

KYORITSU
KEW 6516,6516BT
Multi Function
Installation Tester



KYORITSU KEW 6516,6516BT Multi Function Installation Tester Instruction Manual

[Home](#) » [KYORITSU](#) » KYORITSU KEW 6516,6516BT Multi Function Installation Tester Instruction Manual 

Contents

- 1 KYORITSU KEW 6516,6516BT Multi Function Installation Tester
- 2 Product Usage Instructions
- 3 Features
- 4 Operation Instruction
- 5 Connectivity
- 6 Accessories
- 7 Specification
- 8 FAQ
- 9 Documents / Resources
 - 9.1 References



KYORITSU KEW 6516,6516BT Multi Function Installation Tester



Specifications

- **Insulation Resistance Test Voltage:** 100V, 250V, 500V, 1000V (Max. 1000V)
- **Measuring Ranges:** 2.000/20.00/200.0M, 20.00/200.0/1000M, 20.00/200.0/2000M

- **Accuracy:** Rated current 1.0 to 1.2mA, Short circuit current 1.5mA max.
- **Loop Impedance Function:** LOOP ATT, LOOP HIGH, L-PE/L-N(3-wire), L-PE(2-wire), L-PE(0.01Res), L-PE(0.001Res), L-N/L-L
- **Rated Voltage:** 100 to 260V (50/60Hz), 48 to 260V (50/60Hz), 48 to 500V (50/60Hz)
- **Impedance Range:** 20.00/200.0/2000 (Auto-ranging)

Product Usage Instructions

Operation Steps

1. Set the rotary dial to the desired testing range.
2. Connect the instrument to the installation under test.
3. Press the test button to begin testing.

Hands-Free Testing

- Hands-free testing can be achieved by using a remote probe or utilizing the Lockdown function of the test button.

Anti-Trip Technology

- The device features Anti-Trip Technology with 2 & 3 wires for no trip LOOP L-PE testing on all RCDs. Best accuracy readings are obtained with 3 wires (L, N, PE).

Loop Testing from a Wall Socket

- With a high test current of 25A, the Loop Impedance Phase to Earth can be measured with a high resolution of 0.001 ohm, suitable for testing in the main switchboard closer to the transformer.

Continuity Check

- The product allows for continuity check of equipotential bonding.

RCD Testing

- A wide variety of RCDs can be tested including Type AC, A, F, B, EV, and Variable RCDs using different test modes like Single and Auto test, Ramp test, and Contact voltage.

SPD Test

- The device can test Surge Protection Devices (SPD) containing varistors without causing damage by measuring the tripping voltage.

PAT Test

- The PAT test functionality enables checking insulation resistance and earth bond continuity of portable appliances for class I and II.

Features

Insulation	Loop	RCD
100/250/500/1000V	2/20/200/2000Ω	6/10/30/100/300/500/1000mA
PSC	PFC	Earth
2000A/20kA	2000A/20kA 2000A/50kA	20/200/2000Ω
AC V	Continuity	Phase rotation
300/600V	20/200/2000Ω	
Frequency	SPD (Varistor)	PAT

