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PowerSync¹⁶ Radio Slave INSTRUCTIONS

Introduction

Thank you for choosing the PowerSync Radio Slave System, designed using the latest technology to produce a device that is simple to operate, while providing photographers with the highest quality radio slave system at an affordable price. The PowerSync System is designed strictly for flash units. It cannot be used with hot lights or continuous light sources. The PowerSync System allows the photographer to trigger the light source wirelessly from the camera (fits most cameras). It can also be used to trigger a remote camera that has an electronic shutter release connection. Remote shutter triggering requires a compatible motor drive cable (see Accessories).

The PowerSync Radio Slave System is available in two versions. The AC 100-240 volt version must be plugged into a wall socket. The DC version works with two standard AA batteries. The DC Receiver will also accept an AC adapter (DC 7V-9V/300mA). The Transmitter can be used for either model and operates on one 3V CR2450 battery. You must have both a Transmitter and either model of Receiver for the system to work. Your Transmitter can trigger as many Receivers as you want. As long as all Receivers are within range, and are set to the same frequency as the Transmitter, your Transmitter can trigger as many lights as your setup requires.

In order to fully understand your new PowerSync Radio Slave System, please take a moment to read through this user guide.

Key Features

- **16 Reliable Channels:** Digitally coded at 2.4 GHz for multiple setups; work at events with other photographers without the worry of flash or radio interference.
- **Extensive Range of Reliable Performance:** 590 feet (180 m) indoors; 200+ feet (60+ m) outdoors. An above-average range for the most demanding situations (radio interference and low battery strength will lower your effective range).
- **Fast Sync Speeds:** Compatible with most cameras, offering a maximum sync speed of 1/250 second; allows the user to capture most studio and event scenes.
- **Multipurpose Hot-Shoe Mount:** (*DC version*) The Receiver is equipped with a multipurpose hot-shoe mount for use with on-camera or remote portable flash. Tests have established that the mount works with the hot shoes of most major brands.
- **Universal Voltage:** (*AC version*) The Receiver offers the ease and convenience of dual or global voltage (100-240 V). The Receiver utilizes current from a host flash lighting unit. Operate your Receiver without the hassle of replacing batteries.

Note: *The PowerSync Radio Slave System is not designed to perform in TTL mode with flash units, nor is the system able to operate properly in the Live View mode of your camera. Your camera and flash unit must be set to Manual Mode.*

PowerSync¹⁶ AC Receiver



PowerSync¹⁶ DC Receiver



PowerSync¹⁶ Transmitter



PC male to 1/8" (2.5 mm)
mini sync cord



Safety Warnings

- Do not remove instrument covers during operation.
- Do not operate the PowerSync System in the presence of flammable gases or fumes. Operation of any electrical instrument in such an environment creates an extreme safety hazard.
- There are no user-serviceable parts inside the PowerSync Transmitter and Receiver systems. Do not install substitute parts or perform any unauthorized modification of either the Transmitter or Receiver.
- PowerSync is an accessory device for flash photography. Do not use this product in a manner not specified within this documentation.
- Turn your equipment OFF before making electrical connections or changing batteries.
- Install fresh batteries into the PowerSync System. Make sure to align batteries with proper polarity. Weak batteries will shorten the distance of transmission and reception.
- To avoid battery leakage, always remove the batteries when the units are not in use for more than a month. Do not use or leave the devices in conditions of extreme heat, severe cold, or high humidity.

Step 1: Synchronizing Channels

For your PowerSync system to work properly, both the Transmitter and Receiver must be set to use the same channel. The battery cover on the Transmitter features a pin for changing the DIP switches. With both units switched OFF, set the DIP switches to the same configuration on each. There are 16 different possible configurations.

Turn ON both the Transmitter and Receiver. The Transmitter has a test button which you can use to confirm your set-up. The Signal Confirmation LED on the Receiver will flash to indicate correct synchronization.



With the device switched OFF, use the pin on the battery cover to select the channel.



Both the Transmitter and the Receiver must be set to the same channel.

Step 2: Setting Up the Transmitter

There are two methods to connect the Transmitter to your camera:

Hot-shoe mount

One method is to affix the Transmitter to the hot shoe of your camera. Slide the Transmitter into the hot shoe. The test button should be at the back, the same side as the viewfinder. Tighten the lock wheel.



Hot-shoe mount

Sync cable

The other method is to connect the supplied sub-mini (2.5mm) phone jack to the Transmitter, located on the side of the unit, then plug the other end of the cord into the PC connection on the camera.



Sync-cable connection

If your camera doesn't have a PC jack, Impact makes sync cables with other plug types and in a variety of lengths. See the Accessories pages toward the back of this manual or check out the selection on our website.

Step 3: Setting Up the Receiver *(DC Model)*

If using a portable flash unit, you can attach the flash directly to the DC Receiver's hot shoe. With the 1/4" female threads on the back of the DC Receiver, you can then mount your remote flash on a tripod or a light stand with an adapter.



