

# **KLEIN TOOLS 935DAGL Digital Level with Programmable Angles Instructions**

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**935DAGL** 

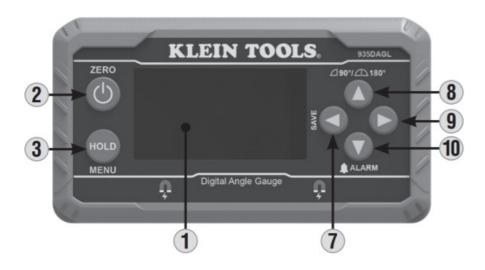
**INSTRUCTIONS** 

**DIGITAL LEVEL WITH PROGRAMMABLE ANGLES** 





1390298Rev 02/21 B WEB



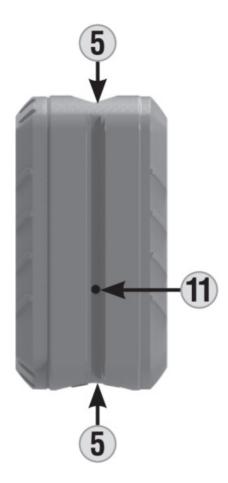
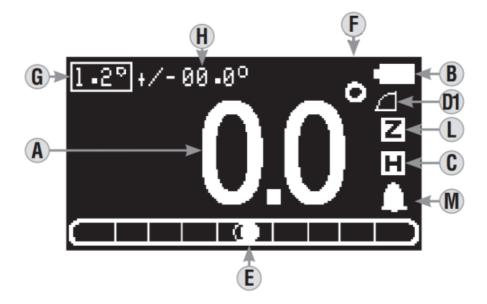


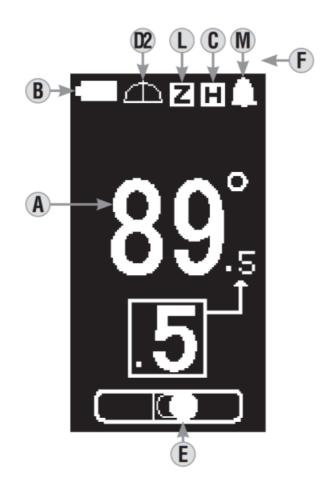


FIG. B

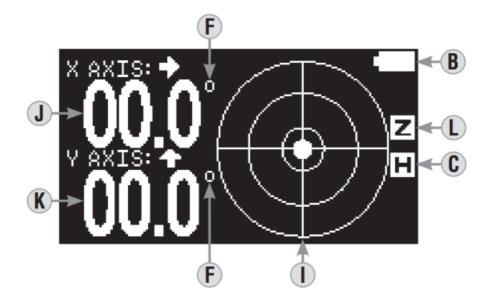
**Horizontal Screen** 



# **Vertical Screen**



Flat Screen



# FIG. C



# FIG. D



FIG. E



## FIG. F

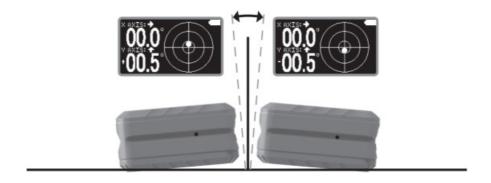
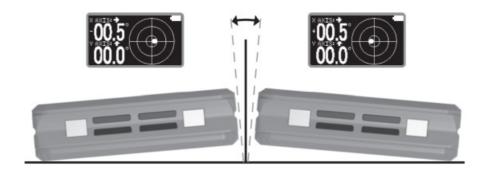


FIG. G



The Klein Tools 935DAGL is a digital angle gauge that detects the degree of offset from true level. It can measure from 0-180°. A target angle with audible alarm can be set, allowing the user even greater flexibility. When laid flat, it will function as a bullseye level. The magnetic base attaches to pipes, table saws, and other ferromagnetic surfaces. The V-groove on the top and bottom surface easily aligns to the axis of conduit and pipes.

## **GENERAL SPECIFICATIONS**

• Measurement Range: Dual: 0-90° and 0-180°

Accuracy: Vertical and Horizontal Orientation: +/- 0.2°

(when measuring using the Magnetic Base 4)

**Bullseye Orientation:** +/- 0.5°

(when measuring using the back surface)

• Operating/Storage Altitude: 6562 ft. (2000 m)

• Operating/Storage Temperature: 32° to 122°F (0° to 50°C)

• Operating/Storage Humidity: <85% relative humidity

• **Dimensions:** 4.57" × 2.48" × 1.36" (116 mm × 63 mm × 34.5 mm)

• Weight: 7 oz. (200 g) with batteries

• Batteries: 2× AA

• Drop Protection: 6.6ft (2m)

• Ingress Protection: IP42 Dust & Water Resistant

Specifications subject to change.



Read, understand, and follow these instructions to ensure safe operation. Failure to observe these warnings can result in serious injury and/or property damage.

• Always wear approved eye protection.



No user-serviceable parts; do not attempt to repair.

