



## 2.4 GHz 80-Channel Transceiver



PS-80

PowerSync 16-80  
Transceiver

# INSTRUCTIONS



# Table of Contents

Introduction .....	3
Key Features .....	4-5
Contents .....	5
Device Layout / LCD .....	6-7
Precautions .....	8
Installing the Batteries .....	9
Mode Selection .....	10
Channel Selection .....	11
Groups .....	12-13
Compatible Devices / Backwards Compatibility .....	14-15
Using the Transceiver with Your Flash .....	16-19
Using Your Transceiver as a Shutter Release .....	20-28
Advanced Features .....	29-33
Troubleshooting .....	34
Specifications .....	35
FCC Compliance .....	35
Warranty .....	36

# Introduction

Congratulations on the purchase of your Impact PowerSync 16-80 Transceiver. This multi-purpose 2.4 GHz 80-channel digital wireless transceiver empowers users to remotely trigger flash and camera devices. With the use of a minimum of two PowerSync 16-80 units, you can enjoy the freedom of triggering from a distance up to 720 feet (220 m).

The PowerSync 16-80 was designed to give photographers an easy to use, high-quality radio slave system. The wireless control capability eliminates the presence of cable clutter, making it ideal for studio or outdoor flash scenarios.

Remote triggering is a secondary ability of the PowerSync 16-80. This is helpful when a subject, such as wildlife, may be difficult to approach. Additionally, the wireless function of the device removes the potential of camera shake, making it ideal for macro, close-up, and long exposure photography.

The PowerSync 16-80's grouping and range-extending functions create easy to control transitioning between pre-set devices for off-camera and long-distance triggering. The adaptive PowerSync 16-80 is also backwards compatible with the PowerSync 16, enabling owners to use the PowerSync 16-80 with their older units. One PowerSync unit is able to wirelessly trigger many compatible units. Its small size and included pouch make the PowerSync 16-80 simple to store and transport.

To fully understand and best use the functions and capabilities of your PowerSync 16-80, please take a moment to read through this user guide.

## Key Features:

- **Digital Wireless Transceiver:** Powerful multipurpose transmitter/receiver that can act as a flash trigger and remote shutter release for multiple devices simultaneously.
- **Sync Speed:** Offers a maximum sync speed of 1/250 second, allowing the user to capture images wirelessly in most shooting scenarios.
- **80 Digital Channels:** Perfect for operating multiple devices wirelessly without having to worry about radio or flash interference.
- **Digitally Coded 2.4 GHz Signal:** A stronger and more reliable radio signal that allows the units to communicate, even with barriers between them, eliminating the need for a line-of-sight between devices.
- **Backward Compatibility:** Compatible with the Impact PowerSync 16 transmitter and receiver units.
- **Four Individual Groupings:** Provides the user with the ability to wirelessly bundle multiple units in bunches, creating separate groups with alternate settings.
- **Ideal for Long-Exposure and Macro Photography:** The hands-free shutter release features of the device make it perfect for photography situations where eliminating camera shake is an asset.

- **Extended Wireless Range:** Has the ability to extend the device's signal range with the use of multiple units for flash and camera triggering.
- **Auto-Syncing:** This synchronizes your remote flashes with a camera's shutter release using only three transceiver units.

## Contents Include

- 1 Transceiver
- 2 Lanyard
- 3 Pouch
- 4 3.5 mm to 3.5 mm flash sync cable
- 5 3.5 mm to 1/4" cable adapter
- 6 2.5 mm to PC flash sync cable
- 7 2x AA alkaline batteries
- 8 Self adhesive, adjustable accessory shoe
- 9 User guide



