Equipment type: Finger probe	Part Number:	
Batch Size		
Nos	**Viamed Part number**	**Description**
1	0010101	Viamed SpO2 finger probe service kit (black pads)
1	0010604	9 pin cable plug kit,black(includes connector/cable clamp/strain relief)
1	0032134	Resistor - 56K2, metal film
3.65m	0030513	SpO2 cable - version D (production)
30mm	0032331	Heatshrink tubing - clear, 6.0mm, 7m reel

Assembly Clip

1. Prepare Clip end of cable as follows
   a. Attach strain relief "0010150," to relevant replacement cable, and glue in position.
   b. Strip back outer cable cover of exposed end 1mm from end of strain relief.
   c. Remove outer shield and paper, and cut off Kevlar fibres and any unused wires.
   d. Strip and tin relevant coloured wires (from red, yellow, blue, orange) to 13mm from end of cable cover. Strip and tin last 1mm of each wire.
   e. Cut inner white cable to 78mm from end of outer cable cover, strip last 8mm of inner cable cover, strip and tin last 1mm of black and white wires, cut off inner shield and discard
   f. Strip and tin ends of black and white wires.
2. Solder wires to components as per relevant diagram
3. Fit components into pads as follows
   a. Position components in drying rack.
   b. Place a small amount of flowable non-corrosive silicone sealant onto the face of the components.
   c. Place pads onto components, ensuring that both emitter and detector are central in pad windows. Also note that the silicone on the outside of the pad must run to the contour of the pad to make a smooth window - there should be no doming or sinking of the window. Any excess can be removed with a small screwdriver, also any deficit can be topped up with small amounts of silicone from a screwdriver tip - however these steps should be taken within 2 minutes of the pad being placed on the component, before the silicone has had time to become tacky, so that it is still flowing enough to ensure that the window will return to a smooth flat surface
   d. Leave pads to set for 24 hours.

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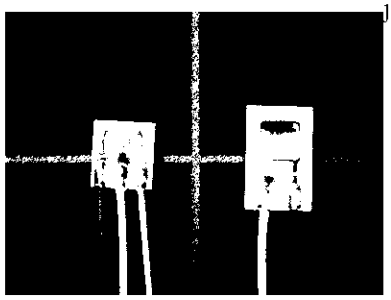
Date	
Revised By	

4. Assemble the clip as follows
   a. Glue white inner cable into channel in detector pad
   b. Fill around component with silicone
   c. Glue pad support onto back of detector pad.
   d. Glue pad support onto back of emitter pad.
   e. Glue white inner cable into channel in emitter pad.
   f. Fill around component with silicone
   g. Refit replacement springs "0010140," around pads.
   h. Push pads into position within clip, making sure that the pad support rim is securely underneath the pad retaining lugs - there are four retaining lugs for each pad. If any lugs are not holding the pad support securely, then add a drop of superglue to the relevant lug.
   i. Glue strain relief into position in clip body.
   j. Add labels as required.



Assembly Connector

5. a/ Check that all the relevant parts are in the connector kit - the kit should contain:
1 x backnut (black), 1 x collet (black), 1 x 9 pin hole insert (black), 1 x barrel (black), 7 pins,
1 x cable clamp (0030500), 1 x strain relief (from multipack 0010618).

b/ Add a 30mm length of heatshrink (0032331) to the cable.

c/ Add the backnut to the cable.

d/ Add the collet to the cable.

e/ Push the strain relief (from multipack 0010618) on to the cable, using isopropyl alcohol as a lubricant.

f/ Strip the outer cable cover back by 30mm, using the cable stripper (0060031).

g/ Unwind, but do not remove, the outer shield. Remove the paper layer, and the Kevlar strands, using flush cutter (0060020), cutting them flush to the end of the cable cover. Also remove the unused wires, using the flush cutter, flush to the end of the cable cover.

h/ Strip the inner cable cover back, using the cable stripper, as close to the end of the outer cable cover as possible. Unwind, but do not remove, the inner shield.

i/ Twist together the outer and inner shields, and tin this between 9-15mm from the cable cover.

j/ Cut both of these twisted shields at 12mm from the outer cable cover using the flush cutter. Trim off

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Date	
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any loose strands of shield flush to the cable cover.

k/ Cut the emitter and detector wires to 15mm from the outer cable cover. Strip and tin the last 2mm of each wire. Add the cable clamp (0030500) to the cable.

l/ Solder pins to both detector wires, and all emitter wires.

m/ Cut one of the legs of the 56K2 resistor (0032134) to 4mm from the resistor body. Cut the other leg to 15mm from the resistor body. Bend the longer leg of the resistor to form a hairpin, ensuring that the ends of both legs are now level.

n/ Solder pins to both legs of the 56K2 resistor.

o/ Solder the twisted shields to the longer leg of the 56K2 resistor, between the body of the resistor and the pin, 3mm above the point where the leg of the resistor enters the pin.

p/ Referring to the wiring diagram, fit the pins into the insert as follows:

i/ Fit the short leg of the 68K1 resistor into pin hole 5, and the long leg of the resistor, with the twisted shield attached, into pin hole 7, ensuring that they click into place.

ii/ Fit the other pins into the relevant pin holes as per the wiring diagram, ensuring they click into place.

q/ Clamp the cable clamp onto the cable, using the cable crimp tool (0010501), 2mm from the end of the outer cable cover. Slide the strain relief up so that it is flush to the cable clamp.

r/ Slide the collet up so that it is flush to the insert, then slide this into the barrel. Fasten the backnut to the barrel, and screw on until it is finger tight.

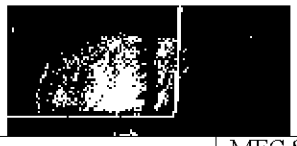
Connector rear view:

1. Orange
2. Red
3. No pin
4. Yellow
5. R1
6. No pin
7. R1 + main + inner shield

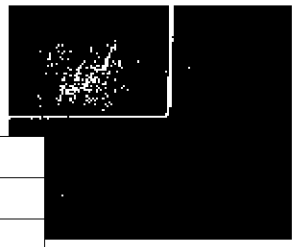
White **8.** Test using component tester and test box:

Black **9.**

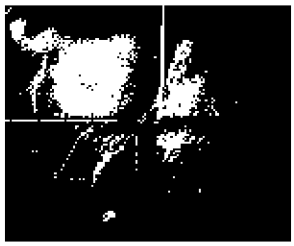
Position 1:Red emitter



Position 2:IR emitter



Position 3:Photo-diode



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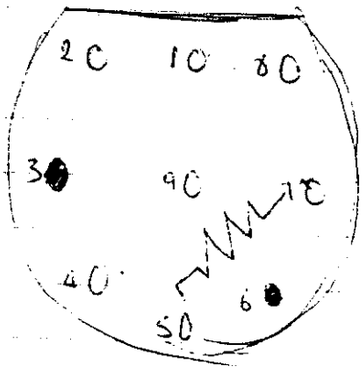
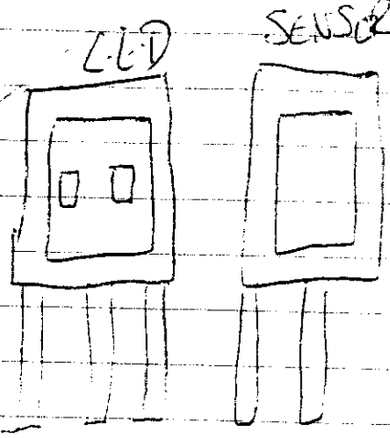
Date	
Revised By	

28/7/00 P867 RA. Cinreda.
Hypertronics 9 Pin. Insertion Side.



