Thank you for choosing MyWatt SEM3000 Series Smart Energy Monitor and Logger with web cloud service.

You can save 25% electric Energy by using SEM3000 system

MyWatt Wireless Electricity Monitor

SEM3000
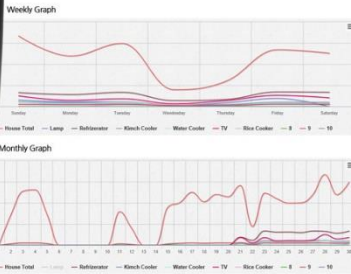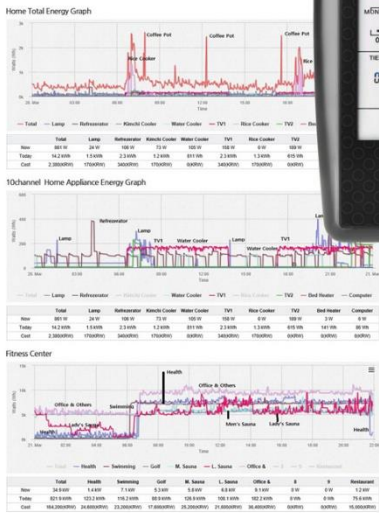
110ch. Wireless electric meter (home, appliance and lamp)

Instant electricity and day/week/ monthly total electricity and cost.

You can see 5 years electricity graph by pc data down-loading.

Small size factory could measure electricity by 200A 3-phase clamps.

By connecting LAN cable, you can see internet cloud service and could see Instant, 1day, 1week, 1month, 1year and 5 year graph.

You can see all the graph and control home appliance by Smart Phone.

KORINS

Korins Inc.
www.smartwattmeter.com

Energy saving with Smart Energy Logger

1. SEM3000 Series Model (5% accuracy without voltage connection)

We have 2 models (10 channels for 2.5years data logging with 1hour log interval)

SEM3010 model: You can download the data to pc by software.

SEM3110 model: You can download the data to pc by software.   Or you can upload the data with 1minute interval to the web server through TCP/IP connector.   We also provide web cloud service through http://mywatt.org

Options (2019 delivery): Please add $50 more on SEM3110 price.

SEM3500 model: 10 channels for 4months data logging with 5minutes log interval to wireless receiver.

2. SEM300 Series Model (1% accuracy with voltage connection): Pease see the enclosed page

If something is missing, please contact us: hyh@korins.kr

Homepage: http://mywatt.biz   Web cloud server: http://mywatt.org

Android & IOS App service : "mywatt30"   sample site: http://mywatt.biz/app/index.htm (only for the customer who use http://mywatt.org web server.

Follow these simple steps to set up your SEM3000 and you will be able to:

Calculate the amount of power being used, the cost of that power, the amount of associated greenhouse gas emissions and download recorded data to your PC with free software.

(You can download the free software at http://mywatt.biz/m)

Before setting up your SEM3000, please ensure you carefully read the Safety Precautions.

Before you start installation please ensure you have:

1. An electricity bill with details of your tariff and rates

2. A small cross head or flat bladed screwdriver

STEP ONE INSTALL BATTERIES

Please connect the AC power adapter to the power linking hole of CRT3000 transmitter.

You can use 10years continuously without battery. Do not use the battery if available AC power.

Or remove the battery compartment cover and insert the "C" type alkaline batteries to CRT3000 wireless transmitter.

Press the RESET button located on the rear of the Transmitter. (10 months life time)

Option: If you need battery only, we have extra battery support pack Model PPD1 (without 3pcs of D type alkaline battery). You can use 15 months more.   If you are using 2 types of battery together, the total life time is 2 years.
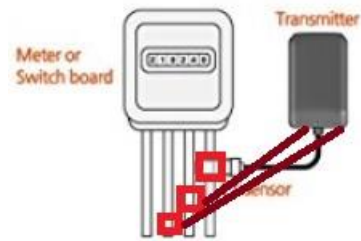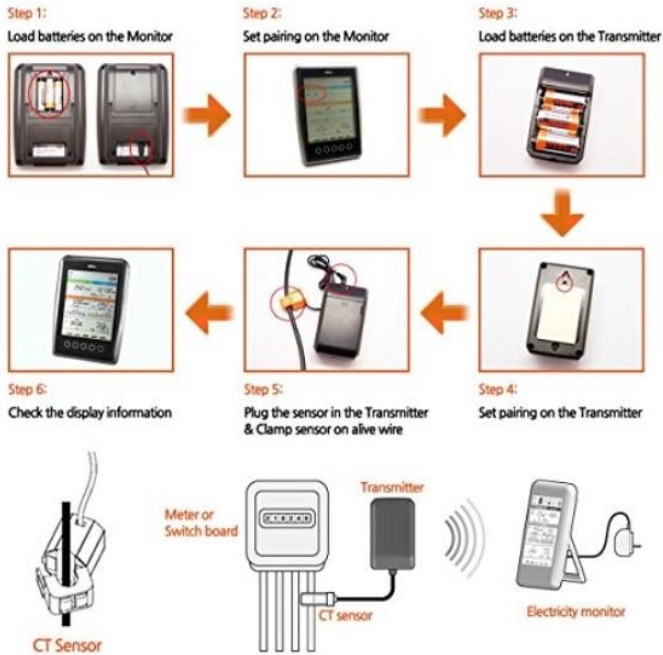
 If you are using PPD1, please connect the plug to the CRT3000 power connector.

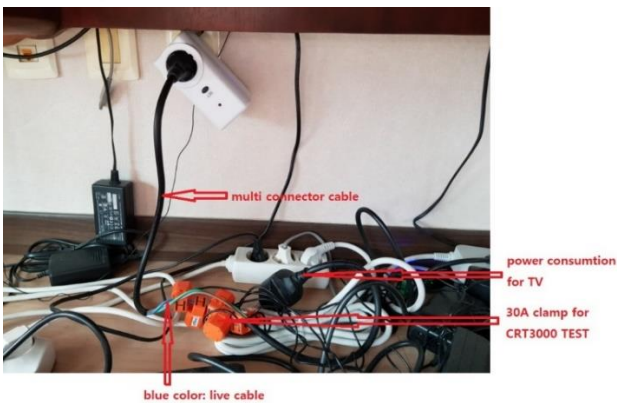PPD1: unit price $12 (without battery)

Please connect the AC power adapter to SEM3000 wireless receiver.

Option: Slide the rear battery compartment off the SEM3000 Display Unit. Insert 3 AA batteries in the Display Unit. (You can use AA alkaline battery only for the clock backup or 3days data display on lcd glass when necessary. It is not necessary for normal use.)

STEP TWO SYNCHRONISE UNITS

Step 1:
Load batteries on the Monitor

Step 2:
Set pairing on the Monitor

Step 3:
Load batteries on the Transmitter

Step 6:
Check the display information

Step 5:
Plug the sensor in the Transmitter & Clamp sensor on alive wire

Step 4:
Set pairing on the Transmitter

CT Sensor

Meter or Switch board

Transmitter

CT sensor

Electricity monitor

Meter or Switch board

Transmitter

Sensor

3-phase, 3 clamp method

multi connector cable

power consumtion for TV

30A clamp for CRT3000 TEST
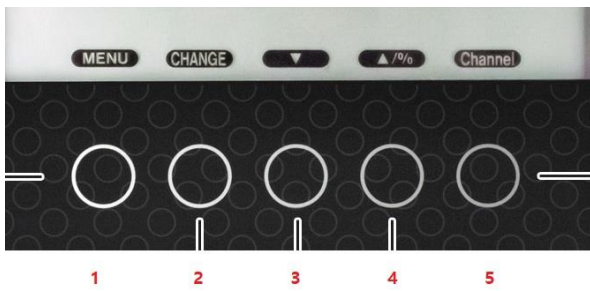
blue color: live cable

Cut the cable by knife

1)Press and hold the CHECK key 5 seconds on the rear side of the CRT3000 wireless transmitter until the red LED flashes rapidly.
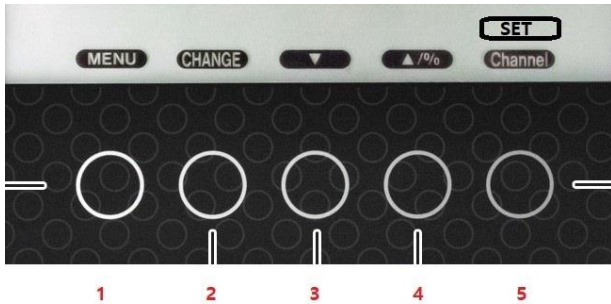
If you are using PIT3000 wireless transmitter, press [SET] button at the front side of PIT3000 until the red LED flashes rapdly.

