manner which does not infringe the rights of, or restrict or inhibit the use and enjoyment of this document by any third party.

This document and the information, names, images, pictures, logos and icons regarding or relating to Geoscanners AB, its products and services (or to third party products and services), is provided "AS IS" and on an "IS AVAILABLE" basis without any representation or endorsement made and without warranty of any kind whether express or implied, including but not limited to the implied warranties of satisfactory quality, fitness for a particular purpose, non-infringement, compatibility, security and accuracy.

In no event will Geoscanners AB be liable for any damages including, without limitation, indirect or consequential damages, or any damages whatsoever arising from use or loss of use, data, or profits, whether in action of contract, negligence or other tortious action, arising out of or in connection with the use of this document. Geoscanners AB does not warrant that the functions contained in the material contained in this document will be uninterrupted or error free, that defects will be corrected. The names, images and logos identifying Geoscanners AB and their products and services are proprietary marks of Geoscanners AB. Nothing contained herein shall be construed as conferring by implication or otherwise any license or right under any trade mark or patent of Geoscanners AB, or any other third party.

If there is any conflict between these Terms and Conditions and rules and/or specific terms of use appearing in this document relating to specific material then the latter shall prevail. If any of these Terms and Conditions should be determined to be illegal, invalid or otherwise unenforceable by reason of the laws of any state or country in which these Terms and Conditions are intended to be effective, then to the extent and within the jurisdiction which that Term or Condition is illegal, invalid or unenforceable, it shall be severed and deleted from this clause and the remaining terms and conditions shall survive, remain in full force and effect and continue to be binding and enforceable.

These Terms and Conditions shall be governed by and construed in accordance with the laws of Sweden. Disputes arising here from shall be exclusively subject to the jurisdiction of the courts of Sweden.

If these Terms and Conditions are not accepted in full, the use of this document must be terminated immediately.