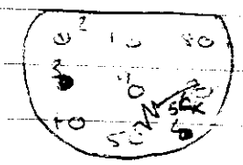


1/ orange
2/ RED
3/ N/C
4/ Yellow
5/
6 N/C — 68KΩ resistor
7/ shields
8/ White
9/ Black

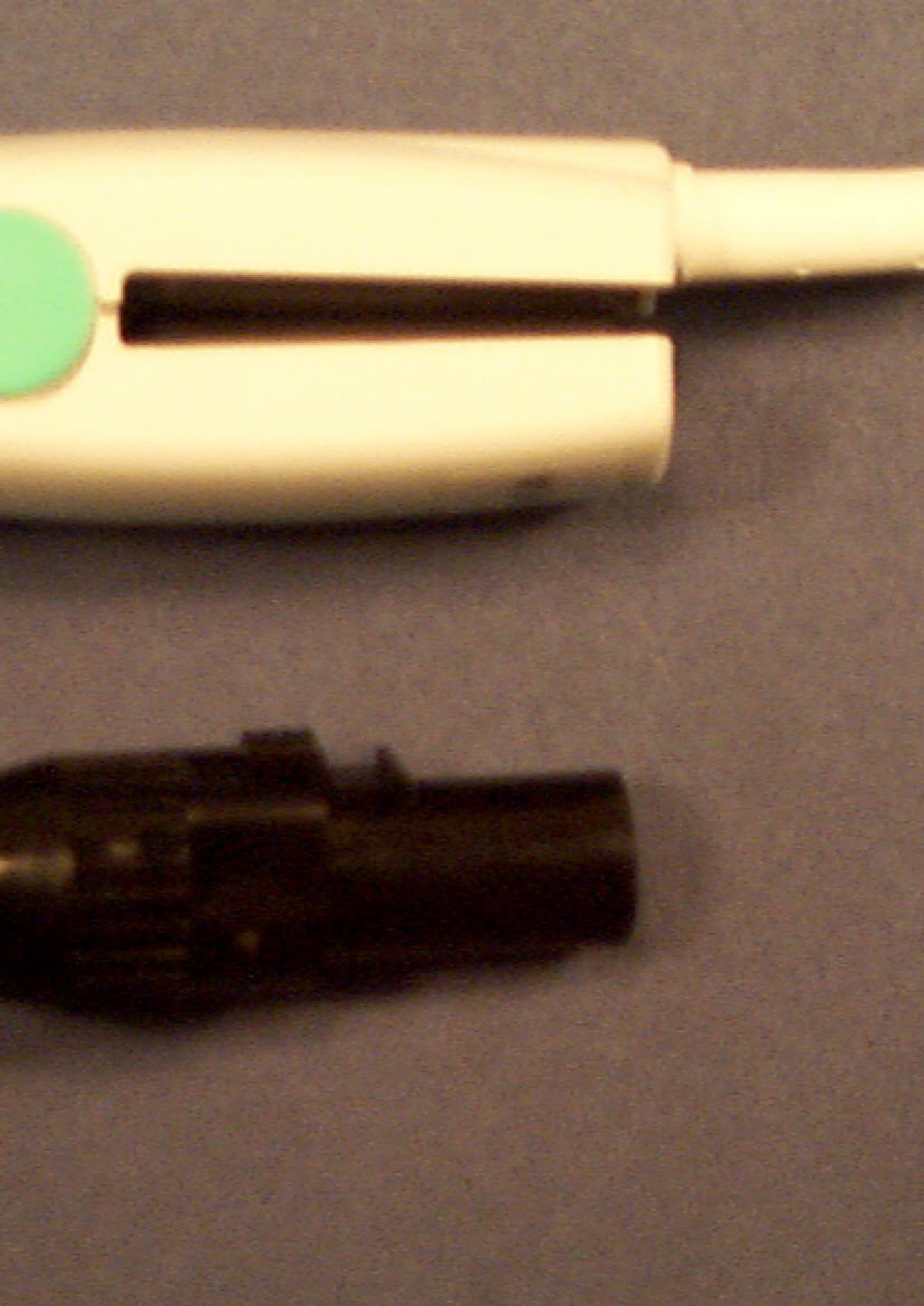
1/ RED
2/ Yellow
3/ Orange
4/ White
5/ Black

18-9-00 P867RA Cinreda from scratch

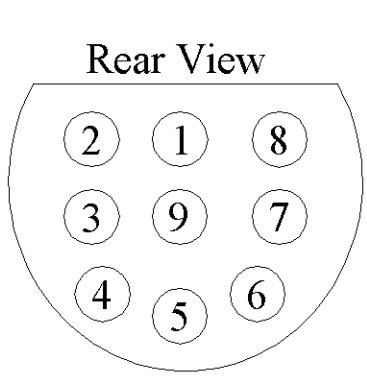
1 Orange - Infra Red
2 Red - Red
3 n/c
4 Yellow - Common
5 - 56K resistor
6 n/c
7 Both shields / 56K resistor
8 White
9 Black

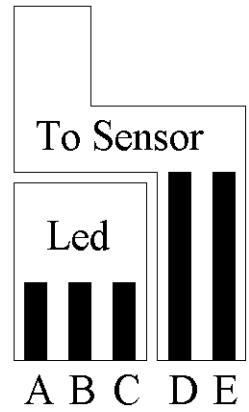


RED Light
Connection
1. R



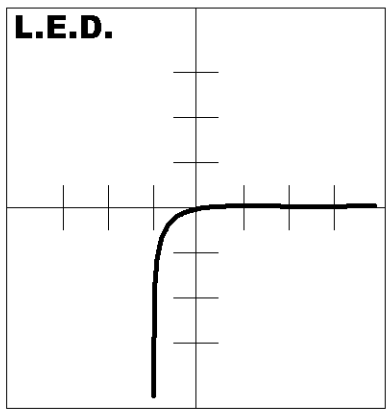
Date		Type	Ohmeda
Schematic's			



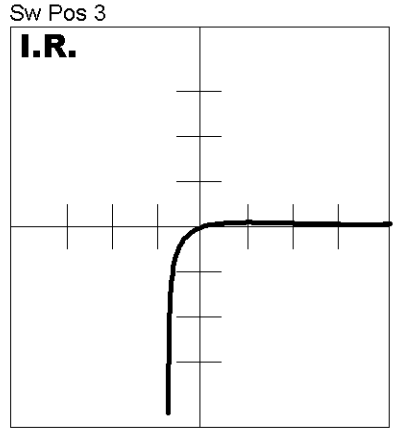


Pin Number	Ohmeda Cable Original Model	Ohmeda Cable New Model	Epic Cable Original Model	Epic Cable New Model
1	Orange	Orange	Orange	Orange
2	Green	Green	Yellow	Yellow
3	-	-	-	-
4	Red	Red	Red	Red
5	Resistor	Resistor	Resistor	Resistor
6	-	-	-	-
7	Resistor	Resistor + Shield	Resistor	Resistor + Shield
8	Black	Black	Black	Black
9	Shield	White	Shield	White
A	Green	Green	Yellow	Yellow
B	Red	Red	Red	Red
C	Orange	Orange	Orange	Orange
D	Black	Black	Black	Black
E	Shield	White	Shield	White

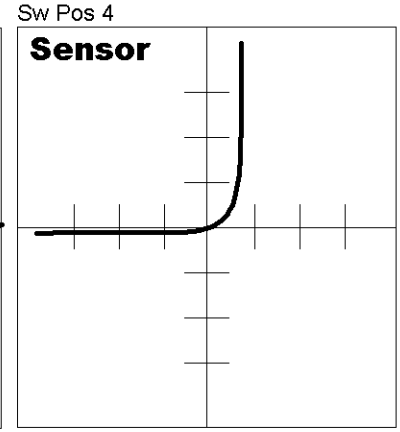
Sw Pos 2



Sw Pos 3



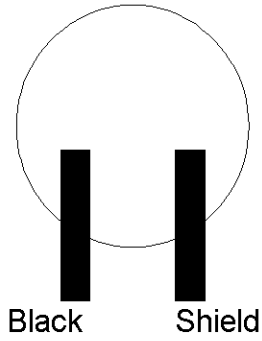
Sw Pos 4



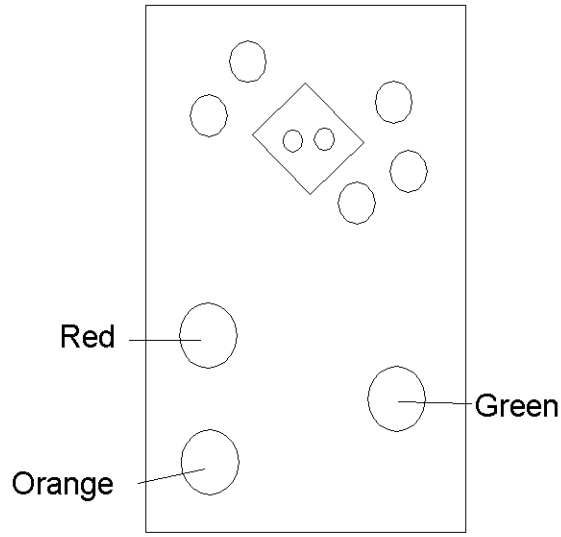
Drawn By:		Signed	

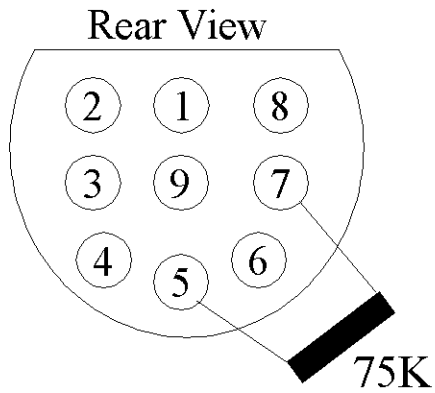
Date	24/03/97	Type	Ohmeda Ear Clip
Ohmear.cmx			

