



SAK-60MS

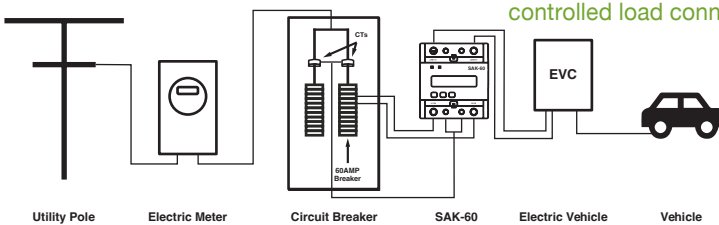
### Load Watch - Power Manager

Allows loads up to 60 amps to be added to any main service panel or sub panel that is at risk of overload, or will become overloaded, when a new load is introduced. The onboard intelligent micro-controller monitors the load on the existing panel and only allows the added load access to the panel when capacity is available. Installation requires open breaker.

- UL Listed - File # E515902

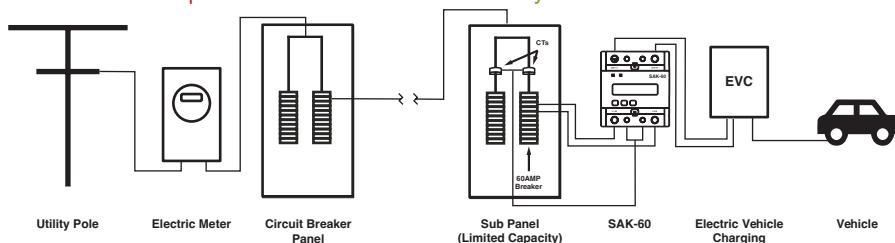
### Diagrams

**PROBLEM:** Main circuit panel does not have capacity to add EVC and trips main breaker when EVC is active.



**SOLUTION:** Install SAK-60MS in between EVC and main panel. Load management device will ensure panel is never overloaded by EVC or any controlled load connected to SAK-60MS.

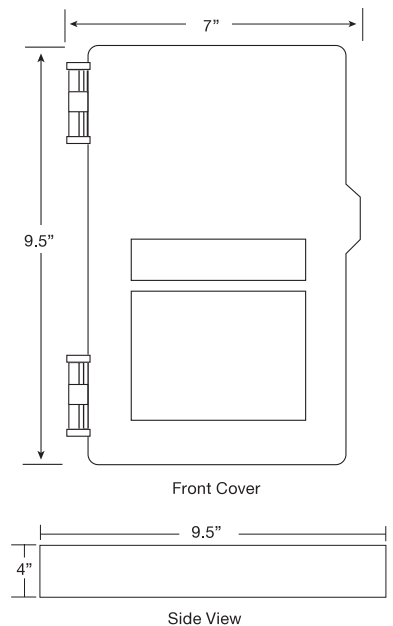
**PROBLEM:** New load is required downstream of main panel. The remote sub panel is near capacity. It is not cost-effective to run new circuit from main panel.



**SOLUTION:** Install SAK-60MS in between EVC and sub panel. Load management device will ensure sub panel is never overloaded by EVC or any controlled load connected to SAK-60MS.

### Designed for new installation of electric vehicle chargers (EVC) and other load management / peak shaving applications

