UNLOCKING INCREASED LEVEL ACCURACY THROUGH DIGITAL TECHNOLOGY

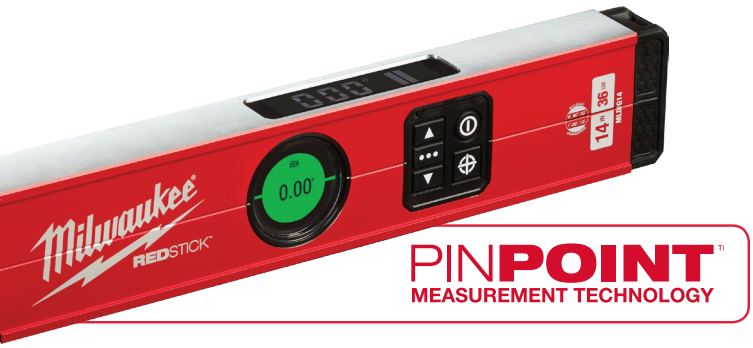
Digital capability within box levels is not a new concept. Whether double-checking that an angle is within code before an inspection, or the ease of audible indications for hands-free operation, it's no mystery why many professionals choose to equip a digital version of the box level. For jobs that require a wide range of measurements beyond 0 and 90 degrees, the efficiency and consistency of a digital box level is unmatched by the standard non-digital box level.

Unfortunately, despite their benefits, current digital box levels utilize technology that is outdated and relatively clunky; so, it's also no mystery why some professionals remain hesitant to invest in them – and question whether they can live up to the rigors of the jobsite.

The Technology of Today

Today's digital box levels are built with the same segmented display design that the very first digital levels were built with decades ago; there's been no overwhelming change to the technology. Each pixel is burned into the phosphor-based electronic display and cannot shift or deviate, jumping from one measurement to the next. This makes it difficult for users to get a proper read of the measurement depending on the direction they're viewing the level. Moreover, segmented displays do not allow for color, limiting the amount of information the level can provide. That information is also limited by the capabilities of the electronics inside, thus limiting the overall customization for users. Finally, these displays are then built into box level frames that are not engineered to support the electronics, giving way to the common perception that digital levels are simply too delicate for extended use.

MLDIG24
24" REDSTICK™ Digital Level
with PINPOINT™ Measurement Technology



PINPOINT™ is Tomorrow's Measurement Technology

Bridging that gap is a new technology referred to as PINPOINT™ Measurement Technology built into REDSTICK™ Digital Levels. This technology provides precision measurement features that can be easily read-out through numeric, graphic, color and audio information on a high-resolution 360 degree display. This technology is powered by REDLITHIUM™ USB batteries, making these levels completely rechargeable.

PINPOINT™ Display

Segmented Display

There are three main advantages to this technology and how it provides a new customizable experience for users:

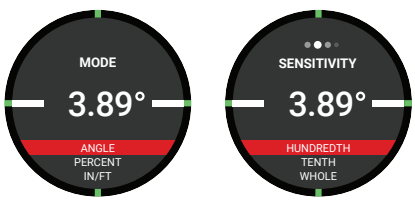
Versatile Readouts

Quick Settings and Simplified Controls

Proprietary Calibration for Superior Accuracy

Versatile Readouts

Unlike the fixed information that segmented displays show, the PINPOINT™ high-resolution screen and advanced electronics allow users to view and interact with measurements that follow the screen movement a full 360 Degrees. Users also can select how they want those measurements displayed. Once a mode is selected (angle, percent, in/ft, or mm/m), users then have the option to change the sensitivity of the mode selected.



A range of tolerances can also be selected. These tolerances allow users to choose the specific tolerance range and when the color indicator activates during measurement. This does not change the accuracy of the level.

STANDARD:

- Ideal for everyday applications.

PRECISION:

- Ideal for 0º and 90º.

ROUGH-IN:

- Ideal for quick checks and rough-in applications.

