

Bulletin 1334 Series A Connection Guide 15-25 Horsepower

Installation

The START/STOP control circuitry in the Bulletin 1334 is Emergency STOP composed of solid state components. If hazards due to accidental contact with rotating or sliding machine components exist, NEMA Standards require that a hard wired emergency stop circuit be used with this Drive. Use a device that removes AC input power when an emergency stop is initiated. After an emergency STOP has been initiated, allow at least (10) seconds to elapse before reapplying AC input power to the Drive.

Typical Customer Supplied Emergency STOP Control Scheme for Standard 3 Phase NEMA Design B Induction Motors For applications other than standard NEMA Design B motors, consult your nearest Allen-Bradley Distributor or Sales Office.

WARNING

Bulletin 1334 Drives have a ground lug labeled 1 GP provided at the top of the Drive back panel. To guard against equipment damage or injury to personnel, this ground lug must be connected to earth ground as shown. Additionally, the motor frame must

CAUTION

The use of contactors between the output of the Bulletin 1334 and the motor may cause damage to the Drive and is not recommended. If your application mandates the use of output contactors, consult your nearest Allen-Bradley Distributor or Sales Office.

CONTROL WIRING

The following information references control wiring, either factory supplied or field installed. All control wiring should be connected as shown in the following interconnection diagrams.

TERMINAL BLOCK 1TB - INTERCONNECTION NOTES

Control Signal Wiring

- 1) All Control Signal Wiring must be run separate from power wiring in its own separate steel conduit.
- 2) If Control Signal Wiring is Required, any nearby relays, solenoids, or brake coils can produce electrical noise transients and cause erratic Drive behavior. An R-C suppressor should be added across the coils of these devices. Alternately, a 220 ohm resistor in series with a 0.5MFD, 600V capacitor can be used as a suppressor in 120VAC circuits.

Remote Mounted Speed Pot

- 1) Wiring must be twisted, three conductor wire, having (2) to (3) twists per inch.
 - 2) Wiring must be run in separate steel conduit, either rigid or flexible armored, to eliminate the possibility of electrical noise.
- For Distances less than 150 ft., use a minimum of 18 AWG.
 - For Distances between 150 and 200 ft., use a minimum of 16 AWG.
 - If Shielded Wire is Required, the shield must be connected to ground only at Terminal Block 1TB, term.11 - The other end must be left floating.

Field Installed START/STOP Control

- 1) If Remotely Mounted, wiring must be run in conduit separate from any speed reference or power wiring.
- 2) For START/STOP Control Through a Customer Supplied 120VAC Rated Maintained Contact, wire to terminals 7 & 9. If Drive has factory installed START/STOP pushbuttons, disconnect existing wires to terminals 7, 8 & 9.
- 3) For START/STOP Control Via a Customer Supplied 120VAC Signal, wire to terminals 9 & 11. If Drive has factory installed START/STOP pushbuttons, disconnect existing wires to terminals 7, 8 & 9 and remove factory installed jumper between terminals 4 & 7.

CAUTION

Motor Over Temperature Switch

Direct connection of the motor over temperature switch to the drive control circuit may damage the Drive. If a motor over temperature switch or thermal switch is required to be connected to the Drive control circuit: Use an interposing N.O. relay contact (customer furnished) to isolate the thermal switch from the Drive control circuit. Remove the factory installed jumper between terms. 10 & 11 at Terminal Block ITB and connect the relay contact between these terminals. If the Drive is equipped with a Motor Overload Relay, the isolating relay contact from the motor thermal switch should be wired in series with the normally closed contact of the motor overload relay.

Field Installed FWD/REV Switch

Terminals 12 & 13 may only be used with a dry (low level) contact switch mounted on the Drive chassis or enclosure door. Remote Mounted FWD/REV switches require option W, the Control Signal Card, and must be used with a customer supplied 120VAC rated, maintained contact. 1334A - 15, 20, 25 HP

General Wiring Practices

IMPORTANT

EMERGENCY STOP

The START/STOP control circuitry in the Bulletin 1334 is composed of solid state components. If hazards due to accidental contact with rotating or sliding machine components exist, NEMA Standards require that a hard wired emergency stop circuit be used with this Drive. Use a device that removes AC input power when an emergency stop is initiated. After an emergency STOP has been initiated, allow at least (5) seconds to elapse before reapplying AC input power to the Drive.