2)Please check the lcd display is in standby mode as below:

If the lcd shows as below photo, the touch key of CHANGE, UP, DOWN is not working.

If No. 5 key lcd shows "SET" instead of "CHANNEL", please press No. 2 key. You can see the "SET" is moving to "CHANNEL".

3)Press the [CHANNEL] key located on the bottom right hand side of the SEM3000 Display Unit. If you could not see [CHANNEL] key, Press [MENU] key to change from [SET] -> [CHANNEL]. Press and hold the [CHANNEL] key 3 seconds and release the [CHANNEL] key after hearing the beep sound.

4)Now you can see below symbol NOW ENERGY screen on Top left side.

5)After synchronization, the screen display will change to as below: If you are using 110V, please use it and do not change the voltage with [UP][DOWN] key.

  But if you are using 100V, please change it with [UP][DOWN] key to 100V.   If you are using 230V, please adjust the voltage what you want.

 or
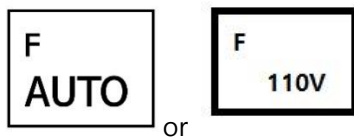
5) Press the [CHANGE] key of display unit for to finish the pairing process.

  The radio wave icon, in the top lefthand corner of the main screen, will show radio wave power strength from this time. The two units will be linking within 2 minutes. Once firmly linked, the radio wave icon at the top left of the screen will be fully illuminated and showing "0" W at the main real time display zone.

You can keep the SEM3000 wireless receiver up to 50 meters away from the CRT3000 wireless transmitter (subject to the building construction). Open space will cover 700 to 1000 meters.

YOUR DISPLAY UNIT HAS 6" SCREEN WITH 6 SECTION.

Maximum load time alarm

Monthly target exceeds alarm

Maximum power exceed alarm

Single phase / Three-phase (transmitter power)

RF receiver sensitivity

Select electricity rates (0: Average Price, 1: Household Step 6 rates)

Monthly target % display

Transmitter Battery Level Indicator

Current channel

Receivers Battery Level Indicator

Current power

Expected amount of used power (one month cost)

Electricity use at the moment Increased or decreased

Increase or decrease the power usage

Today / this week / this month Electricity amount

Today / this week / this month electricity usage cost

Today power usage graph

This week power usage graph

Date/Time display

The current temperature

Day display

Carbon dioxide consumption

10ch. Remote on/off time control setting

MENU button: Select C1 ~ C12 calibration code, CHANNEL or SET button select key

SET button: setting confirm, using at calibration mode
Channel button: When using the transmitter and the pair set, Be sure to select the Channel button at Standby Mode

C1: Clock Set, C2: Select electricity plan,
C3: The average rate setting,
C4: 6 Steps pricing, C5: voltage changes, C6: PIT3000 connection channel Power ON / OFF setting, C7: The maximum amount of power Exceeding the alarm setting,
C8: January target power setting, C9: data deletion, C10: Setting the temperature unit,
C11: temperature compensation

UP button

SAVE button | DOWN button

1st section shows Radio Icon, Channel number (1-10), 4- different Alarm Display and Battery power strength display for CRT3000 transmitter and SEM3000 receiver each.

2nd section displays Now Energy with Watt unit and 1 Month estimated Cost with ₩, $, €, ¥, £ currency symbol mark. (Real time wattage x 24hr x 30days x unit price/KWh)
Additionally, it also shows Up, Down symbol mark and the energy increase and decrease difference on every 2 seconds.   Additionally, it also shows the energy consumption percentage (%) vs monthly target on every 10 seconds. – You can adjust the monthly target by C8 calibration mode.
Top left side shows the energy billing method selection from "0" to "2".   "0" is the single tariff rate selection. "1" is 4-step tiered tariff rate selection "2" is special rate tariff selection. For USA, please use "0" normally.

3rd section shows History data [this day (today)], [this week], [this month] and [month (31days)] accumulated energy consumption in kWh. The righthand side, it shows the actual energy cost of it with currency symbol mark.

From the 2018 1st quarter delivery, we will add the following display also:

1) [Day (24hr)] total display

2) Select one of 5 types total display [this day/day/this week/this month/month] and show only 1 type continuously. – Press [menu] key 3 seconds continuous.

4th section shows [Today graph] and [This week graph] simultaneously.

5th section shows channel number, time, date, week, month and year display.   The right-hand side, it shows the temperature (°C. °F) and CO2 emission display.

6th section shows touch keys. You will hear a short beep sound every time you press one of the keys, [MENU], [CHANGE], [DOWN], [UP], [CHANNEL] and [SET]. We recommend you use the sound to help you program the settings accurately.

LCD protection cover film: Please take off the scratched cover film when you use it. You can see more clear display.
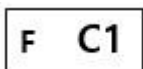

CALIBRATION MODE: C1 ~ C11

Before calibration, please see the lcd display must be as below photo:
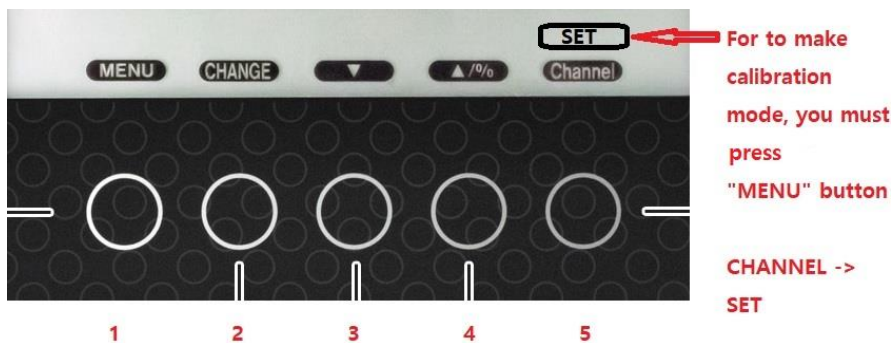
A. TIME/CLOCK: [C1]

1)Press and hold the [MENU] key until you hear a beep. [SET] icon will appear in bottom right hand corner instead of [CHANNEL].

2)Press [SET] key 3 seconds and you could see below symbol on NOW ENERGY:

3)Press [SET] key to see [F] [YEAR] blinking. Press [UP][DOWN] key to adjust the correct [YEAR] and press [SET] to confirm.

4)[MINUTE] is blinking. Press [UP][DOWN] key to adjust the correct [MINUTE] and press [SET] to confirm.

5)[HOUR] is blinking. Press [UP][DOWN] key to adjust the correct [HOUR] and press [SET] to confirm.

6)[DAY] is blinking. Press [UP][DOWN] key to adjust the correct [DAY] and press [SET] to confirm.

7)[MONTH] is blinking. Press [UP][DOWN] key to adjust the adjust [MONTH] and press [SET] to confirm.
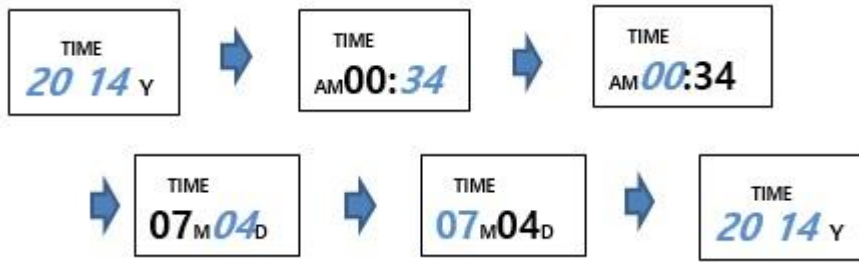
8)Press [CHANGE] key to store it.

Attention: If you are using SEM3110 model and connect it to the web cloud by LAN cable connection, the clock of SEM3100 will be automatically calibrated within 15 minutes by the web clock. Therefore, you do not need the clock calibration when the area power failure.   Web cloud: http://mywatt.org

B. TARIFF SELECTION: [C2]

1)Press [MENU] key for to change [CHANNEL] -> [SET]

2)Press the [SET] key 3 seconds to see [F] [C1] symbol. Press [MENU] key once to change [C1] –> [C2].

3)Press [SET] key to see [F] blinking to see [0].   Press [UP][DOWN] key to select [0] -> [2].