# Overview

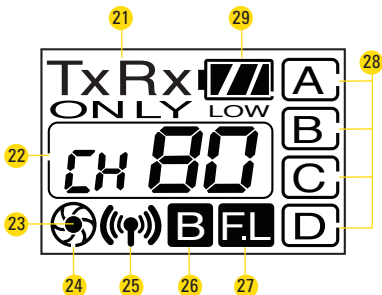
- 1 Power switch
- 2 Mode (Transmitter TX, Receiver RX, or Transceiver TX/RX)
- 3 3.5 mm output for flash/shutter release cable
- 4 Female screw-in PC port output
- 5 Channel selector
- 6 Integrated antenna
- 7 LED status light  
*Auto focus: ● orange*  
*Shutter: ● green*  
*Power on confirmation: ● blinking red*
- 8 Backlit LCD screen
- 9 Group selector
- 10 Lanyard loop connection

## Device Layout



## LCD

- 11 Reset (Press “Bulb” and Group “D” button for 3 seconds)
- 12 Bulb mode/Continuous focus lock
- 13 Test (flash)/Shutter Release Button (shutter)
- 14 2.5mm PC input
- 15 mini-USB Type B/DC5v adapter port
- 16 Receiver hot shoe mount
- 17 Locking thumbwheel
- 18 Transmitter shoe foot
- 19 Battery compartment
- 20 ¼-20” female threaded socket



- 21 Tx/Rx mode indicator
- 22 Channel indicator
- 23 Shutter indicator
- 24 Focus confirmation
- 25 Signal verification
- 26 Bulb mode indicator
- 27 Continuous focus lock indicator
- 28 Group indicator
- 29 Battery status

# Precautions

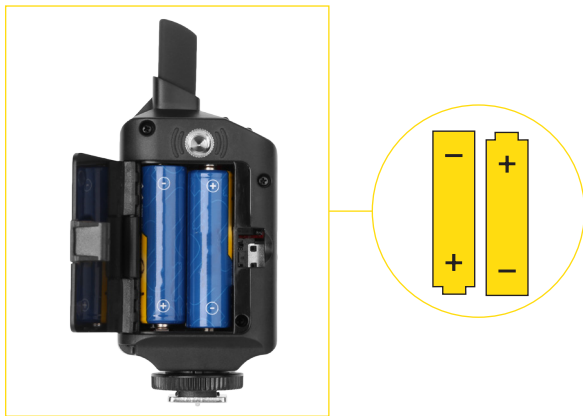
- There are no user-serviceable parts inside the devices. Do not attempt to disassemble or perform any unauthorized modification.
- Do not operate the PowerSync 16-80 in the presence of flammable gas or vapors.
- Do not handle with wet hands or immerse in or expose to water or rain. Failure to observe this precaution could result in fire or electric shock.
- Keep out of the reach of children. This device contains small parts which may pose a choking hazard.
- Observe caution when handling batteries. Batteries may leak or explode if improperly handled. Use only the batteries listed in this manual. Make certain to align batteries with the correct polarity.
- Batteries are prone to leakage when fully discharged. To avoid damage to the product, be sure to remove the batteries before leaving the product unattended for prolonged periods or when no charge remains.
- Do not use or leave the devices in conditions of extreme heat, severe cold, or high humidity.
- Turn off the camera and/or flash's power before inserting or removing any cord.
- Dispose of used batteries, packaging, and old devices in accordance with appropriate local environmental regulations.
- All images are for illustrative purposes only.



## Installing the Batteries

The battery compartment is located on the rear of the device. To install the batteries, open the compartment door and carefully slide two AA batteries into position. Ensure that the polarity of the batteries match the icons shown within the compartment.

*The PowerSync 16-80 may also be powered using a mini-USB type B DC5v AC adapter.*



# Mode Selection

## **Transmitter (Tx):**

Transmitter mode sets the transceiver to only send out signals to other devices. No incoming signals will affect the device while this mode is initiated.

## **Receiver (Rx):**

Receiver mode sets the transceiver to only accept incoming signals from transmitting devices. This mode does not allow the device to send out signals.

## **Transmitter/Receiver (Tx/Rx):**

Transmitter/Receiver mode allows the transceiver to both send and receive signals to or from other devices simultaneously.

To change the mode on your PowerSync 16-80, press and hold the M button until the current mode begins to blink on the LCD screen. Press the M button again until your desired mode is displayed on the LCD screen.