Communication interface

USB

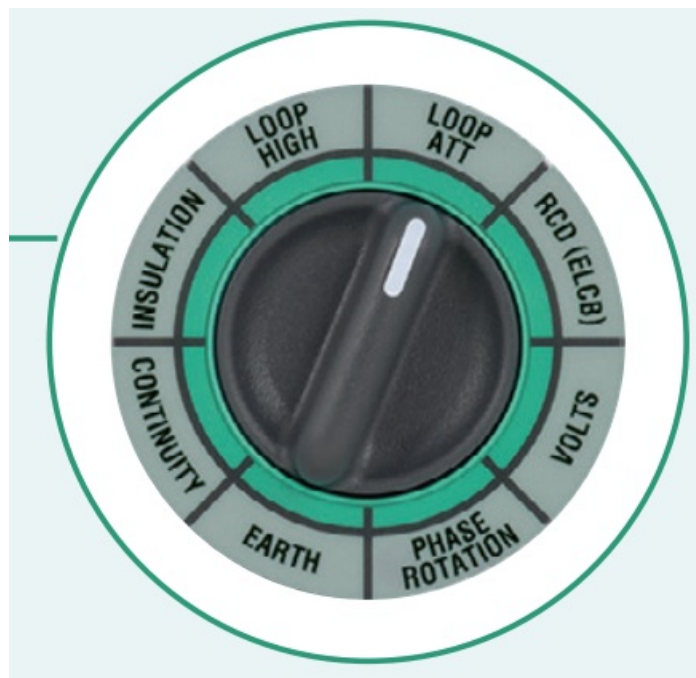


Bluetooth



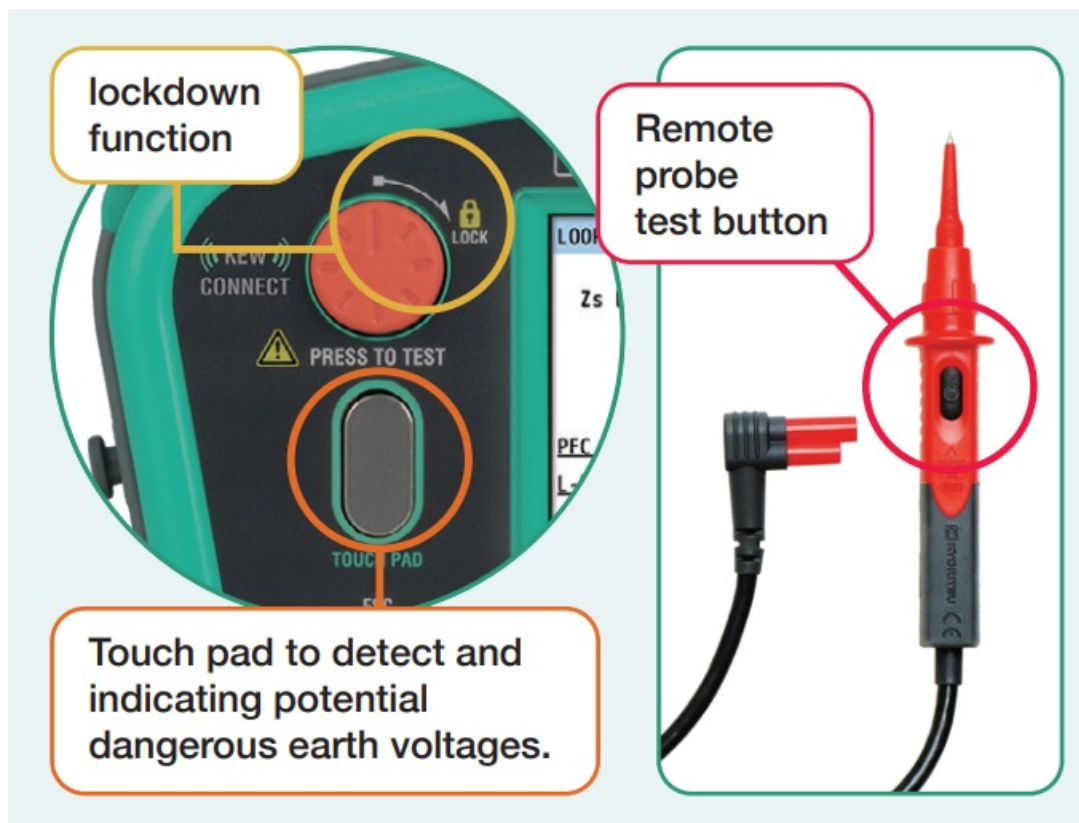
Operation Instruction

Operation in 3 simple steps



- Set the rotary dial to your testing range.
- Connect the instrument to the installation under test.
- Press the test button.

Hands free testing



By remote probe or using the Lockdown function of the test button.

Large LCD



All the test data is shown in one large colored screen.

Anti-Trip Technology (with 2 & 3 wires)

•



For no trip LOOP L-PE testing on all RCDs.

- With 3 wire (L, N, PE), to get the best accuracy readings.
- With 2 wire only, very useful in case of no Neutral (i.e. 3-phase motor lines).

