INSTRUCTION MANUAL

200A AC Open Jaw Fork Meter

True RMS

Measurement Technology

- AUTO-RANGING
- DATA HOLD
- NON-CONTACT VOLTAGE TESTER
- AUDIBLE CONTINUITY

3m IP40

600V ~

1000V ⎓

200A ~

60MΩ

TRMS AUTO NCV HOLD 6000 LCD

CE

cETLus Intertek

CAT III 600V CAT II 1000V

KLEIN TOOLS

GENERAL SPECIFICATIONS

Klein Tools CL360 is an automatically ranging true root mean square (TRMS) digital open jaw fork meter that measures AC current via the fork, AC/DC voltage, continuity, and resistance via test-leads, and can detect the presence of voltage via the integrated non-contact voltage (NCV) tester.

- **Operating Altitude:** <6562 ft. (2000m)
- **Relative Humidity:** <80% non-condensing
- **Operating Temp:** 32° to 122°F (0° to 50°C)
- **Storage Temp:** -4° to 140°F (-20° to 60°C)
- **Dimensions:** 8.39" x 2.12" x 1.38" (213 x 54 x 35 mm)
- **Weight:** 7.3 oz. (208 g) including batteries
- **Calibration:** Accurate for one year
- **Standards:** IEC EN 61010-1, 61010-2-032, 61010-2-033.
  IEC EN 61326-1, 61326-2-2.

  Conforms to: UL 61010-1, UL 61010-2-032, UL 61010-2-033.
  Certified to: CAN/CSA C22.2 NO. 61010-1, 61010-2-032, 61010-2-033.
- **Accuracy:** ± (% of reading + # of least significant digits) Values stated at 65° to 83°F (18° to 28°C), Temp Coefficient: 0.1 x (Quoted Accuracy) per °C above 28°C or below 18°C, corrections are required when ambient working temp is outside of Accuracy Temp range
- **Batteries:** 2 x 1.5V AAA Alkaline (included)
- **Drop Protection:** 9.8 ft. (3m)
- **Ingress Protection:** IP40 dust resistant
- **Pollution Degree:** 2
- **Safety Rating:**

  Jaw & Housing: CATIV 600V / CATIII 1000V

  Electrical & Protection Circuit: CATIII 600V / CATII 1000V

  Class 2, Double insulation

  CAT II: *Measurement Category II is applicable to test and measuring circuits connected directly to utilization points (socket outlets and similar points) of the low-voltage MAINS installation.*

  CAT III: *Measurement category III is applicable to test and measuring circuits connected to the distribution part of the building's low-voltage MAINS installation.*

  CAT IV: *Measurement category IV is applicable to test and measuring circuits connected at the source of the building's low-voltage MAINS installation.*
- **Electromagnetic Environment:** IEC/EN 61326-1. This equipment meets requirements for use in basic and controlled electromagnetic environments like residential properties, business premises, and light-industrial locations.

Specifications subject to change.

ELECTRICAL SPECIFICATIONS

Function	Range	Resolution	Accuracy
AC Voltage (V AC)	600.0V	0.1V	±(1.2% + 3 digits)

Input Impedance: ≥10MΩ **Frequency Range:** 40 to 400Hz
Maximum Input: 600V AC RMS or 1000V DC
Accuracy specified from 5% to 100% of the measuring range

DC Voltage (V DC)	6.000V	0.001V	±(0.8% + 3 digits)
	60.00V	0.01V	
	600.0V	0.1V	
	1000V	1V	±(1.0% + 5 digits)

Input Impedance: ≥10MΩ **Maximum Input:** 600V AC RMS or 1000V DC
Accuracy specified from 5% to 100% of the measuring range

AC Current (A AC)	0.2 – 2.0A	0.1A	±(1.8% + 2 digits)
	2.1 – 5.0A	0.1A	±(1.8% + 3 digits)
	5.1 – 200.0A	0.1A	±(1.8% + 5 digits)

Frequency Range: 50 to 60Hz
Accuracy specified from 5% to 100% of the measuring range

Resistance	600.0Ω	0.1Ω	±(1.2% + 2 digits)
	6.000kΩ	1Ω	±(1.0% + 2 digits)
	60.00kΩ	10Ω	
	600.0kΩ	100Ω	
	6.000MΩ	1kΩ	±(1.2% + 2 digits)
	60.00MΩ	10kΩ	±(1.5% + 5 digits)

Maximum Input: 600V AC RMS or 1000V DC

OTHER MEASUREMENT APPLICATIONS

- **Continuity Check:** Audible signal <10Ω, test current <1.5mA
- **Non-Contact Voltage Testing (NCV):** Audible & Visual indicators sound / illuminate for >70V AC RMS at distances <10mm from the source
- **Auto Power off:** After 15 minutes of inactivity
- **Backlight Auto off:** After 3 minutes of inactivity
- **Overload:** Buzzer sounds continuously for voltage >600VAC or >1000VDC, "OL" indicated on display for voltage >610VAC or >1010VDC
- **Sampling Frequency:** 3 samples per second
- **Polarity:** "-" on display indicates negative polarity
- **Display:** 3-5/6 digit, 6000 Count LCD

⚠ WARNINGS

To ensure safe operation and service of the meter, follow these instructions. Failure to observe these warnings can result in severe injury or death.

