**SIEMENS ECSBPK01**

# Siemens ECSBPK01 Generator Standby Power Mechanical Interlock User Manual

Model: ECSBPK01



## 1. Introduction

The Siemens ECSBPK01 Generator Standby Power Mechanical Interlock is designed to ensure safe and compliant operation when using a portable generator to provide backup power to a building. This device prevents the simultaneous activation of the utility main breaker and the standby power breaker, thereby eliminating the risk of dangerous backfeeding into the utility grid. This manual provides essential information for the proper installation, operation, and maintenance of your interlock kit.

## 2. Safety Information

**WARNING:** Installation and servicing of this equipment must be performed by qualified electrical personnel only. Failure to follow these instructions can result in serious injury, death, or property damage.

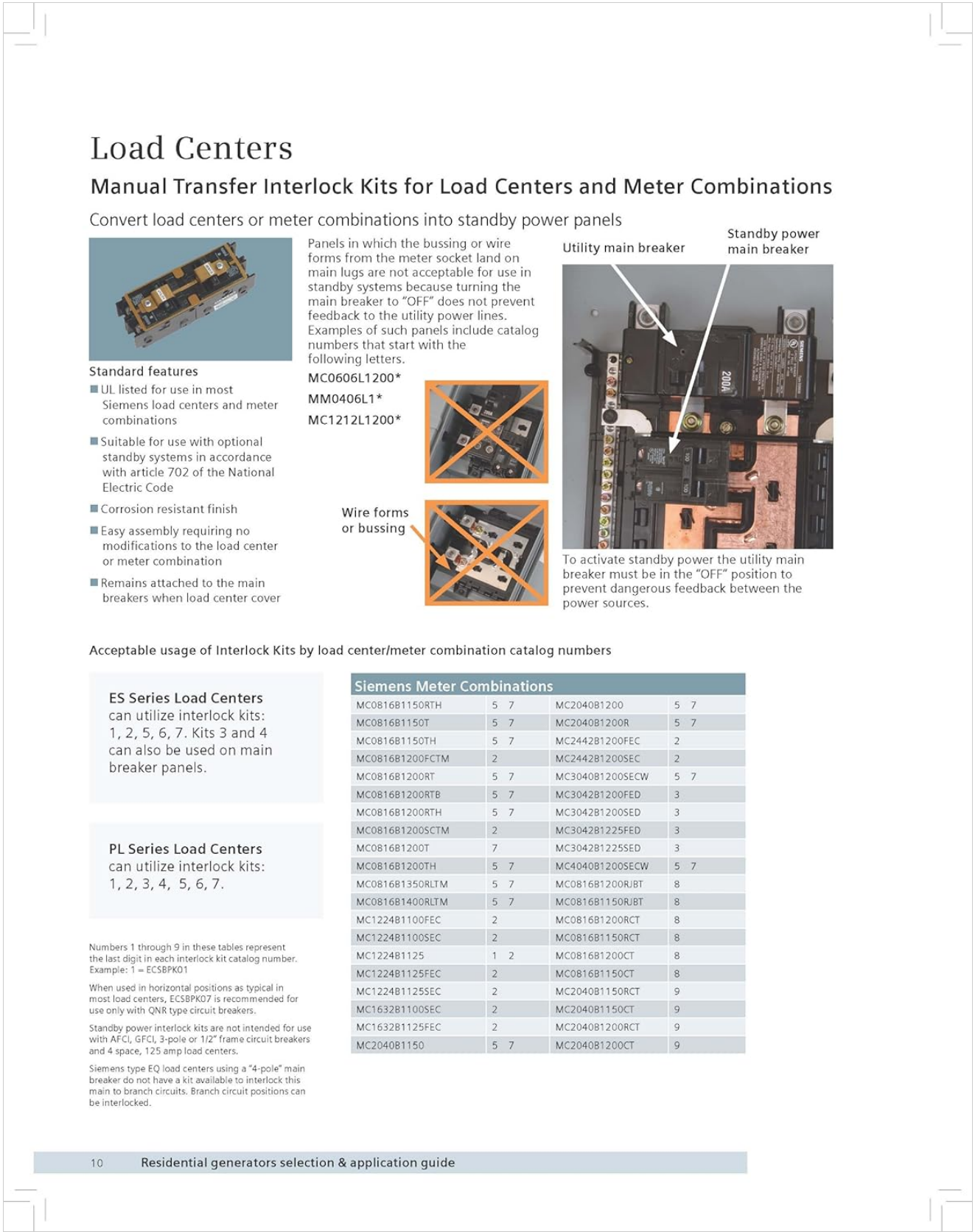
- Always disconnect power at the main service entrance before working on electrical equipment.
- Verify that all power is off using a voltage tester before proceeding with installation.
- Ensure all local and national electrical codes (e.g., NEC) are followed.
- Do not modify the interlock device or circuit breakers.
- This interlock is designed for specific Siemens or Murray load centers and breaker types. Verify compatibility before installation.
- Never operate a generator without proper grounding.

