

## User Manual : Consumer Unit & RCBO Premier

Electrical control cabinet CONSUMER UNIT & RCBO PREMIER from SAFE-T-CUT is an electrical control cabinet designed to be compact. Convenient to use and beautiful, suitable for homes, buildings and general offices that require safety from electrical accidents. due to electric shock (Leakage current through people), electric leakage, overload current (OVER LOAD) and short circuit (SHORT CIRCUIT). Easy to use, reliable quality. which is always the highlight of Safe-T-Cut

Safe-T-Cut has also been honored as a member of the United States National Safety Board since 1980.

- Front cover protects against dust and insects It is a clear plastic box in brown color that can be seen working inside with a beautiful glowing light bar. The lid can be left open for ease of use.

- The breaker is durable for more than 30,000 times of use.

- There is a universal picture circuit description (ICON) that is easy to understand and convenient to use.

installation  
Should be installed in a location that is easily accessible. Adequately ventilated, away from combustible materials, away from flood water and out of reach of children. To select the RCBO main switch rating and the size of the wiring to the cabinet refer to the recommendation table.

### Installation standards of the Metropolitan Electricity Authority

Rate Current of Main Meter	Phase	Rated Current of Consumer Unit & RCBO	minimum size of mains cable (sq.mm.)	
			In The Air	In the Conduit
5 (15) A	1	16A	4	10
15 (45) A	1	50A	10	16
30 (100) A	1	100A	25	50
50 (150) A	1	125A	35	70

Remark : Reference from [www.mea.or.th](http://www.mea.or.th) (Metropolitan Electricity Authority website)

### มาตรฐานการติดตั้งของการไฟฟ้าภูมิภาค

Rate Current of Main Meter	Phase	Rated Current of Consumer Unit & RCBO	minimum size of mains cable (sq.mm.)	
			In The Air	In the Conduit
5 (15) A	1	16 A	4	10
10 (30) A	1	33 A	6	10
15 (45) A	1	45 A	10	16
20 (40) A	1	45 A	10	16
30 (60) A	1	63 A	16	25
30 (100) A	1	100 A	25	50
50 (100) A	1	100 A	25	50

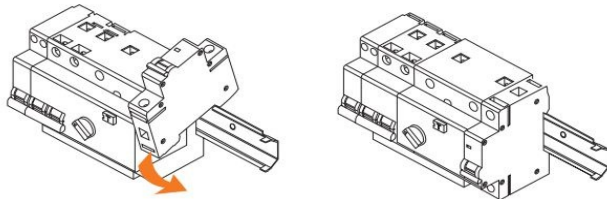
Remark : Reference from [www.pea.or.th](http://www.pea.or.th) (Provincial Electricity Authority website)

## Installation

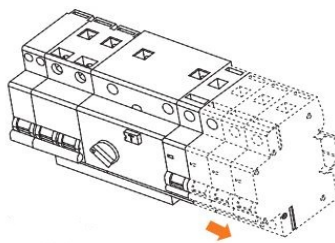
### Recommendations for installation and use

The circuit breaker is installed on the rail to be attached to the standard rail. By installing, the pin on the top of the circuit breaker must be attached to the rail first. Then press down the circuit breaker below to attach to the rail as shown in the picture.

