

## GROUNDING AND BONDING OF HYDEL METER MOUNTING DEVICES

This Bulletin is issued with reference to Change in Canadian Electrical Code CSA 22.1-18: Part 1 2018 24<sup>th</sup> Edition and CSA C22.2 No 115.:20 Meter Mounting Devices for Grounding and Bonding of Meter Socket.

From May 1, 2024 Hydel Meter Mounting Devices manufactured as per CSA C22.2 No 115:20 and CEC Code Part 1 2018 Rule 10-210 Appendix B Notes on Rules will have both options below

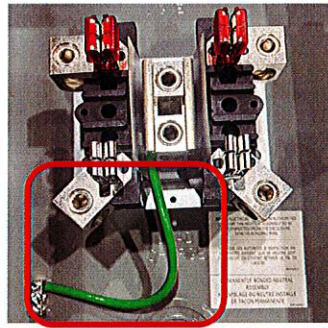
1. **Option 1: Bonded Neutral Meter Socket**

**Figure B10-4:** Consumer's Service grounded at the meter mounting device.

All Meter Sockets are supplied as Permanently Bonded Neutral Assembly with Factory Installed **Removable** System Bonding Jumper.

To Comply B10-4: **No Change** required in Meter Socket.

**PERMANENTLY BONDED NEUTRAL ASSEMBLY**  
**ASSEMBLAGE DU NEUTRE INSTALLE DE FACON PERMANENTE**  
XMS600L7



2. **Option 2: Isolated Neutral Meter Socket**

**Figure B10-5:** Consumer Service grounded at the service box.

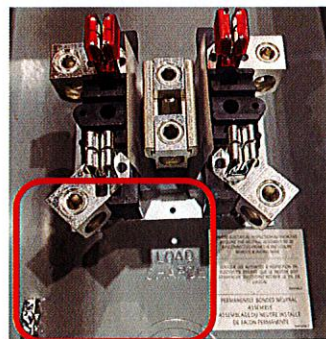
To Comply B10-5 **Remove** Factory Installed System Bonding Jumper from the unit as shown below.  
(Photos For illustration purpose only)

**WHERE ELECTRICAL INSPECTION AUTHORITIES REQUIRE THE NEUTRAL ASSEMBLY TO BE DISCONNECTED FROM THE ENCLOSURE REMOVE BONDING WIRE**

-----

**LORSQUE LES AUTORITES D'INSPECTION EN ELECTRICITE EXIGENT QUE LE NEUTRE SOIT DEBRANCHE DU COFFRET RETIRER LE FIL DE LIASON**

