

CUSTOMER DOCUMENT

Preventive maintenance schedule

MEGADRIVE-LCI

Overview

The recommended intervals for drive inspection and component replacement are based on the maximum ratings for the operational and environmental conditions.

To ensure the highest reliability and optimum performance of your drive, ABB highly recommends regular inspections by qualified personnel. Such inspections are crucial in detecting performance related issues due to the potential premature aging of components.

ABB drives have been designed to continuously operate for long periods of time between maintenance and inspection intervals. If the recommended maintenance or inspection schedule is inadequate for a particular application, a project specific schedule may be developed by mutual agreement, preferably during the sales phase.

This document is applicable for both cooling variants of MEGADRIVE-LCI – air-cooling and water-cooling. Some inspection actions or replacement parts may be only applicable to one of the two cooling variants.

For more detailed maintenance information, see the product manuals.

Legend

I	Inspection (visual inspection and maintenance action if required)
P	Performance of on-site work (commissioning, tests, measurements or other work)
R	Preventive replacement

Regular inspection

The following table contains an overview of the most relevant inspection checks for the drive. ABB recommends that inspections be carried out whenever the drive has been shut down, i.e., to replace components or for any other field intervention.

Inspection action	Interval [years]	Inspection Type
Filter mats (cleaning or replacement)	2	I or R
Cleaning of inlet and outlet meshes	2	I
Cleaning of sensitive parts inside the converter	2	I
Environmental and operational data (since last inspection)	2	I
Screwed connections	2	I
Corrosion and overheating	2	I
Pipe joints and water tube connectors	2	I
3-way valve	2	I, P
Bypass disconnecter	1 (1000 op. cycles)	I, P
Door interlocking	2	P
Insulation test	4	P
Spare parts	2	I
Software backup	2	I
Safety circuits	2	I

Preventive replacement schedule

The following table highlights the recommended replacement intervals for drive components, starting from the completion date of the commissioning¹.

This scheduled can be adapted and optimized for applications that require non-stop operation of the drive over several years. To discuss the available options, please contact your ABB sales representative.

Years from commissioning:	2	4	6	8	10 ²	12	14	16	18
Fans ³			R			R			R
Maintenance-free water pumps (no redundancy)						R			
Maintenance-free water pumps (with redundancy)									
Conventional water pumps (no redundancy)		R		R		R		R	
Mechanical seal of conventional water pumps ⁴ (no redundancy)	R		R		R		R		R
Conventional water pumps (with redundancy)				R				R	
Mechanical seal of conventional water pumps ⁴ (with redundancy)		R				R			
Deionizer cartridge and micro filter ³	R	R	R	R	R	R	R	R	R
Rubber hoses				R				R	
PCBA (containing electrolytic capacitors)					R				
Power supplies (AUX and insulated supply)					R				
Excitation fuses					R				

Foot notes:

- 1 The start date for the preventive replacement schedule is the commissioning completion date or 2 years after delivery, whichever comes first.
- 2 Due to the shorter life cycle of the control hardware, ABB strongly recommends combining the main board upgrade (if available) with the 10-year preventive maintenance.
- 3 The fans in the control cabinet, the deionizer cartridge and the micro filter can be changed during operation.
- 4 The mechanical seals in conventional water pumps have a maintenance interval of 2 years, which corresponds to their life expectancy. In the case of pump redundancy, this maintenance interval is doubled, i.e., every 4 years. The replacement of mechanical seals is not required in the years that require pump replacement.

The drive has been designed for a lifetime of 20 years. However, if the drive is operated according to ABB's instructions in a location where the environment parameters are below the rated limits for the drive, it is also suitable for applications of up to 40 years. In order to guarantee the highest drive reliability during this longer period, a site audit is required 20 years after commissioning to define the specific maintenance actions that need to be taken.

For more information please contact:

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