

# DC SERVOMOTOR INSTRUCTIONS



**NIDEC TECHNO MOTOR CORPORATION**

MANUAL NO. NTOEZ-C240-0-PL

## SUPPLEMENT <NOTES FOR SAFE OPERATION>

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Upon receipt of the product and prior to installing the product, read these instructions thoroughly, and retain for future reference.

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### General Precautions

- Some drawings in the instructions are shown with the protective cover or shields removed, in order to describe the details. Make sure all covers or shields are replaced before operating this product.
- Some drawings in the instructions are shown as typical examples and may differ from the shipped product.
- This manual may be modified when necessary because of improvement of the product, modification or changes in specifications. Such modifications are denoted by a revised manual No.
- To order a copy of this manual if your copy has been damaged or lost, contact your NTMC (NIDEC TECHNO MOTOR CORPORATION) representative.
- NTMC is not responsible for any modification of the product made by the users since that will void our guarantee.

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## NOTES FOR SAFE OPERATION

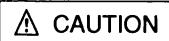
Read these instructions thoroughly before use of DC SERVOMOTOR. In these instructions, NOTES FOR SAFE OPERATION are classified as “WARNING” and “CAUTION”.



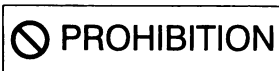
: Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury to personnel.



: Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury to personnel and damage to equipment. It may also be used to alert against unsafe practices.

Even items described in  may result in a vital accident in some situations. In either case, follow these important notes.

The following shows the symbols of prohibition and mandatory action.



: Specifies prohibited handling.



: Specifies actions that must be taken.

After reading these instructions, keep it readily available for those using the equipment.

## 1. NOTES ON USE

### WARNING

Observe the following items to avoid electrical shock or injury.

- **Ground the ground terminals of the SERVOPACK and the motor (or ground the metallic part such as frame in case of no ground terminal) according to local and/or national electrical codes.**  
Failure to observe this warning can result in electrical shock.
- **Disconnect all power and wait 5 minutes before wiring or inspection.**  
Failure to observe this warning can result in electrical shock.
- **Do not damage the cables or apply excess stress; do not place heavy objects on the cables or clamp the cables.**  
Failure to observe this warning can result in electrical shock.
- **Never touch the motor rotary parts during run.**  
Failure to observe this warnig can result in personal injury.

### CAUTION

- **Never use at locations exposed to water splashes, corrosive and inflammable gases, or near combustible substances.**  
Failure to observe this caution may result in fire or malfunctions.
- **Do not touch the radiator or regenerative resistor of the SERVOPACK, motor or peripheral units while the power is ON or immediately after turning the power OFF.**  
Failure to observe this caution may cause harmful burn.

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## 2. STORAGE

### PROHIBITION

- Do not store the equipment in locations where water splashes are present or where there is corrosive gases or liquids.

### INSTRUCTION

- Store the equipment protected from direct sunlight in the specified range of temperature and humidity. (-10°C to +40°C, 20% to 80% RH)
- After long time storage, contact your NTMC representative.

## 3. TRANSPORTATION

### CAUTION

- Do not lift the cables or the motor shaft when carrying the equipment.  
Failure to observe this caution may result in product malfunctions or personal injury.
- Do not load the products excessively.  
Failure to observe this caution may result in collapse of cargo and personal injury.

### INSTRUCTION

- Use the motor eyebolts exclusively for lifting and transportation of the motor.  
Do not attempt to move when other equipment is attached to the motor.

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## 4. INSTALLATION

### CAUTION

- Do not climb up on the motor or place heavy objects on it.  
Failure to observe this caution may result in personal injury.
- Do not block the air inlet and outlet, and do not let foreign materials enter.  
Failure to observe this caution may result in fire.
- Do not apply heavy shock.  
Failure to observe this caution may result in a malfunction.
- Cover the rotary parts so as not to touch them.  
Failure to observe this warning can result in personal injury.
- Never make any additional machining to the motor.
- The motor can be installed in both horizontal and vertical direction. However, models with oil seal cannot be installed with output shaft up. Mounting direction is limited for some motors with reduction gear. For details, refer to the manual for each model.

## 5. WIRING

### CAUTION

- Perform wiring securely according to the connection diagrams.  
Failure to observe this caution may cause motor runaway and personal injury.

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## 6. OPERATION

### CAUTION

- Perform test run as follows. Secure the motor and disconnect from load machine system, check operations, then connect the motor to the load machine. Failure to observe this caution may result in personal injury.
- The holding brake is not a stopping device to secure the safety of the load machine. Therefore, apply a stopping device on the load machine side. Failure to observe this caution may result in personal injury.
- If an alarm is issued, correct the cause, verify safety, then reset the alarm and resume operation. Failure to observe this caution may result in personal injury.
- If momentary power loss occurs, turn the power supply OFF. The machine may resume operation suddenly and may result in personal injury.

### PROHIBITION

- The brake incorporated in the motor is a holding brake. Do not use it for normal braking.

### INSTRUCTION

- Build an external emergency stop circuit that immediately stops operation and shuts down power in an emergency.

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## 7. MAINTENANCE AND INSPECTION

 PROHIBITION
<ul style="list-style-type: none"><li>• Only authorized personnel should be permitted to disassemble or repair the equipment.</li></ul>

