

CABLE PREP AND ASSEMBLY PROCEDURE (OPEN UNIT BEFORE PROCEEDING)

A. CONNECTOR END

1. DETERMINE CONNECTOR END - RED, WHITE & GRAY WIRES IN CCW ROTATION.
2. ASSEMBLE STRAIN RELIEF, BACK NUT AND COLLET TO CABLE.
3. REMOVE 1/2" OF JACKET AND REMOVE FOIL.
4. STRIP AND TIN WIRES & SHIELD.
5. CONNECT WIRES & SHIELD TO THE INSERT (INSIDE OUT) WITH 1/16 X 1/4" LA SHRINK TUBING.
6. PULL JACKET TOWARD THE INSERT.
7. ASSEMBLE CLAMS AND SHELL, LOCK DOWN WITH WRENCHES.

B. MODULE END (PERFORM OPEN PROCEDURE BEFORE PREPPING THIS END, (PAGE 2))

1. ASSEMBLE STRAIN RELIEF (AND "MINI" CASE) TO CABLE.
2. REMOVE 2 1/2" OF JACKET AND REMOVE FOIL.
3. CUT 1" FROM WIRES, LEAVE GROUND DRAIN AS IS.
4. STRIP & TIN WIRES.
5. CONNECT WIRES TO PC BOARD AS FOLLOWS:

N100 & N200 "MINI"	
1	BLUE
2	BLACK
3	RED
4	BROWN
5	GREEN
6	ORANGE
7	YELLOW
8	VIOLET
9	GRAY

N200 WITH ECG	
1	BLACK
2	RED
3	YELLOW
4	GRAY
5	VIOLET
6	ORANGE
7	WHITE
8	NC
9	BLUE
10	BROWN
11	GREEN

N100 (4 BUTTON)	
1	BLACK
2	RED
3	YELLOW
4	GRAY
5	VIOLET
6	ORANGE
7	WHITE
8	GREEN
9	BLUE
10	BROWN

6. TEST UNIT BEFORE CLOSING UP.
7. CLOSE-UP UNIT AND RE-TEST. (SEE PAGE 2 FOR CLOSING PROCEDURE)
8. SEAL AND LABEL UNIT.

CONFIDENTIAL



EPIC MEDICAL EQUIPMENT SERVICES, INC.

Dallas, Texas

SCALE: NA	APPROVED BY:	DRAWN BY: WORLEY
DATE: 11/27/95		REVISED:
NELCOR PATIENT MODULE - N100 & N200 OXIMETERS		
REPAIR STANDARDS		DRAWING NUMBER NELCOR 2 PAGE 2 OF 3

MODULE DISASSEMBLY & ASSEMBLY PROCEDURE

A. N100 & N200 "MINI"

1. DISASSEMBLY

- a. SAW BETWEEN BIG "N" & "E" ON ALL SIDES.
- b. CUT STRAIN RELIEF AT REAR OF MOLD.
- c. ASSEMBLE HOUSING & STRAIN RELIEF TO CABLE.
- d. REMOVE & DISCARD CRIMPING SLEEVE FROM METAL SHIELD.
- e. DISASSEMBLE METAL SHIELD FROM MODULE.
- f. PREP BOARD FOR CABLE ATTACHMENT.
- g. ATTACH NEW CABLE TO PC BOARD (SEE PAGE 2 FOR ASSEMBLY PROCEDURE).
- h. TEST UNIT.

2. ASSEMBLY

- a. FLATTEN REAR FLANGES OF METAL SHIELD.
- b. PULL CABLE JACKET DOWN.
- c. ASSEMBLE METAL SHIELD TO MODULE.
- d. WRAP SHIELD DRAIN AROUND FLANGE (TOP) ONE TURN.
- e. PULL STRAIN RELIEF OVER FLANGE.
- f. PULL CASE OVER THE MODULE. PUSH CASE DOWN AS FAR AS POSSIBLE.
- g. SEAL WITH GLUE AND FILLER.
- h. TEST AND LABEL.

B. N200 WITH ECG

1. DISASSEMBLY

- a. REMOVE CLIP AND SPRING.
- b. SEPARATE CASE AND REMOVE MODULE.
- c. REMOVE METAL SHIELD AND STRAIN RELIEF. (ASSEMBLE STRAIN RELIEF TO CABLE).
- d. CUT BLACK FILLER BACK FROM CABLE END 5/8" (SEE NOTE).
- e. PREP BOARD FOR CABLE ATTACHMENT.
- f. ATTACH NEW CABLE TO PC BOARD (SEE PAGE 2 FOR ASSEMBLY PROCEDURE).
- g. TEST UNIT.