*NOTE: Using Tx/Rx mode increases the chance of signal interruptions between communicating devices in the presence of many PowerSync 16-80 units. For the most reliable signal transmission or reception, use either Tx or Rx mode when possible.*

## Channel Selection

The Impact PowerSync 16-80 provides the user with 80 individual channels. To set a device's channel, push and hold the Channel Selector buttons, up or down, for two seconds until the channel number begins to blink. Press the Channel Selector buttons up or down to select the desired channel number.

## Compatible Devices

The PowerSync 16-80 does not transmit TTL (through-the-lens) settings. A flash, with full manual output control is required for use with this device. Most manual flashes are compatible with the PowerSync 16-80's receiver hot-shoe mount. Ones that are not are the Sony/Minolta, Sony Multi-Interface, and Pentax flashes. The hot-shoe foot is compatible with all hot-shoe cameras except for Sony/Minolta and Pentax.

### Backwards 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:

<b>PowerSync<sup>16-80</sup></b>	CH 65	CH 66	CH 67	CH 68	CH 69	CH 70	CH 71	CH 72
<b>PowerSync<sup>16</sup></b>								
<b>PowerSync<sup>16-80</sup></b>	CH 73	CH 74	CH 75	CH 76	CH 77	CH 78	CH 79	CH 80
<b>PowerSync<sup>16</sup></b>								

*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.*

# Using the Transceiver with Your Flash

## Connecting the Transceiver to Your Flash

*A transceiver is a device comprising both a transmitter and a receiver combined to share common circuitry or a single housing.*

### Mounting the Transceiver (Transmitter):



**On a Camera:** With all of the devices turned off, slide the transceiver onto your camera's hot-shoe mount. Tighten the locking ring to secure.



**On a Bracket:** With all of the devices turned off, slide the transceiver onto the bracket's cold shoe-mount. Connect the devices with the included 2.5 mm to PC cable, with the 2.5 mm end inserted in the transceiver's input. Then plug the PC end of the cable into your camera's PC port.


## Mounting the Transceiver (Receiver):



**To a Light Stand:** With all devices turned off, mount the transceiver to a light stand using the threaded 1/4"-20 socket located on the back of the device. Turn the device clockwise until secure. Slide your hot-shoe flash into the transceiver's hot shoe. Power on the flash, both transceiver units (transmitter and receiver) and your camera. Synchronize the channel and group settings on both transceivers. Push the on-camera transceiver's Test button or the camera's on-body shutter release button to trigger the lights.



**To a Studio Monolight Flash:** With all of the devices turned off, connect and secure the receiving (on-strobe) transceiver to the studio strobe. Among other ways, this can be done using the included lanyard strap or supplied adhesive-backed hot-shoe mount. The backing of the mount can be trimmed as necessary.

Connect the studio strobe to the on-strobe transceiver using the appropriate to 3.5 mm output sync [  ] port.

*NOTE: Many modern flashes and cameras have a Sleep mode. This must be turned off before using with the PowerSync 16-80. Refer to your flash or camera manual for instructions.*

# Using the Transceiver with Your Flash

## Wireless Remote Triggering with Hot-Shoe Flash



*The wireless functionality of the PowerSync 16-80 requires the user to have two units (one transmitting transceiver, one receiving transceiver) to operate.*

1. Turn on the receiving (on-flash) transceiver and set it to Receiver (Rx) or Transmitter/Receiver (Tx/Rx) mode using the M button.
2. Turn on the on-camera transceiver and set it to Transmitter (Tx) or Transmitter/Receiver (Tx/Rx) mode.
3. Make sure the same channel and group settings are selected on each of the transceiver units.
4. Turn on all your devices, push the on-camera transceiver's Test button or the camera's shutter trigger to activate the flash and camera devices.


**NOTE:** When the on-camera hot shoe is occupied, connect your transceiver to your camera via the included PC sync cable.





