

# Pad Relay Module PRM-12 Instruction Manual

# Pratt Hobbies, Inc.

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# **System Description**

The Pad Relay Module is a relay-operated circuit which will use the 12 volts supplied by a typical rocket launch system to deliver 12 volts at up to 40 amps from an auxiliary battery at the launch pad directly to the igniter.

Operation of the Pad Relay Module is very simple, **but it is important that you understand its operation** to avoid potential problems. Always follow the instructions below, in order.

A multimeter, voltmeter or continuity tester is recommended so you can check continuity on the system. **Test the system before connecting to a rocket on the launch pad!** 

## **System Setup**

Lay the Pad Relay Module out next to your launch pad. It should be far enough away from the pad to be safe from the rocket's exhaust. The Igniter cable should be able to reach the rocket's igniter with plenty of slack.

Connect your launch system to the Pad Relay Module. Attach one clip to the red binding post by partially unscrewing the post cap and clamping the clip to the exposed metal shaft, then lightly tightening the cap down onto the clip. Do the same with the black binding post. Polarity is not important. You can also put one jaw of the clamp through the hole in the binding post.

Make sure you have a good connection by checking continuity on your launch system. Since the circuit is complete through the Pad Relay Module relay, your system should show good continuity. Command Ignition and listen for the Pad Relay Module relay to click on. If you can hear a solid click, you have a good connection.

Conduct a system test by connecting a voltmeter to the igniter clips. Connect the Auxiliary battery clips to the Auxiliary battery. Command Ignition on your launch system. The voltmeter will show 12 volts if the system is connected correctly. If this doesn't happen, deactivate the system immediately and check to see where it is connected incorrectly.

#### **Launch Operations**

You are now ready to set up your rocket on the launch pad. As long as the Auxiliary battery clips on the Pad Relay Module are not connected to a battery or touching each other, no power can get to the Igniter clips coming from the Pad Relay Module.

Set up your igniter and connect the clips..

The last step before leaving the launch pad is to connect the Auxiliary battery to the Pad Relay Module. Doing this last helps to guard against accidental ignition. Proceed to the launch control area and clear the pad area.

Follow your usual launch procedures to count down and launch.

#### **Misfire Procedure**

Do not hold down the Ignition switch on your launch controller for more than 10 seconds. In the event of a misfire, do not approach the pad for at least 60 seconds.

#### **Post Flight Procedure**

After launch, switch your launch system off and remove the safety key.

Return to the launch pad and disconnect the auxiliary battery from the Pad Relay Module.

## **Disclaimer and Warranty**

Pratt Hobbies, Inc. certifies that we have exercised reasonable care in the design and construction of this system. The Pad Relay Module is warranted for a period of one year after purchase, and will be repaired or replaced at our option if found to be defective.

This system has been extensively tested in the field and we are confident that it will provide reliable service if properly used. We are unable to take responsibility for any possible damage to another manufacturer's products that may be connected to this system due to our inability to control its use. If the system is used in strict accordance with our instructions and damage occurs, we will make every reasonable effort to ascertain the cause, and repair or replace the system.