

solis

inverters

Earth Neutral Bridge Board Installation

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NEW AC EARTH NEUTRAL BRIDGE BOARD FOR RESIDENTIAL
APPLICATIONS WITH HYBRID AND OFF GRID APPLICATIONS
PART NUMBER: ACDB-ARENB-25A

- The new automatic earth/neutral bridge board connects the earth and neutral conductor with each other when the utility power is lost.
- The board is to be installed between the Hybrid or Back up inverter out and the back up output ACDB.
- Why do we need this board to be installed?....
 - A. To avoid elevated neutral voltages
 - B. To avoid earth ground loops
 - C. To ensure the Earth leakage unit in the back up ACDB functions correctly

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- Why do we need this board to be installed?....
- A. To avoid elevated neutral voltages
- 1.1 When the inverter is in Back up mode, regulation requires both Live and Neutral conductor be disconnected from the municipal grid
- 1.2 When this happens, earth/Neutral links that exists on the municipal supply side is lost
- 1.3 The result is an elevated neutral voltage when measured between the neutral conductor and the earth conductor on the inverter back up circuit
Measured value: approx. 120Vac
- 1.4 Also referred to as a “floating Neutral”

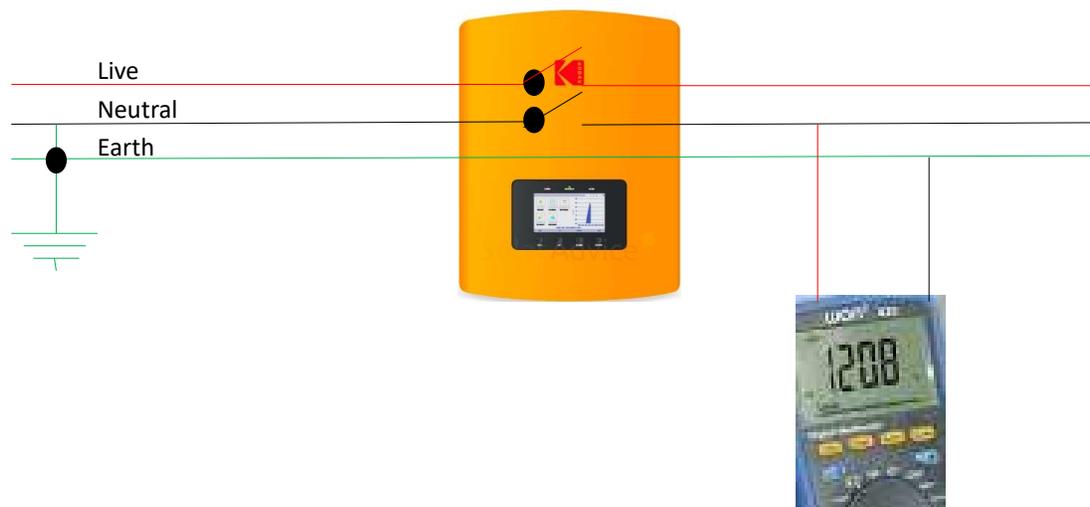
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NB: No common wiring may exist between input and output circuits

