




Notice:

OMRON products are manufactured for use according to proper procedures by a qualified operator and only for the purposes described in this manual.

The following conventions are used to indicate and classify precautions in this manual. Always heed the information provided with them. Failure to heed precautions can result in injury to people or damage to property.

 **DANGER** Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

 **WARNING** Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

 **Caution** Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury, or property damage.

OMRON Product References

All OMRON products are capitalized in this manual. The word “Unit” is also capitalized when it refers to an OMRON product, regardless of whether or not it appears in the proper name of the product.

The abbreviation “Ch,” which appears in some displays and on some OMRON products, often means “word” and is abbreviated “Wd” in documentation in this sense.

The abbreviation “PC” means Programmable Controller and is not used as an abbreviation for anything else.

Visual Aids

The following headings appear in the left column of the manual to help you locate different types of information.

Note Indicates information of particular interest for efficient and convenient operation of the product.

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No patent liability is assumed with respect to the use of the information contained herein. Moreover, because OMRON is constantly striving to improve its high-quality products, the information contained in this manual is subject to change without notice. Every precaution has been taken in the preparation of this manual. Nevertheless, OMRON assumes no responsibility for errors or omissions. Neither is any liability assumed for damages resulting from the use of the information contained in this publication.


General Warnings

Observe the following warnings when using the OMNUC Servomotor and Servo Driver.




This manual may include illustrations of the product with protective covers removed in order to describe the components of the product in detail. Make sure that these protective covers are on the product before use.

Consult your OMRON representative when using the product after a long period of storage.










-  **WARNING** Always connect the frame ground terminals of the Servo Driver and the Servomotor to a class-3 ground (to 100 Ω or less). Not connecting to a class-3 ground may result in electric shock.
-  **WARNING** Do not touch the inside of the Servo Driver. Doing so may result in electric shock.
-  **WARNING** Do not remove the front cover, terminal covers, cables, Parameter Units, or optional items while the power is being supplied. Doing so may result in electric shock.
-  **WARNING** Operation, maintenance, or inspection must be performed by authorized personnel. Not doing so may result in electric shock or injury.
-  **WARNING** Wiring or inspection must be performed at least 5 minutes after turning off the power supply. Doing so may result in electric shock.
-  **WARNING** Do not damage, press, or put excessive stress or heavy objects on the cables. Doing so may result in electric shock.
-  **WARNING** Do not touch the rotating parts of the Servomotor under operation. Doing so may result in injury.
-  **WARNING** Do not modify the product. Doing so may result in injury or damage to the product.
-  **Caution** Use the Servomotors and Servo Drivers in a specified combination. Doing so may result in fire or damage to the products.
-  **Caution** Do not store or install in the following places. Doing so may result in fire or damage to the Product.
 - Locations subject to direct sunlight.
 - Locations subject to temperatures or humidity outside the range specified in the specifications.
 - Locations subject to condensation as the result of severe changes in temperature.
 - Locations subject to corrosive or flammable gases.
 - Locations subject to dust (especially iron dust) or salts.
 - Locations subject to shock or vibration.
 - Locations subject to exposure to water, oil, or chemicals.






-  **Caution** Do not touch the Servo Driver radiator or Servomotor while the power is being supplied or soon after the power is turned off. Doing so may result in a skin burn due to the hot surface.

Storage and Transportation Precautions







-  **Caution** Do not hold by the cables or motor shaft while transporting the product. Doing so may result in injury or malfunction.
-  **Caution** Do not place any load exceeding the figure indicated on the product. Doing so may result in injury or malfunction.
-  **Caution** Use the motor eye-bolts only for transporting the Motor. Using them for transporting the machinery may result in injury or malfunction.

Installation and Wiring Precautions


-  **Caution** Do not step on or place a heavy object on the product. Doing so may result in injury.
-  **Caution** Do not cover the inlet or outlet ports and prevent any foreign objects from entering the product. Doing so may result in fire.
-  **Caution** Be sure to install the product in the correct direction. Not doing so may result in malfunction.
-  **Caution** Provide the specified clearances between the Servo Driver and the control panel or with other devices. Not doing so may result in fire or malfunction.
-  **Caution** Do not apply any strong impact. Doing so may result in malfunction.
-  **Caution** Be sure to wire correctly and securely. Not doing so may result in motor runaway, injury, or malfunction.
-  **Caution** Be sure that all the mounting screws, terminal screws, and cable connector screws are tightened to the torque specified in the relevant manuals. Incorrect tightening torque may result in malfunction.
-  **Caution** Use crimp terminals for wiring. Do not connect bare stranded wires directly to terminals. Connection of bare stranded wires may result in burning.
-  **Caution** Always use the power supply voltage specified in the User's Manual. An incorrect voltage may result in malfunction or burning.