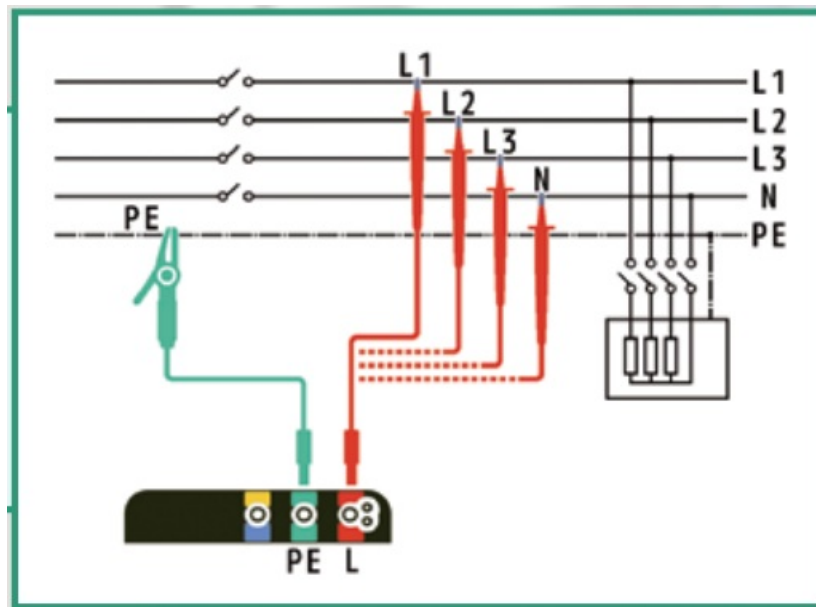
Loop test from a wall socket



Continuity check of equipotential bonding



HELP Key



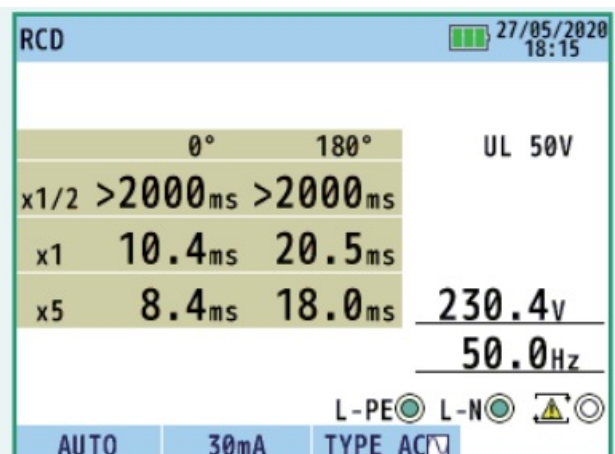
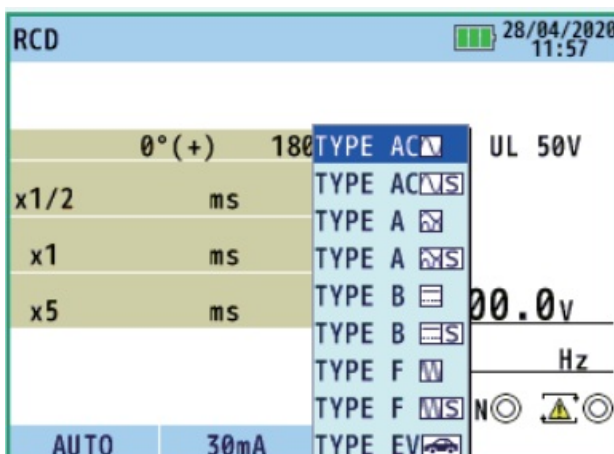
HELP function will show how to connect the instrument according to the function selected.

0.001 resolution



Thanks to high test current of 25A, the Loop Impedance Phase to Earth is measured with high resolution of 0.001 ohm. This can be useful when testing in the main switchboard closer to the transformer.

Wide variety of RCDs can be tested



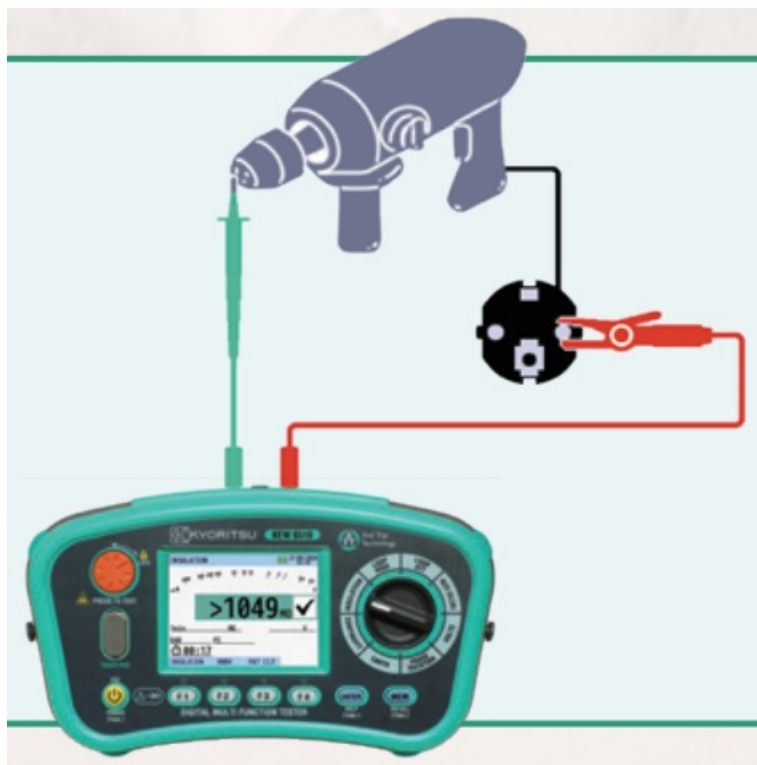
Type AC, A, F, B (General & Selective) EV and Variable RCDs. Single and Auto test, Ramp test and Contact voltage.