You can also use the DC Receiver's sync cord to connect directly to a studio flash. Included with your kit is a mount that will allow you to attach the receiver temporarily to your flash with an adhesive backing, or you can use a lanyard. If you are getting radio interference from the flash's electronics, have the receiver dangle on a lanyard, keeping the antenna from being too close to the flash's electronics. Your DC Receiver can now be turned on with the switch on top of the unit.



Step 3: Setting Up the Receiver *(AC Model)*

- Be sure your flash head is turned OFF. Unplug the power cord from the wall socket.
- Unplug the AC power cord from the flash (either the power pack or mono light) and plug it into the bottom of the PowerSync AC Receiver.
- Insert the power cord of the receiver into the AC power socket of the flash.
- Then insert the sync cord of the receiver into the sync socket of the flash. Once the flash power is turned ON, the PowerSync AC Receiver will be turned on automatically.

The AC version of the PowerSync comes complete with 1/4" and 1/8" (phono plug or miniplug) sync inputs. For other sync options, see the Accessories page towards the back of this manual.



Step 4: Mounting the Receiver



Shoe mount



1/4\"-20 mount



Lanyard

There are many ways you can mount your PowerSync Receiver to your flash unit. Attach an adhesive-backed accessory shoe to your flash and the shoe-to-1/4\"-20 adapter to your Receiver. Or use the Receiver's 1/4\"-20 female threads to mount the Receiver to a light stand or mounting arm. You can also thread a lanyard through the lanyard hole and hang the Receiver from a light stand, flash handle, or anywhere else convenient.



If mounting to a flash unit, it's best to place the Receiver so its antenna clears the top of the flash and is in direct sight of the Transmitter.

The PowerSync's effective range depends on the orientation and position of the Transmitter and Receiver. Reception can be affected by large metal or concrete objects and by bodies of water. Moving one or both devices a few feet is often enough to solve a reception problem.

Triggering a Remote Camera

You can use your PowerSync System to trigger a remote camera. The camera must have an electronic shutter release connection, and you must have a compatible camera release cable (see Accessories).

Step 1:

Connect your PowerSync DC Receiver to the electronic shutter release connection on your camera using a compatible camera release cable.

Step 2:

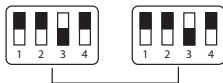
Make certain that both your PowerSync DC Receiver and Transmitter are set to the same channel and are powered up.

Step 3:

Press the TEST button on your PowerSync Transmitter to trigger the remote camera. Pressing the test button halfway will allow your camera to focus or will wake your camera from “sleep mode.”



Remote triggering can be done with the DC Receiver

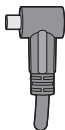


Adjust to the same channel



Accessories: Sync Cables

Your PowerSync Radio Slave system is compatible with a wide variety of cameras and flash units right out of the box, but you may need an accessory sync cable for some cameras and/or flash units. Below are the plug ends commonly in use and the equipment they typically connect. Verify the plug compatible with your equipment.



PC Standard

Fits most professional cameras.

1/8" (3.5 mm)

Miniphone

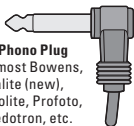
Fits a wide variety of flashes. This is a very popular sync plug.



2.5 mm

Sub-Miniphone

This plug is typically used only on slave systems.

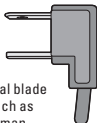


1/4" Phono Plug

Fits most Bowens, Dynalite (new), Monolite, Profoto, Speedotron, etc. 1-1/2" long plug; 1/4" thick.

Household 2-Blade Plug

Fits most professional flashes with dual blade receptacles, such as Lumedyne, Norman, Speedotron and Dynalite (old).



Hot Shoe

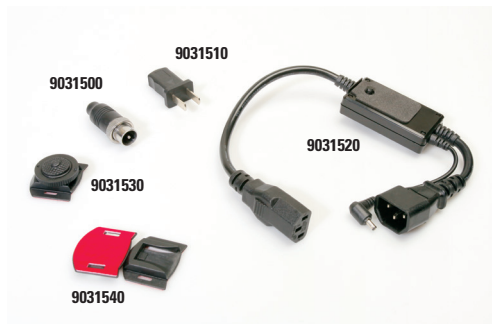
Fits most cameras featuring a hot shoe with a large center contact.



See your Impact dealer for a complete list of plugs and cable lengths available.

Accessories: Miscellaneous

To use your PowerSync System to trigger your camera shutter, you'll need a Camera Release Cable compatible with your camera. Please see the included cable compatibility insert card.