## Wireless Remote Triggering with Studio Strobe



1. With all of the devices turned off, connect and secure the receiving (on-strobe) transceiver to the studio strobe. Among other ways, this can be done using the included lanyard strap or supplied adhesive-backed hot-shoe mount. The backing of the mount can be trimmed as necessary.
2. Connect the studio strobe to the on-strobe transceiver using the appropriate cable to the 3.5 mm output sync [  ] port.
3. Turn on the camera, studio flash, and transceiver units.
4. Set the on-camera transceiver to Transmitter (Tx) or Transmitter/Receiver (Tx/Rx) mode using the M button.
5. Set the on-strobe transceiver to Receiver (Rx) or Transmitter/Receiver (Tx/Rx) mode using the M button.
6. Select and match the channel and group settings on the transceivers.
7. Trigger the studio strobe by pushing the on-camera shutter release button or the on-camera transceiver's Test button

If your studio light has a 1/4" phono jack, you will need to use the included 3.5mm to 1/4" phono adapter. Additional sync cables are available separately.

# Groups

## Group Selection

The group functionality of the Impact PowerSync 16-80 Transceiver allows the user to control up to four separate groups of flashes or cameras (Group A, B, C, and D). All the receiver(s) matching the group selected on the transmitter will receive a signal. Simultaneous triggering of multiple light or camera groups requires additional transceivers (available separately).

To assign your device(s) to a group, simply press and hold the A, B, C, or D button for one second. The corresponding letter will be displayed on the screen. To unassign a unit, hold the same group button for one second. The on-screen group indicator will no longer appear.

## Using Groups

A group consists of a minimum of one device or as many devices that are necessary for the application. Using groups allows you to easily configure up to four different light or camera groups. You can select any one group individually, or in combination with any other of the groups, to achieve a particular lighting or camera exposure effect.

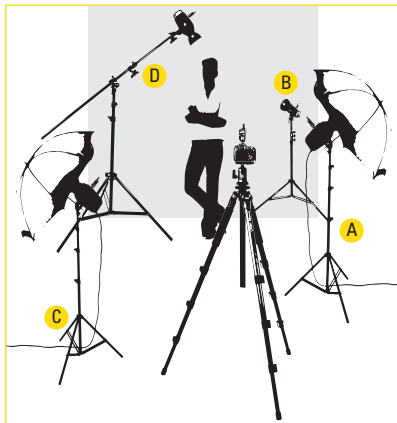
Various lighting configurations are used to achieve different effects. Here's a typical multi-group lighting example:

**Group A:** Key light(s) – the main and most important light in the composition of a photograph.

**Group B:** Background light(s) – used to illuminate the background lighting of a composition.

**Group C:** Fill light(s) – used to fill or lighten shadows in a composition.

**Group D:** Hair/Accent light(s) – used to emphasize an area or object in a composition.



**Note:** Once you have made your selection, the PowerSync 16-80 will remember your setting selection of Mode, Channel, Group even when turning the unit on/off, making it easy to start your next session at the same settings.

**Default setting:** Returning the unit to factory defaults Press “Bulb” and Group “D” button for 3 seconds, unit will return to factory defaults which are:

Mode	TX/RX	Channel	1	Groups	No groups selected
------	-------	---------	---	--------	--------------------

**Note:** Use the All Groups off (No Group) setting if you plan to use with a PowerSync 16 or without the intent of individual on/off group control.

# Using Your Transceiver as a Shutter Release



*The PowerSync 16-80 transceiver can be used to trigger your camera. The **wired** shutter release functionality of the PowerSync 16-80 only requires the use of one transceiver device. The **wireless** functionality of the PowerSync 16-80 requires you to have two units (one transmitting transceiver, one receiving transceiver) to operate.*

*Camera compatibility and camera specific remote shutter release cables are available separately. See included flyer for camera and shutter release cable compatibility list.*

## Using the Transceiver as a Wireless Shutter Release





### Single Shot:

1. With all devices turned off, connect and secure the receiving (on-camera) transceiver to the camera by plugging the camera dedicated shutter release cable into the Camera remote [  ] port and the other 3.5mm end into the transceiver's output port [  ].
2. Turn on the on-camera transceiver and set it to Receiver (Rx) mode using the M button.
3. Turn on the transmitting (in-hand) transceiver and set it to Transmitter (Tx) mode using the M button.
4. Synchronize the group and channel selection on both devices.
5. Turn on your camera and set your camera to single-shot mode.