SPD test



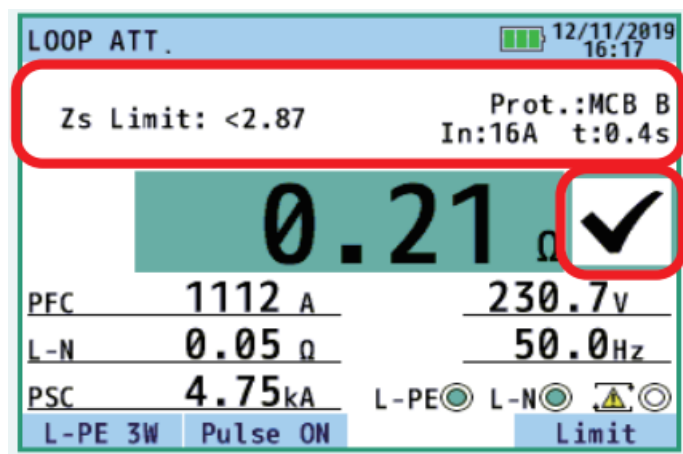
SPD (Surge Protection Device) which contains varistor can be tested measuring the tripping voltage without damage it.

PAT test



PAT test (PAT = Portable Appliance Tester) It is possible to check the insulation resistance and earth bond continuity of portable appliances for class I and II.

Zs/Ra Limit



The verification of safety requirement on an electrical installation is simplified by using Zs/Ra Limit function. This function will automatically check if the measured loop impedance for TN (or earth loop for TT) is low enough to trip (disconnect) the MCB / Fuse / RCD giving the result of PASS(V) or FAIL (x) on the display.

Connectivity

USB

KEW 6516 **PC**

*Please download the software from our website.

Bluetooth®

KEW 6516BT

KEW Smart Advanced

GET IT ON
Google Play

Download on the
App Store

Accessories



Optional accessories

MODEL7272

Precision measurement cord set

- 2 cord reels with test leads.
- 2 spikes.
- an earth test lead.
- a carrying case.



Adapter for measurement terminal

- [red, yellow, green/1set]