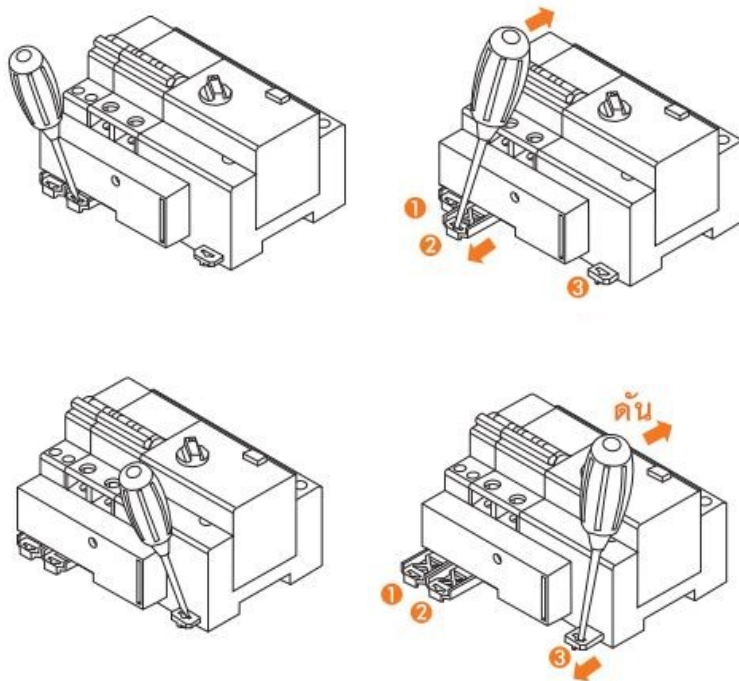
**Lock the leg to the top and press**



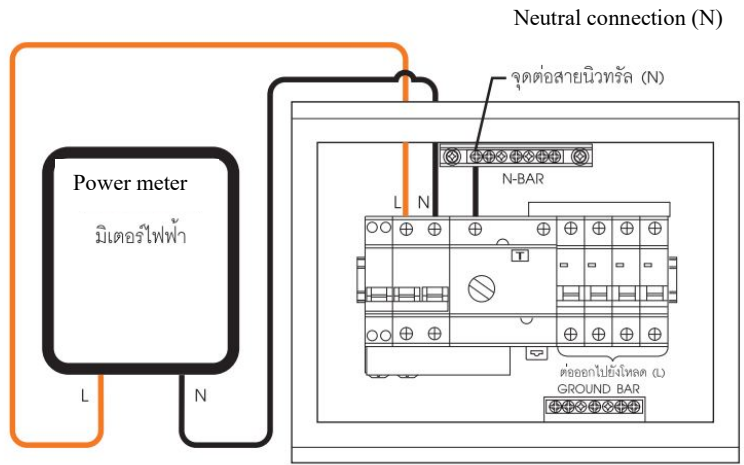
**From left to right**



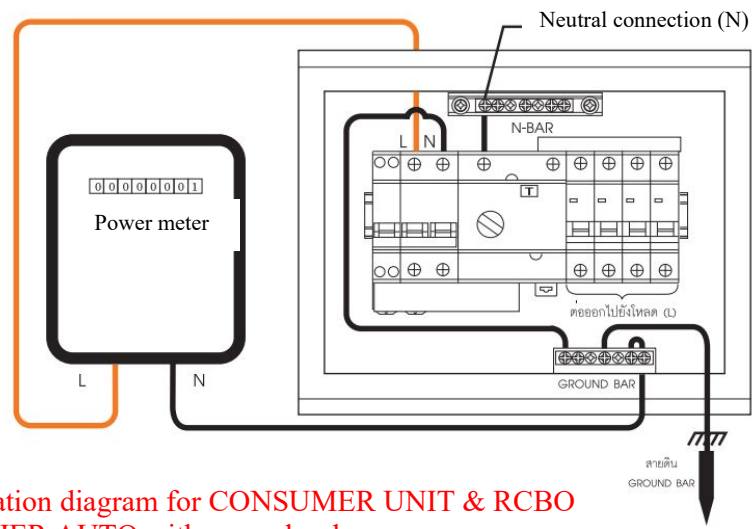
Installing a sub-breaker Let's start in order from left to right. Current rated size, consider choosing to change the size to be suitable for use by using a breaker of Safe-T-Cut, European model, or a breaker with similar characteristics as shown in the picture.



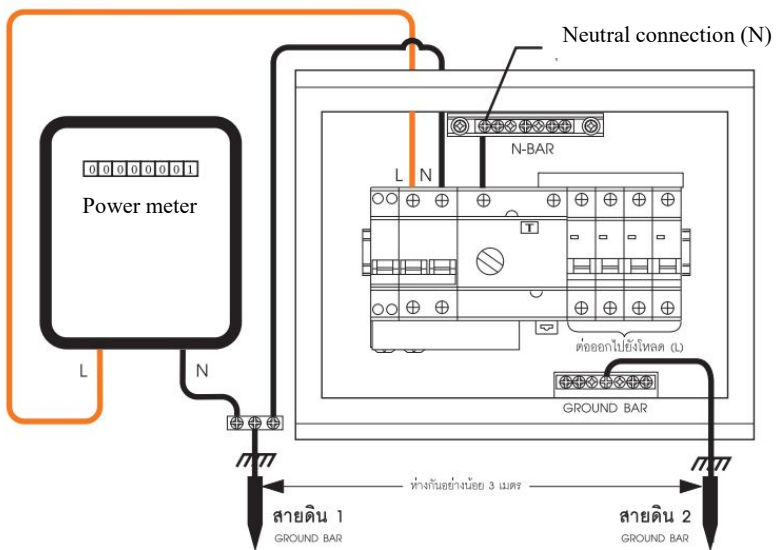
To remove the circuit breaker from the rail, insert a flat-head screwdriver into the hole at the bottom of circuit breaker and pushes it up until the bolt comes off.



