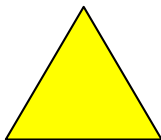


# Keeler

## Gen Med Wall Unit

### Service Manual



ALWAYS READ THE INSTRUCTIONS

A  
HALMA GROUP  
COMPANY

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## **Introduction**

This manual covers the Gen Med Wall Unit only, it does not cover the heads fitted to the Wall Unit.

## **Service Principles**

Some parts are only available as assemblies where special tools and adhesives are used in the manufacturing process.

The remainder of parts are available as kits of relevant parts.

## **Tools Required**

Most of the tools required will be in a standard electro-mechanical toolkit.

It would be helpful to have an insertion tool for the right angled Strain Relief Bush (EP79-10243) – HEYCO No 29

## Precautions

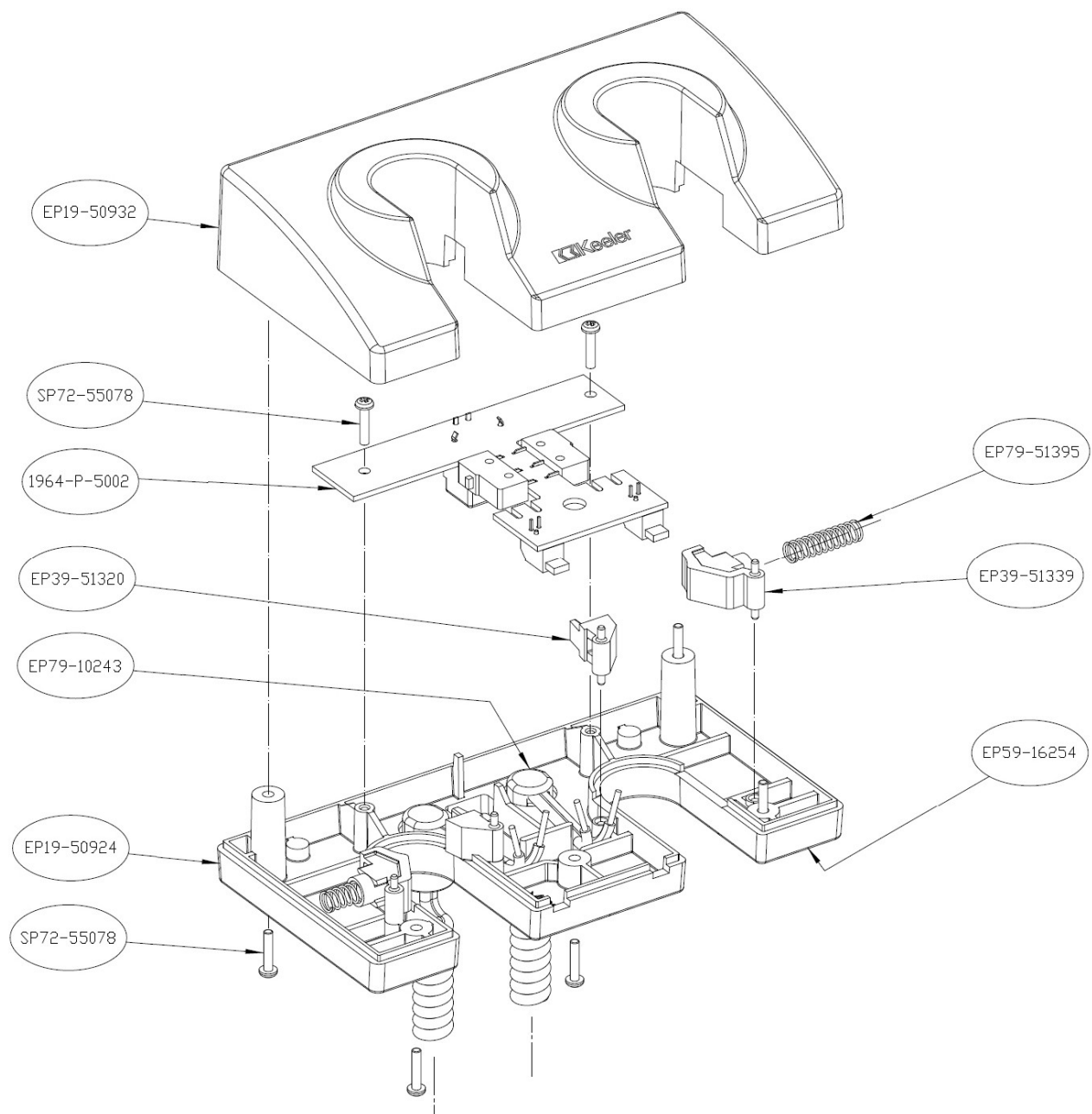
Care should be taken to carry out any repair work on a clean soft surface to minimise damage to the outside of the unit and lenses.

