



Caution

- Do not use organic solvent to clean the meter but with a soft cloth if necessary.
- Do not expose the meter under direct sunlight, extreme temperature or moisture.

Please contact our agents or distributors for a variety of measuring instrument we produce under the strict quality control requirement of ISO 9001.

Specifications and external appearance of the product described above may be revised for modification without prior notice.

INSTRUCTION MANUAL WIRELESS CLAMP METER

Model : DE-35

Thank you for purchasing our products. Please read this instruction manual before using the meter and keep it properly for contingent use.

DER EE ELECTRICAL INSTRUMENT CO., LTD.

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For safe operation, please read the instruction manual carefully before using the meter and keep this manual together with the meter properly for contingent use.

PRECAUTION :

To avoid hazards or damage during operation process, the following symbols are used as prompt for points for attentions.



:Warning: Improper use of the product may result in body injury or even death, please read the operation carefully.



:Caution: Improper use of the product may result in body injury or even death, please read the operation carefully.



:Dual insulation



:AC - Alternating Current



:DC - Direct Current



:Grounding - Earth Terminal

Warning

- **To prevent electrical shock or fire!**
- Before getting measured, make sure that the test leads and function switch has been set properly.
- Before switching among functions, remove the test leads off the measured object.
- Before measurement, make sure the circuit or the object won't exceed the maximum measurement range.
- Do not use this instrument, if there's any crack or damage in the case of meter or test leads.
- Do not open the case of meter during measurement.
- When measuring with test leads, always put your hands behind the guard ring of the test leads.
- When measuring with sensor clamp, put your hands behind the guard ring of the meter.
- Before undergoing resistance measurement, switch off the power to the circuit under test firstly.
- Never use the meter under rainy or humid environment or with wet hands.
- Before undergoing current measurement, make sure to remove the test leads from the input terminals.

 **Warning**

■ **To prevent damage or electrical shock to the meter!**


According to the safety standard, the maximum voltage input power is classified as follows to protect the users against transient impulse voltage in power lines.

Over-voltage Category (CAT.)	Maximum input voltage
CAT III	600V

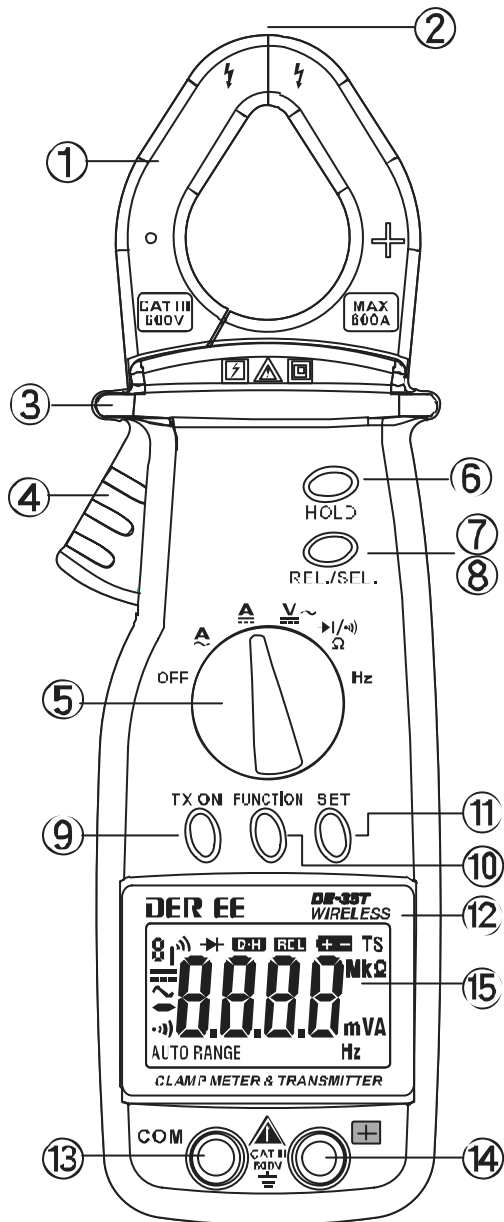
 **Caution**

- Do not use the meter near equipment emitting noise or under an environment with sudden temperature change. Otherwise, reading will appear.
- Please make sure the power of batteries for transmitter and receiver or if any interface between transmitter and receiver before measuring.
- Do not use this instrument in high interface circumstances, e transmission might fail.
- Transmission distance between receiver and transmitter is approx. 100 meter (333 feet) in open space
- Don't exceed the operative transmission distance
- The transmission distance will be shorter that depends on the materials and construction of building.
- Don't place the transmitter in metal covered equipments while data transmission since it will effect the electric wave to fail transmission.

 **Caution**

- The transmission distance might be shorter due to different environments and building structure. This is because electric wave might be interfered while data transmission. The reading might be inaccurate.
- Do not expose the meter to the sunlight in the car.
- Do not expose the meter under direct sunlight, extreme temperature or moisture.
- Transmission signals might be weak and have interference with electric wave while operating in high or low temperate environment.
- Please position the conductor in the center of jaw in order to ensure the accuracy of measurement while measuring current.
- When measuring current, keep away from high current nearby to ensure the accuracy.
- After measurement, switch the function knob back to OFF position. As there will be slight power consumption under auto power off mode.
- Do not use organic solvent to clean the meter but with a soft cloth if necessary.
- Except the screws of battery lid. Do not unscrew the transmitter and receiver to ensure the instrument function and transfer normally.
- Take out the batteries of the instrument if it will be left idle for a long time to avoid battery leakage.
- When the measurement values appear irregularly or the symbol  displays, replace the batteries immediately to ensure normal operation.

(1) DE-35T (Transmitter) NAME OF PARTS



- ① **Clamp**
Put conductor in the center of clamp to ensure the accuracy.
- ② **Opening of the clamp**
- ③ **Guard ring**
Please keep your hand under the guard ring for measurement of current.
- ④ **Clamp trigger**
Pull this clamp trigger to open clamp and release the clamp trigger to close clamp
- ⑤ **Function Switch Knob**
Please refer to the list in following page.
- ⑥ **HOLD key**
- ⑦ ⑧ **Relative / Select key**
- ⑨ **TX ON key**
- ⑩ **FUNCTION key**
- ⑪ **SET key**
- ⑫ **Name Plate**
- ⑬ **Input terminal COM**
(negative)
- ⑭ **Input terminal \oplus**
(positive)
- ⑮ **LCD display**

⑤ Transmitter - Function Switch Knob

Range	Function
OFF	Turn off power
\tilde{A}	AC current measurement
\underline{A}	DC current measurement
$\underline{V}\overset{\sim}{\sim}$	DC voltage / AC voltage measurement
$\Omega/\rightarrow/\bullet/\cdot/\cdot/\cdot$	Resistance measurement / Diode check / Continuity check
Hz	Frequency measurement

⑥ Transmitter - Symbols on LCD - HOLD key

Press HOLD key during measurement, **D-H** symbol will appear on display and lock the reading value. Press HOLD key again to release this function when the held data is no longer needed.

⑦ Transmitter - REL./SEL. key

Press REL./SEL. key to switch among the following functions:

	Range	Function
REL.	\tilde{A}	Relative function
	\underline{A}	Zero set function
SEL.	$\underline{V}\overset{\sim}{\sim}$	Select measurement of DC voltage or AC voltage
	$\Omega/\rightarrow/\bullet/\cdot/\cdot/\cdot$	Select measurement of Resistance or Diode check or Continuity check

⑧ Transmitter - RELATIVE Measurement

- Press REL. key during the measurement while **REL** symbol lit on LCD. The difference between 2 input signals will display while under this function. For example, the first input is X and the 2nd input is Y. In RELATIVE mode, $Y - X$. If the 3rd input is Z, $Z - X$.
- REL. key is applied to zero set function for DCA ($\underline{\underline{A}}$) measurement.

Attention:

- "OL" appears which means the relative value is beyond the range.
- At ACA ($\underline{\underline{A}}$) and DCA ($\underline{\underline{A}}$) range, $\underline{\underline{A}}$ range is fixed (**AUTORANGE** symbol disappears and auto range disable) and decided according to the first input signal.
- To cancel this function, just press **REL** . key again and REL symbol disappears on LCD. As the measurement range has been locked, to recall the auto range please turn the function switch knob back to OFF then turn to the position desired for measurement.