XMS600L3



System Bonding Jumper Removed

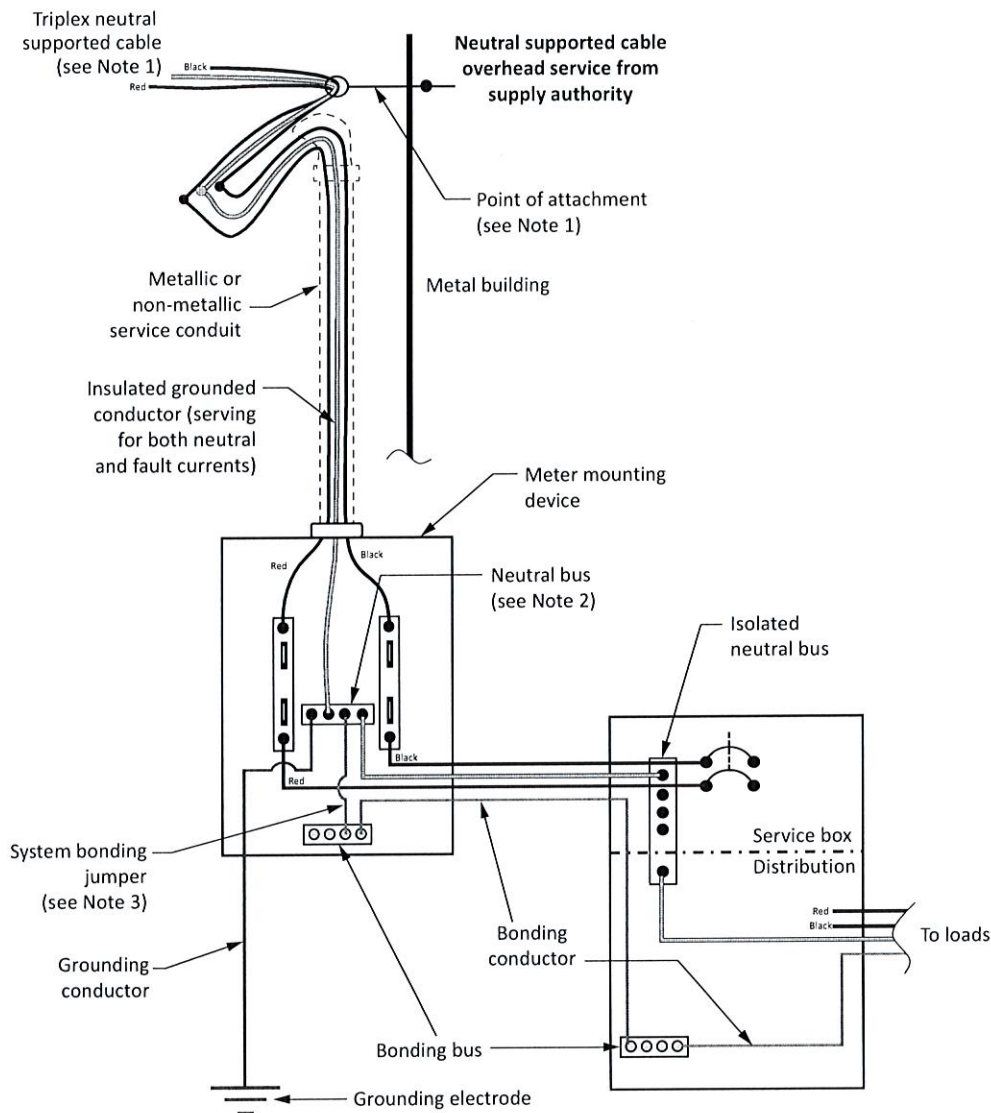
**Both Meter Sockets options are CSA approved.**

System Bonding Jumper Size is as per CEC Code C22.1:21 Table 16: Minimum Size of Field installed system Bonding Jumper and Bonding Conductors.

**This arrangement gives flexibility to Customer / Inspector for Meter Socket to be either Isolated Neutral or Bonded Neutral as required at site.**

**Note:** Meter Sockets which are exclusively meant for Permanently Isolated Neutral socket remains unchanged. Reference Hydel Catalogue.

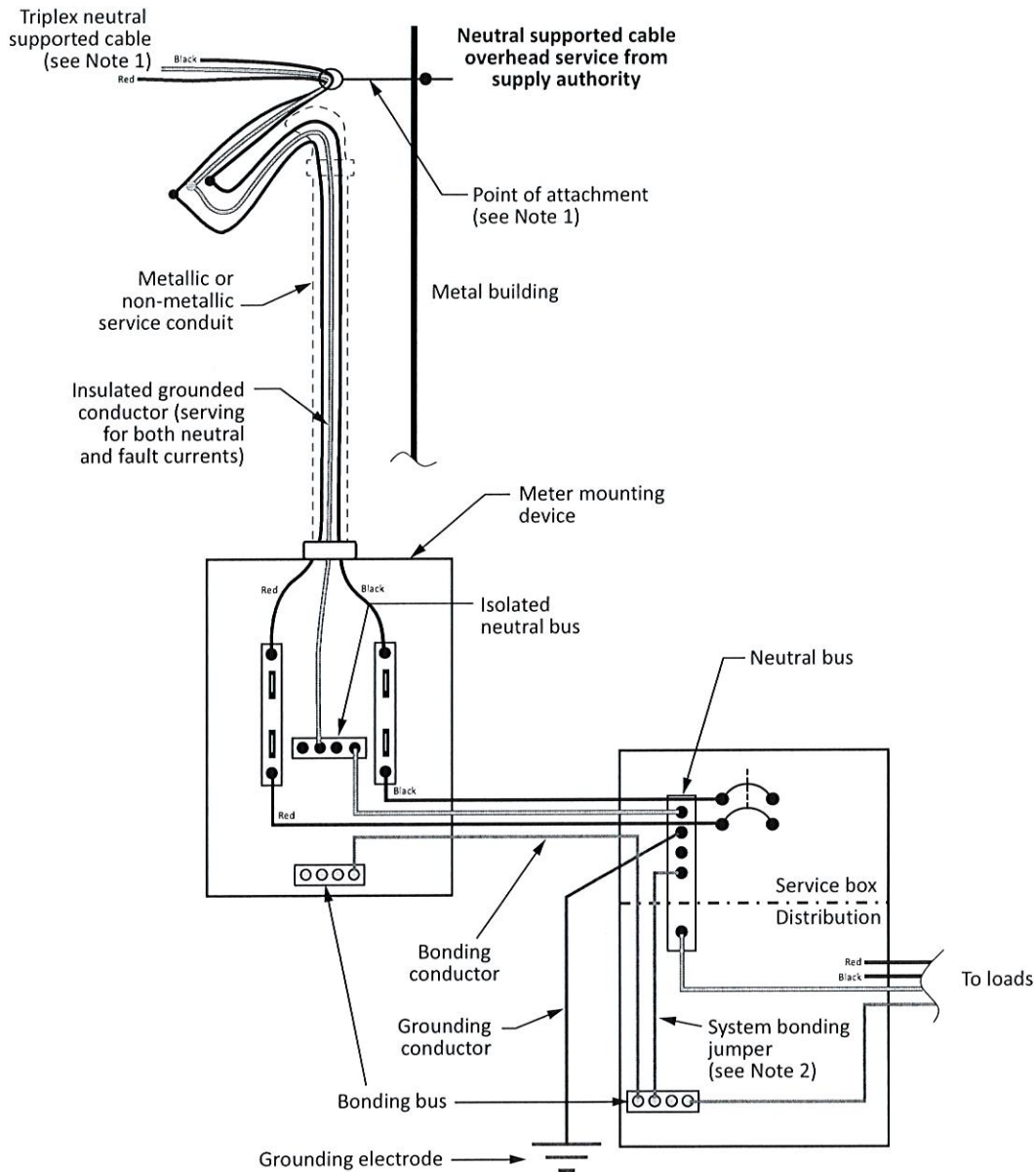
**Figure B10-4**  
**Consumer's service grounded at the meter mounting device**