Solvents should **not** be used for cleaning.

## Disassembly

### Main Unit

1. Remove 5 off M2.5 x 12 Pan head Screws (SP72-55078) holding the Top Moulding (EP19-50932) to the Base Moulding (EP19-50924).
2. Take care not to lose the 2 Actuators (EP39-51320), 2 Springs (EP79-51395) and 2 Levers (EP39-51339) which are released as the two mouldings are parted.
3. Remove 2 off M2.5 x 12 Pan head Screws (SP72-55078) holding the PCB



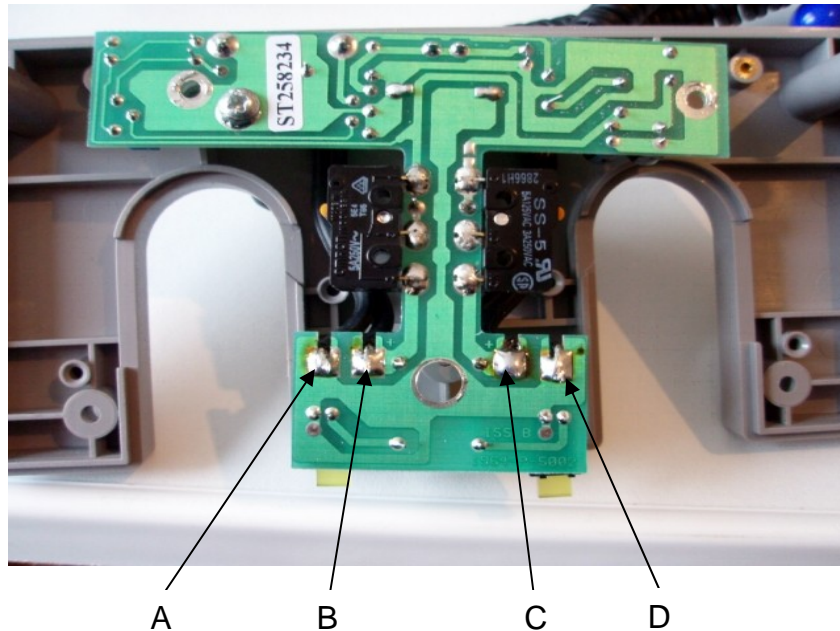
(1964-P-5002) to the Base Moulding (EP19-50924).

## Replacements

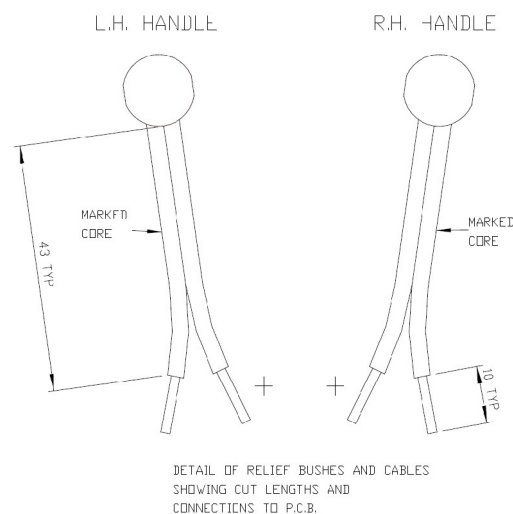
### Main Unit

#### PCB

1. Carefully un-solder 4 off connections A B C D



2. Remove the old PCB (1964-P-5002).
3. If either of the Corded Handle Assys (1964-P-5003) are to be changed refer to the Corded Handle Assy section below.
4. Prepare the 4 wires for re-soldering – note the length of wire required below. If this cannot be achieved it will be necessary to refer to the Corded Handle Assy section below.



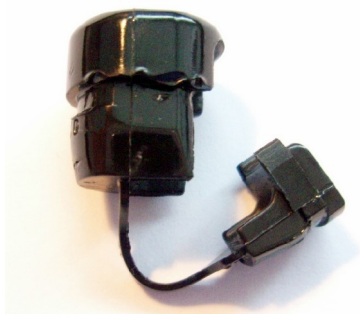
5. Carefully re-solder the 4 wires noting that the cores marked with a stripe go to connections A and D and the unmarked cores go to B and C.

