

Model 570 Fiber Optic Transmit Trigger Package System Settings and User Notes



**The World Leader in
Subsurface Imaging™**

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December, 2005

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Published by Geophysical Survey Systems, Inc.
13 Klein Drive
Salem, New Hampshire 03079

Printed in the United States

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FCC Class B Compliance

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Warning: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment or residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the introduction manual, may cause harmful interference to radio communications. However, there is not guarantee that interference will not occur in a particular installation.

Shielded cables must be used with this unit to ensure compliance with the Class B FCC limits.

Canadian Emissions Requirements

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numerique de la classe A est conforme a la norme NMB-003 du Canada.

FCC Notice (for U.S. Customers):

This device complies with part 15 of the FCC Rules:

Operation is subject to the following conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation

Warning: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Operation of this device is restricted to law enforcement, fire and rescue officials, scientific research institutes, commercial mining companies, and construction companies. Operation by any other party is a violation of 47 U.S.C. § 301 and could subject the operator to serious legal penalties.

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Model 570 Fiber Optic Transmit Trigger

Introduction

Thank you for purchasing a GSSI Model 570 Fiber Optic Transmit Trigger Package. This package is designed to replace the BNC trigger cable between the receiving antenna and transmitting antenna of a GSSI bi-static Antenna Pair. The Fiber Optic Package will greatly improve the quality of the received radar signal when investigating depth ranges greater than 200 nanoseconds.

The Fiber Optic Transmit Trigger Package consists of:

- (1) Model 570R - Fiber Optic receiver with 12VDC battery housing.
- (1) Model 570T - Fiber Optic transmitter.
- (2) NP1.2-12 - Rechargeable 12V 1.2AH Batteries.
- (1) Power Sonic Model PSC-12250-A battery charger.
- (2) Two meter fiber optic cables.

Installation Procedure

Note: The antenna cable should be unplugged from the system during this procedure. Refer to the Figure for a sketch of the Fiber Optic installation.

- 1.** Insert the transmitter (XMTR) plug-in into the transmitting antenna. Mount the Model 570R fiber optic receiver over the transmitter plug-in with the fiber optic connector facing the receiving antenna, line up the mounting holes of the Model 570R with the mounting holes on the transmitter plug-in and fasten with the screws provided.
- 2.** Plug the BNC cable from the 570R into the transmit (XMIT) BNC connector of the transmitter plug-in.
- 3.** Insert the receiver/transceiver (RCVR/XCVR) plug-in into the receiving antenna. Mount the Model 570T fiber optic transmitter over the receiver plug-in with the fiber optic connector facing the transmitting antenna, line up the mounting holes on the 570T with the mounting holes on the receiver/transceiver plug-in, and fasten with the screws provided.
- 4.** Plug the BNC cable from the Model 570T into the "XMIT" or "OUT" BNC connector on the receiver/transceiver plug-in.
- 5.** Connect the two meter fiber optic cable between the 570T and 570R. Route the cable along the antenna rails and fasten it with tape or cable ties. Make sure that no loose cable is hanging down between the antenna elements.
- 6.** Connect the 12 volt battery cable to the 12 volt connector on the 570R.

Operating Instructions

1. Connect the antenna cable to the system.
2. Turn on the power on Model 570R by toggling the power switch up. After about five seconds, the power on LED will blink. The absence of the LED blinking will indicate that:
 - The Power connector has become unplugged; or
 - The battery has run out of charge.

Note: The only limitation of the Model 570 is that of using it in conjunction with a Model 776 or 778 transmitter, the system transmit rate must be limited to 30 KHz. (On a SIR-2/2000 this is done automatically when an appropriate High Power setup is selected.)

Battery Replacement

1. Turn off the power on the Model 570R.
2. Completely loosen the thumbscrews on the cover of battery housing.
3. Open the cover and disconnect the battery at the two piece cable interconnect by pulling the two pieces away from each other.
4. Remove the battery by placing fingers in the slots beneath the battery and pushing up with fingers.
5. Put the charged battery into the housing and re-connect the power cable.

Charging The Battery

1. 1. Connect the Model PSC-12250-A charger to the battery to be charged.
2. 2. Plug the charger into a standard 110 VAC outlet. The power-on and fast charge indicators will light. When the battery is fully charged (approximately 8 - 10 hours), the fast charge indicator will go out.

Caution: Use only the PSC-12250-A charger for these batteries.

Note: A fully charged battery will provide a minimum of two hours of continuous use. This is assuming the use of a Model 778, GSSI's highest power transmitter, and a system transmit rate of 30 KHz. Lower power transmitters will allow a longer use time before the 570R's battery needs recharging.