ABB 1TGE120021R0810

01 Preserve the gateway application

1 Capture the network baseline

Retain CF application files, device addresses, serial-port settings and the host register map. Identify any redundant partner before removing the configured gateway.

2 Map physical port roles

Label LAN 1, LAN 2, Serial 1 and Serial 2 by their actual function. The M10x four-port connection is the field-master side, not the supervisory host interface.

LAN 1	Modbus TCP
LAN 2	Switchgear Control Network
Serial 1 / 2	Redundancy / Modbus RTU host

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02 Prepare power and CF storage

1 Verify power at the connection

Check the 24 VDC supply and its loaded voltage before energizing. Connect terminal 1 to +24 VDC and terminal 2 to 0 VDC according to the gateway marking.

2 Insert the configured media

Remove the power connector and open the CF cover. Use the correct industrial-grade card with mandatory application files, observing mechanical keying without forcing the card.

Permitted input	19–31 VDC
Maximum current	1000 mA
Operating environment	0–55 °C; IP51

03 Restore the M10x segments

1 Check termination and shielding

Preserve the RS-485 balanced pair and shield arrangement. The gateway end is internally terminated; fit the specified 120 Ω resistor at the far end of the segment.

2 Compare device settings

Check each M10x address, baud rate, parity and stop-bit configuration against its assigned gateway port. Resolve duplicate addresses or mismatched settings before host testing.

Field protocol	Modbus RTU
Typical default baud rate	38400
Required serial format	1 stop bit; even parity in M10x setup

04 Prove host communication

1 Separate transport from mapping

Confirm the selected host link first, then compare register values with known M10x states. Modbus TCP port 502 access alone does not establish correct byte order or device mapping.

2 Test controlled commands

Use the approved maintenance state to verify control-access selection and command registers. Confirm that a command reaches only its intended motor controller.

TCP server port	502
RTU host connection	Serial 2
Acceptance	Correct measurements and mapped commands

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05 Close network acceptance

1 Interpret status indications

Check power, run, fault and DCS-communication indicators with the loaded application. A running CF application and an active Ethernet link verify different parts of the chain.

2 Retain recoverable settings

Archive the final CF configuration, host register map and per-port device assignments. Restore the normal redundancy and network security configuration after testing.

Technical basis: ABB MNS Digital with M10x, Interface Manual Modbus, 1TGC908004M0201, Release 1.1, May 2018.

Related product navigation

ABB CPM810

ABB MEM86-3*192-CMBMR3

These are related references, not confirmed substitutes or an automatically approved assembly.