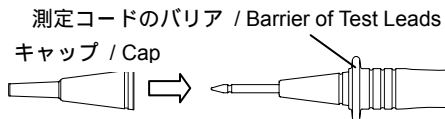
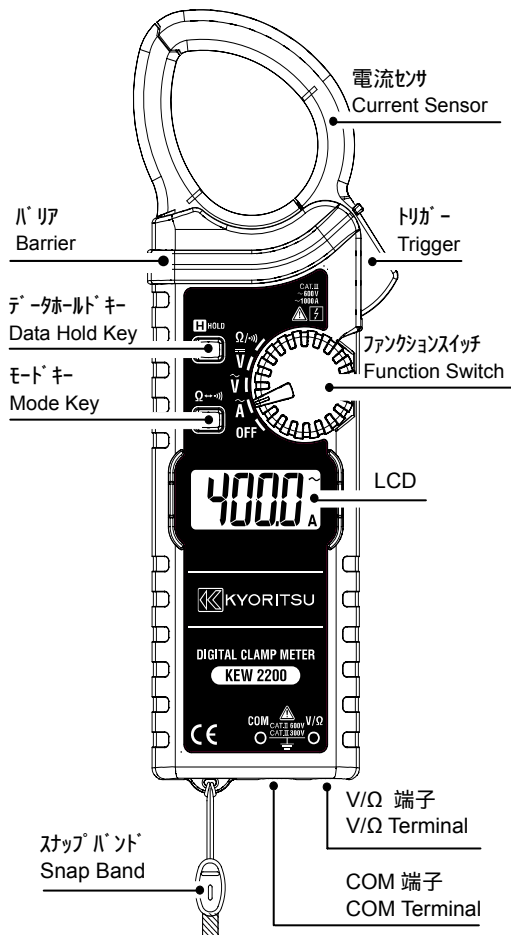


取扱説明書 INSTRUCTION MANUAL

デジタルクランプメーター DIGITAL CLAMP METER

KEW2200



バリヤ/Barrier
操作中の感電事故を防ぐため、最低限必要な沿面及び空間距離を確保するための目印です。
It is a part providing protection against electrical shock and ensuring the minimum required air and creepage distances.

警告
本製品を使用する前に、必ずこの取扱説明書をよく読んで理解してください。

WARNING
Read through and understand the instructions contained in this manual before using the instrument.

アフターサービス

修理・校正を依頼されるには
お買い上げいただいた販売店または弊社サービスセンター修理グループにお送りください。
製品のご使用に関するお問い合わせは
弊社お客様相談室にご連絡ください。
校正周期について
本製品を正しくご使用いただくため、定期的（推奨校正周期1年）に校正することをおすすめいたします。
補修用品の保有期間
本製品の機能・性能を維持するために必要な補修部品を製造打ち切り後、5年間を目安に保有しています。

ホームページのご案内
<http://www.kew-ltd.co.jp>
新製品情報 取扱説明書 / ソフトウェア / 単品カタログのダウンロード
販売終了製品情報

**修理・校正に関するお問い合わせは
共立電気計器 サービスセンター 修理グループ**
営業時間 8:40 ~ 12:00、13:00 ~ 17:30
(土・日・祝日・年末年始・夏季休暇を除く)
0894-62-1172
修理を依頼される場合は事前に電池の消耗、ヒューズや測定コードの断線を
確認してから輸送中に損傷しないように
十分梱包した上で弊社サービスセンターまでお送りください。
送付先: 〒797-0045 愛媛県西予市宇和町坂戸4 8 0

**ご使用に関するお問い合わせは
共立電気計器 お客様相談室**
受付時間 9:00 ~ 12:00、13:00 ~ 17:00
(土・日・祝日・年末年始・夏季休暇を除く)
0120-62-1172
※折り返しお電話させていただくことがございますので発信者番号の
通知にご協力いただきますようお願いいたします。
※フリーコールをご利用いただけない場合は、03-4540-7570 か最寄りの
弊社営業所へおかけください。

