

ASTERO® Brake Pack Maintenance Manual

- The gear head and motor should be handled, installed and maintained by trained technicians. Carefully read this manual and all accompanying documents before use.
- A copy of this manual should be sent to the actual user of the gear unit.
- This manual should be maintained by the user.

1. Safety and other precautions

**CAUTION**

General

- The gear head and motor should be operated only within its name plate and catalogue ; otherwise, electric shock, injury or damage to a system may occur.
- Keep hands and all foreign objects from the internal moving part of the gear unit and motor; otherwise, electric shock, injury, fire or damage to a system may occur.
- Damaged units should be taken off-line; otherwise, injury or fire may occur.
- Do not remove the nameplate.
- Any modifications or alterations of any kind, to the unit, will void the warranty and all subsequent claims.

Transport

- Exercise ample care not to drop the unit and fall during transport.

Installation

- Do not place any inflammables around the gear head and motor; otherwise, fire may result.
- Do not place any objects that will hinder ventilation around motor; otherwise, cooling effect is reduced, and may lead to a possible fire hazard and a burn due to excessive heat built-up.
- Do not touch the key way at the shaft end or on the inside of the dear unit and motor; otherwise, injury may result.
- When the unit is used in food processing applications vulnerable to oil contamination, install an oil pan or other such device to cope with rare oil leaking. Otherwise, oil leakage may damage products.

Coupling with other machines

- Install appropriate guard devices around rotation parts ; otherwise, injury may result.
- Confirm the direction of rotation before coupling the unit with its driven machine. Difference in the direction of rotation may cause injury or damage to the system.

Wiring

- Do not touch lead wire when measuring the insulation resistance. Electric shock may result.

**DANGER**

Wiring

- Connect a power cable to the motor according to the connection diagram or maintenance manual; otherwise, electric shock or fire may result.(Without terminal box, exercise insulation in the connecting part.)
- Do not forcibly curve, pull or clamp the power cable and lead wires; otherwise, electric shock may result.
- Correctly ground the grounding bolt; otherwise, electric shock may result.
- Use power source stated in the nameplate; otherwise, motor's burning or fire may result.

Operation

- Never approach or touch any rotating parts (shaft, etc.) during operation; otherwise, loose clothing caught in these rotation parts may result in severe injury.
- When the power supply is interrupted, be sure to turn off the power switch. Unexpected resumption of power may cause injury or damage to the equipment.

Daily inspection and maintenance

- Never approach or touch any rotating parts (shaft, etc.) during maintenance ; otherwise, loose clothing caught in these rotating parts may result in severe injury.

Inspection upon delivery

- Verify that the unit received is in fact the one ordered. When a different product is installed, injury or damage to the system may result.

2.Brake pack characteristics

Sumitomo's brake packs are non contact types that can instantly stop induction motors or reversible motors by electronic braking. The motor alone can be stopped in less than about 0.1 second. A braking current is applied to the motor for about 0.4 second, then the motor's input power supply is automatically shut off. Unlike electromagnetic brakes, brake packs don't store torque. Since they have no parts to generate mechanical friction, they have long lives. To control a motor using brake packs, a DC power supply for the signal is required (12~24VDC, 0.1A or larger).

3.Standard specifications

Item	BASA,BASAB	BASC,BASCB	BASD,BASDB	BAMC
Rated Voltage Frequency	Single-phase			Three-phase
	AC100V 50/60Hz,AC110V 60Hz	AC200V 50/60Hz,AC220V 60Hz	AC220V-240V 50Hz	AC200V/220V 50/60HZ
Range of Voltage	±10%			
Input signals	Non Contact Type(Photocoupler input)			Contact Type
	DC12V-DC24V(±10%)			
	CW,CCW,FREE			
Ambient temperature	-10°C-+40°C			
Ambient humidity	Under 85%RH with no condensation			
Insulation resistance	At least 100MΩ when measured with a DC500V megger between the brake pack's power terminal and signal input terminal, at nomal temperature and humidity when the brake pack has reached its rated operation.			
Insulation with stand voltage	No malfunction when a 1500V, 50/60Hz current is applied between the brake pack's power terminal and signal input terminal for 1 minute at normal temperature and humidity when the brake pack has reached its rated operation.			

Note) When using FREE input, connect the open corrector of low leakage corrent.

