



NU-STAR MATERIAL HANDLING LTD

IF IT ROLLS ... WE CAN MOVE IT! ®

SERVICE MANUAL

Nu-Star CH2 & CH5 Series Headset equipped machines

UPDATED KEY-SWITCH CONVERSION

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**

NEW (2019) UPDATED KEY-SWITCH CONVERSION PROCEDURE

For all machines fitted with the Nu-Star CH2 & CH5 series of headsets

Step 1

With the machine **OFF** and **ISOLATED** through pressing the emergency stop button, begin by removing the key from the key-switch barrel. Then, using a 3mm Allen bit on a ball-ended extension, remove the 4 retaining screws holding the handle top-plate in place. This will grant access to the headset internal assemblies.



Step 2

With the top plate removed from the headset (ensuring to disconnect any microswitch connections and making note of their positions), gently lift the throttle and e-reverse microswitch cradle out of the headset body and move clear to one side allowing access to the key-switch. Then, using an 18mm spanner, carefully loosen the plastic locking ring on the face of the key barrel and remove entirely along with the concave washer beneath.

Note: It is possible to steady the body of the key-switch with your fingers while removing the locking ring – this will minimise any stress and/or damage to the wires connected to it.



Step 4

After removing the locking ring and concave washer, remove the key-switch assembly from the headset body ensuring to remove the wiring connections in the process.

With the key-switch removed, use an 18.5mm drill bit to widen the existing hole to accept the new key-switch assembly.

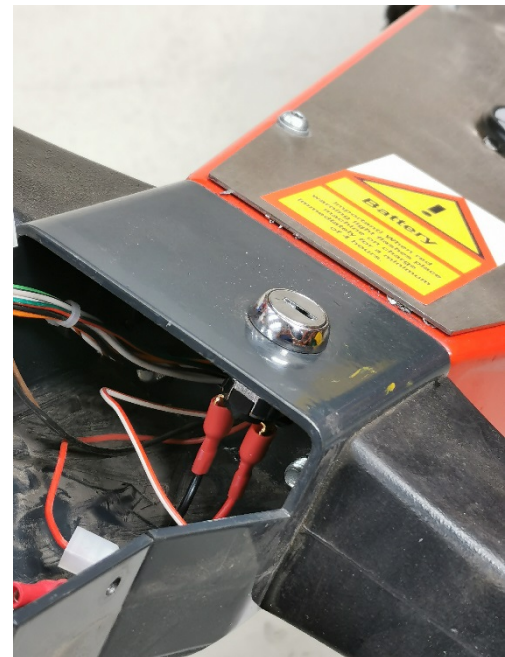
Note: After drilling, ensure no swarf is left in the headset body and that all burrs are removed from the hole. This will minimise the chance of metallic contamination in the throttle assembly



Step 5

Fit the new key-switch, ensuring the serrated locking nut is screwed fairly tight underneath. This should only ever be tight enough to stop the key-switch from spinning and not come loose during normal operation.

Note: The terminal wires fitted can be removed for ease of unit fitment, and subsequently re-fitted once the new key-switch is fixed in place.



Step 6

Remove the old block-type connector from each key-switch power wire and strip the wire ends by around 5mm. Using the terminals supplied with the new switch, crimp a terminal to each of the two wire ends. With this done, connect up the terminals ensuring red connects with red and white/red connects with black.

Note: Always use the correct crimping tools to fit terminals. This will ensure a positive connection and therefore minimising the possibility of electrical failure.



Step 7

Once the new unit is fully installed, re-fit the remaining headset components in the reverse order of removal. Make sure that the new key is kept with the machine to avoid operator error, and dispose of the old key and key-switch where necessary.

Note: When re-fitting the 4 retaining screws for the handle top-plate, do not overtighten as this will cause damage to the plastic assembly.