SENSOR FACE DOWN



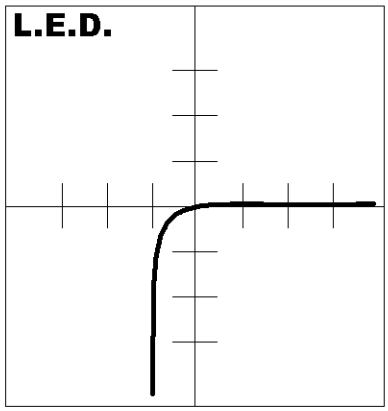
LED FACE DOWN



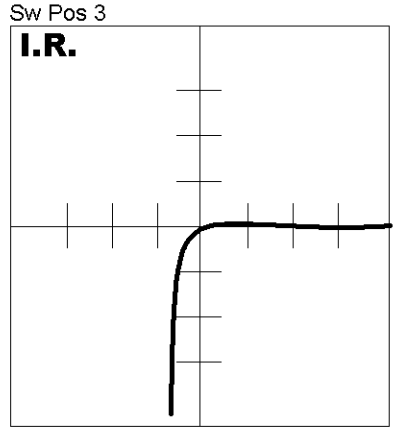


1 Orange
2 Green
3 N/C
4 Red
5 Resistor
6 N/C
7 Resistor
8 Black
9 Shield

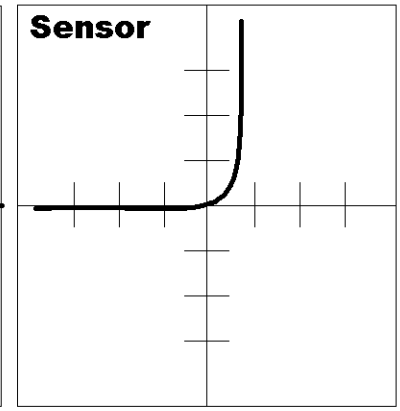
Sw Pos 2



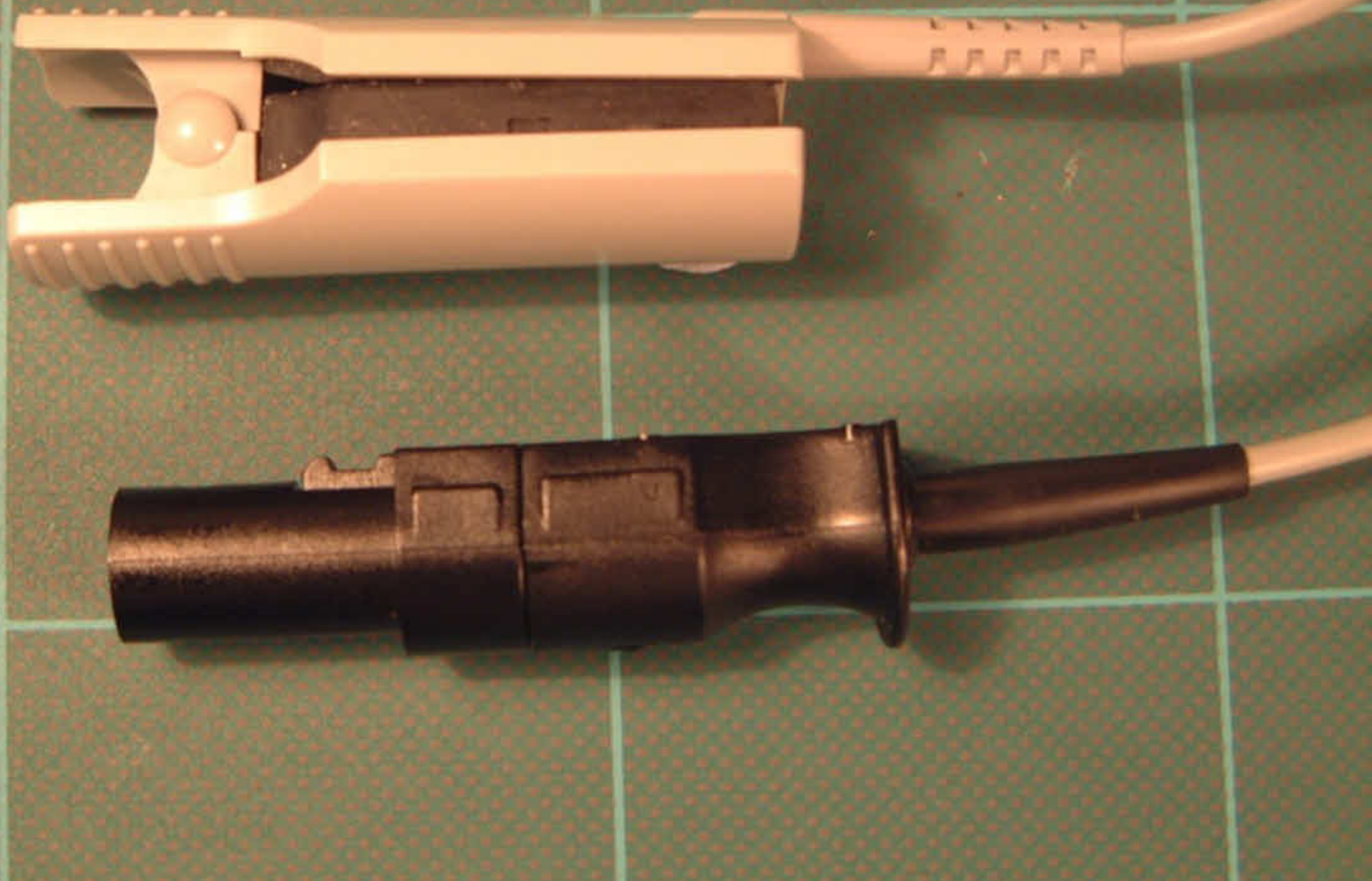
Sw Pos 3

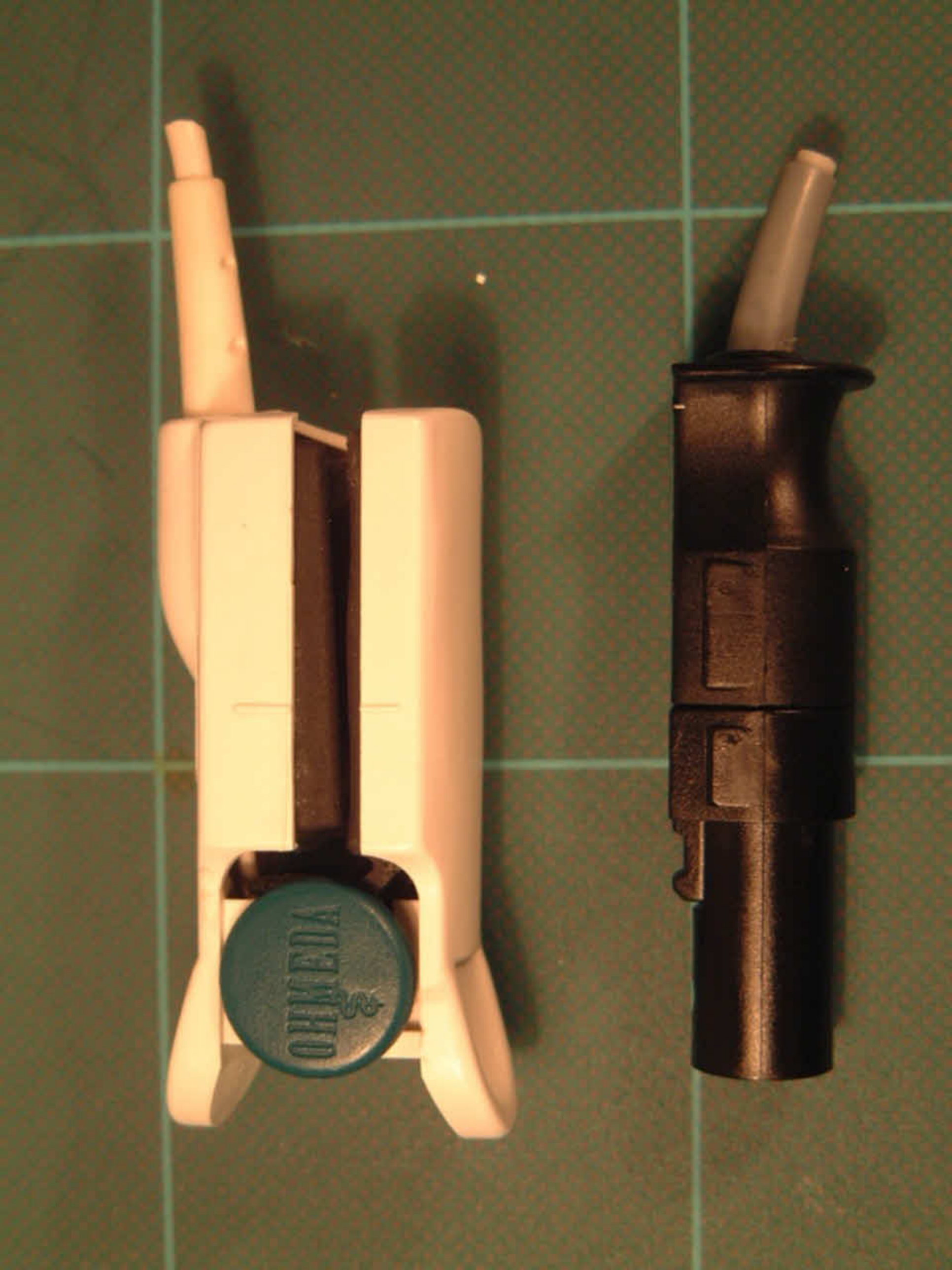


Sw Pos 4



Drawn By:	Derek Lamb	Signed	

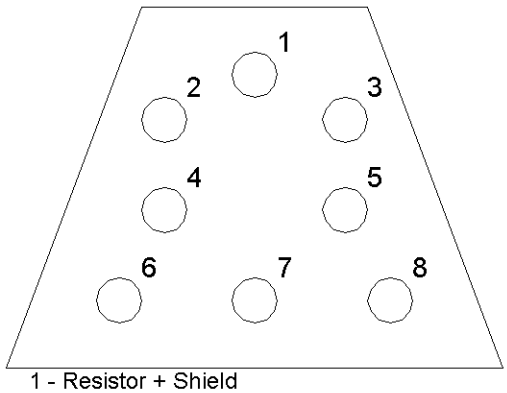



ONEIDA

Date	18/06/96	Type	OXI TIP OHMEDA

Schematic's

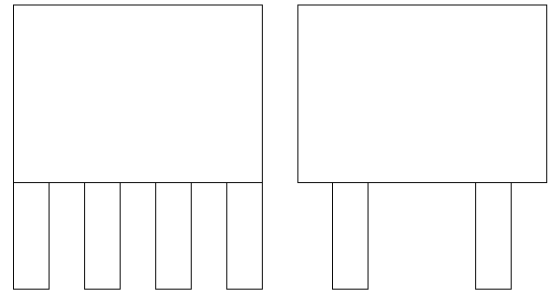
Oxi Tip Connect Pins Pointing out



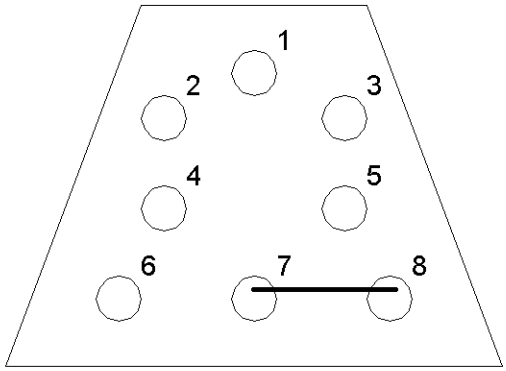
1 - Resistor + Shield
2 - Resistor + Shield
3 - Orange
4 - White
5 - Green
6 - Black
7 - Brown
8 - Red

LED Facing Down

SENSOR Facing Down

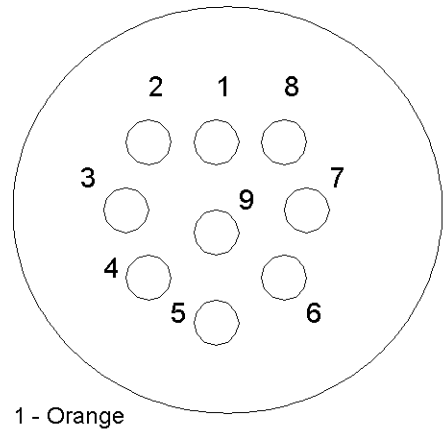


A - Orange (3)
B - Red (8)
C - Green (5)
D - Brown (7)
E - White (4)
F - Black (6)



1 - Blue
2 - Yellow
3 - Orange
4 - Shield
5 - Green
6 - Black
7 - Red
8 - Red

Ohmeda Plug

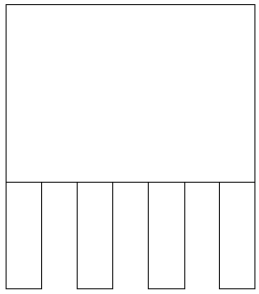


1 - Orange
2 - Green
3 -
4 - Red
5 - Blue
6 -
7 - Yellow
8 - Black
9 - Shield