6. Half press the Shutter Release button on the in-hand transceiver to auto-focus the camera.
7. Fully press the Shutter Release button on the in-hand transceiver to activate the camera's shutter.



### **Continuous Shooting:**

1. With all devices turned off, connect and secure the receiving (on-camera) transceiver to the camera by plugging the camera dedicated shutter release cable into the Camera remote [  ] port and the other 3.5mm end into the transceiver's output [  ].
2. Turn on the on-camera transceiver and set it to Receiver (Rx) mode using the M button.
3. Turn on your camera and set it to continuous shooting mode at a shutter speed higher than Bulb.
4. Turn on the in-hand transceiver and set it to Transmitter/Receiver (Tx/Rx) mode using the M button.
5. Synchronize the group and channel selection on both devices.
6. Half press the shutter release button on the in-hand transceiver to auto-focus the camera.
7. Push and hold the Shutter Release button on the in-hand transceiver to trigger the continuous firing mode on the camera.
8. Release the button to stop continuous shooting.



# Using Your Transceiver as a Shutter Release

## Using Wireless Bulb Mode

### **Option 1:** Press/Hold Exposure

1. With all devices turned off, connect and secure the receiving (on-camera) transceiver to the camera by plugging the camera dedicated shutter release cable into the Camera remote [  ] port and the other 3.5mm end into the transceiver's output [  ].
2. Turn on your camera and set it to Bulb.
3. Turn on the on-camera transceiver and set it to Receiver (Rx) mode using the M button.
4. Turn on the in-hand transceiver and set it to Transmitter (Tx) mode using the M button.
5. Synchronize the group and channel selection on both devices.
6. Half-press the Shutter Release button to auto-focus the camera.
7. Using the in-hand transceiver, push and hold the Shutter Release button to open the camera's shutter.
8. Release the button when the desired exposure time has elapsed.

## **Option 2: Two-Click Exposure**



1. With all devices turned off, connect and secure the receiving (on-camera) transceiver to the camera by plugging the camera dedicated shutter release cable into the Camera remote [  ] port and the other 3.5mm end into the transceiver's output [  ].
2. Turn on your camera and set it to Bulb.
3. Turn on the on-camera transceiver and set to Receiver (Rx) mode using the M button and bulb mode by holding the Bulb Mode button. The LCD display will display a "B" symbol when the function is activated.
4. Turn on the transmitting (in-hand) transceiver and set it to Transmitter/Receiver (Tx/Rx) mode using the M button and Bulb (B) mode using the Bulb button. The LCD display will continuously flash a "B" to indicate when the function has been activated.
5. Synchronize the group and channel selection on both devices.
6. Half-press the Shutter Release button to auto-focus the camera.
7. Push the Shutter Release button to open the camera's shutter. A synchronized timer will appear on both transceiver screens indicating the elapsed time.
8. Push again to close the camera's shutter.
9. Push Bulb button twice to turn off "B" mode.

# Using Your Transceiver as a Shutter Release

## Using the Transceiver as a Wired Shutter Release

A wired connection to the camera only requires one PowerSync 16-80 device. It allows the user to stay by the camera without having to trigger it with the camera's shutter release button, avoiding camera shake.



### Single Shot:

1. With all devices turned off, connect the receiving (on-camera) transceiver to the camera by plugging the camera dedicated shutter release cable into the Camera remote [  ] port and the other 3.5mm end into the transceiver's output [  ]. (Attach the Transceiver to the camera by using the lanyard or a cold shoe bracket)
2. Turn on the transceiver and set it to Transmitter (Tx) or Transmitter/Receiver (Tx/Rx) mode using the M button.
3. Turn on your camera and set your camera to single-shot mode.
4. On the transceiver, half press the Shutter Release button to auto-focus the camera.
5. Fully press the Shutter Release button to activate the camera's shutter.





