

Reference: **Refurbished Rental Package Hardwired/MGDL Conversion Procedure**

Form No: **ACI-001** Rev: **00** (2/12/2020)

Applicable Models: **APS2000-RM | 3516B-RM | 3516C-RM | APS1000-RM | APS1000A-RM | APS800-RM | XQ400-RM | XQ400A-RM | XQ300A-RM**

SAFETY NOTE: ENSURE THAT ALL SAFETY INFORMATION, WARNINGS, AND INSTRUCTIONS ARE READ AND UNDERSTOOD THOROUGHLY, BEFORE ANY OPERATION, MAINTENANCE AND/OR REPAIR PROCEDURES ARE PERFORMED.

Procedure

1. Ensure the package will **not** start during this conversion procedure. **Leave genset control in the “off” position.** Refer to Caterpillar’s A&I guides (LEBE0031 and LEBE0007) for additional information.
2. Turn “on” batteries. From the EMCP 4.4 main screen, navigate as follows: **Configure / Paralleling Config / Paralleling / Multiple Genset Data Link.**
3. Select **Multiple Genset Control data Link Unit Number** and set the value to **1**. Note each consecutive unit; this number will increment by 1. It is possible to use any number up to 64 but is discouraged as in a communications failure; a higher number will slow down the operation of the unit.
4. Navigate to **Generator Dead Bus Arbitration** and change the value from “Hardwired” to “**Ethernet**”.
5. Navigate to **Generator Load Sharing and control** and change the **Generator Real Load Sharing Input Configuration** from “Hardwired” to “**Ethernet**”.
6. Also, change **Generator Reactive Load Sharing Input configuration** from “Hardwired” to “**Ethernet**”.
7. For installations requiring **Load Sense Load Demand** operation: Navigate to **Load Sense Load Demand** and change the value to “**Ethernet**”.
8. Configure any remaining parameters according to the units being paralleled together, considering the limitations of the entire system vs. the connected load(s).
9. Navigate back to the EMCP screen, which shows **Inputs and Outputs** and **select this item.** Navigate to **digital inputs** and then to **digital input #7**. Change Usage Type from “Auto paralleling Disable Command” to “**Disabled**”.

10. Press button for “**Event Log**” and navigate to the “**Genset Control**” then to the **MGDL Configuration Error event** and reset.
11. Navigate back to the Main Menu and then **View / Network Status / Multiple genset Data Link**. Confirm status indicates “**OK**”.
12. Turn “**off**” batteries. **Follow the same procedure on the next unit** but remembering to **increment the MGDL unit number** as stated in step 2 above. Turn “**off**” batteries after configuration is complete.
13. For **paralleling scenarios, involving only two (2) units, follow these steps:** Connect Ethernet cable to the RJ45 ports of both packages located in the customer connection load pan. Turn “**on**” batteries and confirm each unit status is displayed on the MGDL Overview screen of both units.
14. For **paralleling scenarios, involving more than 2 units, follow these steps:**
 - Install wiring from customer connection terminals, B- and B+ of each unit to be paralleled and then to the customer provided Ethernet switch. Refer to LEBE0031 for recommended Ethernet Switches.
 - Connect Ethernet cables from the RJ45 port of each unit to the Ethernet switch and then run on batteries of each connected unit and confirm each unit status is displayed on the MGDL Overview screen of all connected units.

Please contact Altorfer's Packaging Division with any questions regarding this conversion procedure.

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