Transmitter - RELATIVE operation at respective measurement:

a. ACA ($\underline{\underline{A}}$)

- Auto range will be cancelled automatically and **AUTORANGE** symbol disappears on LCD. The measurement range is fixed and decided according to the first input signal.
- If the relative value is beyond the range fixed (400A) while "OL"

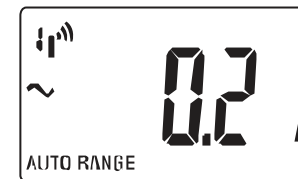
on, just press REL. key again and **REL** symbol disappears on LCD. As the measurement range has been locked, $\underline{\underline{A}}$ auto range please turn the function switch knob back to OFF then to the position desired for measurement.

b. DCA ($\underline{\underline{A}}$)

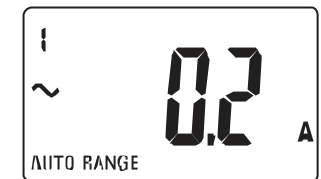
- If there is minor reading display on LCD, press REL. key for zero set before measurement. The auto range is cancelled and the range is fixed thereof.
- To cancel this function, just press REL. key again and **REL** symbol disappears on LCD.

⑨ Transmitter – TX ON key

After pressing, TX ON means transmitter in the process of transmitting. Press once again, the symbol TX ON disappears means no transmission. (the LCD screen is updated per second once symbol TX ON appears.)



Transmitting



No transmission

⑩ Transmitter - FUNCTION key

In measuring mode, press FUNCTION key for 2 sec to enter the transmission span selection mode then short press to switch to ID setting mode. Operate with SET key to set the transmission span and ID code. Finish the setting by pressing FUNCTION key for 2 sec to return to the measuring mode.

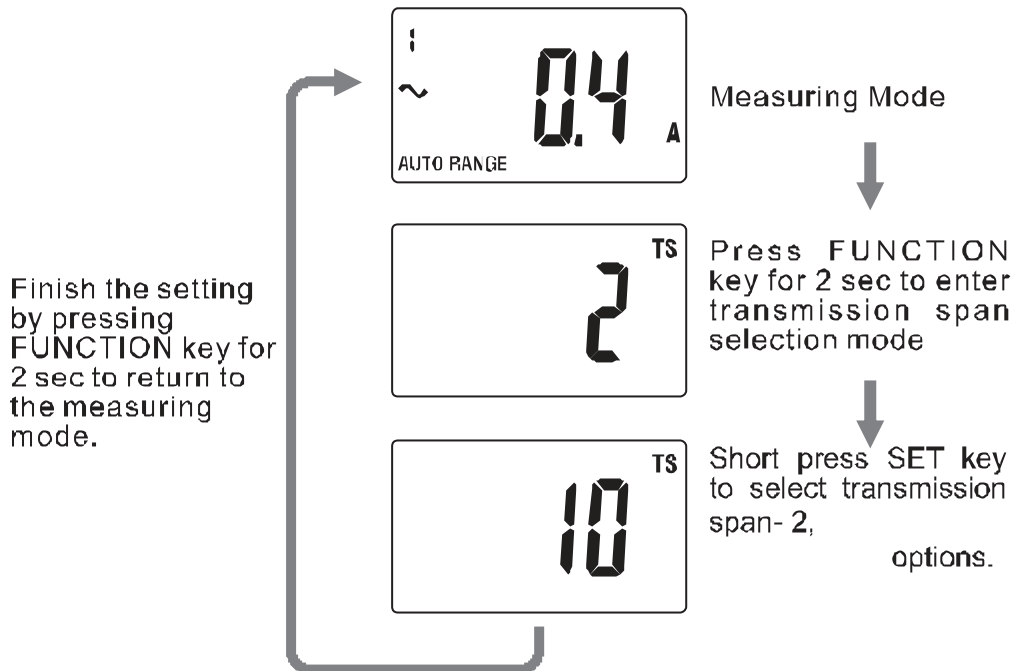
⑪ Transmitter - SET key

Operate with FUNCTION key to set the transmission span and ID code.

※ For details, please refer to FUNCTION & SET key operation instruction.

FUNCTION & SET key operation instruction

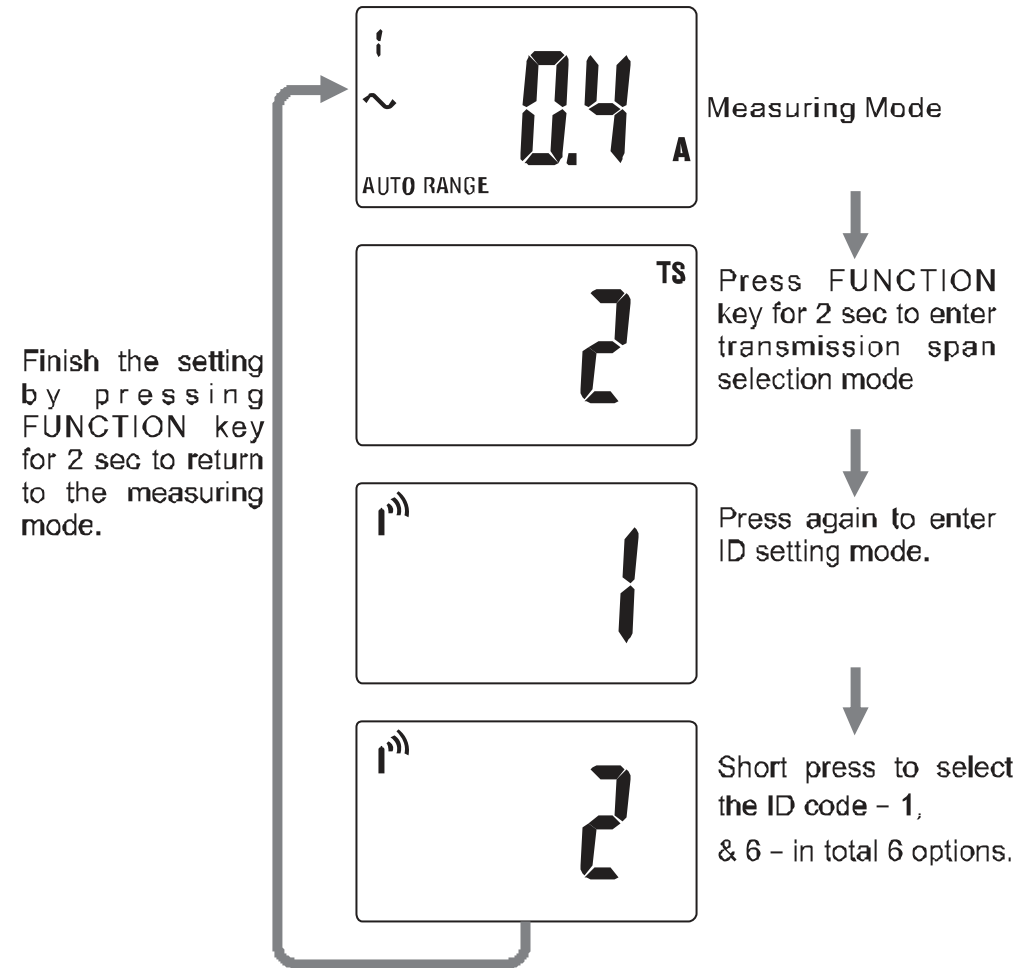
• Transmission span setting



Attention :

While using one transmitter to one receiver, the transmission span of two units must be the same to have data transmission normally.

• ID code setting :



Attention :

While using one transmitter to one receiver, the ID code set in both meters need to be the same. Meanwhile, it has to be at " on " status for receiver in order to receive the measuring data correctly.

※ For receiver ID code setting, please refer to page 27.

12) Name plate

Show brand name and model number.

13) "COM"

Connect the negative input end for DCV, & measurement (black test lead). ➔ (·|)

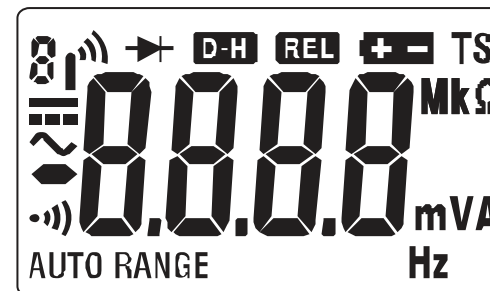
14) "+" terminal

Connect the positive input end for DCV, & measurement (red test lead). ➔ (·|)

15) LCD display

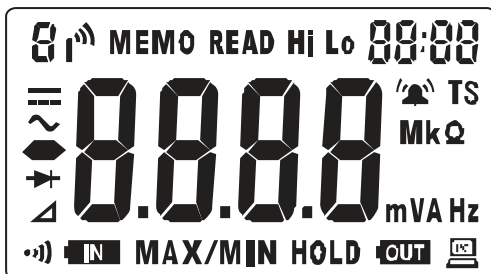
Display measurement symbols, units and values.

