1 SERVO MOTOR MAINTENANCE

1.1 SERVO MOTOR MAINTENANCE PARTS

1.1.1 Pulsecoder

The following lists the ordering specification numbers for maintenance.

(1) Pulsecoder: ordering specification

Motor model	Motor specification		Pulsecoder: ordering specification		
αiS series αiF series	A06B-02aa-BccX (aa, cc : Any)	X=0	A860-2000-T301	αiA1000	Standard specification
		X=1	A860-2005-T301	αiI1000	Standard specification
		X=2	A860-2001-T301	αiA16000	Standard specification
	A06B-02aa -BccX #0100 (aa, cc : Any)	X=0	A860-2000-T321	αiA1000	IP67 specification
		X=1	A860-2005-T321	αiI1000	IP67 specification
		X=2	A860-2001-T321	αiA16000	IP67 specification

(2) Oldham's coupling: ordering specification

Motor model	Motor specification	Oldham's coupling: ordering specification
αiS series αiF series	A06B-02aa-BccX (aa, cc, X : Any)	A290-0501-V535

1.1.2 Cooling Fan

The following lists the ordering specification numbers of cooling fan units.

αiS 50 with Fan, αiS 60 with Fan, αiF 40 with Fan

Motor model	Model name	Motor specification	Fan unit: ordering specification	Remark
αiS series αiF series	αiS 50/3000 with Fan αiS 50/3000HV with Fan	A06B-0275-BXaX A06B-0276-BXaX (X :Any, a=1 or 3)	A06B-0241-K053	200VAC 1-phase
	αiS 60/3000 with Fan αiS 60/3000HV with Fan	A06B-0278-BXaX A06B-0279-BxaX (X :Any, a=1 or 3)		
	αiF 40/3000 with Fan	A06B-0257-BXaX (X :Any, a=1 or 3)		

αiS 100 to αiS 500

Motor model	Model name	Motor specification	Fan unit: ordering specification	Remark
αiS series	αiS 100/2500 with Fan αiS 200/2500 with Fan αiS 300/2000 αiS 500/2000	A06B-0285-BX1X A06B-0288-BX1X A06B-0292-BX1X A06B-0295-BX1X (X : Any)	A290-0281-V053	200VAC 3-phase
	αiS 100/2500HV with Fan αiS 200/2500HV with Fan αiS 300/2000HV αiS 300/3000HV αiS 500/2000HV αiS 500/3000HV	A06B-0286-BX1X A06B-0289-BX1X A06B-0293-BX1X A06B-0290-BX1X A06B-0296-BX1X A06B-0297-BX1X (X : Any)	A290-0281-V054	400VAC 3-phase

αiS 1000HV to αS 3000HV

Motor model	Model name	Motor specification	Fan unit: ordering specification	Remark
αiS series	αiS 1000/2000HV	A06B-0298-BX1X (X : Any)	A290-0298-V054	AC400V 3-phase
	αiS 1000/2000HV	A06B-0098-BXXX (X : Any)	A290-0098-V051	
	αiS 1000/3000HV	A06B-0099-BXXX (X : Any)	A290-0098-V050	
	αiS 2000/2000HV αiS 3000/2000HV	A06B-0091-BX4X A06B-0092-BX4X (X : Any)	A290-0091-T054	

1.2 REPLACING COOLING FANS

This section describes how to replace cooling fan units.
For each motor, replace the cooling fan unit according to the procedure.

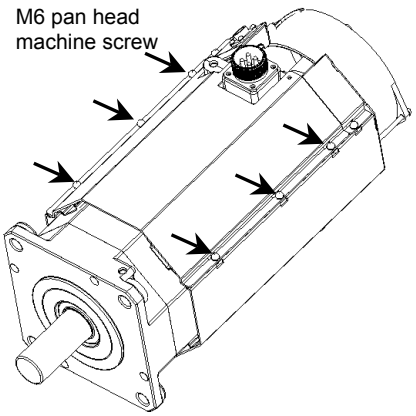
> ⚠ **CAUTION**
> Before replacing a fan motor, remove the power lead to the fan motor and check that the rotation of the fan motor stops.
> If the load on the fan motor is high or an invalid phase sequence is made for a 3-phase fan motor, the fan motor may overheat and stop. If the power lead is connected, the fan motor suddenly starts rotating when recovered from overheating.