この説明書に記載されている事項を断り無く変更
する事がありますのでご了承ください。

本製品には保証書が添付されておりますので、保証
期間中の故障については保証規定をお読みになり
ご利用ください。

保証書

| | |
|------------------------|------|
| KEW2200 | 製造番号 |
| 保証期間 ご購入日(年 月 日)より1年間 | |

共立製品をお買い上げいただきありがとうございます。
保証期間内に正常なご使用状態で万一故障
が生じた場合は、保証規定により無償修理をさせ
ていただきます。本書を添付の上ご依頼ください。

| | |
|-----|---|
| お名前 | |
| ご住所 | 〒 |
| TEL | |

本保証書に製造番号、ご購入日、およびお名前、
ご連絡先をご記入の上、大切に保管してくださ
い。
本保証書の再発行はいたしません。
本保証書は日本国内でのみ有効です。
This warranty is valid only in Japan.

保証規定

- 保証期間内に生じた故障は無償で修理いたしま
す。
但し、下記事項に該当する場合は対象から除外さ
せていただきます。
1. 取扱説明書と異なる不適切な取扱い、または
使用方法が原因で発生した故障。
2. お買い上げ後の持ち運びや輸送の間に、落下さ
せるなど異常な衝撃が加わって生じた故障。
3. 弊社サービス担当者以外による改造、修理が
原因で生じた故障。
4. 火災、地震、水害、公害及びその他の天変地異
が原因で生じた故障。
5. 傷など外観上の変化。
6. その他弊社の責任と見なされない故障。
7. 電池など消耗品の交換、補充。
8. 保証書のご提出がない場合。

共立電気計器株式会社
本社 〒152-0031 東京都目黒区中根2-5-20
東京営業所 ☎03(3723)7021 FAX. 03(3723)0139

JAPANESE / ENGLISH

1. 仕様 / Specification

精度保証 / Accuracy guaranteed
レンジの100%以下 / 100% or less of range
温度 / Temperature 23 ± 5°C
湿度 / Humidity 45 ~ 75%

ACA (オートレンジ / Auto Range)

| レンジ / Range | 精度 / Accuracy |
|-----------------------|--------------------------------|
| 40A 0.00, 0.03-41.99A | ± 1.4 %rdg ± 6dgt (50/60Hz) |
| 400A 32.0-419.9A | ± 1.6 %rdg ± 6dgt (45-65Hz) |
| 1000A 320-1049A | |

入力保護電流 / Input protective current : AC1200A

ACV (オートレンジ / Auto Range)

| レンジ / Range | 精度 / Accuracy |
|------------------------|---------------------------------|
| 4V 0.000, 0.005-4.199V | ± 1.8 %rdg ± 7dgt (45-65Hz) |
| 40V 3.20-41.99V | |
| 400V 32.0-419.9V | ± 2.3 %rdg ± 8dgt (65-500Hz) |
| 600V 320-629V | |

DCV (オートレンジ / Auto Range)

| レンジ / Range | 精度 / Accuracy |
|------------------------|------------------|
| 400mV ± 0.0- ± 419.9mV | *1 |
| 4V ± 0.320- ± 4.199V | |
| 40V ± 3.20- ± 41.99V | ± 1.0%rdg ± 3dgt |
| 400V ± 32.0- ± 419.9V | |
| 600V ± 320- ± 629V | |

*1: 精度保証外 / Accuracy is not guaranteed

ACV/DCV 入力インピーダンス / input impedance
: >100MΩ (400mV Range)
: 11MΩ (4V Range)
: 10MΩ (40/400/600V Range)