(2) DE-35T (Transmitter) Symbols on LCD



Symbol & Units	Description
	Transmission ID code setting
	Antenna blinking while in the process of transmitting
TS	Transmission span selection with 2,10,30,60 & 120 sec options.
	Lit when in DC mode measurement
	Lit when in AC mode measurement
	Lit when measuring negative polarity
AUTO RANGE	Auto range indicator
	Lit when in continuity check
	Lit when in diode check
D-H	Data hold indicator
REL	Lit when in relative mode or zero set function
	Lit when low battery
Hz	Lit when in frequency measurement
MΩ, kΩ, Ω	Unit for resistance measurement
mV,	Unit for voltage measurement
A	Unit for current measurement
0000	Display the measured values

(4) DE-35R (Receiver) Symbols on LCD



Symbol & Units	Description
2	Transmission ID code setting with code 1 – 6 options
Antenna icon	Antenna blinking while receiving the signals from transmitter
MEMO	Memorized of Max. and Min. measuring data
READ	Read memorized Max. and Min. measuring data
Hi Lo	In alarm mode, when measuring values \geq or \leq alarm setting values
00:00	Lit when in 24 hours clock mode
=	Lit when in DC mode measurement
~	Lit when in AC mode measurement
◀	Lit when measuring negative polarity
▶	Lit when in diode check
△	Lit when in relative mode
∞)	Lit when in continuity check
8.8.8.8	Display the measuring data
Low battery icon	Lit when receiver in low battery. Please replace new batteries immediately to avoid malfunction
Low battery icon	Lit when transmitter in low battery. Please replace new batteries immediately to avoid malfunction

MAX/MIN	Lit when read the memorized of Max and Min measuring data
HOLD	Lit when lock the measuring data
PC icon	Lit when connecting with PC (this symbol shows when instrument equipped with USB function)
Buzzer icon	Lit when in alarm mode. Buzzer symbol blinking and alarm activated when measuring data reach the setting value.
TS	Transmission span with 2.10.30.60.120 sec options (while using one transmitter to one receiver).* While using multi transmitters to one receiver, ss of transmitting all the time.
Hz	Lit when in frequency measurement
MΩ, kΩ, Ω	Lit when in capacitance measurement
mV,	Lit when in volts measurement
A	Lit when in current measurement

(5) DE-35R (Receiver) Function Switch Knob



- Press POWER to switch on
- LCD displays full screen for approx. 2 sec then enter the receiving mode
- Press longer than 3 sec to switch off



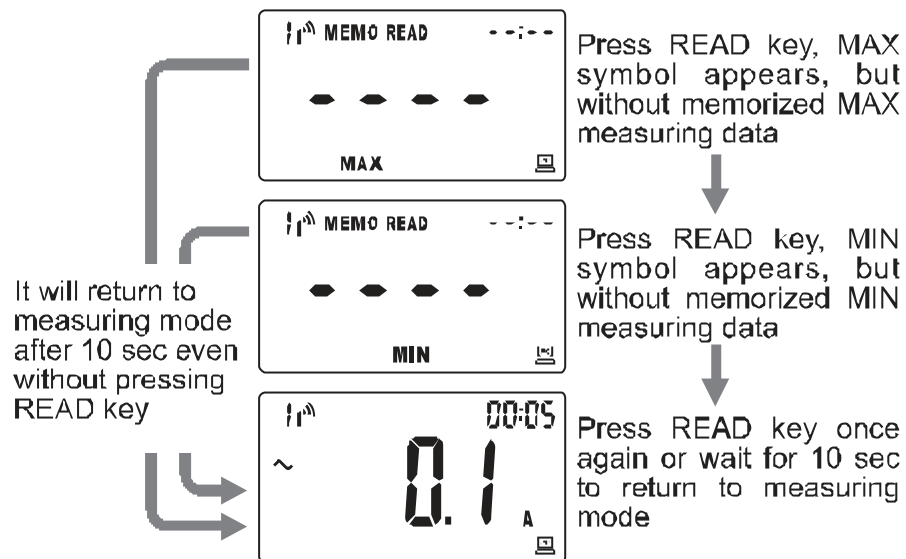
- Press READ to read the memorized Max or Min measuring data.

Remark : 1. Before entering Max/Min function,

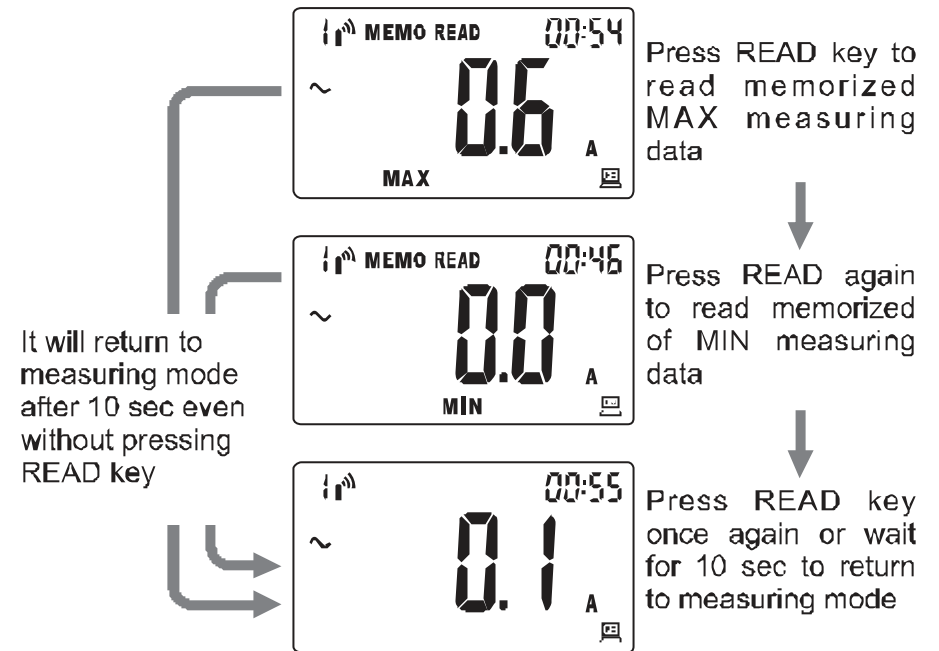
1. Press READ key.
2. Memorized Max and Min. measuring data will be eliminated simultaneously while switching the channel. Press READ key once again, as

READ key operation instruction

- LCD displays - without memorized of Max/Min measuring data



- LCD displays - with memorized of Max/Min measuring data



※For operation with MAX/MIN key, please refer to page 21.



Subsidiary function (▲), setting the clock or alarm function.

※ For operation in alarm function, refer to page 22 ~ 24

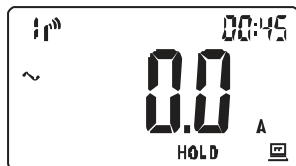
※ For operation in clock function, please refer to page 25.

ts while

er to page



- Press this key to lock the reading data with real time

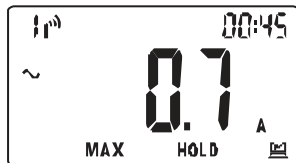


Press Hold key to lock the reading data



Press Hold key again to unlock and return to measuring mode

- Press this key for 2 sec to enter MAX-HOLD function mode to get the MAX measuring data.
- ※ Real Time is also locked at the same time to know when to get the MAX measuring data.



Press Hold for 2 sec to enter MAX-HOLD function mode



Press Hold key once again to exit MAX HOLD function mode and return to measuring mode



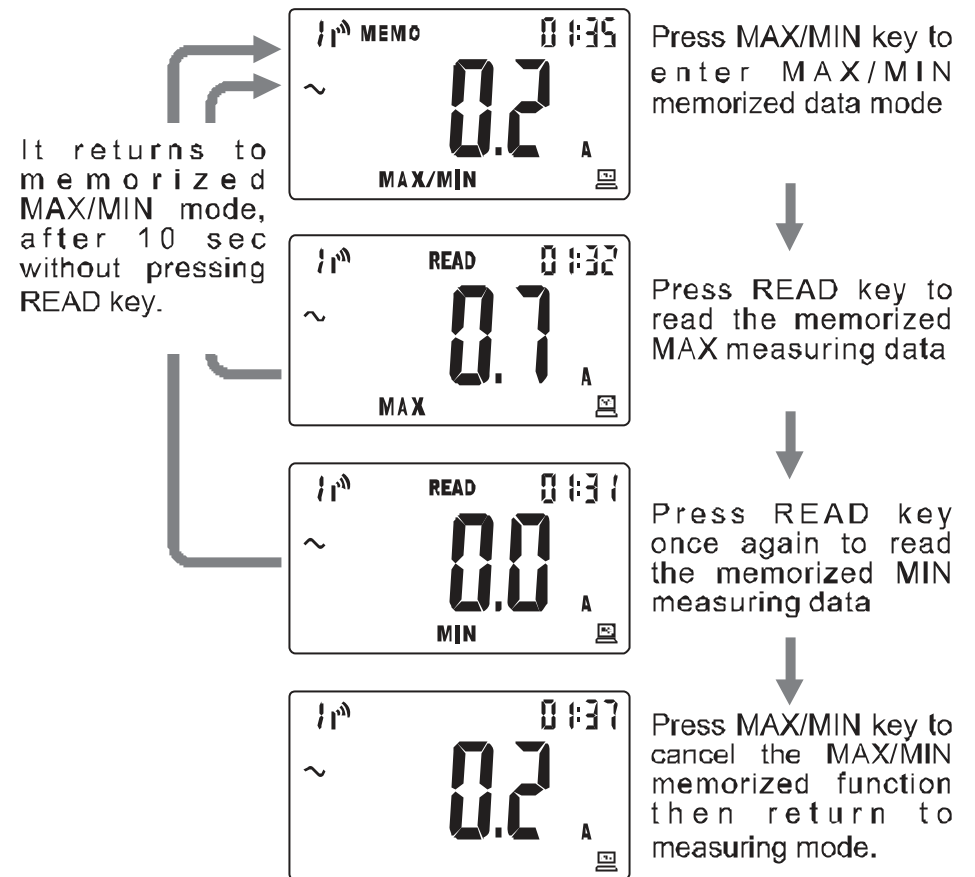
Subsidiary function (SET), to operate with FUNCTION key to set the transmission span and with CHANNEL key to switch ID code to have the transmission function on and off.