4.Panel display and switches

BAMC doesn't need to turn the switch.

Input signal display

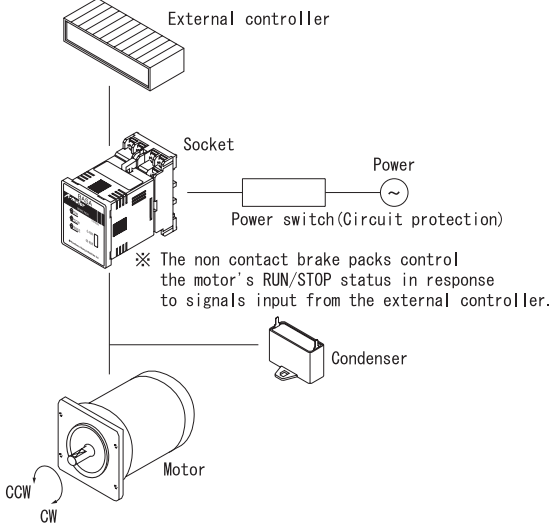
CW	Lights when CW signal is input.
CCW	Lights when CCW signal is input.
FREE	Lights when FREE signal is input.

Motor output switches

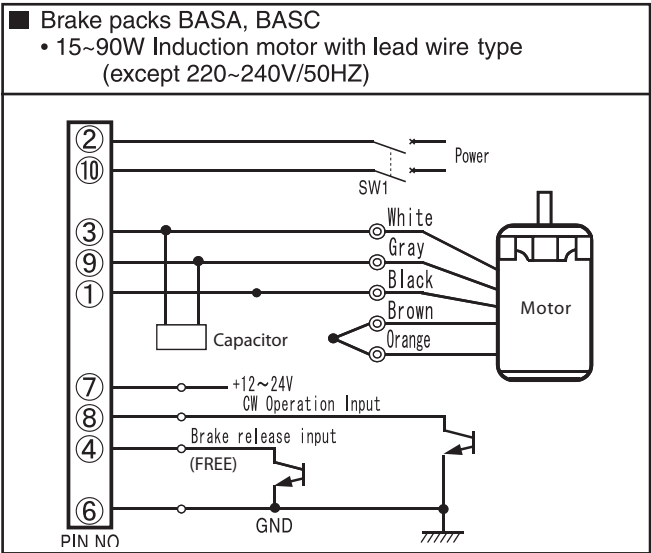
6~40W	■ Set to the 6~40W position when a 60~90W motor is connected.
60~90W	□ Set to the 60~90W position when a 60 or 90W motor is connected.

The switch is set to the 60~90W position at shipment.

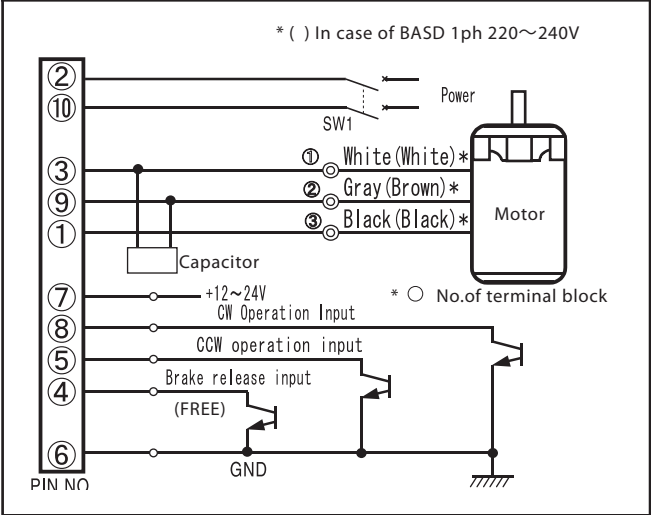
5.System configuration



6. Wiring Diagram



- Brake packs BASD
- 6~90W Induction motor (220~240V/50HZ) with lead wire type & terminal box type
- Brake pack BASA, BASC, BASD
- 6~90W Reversible motor with lead wire type & terminal box type