抵抗 / Resistance (オートレンジ / Auto Range) 導通 / Continuity

| レンジ / Range | 精度 / Accuracy |
|---------------------|---|
| 400Ω 0.0-419.9Ω | |
| 4kΩ 0.320-4.199 kΩ | ± 2.0%rdg ± 4dgt |
| 40kΩ 3.20-41.99 kΩ | |
| 400kΩ 32.0-419.9 kΩ | |
| 4MΩ 0.320-4.199 MΩ | ± 4.0%rdg ± 4dgt |
| 40MΩ 3.20-41.99 MΩ | ± 8.0%rdg ± 4dgt |
| 導通 Cont. 0.0-419.9Ω | ブザーしきい値 / Bz threshold value 50 ± 30Ω |

開放電圧 / Open-loop voltage
: <3.4V (400Ω / Cont Range)

共立電気計器株式会社

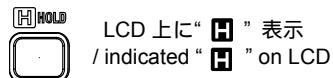
**KYORITSU ELECTRICAL
INSTRUMENTS WORKS, LTD.**

: 0.7V typ (4kΩ Range)
 : 0.47V typ (40k - 40MΩ Range)
 入力保護電圧 / Input protective voltage
 : AC/DC600V 10 秒間 / 10 sec
 動作方式 / Measuring method
 2重積分方式 / Dual integration
 入力オーバー表示 / Over-range indication
 OL
 測定周期 / Measurement cycle
 毎秒 2.5 回 / 2.5 times per second
 適応規格 / Applicable Standards
 IEC/EN 61010-1/ 61010-2-032/ 61010-031
 /61010-2-030
 汚染度 2 / Pollution degree 2
 屋内使用 / Indoor use
 高度 2000m 以下 / Altitude up to 2000m
 電流測定部 / Current measurement section
 CAT.III 600V
 電圧測定部 / Voltage measurement section
 CAT.II 600V / CAT.III 300V
 EN61326 (EMC)
 RF 電磁界 3V/m において精度の 5 倍以内
 In the radio-frequency electromagnetic field of
 3V/m, accuracy is within five times the rated
 accuracy.
 耐電圧 / Withstand voltage
 AC5320Vrms 5 秒間 電流センサと外装間
 AC3540Vrms 5 秒間 電気回路と外装間
 AC5320Vrms 5sec between Current sensor
 and enclosure
 AC3540Vrms 5sec between circuit and enclosure
 絶縁抵抗 / Insulation resistance
 >100MΩ /1000V 電気回路と外装間
 between enclosure and electrical circuit
 動作温湿度範囲
 0 ~ 40°C 相対湿度 85%以下 (結露しないこと)
 Operating Temperature and humidity range
 0 to 40°C 85%RH or less (no condensation)
 保存温湿度範囲
 -20 ~ 60°C 相対湿度 85%以下 (結露しないこと)
 Storage Temperature and humidity range
 -20 to 60°C 85%RH or less (no condensation)
 電源 / Power source
 DC3V : 単 4 形乾電池 × 2 / R03/LR03 (AAA) × 2
 消費電流 / Current consumption
 < 3mA
 連続使用時間 / Battery life
 約 350 時間 (ACA、連続、無負荷)
 / Approx. 350 hours (ACA, continuous, no load)
 外形寸法、質量 / Dimension, Weight
 190(L) × 68(W) × 20(D)mm
 approx. 120g (電池含 / including batteries)
 付属品 / Accessories
 測定コード / Test leads Model 7107A 1set
 電池 / Battery R03(AAA) 2pcs

取扱説明書 / Instruction manual 1pce
 携帯ケース / Carrying case Model 9160 1pce

2. その他の機能 / Other Function

データホールド / Data Hold
 ホールドキーを押すと測定値が保持されます。
 解除は再度ホールドキーを押します。
 Press the Data Hold Key to freeze the reading.
 Press the Data Hold Key again to release the
 freezing display.