Testing for a floating neutral or elevated neutral

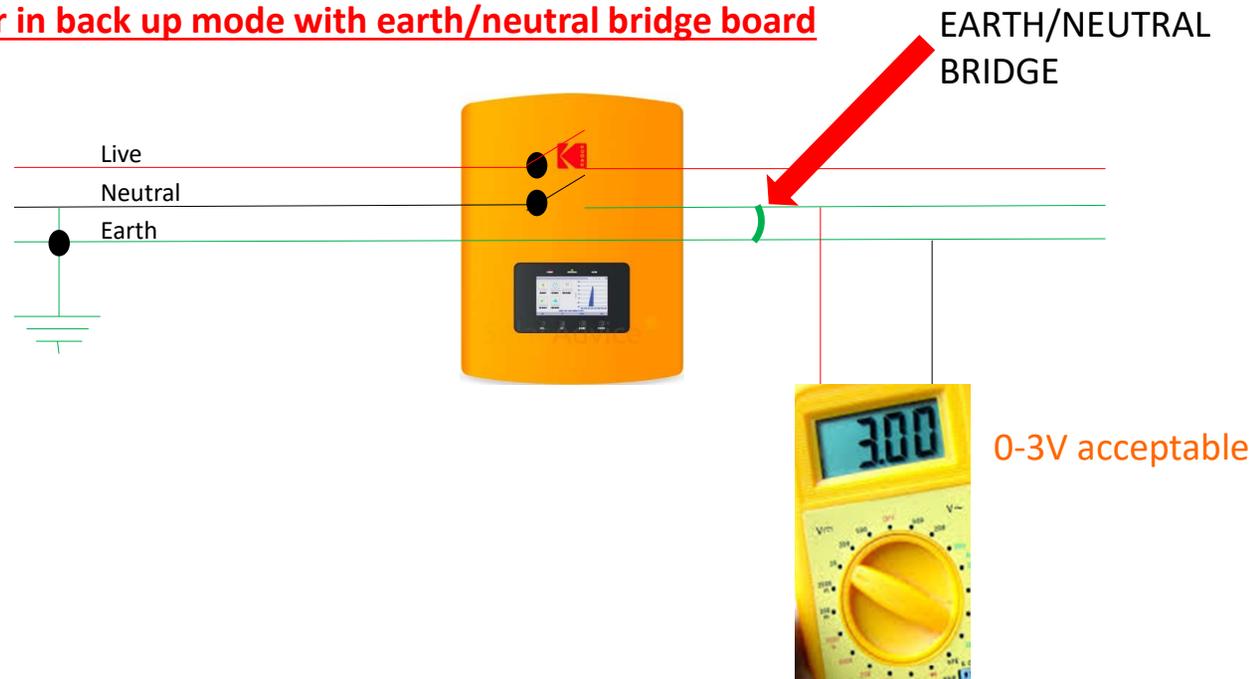
Inverter in back up mode without earth/neutral bridge board