9031500 Miniphone Female to Elinchrom Adapter

9031510 Miniphone Female to Household Adapter

9031520 AC Power Adapter for PowerSync DC Receiver

9031530 Adhesive-backed Accessory Shoe with Thumbwheel Lock
(replacement)

9031540 Adhesive-backed Accessory Shoe – 2 pack
(replacement)

Troubleshooting

1. Turn OFF the Receiver (if it's a DC Receiver) and verify that the batteries' polarity is correct. Turn the Receiver back to the ON position.
2. Make sure the batteries in the Transmitter are fresh. Weak batteries will reduce the distance over which a transmission can be made.
3. Ensure that both the PowerSync Transmitter and Receiver are connected properly.
4. Make sure that both the Transmitter and Receiver are set to the same channel.
5. Verify that the flash lighting equipment in use is operating properly when not connected to the PowerSync Slave System. If triggering a flash that uses a household-style sync terminal, make certain that the plug is oriented correctly.
6. Verify that the flash lighting equipment has a sync voltage that is compatible with the PowerSync Slave System.
Note: The PowerSync Radio Slave System has been rigorously tested with numerous flash manufacturers and has proven to work in most instances. There may be some exceptions.
7. Ensure that all cables attached to both the flash and PowerSync Slave System are fully intact and are not frayed or torn.
8. Check for a stuck test button on all units, including the flash units.
9. Sync speed and working distance are affected by radio reflections and obstructions. Avoid having a large hill, concrete, metal or water obstructions between the Transmitter and Receiver. Reposition the units so they are not blocked by these objects. Often moving the Transmitter and Receiver a couple of feet will solve the problem.

Specifications

Frequency:	2.4 GHz
Channels:	16 digitally-coded channels
Operating Range:	~590 feet (~180 meters) indoors +200 feet (+60 meters) outdoors
Sync Speed:	1/250 second maximum
Trigger Speed:	8 frames/second maximum
Sync Jacks:	Transmitter – 2.5 mm sub-mini female DC Receiver – 1/8" mini (3.5 mm) female PC female hot shoe female AC Receiver – 1/8" mini (3.5 mm) female
Transmitter Trigger:	3 V DC
Batteries:	Transmitter – 1 × CR2450 DC Receiver – 2 × AA 1.5 V
Dimensions:	Transmitter – 1.2 × 1 × 3.2" (31 × 26 × 80 mm) DC Receiver – 1.7 × 1 × 4.3" (43 × 25 × 110 mm) AC Receiver – 1.7" × 1 × 4.3" (43 × 25 × 110 mm)

Backward Compatibility

The PowerSync 16-80 is backward compatible with the PowerSync 16 Radio Slave System.

PowerSync 16 Transmitter to PowerSync 16-80 as Receiver:

The PowerSync 16 transmitter can be used to trigger the PowerSync 16-80. Set your PowerSync 16-80 to Receiver (Rx) or Transmitter/Receiver (Tx/Rx) mode using the M button to accept a signal from the PowerSync 16 transmitter. Ensure the channel on both devices is identical. See chart below.

PowerSync 16-80 Transmitter to PowerSync 16 as Receiver:

The PowerSync 16-80 can be used to trigger the PowerSync 16 receiver. Set your PowerSync 16-80 to Transmitter (Tx) or Transmitter/Receiver (Tx/Rx) mode using the M button to send a signal. Ensure the channel on both devices is identical. See chart below.

For channel selection, the PowerSync 16 system relies on manual channel selector switches. Despite the PowerSync 16-80's digital interface, channels on the two devices can be synchronized using the chart below as a guide

Note: When using the PowerSync 16 – only 16 channels are available. The PowerSync 16-80's backward compatibility with the PowerSync 16 system will only work if No Group is selected on the PowerSync 16-80.

PowerSync¹⁶⁻⁸⁰	CH 65	CH 66	CH 67	CH 68	CH 69	CH 70	CH 71	CH 72
PowerSync¹⁶								
PowerSync¹⁶⁻⁸⁰	CH 73	CH 74	CH 75	CH 76	CH 77	CH 78	CH 79	CH 80
PowerSync¹⁶								

One-Year Limited Warranty

This IMPACT product is warranted to the original purchaser to be free from defects in materials and workmanship under normal consumer use for a period of one (1) year from the original purchase date or thirty (30) days after replacement, whichever occurs later. The warranty provider's responsibility with respect to this limited warranty shall be limited solely to repair or replacement, at the provider's discretion, of any product that fails during normal use of this product in its intended manner and in its intended environment. Inoperability of the product or part(s) shall be determined by the warranty provider. If the product has been discontinued, the warranty provider reserves the right to replace it with a model of equivalent quality and function.

This warranty does not cover damage or defect caused by misuse, neglect, accident, alteration, abuse, improper installation or maintenance. EXCEPT AS PROVIDED HEREIN, THE WARRANTY PROVIDER MAKES NEITHER ANY EXPRESS WARRANTIES NOR ANY IMPLIED WARRANTIES, INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. This warranty provides you with specific legal rights, and you may also have additional rights that vary from state to state.

To obtain warranty coverage, contact the Impact Customer Service Department to obtain a return merchandise authorization ("RMA") number, and return the defective product to Impact along with the RMA number and proof of purchase. Shipment of the defective product is at the purchaser's own risk and expense.

For more information or to arrange service, visit www.impactstudiolighting.com or call Customer Service at 212-594-2353.



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