- ※ For transmission span operation, please refer to page 26.
- ※ For ID code switching operation, please refer to page 27.



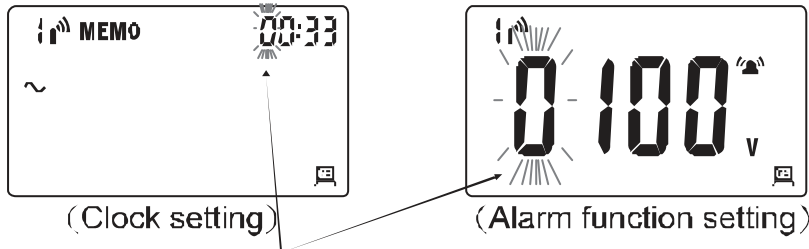
Press this key to memorize the MAX/MIN measuring data. Operate with READ key to read the memorized MAX or MIN measuring data.

MAX/MIN operation instruction





Subsidiary function (▶),
blinking digit while setting the clock and alarm function.



When the digit is blinking,
digit. o next
✗ For operation in alarm setting function,

r operation in clock setting function, refer to
page 25.



ALARM key operation instruction

- Activate Alarm function ✗ For alarm value setting, please refer to page 23 ~ 24.



- Press ALARM to enter alarm function mode. When alarm symbol appears, ated

1. When measuring data of transmitter reaches the setting value, ach time.
2. To stop buzzer by pressing SEARCH key. It will keep beeping when measuring data reaches the setting value if not cancel the alarm function.



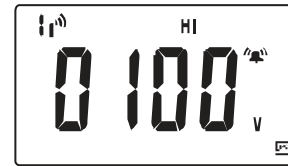
- Press ALARM key, and alarm function is cancelled.

- Alarm function setting



Press ALARM key to enter alarm function mode.

Press SEARCH key



Enter to value setting mode It will return to measuring mode without pressing ▶; ▲ mbol disappears.

Press▶ key

- ① Choose Hi or Lo

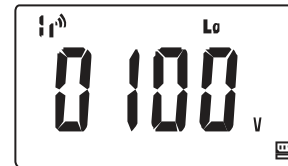


Press▲ key to choose Hi or Lo



Press▶ key

- ② Choose "+" "-" Symbol



Press▲ key to choose "+" "-" symbol

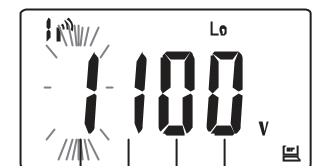


Press▶ key

- ③ Alarm Value Setting



Press▲ key and operate with▶ to set the value

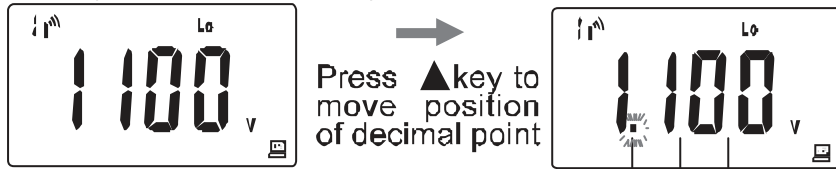


Following procedures, see next page.

Procedures continuing from the previous page

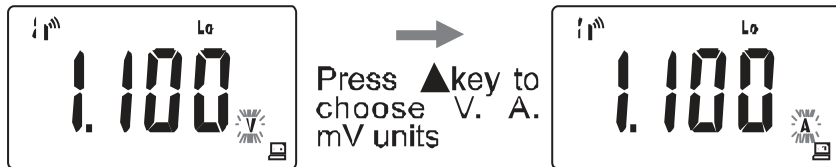
↓ Press ▶ key

④ Move position of decimal point



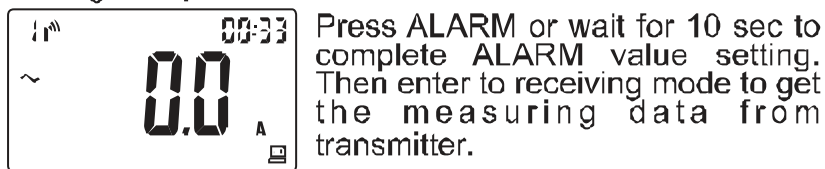
↓ Press ▶ key

⑤ Choose V. A. mV units

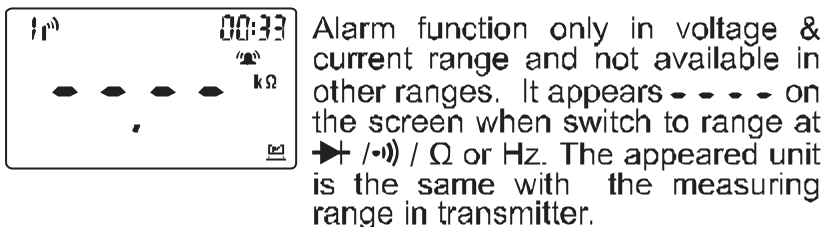


↓ Press ALARM key or wait for 10 sec.

⑥ Setting Completed

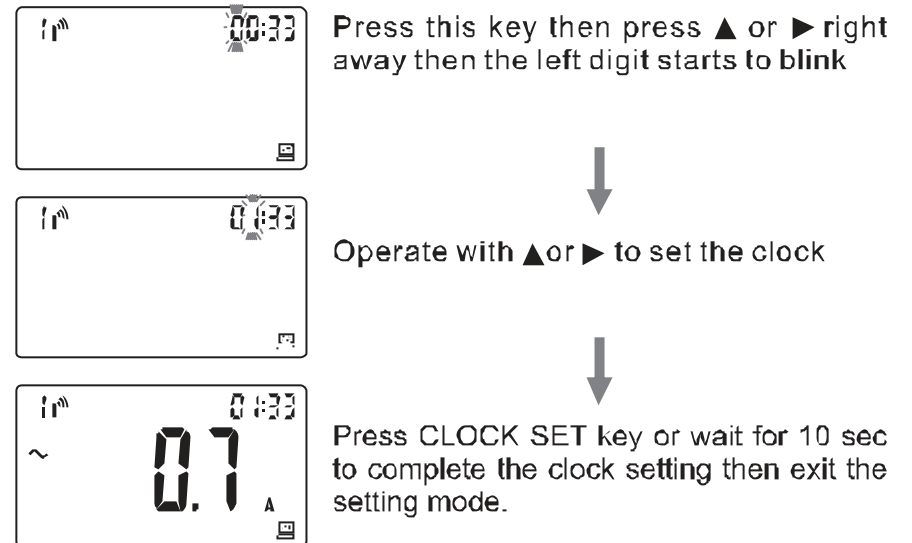


• Other ranges has no ALARM function



Press this key to enter clock setting mode. After entering this mode, the display only lasts for 2 sec then exit. It needs to set the time by pressing ▲ or ▶ right away.