Installation diagram for CONSUMER UNIT & RCBO

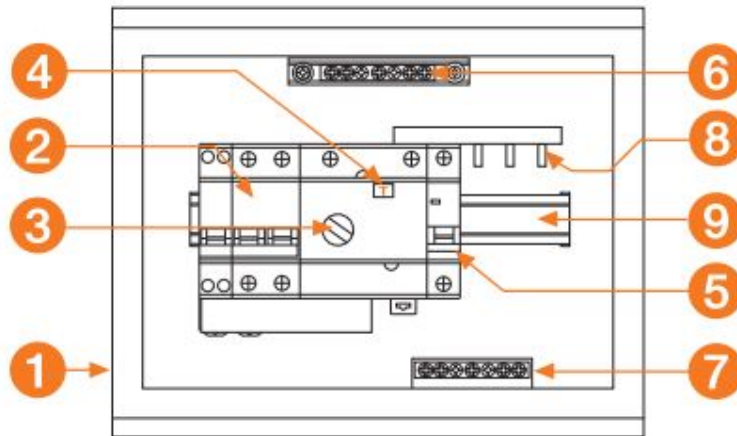


Installation diagram for CONSUMER UNIT & RCBO PREMIER AUTO with ground rod



Installation diagram for CONSUMER UNIT & RCBO PREMIER AUTO with 2 separated ground rod

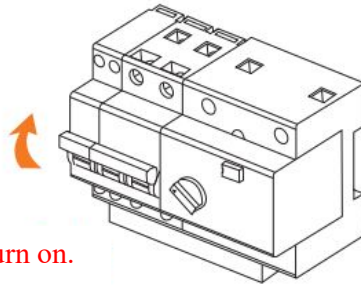
## COMPONENTS



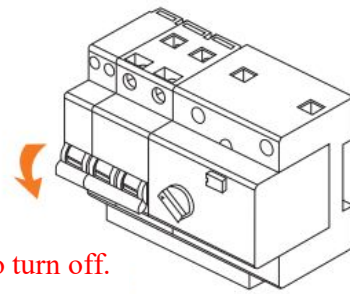
1. CONSUMER UNIT & RCBO PREMIER cabinets are made of thick metal, specially painted, durable, non-flammable.
2. RCBO main circuit breaker switch for on-off operation of the Safe-T-Cut machine. When the switch lever is pushed up to the “ON” position, the machine will start working immediately when the switch lever is dropped. Come to the closed position "OFF" if wanting to use it again, push the lever up.
3. Sensitivity selector (SENSITIVITY SELECTOR) is used to set the sensitivity of the leakage current detection circuit. In work, for example Set the knob to the 6 mA position. When the leakage current exceeds 6 mA, the RCBO will immediately cut off the current circuit.
4. The TEST button is used to test the operation of the leakage current detection circuit. When the test button is pressed, the RCBO will cut off the circuit immediately.
5. High quality 1-Pole sub ball according to IEC,BS standards.
6. Center wire connector (NEUTRAL BAR)
7. Grounding terminal (GROUND BAR)
8. BUS BAR is pure copper. Nickel plating to prevent rust, fully conductive
9. Standard rail 35 mm.

## Application

After installing the Consumer Unit & RCBO Premier cabinet, if wanting to supply power, push the RCBO circuit breaker switch lever to “ON” (should turn “OFF” all sub-breakers first and then “ON” main circuit breaker to prevent power surges), then gradually push the “ON” lever for each sub-breaker as needed.



Push the swith up to turn on.



Push the swith down to turn off.