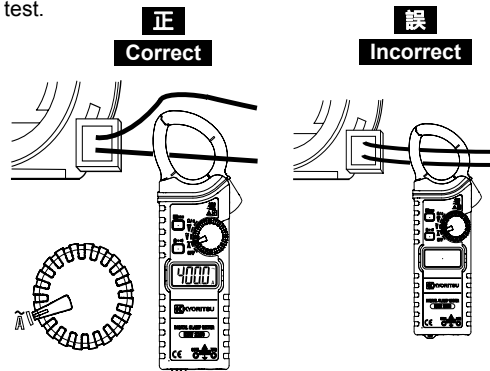
電池電圧低下表示 / Low battery indication
 2.3 ± 0.15V 以下で LCD 上に "B" 表示
 indicated "B" on LCD at 2.3 ± 0.15V or less

スリープ機能 / Sleep Function
 スイッチ/キー操作後約 10 分でスリープ状態。
 データホールドキーを押しながら電源 ON でスリ
 ープ機能解除 (LCD に "PFFF" が 2 秒間表示)。
 Automatically powered off in about 10min after.
 To disable the sleep function, power the
 instrument on with the Data Hold Key pressed.
 (indicated "PFFF" for about 2 seconds on LCD)

3. ACA 測定 / Measurement

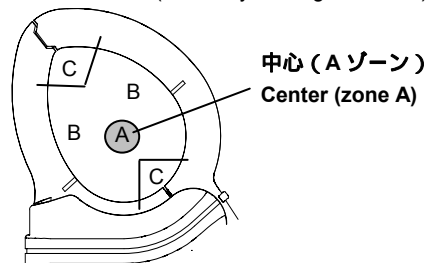
△ 危険 / DANGER
**測定を行うときは、必ず測定コードを本体から外し
 てください。**
**Never measure current while the test leads are
 inserted into the V/Ω and/or COM Terminals.**

トリガーを押して電流センサ先端を開き被測定導
 体 (最大 33mm) が電流センサの中心になるように
 クランプしてください。
 Press the trigger to open the Current Sensor and
 clamp the one conductor (Dia. 33mm max.) under
 test.



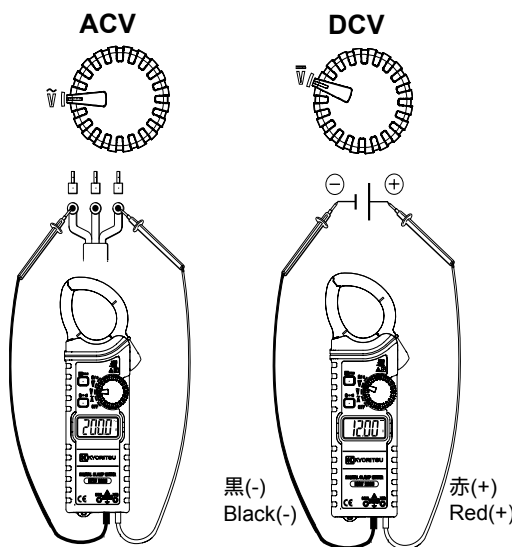
注記 / NOTE

精度保証は電流センサの中心 (Aゾーン) で測定し
 たときが対象です。Bゾーンでは精度に 4%を追加
 します。Cゾーンの測定値は参考値 (精度保証外)
 です。
 Measurement accuracy is guaranteed when the
 measured object is placed at the center (zone A)
 of the Current Sensor. In zone B, 4% of tolerance
 should be added to the specified accuracy. In zone
 C, measured values should be considered as
 reference values (Accuracy is not guaranteed).



