



## Installation Instructions

### Ultra1500 Battery

(Catalog Number 2090-DA-BAT)

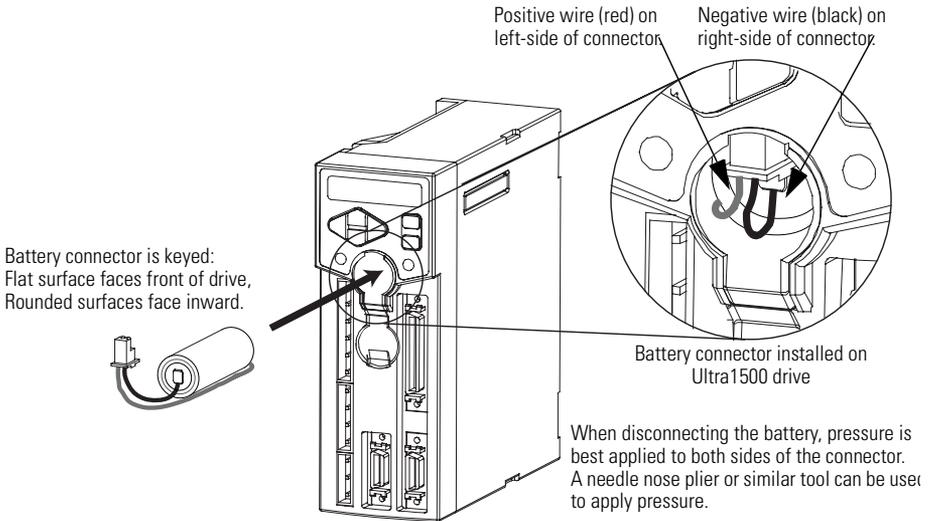
This publication provides instructions for installing or replacing the 3.6V battery in an Ultra1500<sup>®</sup> servo drive. The battery allows a TL-Series motor equipped with an SA35 type encoder to operate as an absolute multi-turn encoder.

### Installing the Battery

The procedure varies slightly for a new installation versus maintenance or drive warnings: Main and Control Power should be removed and software must be set when a battery is first installed. Control Power should remain ON when a battery is replaced, but Main Power should be removed (OFF).

Refer to Figure 1 to locate the battery compartment (BATT) on the Ultra1500 drive, and to determine wire color and connector orientation to achieve proper polarity.

**Figure 1 Ultra1500 Battery Orientation and Connection**



#### ATTENTION



The 2090-DA-BAT is a non-rechargeable lithium battery, and unique storage and transportation restrictions may apply. If you are not familiar with current regulations, contact your local or state environmental coordinator, the U.S. Department of Transportation (DOT), or the U.S. Environmental Protection Agency (EPA).

To install a new battery, or replace an existing battery, perform the following steps:

1. For a new installation or if a battery low voltage **fault** has occurred, remove main and control AC power from the drive. Otherwise, if this is a maintenance update or if a battery low voltage **warning** has occurred, remove only the main AC power but retain the control AC power so that the absolute position of the motor is not lost when the existing battery is disconnected.

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**ATTENTION**



To avoid hazard of electrical shock, verify that all voltage on the DC bus capacitors has been discharged before attempting to service, repair, or remove this unit. This product connects to stored energy devices. You should only attempt the procedures in this document if you are qualified to do so and familiar with solid-state control equipment and the safety procedures in publication NFPA 70E.

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2. Open the BATT compartment door. See Figure 1 for location. If the battery needs to be removed, disconnect battery by carefully pulling downward on the connector. Slightly raise the BATT door for clearance, and slide battery out of the drive.  
Note: Pressure is best applied to both sides of the connector. A needle nose plier or similar tool can be used to apply pressure.
3. Identify the polarity of the new battery and its connector as shown in Figure 1, and then slide the battery into the drive.
4. Affix the connector as shown in Figure 1, and close the BATT compartment door.
5. If this is a new installation, make sure that the Encoder Backup Battery parameter is set to INSTALLED (in the Encoders window [Ultra1500] of Ultraware<sup>®</sup> v1.60 or higher).
6. If this is a new installation or if a battery low voltage fault occurred, the axis must be homed to establish the absolute reference position for motion.

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