#### **WARNING SYMBOLS ON PRODUCT**



Warning or Caution



Wear approved eye protection



Strong Magnetic Field



Read instructions

#### **FEATURE DETAILS**

**DEVICE (FIG. A)** 

- 1. LCD Display
- 2. Power / ZERO Button
- 3. HOLD / MENU Button
- 4. Magnets (×2)
- **5.** V-Groove(s)
- 6. Battery Door

- 7. Left / Save / Exit Button
- 8. Up / Range Button
- 9. Right Button
  - **10.** Down / Alarm Button
  - 11. Speaker Opening
  - 12. Silicone Friction Pads (×4)

# LCD DISPLAY (FIG. B)

- A. Measurement Value
- B. Battery Status Icon
- C. Hold Icon
- **D1.** 90° Range Setting
- D2. 180° Range Setting
- E. Bubble Vial

- G. Set Angle Value
- H. Set Angle Tolerance Range
- I. Bullseye Level
- J. X Axis Inclination
- K. Y Axis Inclination
- L. Zero Icon

#### **BUTTONS AND FUNCTIONS**

#### **POWER ON/OFF**

Press the Power/Zero button 2 to turn the 935DAGL on. The 935DAGL will begin displaying the degree of offset of the Magnetic Base 4 relative to true level. Press and hold the Power/Zero Button 2 to turn off. **NOTE:** 935DAGL will automatically power off after 10 (default) or 30 minutes of inactivity. This Auto Off Timer setting can be changed within the Menu setting.

**ZERO (VERTICAL/HORIZONTAL ORIENTATION):** To set a reference plane other than horizontal, press the Power/ZERO Button **2**. The ZERO icon "**Z**" will blink once and the measurement value on the display will change to "**0.0**°". At this point, all new measurement values will be in reference to this user-set reference plane. To return to measuring true level, press the Power/Zero Button **2**. **NOTE:** After pressing Power/Zero button **2**, ensure the device remains motionless until the new zero reference is set.

**ZERO (BULLSEYE ORIENTATION):** To set a reference plane other than earth level, press the Power/ZERO Button **2**. The ZERO icon "**Z**" will blink once and the measurement value on the display will change to "00.0°" for both the X Axis J and Y Axis K At this point, all new measurement values will be in reference to this user-set reference plane. To return to measuring true level, press the Power/Zero Button **2**. **NOTE:** After pressing Power/Zero button **2**, ensure the device remains motionless until the new zero reference is set.

**HOLD:** To hold a measurement value on the display, press the HOLD/Menu button **3**. When the hold function is active, the hold icon **C** will appear on the display. The measurement value will remain on the display until the Hold/Menu Button **3** is pressed again.

**RANGE:** The 935DAGL can display measurement from 0-90° or 0-180°. To change between these ranges, press and hold the Up/ Range Button **8**. When measuring from 0-90°, the 90° Range Setting icon **D1** will be shown on the display. When measuring from 0-180°, the 180° Range Setting icon **D2** will be shown.

**INCLINATION:** The Bubble Vial **E** indicates the direction of the 935DAGL. When the 935DAGL is tilted at a clockwise angle, the solid circle within the Inclination bubble will move towards the left. If the 935DAGL is tilted at a counterclockwise angle, the solid circle will move towards the right. **NOTE:** In the Double Axis/ Bullseye orientation, the angle values displayed will be "+" or "-" and the bubble can be located left, right, up, or down relative to the horizontal plane. The LCD will display "**Err**" in the X Axis and/or Y Axis instead of a numeric value, if the inclination angle exceeds +/-39.9° in the respective direction (around X or Y axis).

In **FIG. C**, the 935DAGL on the left must rotate clockwise in order to reach 0°; the 935DAGL on the right must rotate counterclockwise to reach 0°.

In **FIG. D**, the 935DAGL on the left shows the display when orientated horizontally; the 935DAGL on the right shows the display when orientated vertically.

In **FIG. E**, the 935DAGL on the left must rotate counterclockwise to reach 90°; 935DAGL on the right must rotate counterclockwise to reach 90°.

In **FIG. F**, the 935DAGL on the left must rotate clockwise in order for the Y Axis to reach 0°; the 935DAGL on the right must rotate counterclockwise for the Y Axis to reach 0°. Note: If the Y Axis angle is rotated more than 39.9°, "**Err**" will be displayed.

In **FIG. G**, the 935DAGL on the left must rotate clockwise in order for the X Axis to reach 0°; the 935DAGL on the right must rotate counterclockwise for the X Axis to reach 0°. **NOTE**: If the X Axis angle is rotated more than 39.9°, "**Err**" will be displayed.

**SET ANGLE/ALARM:** Press the HOLD/MENU Button **3** for 3 seconds to enter the Menu's Settings. Press the Right button **9** to enter the Set Angle Menu. Press the Left / Save / Exit Button **7** and Right button **9** to choose amongst "Pitch", "Angle Set Point", and "Alarm Range".

**Per Foot Selection:** Four preset pitch settings (1/8", 1/4", 3/8", 1/2") are selectable to quickly set the pitch angle. The corresponding angle will be also be displayed. Press and hold the Left / Save / Exit Button **7** for 3 seconds to save the settings.

