ABB PM253V01

01 Archive application and clock state

1 Archive application and clock state
2 Check controller resources
3 Reconstruct communication ports
4 Validate program and retained values
5 Hand back controlled operation

Work sequence

Retain the working project, I/O allocation and communication settings. Record the clock and battery condition before servicing the processor and establish the intended process stop state.

Acceptance condition

The application and retained state can be recovered independently of the removed unit.

Processor	Motorola MC68020
Clock frequency	16.7 MHz

Variant resource limit: The one-megabyte V01 execution supports a different I/O ceiling from PM253V02. Preserve the exact variant when budgeting the project.

Record the observed condition, test method and result for this stage. Resolve any difference before moving to check controller resources.

ABB PM253V01

02 Check controller resources

1 Archive application and clock state

2 **Check controller resources**

3 Reconstruct communication ports

4 Validate program and retained values

5 Hand back controlled operation

Work sequence

Confirm the V01 RAM and I/O limits against the project. Review power-module and backplane compatibility and inspect keying before inserting the processor.

Acceptance condition

The restored hardware supports the intended project without relying on another variant capacity.

Supported I/O units	32 maximum for V01
Floating-point coprocessor	Yes

Serial-port distinction: Channel 0 and channel 1 have different signals and roles; preserve the intended port and handshake arrangement.

Record the observed condition, test method and result for this stage. Resolve any difference before moving to reconstruct communication ports.

ABB PM253V01

03 Reconstruct communication ports

1 Archive application and clock state

2 Check controller resources

3 **Reconstruct communication ports**

4 Validate program and retained values

5 Hand back controlled operation

Work sequence

Reconnect SattBus and the two serial channels according to the retained signal assignments. Match serial framing and handshake requirements at both ends and inspect cable condition.

Acceptance condition

Each communication partner uses the intended port and settings.

Serial rate	75–38400 baud; 9600 default
Serial cable length	15 m maximum

Retention planning: Keep verified backups before battery or processor service. Validate both retained application state and real-time clock.

Record the observed condition, test method and result for this stage. Resolve any difference before moving to validate program and retained values.

ABB PM253V01

04 Validate program and retained values

1. Archive application and clock state
2. Check controller resources
3. Reconstruct communication ports
4. **Validate program and retained values**
5. Hand back controlled operation

Work sequence

Restore the approved application and check critical retained values and time-dependent behavior. Review Power, Fail, Stop and communication indications while exercising representative process paths.

Acceptance condition

Program, clock and communication states agree with the expected installation.

Internal current	0.6 A maximum from 200-PSMG/PSSG
Operating temperature	+5 to +55 °C

Variant resource limit: The one-megabyte V01 execution supports a different I/O ceiling from PM253V02. Preserve the exact variant when budgeting the project.

Record the observed condition, test method and result for this stage. Resolve any difference before moving to hand back controlled operation.

ABB PM253V01

05 Hand back controlled operation

1 Archive application and clock state

2 Check controller resources

3 Reconstruct communication ports

4 Validate program and retained values

5 Hand back controlled operation

Work sequence

Return the process to normal control after interlocks and I/O checks pass. Retain the tested project version, battery condition, serial settings and final controller state.

Acceptance condition

The service record identifies a recoverable configuration and its accepted process behavior.

Channel 0 signals	TD, RD, RTS, CTS, DCD and DTR
Channel 1 signals	RD and TD

ABB PM864AK02 3BSE018164R1

ABB PM632 3BSE005831R1

ABB PM864AK01-3BSE018161R1

Related products require separate compatibility assessment. Retain the final configuration and signed test outcome.