Typical Customer Supplied Emergency STOP Control Scheme

The following information references control wiring, either factory supplied or field installed. All control wiring should be connected as shown in the following interconnection diagrams.

TERMINAL BLOCK 1TB - INTERCONNECTION NOTES

Control Signal Wiring

- 1) All Control Signal Wiring must be run separate from power wiring in its own separate steel conduit.
- 2) If Control Signal Wiring is Required, any nearby relays, solenoids, or brake coils can produce electrical noise transients and cause erratic Drive behavior. An R-C suppressor should be added across the coils of these devices. Alternately, a 220 ohm resistor in series with a 0.5MFD, 600V capacitor can be used as a suppressor in 120VAC circuits.

Remote Mounted Speed Pot

- 1) Wiring must be twisted, three conductor wire, having (2) to (3) twists per inch.
- 2) Wiring must be run in separate steel conduit, either rigid or flexible armored, to eliminate the possibility of electrical noise.
 - For Distances less than 150 ft., use a minimum of 18 AWG.
 - For Distances between 150 and 200 ft., use a minimum of 16 AWG.
 - If Shielded Wire is Required, the shield must be connected to ground only at Terminal Block ITB, term 11 - The other end must be left floating.

Field Installed START/STOP Control

- 1) If Remotely Mounted, wiring must be run in conduit separate from any speed reference or power wiring.
- 2) For START/STOP Control Through a Customer Supplied 1 20VAC Rated Maintained Contact, wire to terminals 7 & 9. If Drive has factory installed START/STOP pushbuttons, disconnect existing wires to terminals 7, 8 & 9.
- 3) For START/STOP Control via a Customer Supplied 120VAC Signal, wire to terminals 9 & 11. If Drive has factory installed START/STOP pushbuttons, disconnect existing wires to terminals 7, 8 & 9.

CAUTION

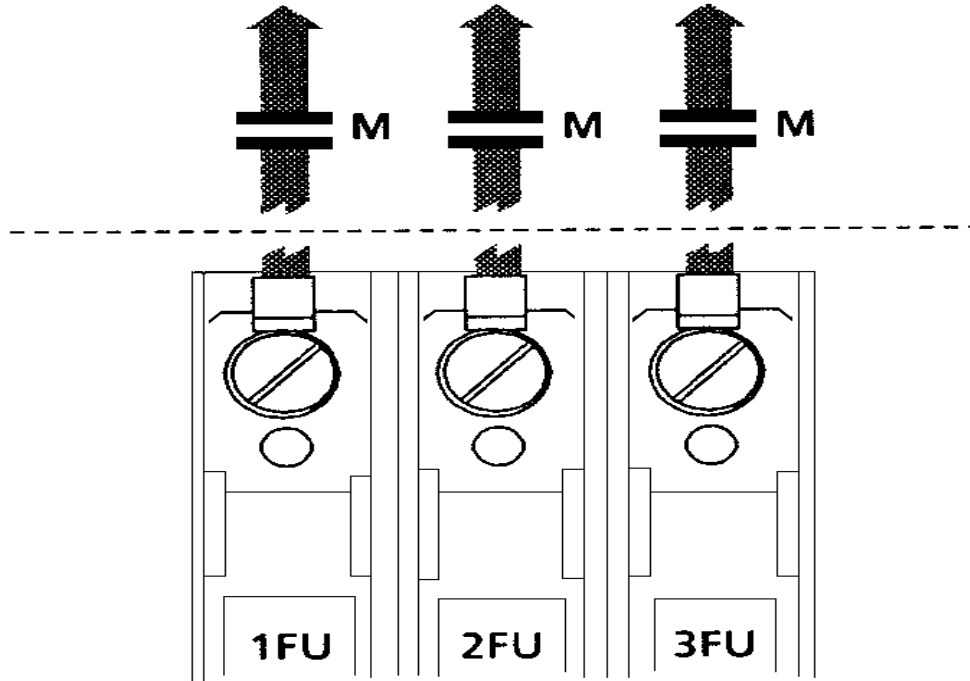
Motor Over Temperature Switch

Direct connection of the motor over temperature switch to the drive control circuit may damage the Drive. If a motor over temperature switch or thermal switch is required to be connected to the Drive control circuit: Use an interposing N.O. relay contact (customer furnished) to isolate the thermal switch from the Drive control circuit. Remove the factory installed jumper between terms. 10 & 11 at Terminal Block ITB and connect the relay contact between these terminals. If the Drive is equipped with a Motor Overload Relay, the isolating relay contact from the motor thermal switch should be wired in series with the normally closed contact of the motor overload relay.