## 3. Product Overview

The Siemens ECSBPK01 Mechanical Interlock Kit is a UL Listed device designed for use on Siemens or Murray panels. It ensures that only one power source (utility or generator) can be active at a time. Key features include:

- **UL Listed:** Meets safety standards.
- **Compatibility:** For use on Siemens or Murray panels.

- **Breaker Type:** Main breaker must be a double pole QP breaker (15-125 Amp). Standby power breaker must be a QP or MP type.
- **No Panel Modification:** Designed for installation without requiring modifications to the load center panel.
- **Breakers Not Included:** This kit provides the interlock mechanism only; circuit breakers must be purchased separately.



# Load Centers

## Manual Transfer Interlock Kits for Load Centers and Meter Combinations

Convert load centers or meter combinations into standby power panels



Standard features

- UL listed for use in most Siemens load centers and meter combinations
- Suitable for use with optional standby systems in accordance with article 702 of the National Electric Code
- Corrosion resistant finish
- Easy assembly requiring no modifications to the load center or meter combination
- Remains attached to the main breakers when load center cover

Panels in which the bussing or wire forms from the meter socket land on main lugs are not acceptable for use in standby systems because turning the main breaker to "OFF" does not prevent feedback to the utility power lines. Examples of such panels include catalog numbers that start with the following letters.

MC0606L1200*

MM0406L1*

MC1212L1200*



Wire forms or bussing



Utility main breaker

Standby power main breaker




To activate standby power the utility main breaker must be in the "OFF" position to prevent dangerous feedback between the power sources.

Acceptable usage of Interlock Kits by load center/meter combination catalog numbers

**ES Series Load Centers** can utilize interlock kits: 1, 2, 5, 6, 7. Kits 3 and 4 can also be used on main breaker panels.

**PL Series Load Centers** can utilize interlock kits: 1, 2, 3, 4, 5, 6, 7.

Numbers 1 through 9 in these tables represent the last digit in each interlock kit catalog number. Example: 1 = ECSBPK01

When used in horizontal positions as typical in most load centers, ECSBPK07 is recommended for use only with QNR type circuit breakers.

Standby power interlock kits are not intended for use with AFCI, GFCI, 3-pole or 1/2" frame circuit breakers and 4 space, 125 amp load centers.

Siemens type EQ load centers using a "4-pole" main breaker do not have a kit available to interlock this main to branch circuits. Branch circuit positions can be interlocked.

| Siemens Meter Combinations | | | |
|---|---|---|---|
| MC0816B1150RTH | 5 7 | MC2040B1200 | 5 7 |
| MC0816B1150T | 5 7 | MC2040B1200R | 5 7 |
| MC0816B1150TH | 5 7 | MC2442B1200FEC | 2 |
| MC0816B1200FCTM | 2 | MC2442B1200SEC | 2 |
| MC0816B1200RT | 5 7 | MC3040B1200SECW | 5 7 |
| MC0816B1200RTB | 5 7 | MC3042B1200FED | 3 |
| MC0816B1200RTH | 5 7 | MC3042B1200SED | 3 |
| MC0816B1200SCTM | 2 | MC3042B1225FED | 3 |
| MC0816B1200T | 7 | MC3042B1225SED | 3 |
| MC0816B1200TH | 5 7 | MC4040B1200SECW | 5 7 |
| MC0816B1350RLTM | 5 7 | MC0816B1200RJBT | 8 |
| MC0816B1400RLTM | 5 7 | MC0816B1150RJBT | 8 |
| MC1224B1100FEC | 2 | MC0816B1200RCT | 8 |
| MC1224B1100SEC | 2 | MC0816B1150RCT | 8 |
| MC1224B1125 | 1 2 | MC0816B1200CT | 8 |
| MC1224B1125FEC | 2 | MC0816B1150CT | 8 |
| MC1224B1125SEC | 2 | MC2040B1150RCT | 9 |
| MC1632B1100SEC | 2 | MC2040B1150CT | 9 |
| MC1632B1125FEC | 2 | MC2040B1200RCT | 9 |
| MC2040B1150 | 5 7 | MC2040B1200CT | 9 |