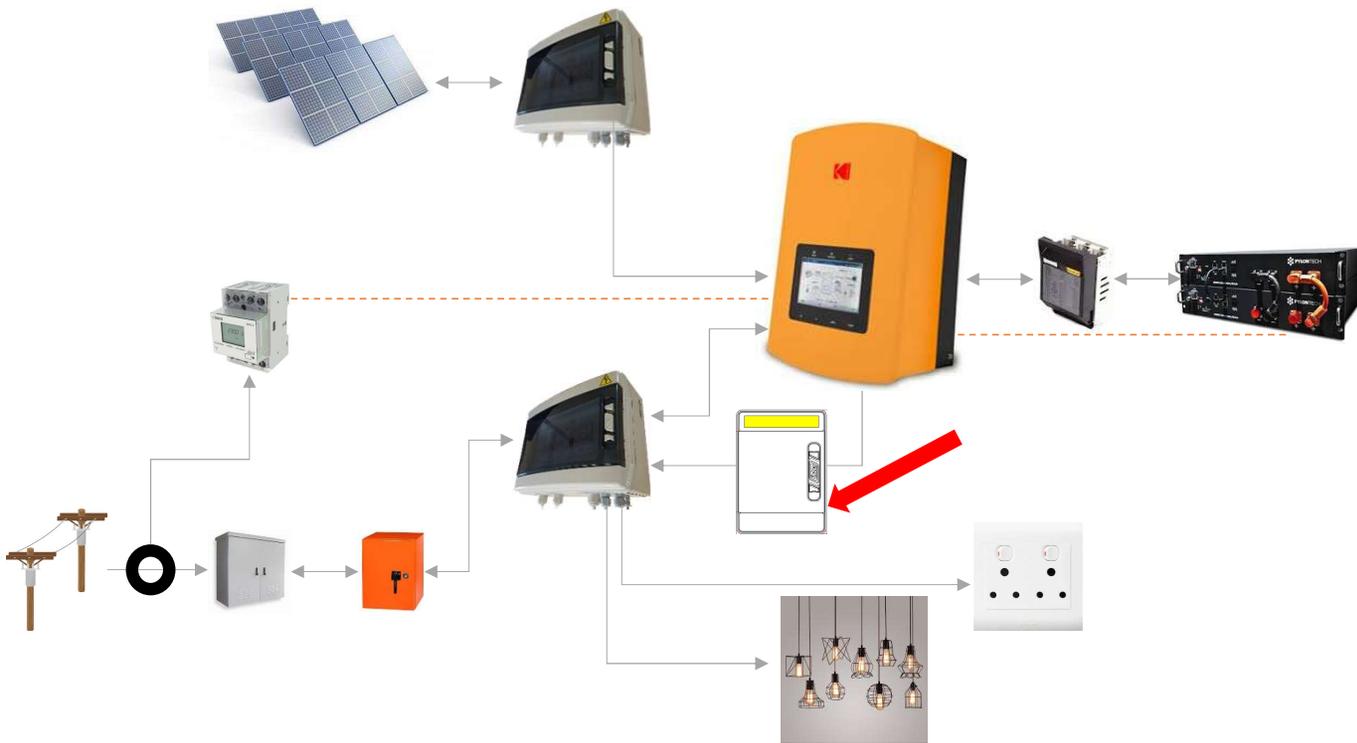


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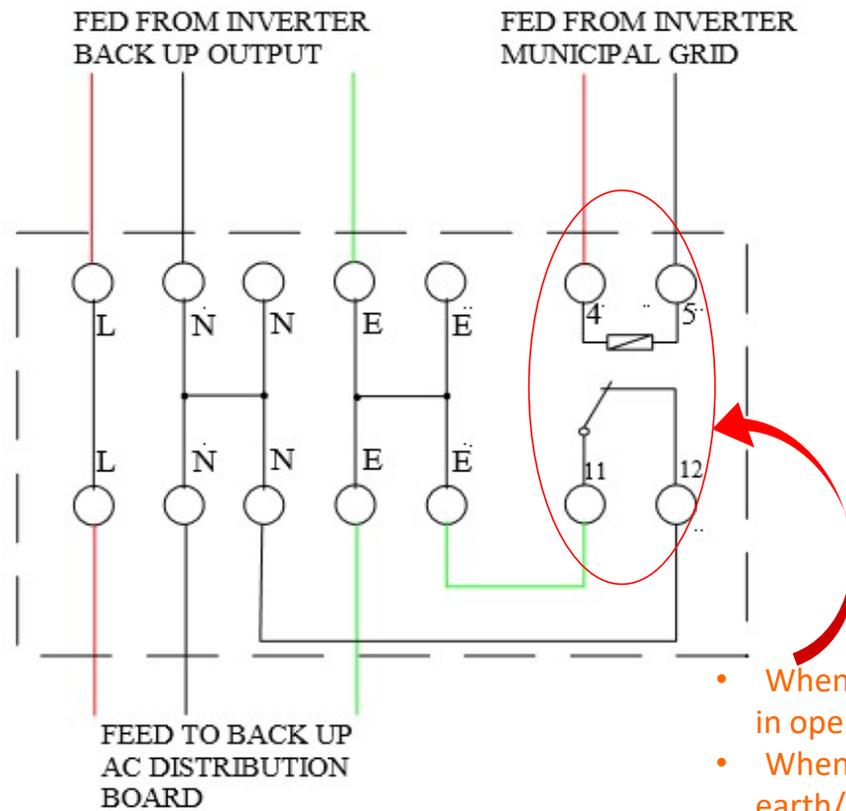
Testing for a floating neutral or elevated neutral