CLOCK SET key operation instruction



When disconnects, function. ate the search



BEEP CANCEL

Subsidiary function BEEP CANCEL, ng

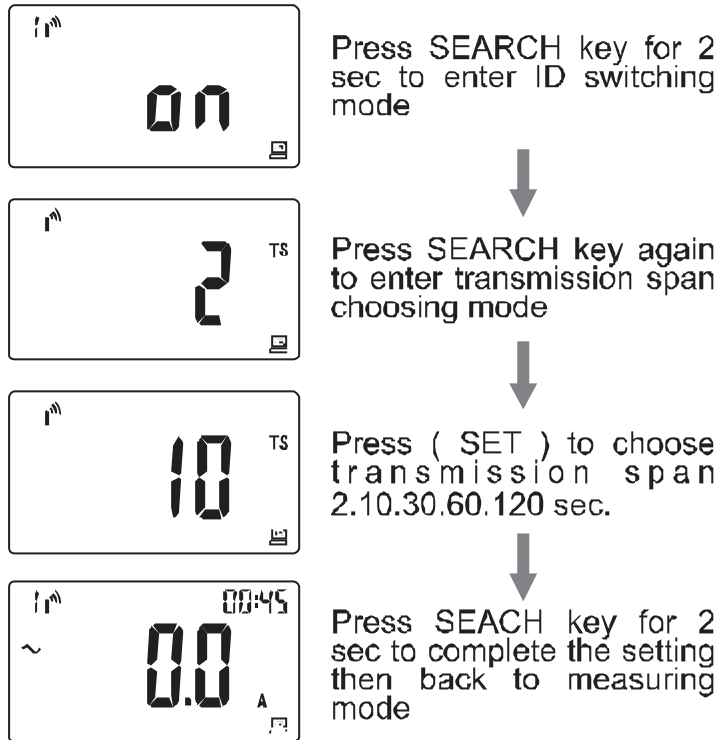
※ When stop buzzer with manual, eeps beeping when reach the setting value if not disable the alarm function



Subsidiary function (**FUNCTION**), (**SET**) to set the transmission span and with **CHANNEL** key to switch ID code to have transmission on or off.

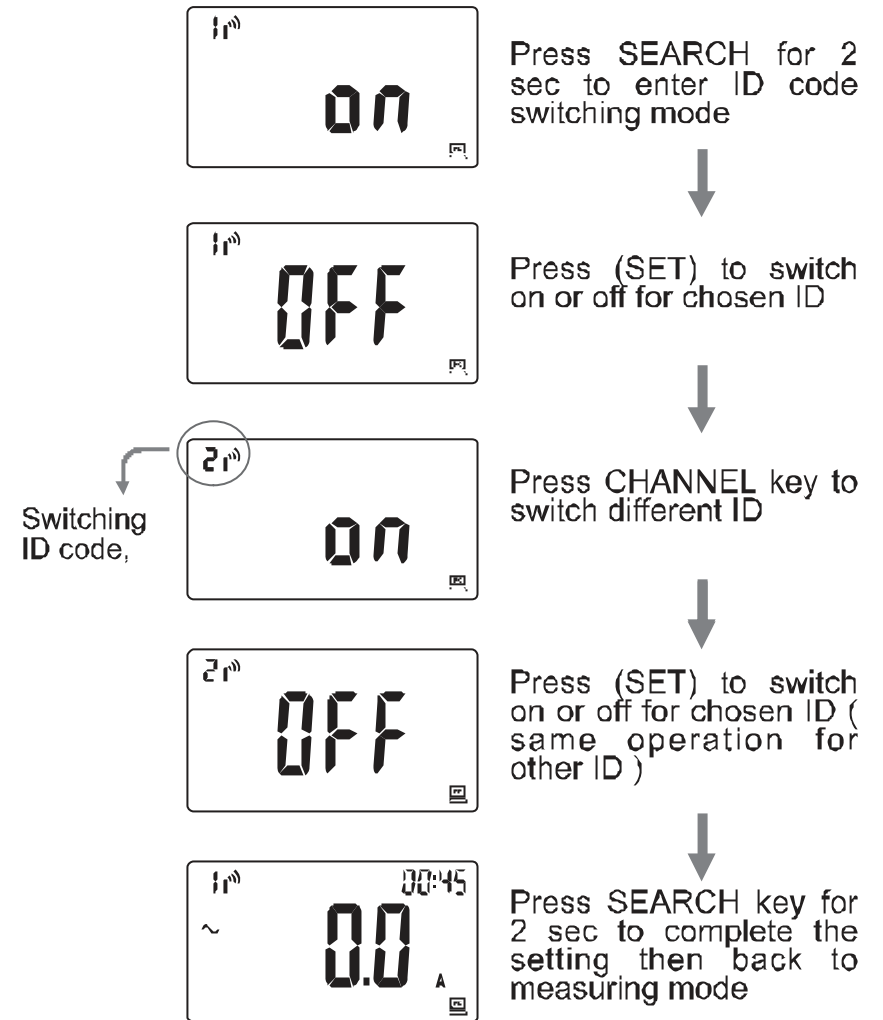
FUNCTION operation instruction

- Transmission span setting



Attention : When using one transmitter and one receiver, when transmission span must be consistent in both units so that the measuring data just can be transferred correctly.

- ID code setting



CHANNEL

- When using multi transmitters to one receiver, the chosen ID of receiver which is in "on" status can be switched by pressing CHANNEL key after ID code setting is completed and return to measuring mode.
- When using one transmitter to one receiver, the chosen channel must be consistent in both units so that the measuring data just can be transferred correctly.



Press CHANNEL key to switch the ID code which is in "on" status.

Multi transmitter to one receiver operation instruction

1. When using multi transmitters to one receiver, transmission in the process all the time. If using one transmitter to one receiver, do not switch to the mode of multi transmitters to one receiver and set other 5 ID codes at "off" status to lower the power consumption.
2. When using Multi transmitter to one receiver, user can choose and set the transmission time for each channel. But if using one transmitter and one receiver, transmission span need to be consistent for transmitter and receiver.

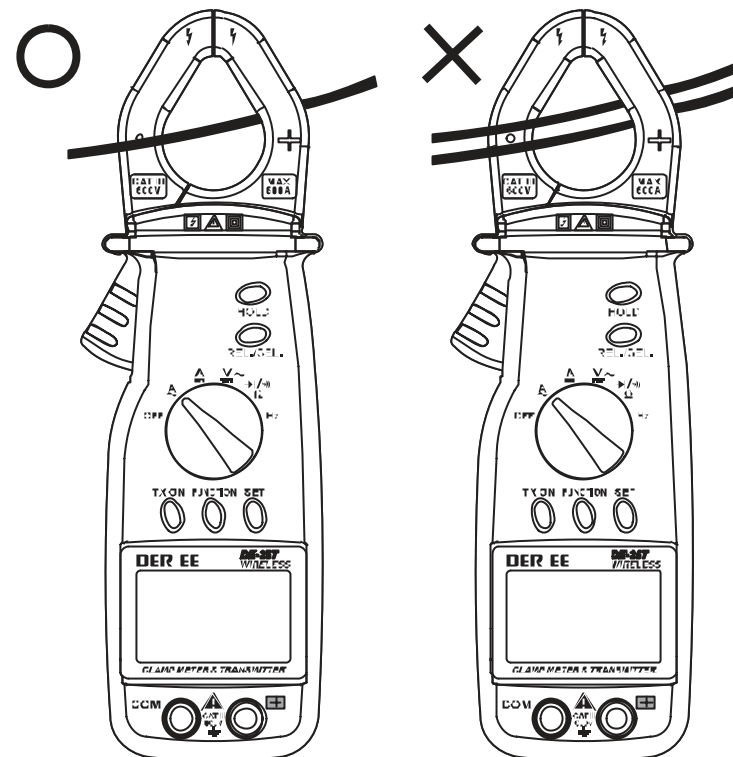
(6) DE-35T (Transmitter) MEASURING INSTRUCTION

• AC Current Measurement (\tilde{A})

Measuring range: 400.0A ~ 600A (2 ranges, automatically)

1. Set the function switch knob to \tilde{A} .
2. Pull the clamp trigger to open the clamp. Place one conductor only in the center of the clamp (as figure below). Read the value until the reading becomes stable.
3. In AUTO RANGE mode, it will choose the proper range for measurement automatically.
4. When finished, function switch knob to OFF position and turn off the meter.

Note: When taking measurement in place where indicated values are hard to read, press HOLD key to lock the value and then read it in other proper place.

