

Meter Base Plug-in Transfer Device

Distribution Company Awareness

This bulletin shall replace Bulletin DB-04-17-v2. It is recommended that copies of DB-04-17-v2 be destroyed and replaced with this bulletin.

This bulletin has been updated to assist Electrical Distributors when attending a location with an existing meter base plug-in transfer device. Additionally, the intent of this bulletin is to clarify the process that Electrical Distributors must follow when reconnecting power after the installation of a consumer-owned meter base plug-in transfer device and who is permitted to perform the work related to installing the device. This type of equipment can only be used if pre-approved for use, by the Electrical Distributor.



Detailed Information

Approved, consumer-owned meter base plug-in transfer devices that plug directly into a consumer's meter base are available. The Electrical Safety Authority (ESA) considers the following as acceptable requirements to meet the Ontario Electrical Safety Code (OESC) (Rule 2-024 – Approval of Electrical Equipment) for meter-mounted transfer devices, for Ontario:

- Field Evaluation by a recognized Field Evaluation agency (Inspection Body), or
- Certification to UL Standard, UL1008M.

These devices provide a means to safely connect standby power to homes in the event of a temporary grid power outage, similar to other transfer devices (transfer switches).

The installation of consumer-owned meter base plug-in transfer devices falls under the requirements of the OESC.

Notification of work for ESA inspection is not required (OESC Rule 2-005 f)) if installed:

- by a Licensed Electrical Contractor (LEC) in accordance with Ontario Regulation 570/05, and
- in accordance with the requirements of the supply authority (Electrical Distributor).

A Connection Authorization is not required when the installation does not require a notification for inspection in accordance with OESC Rule 2-005 f).

The exemption provided by OESC Rule 2-005 f) **does not** apply when the consumer owned meter base plug-in transfer device is installed by a homeowner. They will be required to file a notification of work, to perform the work themselves and ESA will issue a Connection Authorization once the installation is safe to be connected to the distribution system. Appendix B note to Rule 2-005 f) provides additional information.

OESC excerpt to Appendix B Rule 2-005 f):

Some supply authorities do not permit the installation of a meter base plug-in transfer device or require a connection authorization. Therefore, it is the responsibility of the licensed electrical contractor to ensure the supply authority permits the use of meter base plug-in transfer devices and to verify if a notification needs to be filed for the purpose of connection authorization for the installation of these devices.

The installation of a consumer-owned meter base plug-in transfer device is **not permitted** to be installed by the Electrical Distributor unless they meet the contractor licensing requirements as per Ontario Reg. 570/05.

In the absence of meeting this requirement, the Electrical Distributor will be non-compliant with the OESC with respect to connecting without authorization, Ontario Reg 570/05 and the Electricity Act if they perform such work, and accordingly, enforcement orders may be applied against the Electrical Distributor.

The meter base plug-in transfer device requires a neutral connection to the **neutral wire** within the meter base. It is not permitted to connect the neutral wire from the meter base plug-in transfer device to the ground terminal in the meter base (see Figure 1) or multiple wires under the meter base neutral terminal (see Figure 2). Accepted OESC compliant methods to the neutral wire can include crimped, split bolt, insulation piercing or separate neutral connector (see Figure 3).



Figure 1: Neutral lead from meter base plug-in transfer device is connected to meter base ground terminal

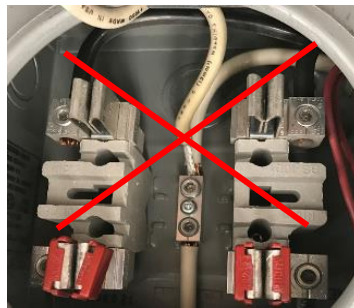


Figure 2: Two wires incorrectly installed under a single terminal

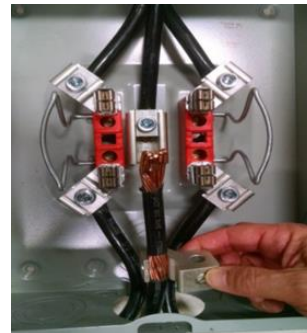


Figure 3: Compliant neutral connection to meter base plug-in transfer device

ESA Direction

Electrical Distributors who attend a site with an existing meter base plug-in transfer device may be required to perform work on the line side of the demarcation point, such as troubleshooting work within the meter base during a part power call for an underground installation. The process will include the Electrical Distributor removing their revenue meter and the existing plug-in transfer device to check terminations of the Electrical Distributor's cables.

As stated above, the installation of the plug-in transfer device falls under the scope of the LEC or the homeowner. For the purposes of Distributor work, such as troubleshooting, the Electrical Distributor is permitted to re-install the existing plug-in transfer device provided the neutral lead that comes with the plug-in transfer device has **not** been disconnected from the neutral connection in the meter base. The disconnection of the plug-in transfer device will **only** be done by separating the spade type connection (See Figure 4).



Figure 4: Spade type connection to neutral Figure 5: Plug-in device with use of bracket

Note: This direction will only apply to plug-in transfer devices that do not require a specific mounting bracket to support the plug-in transfer device (see Figure 5).

Recommendations

- Electrical Distributors should inform their operations staff on the requirements for consumer-owned meter base plug-in transfer devices.
- For meter base plug-in transfer device installations where the Distributor does not require a Connection Authorization and the crew observes a non-compliant neutral connection performed by the LEC, they should not connect the customer and inform ESA's Customer Service Centre 1 877 372 7233 (1 877 ESA SAFE) or emailing esa.cambridge@electricalsafety.on.ca.