Inverter in back up mode with earth/neutral bridge board





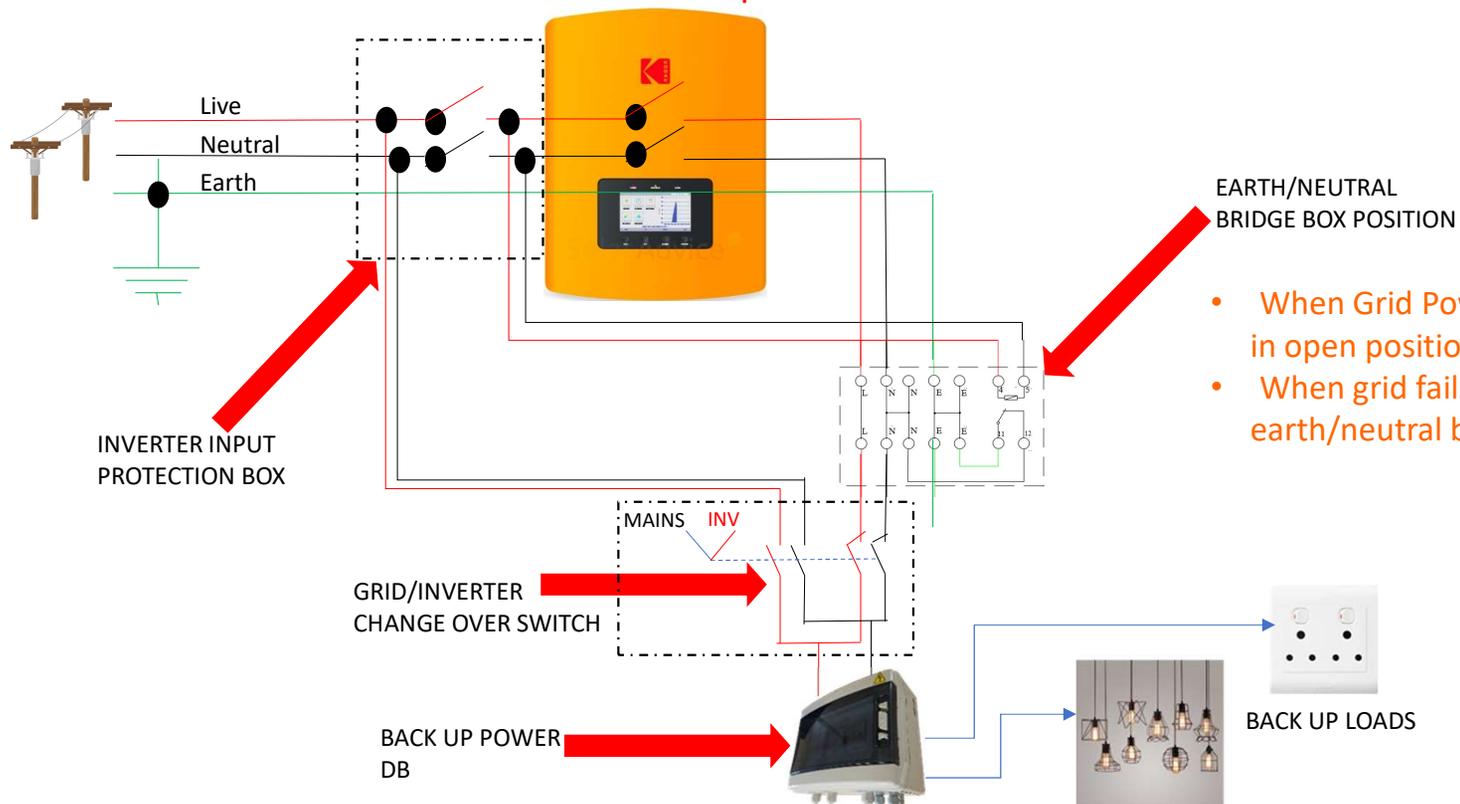
NEW AC EARTH NEUTRAL BRIDGE BOARD FOR RESIDENTIAL APPLICATIONS WIRING DIAGRAM OF EARTH NEUTRAL BRIDGE BOARD



NEW AC INEARTH NEUTRAL BRIDGE BOARD FOR RESIDENTIAL APPLICATIONS

PART NUMBER: ACDB-ARENB-25A

WIRING DIAGRAM- Inverter Output Power Selected- Grid Power OFF



EARTH/NEUTRAL
BRIDGE BOX POSITION

- When Grid Power is available relay is in open position
- When grid fails-relay closes and provides earth/neutral bridge

Thanks for Watching