4.2.7 Procedures for onsite modification

Procedures for upgrading the existing FCU with cabinet for RIO using A2CUKT3 are as described below.

- **FCU with cabinet (front)**

1. Check labels, tags, and destinations of all the field wiring.
2. Disconnect the cables connected to the door fan units and remove the front and rear doors of the cabinet.
3. Disconnect the cables in the order of the power supply, the processor module, and the FCU chassis.
4. Dismount the nests for I/O modules from the node and disconnect the field cables for curing.
   - AMN32 (*1), AMN33, AMN34, and AMN51: Remove cables from the I/O modules.
   - AMN21, AMN31, and AMN32 (*1): Remove the existing terminal board from the nest for I/O modules.
   - AMN11 and AMN12: Temporarily remove the wiring from M4 screw terminals as the terminal board and the nest are integrated.
5. Disconnect cables connected to the NIU, and dismount the NIU.
6. Replace the primary power distribution board and the main power distribution board.
7. Install new NIUs, FCU fan units, and FCU, then layout the cables.
8. Replace the HKU interface.
9. Install new multi-channel I/O modules and nest for I/O adaptor for RIO System Upgrade to the NIU.
10. Layout field wirings referring to the labels, tags, and destinations.
    - Multi-channel I/O modules (KS cable connection type): Connect KS cables.
    - Multi-channel I/O modules (terminal connection type): Mount terminal boards.
    - Nest for I/O adaptors: Connect the cables disconnected in step #4 with M4 screw terminals.
11. Replace the door fan assemblies and thermisters. Put the front and rear doors back on to the cabinet, and connect the door fan cable.

Note: The above procedure is an example and orders of some of the steps may be changed due to the conditions on site.

*1: Disconnect the KS cable from AMN32 when AMM12C, AMM22C, AMM25C, AMM32C, AMM32CJ, ADM11, ADM12, ADM51, and/or ADM52 are mounted. Remove the terminal board when AMM12T, AMM22M, AMM22T, and/or AMM22TJ are mounted.

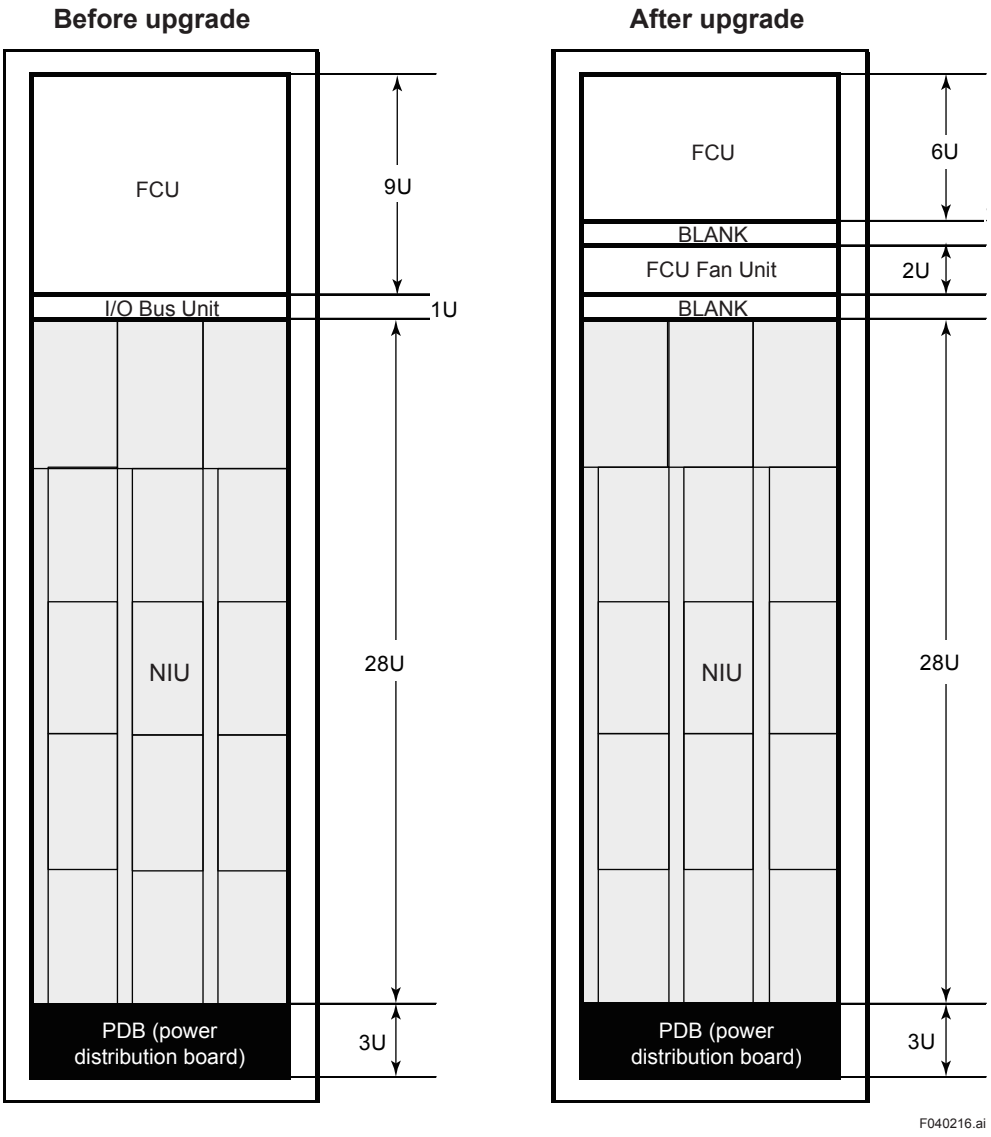

Figure FCU with cabinet before and after upgrading (Front)

FCU with cabinet (rear) and I/O expansion cabinet

1. Check labels, tags, and destinations of all the field wiring.
2. Disconnect the cables connected to the door fan units and remove the front and rear doors of the cabinet.
3. Dismount the nests for I/O modules from the node and disconnect the field cables for curing.
   - AMN32 (*1), AMN33, AMN34, and AMN51: Remove cables from the I/O modules.
   - AMN21, AMN31, and AMN32 (*1): Remove the existing terminal board from the nest for I/O module.
   - AMN11 and AMN12: Temporarily remove the wiring from M4 screw terminals as the terminal boards and the nests are integrated.
4. Disconnect cables connected to the NIU, and dismount the NIU.
5. Replace the primary power distribution board and the main power distribution board.
6. Replace the HKU, HKU interface, junction adapters, and fan power supply unit.
7. Install a new NIU and layout cables.
8. Mount multi-channel output modules and nests for I/O adaptors for RIO System Upgrade to the NIU.
9. Layout field wirings referring to the labels, tags, and destinations.
   - Multi-channel I/O modules (KS cable connection type): Connect KS cables.
   - Multi-channel I/O modules (terminal connection type): Mount terminal boards.
   - Nest for I/O adaptors: Connect the cables disconnected in step #3 with M4 screw terminals.
10. Replace the door fan assemblies and thermisters. Put the front and rear doors back on to the cabinet, and connect the door fan cable.

Note: The above procedure is an example and orders of some of the steps may be changed due to the conditions on site.

*1: Disconnect the KS cable from AMN32 when AMM12C, AMM22C, AMM25C, AMM32C, AMM32CJ, ADM11, ADM12, ADM51, and/or ADM52 are mounted. Remove the terminal board when AMM12T, AMM22M, AMM22T, and/or AMM22TJ are mounted.