### Corded Handle Assy

1. Follow the instructions above to un-solder the connections of the Corded Handle Assy to be changed.
2. Remove the Right-angled Strain Relief Bush (EP79-10243) with the Coiled Cable by squeezing the bush together so that it will pass through the hole preferably with the HEYCO No 29 Insertion Tool. This will allow the Bush (EP79-10243) to pass into the inside of the Main Unit.



3. Remove the Bush (EP79-10243) from the Coiled Cable by pulling the clamp out from the Bush.



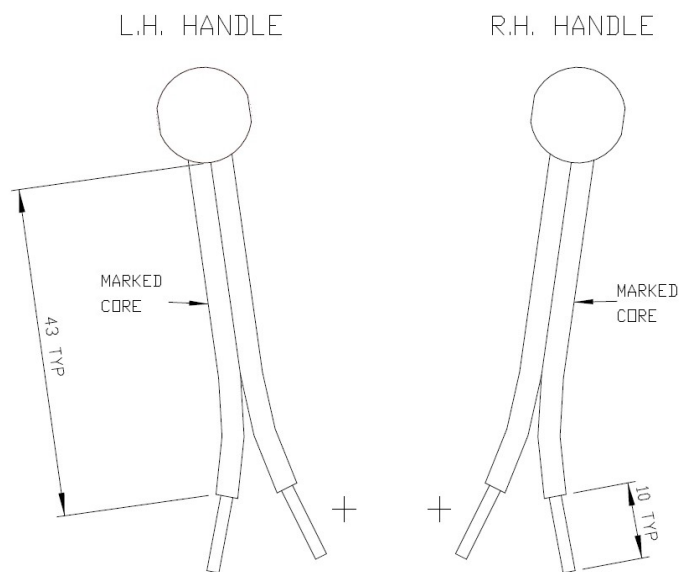
4. Remove the old Corded Handle Assy.
5. Thread the Coiled Cable from the replacement Corded Handle Assy (1964-P-5003) from the outside to the inside of the Base Moulding (EP19-50924).



6. Fit the Right-angled Strain Relief Bush (EP79-10243) to the Coiled Cable as shown. Ensuring that marked core is on the correct side according to the drawing below and that there is sufficient free cable to allow it to be soldered to the PCB (1964-P-5002). The Right-angled Strain Relief Bush (EP79-10243) should be compressed by squeezing the points shown to push the Coiled Cable into the Right-angled Strain Relief Bush (EP79-10243).
  
7. Fit the Right-angled Strain Relief Bush (EP79-10243) and Coiled Cable into the Base Moulding (EP19-50924) by squeezing the Right-angled Strain Relief Bush (EP79-10243) at the points shown preferably with the HEYCO No 29 Insertion Tool.