## **Continuous Shooting:**

### **Option 1: Press/Hold Continuous Shooting**

1. With all devices turned off, connect the receiving (on-camera) transceiver to the camera by plugging the camera dedicated shutter release cable into the Camera remote [  ] port and the other 3.5mm end into the transceiver's output [  ]. (Attach the Transceiver to the camera by using the lanyard or a cold shoe bracket)
2. Turn on your camera and set it to continuous shooting mode. Make sure to set your camera to any shutter speed other than Bulb.
3. Turn on the transceiver and set it to Transmitter/Receiver (Tx/Rx) mode using the M button.
4. On the transceiver, half press the Shutter Release button to auto-focus the camera.
5. Fully press and hold the Shutter Release button to activate the camera's shutter.
6. Release the button to stop continuous shooting.



# Using Your Transceiver as a Shutter Release

## Option 2: Two-Click Continuous Shooting

1. With all devices turned off, connect and secure the transceiver to the camera by plugging the camera dedicated shutter release cable into the Camera remote [  ] port and the other 3.5mm end into the transceiver's output [  ]. (Attach the Transceiver to the camera by using the lanyard or a cold shoe bracket)
2. Turn on your camera and set it to continuous shooting mode. Make sure to set your shutter speed to any other than Bulb.
3. Turn on the transceiver and set it to Transmitter/Receiver (Tx/Rx) mode using the M button. Next, activate the transceiver's Bulb mode by holding down the Bulb Mode button. The LCD display will flash a B to indicate when the function has been activated.
4. On the transceiver, half press the Shutter Release button to auto-focus the camera.
5. Fully press the Shutter Release button to activate the camera's shutter. A timer will appear on the LCD panel displaying the time elapsed.
6. Press the button again to stop continuous shooting.
7. Push Bulb button twice to turn off "B" mode.



## Using Wired Bulb Mode

### **Option 1:** Press/Hold Long Exposure

1. With all devices turned off, connect and secure the transceiver to the camera by plugging the camera dedicated shutter release cable into the Camera remote [  ] port and the other 3.5mm end into the transceiver's output [  ]. (Attach the Transceiver to the camera by using the lanyard or a cold shoe bracket)
2. Turn on your camera and set it to Bulb.
3. Turn on the transceiver and set it to Transmitter/Receiver (Tx/Rx) mode using the M button.
4. On the transceiver, push and hold the Shutter Release button to open the camera's shutter.
5. Release the button when the desired exposure time has elapsed.

# Using Your Transceiver as a Shutter Release

## **Option 2: Two-Click Long Exposure**


1. With all devices turned off, connect and secure the transceiver to the camera by plugging the camera dedicated shutter release cable into the Camera remote [  ] port and the other 3.5mm end into the transceiver's output [  ]. (Attach the Transceiver to the camera by using the lanyard or a cold shoe bracket)
2. Turn on the camera and set it to Bulb.
3. Push Bulb button twice to turn off "B" mode.
4. Push the Shutter Release button to open the camera's shutter. A timer will appear on the LCD panel displaying the elapsed time.
5. Push again to close the camera's shutter.
6. Push Bulb button twice to turn off "B" mode.

# Advanced Features

## Auto-Sync Triggering for Cameras and Flashes

*The PowerSync 16-80 includes an auto-sync triggering function. This synchronizes your remote flashes with a camera's shutter release using only **three** transceiver units, meaning you can trigger both your camera and flash wirelessly using three transceivers.*

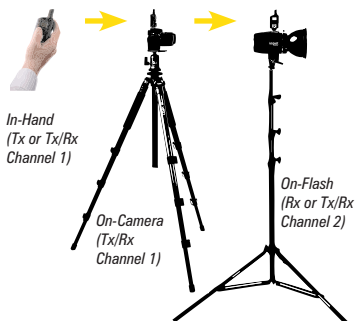
*To set up your devices for the auto-sync triggering mode, please use the following instructions:*