Field Installed FWD/REV Switch

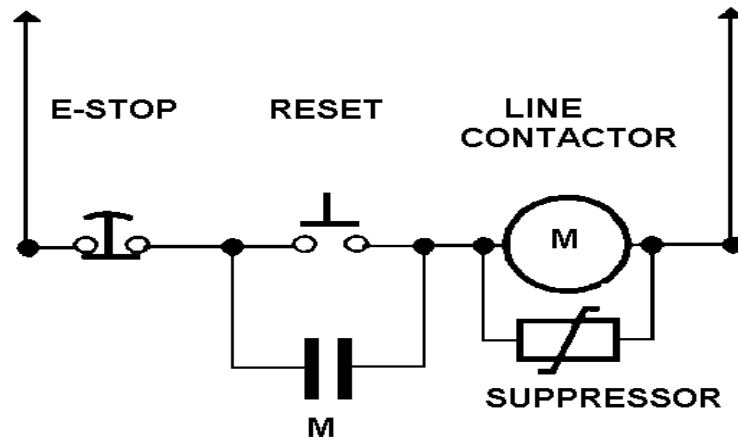
Terminals 12 & 13 may only be used with a dry (low level) contact switch mounted on the Drive chassis or enclosure door. Remote Mounted FWD/REV switches require option W, the Control Signal Card, and must be used with a customer supplied 120VAC rated, maintained contact.

POWER INPUT CONNECTIONS
3 PHASE, 460V AC, 60 HERTZ
or optional
315V AC, 415V AC, 50 HERTZ

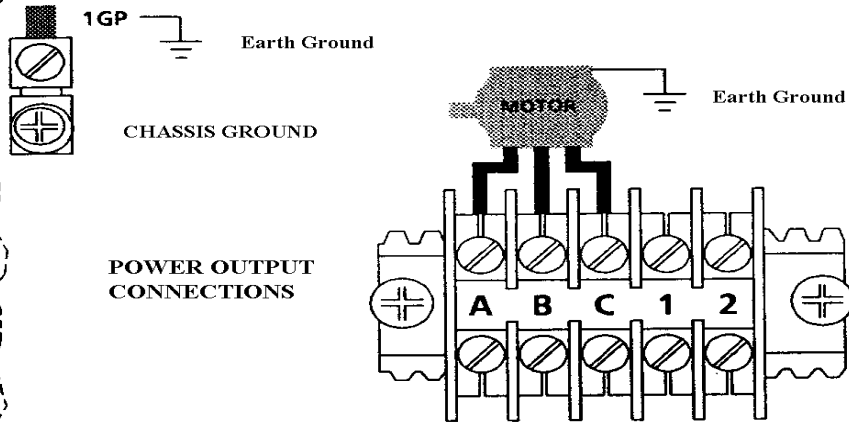


BULLETIN 1334 DRIVE

CUSTOMER CONTROL POWER



DRIVE BACK PANEL



POWER OUTPUT
CONNECTIONS

TERMINAL BLOCK
2TB

CAUTION

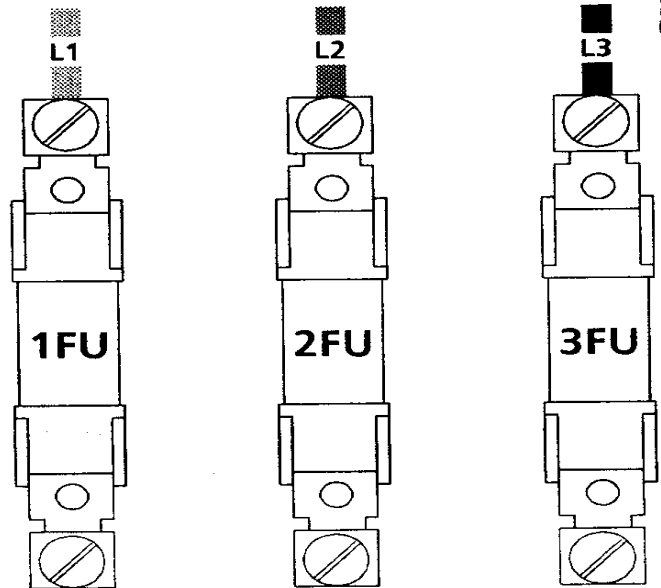


The use of contactors between the output of the Bulletin 1334 and the motor may cause damage to the Drive and IS NOT recommended.

