1 Power Assembly Replacement Instructions

1.1 Overview

This document describes how to replace a power assembly in soft starter models 0360 ~ 1600.

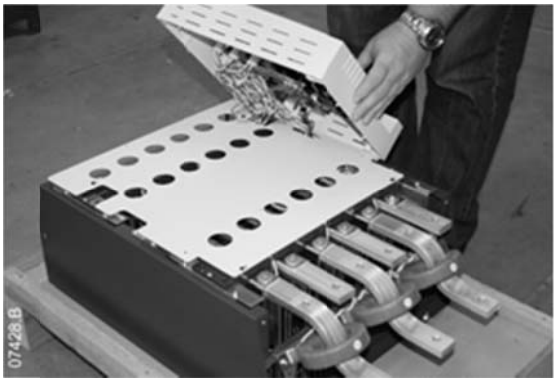
The power assembly has thermistor wires attached. These are only required for the upper power assembly in the soft starter. If replacing a lower power assembly, the wires should be cut off flush with the heatsink or secured out of the way before the power assembly is fitted.

NOTE
The soft starter is not user serviceable. The unit should only be serviced by authorised service personnel. Unauthorised tampering with the unit will void the product warranty.

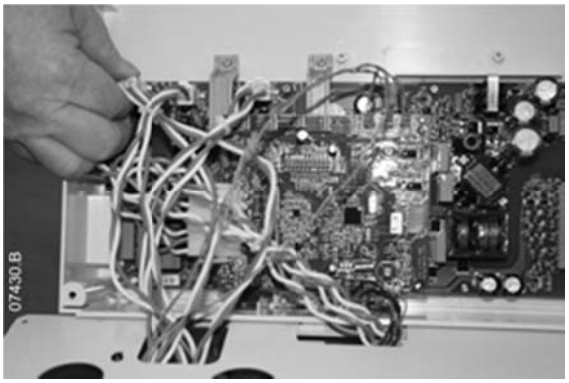
NOTE
Many electronic components are sensitive to static electricity. Voltages so low that they cannot be felt, seen or heard, can reduce the life, affect performance, or completely destroy sensitive electronic components. When performing service, proper ESD equipment should be used to prevent possible damage from occurring.

1.2 Instructions

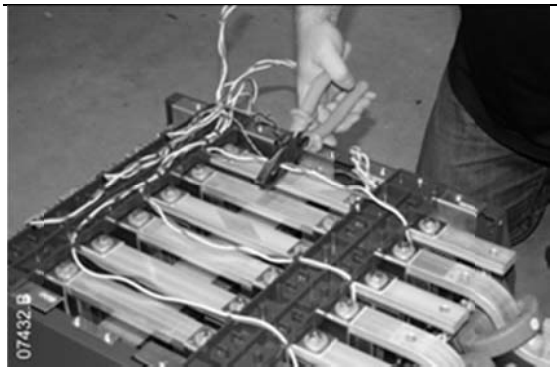
Remove all wiring and links from the soft starter before dismantling the unit.



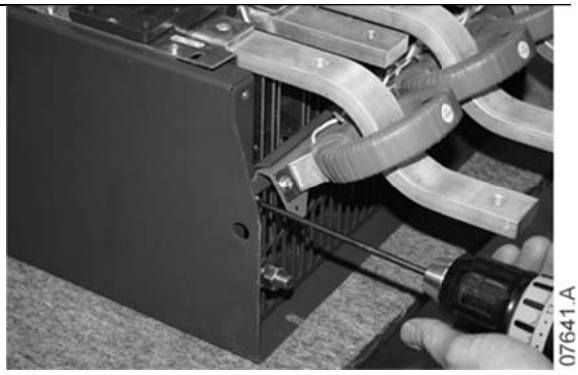
Remove the cover.
Unscrew the main plastic from the body of the unit and lift it carefully away from the starter.



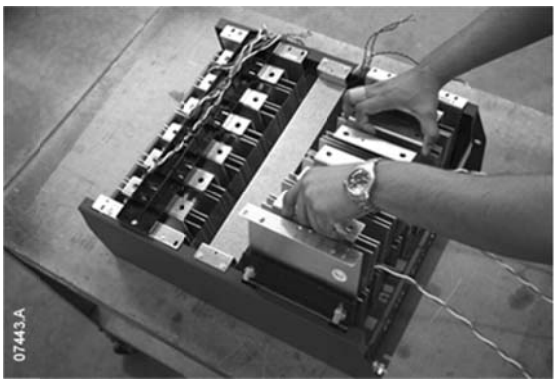
Label each SCR firing loom with the number of the corresponding phase terminal on the main control PCB, then unplug the looms.
Unplug the thermistor, fan and CT wires from the main control PCB.



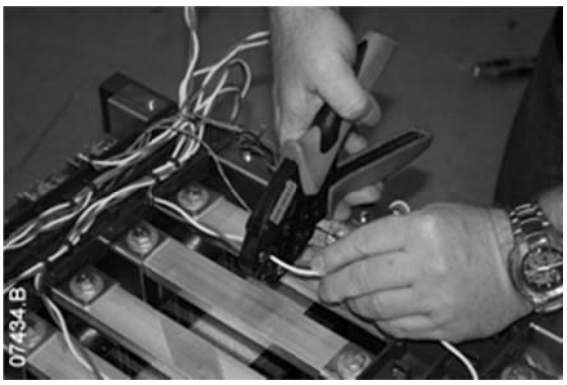
Remove the magnetic bypass plate (models 0360 to 0927).
Cut the SCR firing looms attached to the affected power assembly (three looms, two wires per loom).



Remove the CT assembly.
Remove the plastic module mount spacer.
Remove the bolts holding the bus bars in place (four bolts per bar) and slide the bus bars out through the bottom of the starter.



Remove the screws holding the power assembly in place (two screws at each edge). Lift out the faulty power assembly and replace it with the new power assembly.



Using the in-line splices provided, crimp the firing loom from each SCR on the new power assembly to the existing loom.

Reassemble the starter.

NOTE
The SCR firing loom for each phase must be connected to the corresponding socket on the main control PCB. The connection order of the thermistor and fan wiring does not matter.

NOTE
The washers on the bus bars are dome washers. The flat side of the washer must be towards the bus bar. The bolts must be tightened to 12 Nm for models 0360 ~ 0927, and 20 Nm for models 1200 ~ 1600.