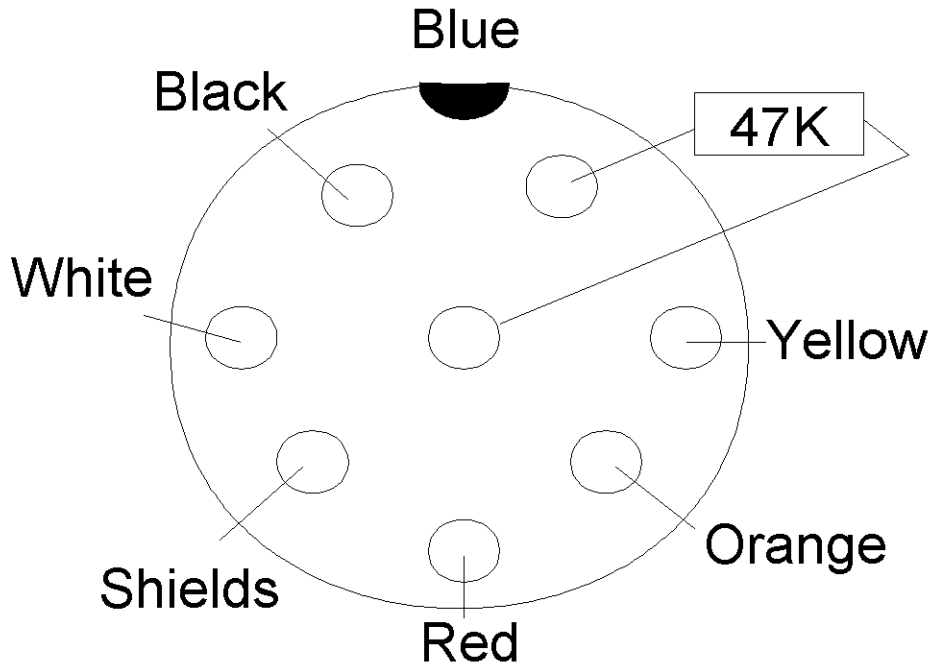
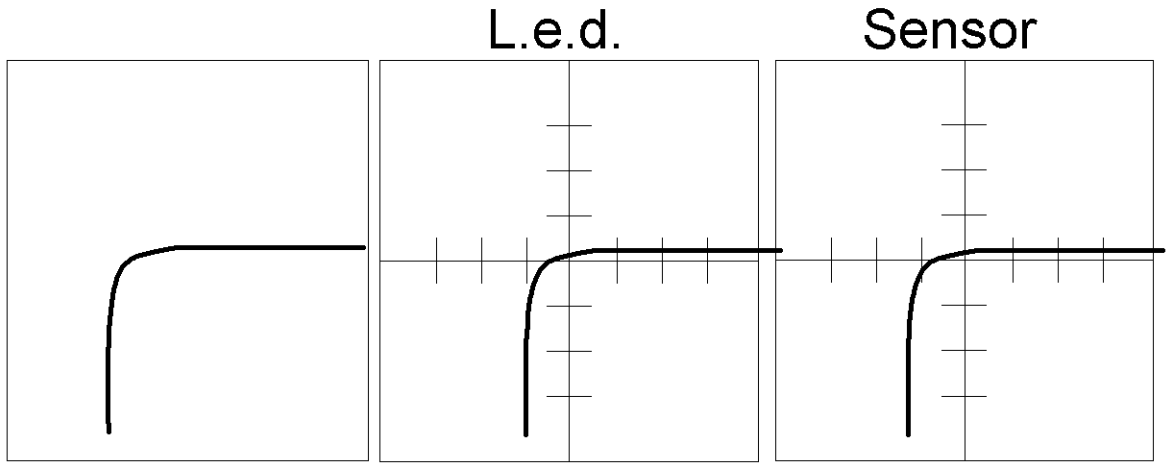
Date	01/04/97	Type	Datascope





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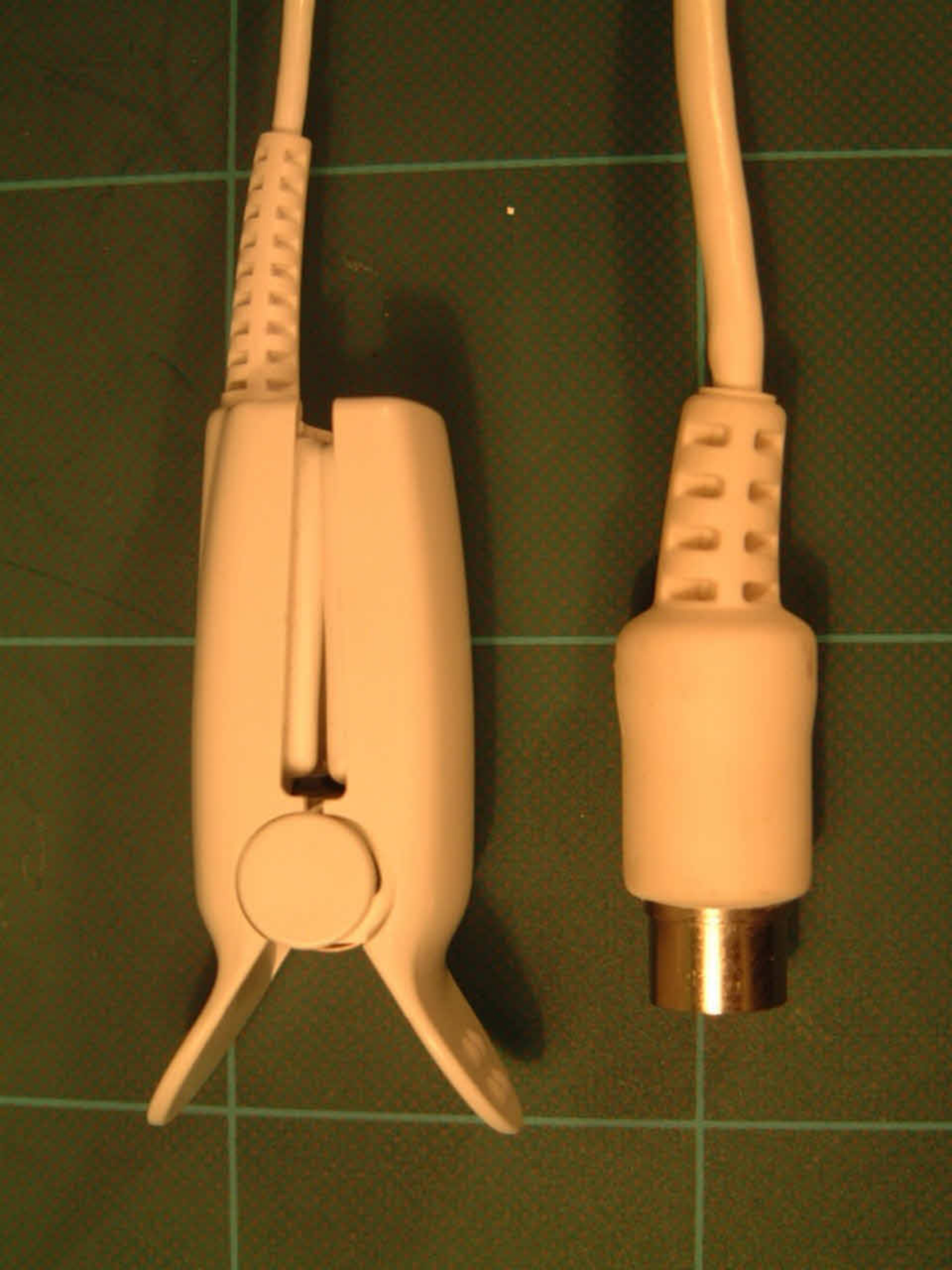
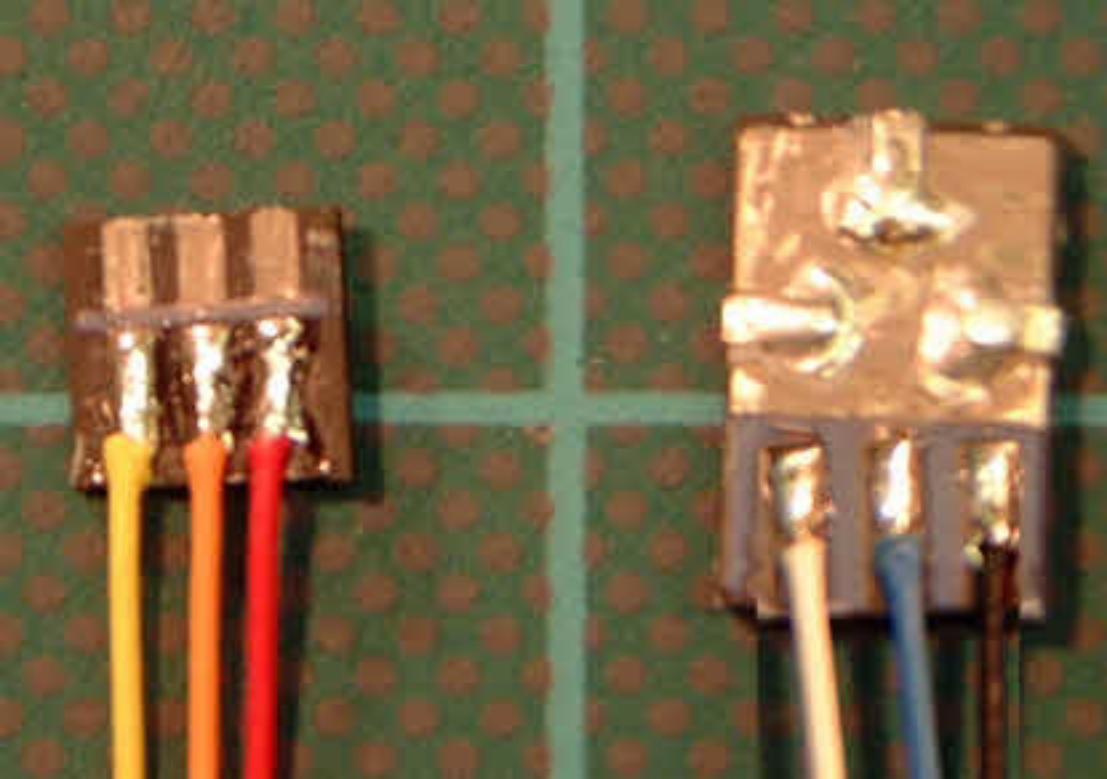