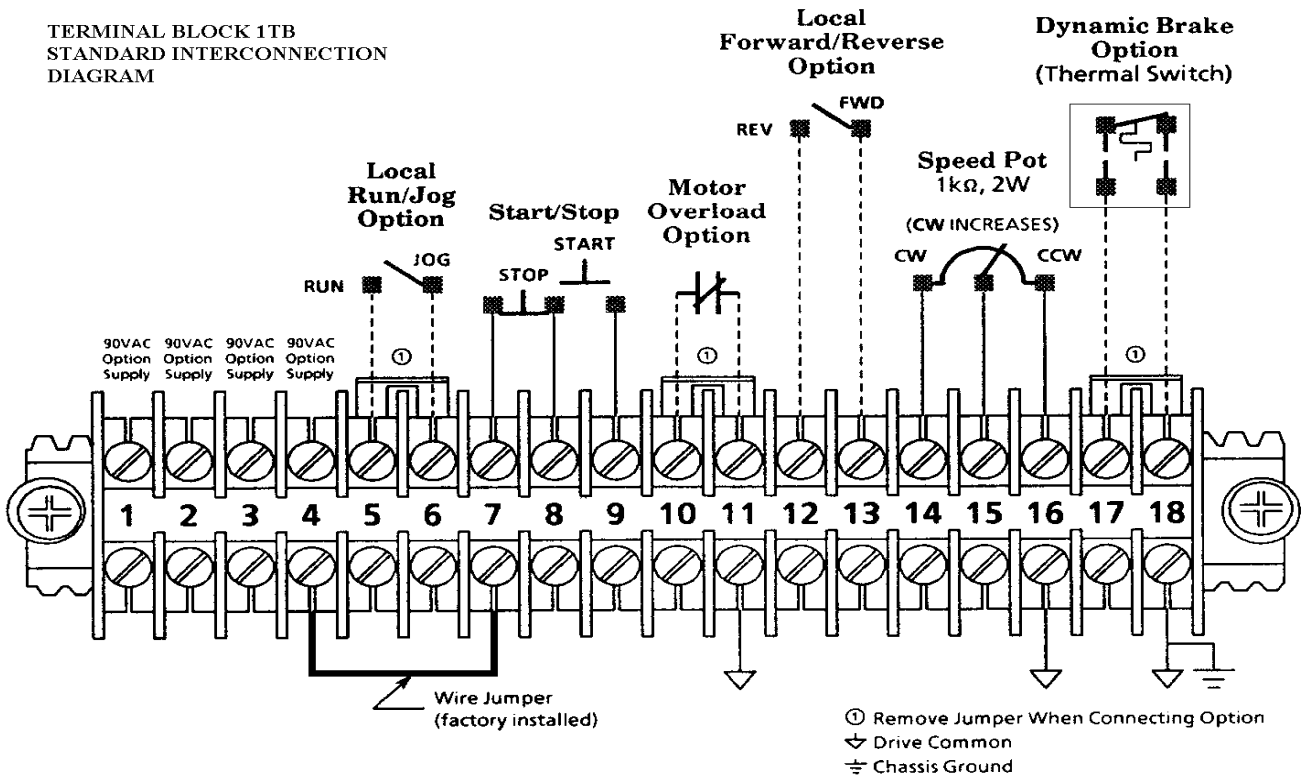
If your application mandates the use of output contactors, consult your nearest Allen-Bradley Distributor or Sales Office.

