The Johnson machine mount laser detector (40-6791) pairs with your Johnson red beam rotary to help you detect laser signals directly on your equipment - perfect for one-person grading and excavation. The detector can be used alone or paired with the 40-6792 remote display that mounts in the operator's cab and repeats the detector's signal in a more convenient position for the operator to view.

This laser detector features:
- 360° detecting window detects the laser signal from any position
- Accuracy up to 1/8" (fine mode)
- Accuracy up to 1/4" (coarse mode)
- Ultra-bright LED indicators
- Lithium ion battery and 12/24V cable
- Dust and rain resistant construction

GETTING STARTED

POWER BUTTON

1. Charge the battery, or connect the detector equipment power. See "CHARGING THE BATTERY".
2. If using the 40-6792 remote display, mount it and install the connector cable from the remote display to the detector. If using 12/24V power, hook the power cable to the remote display - it will power the detector.
3. Attach the detector to your equipment. See "MOUNTING THE DETECTOR" for helpful hints on choosing a location.
4. Press the detector power button to turn on the detector.
5. The detector starts in coarse accuracy mode. Set the accuracy mode to coarse or fine by pressing the detector power button. See "SETTING ACCURACY".
6. Operate the detector. See "USING THE DETECTOR".
7. When you are finished using the detector, power it off by pressing the detector power button for three seconds. All LED's will briefly flash to indicate the detector is powering off.

CHARGING THE BATTERY

1. If operating off 12/24V machine power, the battery will automatically charge from your input source. Use the attached connector cable to hook directly to the equipment battery.
2. If operating off of the Li-ion battery, recharge when the detector fails to operate - the run time from a single charge is approximately 40 hours.
3. To recharge the detector, supply 12/24V machine power or use the included 120V adapter. Charge time is approximately 6 hours. If using the 120V adapter, charging is complete when the LED on the charger changes from red to green.

MOUNTING THE DETECTOR

Position the detector as close to vertical as possible and so it moves with your bucket/blade. It's easier to mount the detector first, then adjust the laser to the desired grade position, since adjusting the laser tripod is easier than relocating the detector on your equipment.

The detector includes both magnetic and clamp mounts. For temporary installation, the magnets are recommended, while the clamp mount is recommended for permanent installation.

To switch from the magnetic mount to the clamp mount:

1. Use the included 2mm hex wrench to loosen the setscrew on the side of the mount. It is not necessary to fully remove the setscrew.
2. Unthread the magnet assembly from the mounting stud. It may be necessary to use a tool to complete this, though it can generally be loosened by hand if not previously over-tightened.
3. Install the clamp using the included washer and nut. Use either a 5/8" or 16mm socket (not included) to tighten the nut. To replace the magnets, reverse these instructions.

USING THE DETECTOR

1. This detector must be used in conjunction with a red-beam rotary laser and must have direct line-of-sight to the laser in order to receive a signal. This detector can read from 360°, so no specific positioning is required provided that line-of-sight is established.
2. Pass the detector through the plane of laser light. The detector will begin to flash to indicate the grade position as follows:
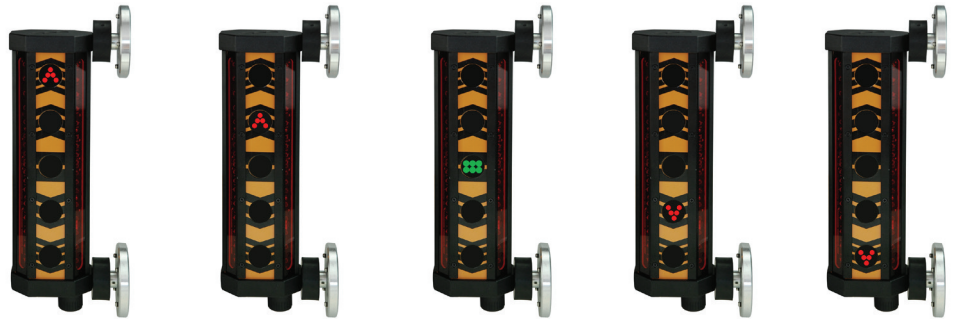
| Below Grade (move up) >2" | Below Grade (move up) <2" | On Grade | Above Grade (move down) <2" | Above Grade (move down) >2" |

3. For example, if the top arrow is flashing, the detector (and your equipment) must be raised to find grade. The topmost and bottommost arrows indicate that your equipment is greater than 2" from on grade.
4. The detector will remember its last position if the laser beam signal is lost or interrupted. This helps you more quickly locate grade when the laser beam is restored.

SETTING ACCURACY

1. This detector has two accuracy settings: coarse and fine. The detector will always start in coarse accuracy mode.
2. To toggle accuracy modes, press the power button while the detector is powered on.
3. The arrows on the detector will flash three times to indicate the current accuracy mode, as follows:

COARSE MODE
The exterior red LED's will flash three times.

FINE MODE
The interior red LED's will flash three times.

Coarse mode maximum accuracy: +/- 1/4"

Fine mode maximum accuracy: +/- 1/8"

Pro Tip: Use coarse mode for rougher work such as general excavation to find the beam more quickly. Use fine mode for more precise location of the beam, such as when preparing for a concrete pour, preparing a driveway or roadway, or other precision tasks.

USING THE REMOTE DISPLAY

The remote display mounts inside your operator's cab and repeats the arrow pattern of the detector in a more convenient location for the operator.

Similar to the laser detector, the remote display will flash to indicate grade as follows:

| Below Grade (move up) >2" | Below Grade (move up) <2" | On Grade | Above Grade (move down) <2" | Above Grade (move down) >2" |

There are no controls on the remote display - it automatically operates when the detector is powered on.

If operating the detector using its internal battery, the detector will also provide power to the remote display.

When operating from 12/24V machine power, connect the power to the display, and it will provide power to the detector.