- Brake packs BASAB, BASCB,BASDB
- W/Electromagnetic Brake Motor

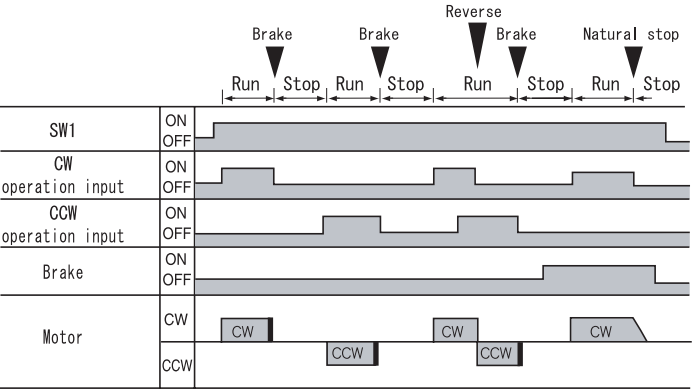
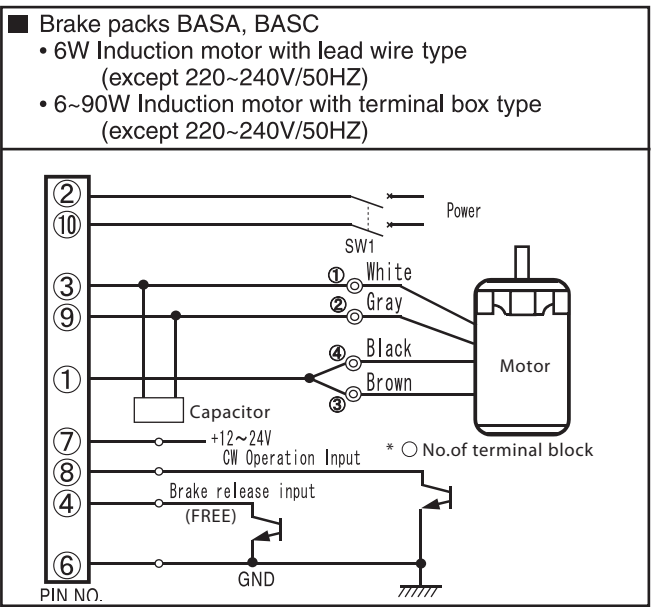
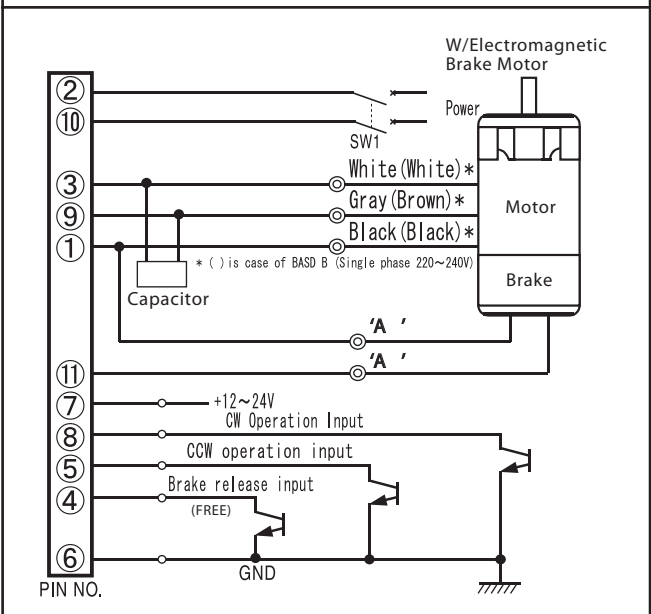


Fig.1 Example of running operation

Voltage	Lead wire
Single-phase100V-110V	'A' Blue
Single-phase200V-240V	Orange

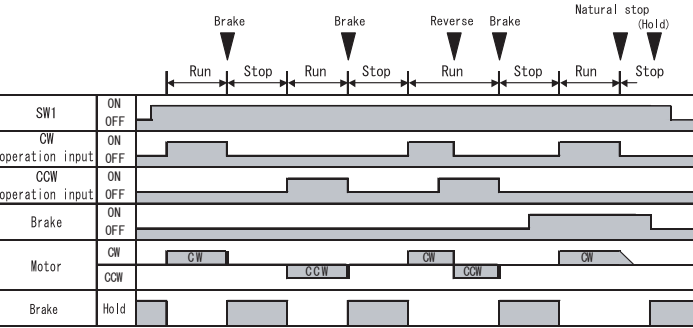


Fig.2 Example of running operation