1. Turn on the transmitting (in-hand) transceiver and set it to Transmitter (Tx) or Transmitter/Receiver (Tx/Rx) mode using the M button and select a channel and group.
2. With the device turned off, connect the second (on-camera) transceiver device to the camera using the camera dedicated shutter release cable into the shutter release [  ] port. Install and secure the device to your camera's hot shoe.
3. Turn the on-camera transceiver on and set it to Transmitter/Receiver (Tx/Rx) mode using the M button. Match the unit's channel and group to that of the transmitting (in-hand) transceiver.
4. With the third (on-flash) transceiver off, connect and secure it to the remote flash (See Page 14 for mounting to flash instructions). Once this is completed, turn it on.
5. Set the (third) on-flash transceiver to Receiver (Rx) mode using the M button. Set it to one channel above that of the first two units. For example, if the in-hand and on-camera

## Advanced Features

transceivers are set to Channel 1, the on-flash unit should be set to Channel 2. Ensure the selected group matches the first two units.

6. Half-press the transceivers shutter release button to auto-focus the camera, then press and release the Shutter Release button on the in-hand transceiver to fire the remote camera and flash. The remote flash will synchronize with the camera automatically.





*The following chart illustrates the modes that differently purposed devices need to be set to while using the auto-sync triggering function:*

Device	Applicable Modes
In-Hand	Transmitter (Tx), Transmitter/Receiver (Tx/Rx)
On-Camera	Transmitter/Receiver (Tx/Rx)
On-Flash	Receiver (Rx), Transmitter/Receiver (Tx/Rx)

## Using the Continuous Focus Lock Function

*The PowerSync 16-80 allows the user to minimize the lag time between when the photographer presses the Test/Shutter release button of the PS16-80 and the camera achieves autofocus and the shutter is actually released.*

*By pressing the Continuous Focus Lock button on the PS16-80 when used as a receiver, the PS16-80 focus locks the camera's focus mechanism to continuously focus. Equivalent to constantly half-pressing the camera's shutter release button, the Continuous Focus Lock button does it for you, constantly engaging the camera's autofocus mechanism until the Continuous Focus Lock button is turned off.*

1. With all devices turned off, connect and secure the receiving (on-camera) transceiver to the camera, and by plugging the camera dedicated shutter release cable into the Camera remote [  ] port and the other 3.5mm end into the transceiver's output [  ].
2. Turn on and set the on-camera transceiver to Receiver (Rx) mode using the M button.
3. Turn on the camera and transmitting (in-hand) transceiver. Set the transceiver to Transmitter (Tx) mode using the M button.
4. Ensure that your camera is set to both AutoFocus and Continuous Focus mode. (AF-C on Nikon, AI-Focus or AI-Servo on Canon)
5. Push the Continuous Focus Lock button on the on-camera transceiver two times to set FocusLock. The LCD will blink "FL" to indicate that the continuous focus is locked.

# Advanced Features

6. When you're ready to trigger the camera, press the shutter release button on the in-hand transceiver.
7. To disable the function, push the Continuous Focus Lock button again. The on-screen indicator (FL) will disappear.

## **Summary:**

- With your camera set to Autofocus
- With your camera set to Continuous Focus Mode
- PS16-80 attached to camera via 3.5mm to camera specific cable
- With your camera set to a higher speed than bulb.