 [0]: Single Rate (Flat Rate), [1]: 4-step Tiered Rate, [2]: Time of Use Rate for all week (7 Day) [3] Time of Use Rate for weekdays + weekend

4)Press [CHANGE] to go normal display

C. TARIFF RATE FOR SINGLE (FLAT) RATE: [C3]

1)Press [MENU] key for to change [CHANNEL] -> [SET]

2)Press the [SET] key 3 seconds to see [F] [C1] symbol. Press [MENU] key 2 times to change [C1] –> [C3].

3)Press the [SET] key to see [F] blinking.   Press [SET] key again to see Single (Flat) rate [$0.20] on COST screen.

4)Move the cursor to proper position using [MENU] key.

5)Press [UP][DOWN] key to adjust the correct value.

6)Press [MENU] to move next position and adjust the correct value. Change all the correct value continuously.

7)Press [CHANGE] to store.

D. TARIFF RATE FOR 4-STEP TIERED RATE: [C4]

TIER No.	TIER1	TIER2	TIER3
BASE BILLING	$0		
THRESHOLD	0 ~ 1300kwh	1300~2300kwh	2300kwh over
RATE	$0.10/kwh	$0.16/kwh	$0.24/kwh

1)Press [MENU] key for to change [CHANNEL] -> [SET]

2)Press the [SET] key 3 seconds to see [F] [C1] symbol. Press [MENU] key 3 times to change [C1] –> [C4].

3)Press [SET] key to see [F] blinking.   Press [SET] key again to see 1-STEP Tiered rate [$0.10] on COST screen.

4)Move cursor to proper position using [MENU] key.

5)Press [UP][DOWN] key to adjust the correct value.

6)Press [MENU] to move next position and adjust the correct value. Change all the correct value continuously.

7)Press [SET] to see 1-THRESHOLD Range [1300KWh].

8)Press [MENU] to move next position. And adjust the correct value Change all the value continuously.

9)Press [MENU] key to see [F] [1300kWh] blinking. Press [UP] key to change the [Tier 2] and you can see [2300 KWh].

10)You can see [$0.16] If it is okay, press [UP] key to see [$0.24] If it is okay, press [SET] key to see [00000 KWh]

11)Press change to store.

E. SET TARIFF TIME OF USE WEEK BILLING RATE: [C5]

	BILLING RATE		
OFF PEAK	$0.10/KWh	WEEK DAYS	MO ~ FR
MID PEAK	$0.16/KWh	WEEK ENDS	SUNDAY, SATURDAY
ON PEAK	$0.24/KWh		

.

1)Press [MENU] key for to change [CHANNEL] -> [SET]

2)Press the [SET] key 3 seconds to see [F] [C1] symbol. Press [MENU] key to change [C1] –> [C5].

3]Press [SET] key to see [MON][TUE][WED][THU][FRI] and [F][COST] is blinking. Please change the [MID PEAK COST $0.16/KWh]. Press [SET] to change [ON PEAK COST $0.24/KWh]

4)Press [SET] key to change [OFF PEAK COST $0.10/KWh]

5)Press [SET] key to see [SUN][SAT] and [OFF PEAK COST $0.10/KWh]. Press [SET] to change [MID PEAK COST $016/KWh]

6)Press [CHANGE] to save it.

F. SELECT TARIFF TIME OF USE WEEK SELECTION & BILLING RATE: [C6]

1)Press [MENU] key for to change [CHANNEL] -> [SET]

2)Press the [SET] key 3 seconds to see [F] [C1] symbol. Press [MENU] key 5 times to change [C1] –> [C6].

3)Press [SET] key to see [F] blinking.   Press [SET] key again to see "00:" on TIME screen.

4)Move cursor to proper position using [SET] key.

5)Press [UP][DOWN] key to adjust the Tier level, Time, Rate.

6)Press [SET] to move next position and adjust the correct value. Change all the correct value continuously.

7)Press [CHANGE] to store.

G. TARIFF RATE FOR BASIC RATE: [C7]

1)Press [MENU] key for to change [CHANNEL] -> [SET]

2)Press the [SET] key 3 seconds to see [F] [C1] symbol. Press [MENU] key 6 times to change [C1] –> [C7].

3)Press [SET] key to see [F] blinking.   Press [SET] key again to see Basic rate [$0.00] on COST screen.

4)Move cursor to proper position using [MENU] key.

5)Press [UP][DOWN] key to adjust the correct value.

6)Press [MENU] to move next position and adjust the correct value. Change all the correct value continuously.

7)Press [CHANGE] to store.

H. MONTHLY KWH TARGET SETTING: [C8]

Your default setting is 300KWh.

This is useful if your household is running on a monthly budget and you need to monitor costs closely.

1)Press [MENU] key for to change [CHANNEL] -> [SET]

2)Press the [SET] key 3 seconds to see [F] [C1] symbol. Press [MENU] key to change [C1] –> [C8].

3)Press [SET] key to see [F] blinking.   Press [MENU] [UP][DOWN] key to adjust the correct wattage (W).

4)Press [CHANGE] to store.

I. VOLTAGE SETTING: [C9]

Your default setting is 100 Volts.

1)Press [MENU] key for to change [CHANNEL] -> [SET]

2)Press the [SET] key 3 seconds to see [F] [C1] symbol. Press [MENU] key 8 times to change [C1] –> [C9].

3)Press [SET] key to see [F] blinking and [0 V].   Press [UP] key continuously until you reach [100V = AUTO V].

4)Press [CHANGE] to store.

*If you are using Channel 2 – 10 with PIT3000, Your CRT3000 Channel (e.g. No.1) will get the Voltage value from PIT3000 automatically when you set the Voltage as [AUTO].

J. TEMPERATURE unit change: [C10]

Your default setting is Centigrade, shown as °C. You can choose to display the temperature in Fahrenheit, shown as °F.

1)Press [MENU] key for to change [CHANNEL] -> [SET]

2)Press the [SET] key 3 seconds to see [F] [C1] symbol. Press [MENU] key 9 times to change [C1] –> [C10]

3)If you want to select °C, you must select [CELSI 0]

4)If you want to select °F, you must select [FARRE 1]

5)Press [CHANGE] to save it.

K. SELECT SYMBOL for the MONEY UNIT FOR EACH COUNTRY: [C11]

1)Press [MENU] key for to change [CHANNEL] -> [SET]

2)Press the [SET] key 3 seconds to see [F] [C1] symbol. Press [MENU] key to change [C1] –> [C11].

3)Press [SET] key to see [F] blinking.   Press [MENU] [UP][DOWN] key to adjust symbol for the money unit.

4)Press [CHANGE] to store. It takes 20 seconds.

L. ERASE THE KWh MEMORY (FACTORY DEFAULT SETTING): [C12]

1)Press [MENU] key for to change [CHANNEL] -> [SET]

2)Press the [SET] key 3 seconds to see [F] [C1] symbol. Press [MENU] key to change [C1] –> [C12].

3)Press [SET] key to see [F] blinking.　Press [MENU] [UP][DOWN] key to adjust the correct number [0] ->[1]

4)Press [CHANGE] to store. It takes 20 seconds.

5)if you do not want to erase the kWh memory, please change [1] -> [0] and press [CHANGE].

M. TEMPERATURE COMPENSATE: [C13]

1)Press [MENU] key for to change [CHANNEL] -> [SET]

2)Press the [SET] key 3 seconds to see [F] [C1] symbol. Press [MENU] key to change [C1] –> [C13].

3)Press [SET] key to see [F] blinking.　Press [UP][DOWN] key to adjust the correct number -5 ~ 5

4)Press [CHANGE] to store. It takes 20 seconds.

N. Power Factor calibration: [C14]

factory setting: 1.00　　If your energy system power factor is lower than 1.00, you must adjust the power factor.

Wattage = Voltage x Current x Power Factor

1)Press [MENU] key for to change [CHANNEL] -> [SET]

2)Press the [SET] key 3 seconds to see [F] [C1] symbol. Press [MENU] key to change [C1] –> [C14].

3)Press [SET] key to see [F] blinking.　Press [UP][DOWN] key to adjust the correct number.

4)Press [CHANGE] to store. It takes 20 seconds.

O. GREEN HOUSE GAS UNITS:

Your SEM3000 can calculate the amount of CO_2 emissions per unit of electricity used.

Existing setting:　0.42kg/kwh

P. TO REVIEW YOUR SETTINGS

1)Press [MENU] key for to change [CHANNEL] -> [SET]

2)Press the [SET] key 3 seconds to see [F] [C1] symbol. Press [MENU] key to scroll through your settings [C1] –>
[C9].