- Before each use verify meter operation by measuring a known voltage or current.
- Never use the meter on a circuit with voltages that exceed the category based rating of this meter.
- Do not use the meter during electrical storms or in wet weather.
- Do not use the meter or test leads if they appear to be damaged.
- Use only with CAT III or CAT IV rated test leads.
- Ensure meter leads are fully seated, and keep fingers away from the metal probe contacts when making measurements.
- Use caution when working with voltages above 25V AC RMS or 60V DC. Such voltages pose a shock hazard.
- To avoid false readings that can lead to electrical shock, replace batteries when a low battery indicator appears.
- Do not attempt to measure resistance or continuity on a live circuit.
- Always adhere to local and national safety codes. Use personal protective equipment to prevent shock and arc blast injury where hazardous live conductors are exposed.
- To avoid risk of electric shock, disconnect leads from any voltage source before removing battery door.
- To avoid risk of electric shock, do not operate meter while battery door is removed.

SYMBOLS ON METER

~	Alternating Current (AC)	⎓	Direct Current (DC)
Ω	Resistance (ohms)	•))	Audible Continuity
⚠	Warning or Caution	⚠	Risk of electrical shock
⧈	Double Insulated Class II	⏚	Ground
V	Voltage	A	Amperage

SYMBOLS ON LCD

AC	Alternating Current (AC)	DC	Direct Current (DC)
V	Voltage (Volts)	A	Amperage (Amperes)
•))	Continuity	H	Data Hold
NCV	Non-Contact Voltage Testing	⚡	High Voltage
Ω	Resistance (Ohms)	▯	Low Battery
Auto	Auto-Ranging	↻	Auto-Power Off
k	kilo (value x 10^3)	M	Mega (value x 10^6)
		−	Negative Reading

FEATURE DETAILS - METER

NOTE: There are no user-serviceable parts inside meter.

1. 6000 count LCD display
2. Function selector switch
3. Open jaw fork
4. "COM" jack
5. "VΩ" jack
6. NCV (Non-Contact Voltage Testing) Button
7. NCV (Non-Contact Voltage Testing) Sensor
8. NCV (Non-Contact Voltage Testing) visual indicator
9. Data Hold / Backlight button
10. Arrow markings
11. Battery door (back)

FUNCTION BUTTONS

ON/OFF

To power ON the meter, rotate the Function Selector switch (2) from the OFF setting to any measurement setting. To power OFF the meter, rotate the Function Selector switch (2) to the OFF setting. By default, the meter will automatically power OFF after 15 minutes of inactivity. If the meter automatically powers OFF while in a measurement setting, press any button to power ON the meter. To deactivate the power OFF functionality press and hold the "NCV" button (6) before powering ON from the OFF setting. When auto power OFF is deactivated, the Auto Power Off icon will not be visible in the display.

DATA HOLD / BACKLIGHT

Press the Hold/Backlight button (9) to hold the current reading on the LCD. Press again to return to live measuring. Press and hold to turn ON or OFF the backlight. **NOTE:** The backlight will automatically turn OFF after 3 minutes of inactivity.

NON-CONTACT VOLTAGE TESTING

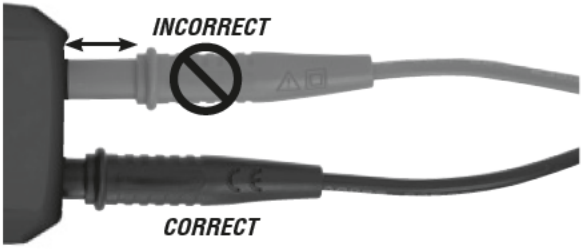
Press and hold the NCV button (6) to test for AC voltage using the integrated non-contact voltage tester. Approach the conductor under test leading with the sensing antenna (7). The meter delivers audible and visual warning signals (8) when AC voltage is detected.

⚠ ***Non-contact voltage tester only detects AC voltages >70V AC RMS.***

OPERATING INSTRUCTIONS

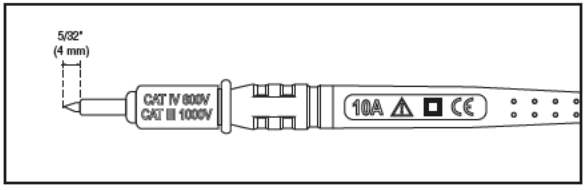
CONNECTING TEST LEADS

Do not test if leads are improperly seated. Results could cause intermittent display readings. To ensure proper connection, firmly press leads into the input jack completely.