4. ACV/DCV 測定 / Measurement

△ 危険 / DANGER
**600V 以上の電位回路では、絶対に測定しないでく
 ださい。**
**Never make measurement on a circuit in which
 voltage over 600V exists.**

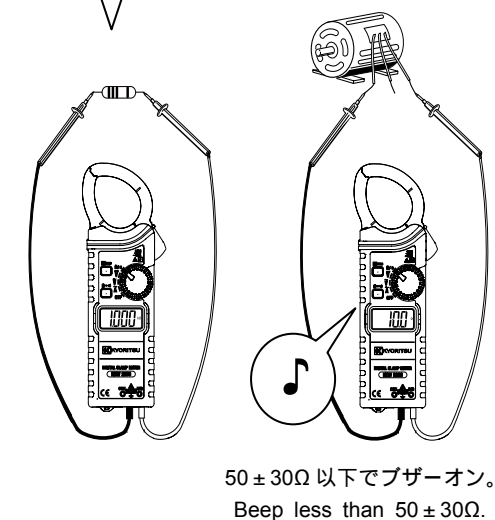
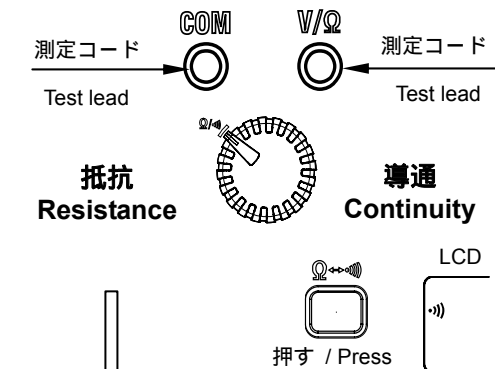


注記 / NOTE

DCV 測定において、測定コードを逆接続すると、
 LCD 上に " - " が表示されます。
 If the connection is reversed, the LCD indicates the
 " - " mark (DCV measurement).

5. 抵抗 (導通) 測定 Resistance(Continuity) Measurement

△ 警告 / WARNING
**測定の前には、本体に電圧が印加されないよう被測
 定物 (回路) の電源を切ってください。**
**Never use the instrument on an energized
 circuit.**



注記 / NOTE

測定コードがオープン状態では "OL" を表示します。
 LCD indicates "OL" when the test leads are open.

ENGLISH

6. Safety Warnings

This instrument has been designed, manufactured and tested according to IEC 61010: Safety requirements for Electronic Measuring apparatus, and delivered in the best condition after passed the inspection. This instruction manual contains warnings and safety rules which must be observed by the user to ensure safe operation of the instrument and retain it in safe condition. Therefore, read through these operating instructions before using the instrument.

⚠ WARNING

- Read through and understand the instructions contained in this manual before using the instrument.
- Keep the manual at hand to enable quick reference whenever necessary.
- The instrument is to be used only in its intended applications.
- Understand and follow all the safety instructions contained in the manual.
- It is essential that the above instructions are adhered to.
- Failure to follow the above instructions may impair the protection provided by the instrument and test leads, and may cause injury, instrument damage and/or damage to equipment under test.

The symbol **⚠** indicated on the instrument means that the user must refer to the related parts in the manual for safe operation of the instrument. It is essential to read the instructions wherever the symbol **⚠** appears in the manual.

⚠ DANGER is reserved for conditions and actions that are likely to cause serious or fatal injury.

⚠ WARNING is reserved for conditions and actions that can cause serious or fatal injury.

⚠ CAUTION is reserved for conditions and actions that can cause injury or instrument damage.

- Marks listed below are used on this instrument.
- ⚠** User must refer to the manual.
- Instrument with double or reinforced insulation
- ⚡** Indicates that this instrument can clamp on bare conductors when measuring a voltage corresponding to the applicable measurement category, which is marked next to this symbol.

~ AC

== DC

⏚ Ground (Earth)

⚡ This instrument is subject to WEEE Directive (2002/96/EC). Please contact our dealer near you at disposal.

Measurement Category

CAT.II

Primary electrical circuits of equipment connected to an AC electrical outlet by a power cord.

CAT.III

Primary electrical circuits of the equipment connected directly to the distribution panel, and feeders from the distribution panel to outlets.

CAT.IV

The circuit from the service drop to the service entrance, and to the power meter and primary over current protection device(distribution panel).