POWER INPUT CONNECTIONS

3-Phase, 460V AC, 60 Hz
— or optional
380V AC, 415V AC, 50 Hz



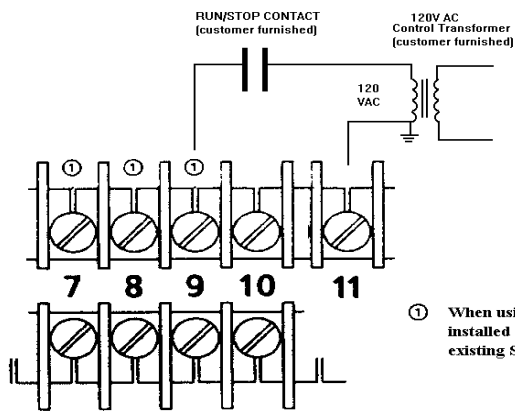
TERMINAL BLOCK 1TB
STANDARD INTERCONNECTION
DIAGRAM



INTERCONNECTION DIAGRAM
--- FIELD INSTALLED
RUN/STOP CONTROL

(2-WIRE 120V AC, EXTERNAL SUPPLIED)

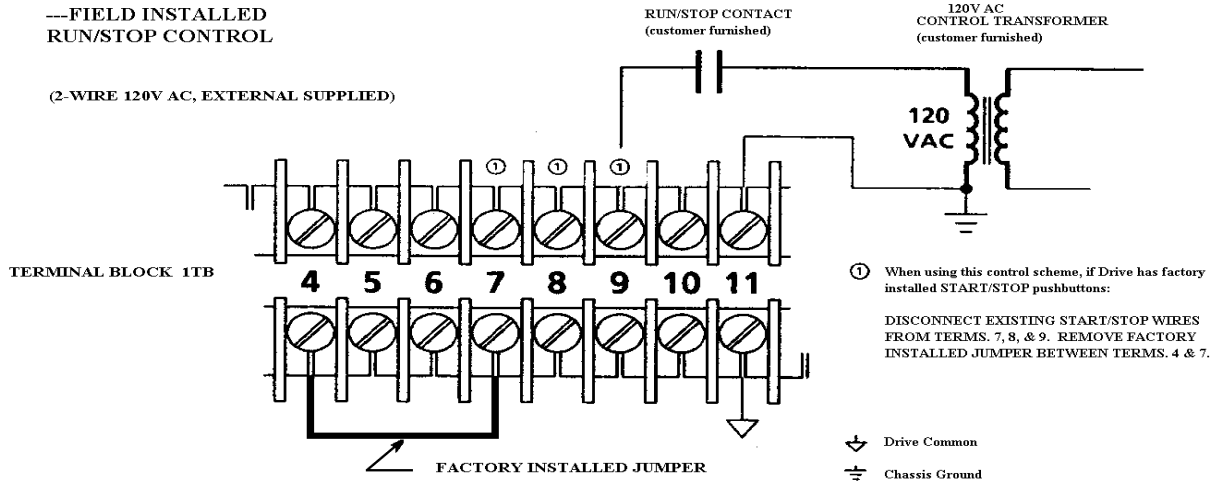
TERMINAL BLOCK
1TB



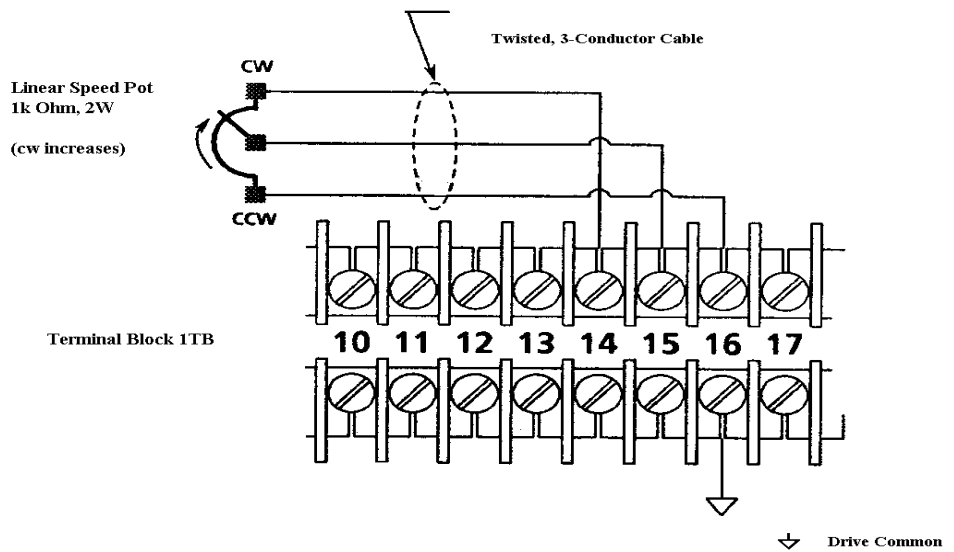
① When using this control scheme, if Drive has factory installed START/STOP pushbuttons, disconnect existing START/STOP wires from terminals 7, 8 & 9.