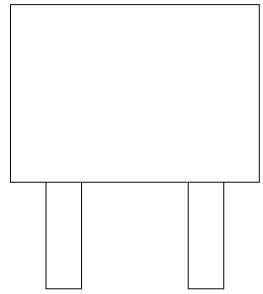
Drawn By:		Signed	

Date	18/06/96	Type	OXI TIP OHMEDA - Replacing Cable
Oxitip2.cmx			

LED Facing Down



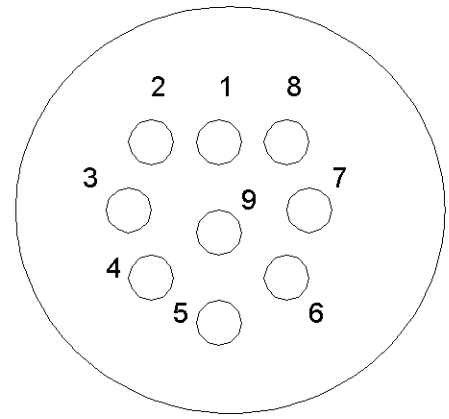
SENSOR Facing Down



ORIGINAL CABLE
A - Orange (3)
B - Red (8)
C - Green (5)
D - Brown (7)
E - White (4)
F - Black (6)

REPLACEMENT CABLE
A - Orange
B - Red
C - Yellow
D - Red
E - White
F - Black
NB. Short B & D

Ohmeda Plug



ORIGINAL CABLE
1 - Orange
2 - Green
3 -
4 - Red
5 - Blue
6 -
7 - Yellow
8 - Black
9 - Shield

REPLACEMENT CABLE
1 - Orange
2 - Yellow
3 -
4 - Red
5 - 47K Resistor + Shield
6 -
7 - 47K Resistor + Shield
8 - Black
9 - White
NB. Short 5 & 7

Notes
Leave 3cm of original wire attached to L.E.D. / Sensor when rewiring

When rewiring with replacement cable:
attach wires as follows:

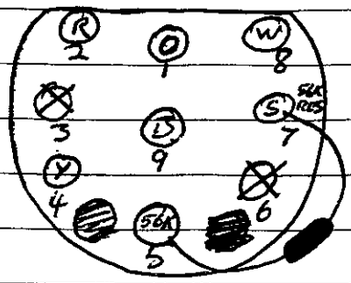
Ohmeda Wire		Epic Wire
Orange	----------	Orange
Green	----------	Yellow
Brown	----------	Red
Red	----------	Red
Black	----------	Black
White	----------	White

Drawn By:	**D.lamb**	Signed	

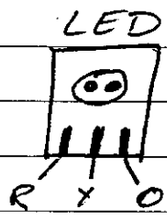
P867RA OHMEDA.