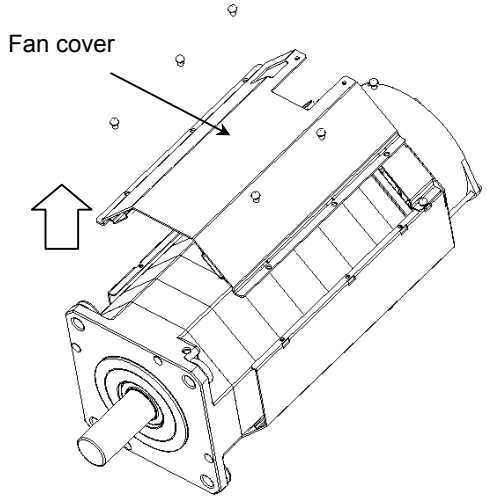
1.2.1 Replacing a Cooling Fan

1.2.1.1 αiS 50 with Fan, αiS 60 with Fan, and αiF 40 with Fan

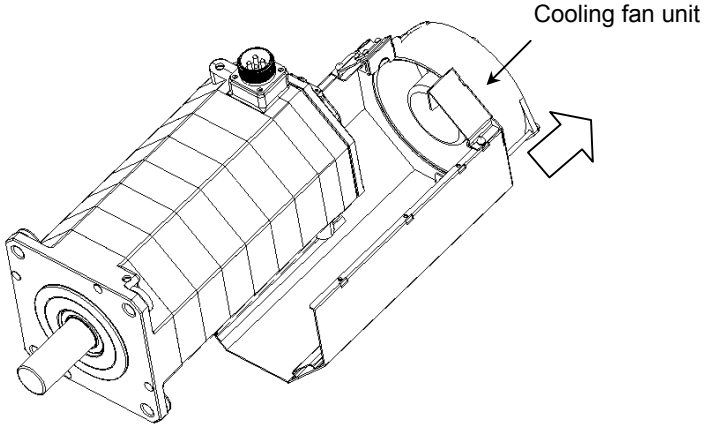
(1) Removing a cooling fan unit

<1> Remove six M6 pan head machine screws fastening the fan cover and remove the front fan cover. You need only to loosen the pan head machine screws indicated by the arrow in the figure.



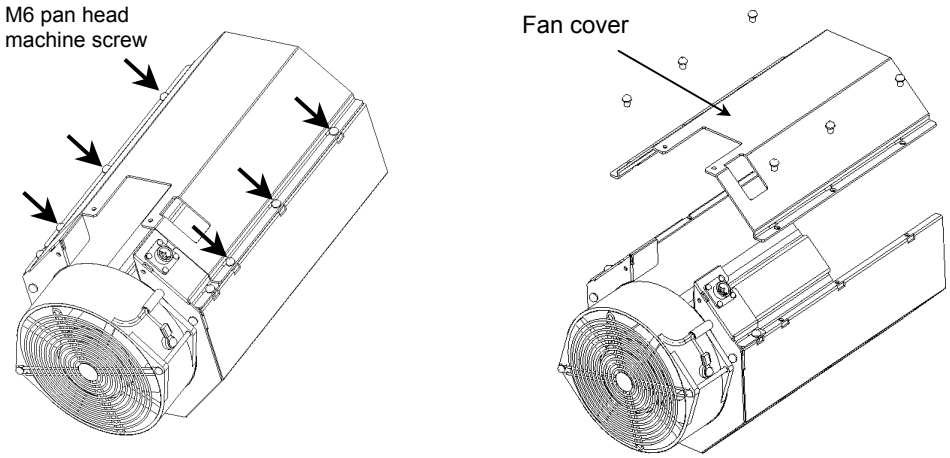


<2> Remove the cooling fan unit from the motor.