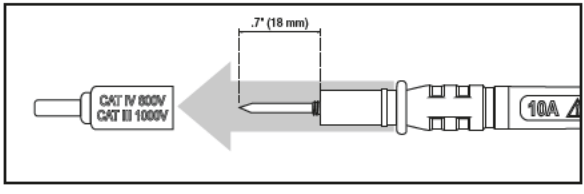
TESTING IN CAT III / CAT IV MEASUREMENT LOCATIONS

Ensure the test lead shield is pressed firmly in place. Failure to use the CATIII / CATIV shield increases arc-flash risk.



TESTING IN CAT II MEASUREMENT LOCATIONS

CAT III / CAT IV shields may be removed for CAT II locations. This will allow testing on recessed conductors such as standard wall outlets. Take care not to lose the shields.



OPERATING INSTRUCTIONS

AC CURRENT (LESS THAN 200A)

AC Current is measured by positioning the open jaw fork (3) around a current-carrying wire. When measuring, care should be taken to ensure that the wire passes perpendicularly through the center of the open jaw fork in line with the arrow markings (10).

To measure current:

1. Rotate the Function Selector switch (2) to the AC current **A ~** setting.

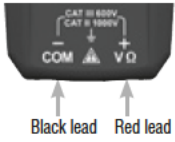
2. Place open jaw fork (3) around wire. The current measurement will be shown in the display.

⚠ ***Disconnect test leads when measuring with the open-jaw fork.***

OPERATING INSTRUCTIONS

AC VOLTAGE (LESS THAN 600V)

1. Insert RED test lead into VΩ jack (5), and BLACK test lead into COM jack (4), and rotate function selector switch (2) to the AC voltage V ~ setting. Note "**AC**" on the display.

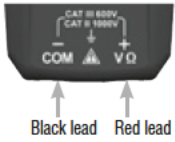


2. Apply test leads to the circuit to be tested to measure AC voltage, the measurement will be presented in the display.

NOTE: *When in a voltage setting and the test leads are open, readings of order mV may appear on the display. This is noise and is normal. By touching the test leads together to close the circuit the meter will measure zero volts.*

DC VOLTAGE (LESS THAN 1000V)

1. Insert RED test lead into VΩ jack (5), and BLACK test lead into COM jack (4), and rotate function selector switch (2) to the DC voltage V ⎓ setting. Note "**DC**" on the display.



2. Apply test leads to the circuit to be tested to measure voltage. The meter will auto-range to display the measurement in the most appropriate range.

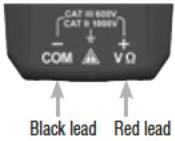
NOTE: *If "–" appears on the LCD, the test leads are being applied to the circuit in reverse. Swap the position of the leads to correct this.*

NOTE: *When in a voltage setting and the test leads are open, readings of order mV may appear on the display. This is noise and is normal. By touching the test leads together to close the circuit the meter will measure zero volts.*

OPERATING INSTRUCTIONS

CONTINUITY

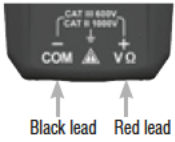
1. Insert RED test lead into VΩ jack (5), and BLACK test lead into COM jack (4), and rotate function selector switch (2) to the Continuity •)) setting. The Continuity icon will appear on the display.
2. Remove power from circuit.
3. Test for continuity by connecting conductor or circuit with test leads. If resistance is measured less than 10Ω, an audible signal will sound and display will show a resistance value indicating continuity. If circuit is open display will show "**OL**".



⚠ ***DO NOT attempt to measure continuity on a live circuit.***

RESISTANCE MEASUREMENTS

1. Insert RED test lead into VΩ jack (5), and BLACK test lead into COM jack (4), and rotate function selector switch (2) to the Resistance **Ω** setting. The Resistance icon will appear on the display.
2. Remove power from circuit.
3. Measure resistance by connecting test leads to circuit. The meter will auto-range to display the measurement in the most appropriate range.



NOTE: *When in a Resistance setting and the test leads are open (not connected across a resistor), or when a failed resistor is under test, the display will indicate O.L. This is normal.*

⚠ ***DO NOT attempt to measure resistance on a live circuit.***

MAINTENANCE

BATTERY REPLACEMENT

When the Low Battery indicator is displayed on the LCD, the batteries must be replaced.

1. Loosen screw to remove battery door.
2. Remove and recycle exhausted batteries.
3. Install two new AAA 1.5V batteries (note proper polarity).
4. Replace battery door and tighten screw.

⚠ ***To avoid risk of electric shock, disconnect leads from any voltage source before removing battery door.***

⚠ ***To avoid risk of electric shock, do not operate meter while battery door is removed.***

CLEANING

Be sure meter is turned off and wipe with a clean, dry lint-free cloth. ***Do not use abrasive cleaners or solvents.***

STORAGE

Remove the batteries when meter 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 meter to return to normal operating conditions before using.

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 **www.epa.gov** or **www.erecycle.org** for additional information.

NOTES