3)After review all the settings, press [MENU] to change [SET] -> [CHANNEL]

Q. CALIBRATION STOP

If you do not want to save the calibration data or made mistake during the calibration procedure, please do this:

Press [MENU] key continuously and you could see normal display state without calibration.

STEP FOUR

Identify the live cable to electricity meter (usually grey, red or brown and located on the right as you look at the meter).

Unclip the clamp and fit it around the live cable. Snap the clip shut to fasten securely in place (see the images to the right).

Please Note: It is normal for the clamp to be loose fit or be able to slide along the cable.

STEP FIVE FIT THE TRANSMITTER

Fix the mounting bracket (optional) to the wall or the baseboard used to mount your meter, next to the fuse box or nearby.

Slot the Transmitter into its bracket and connect the Sensor cable to any one of the three Transmitter sockets, located on the base of the unit.

You can connect 3 clamps for 3 phase applications. AC power adapter is needed.

CONGRATULATIONS

You have now set up and installed your SEM3000 successfully. For Trouble shooting and additional information please visit http://mywatt.biz

New information:

If the customer whose web server is http://mywatt.org and buy the SEM3100 after April 2018 from Amazon, already have ID and Password from Korins.

The covering page on the packing box, you can see the registered ID and default Password.   You do not need the ID registration process.

In this case, you can log on with the ID and Password and will see the web cloud service graph immediately.

If you are using MyWatt Cloud SEM3110 Model, you can upload all the data to the Web Cloud Server by using LAN cable. You can upload the data every 1-minute interval.

If you connect the Power Adapter and LAN cable to the SEM3110 receiver, you SEM3110 clock will be calibrated automatically.   In this case, you do not need to calibrate the clock by manually.

Web Cloud service, please go to http://mywatt.org.

and click "Register Now" icon and register you ID and Password. After you register the ID as the above, please log on as below:

mywatt.org/account/regist.php

SEM3000   English Japanese

Regist NOW!

NAME	
ID	Verify **SEM3110 Serial Number is best**
Password	* 6 - 16 char/number, small/big letter, special characters more than 2combination is required.
Pass.Confirm	
E-mail	@ Verify
Phone	- - Fax	- -
Cell.Phone	- -
Country	AFGHANISTAN
Address 1	Address 2
Zip Code	State/city **USA must type "State" for the time zone calibration.**

SAVE

SEM3000

Login

| 100123 |
| ...... |

SEM3110 serial number is recommended.
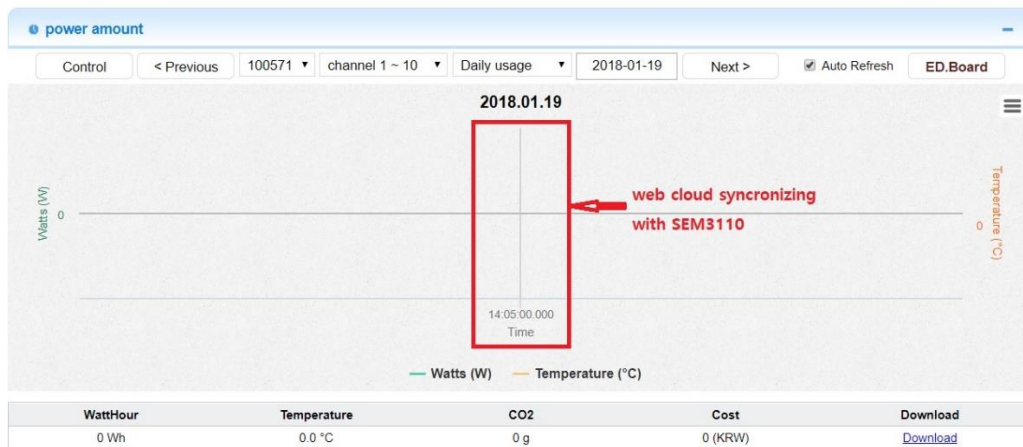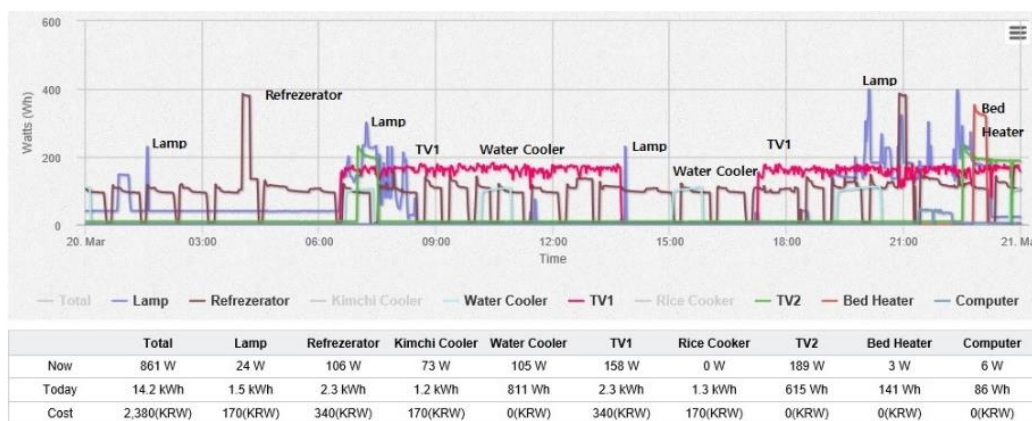
| Login |

Find My ID | Reset My Password | Regist Now!

Then you must register your SEM3110 serial number on the website.

And your web cloud service will follow within 10 to 15 minutes after the LAN cable connection to the internet and will show the following graph at first.

You can see the sample: http://mywatt.biz/cloud

	Total	Lamp	Refrezerator	Kimchi Cooler	Water Cooler	TV1	Rice Cooker	TV2	Bed Heater	Computer
Now	861 W	24 W	106 W	73 W	105 W	158 W	0 W	189 W	3 W	6 W
Today	14.2 kWh	1.5 kWh	2.3 kWh	1.2 kWh	811 Wh	2.3 kWh	1.3 kWh	615 Wh	141 Wh	86 Wh
Cost	2,380(KRW)	170(KRW)	340(KRW)	170(KRW)	0(KRW)	340(KRW)	170(KRW)	0(KRW)	0(KRW)	0(KRW)

	Total	Health	Swimming	Golf	M. Sauna	L. Sauna	Office &	8	9	Restaurant
Now	34.9 kW	1.4 kW	7.1 kW	5.3 kW	5.8 kW	6.8 kW	9.1 kW	0 W	0 W	1.2 kW
Today	821.9 kWh	123.2 kWh	116.2 kWh	88.9 kWh	126.9 kWh	108.1 kWh	182.2 kWh	0 Wh	0 Wh	75.6 kWh
Cost	164,200(KRW)	24,600(KRW)	23,200(KRW)	17,600(KRW)	25,200(KRW)	21,600(KRW)	36,400(KRW)	0(KRW)	0(KRW)	15,000(KRW)

SAFETY INFORMATION

Keep the equipment out of the reach of children, especially infants.

Installation of this product must be carried out by adults only and if there is any doubt, a qualified electrician.

Do not install your equipment in a humid room (bathroom, laundry, kitchen etc.). Do not expose the equipment to moisture, splashes or spray.

The equipment and all associated components are for indoor use and in normal temperature conditions only. Avoid extreme temperatures. Store away from sources of heat, ignition or fire.

Do not attempt to open, disassemble or repair the equipment.

The equipment contains a radio transmitter, which may affect the operation of medical or emergency equipment. Before using this equipment in a medical environment, always seek the advice of a qualified medical expert.

The LCD screen is made of glass and may break if dropped.

Please take special care when handling a damaged Display screen, as the liquid crystals may be harmful to your health.

Do not cover the ventilation holes on the equipment.

Please ensure you read this Installation and Programming Guide carefully before using the equipment.

Korins Inc.

Rm708, Dunchon-daero #474, Junwon-gu, Seongnam City, 13229 Korea

Tel: +82-31-777-1588   Fax: +82-31-777-1587   hyh@korins.kr   http://mywatt.biz

WARRANTY INFORMATION

Korins Inc. guarantees that the SEM3000 will work for a minimum period of 12 months from date of purchase and

that it will be free from defects in materials, workmanship or design. If during this limited 1year period of guarantee, from date of purchase, you find that the equipment is not working properly, you may return it to us and we will replace, or, (at our discretion) repair it, free of charge except the freight cost.

Korins Inc. will not accept any liability for defects arising from fair wear and tear, accidental or willful damage, misuse or failure to follow product or safety instructions.