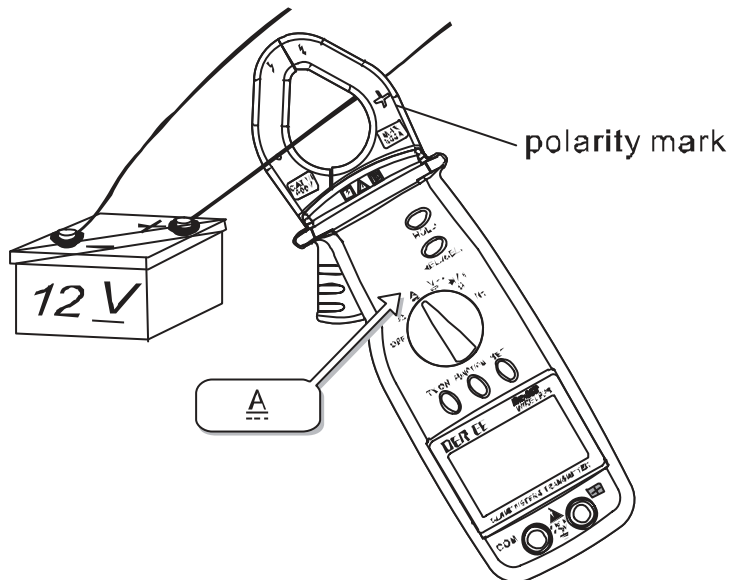


• DC Current Measurement ($\underline{\underline{A}}$)

Measuring range: 400.0A ~ 600A (2 ranges, automatically)

1. Set the function switch knob to $\underline{\underline{A}}$.
2. Press REL. key for zero set (auto range is cancelled and range is fixed after press REL. key).
3. Pull the clamp trigger to open the clamp. Place one conductor only in the center of the clamp (as figure below). Read the value until the reading becomes stable.
4. If minor reading before measurement is not concerned, and the measurement will carry out in auto range mode.
5. When finished, switch knob to OFF position and turn off the meter.

Note: If “ \ominus ” direction of the measured conductor is opposite to the polarity mark on the clamp.

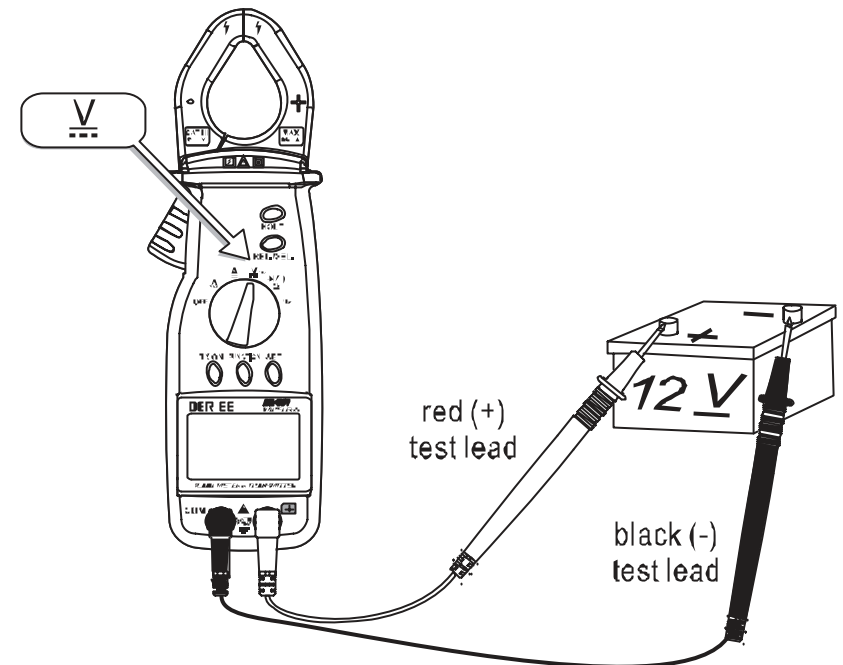


• DC Voltage Measurement ($\underline{\underline{V}}$)

Measuring range: 400.0mV ~ 600V (5 ranges, will change automatically)

1. Set the function switch knob to $\underline{\underline{V}}$ \sim \ominus display on LCD.
2. Plug black test lead into COM terminal and red test lead into \oplus terminal.
3. Connect test leads to the object under test and then read the value when it stabilizes.
4. If “ \ominus ” symbol appears, it means the polarity of the object is opposite to the meter.
5. The meter will choose the appropriate range for measuring automatically.
6. When finished, set the function switch knob to OFF position and turn off the meter.

Attention: 1. Make sure the polarity is correct before measurement.
2. Make sure the object under test does not exceed the maximum range of 600V to avoid the possible injury of human body or damage the meter.

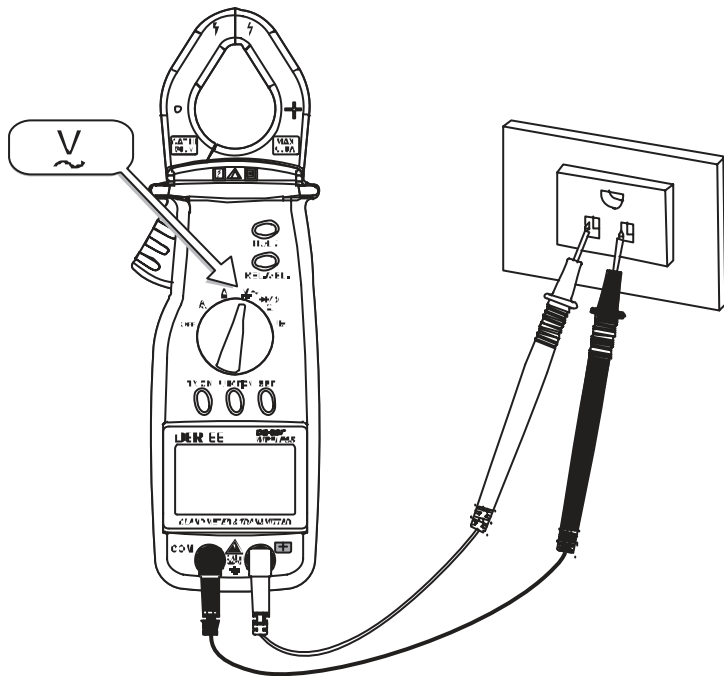


• AC Voltage Measurement (\underline{V})

Measuring range: 4.000V ~ 600V (4 ranges, automatically)

1. Set the function switch knob to \underline{V} ~. Press REL./SEL. key until ~ display on LCD.
2. Plug black test lead into COM terminal and red test lead into \oplus terminal.
3. Connect test leads to the object under test and then read the value when it stabilizes.
4. The meter will choose the appropriate range for measuring automatically.
5. When finished, set the function switch knob to OFF position and turn off the meter.

Attention: 1. Polarity is unrelated to AC voltage measurement.
2. Make sure the object under test does not exceed the maximum range of 600V to avoid the possible injury of human body or damage the meter.

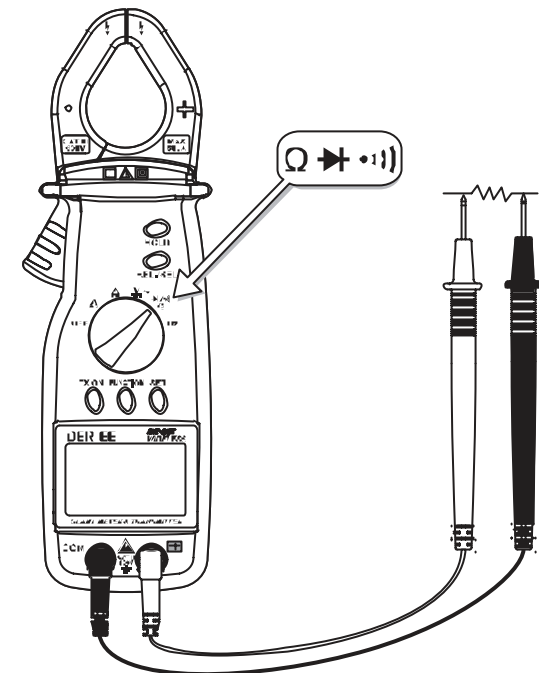


• Resistance Measurement (Ω)

Measuring range: 400 Ω ~ 40M Ω (6 ranges, automatically)

1. Set the function switch knob to Ω / \rightarrow / \bullet / \vdash / \vdash / \vdash . "OL" right upper of LCD display.
2. Plug black test lead into COM terminal and red test lead into \oplus terminal.
3. Connect test leads to the object under test and then read the value when it stabilizes.
4. When finished, set the function switch knob to OFF position and turn off the meter.

Attention: 1. Polarity is unrelated to resistance measurement.
2. Do not touch the metal probe of test leads with hands to avoid the error reading of measurement result.



