The Johnson 40-6250 digital machine level is the simplest, most accurate way to level equipment such as mills, presses, lathes, compressors, granite plates and other items in your factory or jobsite. Proper leveling ensures the longevity of your equipment, reduces vibrations, helps ensure proper alignment and helps control the accuracy of your equipment's outputs.

This digital machine level features:

- Extreme accuracy to 0.01°
- Wireless remote communication for ease of use
- +/- 10° operating range
- Backlit remote control screen
- 32' operating range

LCD & REMOTE OVERVIEW
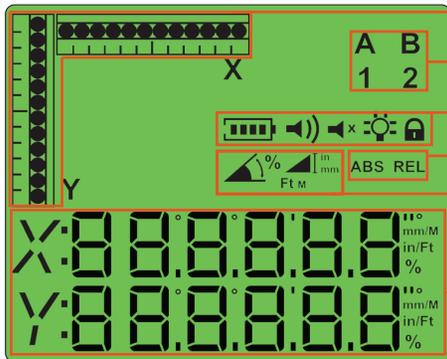
LEVEL INDICATORS (X & Y)
BLUETOOTH / CALIBRATION CHANNEL
STATUS (Battery, Volume, Backlight, Lock)
MEASURE REFERENCE
DISPLAY UNIT
CURRENT MEASUREMENT

POWER - Press/hold to power on/off

MEASURE - Press to start measuring angle

RESOLUTION - Press to set resolution, hold to select degree mode

FUNCTION - Press to set unit, hold to select channel

ABS/REL - Set absolute or relative angle, set alarm points

LOCK & SOUND - Press to lock the keypad, hold to toggle sound

AXES & LIGHT - Press to set axes, hold to toggle backlight

POWERING THE DEVICE

1. The remote control requires 3xAAA batteries to operate. Remove the battery door on the remote to install/replace these batteries.

2. The sensor can operate from either 3xAAA batteries or from the included 5V adapter. To install batteries, remove the battery access screw on the underside of the sensor and install the batteries according to the polarity indicated.

3. To use the 5V adapter, press it firmly into the sensor's DC power port. Only use the included power adapter.

LOCATING THE SENSOR

The sensor can be placed on any flat surface that you need to level. Installation can be temporary or permanent. For temporary placement, you can simply lay the sensor on top of the surface you wish to level, or you can secure it along the flanged bottom edge using clamps. For permanent installation, you can also mount it using screws through the four included mounting holes.

CALIBRATION

For best results, calibrate prior to each use.

1. Put the sensor on a flat surface within ±3° of level.

2. Power on the sensor and remote. Press and hold 🔘 for 5 seconds (until you hear 5 quick beeps) to enter calibration mode.

3. The screen will flash and "1" will illuminate on the LCD. Press 🔘 to store the first calibration point. The sensor will beep 3 times, and "2" will illuminate to indicate the calibration point is stored.

4. Rotate the sensor 180° as shown below, then press 🔘 to store the second calibration point. Three beeps indicate point #2 is stored. The sensor will power off to indicate calibration is successful.

CAL POSITION #1   CAL POSITION #2

INITIAL SETUP & BASIC OPERATION

1. Power on the remote control by pressing ⏻ for 1 second.

2. Power on the sensor by pressing **Power** for 1 second

3. If desired, enable the backlight by holding 🔆 for 2 seconds. The remote control will beep 3 times, and the LCD will display ☼.
   NOTE: If you hold the button for longer than three seconds, you will enter calibration mode (5 quick beeps).

4. To change the operating channel, press and hold ◢ for 2 seconds, until 3 beeps are emitted (if volume is enabled). The LCD will indicate the channel, "A" or "B". This is useful when working with multiple detectors in the same area.

5. Toggle audio on/off by holding 🔇 until 3 beeps are emitted from the remote and the LCD indicates 🔊 or 🔇.

6. Set the desired sensitivity (displayed in decimals) by pressing ▣. The LCD will indicate *0°* , *0.0°* , *0.00°* or *0.000°* .

7. Toggle display units from decimal degrees to degrees/minutes/seconds by pressing ▣ for 3 seconds. 3 beeps will be emitted to indicate you have toggled modes and the display will indicate *0.000°* or *0° 00'00*".

8. Toggle display units from mm/m to in/ft or % by pressing ◢. The LCD will indicate the set units.

9. Set relative or absolute mode by pressing 🔲. The LCD will indicate **REL** for relative and **ABS** for absolute mode. Absolute mode will measure angle relative to earth's gravity, while relative mode will measure the angle difference between the sensor's current and starting position. See "ABSOLUTE VS. RELATIVE MODE".

10. Choose your displayed axes by pressing 🔆. The LCD will display both X & Y axes, X only or Y only.

11. When all parameters are set and you are ready to begin taking measurements, press ⏏. The green LED will illuminate, and the level will begin measuring.

12. When finished, press ⏏ to exit measurement mode, press ⏻ to power off the remote and press **Power** to power off the sensor.

INTERPRETING THE BUBBLE DISPLAY

The remote control features a digital bubble display to visually help you locate zero quickly and easily. A few examples of virtual bubble displays are shown below to illustrate how to interpret the reading:
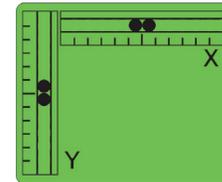
Sensor is leveled in both axes:
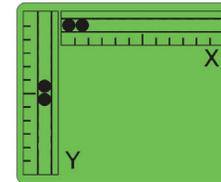
Sensor is level in Y, but tilted in X axis:
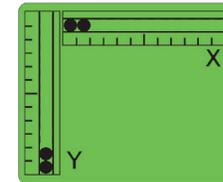
Sensor is tilted in both X and Y axes:
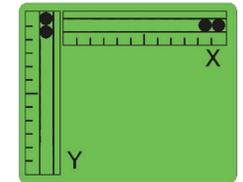
Sensor is tilted in both X and Y axes:

ABSOLUTE VS. RELATIVE MODE

Absolute mode measures angle with respect to gravity. Relative mode measures with respect to the initial starting angle when measurements are first initiated.

Use absolute mode when leveling equipment to ensure it is truly level. In many applications, this is the best way to ensure vibration and wear and tear are minimized. In most applications, this will be the desired way to use this digital level.

Use relative mode when aligning two pieces of equipment or when compensating for another surface that is not level. For example, if leveling a fixture on a milling machine, the milling machine's table may not be perfectly level with respect to gravity because it may be sitting on an uneven floor. Relative mode can be used to set the zero point to the angle of the table, and the fixture measurements will be relative to the table.