If you return any equipment as faulty, Korins Inc. reserves the right to test the equipment and if found to be in perfect working order, to return it to you. In this event, Korins Inc. reserves the right to charge for any testing or postage costs incurred. This does not affect your legal rights relating to equipment, which is faulty.

Warranty conditions only apply where Proof of Purchase is provided.

To return your SEM3000 contact hyh@korins.kr to report the issue and reason for returning your product. Korins Inc. will issue you a form and reference number. Once we have received the completed form and proof of purchase we will commence the returns process.

COMPLIANCE

The CE marking certifies that this product meets the main requirements of the European Parliament and Council Directive 1999/5/EC. A copy of the signed and dated Declaration of Conformity is available on

Request.

Korins Inc. is manufactured under an ISO 9001 Quality Management System.

TROUBLESHOOTING

ISSUE	POSSIBLE CAUSE	TRY THIS
Display is blank	Batteries	Check they are correctly installed or replace batteries
"0" is displayed	No current detected or wattage data is zero.	1. Check Sensor is correctly attached to and closed properly over the Live cable (SEE STEP 5) 2. Check Sensor is connected on CRT3000
"•""----" are displayed	Batteries or lost synchronization	Check the batteries are correctly installed or replace batteries or start full reset process.
Readings appear high	Tariff or voltage settings may be incorrect	Check your tariff and voltage settings (see overleaf) and reset if necessary

Readings appear low	Sensors are not attached properly. or USA and Japan, we need 2 clamps on live cable. 3-phase application, we need 3 clamps on live cable.	Although the sensor clip maybe closed, if it is a tight fit then the core may not close properly. Check the diameter of your cable (up to 10mm cable for standard sensors and 17mm for large sensor). Reposition the clip on a straight piece of cable.
"----" in display Synchronization fails in STEP 2	Display Unit & Transmitter have lost radio link and repeating STEP 2 synchronize units has failed In the unlikely event that synchronizing fails you will need to reset your SEM3000 Receiver back to factory settings and clear the unit's memory by following these instructions:	See [STEP 2] for the pairing resetting.

LCD Touch key of CHANGE, UP and DOWN is not working, please press MENU button.
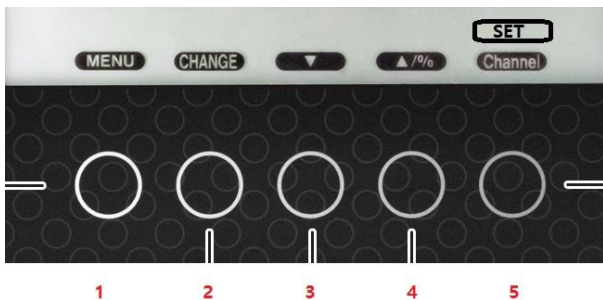
If No. 5 key lcd shows "SET" instead of "CHANNEL", please press No. 1 key. You can see the "SET" is moving to "CHANNEL".

ADDITIONAL INFORMATION

USB Power Adapter Rating: 5Vdc, 50mA

INSTALLING SEM3000 FOR 3-PHASE MEASUREMENT

If you have a 3-phase power supply you need 3 CT clamps and possibly larger size clamps depending on the size of your cables.

a) Installing SEM3000 in USA & JAPAN for single phase: We supply 2pcs of 30A clamps for 110V measurement.

b) Installing SEM3000 in USA & JAPAN for 3 phase: We supply 3pcs of 60A clamps for 3 phase application.

(This case, the voltage setting must be single phase voltage as 100V to 110V. Please do not change to 3-phase voltage)

c) Installing SEM3000 in USA & JAPAN for 3 phase: If you have only 2 clamps, you can use 2 clamps for 3 phase application.

 This case, the voltage setting must be 1.5 times of single phase voltage.

Example: If the single-phase voltage is 110V, you must change the voltage to 165V (110 x 1.5 = 165V) by using [C9] calibration mode.

SEM3110A2US + PIT3100 = SEM3110B2US

Power Adapter for CRT3000   "D" type Battery Pack   500A, CRT3005,   200A, 350A clamp

CRT3000 Series Wireless Transmitter (RF433MHz) for Single Phase in USA

We have 3 different type: http://www.mywatt.biz/model/index2.htm

1)CRT3000 transmitter with 2pcs of 30A (or 75A) clamps and AC power adapter: $60

2)CRT3001 transmitter with 2pcs of 200A clamps and AC power adapter: $80

3)CRT3005 transmitter with 2pcs of 500A clamps and AC power adapter: $125

CRT3000 Series Wireless Transmitter (RF433MHz) for 3-Phase in USA

We have 3 different type: http://www.mywatt.biz/model/index2.htm

1)CRT3000 transmitter with 3pcs of 30A (or 75A) clamps and AC power adapter: $70

2)CRT3001 transmitter with 3pcs of 200A clamps and AC power adapter: $100

3)CRT3005 transmitter with 3pcs of 500A clamps and AC power adapter: $165

attention: CRT3000, CRT3001 and CRT3005 is not compatible.   Each transmitter type is calibrated on its measuring range. We recommend you to use it:

CRT3000: 0.4A to 75A, CRT3001: 1A to 200A, CRT3005: 2.5A to 450A

Plug-in type Transmitter (RF433MHz) for Home Appliance energy measurement

1)PIT3000 without Relay (measuring range: 0 to 16A) $40

2)PIT3100 with on-off Relay (110V, 16A): $45

http://www.mywatt.biz/model/index2.htm

WHAT IS THE ALARM FUNCTION?

We have 3 different alarm display.

1)The alarm function is designed to warn you when your pre-determined electricity usage peaks above a specified rate. This is useful if your household is running on a budget and you need to monitor costs closely.

2) Monthly target setting over alarm. This is useful if your household is running on a monthly budget and you need to monitor costs closely.

3) Black-out time alarm. This is useful for to support the power plant & government.

UNDERSTANDING TARIFFS AND TIERED TARIFFS

Electricity suppliers sell electricity at different rates to different people across the country. Rates may also vary at different times of the night or day. The rate you pay for your electricity is called a "tariff" and is clearly identified on your electricity bill.

Some electricity users will have primary/secondary rates based on usage. To make use of this data you will need to calculate an average based on usage and enter this figure into tariff 1.


HOW MUCH DATA CAN BE STORED ON MY SEM3000?

1)Data will be log to the SEM3000 receiver for the last 900 days as hourly value of electricity used for 10 channels, the data is accessible by connecting pc-cable and software.

2)Data is also stored every 1 minute to the PC in real time value automatically by using 2017 new software.

INSTALLING THE PC-SOFTWARE APPLICATION TO DOWNLOAD THE DATA TO PC?

Please read the User Manual on the Software Application file supplied with SEM3000. Install the software following the installation guide in the user manual.

Software samples :   http://mywatt.biz/soft

New English pc software download site: http://www.mywatt.biz/m/
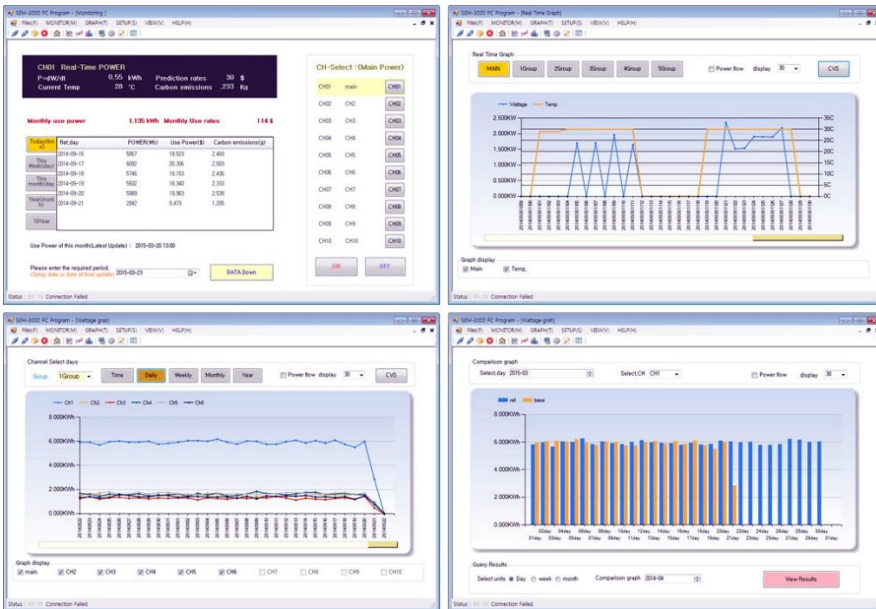
HOW DO I DOWNLOAD THE DATA TO MY PC?