• Diode Test (→|)

1. Set the function switch knob to $\Omega / \rightarrow| / \bullet\bullet|$. Press REL./SEL. key until $\rightarrow|$ symbol and V unit display.
2. Plug black test lead into COM terminal and red test lead into \oplus terminal.
3. Apply test leads to the diode and then read the value when it stabilizes

(A) Forward-bias Diode Test

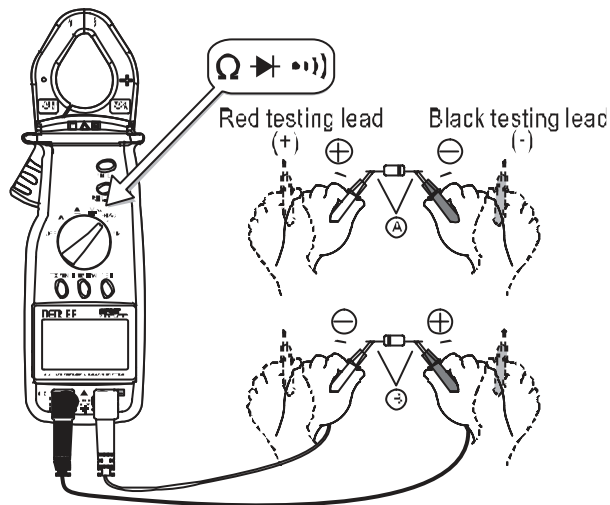
Connect black test lead to the cathode and red test lead to the anode as shown Fig. (A). Silicon diodes should give a reading approximately 0.5~0.7V and GE diodes give 0.2~0.3V. In case the reading value is near to "0",

"OL"

Diode Test

Connect black test lead to the anode and the red test lead to the cathode as shown Fig. (B). Normally the LCD display "OL" indicating that the diode is good. The diode is defective if the display gives a certain voltage level.

4. When finished, set the function switch knob to OFF position and turn off the meter.



• Continuity Check (••|)

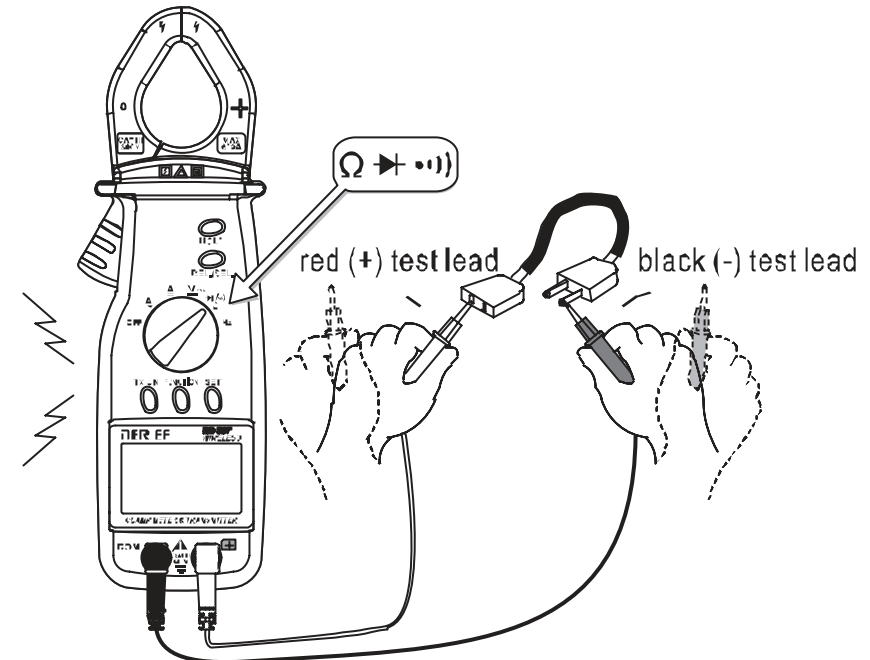


Attention

To avoid damaging the multimeter

- Please shut down the power source applying to the circuit under test before forwarding measurement. Otherwise, the high voltage or big current may damage the multimeter.

1. Set the function switch knob to $\Omega / \rightarrow| / \bullet\bullet|$.
2. Plug black test lead into COM terminal and red test lead into \oplus terminal.
3. Press REL./SEL. key until $\bullet\bullet|$ symbol & Ω unit display.
4. Apply test leads to the circuit under test and the beeper will sound while the circuit is continuous and approximately below 100 Ω .
5. When finished, set the function switch knob to OFF position and turn off the meter.

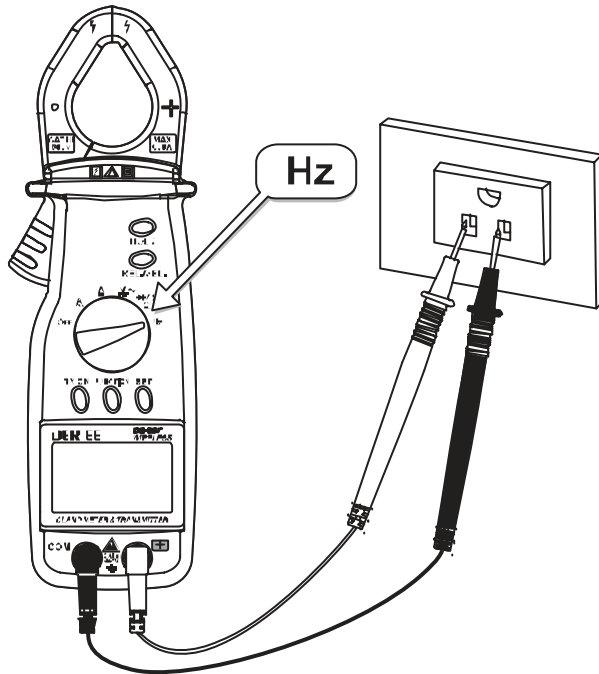


● Frequency Measurement (Hz)

Measuring range: 5.000Hz ~ 100kHz (6 ranges, automatically)

1. Set the function switch knob to Hz. Hz unit display.
2. Connect test leads to the object under test and then read the value when it stabilizes.
3. When finished, switch knob to OFF position and turn off the meter.

Attention: 1. Polarity is unrelated to frequency measurement.
2. Make sure the object under test does not exceed 600V to avoid the possible injury of human body or damage the meter.



(7) REPLACING BATTERIES

● DE-35R (Receiver)

When battery power is low for normal operation, **+** symbol displays.

When **N** or **OUT** symbol display, please replace both two new batteries for DE-35R receiver.

When **OUT** symbol display, please replace both two new batteries for DE-35T transmitter.

● DE-35T (Transmitter)

When battery power is low for normal operation, **+** symbol displays. Please replace both two new batteries. (Please use standard alkaline LR6 or AA battery. Apply non-alkaline batteries are also acceptable but life time will be shorter.

⚠ Attention

- Before replacing batteries, make sure to disconnect the clamp meter from the circuit under test.
- Replace two new batteries at the same time and make sure the batteries are installed at correct polarities.

(8) SPECIFICATION

① General Specification:

Function	Transmitter	Receiver
Measurement Functions	DCA, ACA, DCV, ACV, Resistance, Diode, Continuity and Frequency	—
Additional Functions	Data hold, Function selection, Relative measurement	Data hold, Alarm function, Clock, MAX/MIN memory
LCD Display	Unit & function indication, splay, ery indication	Unit & function indication, splay, ery indication,
Range	Auto Range	—
Sampling Rate	No transmission : 3 times per second	—
	Transmission : 1 time per second	
Operation Temperature / Humidity	-10°C ~50°C (14°F~122°F) below 80% R.H. (no condensation)	
Storage Temperature / Humidity	-20°C ~60°C (-4°F~140°F) below 70% R.H. (no condensation)	
Power Supply	standard alkaline LR6 or AA battery (2 batteries each for transmitter and receiver)	
Battery Life Time (standard alkaline)	Without transmission at ACV, ours	With transmission span 2 sec, approx. 100 hours
	With transmission span 2 sec, approx. 100 hours	※ Battery life time depends on battery capacity
Dimension	220(L)x64(W)x35(H)mm	179(L)x72(W)x32(H)mm
Max. Clamp Size	Φ30mm or 10x35mm	—
Weight	251g approx.(exclude batteries)	177g approx.(exclude batteries)

Accessories :

- Instruction Manual 1
- Test Leads (black + red) 1
- Batteries AA 1.5V 4

Accessories for USB interface

- USB software
- USB cable

② Transmitter Specification

■ Testing Environment : 23 ±5°C ,

■ Accuracy : ± (% rdg+dgt)

● AC Current Measurement(\tilde{A})

*50~500Hz

Range	Resolution	Accuracy	Maximum Input Current
400A	0.1A	+ (1.8%rdg + 10dgt)	600A
600A	1A	± (1 %rdg + 5dgt)	

● DC Current Measurement(\tilde{A})

Range	Resolution	Accuracy	Maximum Input Current
400A	0.1A	± (1.8%rdg + 10dgt)	600A
600A	1A	± (1 %rdg + 5dgt)	

● DC Voltage Measurement(\tilde{V})

Range	Resolution	Accuracy	Input Impedance	Maximum Input Voltage
400mV	0.1mV	+0.7	approx. ≥100MΩ	600V
4V	0.001V	± (1%rdg + 3dgt)	approx. 11Ω	
40V	0.01V		approx. 10Ω	
400V	0.1V			
600V	1V			