2. ASSEMBLY

- a. PULL DOWN CABLE, ATTACH PC BOARD TO STRAIN RELIEF AND ZIP TIE JACKET TO CABLE.
- b. GLUE WIRES TO JACKET.
- c. ASSEMBLE METAL SHIELD TO MODULE AND SOLDER SHIELD DRAIN TO METAL SHIELD.
- d. ASSEMBLE CASE TO MODULE, SEAL W/ GLUE AND CLAMP.
- e. TEST AND LABEL.

C. N100 (4 BUTTON)

1. DISASSEMBLY

- a. SEPARATE CASE (MAY HAVE END CAP).
- b. REMOVE STRAIN RELIEF FROM CASE AND MODULE.
- c. REMOVE METAL SHIELD.
- d. CUT BLACK FILLER BACK FROM CABLE END 5/8".
- e. PREP BOARD FOR CABLE ATTACHMENT.
- f. ATTACH NEW CABLE TO PC BOARD (SEE PAGE 2 FOR ASSEMBLY PROCEDURE).
- g. TEST UNIT.

2. ASSEMBLY

- a. PULL DOWN CABLE, ATTACH PC BOARD TO STRAIN RELIEF AND ZIP TIE JACKET TO CABLE.
- b. GLUE WIRES TO JACKET.
- c. ASSEMBLE METAL SHIELD TO MODULE AND SOLDER SHIELD DRAIN TO METAL SHIELD.
- d. ASSEMBLE CASE TO MODULE, SEAL W/ GLUE AND CLAMP.
- e. TEST UNIT AND LABEL.



EPIC MEDICAL EQUIPMENT SERVICES, INC.

Dallas, Texas

SCALE: NA

APPROVED BY:

DRAWN BY WORLEY

DATE 11/28/95

REVISED

NEUCOR PATIENT MODULE - N100 & N200 OXIMETERS

REPAIR STANDARD

DRAWING NUMBER
NEUCOR 2
PAGE 3 OF 3

INTERNATIONAL OXIMETRY SENSORS & CABLES, INC.
DALLAS, TEXAS

QUALITY CONTROL PROCEDURE
REPAIRED NELLCOR PATIENT MODULE

Original Copy - Engineering
Copy #1 - Quality assurance
Copy #2 - Quality Control
Date Initiated 11/29/95 by GW

Rev: _____ Date _____ by _____

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MODEL N100 & N200

I. PHYSICAL

A. CONNECTOR

1. Inspect for bent or broken pins.
2. Inspect strain relief.
3. Inspect for proper connector assembly and secure mechanical union.

B. CABLE

1. Inspect for cuts and/or abrasions.
2. Inspect for cleanliness.

C. PREAMP HOUSING

1. Inspect connector.
2. Check strain relief.
3. Check for proper labels attached in the prescribed manner.

II. ELECTRICAL

A. CONTINUITY

1. Connect cable to "AA" and "BB" connectors on the test fixture.
2. Place the "GREEN (P3)" switch in position "1" and depress the "WHITE" button. The GREEN LIGHT should glow.

QUALITY CONTROL PROCEDURE

REPAIRED NELLCOR N100 & N200 PATIENT MODULES

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3. Repeat step 2 above in positions 2 - 6. The GREEN LIGHT should glow in all positions.

II. ELECTRICAL (cont.)

B. OP AMP

1. Turn on the +/-15v power supply.
2. Set scope to : * - 0.2v/Div (CH1)
 * - 1.0msec/Div (A&B)
3. Depress the "BLACK (P4)" button. The scope should indicate the following pattern.

+ - + - + - + - + - + - + - +

III. PERFORMANCE

A. CABLE CONNECTOR

1. Connect N200 or N100 (5 button) to "Nellcor" N200 Oximeter Monitor.

NOTE: Connect N100 (4 button) to N100 Monitor.

B. SENSOR CLIP CONNECTOR

NOTE: Use your finger for confirmation of the N100 (4 button).

1. Attach the NELLCOR TESTER PT-2500 to the N200 or N100 (5 button) cable.
2. Make sure the "RED" light is glowing.
3. The Oximeter should read 81% SaO2 (+/- 1%) and pulse rate of 47 (+/- 1bpm).

IV. GENERAL

- A. Make sure all required entries are recorded.
- B. Initial "Acceptance" or "Failure".
- C. Record the date QC was performed.
- D. Send the unit to SHIPPING for return to the customer.