PC software have 2 functions:

1) 1-minute interval real time data display to the PC and automatically data logging on PC.

2) SEM3000 logged data down load function by selecting the download start time.

Simply connect the pc cable between SEM3000 and PC with specially made mini-USB cable only.
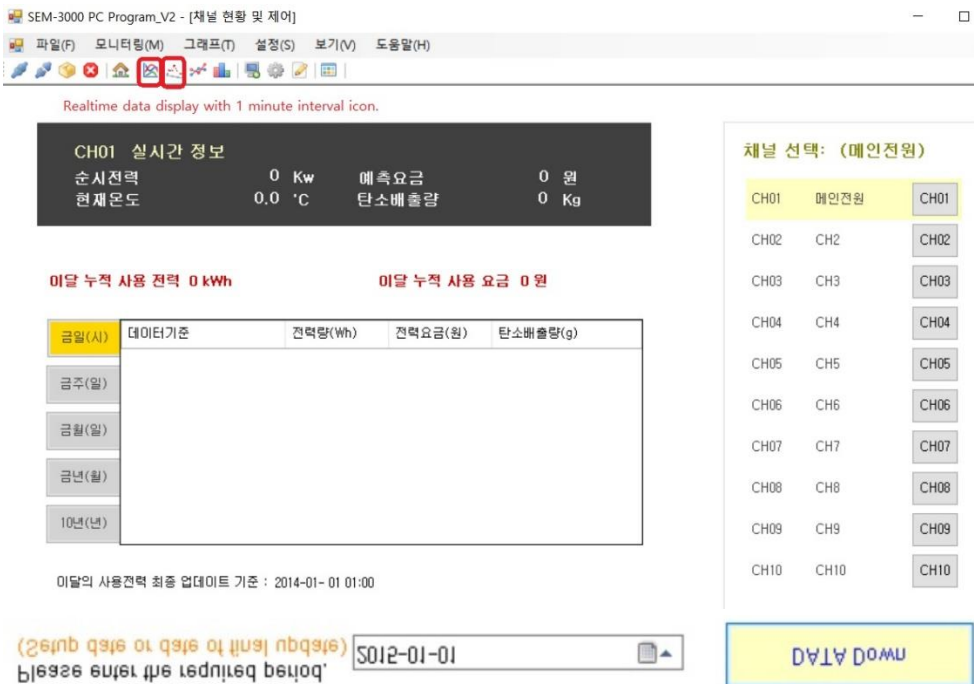
MYWATT30 IOS APP Operation Manual (Version 1.0)

September 1st, 2018

App name: "mywatt30".   You can find "mywatt30" app from Android shop or Apple shop.

Korins Inc.   http://mywatt.biz   web server: http://mywatt.org

You can use web server ID and Password for App operation.

1	2	3
You can log on your existing ID	You can see linked devices list and	You can see each channel data:

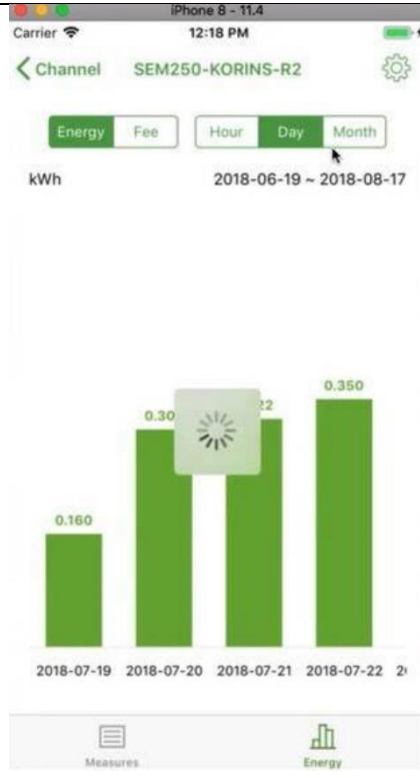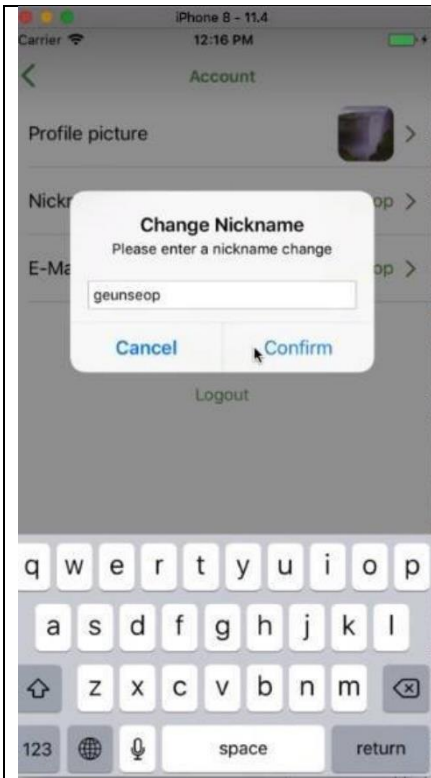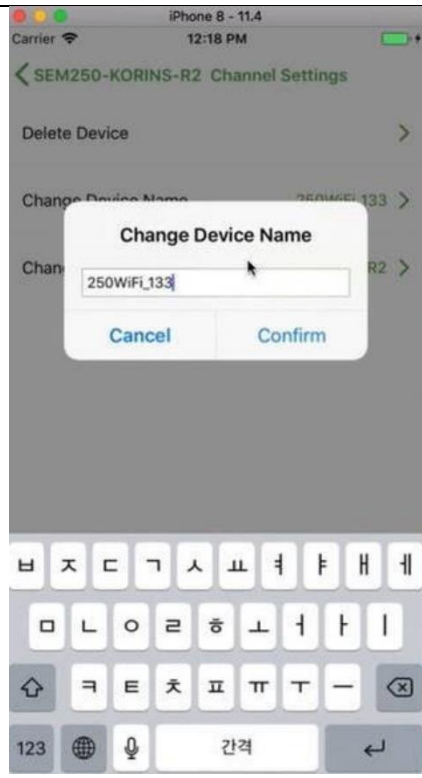|		
and password of http://mywatt.org	data at a time.	(You can see 30 channel data at a time.)
4	5	6
Each channel data display. (In the future we will add voltage, current, power factor, temperature, humidity, pressure and others up to 10 items.) For example: SEM250WIFI, SEM300WIFI ….)	Hour/Day/Month energy and money display	Hour/Day/Month energy and money display
7	8	9
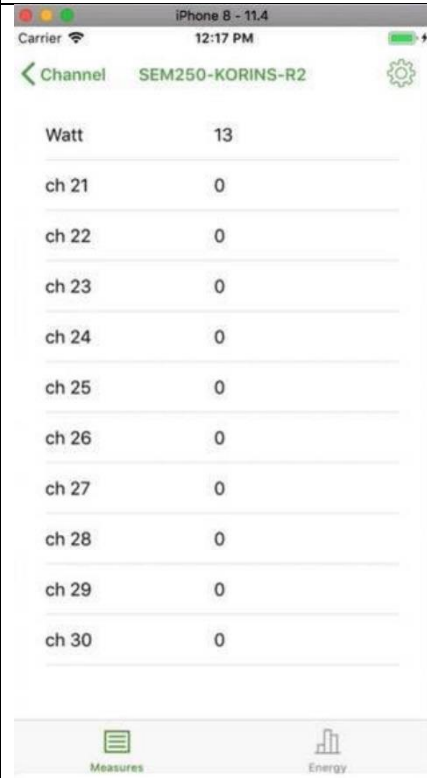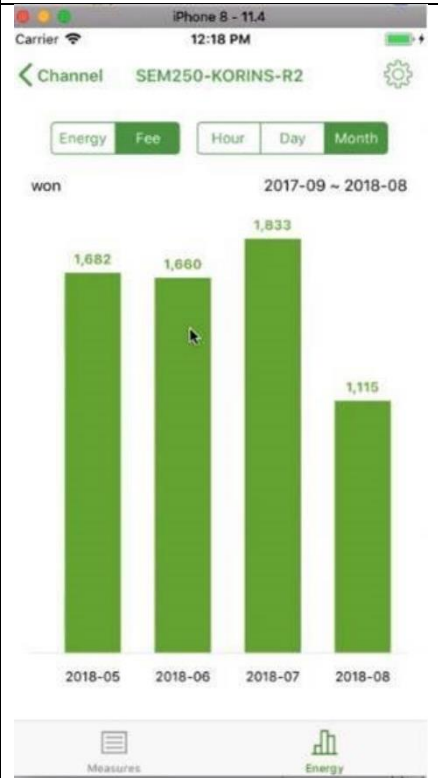
Change Nickname	Change Device Name	Change Channel Name