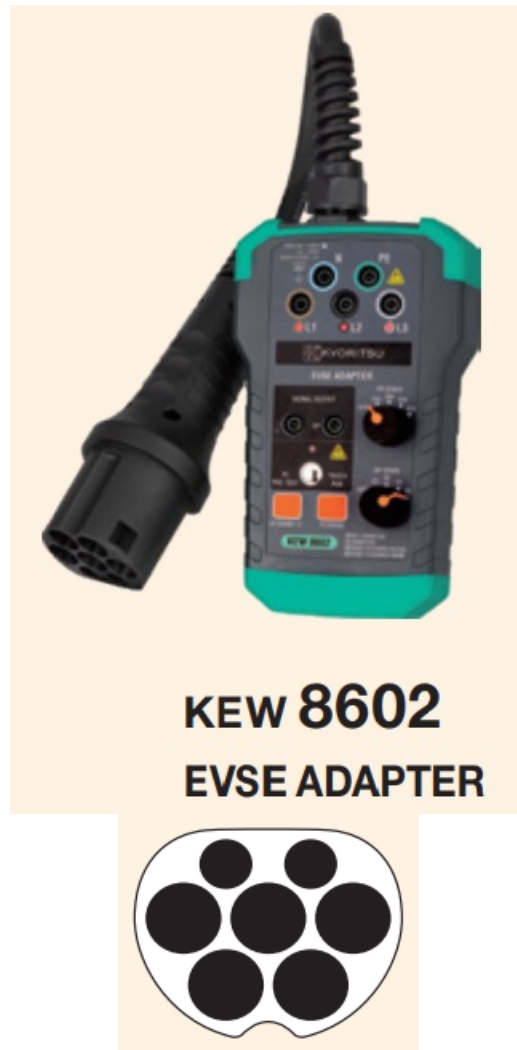
EVSE ADAPTEF

- TYPE1 plug



EVSE ADAPTER

- TYPE2 plug



MFT and EVSE ADAPTER Kits

- **KEW 6516-EV2:** KEW 6516×1, KEW 8602×1
- **KEW 6516BT-EV2:** KEW 6516BT×1, KEW 8602×1

Specification

MULTI FUNCTION TESTER KEW 6516 / 6516BT Specification

Insulation resistance						SPD(Varistor)		
Test voltage		100V		250V	500V	1000V	1000V max.	
Measuring ranges		2.000/20.00/200.0MΩ (Auto-ranging)			20.00/200.0/1000MΩ (Auto-ranging)	20.00/200.0/2000MΩ (Auto-ranging)	0 to 1049V(goes up by 1V)	
Accuracy		±2%rdg±6dgt (2.000/20.00MΩ) ±5%rdg±6dgt (200.0MΩ)			±2%rdg±6dgt (20.00/200.0MΩ) ±5%rdg±6dgt (1000MΩ)	±2%rdg±6dgt (20.00/200.0MΩ) ±5%rdg±6dgt (2000MΩ)	±5%rdg±5dgt	
Rated current		1.0 to 1.2mA @0.1MΩ		1.0 to 1.2mA @0.25MΩ	1.0 to 1.2mA @0.5MΩ	1.0 to 1.2mA @1MΩ	—	
Short circuit current		1.5mA max.					—	
Loop impedance								
Function		LOOP ATT			LOOP HIGH			
		L-PE/L-N(3-wire)		L-PE(2-wire)	L-PE(0.01ΩRes)	L-PE(0.001ΩRes)	L-N/L-L	
Rated voltage		100 to 260V(50/60Hz)		48 to 260V(50/60Hz)		100 to 260V(50/60Hz)	48 to 500V(50/60Hz)	
Impedance range		20.00/200.0/2000Ω (Auto-ranging)				2.000Ω	20.00Ω	
Accuracy		±3%rdg±6dgt		±3%rdg±10dgt	±3%rdg±4dgt	±3%rdg±25mΩ	±3%rdg±4dgt	
Nominal test current at 0Ω external loop: Magnitude/Duration at 230V		L-N:6A/60ms		L-PE:15mA	200Ω:6A/20ms 2000Ω:0.5A/20ms 20000Ω:15mA/500ms	25A/20ms	6A/20ms	
		N-PE:10mA Normal Low I	EV mode*1 N-PE:6mA N-PE:4mA					
PSC/PFC								
Range		2000A/20kA(L-N(PSC)/L-PE(PFC))			2000A/20kA(PFC)	2000A/50kA(PFC)	2000A/20kA(PSC)	
Accuracy		PSC/PFC accuracy is determined by measured loop impedance specification and measured voltage specification						
RCD								
Rated voltage		100 to 260V(50/60Hz)						
Function		x1/2, x1,x5,Ramp,Auto,Uc 6/10/30/100/300/500/1000mA/variable						
RCD type		AC(G/S)		A(G/S)	F(G/S)	B(G/S)	EV	
Trip current setting		x1/2,x1,Uc	10/30/100/300/500/1000mA(G) 10/30/100/300/500mA(S)		10/30/100/300/500mA		10/30/100/300mA 6mA(×1 only)	
		x5	10/30/100mA				10/30mA —	
		Ramp	10/30/100/300/500mA				10/30/100/300mA 6mA	
Accuracy	Trip current	x1/2	-8 to -2%		-10 to 0%		—	
		x1	+2 to +8%		0 to +10%		—	
		x5	+2 to +8%		0 to +10%		—	
		Ramp	-4 to +4%		-10 to +10%		—	
	Trip time	x1/2	2000ms(G/S):±1%rdg±2ms				—	
		x1	550ms(G):±1%rdg±2ms,1000ms(S):±1%rdg±2ms				10.5s:±1%±2ms	
	x5	410ms(G/S):±1%rdg±2ms				—		
Continuity					Volts			
Range		20.00/200.0/2000Ω (Auto-ranging)			Range			300.0/600V(Auto-ranging)
Open circuit voltage (DC)		7 to 14V			Measuring ranges		Volts	2 to 600V
Measuring current	200mA	200mA or more(2Ω or less)					Frequency	45 to 65Hz
	15mA	15mA±3mA(short-circuit)			Accuracy	Volts	±2%rdg±4dgt	
Accuracy		±2%rdg±8dgt				Frequency	±0.5%rdg±2dgt	
Phase Rotation					Earth			
Rated voltage		48 to 600V(45 to 65Hz)			Range		20.00/200.0/2000Ω(Auto-ranging)	
Remarks		Correct phase sequence are displayed with "1, 2, 3" and arrow mark. Reverse phase sequence are displayed with "3, 2, 1" and arrow mark.			Accuracy		±2%rdg±0.08Ω(20.00Ω) ±2%rdg±3dgt(200.0/2000Ω)	
General								
Applicable standards		IEC 61010-1 CAT IV 300V / CAT III 600V Pollution degree 2, IEC 61010-2-034, IEC 61557-1,2,3,4,5,6,7,10, IEC 60529(IP40), IEC 61326(EMC)						
Communication interface		USB, Bluetooth® 5.0*2						
Power source		LR6(AA)(1.5V) × 8						
Dimension		136(L) × 235(W) × 114(D)mm						
Weight		1350g (including batteries)						
Accessories		Mains test lead*3, 7281(Test leads with remote control switch), 7246(Distribution board test lead), 7228A(Earth resistance test leads), 8041(Auxiliary earth spikes[2spikes/1set]) 8212-USB(USB adapter for 6516), 8923(Fuse[0.5A/600V]) × 1 (included), 1 (spare), 9084(Soft case), 9142(Carrying case), 9151(Shoulder strap), 9199(Shoulder pad), Batteries, instruction manual						
Optional accessories		8212-USB(USB adapter for 6516BT), 8259(Adapter for measurement terminal), 7272(Precision measurement cord set), 8017A(Extension prod long) 8601(EVSE ADAPTER), 8602(EVSE ADAPTER)						