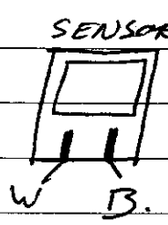
12' CABLE

1 = ORANGE
2 = RED
3 = N/C
4 = YELLOW
5 = 56K RES.

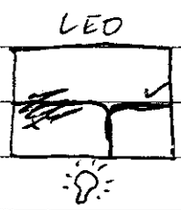


6 = N/C
7 = BOTH SHIELDS / 56K RES
8 = WHITE
9 = BLACK.

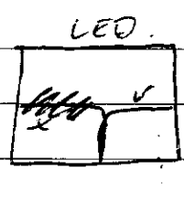




NOTE. BLACK FINGER PADS + GREEN H'S & BUTTONS
0010133 0010182



2



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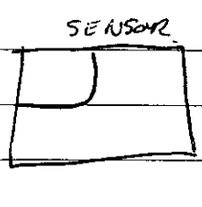
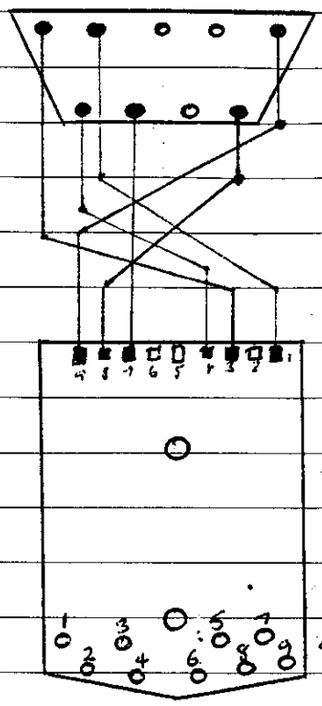


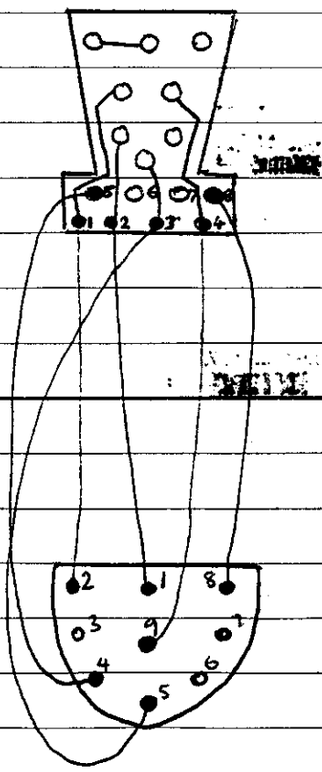
4

Rear view



1 Blue
2 Black
3 Red
4 Brown
5 Green
6 Orange
7 Yellow
8 Purple
9 Grey

OKTTIP EXTENSION

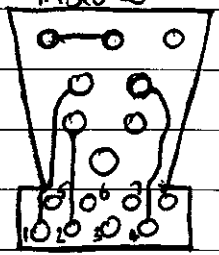


1 Green
2 Orange
3 ~~Orange~~ Blue
4 Shield
5 Red
6 n/c
7 Yellow
8 Black

1 Orange
2 Green
3 n/c
4 Red
5 Blue
6 n/c
7 Yellow
8 Black
9 Shield

Oxytip extn.

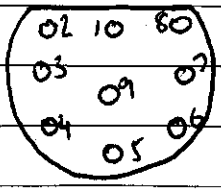
Inside



probe end

1 Green	5 Red
2 Orange	6 n/c
3 Blue	7 Yellow
4 Shield	8 Black

plug end



1 Orange	6 n/c
2 Green	7 Yellow
3 n/c	8 Black
4 Red	9 Shield
5 Blue	

MCI WIRE FOR OXI TIP EXTENTION CABLE

	CHANNEL
INTERNAL RV	
1, RED	RED
2, x	-
3 - Shields	Yellow
4. Black	Black
5, Yellow	~~Orange~~
6, Orange	~~Blue~~
7, Blue	~~Black~~
8, white.	

RV

1, ~~Orange~~
2, Yellow
3, -
4, Red.
5, Blue

6, -
7, Shields
8, Black
~~9~~ White,

OXI TIP PROBE MCI WIRE

CONN RV

1, Shields
2, Orange
3, Red
4, Green
5, Brown
6, White
7, Black.

LED RV

ORSB

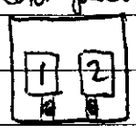
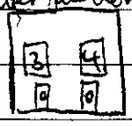
Sensor RV

W B

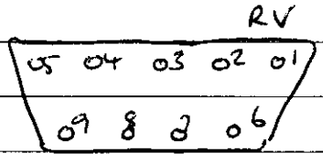
21 700

BB

New Short Dates

	Original Cable	Viaired Cable
Detector face down	1 White	1 White
	2 Green	2 Black
	3 Red	3 Red
Shutter face down	4 Black	4 Yellow
		

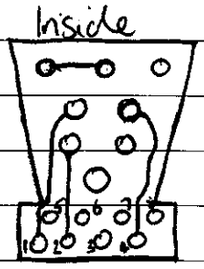
RV



	Original Cable	Viaired Cable
1	link to 6	1 link to 6
2	n/c	2 n/c
3	Red	3 Red
4	n/c	4 n/c
5	White	5 White
6	link to 1	6 link to 1
7	Black	7 Yellow
8	Inner Shield	8 Innershield
9	Green	9 Black

Oxytip extn.