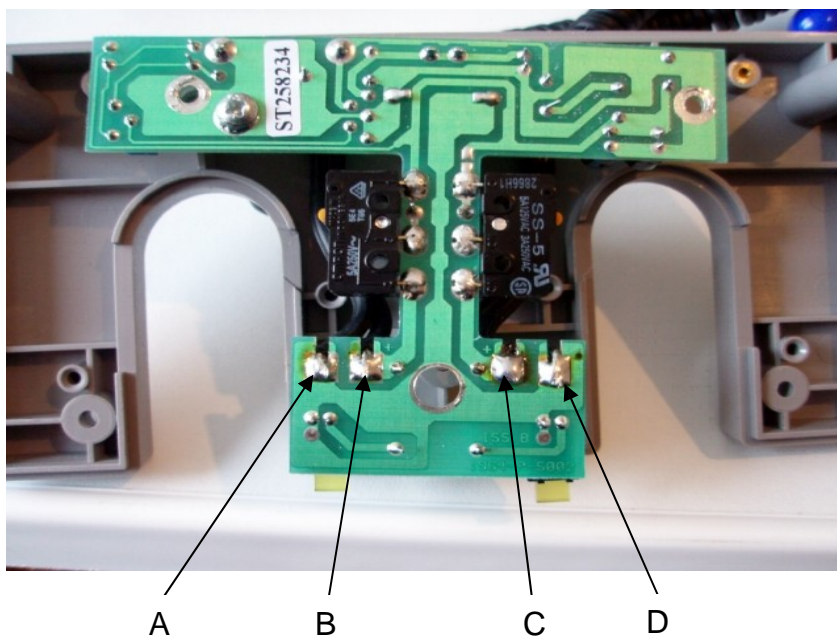


8. Prepare the ends of the Coiled Cable as shown below according to which side it is to be fitted



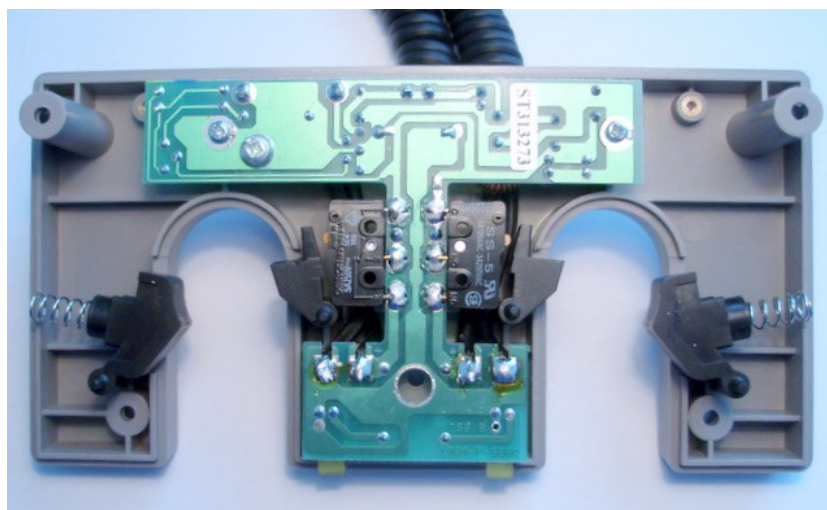
DETAIL OF RELIEF BUSHES AND CABLES  
SHOWING CUT LENGTHS AND  
CONNECTIONS TO P.C.B.

9. Re-solder the connections as shown. Note that the cores marked with a stripe go to connections A and D and the unmarked cores go to B and C.



## Reassembly

1. Refit the PCB (1964-P-5002) ensuring that the cables are not trapped and the LEDs fit into their cut-outs.
2. Secure the PCB (1964-P-5002) using 2 off M2.5 x 12 Pan head Screws (SP72-55078).
3. Carefully fit 2 off Actuators (EP39-51320) with their pips in the holes on the Base Moulding (EP19-50924) as shown.
4. Carefully fit 2 off Levers (EP-51339) with their pips in the holes on the Base Moulding (EP19-50924) with 2 off Springs (EP79-10235) as shown ensuring that the ends of the Springs (EP79-10235) are inside the edges of the Base Moulding (EP19-50924).



5. Carefully fit the Top Moulding (EP19-50932) over the Base Moulding (EP19-50924) taking care not to disturb the Levers (EP-51339) and Actuators (EP39-51320) allowing their pips to locate in their holes in the Top Moulding (EP19-50932).
6. Holding the Top Moulding (EP19-50932) and Base Moulding (EP19-50924) together turn them over and secure the Base Moulding (EP19-50924) to the Top Moulding (EP19-50932) using 5 off M2.5 x 12 Pan head Screws (SP72-55078).

