MITSUBISHI ELECTRIC

COMPUTER ROOM AIR CONDITIONER

s-MEXT-G00

Service Guideline

SG_s-MEXT_G00_00_Z_07_21_EN

EN

		Periodic inspection (one year cycle)		
Component		Contents of inspection	Inspection method	Evaluation criteria (standard)
A	Decorative panel (design portion)	Dirt/scratches check	Visual inspection	No significant dirt, scratches, deformation
B	Frame and bottom plates	Check for rust or peeled off insulation material Check for paint film peeling off or blistering	Visual inspection	No significant rust or damage in the insulation material
C	Panel insulation	Check for status of insulation	Visual inspection	No lack or detachment of the material
D	Filter (2) (3)	Visually inspect for dirt or failure	Visual inspection	Filter material is visible No failure or deformation
E	Fan casing	Visually check for run-out and balance Check appearance and presence of stuck dust	Visual inspection Visual inspection	No significant run-out No significant rust, no deformation
F	Fan motor	Check by listening to noise Measure insulation resistance	Auditory inspection 500 V Mega-ohmmeter	No abnormal noise 1MΩ or more
G	Temperature sensor	Check for good indication, appearance	Visual inspection	Value indicated is correct. No cracks or discoloration
H	Air differential pressure switch	Loose terminal screws, appearance	Screwdriver, visual inspection	No loosening No foreign matter deposit
I	Graphic display	Check visually all the digits and lights are functioning	Visual inspection	No fault display
J	Microprocessor boards	Check visually for stuck dust on the circuit board	Visual inspection	No foreign matter deposit
K	Flooding detector	Loose terminal screws, appearance	Screwdriver, visual inspection	No loosening No foreign matter deposit
L	Flooding sensor	Loose terminal screws, appearance	Screwdriver, visual inspection	No loosening No foreign matter deposit
M	Pressure sensor	Check for good indication, appearance	Visual inspection	Value indicated is correct. No cracks or discoloration
N	Fire detector	Loose terminal screws, appearance	Screwdriver, visual inspection	No loosening No foreign matter deposit
O	Smoke detector	Loose terminal screws, appearance	Screwdriver, visual inspection	No loosening No foreign matter deposit

[1] The indicated year durations refer to IT Cooling operation without frequent start/stop, assuming an operation of 24 hours per day and 8.760 hours per year.

[2] The inspection period of the filter is basically set to one month, but since the degree of contamination varies depending on the type of filter and the operating environment, please inspect it at time intervals you deem appropriate to the operating environment.

[3] Wear and tear parts

Preventive maintenance			Year duration (1)													
Maintenance details		Maintenance cycle	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A	Wash with a mild detergent, apply additional paint	8 years															
B	In case the insulation material peels off, repair or reapply Apply additional paint	8 years															
C	Replace in case of damage Reattach in case of detachment	8 years															
D	Clean when dirty Replace when broken	2 years															
E	Replace in case of significant run-out or unbalance In case of high extent of stuck dust, clean with a brush or wash with water	13 years															
F	Replace bearing if the sound is loud Replace motor if equal or less than 1MΩ	25.000 hrs If redundant															
G	In case of malfunctioning, if not possible to calibrate, replace	5 years															
H	Retighten if loose. In case the foreign matter deposit is stuck, clean it	5 years															
I	In case of faulty, replace part	10 years															
J	In case the foreign matter deposit is stuck, clean with a brush	10 years															
K	Retighten if loose. In case the foreign matter deposit is stuck, clean it	10 years															
L	Retighten if loose. In case the foreign matter deposit is stuck, clean it	5 years															
M	In case of malfunctioning, if not possible to calibrate, replace	5 years															
N	Retighten if loose. In case the foreign matter deposit is stuck, clean it	10 years															
O	Retighten if loose. In case the foreign matter deposit is stuck, clean it	10 years															

Description of symbols

graphical element which indicates the period where the failures are random

Random failure is an unexpected sudden failure occurring during the period of durability of the part or system and before the progress of wear and tear, for which technical measures are difficult to carry out, and at the time of occurrence can only be addressed on a statistical basis

graphical element which predicts the starting point of the failures due to wear and tear, and shows the trend of failure ratio increase along the years.

: Adjust or clean according to inspection result

: If anomalies occur after inspection, repair or replace components

: Replace on a regular basis (wear parts)

		Periodic inspection (one year cycle)		
Component		Contents of inspection	Inspection method	Evaluation criteria (standard)
P	Drain pan	Check for clogged residual dust, check if drain water flows properly Check for paint film peeling off or blistering	Visual inspection	No clogging in drainage No abnormal rust, no holes
Q	Air heat exchanger	Check for dust clogging or damages Gas leakage	Visual inspection Gas detector	No clogging, no damage No leakage detected
R	Onboard pipes	Resonance, contact or corrosion of on-board pipes Contact or resonance in the capillary tube	Visual inspection Visual inspection	No abnormal resonance, sound or corrosion No abnormal resonance or contact wear
S	Onboard pipes	Check for status of insulation	Visual inspection	No lack or damage of the material
T	Terminal block	Loose terminal screws	Screwdriver, visual inspection	No loosening
U	Auxiliary electrical heaters	Appearance of external heat-generating parts Check insulation resistance Stuck dust	Visual inspection 500 V Mega-ohmmeter Visual inspection	No damage or deformation 1MΩ or more No stuck dust
V	Safety thermostat for electrical heaters	Appearance	Visual inspection	No damage, specially on the electrical connection
W	Steam humidifier (3) (4)	Check condition of the humidifier and of steam supply Dirt in the evaporation tank	Visual inspection	Steam generation occurs in accordance to standards
X	Humidity sensor	Check for good indication, appearance	Visual inspection	Value indicated is correct. No cracks or discoloration

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[2] The inspection period of the filter is basically set to one month, but since the degree of contamination varies depending on the type of filter and the operating environment, please inspect it at time intervals you deem appropriate to the operating environment.

[3] Wear and tear parts

[4] The inspection period of the humidifier cylinder is basically set to one month, but it depends on the water quality

Preventive maintenance			Year duration (1)													
Maintenance details		Maintenance cycle	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
P	Drain pan cleaning and inclination check Apply additional paint, if necessary replace drain pan	8 years															
Q	Clean air inlet if clogged If gas leakage is detected, repair or replace	13 years															
R	Replace o rework pipes in case of significant corrosion Replace or rework pipes in case of significant wear	13 years															
S	Replace or repair in case of damage	10 years															
T	Retighten if loose.	10 years															
U	Replace if damaged or deformed Replace if equal or less than 1MΩ Clean in case of dust adhesion	8 years															
V	Replace in case of damage	5 years															
W	Remove clogging and dirt	2 years															
X	In case of malfunctioning, if not possible to calibrate, replace	5 years															

Description of symbols

graphical element which indicates the period where the failures are random

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graphical element which predicts the starting point of the failures due to wear and tear, and shows the trend of failure ratio increase along the years.

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MITSUBISHI ELECTRIC HYDRONICS & IT COOLING SYSTEMS