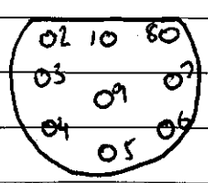
Inside



probe end

1	Green	5 Red
2	Orange	6 n/c
3	Blue	7 Yellow
4	Shield	8 Black

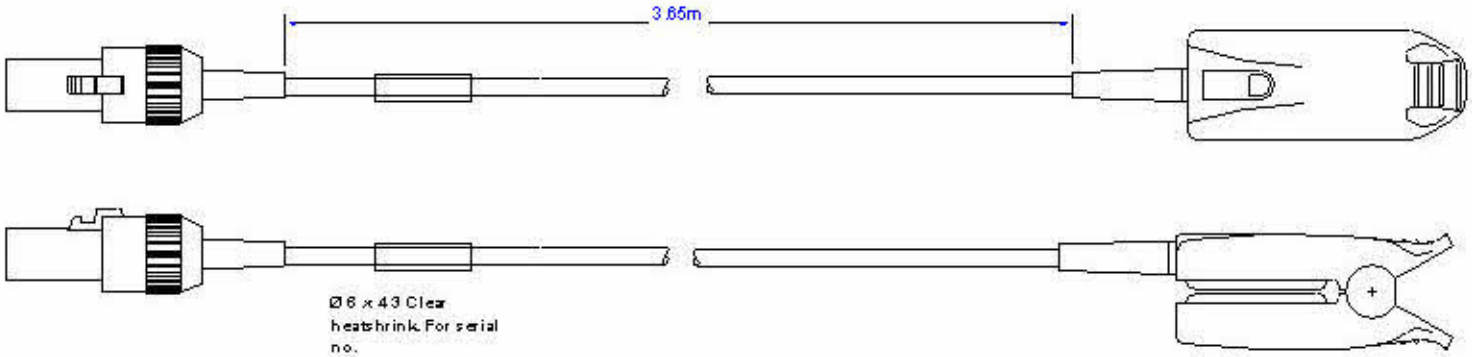
plug end

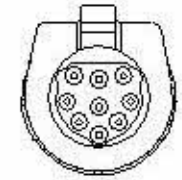


1	Orange	6 n/c
2	Green	7 Yellow
3	n/c	8 Black
4	Red	9 Shield
5	Blue	

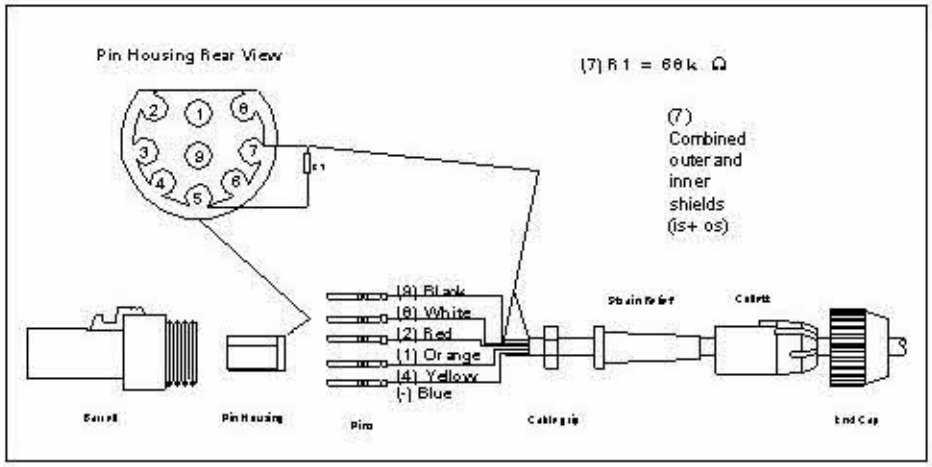
Hypertronics Male 9 Pin

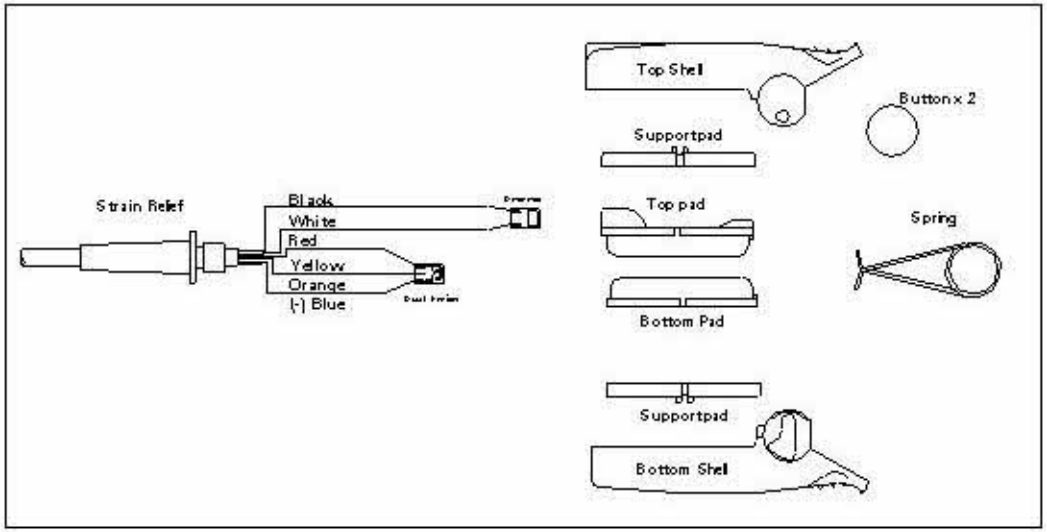
Finger Probe





Enlarged front view





					Material:	Title	P867RA Ohmeda	Dim in	mm
								Tol	± 0.2
						Scale	Not To Scale	Drawn	J.Nirwan
REV	Date	N°	Drawn	Approv	Part No. 0018670	Date	30/01/02	Dwg No.	SPF-867

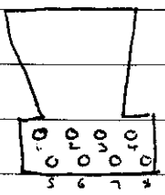
VIAMED Ltd.
15 Station Rd
Cross Hills, Keighley
West Yorkshire
BD20 7DT

21100

Oxytip Extension (ORIGINAL)

Oxytip Connector:

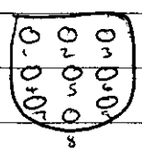
Top View



(Nos are not Marked on connector)

1. Red
2. N/C
3. Yellow
4. Black
5. Green
6. Orange
7. Blue
8. Shield

Ohmeda/Hypertronics connector



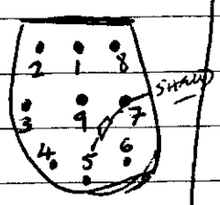
(Nos are not Marked on connector)

R/V

1. Green
2. Orange
3. Black
4. - N/C
5. Shield
6. Yellow
7. Red
8. Blue
9. —

13/9/00 12½ FT. MICHAEL LYTWYN

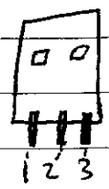
P867RA OHMEDA REPAIRS ONLY



CUT OFF BLUE

1) ORANGE.
2) RED.
3) N/C
4) YELLOW
5) 68KΩ RESISTOR.
6) N/C
7) SHIELDS + 68K RESISTOR.
8) WHITE.
9) BLACK.

LED



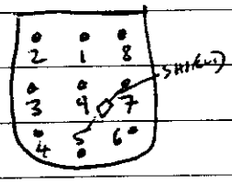
1) RED.
2) YELLOW
3) ORANGE

SENSOR.

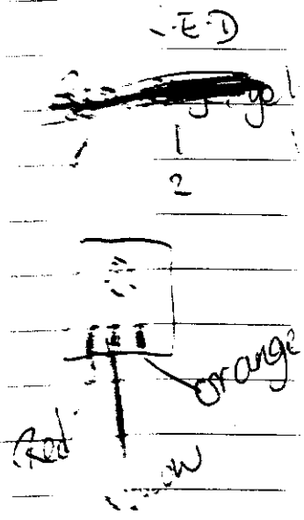
4) WHITE
5) BLK

18/9/00 P867RA OHMEDA FROM SC,2...

CUT OFF BLUE.

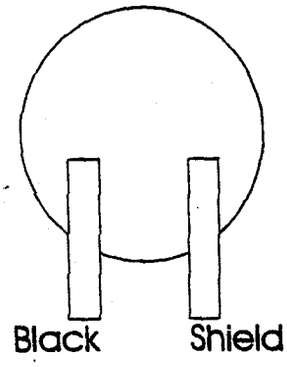


1) ORANGE.
2) RED.
3) N/C.
4) YELLOW
5) RESISTOR
6) N/C
7) BOTH SHIELDS.
8) WHITE.
9) BLACK.

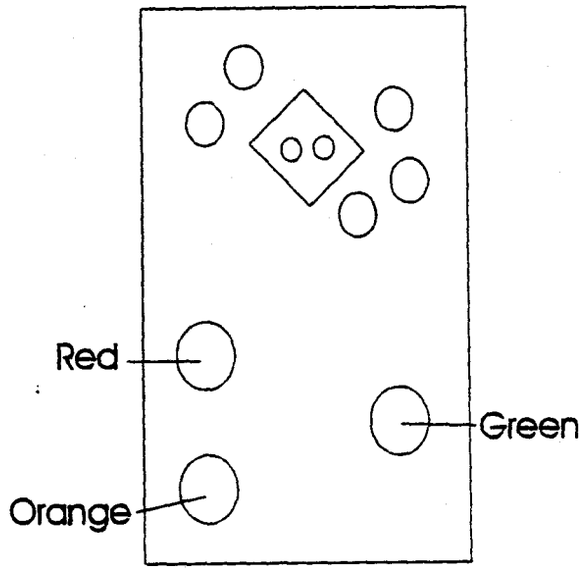


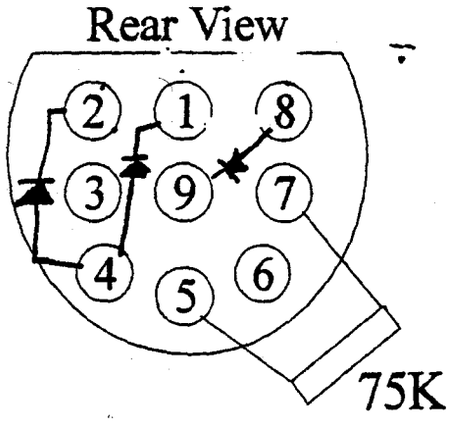
Date	24/03/97	Type	Ohmeda Ear Clip
Ohmear.cmx			Cable 7'9"