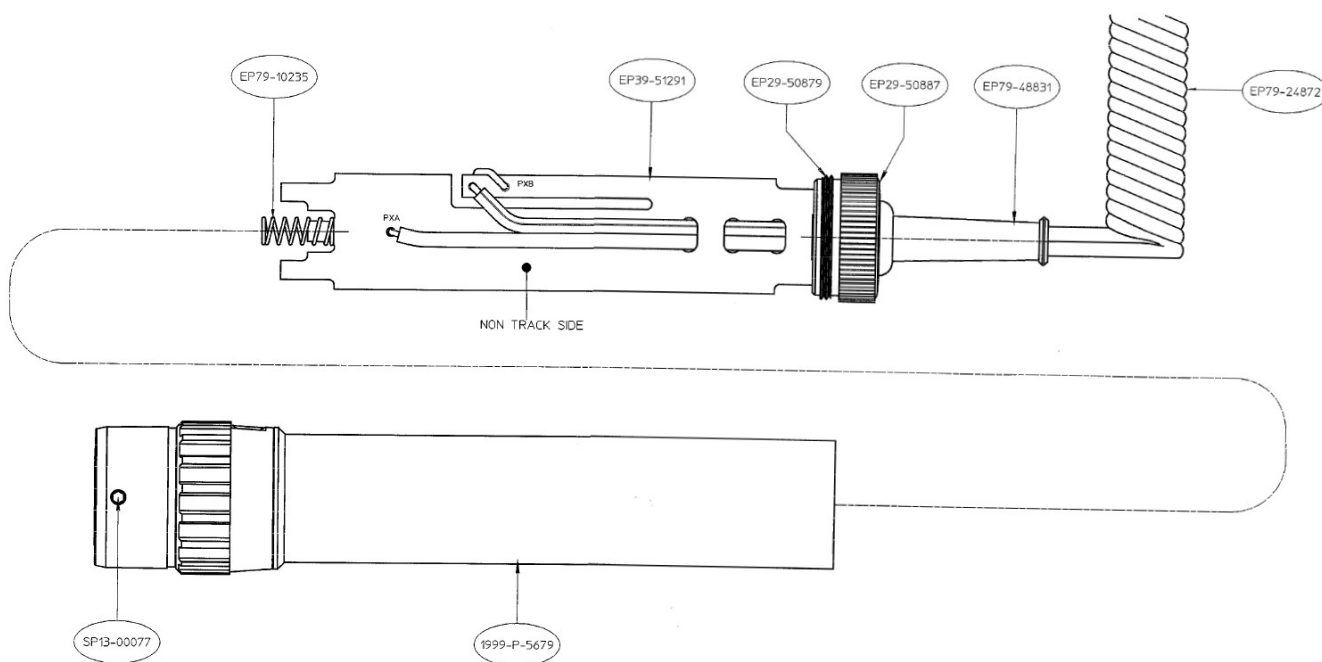
## Corded Handle Assy

We do not recommend dismantling the rheostat area of the Handle Assy (1999-P-5679) – there are no replaceable parts and jigs are required to fit the parts inside.

## Replacements

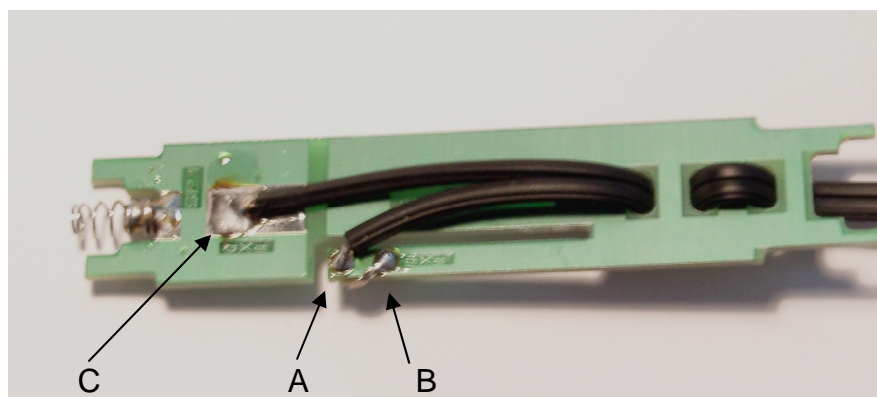
### Handle PCB

1. Carefully unscrew the Bottom Cap (EP29-50879) from the Handle Assy (1999-P-5679) and withdraw the Handle PCB (EP39-51291). The threaded section is Loctited during manufacture and some force may be necessary to break the seal.



2. Cut the 2 wires as close as possible to the solder pads on the PCB.
3. Unthread the Coiled Cable (EP79-24872) from both the Handle PCB (EP39-51291) and the Sleeved Grommet (EP79-48831)
4. Place the Contact Spring (EP79-10235) over the tab on the Handle PCB (EP39-51291) and solder it to the pad.