10 Channels Energy Logger Set with 10 to 30pcs clamp.

MyWatt
SEM4500-200A

New Smart Energy
Monitor & Controller

CRT3000 x 10pc + 200A clamp x 30pc

3-Phase 30 clamp data
wireless transmission

3-phase 10 channel
wireless receiver

10 channel Web
& App Service

MyWatt
SEM4500-30A

New Smart Energy
Monitor & Controller

CRT3000 x 10pc + 30A clamp x 30pc

3-Phase 30 clamp data
wireless transmission

3-phase 10 channel
wireless receiver

10 channel Web
& App Service

MyWatt
SEM4500-75A

New Smart Energy
Monitor & Controller

CRT3000 x 10pc + 30A clamp x 30pc

3-Phase 30 clamp data
wireless transmission

3-phase 10 channel
wireless receiver

10 channel Web
& App Service

MyWatt
SEM4500-200A

New Smart Energy
Monitor & Controller

CRT3000 x 10pc + 200A clamp x 30pc

3-Phase 30 clamp data
wireless transmission

3-phase 10 channel
wireless receiver

10 channel Web
& App Service

New Real Power MyWatt Energy Loggers (1% accuracy)

Korins MyWatt 2019 Price List ($)

Item	Available	Single-Phase, 3-ch.	3-Phase, 1-Channel			
		sem250WIFI	sem330-WIFI	sem360lcd-WIFI	sem370lcd-WIFI	SEM375LCD-WIFI
Extra Function		Rail mounting with no display (same width as MCCB)	Rail mounting wih No display	Rail mounting with 3.5" lcd	Rail mounting with 2.4" tft lcd	Table top and wall mounting case with 2.4" tft lcd and 4 magnet ring.
Size		32mm x 110mm	110mm x 85mm	110mm x 85mm	110mm x 85mm	145mm x 120mm
Accuracy		1%	1%	1%	1%	1%
Electricity monitor: W, V, A, var, VA, Wh, varh, vah, PF, Hz		Included	Included	Included	Included	Included
WIFI (Option), web cloud service & App service (mywatt30)		Available	Available	Available	Available	Available
Modbus RS-485		Included	Included	Included	Included	Included
8G Mico sd-card		20	20	20	20	20
Basic model including Modbus RS-485 software and cable, tcp/ip, Micro-SD card	February	130	200	250	250	280
60A clamp, 2pcs ($30)		30				
120A clamp, 3 pcs ($60)			60	60	60	60
200A clamp, 3 pcs (($90)						
500A clamp, 3 pcs ($90))						
Rechargable battery clock backup for 2 weeks ($20)	April					20
Temp/Humidity Sensor ($25)	February					
Pressure sensor ($60)	April					
CO2 sensor ($80)						
Dust sensor ($100)						
wifi with 2 years free web cloud service ($50)	April	50	50	50	50	50
tcp/ip (LAN) with 2 years free web cloud service ($30)	May					
total		210	310	360	360	410

SEM250WIFI Single Phase, 3-channel Smart Energy Logger.
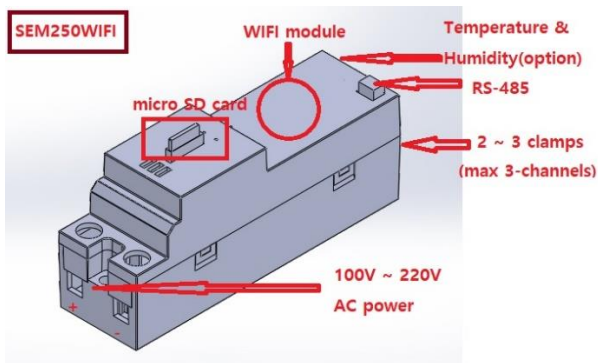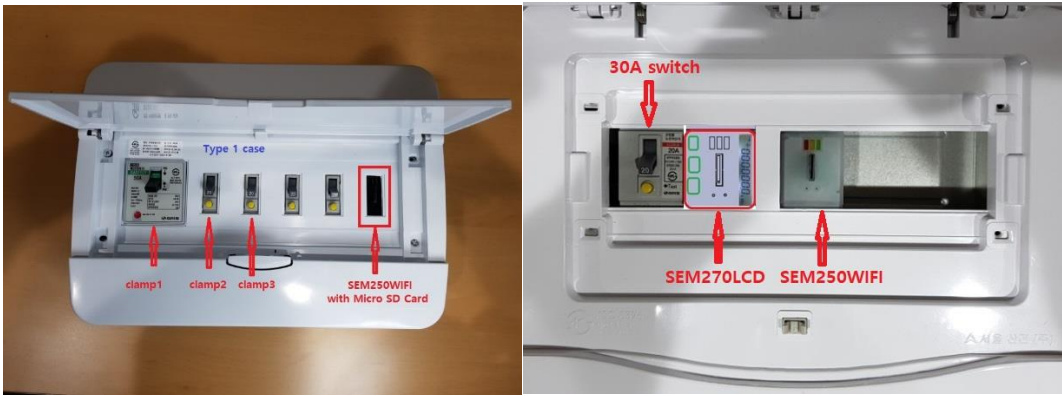
SEM250 RS-485 Software (free)
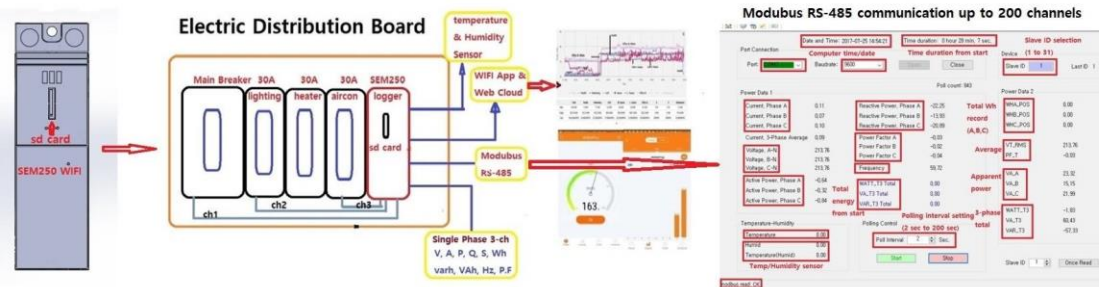
SEM270LCD-WIFI model will be available September, 2019.

https://www.youtube.com/watch?v=ITHPLNFtXhw

SEM330 Smart Energy Logger

3-Phase, 4-Line Voltage Energy Logger with 3 clamps. (1% accuracy)

3 Phase 4-Line Energy Logger
*75A, 120A, 200A, 350A, 500A current clamp
*Micro SD Card data logger
*Modubus RS-485, TCP/IP, USB
*Wi-Fi, RF433MHz, LORA
*Web Cloud service: http://mywatt.org
*Application: "mywatt30"
*Temperature, Humidity, Pressure sensor

SEM360LCD-WIFI Smart Energy Logger

3 Phase 4-Line Energy Logger
*75A, 120A, 200A, 350A, 500A current clamp
*Micro SD Card data logger
*Modubus RS-485, TCP/IP, USB
*Wi-Fi, RF433MHz, LORA
*Web Cloud service: http://mywatt.org
*Application: "mywatt30"
*Temperature, Humidity, Pressure sensor

https://youtu.be/TTNHDYOKcQI

SEM370LCD-WIFI Smart Energy Logger for rail mounting

3 Phase 4-Line Energy Logger
*2.4" TFT lcd display
*75A, 120A, 200A, 350A, 500A current clamp
*Micro SD Card data logger
*Modubus RS-485, TCP/IP, USB
*Wi-Fi, RF433MHz, LORA
*Web Cloud service: http://mywatt.org
*Application: "mywatt30"
*Temperature, Humidity, Pressure sensor

https://youtu.be/JH4FUTWXMB8

SEM370 SD CARD

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
1	Count	저장시간	전류R상	전류S상	전류T상	3상평균전	상전압R상	상전압S상	상전압T상	유효전력R	유효전력S	유효전력T	무효전력R	무효전력S	무효전력T	역률R상
2	COUNT	DATETIME	IR	IS	IT	I_A	VR	VS	VT	WATT_R	WATT_S	WATT_T	VAR_R	VAR_S	VAR_T	PFR
3	4215	2017-02-02 0:00	0.05	0.04	0.04	0.04	215.27	215.27	215.28	2.37	2.79	2.8	0.29	0.02	0	0.23
4	4216	2017-02-02 0:01	0.05	0.04	0.04	0.04	216.67	216.68	216.68	1.57	2.56	2.31	-0.01	0.23	0.31	0.16
5	4217	2017-02-02 0:02	0.05	0.04	0.04	0.04	216.48	216.48	216.48	2.02	2.74	2.31	-0.2	-0.11	0.25	0.19
6	4218	2017-02-02 0:03	0.05	0.04	0.04	0.04	217.05	217.05	217.05	1.69	2.41	3	-0.28	-0.3	0.22	0.17
7	4219	2017-02-02 0:04	0.05	0.04	0.04	0.04	216.4	216.4	216.4	2.74	2.68	2.28	-0.31	-0.12	-0.38	0.27