SENSOR FACE DOWN



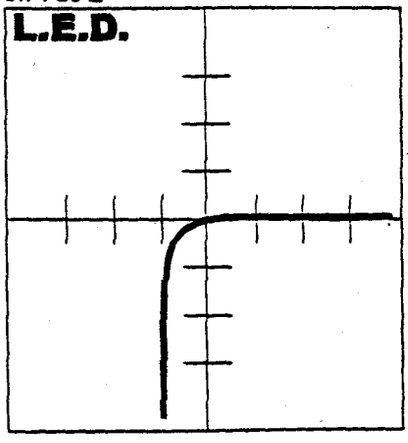
LED FACE DOWN



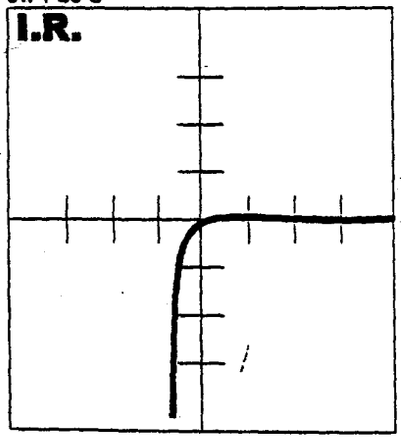


1 Orange
2 Green
3 N/C
4 Red
5 Resistor
6 N/C
7 Resistor
8 Black
9 Shield

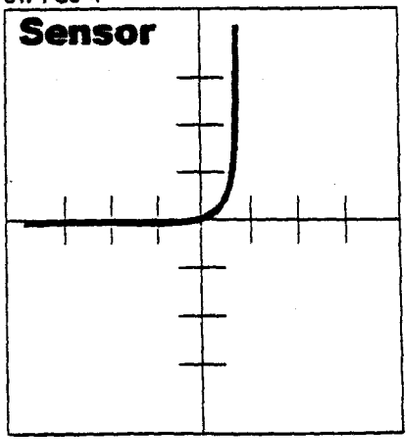
Sw Pos 2



Sw Pos 3



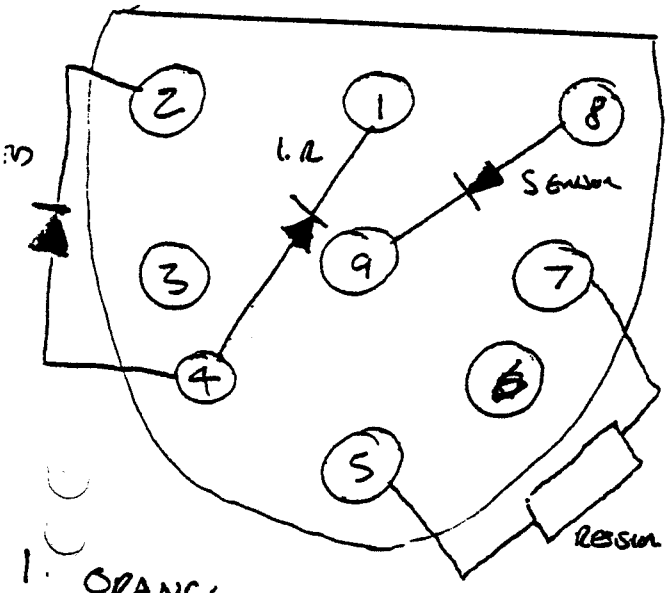
Sw Pos 4

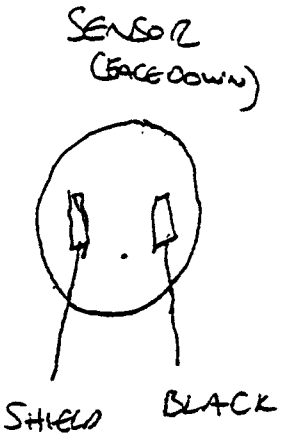


Drawn By:	Derek Lamb	Signed	

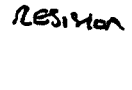
VIAMED

ORIGINAL OHMEDA EAR PROBE

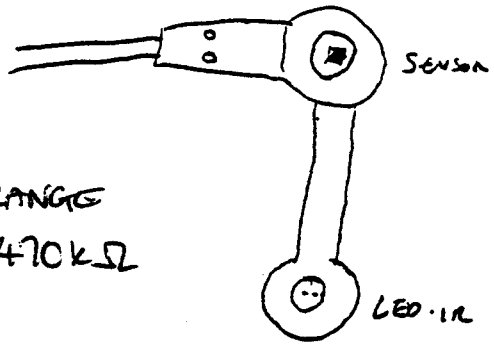




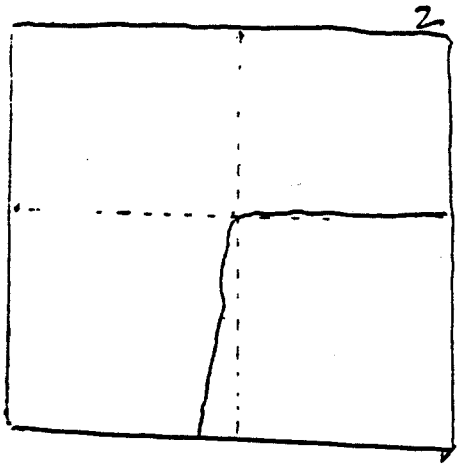
1. ORANGE
2. GREEN
3. N.U
4. RED
5.
6. N.U
7.
8. BLACK
9. SHIELD/WHITE



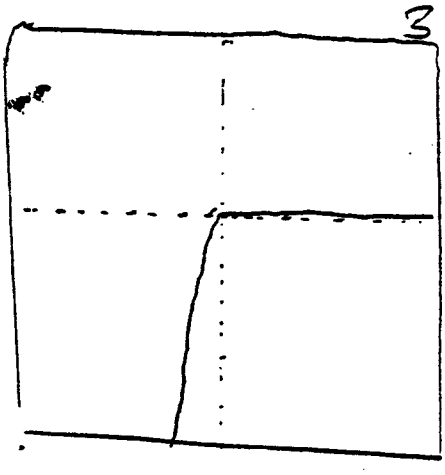
RESISTOR RANGE
20kΩ → 470kΩ



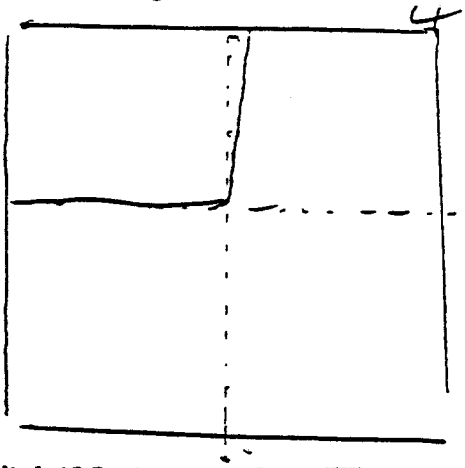
LED



I.R



SENSOR

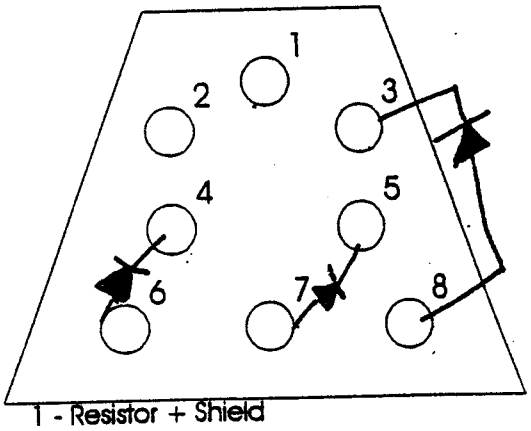


A.P.Bowman
7.10.98

Viamed Limited, 15 Station Road, Cross Hills,
Keighley, West Yorkshire BD20 7DT
Tel +44 (0)1535 634542/636757 Fax +44 (0)1535 635582
Email info@viamed.co.uk
Registration No 12917565 in England

Date	18/06/96	Type	OXI TIP OHMEDA
Schematic's			Cable: 7"

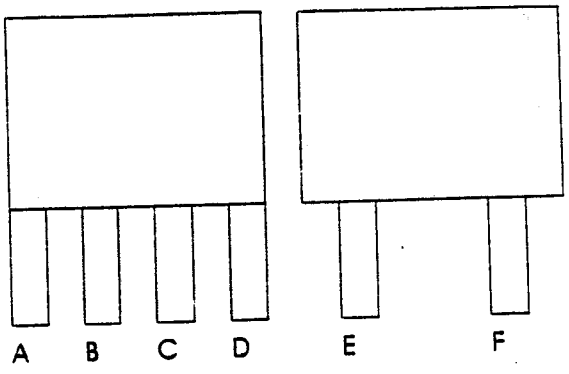
Oxi Tip Connect Pins Pointing out



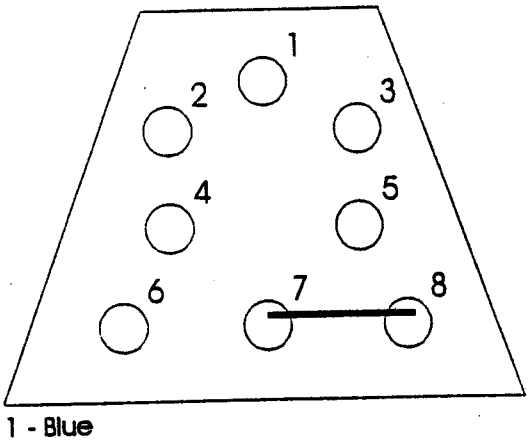
1 - Resistor + Shield
2 - Resistor + Shield
3 - Orange
4 - White
5 - Green
6 - Black
7 - Brown
8 - Red