Current measurement section of this instrument is designed for CAT.III 600V and Voltage measurement section is for CAT.III 300V / CAT.II 600V respectively. Test leads 7107A with the Cap is designed for CAT.IV 600V / CAT.III 1000V and without the Cap is for CAT.II 1000V.

⚠ DANGER

- Never make measurement on a circuit in which voltage over AC/DC600V exists.
- Do not attempt to make measurement in the presence of flammable gasses. Otherwise, the use of the instrument may cause sparking, which can lead to an explosion.
- Never attempt to use the instrument if its surface or your hand is wet.
- Do not exceed the maximum allowable input of any measuring range.
- Never open the Battery cover during a measurement.
- To avoid electrical shock by touching the equipment under test or its surroundings, be sure to wear insulated protective gear.
- Never measure current while the test leads are inserted into the input terminals.
- Barriers on the instrument body and the test leads provide protection to keep your fingers and hands from touching an object under test. Keep your fingers and hands behind the barriers during measurement.

⚠ WARNING

- Never attempt to make measurement if any abnormal conditions, such as broken case and exposed metal parts are found on the instrument

or test leads.

- Verify proper operation on a known source before use or taking action as a result of the indication of the instrument.
- **Firmly attach the Caps to the test leads when performing measurements at CAT.III or higher test environment. When KEW2200 and the test leads are combined and used together, whichever is lower category & voltage to earth either of them belong to is applied.**
- Do not rotate the Function Switch while the test leads are being connected.
- Do not install substitute parts or make any modification to the instrument. For repair or re-calibration, return the instrument to your local distributor from where it was purchased.

⚠ CAUTION

- Use of this instrument is limited to domestic, commercial and light industry applications. If equipments generating strong electromagnetic Interference or strong magnetic fields due to large currents exist nearby, malfunctions of the instrument may be caused.
- Set the Function Switch to an appropriate position before starting measurement.
- Firmly insert the test leads.
- The LCD shows some readings at the ACV and the DCV ranges even while the test leads are open. And, it may show some digits instead of 0 when short-circuiting the test leads. However, these phenomena don't affect measurement results.
- This instrument isn't dust & water proofed. Keep away from dust and water.
- Be sure to power off the instrument after use. When the instrument will not be in use for a long period, place it in storage after removing the batteries.
- Do not expose the instrument to the direct sun, high temperature and humidity or dewfall.
- Use a cloth dipped in water or neutral detergent for cleaning the instrument. Do not use abrasives or solvents.

7. Battery Replacement

⚠ WARNING

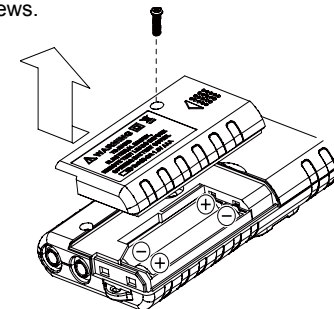
- Replace the batteries when a Low Battery Voltage warning "**⚡**" mark(< 2.3±0.15V) is indicated on the LCD. Otherwise, precise measurement cannot be made. Note that when the battery is completely exhausted, the LCD goes blank without showing "**⚡**" mark.

- Do not try to replace the batteries if the surface of the instrument is wet.
- Disconnect the test leads from the object under test and power off the instrument before opening the Battery Compartment Cover for Battery replacement.

⚠ CAUTION

- Do not mix old and new batteries.
- Install batteries in correct polarity as indicated in the Battery Compartment.

- (1) Set the Function Switch to "OFF" position.
- (2) Unscrew and remove the Battery Compartment Cover on the bottom of the instrument.
- (3) Replace the batteries observing correct polarity. Use new two R03/LR03 (AAA) 1.5V batteries.
- (4) Install the Battery Compartment and tighten the screws.



DISTRIBUTOR

Kyoritsu reserves the rights to change specifications or designs described in this manual without notice and without obligations.



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