Nellcor Pre-Amp Cables

Cable Preparation and Assembly

Connector End

Determine connector end; this is when looking into the cable the red, white and grey wires are in an anti-clockwise rotation.

Assemble Lemo connector parts onto cable; strain relief first, then the back nut and finally the collar.

Remove about 4cm of sleeving and foil.

Strip and tin only about 2mm of wires, twist and tin shield.

Place about 8mm of heat shrink onto each wire.

Solder wires into connector in the following order:

12- Open

11- Black

10- White (omit if 100 Mini)

9- Green

8- Red

7- Grey

6- Violet

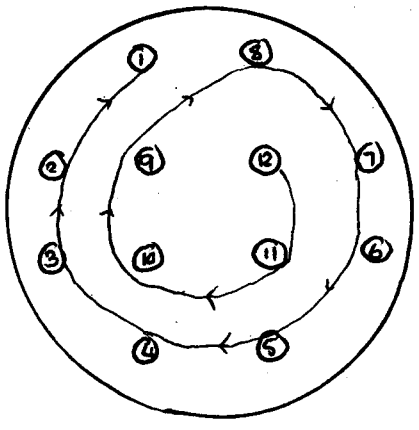
5- Yellow

4- Orange

3- Blue

2- Brown

1- Shield



Shrink heat shrink on each wire as it is connected.

Push on sleeving along the length of the cable to reduce the gap between the cable and connector.

Assemble the connector and close with spanners.

Slide strain relief onto back of connector.

Module End

If cable is to be used on a 'mini' then put the housing onto the cable.

Put strain relief onto cable..

Remove about 6cm of the outer sleeving and inner foil.

Cut about 3cm from the coloured wires but leave the shield wire at its original length.

Strip only about 2-3mm of insulation from the coloured wires.

Tin wires and shield.

Connect the wires to the PCB as follows.

N100/N200 'mini'	N200 with ECG	N100 (4 button)
1-Blue	1-Black	1-Black
2-Black	2-Red	2-Red
3-Red	3-Yellow	3-Yellow
4-Brown	4-Grey	4-Grey
5-Green	5-Violet	5-Violet
6-Orange	6-Orange	6-Orange
7-Yellow	7-White	7-White
8-Violet	8-Open	8-Green
9-Grey	9-Blue	9-Blue
	10-Brown	10-Brown
	11-Green	

Test unit **before** closing it up.

Close unit and retest. (See individual procedures for disassembly/assembly/closing up method)

Seal and label unit.

Nellcor N100/N200 Mini Pre-Amp Cable

Disassembly

Cut cable a few centimetres from the strain relief.
Place housing in a vice with the word 'NELLCOR' uppermost.
Saw between letters 'N' & 'E' of NELLCOR on the top of the housing.
Saw down either side of the housing, then join these cuts together by sawing along the bottom.
Turn the housing around and grip the end in the vice whilst holding the housing, pull the housing free.
Remove strain relief and cable sleeve from housing.
Cut strain relief in half at the moulding line to increase diameter.
Remove cable from strain relief by pushing a small screwdriver down between sleeve and strain relief to break glue seal, discard sleeve.
Remove and discard crimping sleeve from metal shield.
Disassemble metal shield from module.
Remove spacers, being careful not to lose them, and hold board in a mini vice with solder pads uppermost.
Remove coloured wires in turn.

Assembly

N100 & N200 mini do not require white wire so this can be cut off at the sleeve.
Put housing and strain relief onto cable.
Attach cable to PCB as mentioned in "Cable Preparation and Assembly- Module End".
Test unit.

Closing up

Push along the cable to push the sleeve right up to the P.C.B.
Replace spacer pegs.
Squash the cable clamp part of the metal shield with pliers, then replace the shield onto the P.C.B.
Wrap the shield wire around the flattened end of the metal shield.
Push the strain relief up to the shield and fix with super-glue.
Push plastic casing over module, using super-glue before closing casing as far as possible.
Fill the remaining crack with silicone, removing any excess sealant by wiping at right angles across the crack with a cloth soaked with alcohol.
Place a foil sticker around the module over the silicone.

Nellcor N100 Pre-Amp Cable

Disassembly

Cut cable off a few centimetres from the strain relief.
Open up the outer plastic casing.
Remove strain relief from case and module.
Remove metal shield.
On the side where the rubber sealant is thinnest, lightly slice across and remove the 2cm of rubber nearest the cable. This should reveal 2 sets of solder pads to which the wires attach.
Turn the module over and cut the rubber along the other side, being very careful to lift the scalpel if it hits any resistance to avoid cutting the capacitor under the rubber.
Remove all wires and prepare board for new cable.
Remove old cable from strain relief with a small screwdriver.

Assembly

Put strain relief onto cable.
Attach cable to PCB as mentioned in "Cable Preparation and Assembly- Module End".
Test unit.

Closing up

Push along the cable to slide the sleeving up to the PCB.
Tie-wrap the cable and secure with a spot of super-glue.
Glue down the sleeving to secure the wires to it.
Push strain relief up to the tie-wrap and glue in place.
Replace metal shield and solder shield wire to it.
Assemble outer casing, glue it into place and hold with clamp.
Add label and retest.

N200 with E.C.G

Disassembly

Cut cable off a few centimetres from the strain relief.
Remove the clip and the spring.
Separate and remove the outer casing by prying it apart.
Remove old cable from strain relief with a small screwdriver.
Remove the metal shield. If the shield is made of foil, cut away the amount necessary as oppose to removing it all.
On the side where the rubber sealant is thinnest, lightly slice across and remove the 2cm of rubber nearest the cable. This should reveal 2 sets of solder pads to which the wires attach.
Turn the module over and cut the rubber along the other side, being very careful to lift the scalpel if it hits any resistance to avoid cutting the capacitor under the rubber.
Remove all wires and prepare board for new cable.

Assembly

Put strain relief onto cable.
Attach cable to PCB as mentioned in "Cable Preparation and Assembly- Module End".
Test unit.
If the amp connector needs replacing, cut the legs off and de-solder from the PCB before soldering a new connector on.

Closing up

Push along the cable to slide the sleeving up to the PCB.
Tie-wrap the cable and secure with a spot of super-glue.
Glue down the sleeving to secure the wires to it.
Push strain relief up to the tie-wrap and glue in place.
Replace metal shield and solder shield wire to it.
Assemble outer casing, making sure that the bezel for the amp connector is in place and the pin locates properly.
Glue it into place and hold with clamp.
Add label and retest.

DB-9 MALE

DB-9 FEMALE