

Residential/Light Commercial Generator Accessories

KOHLER Power Systems

Load Control Module (LCM)

ISO 9001
KOHLER
POWER SYSTEMS
NATIONALLY REGISTERED



LCM with Pre-Wired Harness



LCM with Terminal Block Connections

Load Management

- The Load Control Module (LCM) sheds loads to prevent generator overload, in compliance with NEC 2008.
- The LCM monitors generator current and frequency to determine when to shed loads. This monitoring prevents frequency drops that can damage valuable electronics like computers and televisions.
- Load management with the LCM allows the use of a smaller generator set.

Priority Setting

- Loads are added and shed according to their priority. Load 1 is the top priority, which is added first and shed last. Load 6 is the lowest priority.
- Less critical loads can be turned off automatically when essential appliances are running.
- Load priorities are hard-wired at installation.

Standard Features

- The LCM can be used with single phase Kohler generator sets equipped with the following controllers:
 - RDC2
 - DC2
- Automatically manages up to six residential loads:
 - Four power relays for management of non-essential secondary loads. Two 50 amp loads and two 40 amp loads can be connected.
 - Two HVAC relays to control two independent air conditioner loads.
- User interface for load status indication:
 - Test button allows the operator to cycle the relays in the order of their priority (only functions when the generator set is in RUN mode).
 - Dual color LEDs for each load indicate load status (powered or shed) and flash to indicate a test.
- NEMA 3R aluminum enclosure for indoor or outdoor installation.
- Available with two wiring options:
 - With 2-foot color-coded pre-wired harness for easy installation of the LCM next to the distribution panel.
 - With terminal block connections for installation of the LCM in any location.
- Ships with a 400 Amp current transformer.
- An optional 400 amp current transformer with a larger inner diameter is available for large cables.
- Order the 500 amp current transformer when the LCM is used with a Model 60RCL generator set.
- UL listed.
- CSA certification is available.

Operation

- Loads are automatically added or disconnected based on generator capacity.
- The Kohler-patented load control system uses dynamic logic to prevent shedding important loads unnecessarily when air conditioning, refrigerator, or water pump motors start.
- The LCM and generator communicate to provide smart power management. The time to shed loads decreases as each load is shed to quickly adapt to critical power requirements.
- Load shed power level and frequency setpoint adjustments are possible only by using Kohler® SiteTech™ software, available to Kohler-authorized distributors and dealers.

Viewing LCM Outputs with OnCuePlus

Using Kohler's OnCue Plus Generator Management System (sold separately), the customer can view load status (On or Off) for loads connected to the LCM.

The customer can remotely monitor when loads are shed or added by going to the Controls page in OnCue Plus.

The LCM outputs can be labeled by going to the Settings page in OnCue Plus, and clicking EDIT next to RENAME LOAD SHED OUTPUTS.

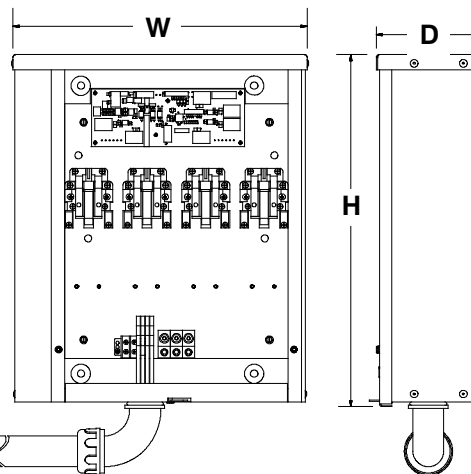
Specifications

| Connection | Rating | Wire Size |
|---|------------------|---|
| Power Relays (qty. 4) | 50 A @ 240 VAC * | #8 AWG (pre-wired harness) 8-18 AWG (terminal block) |
| HVAC Relays (qty. 2) | 30 VAC Class 2 | 12-24 AWG |
| Module Communication and Power Connections to the RDC2/DC2 controller | 0.5 A @ 12 VDC | Belden #9402 or equivalent 20 AWG shielded, twisted-pair communications cable † |

* A maximum of two 50 amp loads and two 40 amp loads can be connected.
 † For long distances, an equivalent shielded, twisted pair cable may be used for signal connections with individual 12-20 AWG wires (qty. 2) for power connections.

Current Transformer Information

| | Sales Kit Part Number | Service Part Number | Ratio (Amps:VAC) | Outer Diameter mm (in.) | Inner Diameter mm (in.) |
|-------------------|-----------------------|---------------------|------------------|-------------------------|-------------------------|
| Included with LCM | N/A | GM83929 | 400:3 | 63.5 (2.5) | 28.7 (1.13) |
| Sold Separately | GM17250-KP1-QS | GM17250 | 400:3 | 111.8 (4.4) | 57.2 (2.25) |
| Sold Separately | GM17250-KP2-QS | GM60264 | 500:3 | 171.5 (6.75) | 108.0 (4.25) |



Shown with optional harness.