Modbus RS-485 up to 32 Channel

SEM370 Menu Button

web cloud service

| Control | < Previous | SEM370_101057_KORINS ▼ | ALL ▼ | Daily usage ▼ | 2019-04-29 | Next > | ☑ Auto Refresh |

ED.Board

2019.04.29

ch_1 — ch_2 — ch_3 — ch_4 — ch_5 — ch_6 — ch_7 — ch_8 — ch_9 — ch_10 — ch_11 — ch_12 — ch_13 — ch_14 — ch_15 — ch_16 — ch_17 — ch_18 — ch_19 — ch_20 — volt — ampere — power factor — frequency — peak W or kW — temperature — humidity — pressure — dust — ch_30 — Temperature (°C)

	ch_1	ch_2	ch_3	ch_4	ch_5	ch_6	ch_7	ch_8	ch_9	ch_10
Now	397 W	40 W	153 W	203 W	0 W	0 W	0 W	0 W	0 W	0 W
Today	10.8 kWh	700 Wh	4 kWh	6.2 kWh	0 Wh	0 Wh	0 Wh	0 Wh	0 Wh	0 Wh
Cost	1,300(KRW)	0(KRW)	390(KRW)	780(KRW)	0(KRW)	0(KRW)	0(KRW)	0(KRW)	0(KRW)	0(KRW)

	ch_11	ch_12	ch_13	ch_14	ch_15	ch_16	ch_17	ch_18	ch_19	ch_20
Now	266.6	42.8	70.7	153.1	0	348.7	148.8	0	200	0
Today	5211.6	848.6	1362.8	2999.9	0	6808.2	2890.4	0	3917.8	0
Cost	677,430(KRW)	110,240(KRW)	177,060(KRW)	389,870(KRW)	0(KRW)	885,040(KRW)	375,700(KRW)	0(KRW)	509,210(KRW)	0(KRW)

	volt	ampere	power factor	frequency	peak W or kW	temperature	humidity	pressure	dust	ch_30
Now	217	2.16	0.28	60	0	0	29	46	0	0
Today	4.4	44.23	6.97	1.2	0	0	553	908	0	0
Cost	520(KRW)	520(KRW)	0(KRW)	130(KRW)	0(KRW)	0(KRW)	0(KRW)	0(KRW)	0(KRW)	0(KRW)

rs-485 software

Date and Time: 2019-05-28 12:39:33   Time duration: 0 hour 4 min, 38 sec,

Port Connection

Port: COM7   Baudrate: 9600   Open   Close

Device

Slave ID 1   Last ID 3

Poll count: 139

Power Data 1

Current, Phase A	0,87
Current, Phase B	0,87
Current, Phase C	0,87
Current, 3-Phase Average	0,87
Voltage, A-N	210,90
Voltage, B-N	210,76
Voltage, C-N	210,50
Active Power, Phase A	0,18
Active Power, Phase B	0,18
Active Power, Phase C	0,18

Reactive Power, Phase A	-0,02
Reactive Power, Phase B	-0,02
Reactive Power, Phase C	-0,02
Power Factor A	0,99
Power Factor B	0,99
Power Factor C	0,99
Frequency	59,72
WATT_T3 Total	0,00
VA_T3 Total	0,00
VAR_T3 Total	0,00

Power Data 2

WHA_POS	0,01
WHB_POS	0,01
WHC_POS	0,01
VT_RMS	210,72
PF_T	0,99
VA_A	0,18
VA_B	0,18
VA_C	0,19
WATT_T3	0,55
VA_T3	0,55
VAR_T3	-0,05

Temperature-Humidity

Temperature   0,00
Humid   0,00

Polling Control

Poll Interval   2   Sec,
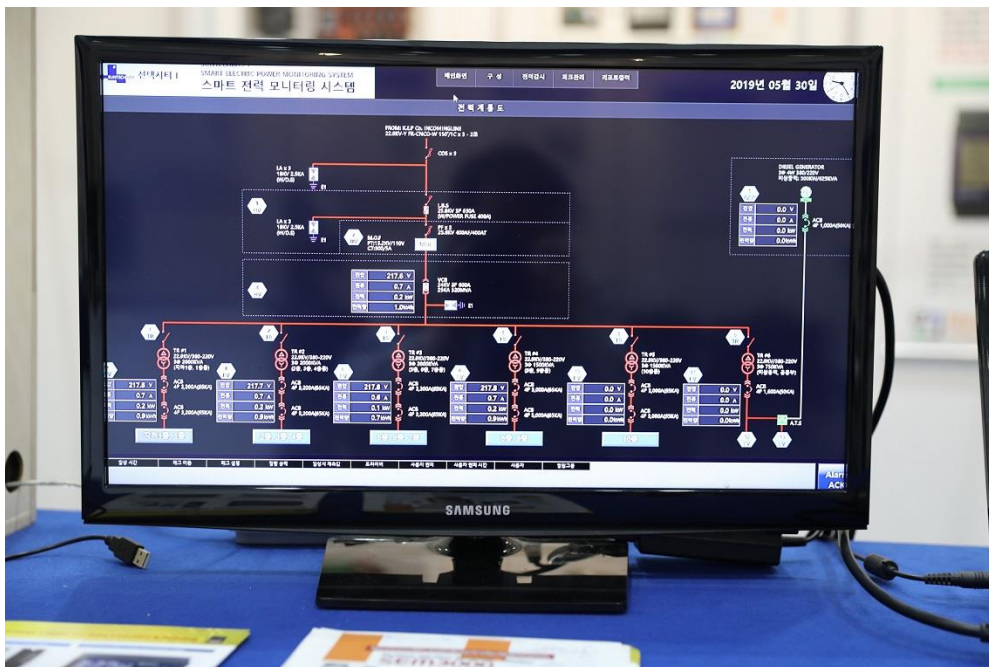
App service

Option 1:

Option 2 – up to 300 channels Smart Energy Monitoring System for BEMS & FEMS.

SEM375LCD-WIFI Smart Energy Logger for wall mounting & portable (1% accuracy)

SEM375 have magnet on backside and you can attach it onto the steel plate.


3 Phase 4-Line Energy Logger
*2.4" TFT lcd display
*75A, 120A, 200A, 350A, 500A current clamp
*Micro SD Card data logger
*Modubus RS-485, TCP/IP, USB
*Wi-Fi, RF433MHz, LORA
*Web Cloud service: http://mywatt.org
*Application: "mywatt30"
*Temperature, Humidity, Pressure sensor

SEM375 have battery clock backup device.   You can keep clock 2 months without power.

SEM390-4CH model

3 Phase 4-Line Energy Logger
*2.4" TFT lcd display   Enegy -4 Channel
*75A, 120A, 200A, 350A, 500A current clamp
*Micro SD Card data logger
*Modubus RS-485, TCP/IP, USB
*Wi-Fi, RF433MHz, LORA
*Web Cloud service: http://mywatt.org
*Application: "mywatt30"
*Temperature, Humidity, Pressure sensor

https://youtu.be/uky0y1xMfQg

SEM390 could connect up to 12 clamps.
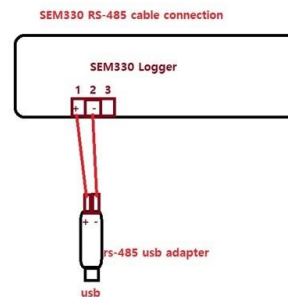
SEM200 (SEM210) Smart Plug: $40.00

WIFI version, Unlimited Timer setting.

SEM810 Smart Aircon Controller: $50

www.mywatt.biz   hyh@korins.kr

mobile: +82-10-8905-1244,   David Hong/Chairman