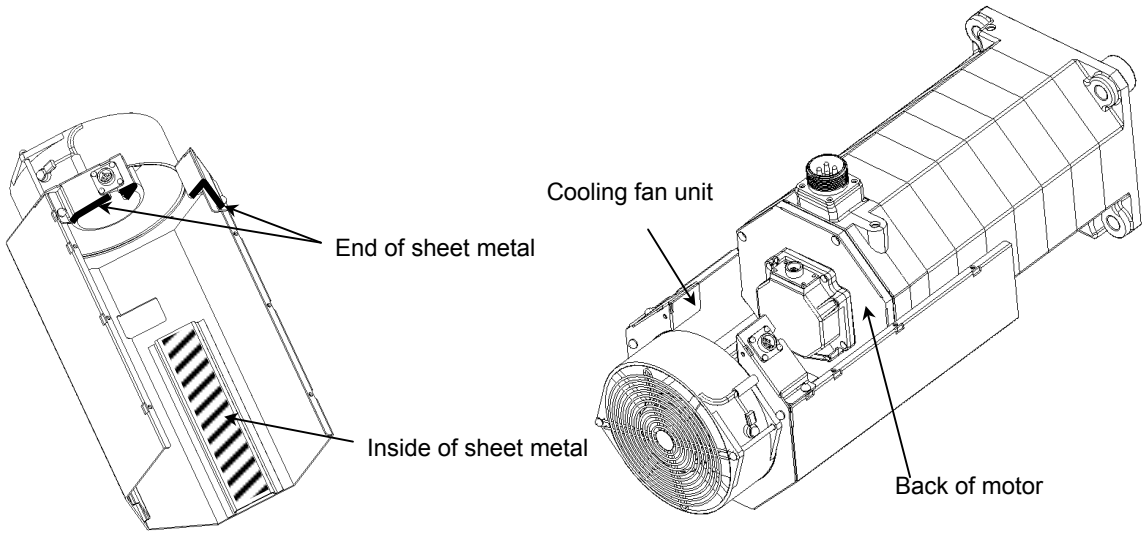


(2) Mounting a cooling fan unit

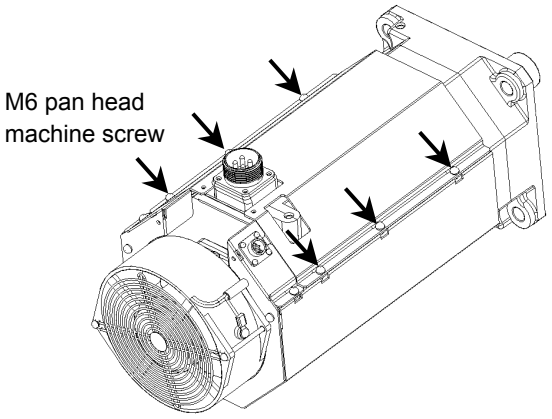
<1> Remove six M6 pan head machine screws from a new cooling fan unit and remove the front fan cover.
You need only to loosen the pan head machine screws indicated by the arrow in the figure.



<2> Assemble the cooling fan unit and motor.
Align the inside of the sheet metal of the cooling fan unit with the side of the motor and touch the end of the sheet metal with the back of the motor. (See the figure below.)



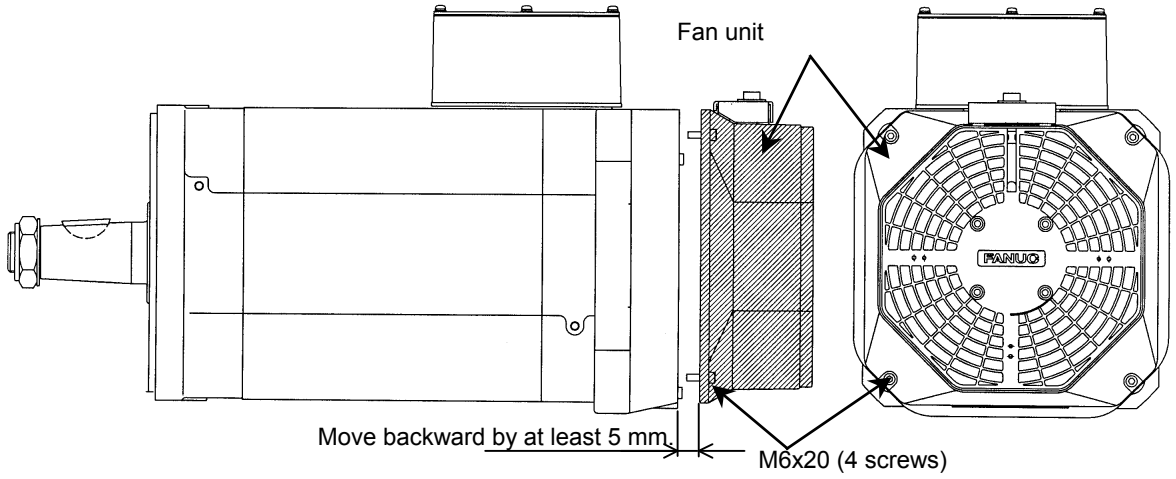
<2> Mount the fan cover and tighten the six M6 pan head machine screws.
(Appropriate torque: 2.5 to 2.8 Nm)



1.2.1.2 αiS 100 with Fan and αiS 200 with Fan (including HV)

(1) Removing a cooling fan unit
Remove the four M6 hexagon socket head cap screws fastening the fan unit and remove the fan unit.