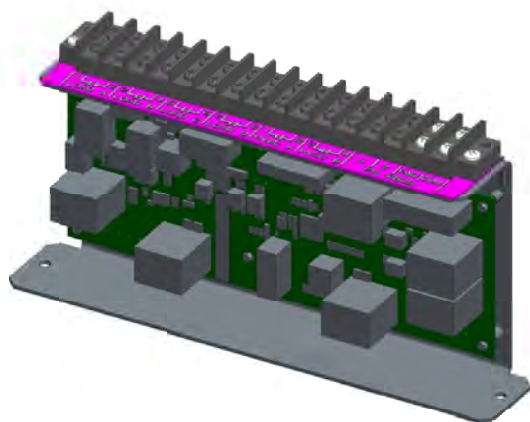
Weights and Dimensions

| Shipping Weight: | |
|---------------------|-------------------|
| With terminal block | 8 kg (17 lbs.) |
| With harness | 13 kg (28 lbs.) |
| Dimensions: | |
| Height (H) | 486 mm (18.4 in.) |
| Width (W) | 391 mm (15.4 in.) |
| Depth (D) | 135 mm (5.3 in.) |

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Load Shed Assembly

Applicable Models

- RXT Automatic Transfer Switch (without load center)
- RDT Automatic Transfer Switch (without load center)
- RDT 200 amp service entrance rated transfer switch with 42-circuit load center
- A Kohler® single-phase generator set equipped with the RDC2 or DC2 controller is required. The load shed kit operates with the following generator set models: *
 - 14RESA and 14RESAL
 - 20RESA and 20RESAL
 - 38RCL
 - 48RCL

Standard Features

- Automatically manages up to six residential loads:
 - Four customer-provided power relays can be connected for management of non-essential secondary loads.
 - Two HVAC relays to control two independent air conditioner loads are included.
- Current transformer for load monitoring is provided.
- The load shed kit mounts inside the enclosure on Kohler® Model RXT and RDT automatic transfer switches.

Load Management

- The load shed kit disconnects non-critical loads to prevent generator overload, in compliance with NEC 2008.
- The load shed kit monitors generator current and frequency to determine when to shed loads. This monitoring prevents frequency drops that can damage valuable electronics like computers and televisions.
- Load management with the load shed kit allows the use of a smaller generator set.

Priority Setting

- Loads are added and shed according to their priority. Load 1 is the top priority, which is added first and shed last. Load 6 is the lowest priority.
- Less critical loads can be turned off automatically when essential appliances are running.
- Load priorities are hard-wired at installation.

* Information available at time of publication.

Operation

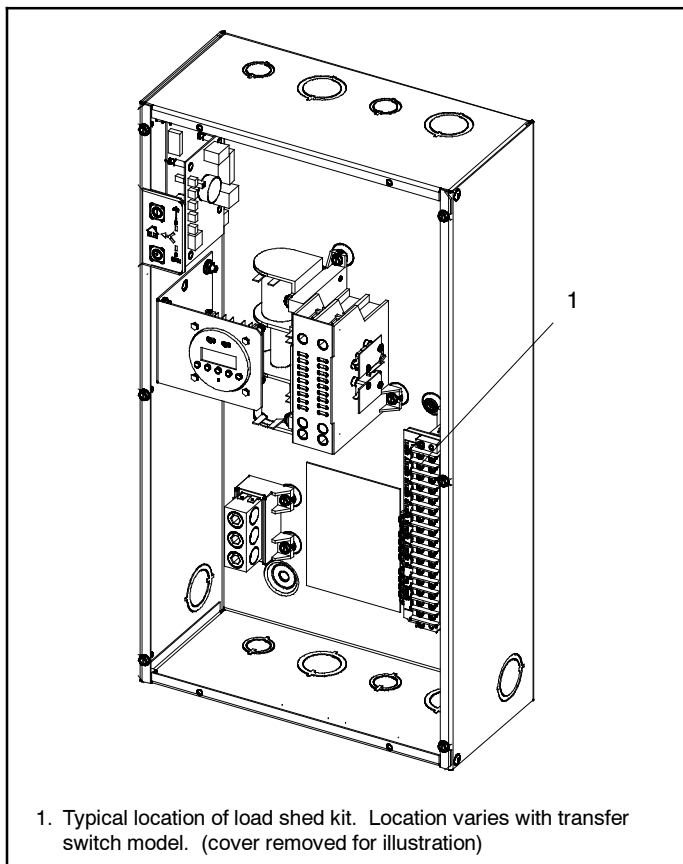
- Loads are automatically added or disconnected based on generator capacity.
- The Kohler-patented load control system uses dynamic logic to prevent shedding important loads unnecessarily when air conditioning, refrigerator, or water pump motors start.
- The load shed kit and generator communicate to provide smart power management. The time to shed loads decreases as each load is shed to quickly adapt to critical power requirements.
- Load shed power level and frequency setpoint adjustments are possible only by using Kohler® SiteTech™ software, available to Kohler-authorized distributors and dealers.

Specifications

| Connection | Rating | Connection |
|---|--|---|
| Pilot Relays* and HVAC Relays (qty. 2) | 125VAC, 10 A (general purpose) 120VAC, 125VA (pilot duty) | Connect to #6 screw on terminal block |
| RBUS Communication and Power Connections to the RDC2/DC2 controller | 0.5 A @ 12 VDC | Use Belden #9402 or equivalent 20 AWG shielded, twisted-pair communications cable † |

* Four (4) pilot relays are provided for customer-supplied load-switching contactors/relays.
 † For long distances, use an equivalent shielded, twisted pair cable for RBUS connections and individual 12-20 AWG wires (qty. 2) for power connections. A communication harness for the Model RXT transfer switch is included with the load shed kit. See TT-1609, Load Shed Kit Installation Instructions, for details.

Location Inside ATS Enclosure



Current Transformer

The load shed kit includes a current transformer (CT) for load monitoring. If the application requires cables that are too large for the inner diameter (I.D.) of the CT provided, order current transformer GM17250, or obtain a CT that meets the specifications shown below.

| CT Specifications | GM83929 (provided) | GM17250 * |
|--------------------------|--------------------|--------------------|
| Primary Rating | 400 Amps | 400 Amps |
| Secondary Rating | 3 VAC | 3 VAC |
| Burden Resistor | 16 Ohms | 16 Ohms |
| Burden Resistor Location | Internal | Internal |
| Inner Diameter (I.D.) | 28.7 mm (1.13 in.) | 57.2 mm (2.25 in.) |

* Order GM17250 for applications that use larger cables.

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