*Figure 1: Components of the Siemens ECSBPK01 Mechanical Interlock Kit. This image displays the metal interlock plate and associated hardware included in the kit.*

## 4. Setup & Installation

The ECSBPK01 interlock kit is designed for specific Siemens or Murray load centers where the main utility breaker and the standby generator breaker are backfed, two-pole, QP or MP type breakers. It ensures that the main breaker is forced to the OFF position when standby power is in use, and vice-versa.

### 4.1 Compatibility Check

Before installation, confirm your load center and breakers are compatible. The interlock works with Siemens or Murray load centers. The main breaker must be a double pole QP breaker (15-125 Amp), and the standby power breaker must be a QP or MP type. Refer to your load center's documentation for specific breaker types and configurations.
*Note: The interlock is typically installed between the utility main breaker and the generator input breaker, which are usually positioned opposite each other in the load center.*

### 4.2 Installation Steps

1. **Power Disconnection: CRITICAL:** Turn off the main utility power at the service entrance. Verify zero voltage at the load center using a multimeter.
2. **Panel Cover Removal:** Carefully remove the load center's front cover.
3. **Breaker Preparation:** Ensure both the utility main breaker and the generator standby breaker are in the OFF position.
4. **Interlock Placement:** Position the interlock plate over the handles of the two breakers. The design of the interlock ensures that when one breaker is in the ON position, the other cannot be moved to ON.
5. **Secure Interlock:** Fasten the interlock plate using the provided screws. Ensure it moves freely and correctly between the two breaker handles, allowing only one to be in the ON position at any given time.
6. **Test Mechanism:** With the panel cover still off, manually test the interlock mechanism. Attempt to turn both breakers ON simultaneously. The interlock should prevent this. Verify that when one breaker is ON, the other can only be in the OFF position.
7. **Panel Cover Reinstallation:** Once satisfied with the interlock's function, carefully reinstall the load center's front cover.
8. **Power Restoration:** Restore main utility power.

# Manual transfer interlock kits

## Prevents dangerous feedback between two sources of power

| Catalog number | Usage Information | Utility main breaker types | Standby main breaker types | Interlock number |
|---|---|---|---|---|
| ECSBPK01 | For use on load centers or meter combinations that will accept 2-pole circuit breakers opposite one another as shown. | QP, QPH, HQPH | QP, QPH, HQPH | 1 |
| ECSBPK02 | For use on load centers or meter combinations that will accept 2- or 4-pole next to a 2-pole circuit breaker side by side as shown. | QP, QPH, HQPH | QP, QPH, HQPH | 2 |
| ECSBPK03 | For use on UltimateTM and Rock Solid load centers, 150 amp and higher, to connect the main breaker to a 2-pole circuit breaker. | MBK150A, MBK200A, OR MBK225A | QP, QPH, HQPH | 3 |
| ECSBPK04 | For use on Ultimate and Rock Solid load centers, 125 amp and lower, to connect the main breaker to a 2-pole circuit breaker. | MBK100A or MBK125A | QP, QPH, HQPH | 4 |
| ECSBPK05 | For use on load centers or meter meter combinations that will accept a QNR (MD-TR) frame circuit breaker next to a 2-pole circuit breaker as shown. | QNR, QNRH, HQNR | QP, QPH, HQPH | 5 |
| ECSBPK06 | For use on load centers or meter combinations that will accept a QN (MD-T) frame circuit breaker next to a 2-pole circuit breaker as shown. | QN, QNH, HQN | QP, QPH, HQPH | 6 |
| ECSBPK07 | For use on load centers or meter combinations that will accept two QNR (MD--TR) circuit breakers side by side as shown OR will accept two QN (MD--T) circuit breakers side by side as shown. | QNR, QNRH, HQNR, QN, QNH, HQN | QNR, QNRH, HQNR QN, QNH, HQN | 7 |
| ECSBPK08 | For use on 8 space, over/under, OH/UG feed meter combinations as shown. Limited application to specific catalog numbers. | QPP, QPPH | QP, QPH, HQPH | 8 |
| ECSBPK09 | For use on 20 space, over/under, OH/UG feed meter combinations as shown. Limited application to specific catalog numbers. | QPP, QPPH | QP, QPH, HQPH | 9 |