**Set Angle/Alarm:** Move the cursor to the SET ANGLE/ALARM setting. Press the Left / Save / Exit Button **7** and Right button **9** to move between the Hundreds, Tens, Ones, and Tenths decimal place. Press the Up / Range Button **8** and Down / Alarm Button **10** to change the Set Angle value. Press and hold the Left / Save / Exit Button **7** button for 3 seconds to save the settings.

**Alarm Range:** Move the cursor to the ALARM RANGE Setting near the bottom right corner of the screen. Press the Left / Save / Exit Button **7** and Right button **9** to move between the Tens, Ones, and Tenths decimal place. Press the Up / Range Button **8** and Down / Alarm Button **10** to change the Set Angle value. Press and hold the Left / Save / Exit Button **7** button for 3 seconds to save the settings.

**AUTO-OFF TIMER:** Press the HOLD/MENU Button **3** for 3 seconds to enter the Menu's Settings. Press the Up / Range Button **8** and Down / Alarm Button **10** until "**AUTO OFF TIMER**" is highlighted. Press the Right button **9** to enter the Auto Off Timer. Press the Up / Range Button **8** and Down / Alarm Button **10** to select between 10 minutes or 30 minutes Auto Off Timer. Press the Left / Save / Exit Button **7** button to save the settings

**FACTORY RESET:** Press the HOLD/MENU Button **3** for 3 seconds to enter the Menu's Settings. Press the Up / Range Button **8** and Down / Alarm Button **10** until "**FACTORY RESET**" is highlighted. Press the Right button **9** to enter the Factory Reset. Press the Right button **9** to reset the 935DAGL to Factory Default Settings. **NOTE:** To avoid measuring errors after Factory Reset, it is recommended to perform Singe Axis and Dual Axis Calibration.

**CALIBRATE SINGLE AXIS:** Press the HOLD/MENU Button **3** for 3 seconds to enter the Menu's Settings. Press the Up / Range Button **8** and Down / Alarm Button **10** until "**CALIBRATE SINGLE AXIS**" is highlighted. Press the Right button **9** and follow the on-screen instructions to complete the calibration.

**CALIBRATE DUAL AXIS:** Press the HOLD/MENU Button **3** for 3 seconds to enter the Menu's Settings. Press the Up / Range Button **8** and Down / Alarm Button **10** until "**CALIBRATE DUAL AXIS**" is highlighted. Press the Right button **9** and follow the on-screen instructions to complete the calibration.

**ALARM ENABLE**: While in the main screen, press the Down / Alarm Button **10** to enable Alarm Setting. The Alarm Enabled Icon **M** will appear and the preselected Set Angle Setting will appear on the top left corner of the screen. Once Alarm is enabled and the rotational position of the 935DAGL is within the Set Angle / Alarm Range, audible on/off beep will sound and the display will change color.

**SELECT LANGUAGE:** Press the HOLD/MENU Button **3** for 3 seconds to enter the Menu's Settings. Press the Up / Range Button **8** and Down / Alarm Button **10** until "**LANGUAGE**" is highlighted. Press the Right button **9** to enter the Select Language setting. Up / Range Button **8** and Down / Alarm Button **10** until the desired language setting is highlighted. Press the Left / Save / Exit Button **7** button to save the settings

#### **BATTERY REPLACEMENT**

The Battery Status Icon **B** will show as empty (hollow) when there is less than 30 min of battery life remaining. At this point, the batteries should be replaced:

- 1. Loosen the screw and remove the Battery Door 6.
- 2. Properly dispose of spent batteries and install two new AA batteries, noting proper polarity.

3. Replace Battery Door 6 and secure with screw

#### **CLEANING**

Be sure device is turned off and wipe with a clean, dry, lint-free cloth. **DO NOT use abrasive cleaners or solvents.** 

#### **STORAGE**

Remove batteries when device is not in use for a prolonged period of time. Do not expose to high temperatures or humidity. After a period of storage in extreme conditions exceeding the limits mentioned in the General Specifications section, allow the device to return to normal operating conditions before using.

#### WARRANTY

#### www.kleintools.com/warranty

#### **DISPOSAL / RECYCLE**



Do not place equipment and its accessories in the trash. Items must be properly disposed of in accordance with local regulations. Please see <a href="https://www.epa.gov">www.epa.gov</a> or <a href="https://www.epa.gov">additional</a> information.

#### **OPERATING INSTRUCTIONS**

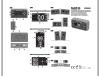
#### **SEE OTHER SIDE**

# **CUSTOMER SERVICE**

## KLEIN TOOLS, INC.

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## **Documents / Resources**



KLEIN TOOLS 935DAGL Digital Level with Programmable Angles [pdf] Instructions 935DAGL, Digital Level with Programmable Angles, 935DAGL Digital Level with Programmable Angles, Programmable Angles

#### References

- 🕏 U.S. Environmental Protection Agency | US EPA
- O Electronic Waste Management CalRecycle Home Page
- William Tools For Professionals since 1857 | Klein Tools
- Warranty | Klein Tools