*1 The following functions have been added to KEW 6516/6516BT main unit firmware version 2.10 or later.

*2 6516BT only Some countries regulate the compliance with their Radio Law of the products equipped with Bluetooth®.Please confirm it with your distributor before purchasing our products equipped with Bluetooth®.

*3 7187A:British plug, 7218A:(EU)European SCHUKO plug, 7221A(SA) South african plug, 7222A:(AU)Australian plug

Bluetooth® is a trademark or registered trademark of Bluetooth SIG. Inc.

Android is a trademark or registered trademark of Google LLC.

iOS is a trademark or registered trademark of Cisco Technology, Inc. in the United States and other countries.



Safety Warnings

Please read the “Safety Warnings” in the instruction manual supplied with the instrument thoroughly and completely for correct use. Failure to follow the safety rules can cause fire, trouble, electrical shock, etc. Therefore, make sure to operate the instrument on a correct power supply and voltage rating marked on each instrument.

For inquiries or orders

KYORITSU ELECTRICAL INSTRUMENTS WORKS, LTD.

2-5-20, Nakane, Meguro-ku, Tokyo, 152-0031 Japan

- **Phone:** +81-3-3723-0131
- **Fax:** +81-3-3723-0152




www.kew-ltd.co.jp

FAQ

- **Q: What accessories are available for the KEW 6516 / 6516BT?**
 - **A:** Optional accessories include Extension prod long (MODEL 8017A), Precision measurement cord set (MODEL7272), Adapter for measurement terminal [red, yellow, green/1set] (MODEL 8259), EVSE ADAPTER TYPE1 plug (KEW 8601), and EVSE ADAPTER TYPE2 plug (KEW 8602).

Documents / Resources

	<p>KYORITSU KEW 6516,6516BT Multi Function Installation Tester [pdf] Instruction Manual 6516, 6516BT, KEW 6516 6516BT Multi Function Installation Tester, KEW 6516 6516BT, Multi Function Installation Tester, Function Installation Tester, Installation Tester</p>
---	--

References

- [User Manual](#)

This website is an independent publication and is neither affiliated with nor endorsed by any of the trademark owners. The "Bluetooth®" word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. The "Wi-Fi®" word mark and logos are registered trademarks owned by the Wi-Fi Alliance. Any use of these marks on this website does not imply any affiliation with or endorsement.