INTERCONNECTION DIAGRAM
 ---FIELD INSTALLED
 RUN/STOP CONTROL

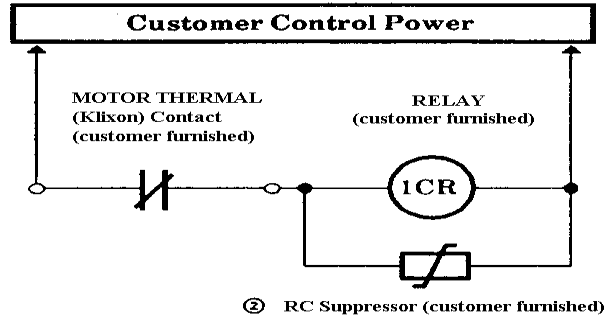
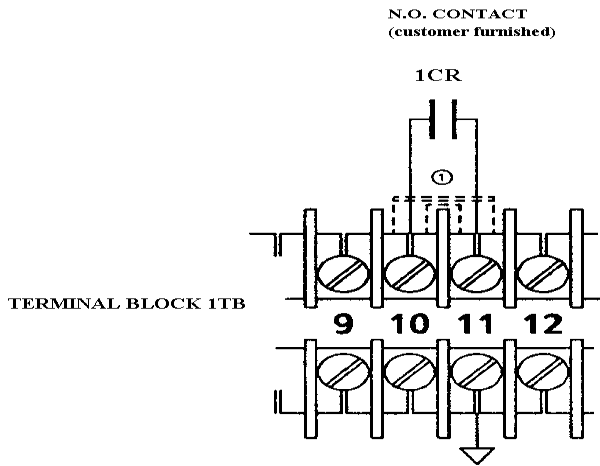
(2-WIRE 120V AC, EXTERNAL SUPPLIED)



INTERCONNECTION DIAGRAM
 --- FIELD INSTALLED
 REMOTE MOUNTED SPEED POT

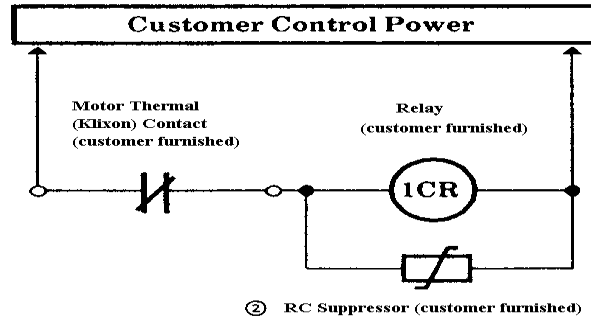
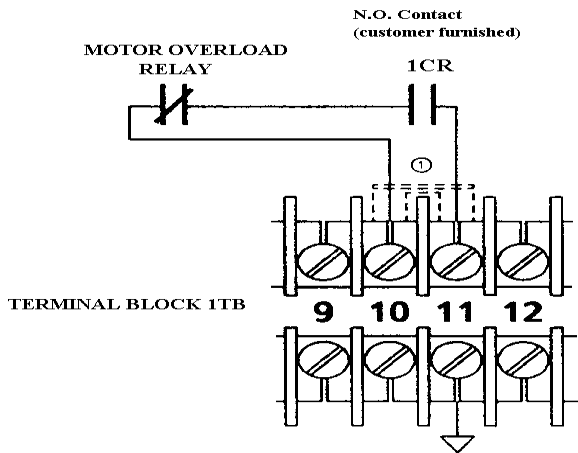


INTERCONNECTION DIAGRAM
 --- FIELD INSTALLED
 MOTOR THERMAL SWITCH



- ① Remove jumper when motor thermal switch is installed.
- ② Refer to Control Signal Wiring
- ⇩ Drive Common

INTERCONNECTION DIAGRAM
 --- FIELD INSTALLED
 MOTOR OVERLOAD RELAY & THERMAL SWITCH



- ① Remove jumper when motor thermal switch is installed.
- ② Refer to Control Signal Wiring
- ⇩ Drive Common