**Notes:**

- 1) When the bare neutral of the triplex neutral supported cable is used as a neutral conductor, it is attached to an insulator at the point of support and terminations. It should not be in contact with any grounded surface [see Rule 12-318 e)].
- 2) The neutral bus in the meter mounting device may be isolated from, or solidly connected to, the enclosure, as follows:
  - a) when it is isolated from the meter enclosure, either a factory-installed or a field-installed system bonding jumper is acceptable; or
  - b) when it is solidly connected to the meter enclosure, the manufacturer's instructions should be consulted to determine if the solid connection to the meter enclosure is suitable as the system bonding jumper or if a field-installed system bonding jumper is required.
- 3) The system bonding jumper may be field-installed (a conductor) or factory-installed (a screw or strap).

**Figure B10-5**  
**Consumer's service grounded at the service box**



**Notes:**

- 1) When the bare neutral of the triplex neutral supported cable is used as a neutral conductor, it is attached to an insulator at the point of support and terminations. It should not be in contact with any grounded surface [see Rule 12-318 e)].
- 2) The system bonding jumper may be field-installed (a conductor) or factory-installed (a screw or strap).

Figure B10-6 shows an example of a three-phase, 4-wire solidly grounded ac system supplied from a supply authority.

**Table 16**  
**Minimum size of field-installed system bonding jumpers and bonding conductors**  
 (See Rule 10-616.)

Ampere rating or setting of overcurrent device protecting conductor(s), equipment, etc.	Allowable ampacity of largest ungrounded conductor or group of conductors	Minimum size of system bonding jumper and bonding conductor			
		Wire		Bus	
		Copper, AWG or kcmil	Aluminum, AWG or kcmil	Copper, mm <sup>2</sup>	Aluminum, mm <sup>2</sup>
<b>Not exceeding</b>					
20		14	12	2.0	3.5
30		12	10	3.5	5.5
60		10	8	5.5	8.5
100		8	6	8.5	10.5
200		6	4	10.5	21.0
300		4	2	21.0	26.5
400		3	1	26.5	33.5
500		2	0	33.5	42.5
600		1	00	42.5	53.5
800		0	000	53.5	67.5
1000		00	0000	67.5	84.0
1200		000	250	84.0	127.0
1600		0000	350	107.0	177.5
2000		250	400	127.5	203.0
2500		350	500	177.5	253.5
3000		400	600	203.0	355.0
4000		500	800	253.5	405.5
5000		700	1000	355.0	507.0
6000		800	1250	405.5	633.5

**Table 16A**  
*Deleted*

**Table 16B**  
*Deleted*