Programming for HECO compliance
MICRO-0.25-I-OUTD-US-208/240
MICRO-0.3-I-OUTD-US-208/240
MICRO-0.3HV-I-OUTD-US-208/240
Introduction
This instruction provides the method to reprogram the products listed in Table 1 below to the Hawaii Electric Company, Inc. (HECO) ultra-fast trip transient over-voltage requirements (TrOV-2) and frequency voltage ride through (FVRT) mitigation requirements as described in the document “Appendix IIA Full Ride Through Settings for O’ahu, Maui, Hawai’i” dated January, 2015. Details of these requirements are available on the HECO website at: http://www.hawaiianelectric.com/vcmcontent/StaticFiles/pdf/TrOVandFVRT_Public_Feb2015.pdf.

Verification of inverters set to HECO requirements for the islands of O’ahu, Maui, and Hawai’i
ABB and Power-One branded inverters are compliant to the Full Ride Through setting and TrOV-2 requirements when they operate with the firmware version and grid standard settings specified in Table 1 below:

<table>
<thead>
<tr>
<th>Brand</th>
<th>Model</th>
<th>Firmware version</th>
<th>Inverter grid standard setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABB</td>
<td>MICRO-0.25-I-OUTD-US-208/240</td>
<td>- CDD supervisor firmware 2.3.7 or later</td>
<td>HAWAII240@60HzSplitPhCSA or HAWAII208@60HzCSA</td>
</tr>
<tr>
<td>ABB</td>
<td>MICRO-0.3-I-OUTD-US-208/240</td>
<td>- Inverter supervisor firmware C112 or later</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>- Inverter DSP firmware B159 or later</td>
<td></td>
</tr>
<tr>
<td>ABB</td>
<td>MICRO-0.3HV-I-OUTD-US-208/240</td>
<td>- CDD supervisor firmware 2.3.7 or later</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>- Inverter supervisor firmware C011 or later</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Inverter DSP firmware B101 or later</td>
<td></td>
</tr>
</tbody>
</table>

Table 1 - Brand/Model/firmware version/Inverter grid standard setting

Instruction for CDD and inverter firmware upgrade
If the firmware revision of the inverter is earlier than listed in Table 1 above, the inverter must be upgraded to the latest firmware before selecting the Hawai’i grid settings.

Equipment and software needed
- Computer with access to the Internet.
- MICRO-0.25/0.3/0.3HV-I-OUTD-US product manual for reference as needed, located at http://www.abb.com/abblibrary/DownloadCenter/ (search for "MICRO product manual").

Contact information
For answers to questions regarding reprogramming of inverters in this instruction, contact ABB solar inverter post-sales technical support at 1-877-261-1374, 6 a.m. – 6 p.m. MST.
Firmware Upgrade Procedure

Step 1
- Access the Aurora Vision site at http://www.auroravision.net/ and login with your credentials. See Figure 1 below.

Figure 1 Aurora Vision login

Step 2
- Once logged in, navigate to the “Plants --> Management” page of the Plant Portfolio Manager for your micro-inverter plant. See Figure 2 below.

Figure 2 Navigate to the “Plants -> Management page
Step 3

− Navigate to CDD details page by selecting the logger as shown in Figure 3 below.

Step 4

− Navigate to the Actions menu on the right-hand side of the page and click on the “Upgrade Firmware” link, as shown in Figure 4.
Step 5
- Access the Aurora Vision website at http://www.auroravision.net/ and login with your credentials. See Figure 5 below.

![Login with your credentials](image)

Figure 5 Navigate to the Aurora Vision website

Step 6
- Once logged in, navigate to the “Plants --> Management” page of the Plant Portfolio Manager for your micro-inverter plant. See Figure 6 below.

![Navigate to: Plants --> Management](image)

Figure 6 Navigate to the “Plants --> Management page
Step 7
- Navigate to CDD details page by selecting the logger as shown in Figure 7 below.

Navigate to the CDD details page under the micro-inverter plant name. The CDD can be identified from the Model designation “Concentrator Data” shown above.
Step 8
- Verify CDD firmware version. The designator “fwmicro” should be 2.3.7 or higher. See Figure 8 below.

```
<p>| | |</p>
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<td>Entity ID</td>
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</tr>
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<tr>
<td>Model</td>
<td>Concentrator Data Device</td>
</tr>
<tr>
<td>Firmware Version</td>
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<td>Logger</td>
</tr>
<tr>
<td>Serial Number</td>
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</tr>
<tr>
<td>Hardware Version</td>
<td>not set</td>
</tr>
</tbody>
</table>
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“fwmicro” designator should show version 2.3.7 or higher.
Step 9

- Select the grid standard installed on the CDD to the applicable Hawaii setting. See Figure 9 below.

Select the correct grid standard (HAWAI240@60HzSplitPhCSA or HAWAI208@60HzCSA) installed on the CDD in “Country Standard” under “Grid Connectivity”.

Figure 9 Select CDD's grid standard
Step 10

− Navigate to micro-inverter details page by expanding the CDD tree as shown in Figure 10 below.

Figure 10: Expand the CDD to navigate to the micro-inverter details page.

Navigate to the micro-inverter details page under the CDD. The micro-inverter can be identified by the model designation as shown above.
Step 11

Verify micro-inverter firmware version. See Figure 11 below. The firmware versions must be verified by inverter serial number, as follows:

S/N xxxxxx-3L03-xxxx:
- “fwmicro” should be C112 or later
- “fwdsp” should be B159 or later

S/N xxxxxx-3L05-xxxx:
- “fwmicro” should be C011 or later
- “fwdsp” should be B101 or later

Figure 11 Verify micro inverter firmware version

For more information please contact:
www.abb.com/solarinverters

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