Additional customizable features include:

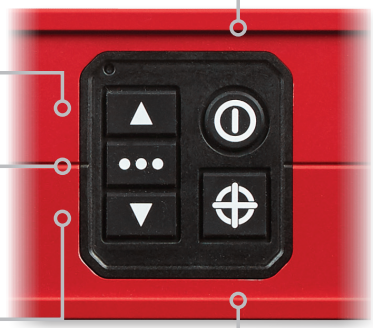
- Audio Indications – For use in poorly lit locations or when the level is positioned in a way that's difficult to read.
- Power Modes – Used to change the display brightness whether to save battery or adjust to the available lighting.
  - High Contrast: Ideal for bright outdoor areas
  - Auto: Automatically adjusts to the environment based on the amount of light
  - Power Save: Shuts off front screen and only displays top screen to save battery power
- Language – Change the language displayed on the screen.

The PINPOINT™ interactive display guides users through all preferences that are available. Once all preferences are selected, the measurements are displayed on the front high-resolution display and freely move on the screen to be readable from all directions. An additional segmented display screen on top of the level also shows the measurements.

Quick Settings and Simplified Controls

Key to the introduction of any new technology is making it as easy as possible to use. After all, on the jobsite time is money – so the time associated with calibrating a digital level needs to be as minimal as possible.

PINPOINT™ saves this time through a simple configuration of navigation buttons.



POWER
- Hold to power on / off
- Double tap to turn the audio on / off

UP ARROW
- Press to scroll up in menu options

MENU / SELECT
- Press to open the menu
- In menu, press to select highlighted option
- Hold to exit menu

DOWN ARROW
- Press to scroll down in menu options

PIN MODE
- Press to PIN your target at the current measurement
- Double tap to flip current PIN to reverse measurement
- Hold to open the PIN Menu

PINPOINT™ Measurement Technology also opens doors to new capabilities that further simplify dialing in measurements on the jobsite, such as a unique PIN Mode. This mode is an advancement on the "HOLD" function found on other digital levels. However, instead of "taring" out the level at a given measurement, this PIN Mode allows users to lock in the exact measurements, clearly guiding them towards their measurement through advanced read-outs; ultimately making measurement replication and overall inspection much easier than before.

Proprietary Calibration for Superior Accuracy

Key to the accuracy of any digital box level is proper calibration of the accelerometer built into the internal mechanism. In addition to the critical angles, the accelerometer needs to be calibrated to a multitude of additional degrees to ensure premium accuracy. Depending on the digital level, users often need to go through a multi-step recalibration process. Even then, proper calibrations for a digital level require a balance between the objective digital components and the subjective vial, thus making it challenging to ensure their level is calibrated accurately. Built through an advanced calibration process during manufacture, the REDSTICK™ Digital Levels w/ PINPOINT™ Measurement Technology are accurate to .03 degrees with no calibration required.

MLDIG48
48" REDSTICK™ Digital Level
with PINPOINT™ Measurement Technology

But Do Electronics and Jobsites Mix?

Drops. Bumps. Impacts. When you consider all the advanced electronics detailed above, it's difficult not to question how these levels can possibly survive the typical wear and tear of the jobsite. That question also highlights one of the major reasons some users still haven't made the jump to digital: the price point. These types of advanced digital features come with a larger investment and, when all is said and done, that investment should come with the assurance of longevity.

Unfortunately, up until now all digital levels have simply merged together the basic frame of a box level with an accelerometer and electronics. The REDSTICK™ Digital Levels approach this differently. During design and development, the frames are specifically engineered to support and protect the PINPOINT™ Measurement Technology components, with an IP65 rating for dust and water resistance. This ensures that the screen, accelerometer, and other critical electronic components weren't simply embedded in a box level frame – each is housed according to how it can best be safeguarded. Additionally, the lack of spirit vials means each level is designed with no cut-outs, equating to an even more durable level structure.

With the right technology advancements and a frame built around that technology to ensure longevity, REDSTICK™ Digital Box Levels w/ PINPOINT™ Measurement Technology can achieve new heights of accuracy unknown to standard analog levels and provide more accuracy than other digital levels. Moreover, users are afforded the peace of mind knowing that their investment in this new technology and accuracy is protected.

For more information visit www.milwaukeetool.com