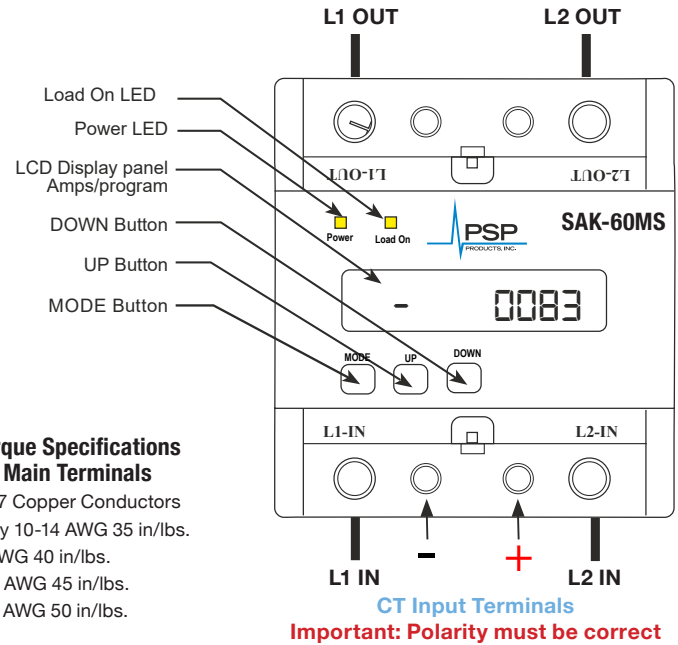
- Can be installed on any main or sub panel up to 1,000 amps to add managed loads up to 60 amps continuous.
- Adapts to any application using the precision field adjustable set points. These maximize access to the added load and prevent looping.
- Field adjustable set points include: panel overload amperage, overload inrush cutoff delay, restore amperage threshold, load restore delay time and line-loss compensation adjustment for CTs. Controller LCD displays actual real-time amperage on panel.
- Prevents overloading and saves costly upgrades to panel and / or electrical infrastructure.
- Controller is self-powered from line in voltage. External power supply not required. Can control 120 VAC single pole or 208-240 VAC double pole circuits.
- Utilizes a magnetic latching relay for long-term reliability, and box-lug in and out terminals for ease of installation.
- Split core CTs available in 100 amp, 250 amp, 500 amp and 1,000 amp ratings.
- Comes standard in polycarbonate 3R enclosure. Available in NEMA 01, 03, 04 steel and stainless steel enclosures.



## Installation Programming Guide

### Installation Instructions

1. Confirm power is off prior to performing the installation.
2. Confirm connected load does not exceed 60 amps.
3. Use the appropriate wire size and type based on the connected load.
4. Connect L1 & L2 input and output connections. Install CTs on L1 and L2 at panel input. Connect CT control wires (black to negative and red to positive) on provided terminals on SAK-60MS. Torque to required specifications. Replace finger guard covers. Restore power.
5. Confirm power LED is illuminated and proceed to programming functions.



### To Enter Programming Mode

Push “Mode” button one time. Setup will begin by displaying setting “CF250”. Each time the mode button is pressed, the device advances to the next menu setting. Adjustments to the settings are made using the UP & DOWN buttons. The mode and settings are displayed on the LCD screen. The program mode exits and saves settings after 30 seconds of inactivity. The reading on the display screen reflects the highest amperage recorded on either L1 or L2 from CTs.

### Programming Adjustments

Mode	Adjustment Range	Adjustment Details
CF250	CF001 - CF999	<b>CT Full Current Range:</b> Set for the highest amperage the connected CT can read (MCB rating). Generally 100, 250 or 500 amps. Maximum rating 999 amps.
HC080	HC100 - 999	<b>High Current Set Point:</b> This is the amperage level that when exceeded will cause the controlled load to be disconnected.
OD010	OD100 - 999	<b>Off Delay:</b> Set for the delay time in seconds before the controlled load will be disconnected in the event high current set point is exceeded. Allows for inrush stabilization.
LC040	CF100 - CF999	<b>Load Control:</b> Adjust in amps the restore set point to turn controlled load on. Under all conditions the load will not be restored until load on panel is below this set point.
LD900	LD100 - CF999	<b>Load Delay:</b> Adjust the delay time in seconds before the controlled load will be restored after an over current event or at power up. The panel load must be less than <b>HIGH CURRENT</b> set point to be restored.
CD050	CD001 - CF100	<b>CT DC Operating Range:</b> Adjustable for 0-5 volt and 0-10 volt DC Current Transformers. CTs provided are 5 volt so default is 05.0 volts DC.
CC003	CC001 - CC099	<b>CT Compensation Adjustment:</b> Consult technical support at <b>703-687-4057</b> prior to making any changes to this adjustment. Default setting is 0.02 for 0-100 amp CT and 0.04 for 0-500 amp CT.