-  **Caution** Take appropriate measures to ensure that the specified power with the rated voltage and frequency is supplied. Be particularly careful in places where the power supply is unstable. An incorrect power supply may result in malfunction.
-  **Caution** Install external breakers and take other safety measures against short-circuiting in external wiring. Insufficient safety measures against short-circuiting may result in burning.
-  **Caution** Provide an appropriate stopping device on the machine side to secure safety. (A holding brake is not a stopping device for securing safety.) Not doing so may result in injury.
-  **Caution** Provide an external emergency stopping device that allows an instantaneous stop of operation and power interruption. Not doing so may result in injury.
-  **Caution** Take appropriate and sufficient countermeasures when installing systems in the following locations:
- Locations subject to static electricity or other forms of noise.
 - Locations subject to strong electromagnetic fields and magnetic fields.
 - Locations subject to possible exposure to radioactivity.
 - Locations close to power supplies.

Operation and Adjustment Precautions

-  **Caution** Check the newly set parameters for proper execution before actually running them. Not doing so may result in equipment damage.
-  **Caution** Do not make any extreme adjustments or setting changes. Doing so may result in unstable operation and injury.
-  **Caution** Separate the Servomotor from the machine, check for proper operation, and then connect to the machine. Not doing so may cause injury.
-  **Caution** When an alarm occurs, remove the cause, reset the alarm after confirming safety, and then resume operation. Not doing so may result in injury.
-  **Caution** Do not come close to the machine immediately after resetting momentary power interruption to avoid an unexpected restart. (Take appropriate measures to secure safety against an unexpected restart.) Doing so may result in injury.
-  **Caution** Do not use the built-in brake of the Servomotor for ordinary braking. Doing so may result in malfunction.

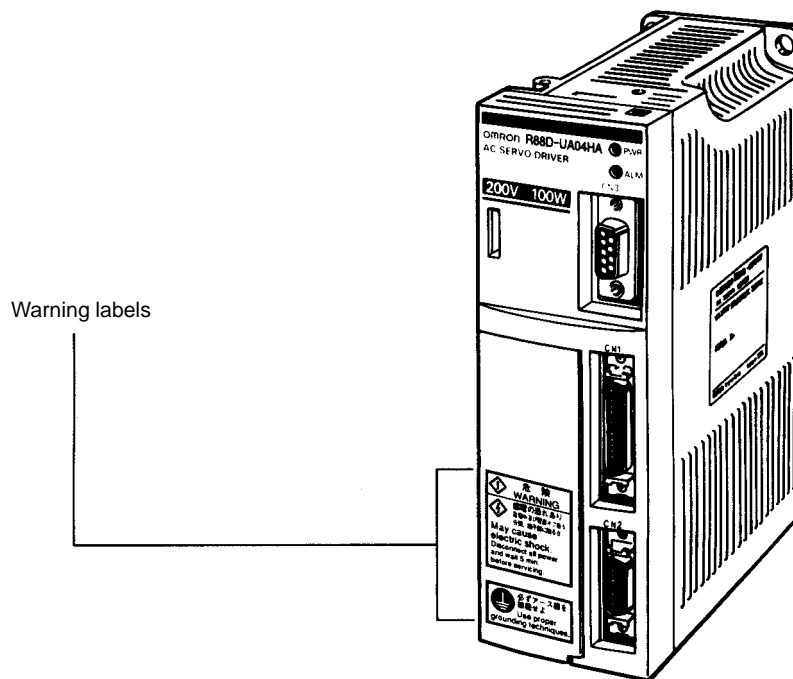
Maintenance and Inspection Precautions

 **WARNING** Do not attempt to disassemble, repair, or modify any Units. Any attempt to do so may result in malfunction, fire, or electric shock.

 **Caution** Resume operation only after transferring to the new Unit the contents of the data required for operation. Not doing so may result in an unexpected operation.

Warning Labels

Warning labels are pasted on the product as shown in the following illustration. Be sure to follow the instructions given there.



Warning Labels for Non-conforming Models



Warning label 1



Warning label 2

Warning Labels for Models Conforming to EC Directives



Warning label 1



Warning label 2