1. While in use, if your electrical system has an electrical leakage through equipment or people (electric shock), the RCBO will cut off the circuit immediately.
  2. If the electrical system in your house has leaks in many places, causing the RCBO to cut frequently, adjust the sensitivity knob to a higher position respectively. Adjusted to the highest position of 30mA and still cut off, indicating that there is a leakage current of more than 30mA, call a qualified technician to come and check it urgently! (You can request to use fire first. In an emergency, remove the RCBO Module (RMD9) to cancel the leakage detection circuit. The RMD Remove lamp will illuminate to warn that In this condition, if there is an electric leakage, the RCBO will not cut off the circuit, it will cut off only overcurrent and short circuit).
  3. In the event of an overload or a short circuit (electric shock), the sub-circuit breaker of the connected circuit will be pushed back down to the “OFF” position, immediately interrupting the circuit.
  4. In case of using overload current or Over Load at the circuit breaker will have a higher than normal temperature and will cut the cycle later The duration of the circuit breaker is in accordance with the IEC60898 standard.
- Warning! Always check the tightness of all cable terminals as they may generate heat at the terminals. until it burns

## How to check and fix the basics

1. Symptom: Pressing the test button, the RCBO does not break the circuit.

It can be explained that because RCBO is a type of electronic device, it needs to use electricity, so if in the absence of electricity to feed the circuit to work. This can be caused by a power outage or a blown fuse. will make the electrical appliances in the house unable to use Including the RCBO, so pressing the test button during a power outage will not have any effect.

Remedy - Check if the electricity supply has been cut off.

- Check the fuse, if the fuse blows, replace the fuse.

- If there are no 2 reasons above, it means that the machine may have a problem and inform the Safe-T-Cut service center.

2. Symptom: Frequent cutter RCBO Safe-T-Cut

Cut off the circuit when turning on some types of electrical equipment, there may be 2 reasons: the electrical equipment has a leakage current or there is an overload of electricity.

Solution - If the electric leakage is caused by a malfunctioning electrical machine, it must be repaired.

- If the electricity leaks from the accumulation point from various points, but not much, then set the sensitivity adjustment knob to a higher position and should follow an electrician to make corrections.

- If caused by using electricity over the rated size, change the sub-circuit breaker switch that can withstand higher currents. but not exceeding the rated size of the RCBO switch.

3. Symptom: RCBO housing or sub-circuit breaker switch is hot.

Remedy - Check to see if the rated load is overloaded. If overused, change to a device that can withstand higher currents.

- Should tighten the nut fixing the electrical cable.

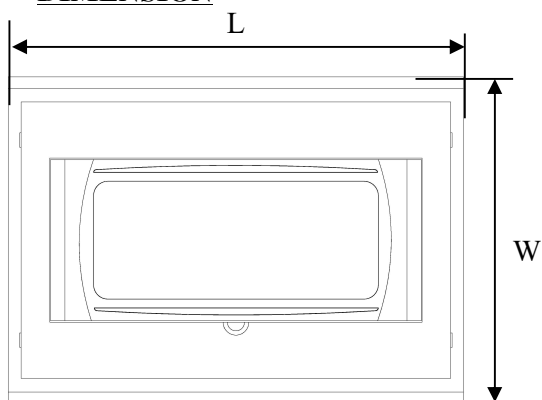
- If the above fixes do not work, send the device for repair.

4. Symptom: The machine makes a moaning sound.

Solution - Bring the switch lever down to the OFF position and then back to the ON position. notify the SAFE-T-CUT service center

Specification					
Model	CO4E	CO6E	CO8E	CO10E	CO12E
No. of Way	4way	6 way	8 way	10 way	12way
Rated Voltage (Un)	220 Vac				
Rated Current (In)	63 Amax				
Rated Frequency	50 Hz				
Rated Ultimate Short-Circuit Breaking Capacity (Icu)	$\leq 10000$ A				
Rated Insulted Voltage (Ui))	630 V				
Temperature	10-40 °c				
Type of MDB	แบบเปิดหุ้ม กล่องเดี่ยว ติดตั้งภายในอาคารประจำที่				
Installation	ติดตั้งอุปกรณ์ยึดติดกับที่				
Ingress Protection	IP30				
Type of sub-breaker	แบบสลักเกลียว (Bolt-On)				
	RCBO				
Rated Current (In)	32A, 40A, 50A, 63A				
Rated Residual Operating (IΔn)	6,10,30 mA				
Rated Residual Making and Breaking Capacity (IΔm)	$\geq 500$ A				
Rated Ultimate Short-Circuit Breaking Capacity (Icu)	10000 A				
Breaking Time	$\leq 0.04$ sec				
Weight (kg.)	2.9 kg	3.2 kg	4.0 kg	4.3 kg	4.5 kg

**DIMENSION**





DIMENSION

NO. OF WAY	W	L	H
4way	22.7	28	10.1
6way	22.7	31.8	10.1
8way	22.7	37.4	10.1
10way	22.7	45.7	9.7
12way	22.7	45.7	9.7



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