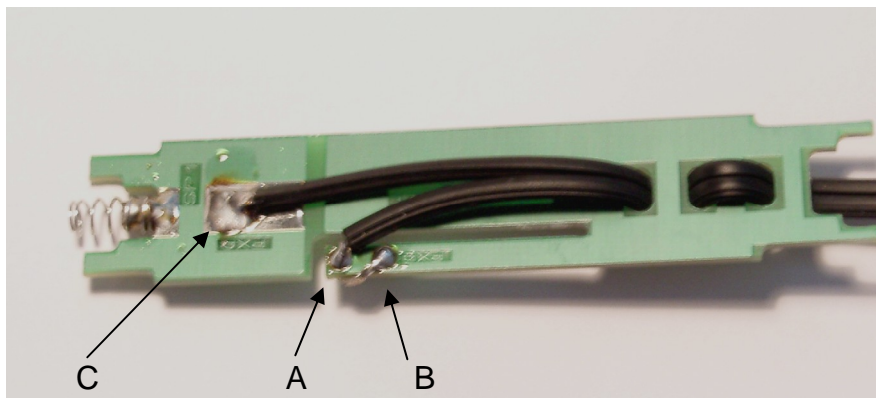
5. Thread the Coiled Cable (EP79-24872) through the Sleeved Grommet (EP79-48831) in the Cap Moulding (EP29-50827 and Handle PCB (EP39-51291) as shown ensuring that the marked core is aligned with holes A & B and it reaches approximately 5mm beyond point C



6. Separate the cores back to where they go through the Handle PCB (EP39-51291)
7. Strip approximately 5mm of insulation from the unmarked core
8. Solder the unmarked core to the pad at C
9. Cut the marked core approximately 15mm past point A and strip approximately 15mm of insulation from the marked core
10. Twist the wires of the marked core together and thread through hole a, round the edge of the Handle PCB (EP39-51291) and then through hole B so that the bare wire will contact the inside of the Handle Assy (1999-P-5679).
11. Solder both point A and point B.

## Coiled Cable

1. Carefully unscrew the Bottom Cap (EP29-50879) from the Handle Assy (1999-P-5679) and withdraw the Handle PCB (EP39-51291). The threaded section is Loctited during manufacture and some force may be necessary to break the seal.
2. Carefully un-solder the Coiled Cable (EP79-24872) from points A & B from the Handle PCB (EP39-51291). It may be necessary to cut the wires.
3. Clean the holes on Handle PCB (EP39-51291) so that the wires on the new Coiled Cable (EP79-24872) can be threaded through.
4. Unthread the old Coiled Cable (EP79-24872) from both the Handle PCB (EP39-51291) and the Sleeved Grommet (EP79-48831)
5. Thread the long end of the new Coiled Cable (EP79-24872) through the narrow end of Sleeved Grommet (EP79-48831) in the Cap Moulding (EP29-50827) and Handle PCB (EP39-51291) as shown ensuring that the marked core is aligned with holes A & B and it reaches approximately 5mm beyond point C



6. Separate the cores back to where they go through the Handle PCB (EP39-51291)
7. Strip approximately 5mm of insulation from the unmarked core
8. Solder the unmarked core to the pad at C
9. Cut the marked core approximately 15mm past point A and strip approximately 15mm of insulation from the marked core
10. Twist the wires of the marked core together and thread through hole A, round the edge of the Handle PCB (EP39-51291) and then through hole B so that the bare wire will contact the inside of the Handle Assy (1999-P-5679).
11. Solder both point A and point B.

## Spare Parts

Parts not listed are generally not available as spares.

Current prices for spare parts are available from Technical Service.

Technical Service  
Keeler Ltd  
Clewer Hill Road  
Windsor  
Berks  
SL4 4AA

Phone +44 (0)1753 827110

Fax +44 (0)1753 827114

## Spare Parts List

<b>Part No</b>	<b>Description</b>
1964-P-5002	Gen Med PCB Assy
1964-P-5003	Cord Slimline Handle
1999-P-5679	Slimline Handle – Drill & Tap
EP19-50924	Base Moulding – Gen Med Unit
EP19-50932	Top Moulding – Gen Med Unit
EP29-50879	Bottom Cap
EP39-51291	Gen Med Handle Flexi PCB
EP79-24872	Coiled Cable
1964-P-7000	Fixings – Gen Med Unit

The following list of parts is for identification only. The parts are only available as part of the complete Fixings kit

<b>Part No</b>	<b>Description</b>
EP29-50887	Cap Moulding
EP39-51320	Actuator
EP39-51339	Lever
EP79-10235	Contact Spring
EP79-10243	Right Angle Strain Relief
EP79-48831	Sleeved Grommet
EP79-51395	Spring
SP13-00077	M3 x 4 Grub Screw
SP72-55078	M2.5 x 12 Pan head Screw