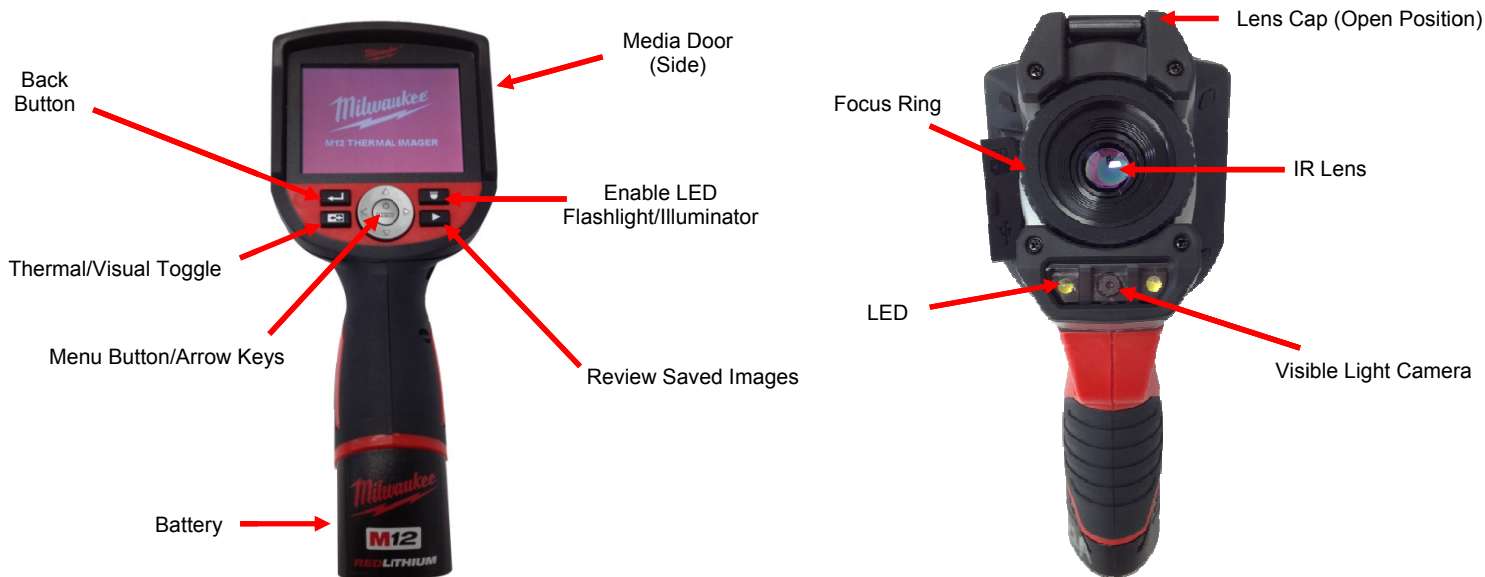


QuickStart: Milwaukee M12™ Thermal Imager



1. CHECK MEMORY CARD:

- Holding the thermal imager in your hand, face the LCD screen and look to the right side of the unit (example, right). You will see a small rubber flap (defined as the “Media Door” in the camera manual) covering access to both the USB & SD memory card inputs. Open the flap to ensure the memory card is installed. The USB port can be used with the included USB cable to upload saved images to your computer with the Milwaukee Thermal Imager Report Software (CD included in your imager case).

2. INSERT BATTERY:

- The battery compartment is located at the bottom of the handle. Insert a fully charged battery into the unit and push until it clicks/locks in to place.
- To remove the battery, pinch the battery housing where the raised grip pattern is located and pull it out.



3. START-UP:

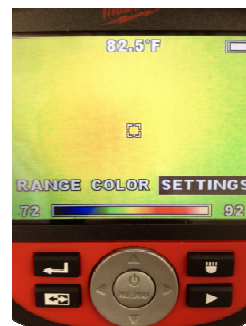
- Press and hold (for about 2 seconds) the circular MENU button located beneath the LCD screen.
- A start-up screen with the Milwaukee logo should appear as the camera boots up. The camera may also perform a quick “calibration” during this time (likely a detector stabilization) to ensure that all sensors on the array are ready. **Please Note:** this is not a calibration check or a re-calibration of the actual imager. An infrared camera can only be re-calibrated by the manufacturer.
- To turn the camera off, press and hold the MENU button until the LCD screen goes dark.

4. VERIFY RANGE:

- The Milwaukee M12™ has one temperature range of **14°F to 662°F (-10°C to 350°C)**. As such, no further range adjustments are needed.

5. SET EMISSIVITY and REFLECTED TEMPERATURE:

- Press the MENU button to bring up the main menu. From here, use the arrow keys to navigate to SETTINGS (example, right) and press the MENU button again. This will open the SETTINGS sub-menu where you'll find EMISSIVITY as the first choice. Highlight EMISSIVITY and press the MENU button once more to bring up the EMISSIVITY sub-menu.
- DEFAULT represents the manufacturer's recommended default setting for this particular imager (.95). The setting of this value within the DEFAULT option cannot be



QuickStart: Milwaukee M12™ Thermal Imager

changed. Please know that your course instructor may recommend a different default setting. If that is the case, use the custom option to set emissivity.

- CUSTOM allows you to set any value from 0.01-1.00. Highlight CUSTOM and use the right and left arrow keys to **adjust the camera's emissivity to .98**; the setting used to conduct a camera functionality check.
- Reflected (Background) temperature can only be adjusted in the software when editing images on your computer. There is no adjustment available in the thermal imager.

6. FOCUS:

- The Milwaukee M12™ has a manual focus. Simply rotate the focus ring on the lens housing to adjust focus.
- The minimum focus distance of this thermal imager is @4" (10cm).

7. AUTO ADJUST:

- On the Main Menu, select RANGE (example, right) which will reveal two choices for image adjustment; AUTO and MANUAL. Select AUTO to turn on AUTO RANGING. This function will automatically adjust the Level and Span settings based on the warmest and coolest areas detected within the field of view.

8. MANUAL ADJUST:

- MANUAL allows you to customize the Level and Span settings. Press the MENU button and select RANGE once more. Highlight MANUAL and press the MENU button to open the Level and Span sub-menu. Here you can press the left and right arrow keys to adjust LEVEL (**Left = Raises Level, Right = Lowers Level**) and the up and down arrow keys to adjust SPAN (**Up = Increases Span, Down = Decreases Span**).
- **The minimum span setting on the thermal imager is 9°F (5°C).**
- When in manual adjustment mode, the LEVEL and SPAN options will remain displayed on the LCD screen.



9. SAVE AND RECALL IMAGE:

- Pull the TRIGGER BUTTON once to freeze the image. The option to either SAVE or CANCEL will appear on the LCD screen. To save the image, either pull the trigger once more, or, press the MENU button to select SAVE which should already be highlighted. Either way will work to store the image which is recorded to the SD memory card.
- To recall your saved images, press the PLAY button, located beneath the LCD screen. The left and right arrow keys will navigate you through the saved images.

10. COLOR PALETTE:

- Press the MENU button and select COLOR. This will display the Color Palette sub-menu where you can choose from three color palettes; IRON, RAINBOW and GRAY.
- These three color palettes can also be adjusted in the software.

Spatial Resolution

IFOV = 2.7 mRad (Theoretical with 160 x 120 Detector and 25°x19° lens)