*Figure 2: Siemens ECSBPK01 Mechanical Interlock installed on two circuit breakers within a load center. This image demonstrates how the interlock plate connects the handles of the main and generator breakers, preventing both from being in the 'ON' position simultaneously.*

## 5. Operating Instructions

The mechanical interlock ensures that only one power source can supply the load center at a time. Follow these steps for safe power transfer:

### 5.1 Transferring from Utility to Generator Power

1. Ensure the generator is running and stable.
2. Locate the utility main breaker in your load center.
3. Move the utility main breaker to the**OFF** position. The interlock will now allow the generator breaker to be moved.
4. Locate the generator standby breaker.
5. Move the generator standby breaker to the**ON** position.
6. Your home is now powered by the generator.

### 5.2 Transferring from Generator to Utility Power

1. Ensure utility power has been restored.
2. Locate the generator standby breaker in your load center.
3. Move the generator standby breaker to the**OFF** position. The interlock will now allow the utility main breaker to be moved.
4. Locate the utility main breaker.
5. Move the utility main breaker to the**ON** position.
6. Shut down your generator.
7. Your home is now powered by utility electricity.

## 6. Maintenance

The Siemens ECSBPK01 Mechanical Interlock is designed for long-term, maintenance-free operation. However, periodic checks are recommended:

- **Visual Inspection:** Annually, with power disconnected, inspect the interlock for any signs of damage, corrosion, or loose fasteners.
- **Functionality Check:** Periodically test the interlock's movement to ensure it slides freely and effectively prevents both breakers from being in the ON position simultaneously.
- **Cleaning:** If necessary, gently clean the interlock and surrounding area with a dry, non-abrasive cloth. Do not use liquids or solvents.
- **Professional Inspection:** Consider having a qualified electrician inspect your electrical system, including the interlock, every few years.

## 7. Troubleshooting

If you encounter issues with your mechanical interlock, consider the following:

- **Interlock Not Moving Freely:**
  - Ensure the breakers are fully in the OFF position before attempting to slide the interlock.
  - Check for any obstructions or debris around the interlock mechanism or breaker handles.
  - Verify that the interlock was installed correctly and is not binding. Re-check alignment and screw tightness (do not overtighten).
- **Breakers Not Engaging/Disengaging Properly:**
  - Confirm that the breakers themselves are functioning correctly.
  - Ensure the interlock is correctly seated over both breaker handles.
- **Compatibility Issues:**

- Double-check that your load center and breakers are explicitly listed as compatible with the ECSBPK01. Using incompatible components can lead to improper function or safety hazards.

If problems persist, contact a qualified electrician or Siemens customer support.

## 8. Specifications

| Feature | Detail |
|---|---|
| **Brand** | SIEMENS |
| **Model Number** | ECSBPK01 |
| **Current Rating (Main Breaker)** | 15-125 Amps |
| **Circuit Breaker Type (Main)** | Double Pole QP |
| **Circuit Breaker Type (Standby)** | QP or MP Type |
| **Mounting Type** | Plug-In Mount |
| **Number Of Poles** | 2 |
| **Item Weight** | 2.4 ounces |
| **Product Dimensions** | 12.9 x 5.1 x 3.6 inches |
| **UL Listed** | Yes |

## 9. Warranty Information

The Siemens ECSBPK01 Generator Standby Power Mechanical Interlock comes with a**1-year warranty** covering parts only. This warranty covers defects in materials and workmanship under normal use and service. For specific terms and conditions, please refer to the official Siemens warranty documentation or contact Siemens customer support.

## 10. Customer Support

For technical assistance, troubleshooting, or warranty claims, please contact Siemens customer support. Have your product model number (ECSBPK01) and purchase information ready when you call.
You can find contact information on the official Siemens website or through your product's packaging.