

Congratulations on your purchase of a new Marshall Electronics POV Camera. Here are some useful tips that can assist in initial setup and operation of your new Marshall camera model. If you need additional assistance, please contact us at 800-800-6608 or email [Support@Marshall-USA.com](mailto:Support@Marshall-USA.com), as we have staff standing by to help you.

First, connect your breakout cable included in the box to the rear I/O connection on camera. Before pushing breakout cable into place; make sure to rotate Hirose cable before fully inserting to find the channel before pushing all the way into place. Please do not force the I/O cable into the connection as the pins need to line up before you can push the cable into locked position.

Second, connect the 12V power supply cable to the red connector at other end of breakout cable and rotate to lock into place.

Please note; this camera outputs a **3G-SDI Level-A** signal (1080p60/59.94/50fps) or HD-SDI depending on resolution and framerate chosen, and it is important to make sure the equipment you are connecting to accepts these signals. The latest models default to a resolution of 1920x1080i at a frame rate of 59.94fps. In some cases, you may need to perform a field firmware update to get the latest improvements and performance (please visit product page for your model on [www.Marshall-USA.com](http://www.Marshall-USA.com) for latest firmware).

It is important to know what your equipment accepts as you may not see a video signal when you first connect your camera to your system via SDI. If your system does not accept the default signal 1920x1080i @ 59.94fps when you connect the camera, there is a joystick reset configuration that will set the camera to 1280x720p @ 59.94fps.

### **Resolution & Framerate RESET from thumb joystick on breakout cable:**

1920x1080i @ 59.94fps (joystick sequence after power-cycle) UP, DOWN, UP, DOWN, ENTER and hold for 3 seconds.

1280x720p @ 59.94fps (joystick sequence after power-cycle) UP, DOWN, LEFT, RIGHT, ENTER and hold for 3 seconds.

Once you have established a video signal you can change the resolution and frame as needed. You can get to this setting by pushing the OSD menu joystick IN once so the On-Screen Display Menu appears on video feed, and here you can select **SET UP > OUTPUT FORMAT**, where you can highlight the resolution, and toggle to the right select from available combination options.

**Video Cable:** the recommended coaxial video cable for Full-HD is RG6 rated cable, which is the minimum required cable for this camera rating and where you can run up to 300 feet (100m) before a signal boost or into monitors, switchers or media converters. If you are experiencing video drop out, you may be using a RG59 or lower grade cable at a longer distance than recommended, please attempt a different cable at the suggested RG6 requirement or a shorter cable for testing.

If you are using a converter, distribution amplifier, or you are connecting to a video switcher please adjust the unit to match the signal you have the camera set to as this may also cause video to not appear on screen.

If you plan to use an HDMI cable, we recommend using a high quality HDMI2.0 cable or higher at a maximum of 15~20 feet depending on the video resolution and frame rate you are choosing to use. You can also use the 3G/HD-SDI and HDMI simultaneously if need be or to setup and configure on a HDMI monitor.

**Mirror or Flip Video Image:** start by activating the cameras menu system (push joystick in once and release) select **SPECIAL > then DISP FUNCTION**, here you can change the configuration of your image.

**How to Save Settings:** start by activating the cameras menu system (push joystick in once and release) select **RESET >** then change **RESET MODE** from **FACTORY** to **USER** and exit the menu and push SAVE. This will save all your settings made to the camera when you re connect the power to your camera. If you would like to reset the camera to Factory reset, change the USER save to **FACTORY** save and push SAVE.

**Focusing a M12 Lens:** If you are using a M12 lens, position your camera to the desired location, now loosen the lens by turning counterclockwise, you can now loosen the locking nut. Now begin to turn the lens clockwise until the image becomes clear and sharp. You can now move the locking nut back into place to hold the position of your focus.

**Focusing a VARIFOCAL Lens:** If you are using a Varifocal adjustable lens, position your camera to the desired mounting position, then loosen both thumbscrews to adjust the focal length, once you reach your desired focal length start to adjust the focus ring. In some cases, you may need to readjust the focal length depending on what you are trying to focus on. Once your focal length and focus are set tighten the focal length screw, now fine tune the focus and then tighten the focus ring down with screw.

**For more details on how to setup or operate your new camera, please download and reference the Owner's Manual for more in-depth explanation and information.**