● AC Voltage Measurement(\tilde{V})

*50~500Hz

Range	Resolution	Accuracy	Input Impedance	Maximum Input Voltage
4V	0.001V	± (1.5%rdg + 10dgt)	approx. 11Ω	600V rms
40V	0.01V		approx. 10Ω	
400V	0.1V			
600V	1V			

● Resistance Measurement (Ω)

Range	Resolution	Accuracy	Remarks	Maximum Input Voltage
400Ω	0.1Ω	± (1%rdg + 5dgt)	● Open voltage: approx. 0.4V ● The measuring current changes in accordance with the resistance measured.	600V
1kΩ	0.001kΩ			
40kΩ	0.01kΩ			
400kΩ	0.1kΩ			
1MΩ	0.001MΩ	± (3%rdg + 5dgt)		
40MΩ	0.01MΩ	± (5%rdg + 5dgt)		

● Continuity Check (•••)

Range	Resolution	Accuracy	Maximum Inpu: Voltage
400Ω	0.1Ω	The buzzer turns on for resistances below approx. 100Ω	600V

● Diode Test(→|)

Range	Resolution	Accuracy	Remarks	Maximum Inpu: Voltage
1.000V	0.001V	±(10%rdg+5dgt)	●Open Circuit voltage: approx. 1.5V	600V

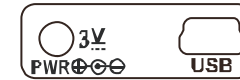
● Frequency Measurement (Hz)

Range	Resolution	Accuracy	Remarks	Maximum Inpu: Voltage
5.000Hz	0.001Hz	±(0.7)	●Accuracy in the case of sine wave. ●5.000Hz~100kHz : typical above 5V rms	600V
50.00Hz	0.01Hz			
500.0Hz	0.1Hz			
5.000kHz	0.001kHz			
50.00kHz	0.01kHz			
100.0kHz	0.1kHz			

★ The listed accuracy is changed with additional 0.1 x specified accuracy per 1°C change when the environmental temperature is < 18°C or > 28°C

(9) External Power Supply & USB Socket

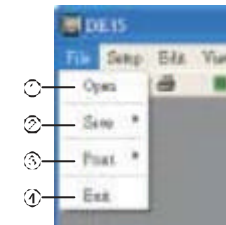
① Socket for signal output



■ External Power supply :
AC converter → over 3VDC / 10mA ,
3.5Φ x 1.35 mm plug

② USB operation instruction

■ File



- ① Oper file : *.xls.
- ② Save file: *.xls / *.bmp / *.jpg.
- ③ Print : Graph / record.
- ④ Exit : End program.

※ Recorded measuring data and graph on the main display can be saved at the same time in one excel file.
Since the main display only shows one graph for one channel, save the graph of other channels, switch to the desired channel then save the graph you want.

■ Setup

Com port :
Select auto scan com port, or appointed com port.

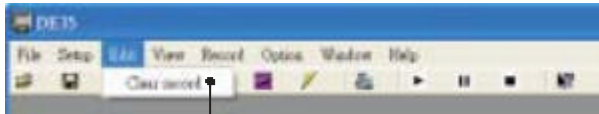
Alarm setting :
On DCV,
If larger than hi value or smaller than low value then alarm beep.

Channel :
User can change name to channel 1~6 and description.

Graph scales :
Select one page graph can draw time axial scales(25~200).

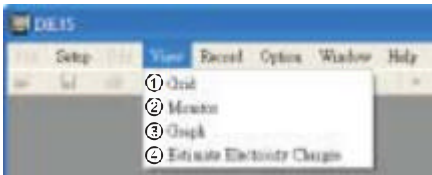
Power rate :
Setting parameter for compute electricity charges.

■ Edit

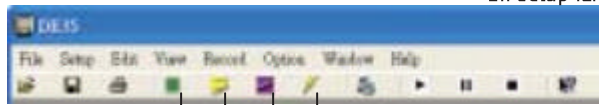


Clear current record data and graph.

■ View



- ① Grid(Record) : Select Tabular enable. Record data list processing.
- ② Monitor : Select display instantaneous data.
- ③ Graph : Select graph enable.
- ④ Can be estimate electricity charges on DCA or ACA type.(Setting parameter on setup form.)



- ②
- ①
- ③
- ④

① Grid(Record) : Record data list processing.

Index	Time	Ch1	Unit	Time	Ch2	Unit	Time	Ch3	Unit
3021	13:26:54	13.1	A						
3024	13:26:57	13.6	A						
3025	13:26:58	13.0	A						
3026	13:27:00	13.6	A						
3027	13:27:02	13.0	A						
3028	13:27:03	13.5	A						
3029	13:27:05	13.2	A						
3030	13:27:06	13.2	A						
3040	13:27:07	13.2	A						
3041	13:27:09	13.6	A						
3042	13:27:10	13.0	A						
3043	13:27:12	13.6	A						
3044	13:27:13	12.9	A						

② Monitor :

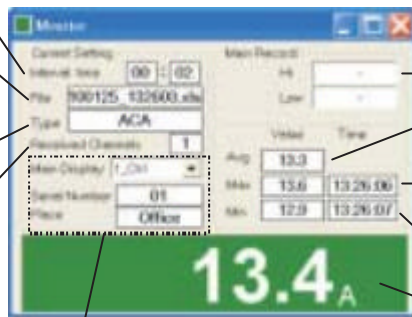
Transmission interval time.

Prospective saved file name.

Measuring range of transmitter

The number of channels that receiver receives

You can change the description you want for Channel, on.



Alarm and setting.

Avg : Average value up to present.

Max : Maximum value up to present.

Min : Minimum value up to present.

Display measuring data simultaneously from transmitter

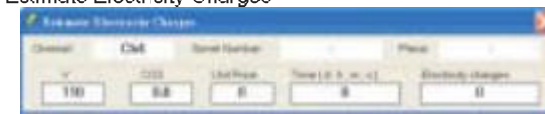
③ Graph : Current graph page.



return to home page.

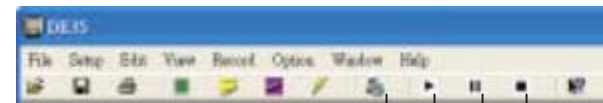
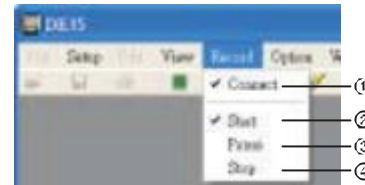
To next page.

④ Estimate Electricity Charges



1. The estimate electricity charges form is displayed. Counting electricity charges on DCA or ACA type.(Setting parameter on setup form.)
2. This screen will not display while transmission starting. You have to set up V, st of electricity in the Setup function and select Estimate Electricity Charges in the View function to start calculate the electricity charges.
3. After that, n will be showed and updated on the main display simultaneously.

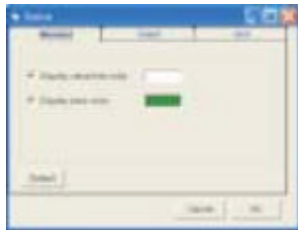
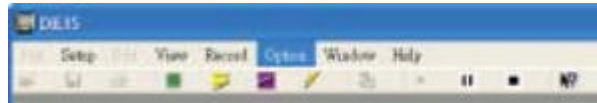
■ Record



- ①
- ②
- ③
- ④

- ① Connect : Link DE35 meter.
- ② Start : Start to receive data.(Include auto to link DE35 meter)
- ③ Pause : Pause receive data. When it pauses, save the file.
- ④ Stop : Stop receiving data.

■ Option



● Monitor

1. Main display receiving data value & unit font color.
2. Main display receiving data value & unit background color.



● Grid Record

1. Grid record background color.
2. Tabular grid lines select.

● Graph

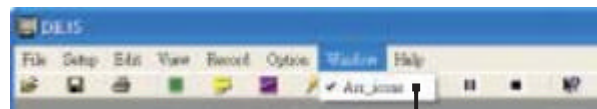
1. Graph background color.
2. Main display channel tick scale color.
3. Graph title text.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Notice : The changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

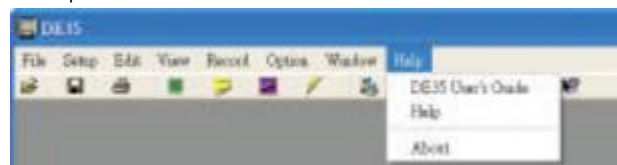
IMPORTANT NOTE: To comply with the FCC RF exposure compliance requirements, no change to the antenna or the device is permitted. Any change to the antenna or the device could result in the device exceeding the RF exposure requirements and void user's authority to operate the device.

■ Window



Monitor \ Graph \ Record form Arrange.

■ Help



1. Open DE35 Meter user's guide.
2. Open DE35 PC operation note.