LED Facing Down

SENSOR Facing Down

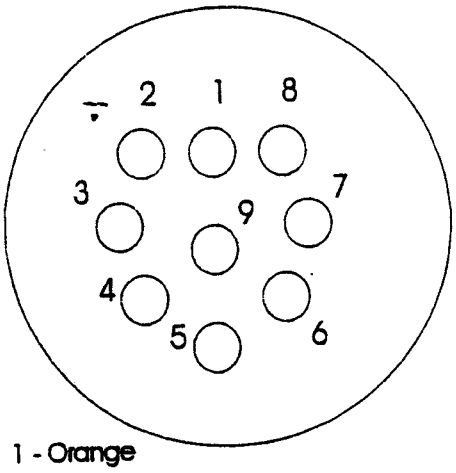


A - Orange (3)
B - Red (8)
C - Green (5)
D - Brown (7)
E - White (4)
F - Black (6)



1 - Blue
2 - Yellow
3 - Orange
4 - Shield
5 - Green
6 - Black
7 - Red
8 - Red

Ohmeda Plug

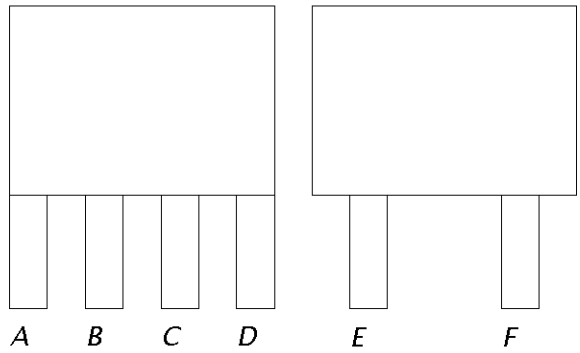


1 - Orange
2 - Green
3 -
4 - Red
5 - Blue
6 -
7 - Yellow
8 - Black
9 - Shield

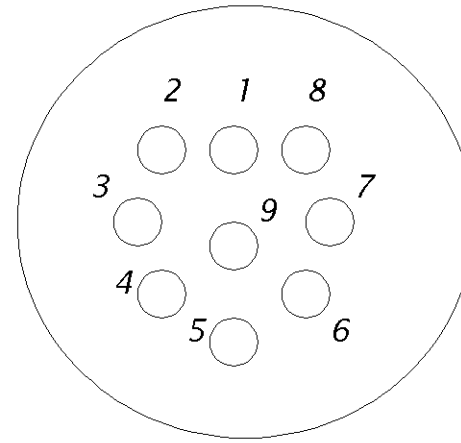
Drawn By:		Signed	

Date	18/06/96	Type	OXI TIP OHMEDA - Replacing Cable
Oxitip2.cmx			

LED Facing Down SENSOR Facing Down



Ohmeda Plug



ORIGINAL CABLE	REPLACEMENT CABLE
A - Orange (3)	A - Orange
B - Red (8)	B - Red
C - Green (5)	C - Yellow
D - Brown (7)	D - Red
E - White (4)	E - White
F - Black (6)	F - Black
	NB. Short B & D

ORIGINAL CABLE	REPLACEMENT CABLE
1 - Orange	1 - Orange
2 - Green	2 - Yellow
3 -	3 -
4 - Red	4 - Red
5 - Blue	5 - 47K Resistor + Shield
6 -	6 -
7 - Yellow	7 - 47K Resistor + Shield
8 - Black	8 - Black
9 - Shield	9 - White
	NB. Short 5 & 7

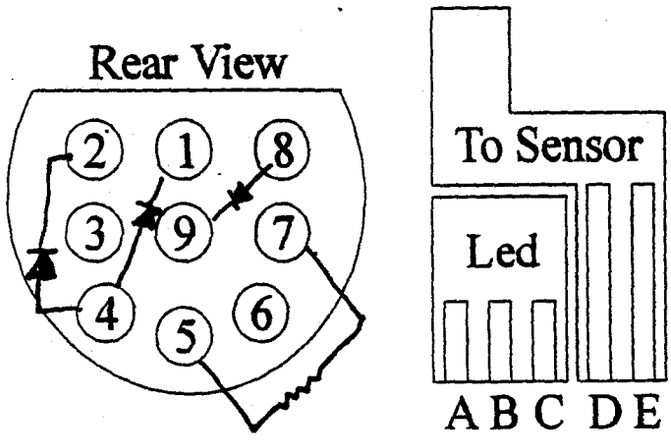
Notes
Leave 3cm of original wire attached to L.E.D. / Sensor when rewiring

When rewiring with replacement cable:
attach wires as follows:

Ohmeda Wire		Epic Wire
Orange	----------	Orange
Green	----------	Yellow
Brown	----------	Red
Red	----------	Red
Black	----------	Black
White	----------	White

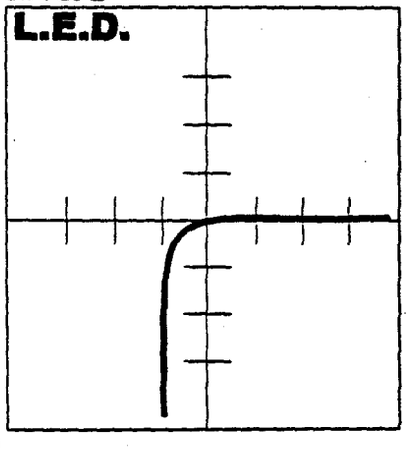
Drawn By:	D.lamb	Signed	

Date		Type	Ohmeda
Schematic's			Cable 8' 8"

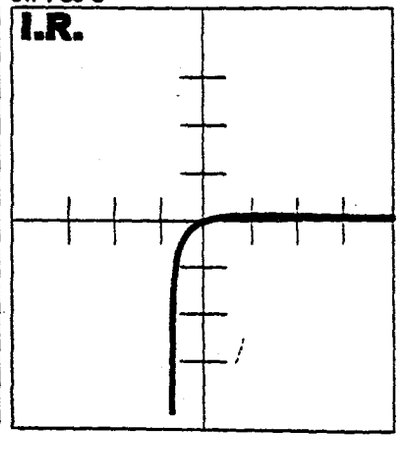


Pin Number	Ohmeda Cable Original Model	Ohmeda Cable New Model	Epic Cable Original Model	Epic Cable New Model
1	Orange	Orange	Orange	Orange
2	Green	Green	Yellow	Yellow
3	-	-	-	-
4	Red	Red	Red	Red
5	Resistor	Resistor	Resistor	Resistor
6	-	-	-	-
7	Resistor	Resistor + Shield	Resistor	Resistor + Shield
8	Black	Black	Black	Black
9	Shield	White	Shield	White
A	Green	Green	Yellow	Yellow
B	Red	Red	Red	Red
C	Orange	Orange	Orange	Orange
D	Black	Black	Black	Black
E	Shield	White	Shield	White

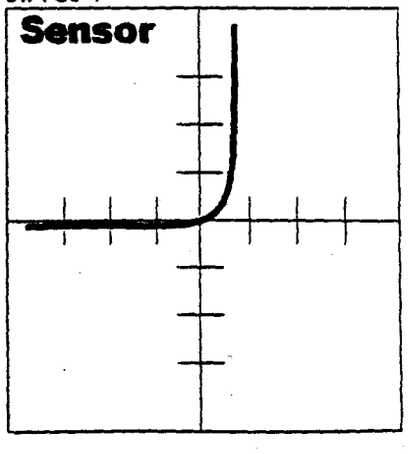
Sw Pos 2



Sw Pos 3



Sw Pos 4



Drawn By:		Signed	