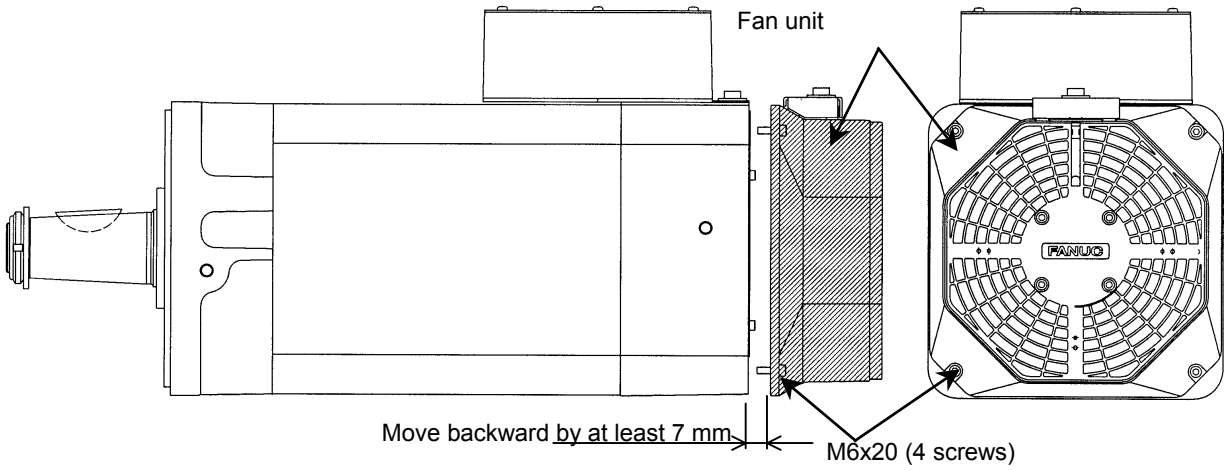
(2) Mounting a cooling fan unit
Apply adhesive for fastening (moderate strength) to the four M6 hexagon socket head cap screws and mount the fan unit. (Appropriate torque: 3.0 to 3.5 Nm)



1.2.1.3 αiS 300 and αiS 500 (including HV)

(1) Removing a cooling fan unit
Remove the four M6 hexagon socket head cap screws fastening the fan unit and remove the fan unit.

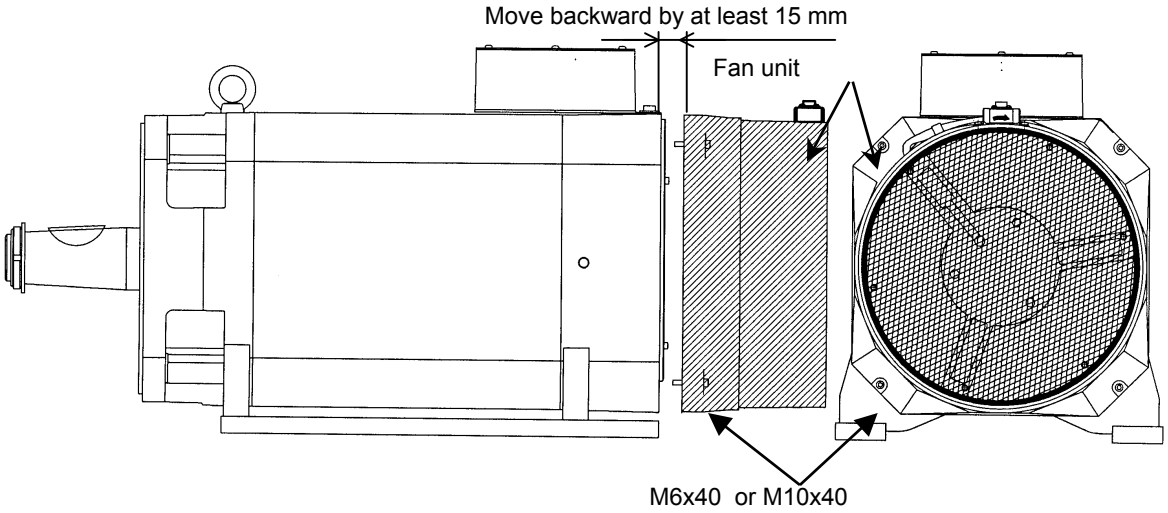
(2) Mounting a cooling fan unit
Apply adhesive for fastening (moderate strength) to the four M6 hexagon socket head cap screws and mount the fan unit. (Appropriate torque: 3.0 to 3.5 Nm)



1.2.1.4 αiS 1000HV

(1) Removing a cooling fan unit
Remove the four hexagon socket head cap screws fastening the fan unit and remove the fan unit.
M6x40: 4 screws (A06B-0298-BXXX)
M10x40: 4 screws (A06B-0098-BXXX, A06B-0099-BXXX)

(2) Mounting a cooling fan unit
Apply adhesive for fastening (moderate strength) to the four hexagon socket head cap screws and mount the fan unit.
Appropriate torque: 9.6 to 13Nm (M6), 19 to 26Nm (M10)



1.2.1.5 αiS 2000HV and αiS 3000HV

(1) Removing a cooling fan unit
Remove the eight M6 hexagon socket head cap screws fastening the fan unit and remove the fan unit.

(2) Mounting a cooling fan unit
Apply adhesive for fastening (moderate strength) to the eight M6 hexagon socket head cap screws and mount the fan unit. (Appropriate torque: 9.6 to 13 Nm)

