



NU-STAR MATERIAL HANDLING LTD

IF IT ROLLS ... WE CAN MOVE IT! ®

SERVICE PROCEDURE

Nu-Star "Power Tug" PT-1000 Machine Series

ERROR CODE 3,2 FUNCTIONALITY TEST

English - 2018 Edition

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Introduction

The following guide shown below is intended for use by the end user of the product and will familiarise the user with the aforementioned maintenance procedure. The processes used are a standard procedure for Nu-Star Material Handling Ltd. and should be followed closely in order to minimise any risk of damage to the machine or self.

Always observe warning signs and notices. Refer to the user manual for further information.

Appropriate PPE **must** be worn for all tasks undertaken.

Nu-Star EM60/EM90 Batteries are sealed for maintenance-free service. **Do Not** attempt to open the units – risk of damage or serious injury may occur.

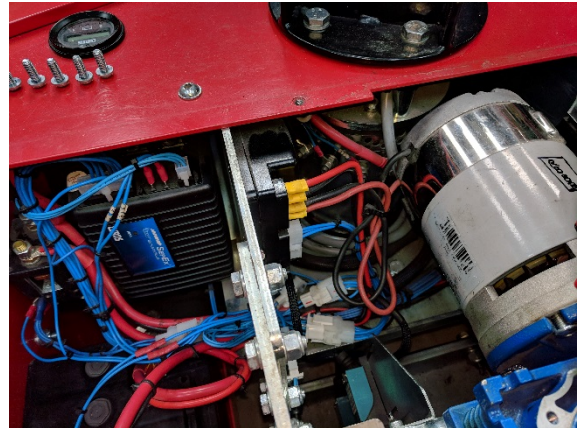
If you are unsure of a task or require further servicing information, call Nu-Star Material Handling Ltd on **+44(0) 115 880 0070**

CODE 3,2 FAULT FINDING PROCEDURE

For Power Tug PT-1000 machines

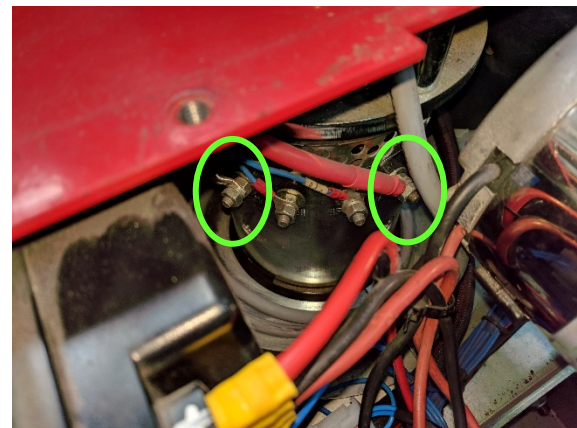
Step 1

With the machine **OFF**, remove the top access plate of the machine by removing the 7 M6x16 socket screws holding it in place. This allows access to the main internals of the machine, as pictured.



Step 2

Locate the drive motor main power terminals located on the side of the motor assembly. The two outer terminals are the positive and negative power terminals that supply power to the motor armature. These are what will be used to test continuity across the motor assembly (Circled **GREEN**).



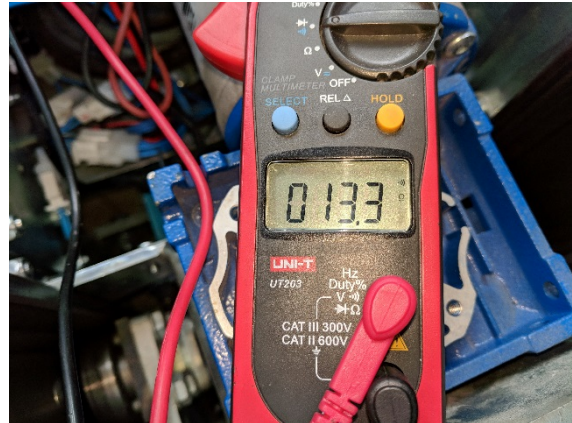
Step 3

Using a Universal Multi-meter set to "Continuity" setting (indicated by a \rightarrow symbol), apply the multi-meter probes to the positive and negative terminals of the motor assembly accordingly. In normal operating circumstances, the multi-meter will beep and show continuity through the armature circuit. However, a "3,2" error code may affect this – if no continuity is shown and no clear beep comes from the multi-meter, then the motor internals have failed and the unit requires replacement.



Step 3 (Continued)

Pictured is a multi-meter display during a continuity test. Note: this is from a functioning motor unit – if the motor internals have failed, then the meter will not register a figure and produce no sound.



Step 4

If the motor continuity test has failed, a new motor is required as the failure mode of the unit is non-repairable. However if the continuity test has passed, and the display is still showing a 3,2 error code, the contactor will have to be checked. This is located on the controller side of the machine (shown below) and will usually audibly click in operation when the operator handle is brought down into the operating position. A failed contactor will not operate at all and may even be visibly stuck in the open position – this must be replaced in order for the machine to operate.

Additional Information

If all of the above has been correctly checked and is all operating as expected, it is advised to contact Nu-Star on +44(0) 115 880 0070 for further information and advice.