## **Continuous Focus Lock ON**

- Camera Continuously focuses and meters
- Minimal lag time between when camera achieves autofocus and when camera actually fires
- Some Camera menus are no longer available

## **Continuous Focus Lock OFF**

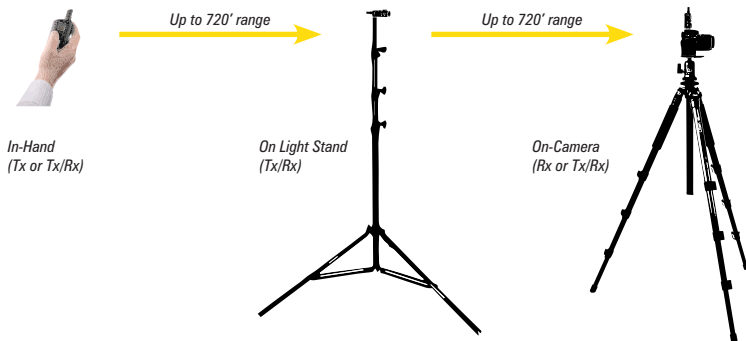
- Camera focuses and meters only when Test/Shutter button is pressed
- Lag time between when camera achieves focus and camera fires
- All Camera menus are available



## Extending the Wireless Range

The PowerSync 16-80 transceiver has the ability to extend the device's signal range with the use of multiple units for flash and camera triggering.

For example, the PowerSync 16-80's maximum operating range is up to 720 feet (220 meters). If a second unit is placed just before that maximum range in Transmitter/Receiver (Tx/Rx) mode, it would extend the range of the first (transmitting) unit up to a maximum 1,440 feet (440 meters) in that direction. This will allow a third unit to be placed within that extended range (in Rx mode) and receive the trigger signal from the first unit. This process can be repeated to extend the range even further.



# Troubleshooting

- Check that channels and groups on all communicating devices are identical (except when using the Auto-Sync advanced feature). When turning on the unit, it is important to review and, if necessary, reset the group selection.
  - If your first choice of channel does not work, try a different channel until you find one that works.
  - Ensure that all cables are installed correctly.
  - Make sure that the power source for each device is properly installed and carrying a sufficient charge. Weak batteries can reduce the distance over which a transmission works.
  - If you are triggering your transceiver with a wired connection, make sure the device is connected using the correct cable and the cable is connected to the correct input port.
  - Make sure that a communication confirmation appears on the LCD screen when sending a signal.
  - Verify that flash and camera equipment are operating properly.
  - If in use with PowerSync 16 unit(s), ensure that the channel configuration is identical. Refer to the 'Backwards Compatibility' section of this manual on page 12.
  - Check for a stuck Test button on all units, including flash devices.
  - Make sure the devices are within the maximum operating range. For details, please refer to the Maximum Operating Range section of this manual on page 32.
- If your PowerSync 16 won't communicate with your PowerSync 16-80, please refer to the following troubleshooting suggestions:
- Make sure your PowerSync 16-80 transceiver is set to the default no group setting.
  - Make sure all devices are powered on with fresh batteries.
  - Ensure the channels on both devices are identical. Visit page 11 for more information.

# Specifications

Frequency:	2.4 GHz
Channels:	80 channels
Groups:	4 groups
Connections:	PC outlet, 2.5 mm Input Port Connection, 3.5 mm shutter release and flash (output), mini-USB Type B/DC5v connection.
Operating Range:	Up to 720' (220 m)
Sync Speed:	1/250 sec. maximum
Dimensions:	1.25 x 1.75 x 4.75" (2.5 x 3.75 x 12 cm)
Weight (Without Battery):	2.9 oz. (81 g)
Battery:	2x AA 1.5V alkaline, lithium, or NiMH batteries

**NOTE:** The maximum operating range of the Impact PowerSync 16-80 is up to 720' (220 m). To maximize the operating range, position the transceivers with their antennas pointed up and at least three feet from the ground. This will create an ideal transmitting condition. The estimated maximum distance can be influenced and reduced by such factors as radio frequency interference, walls, concrete, metal, water, and landscape features. Avoid barriers between communicating devices.

## FCC 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.

## 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](http://www.impactstudiolighting.com) or call Customer Service at 212-594-2353.

Product warranty is provided by the Gradus Group.  
[www.gradusgroup.com](http://www.gradusgroup.com)



Impact is a registered trademark of the Gradus Group. © 2014 Gradus Group LLC. All Rights Reserved.  
All other trademarks are the property of their respective owners