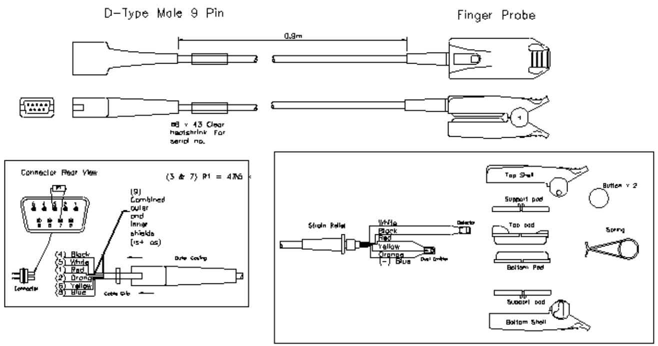
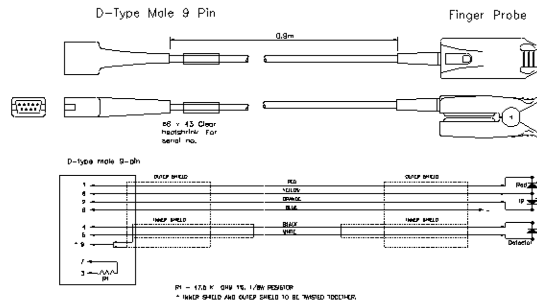
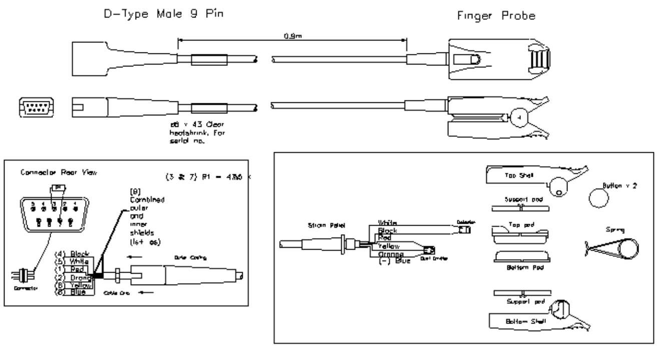
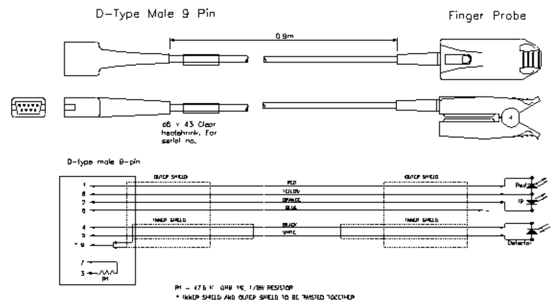





D-Type Male 9 Pin
Finger Probe
0.9m
ø6 x 43 Clear heatshrink For serial no.
Connector Rear View
(3 & 7) R1 = 47K5
(9) Combined outer and inner shields (is+ os)
(4) Black
(5) White
(1) Red
(2) Orange
(6) Yellow
(8) Blue
Strain Relief
White
Black
Red
Yellow
Orange
(-) Blue

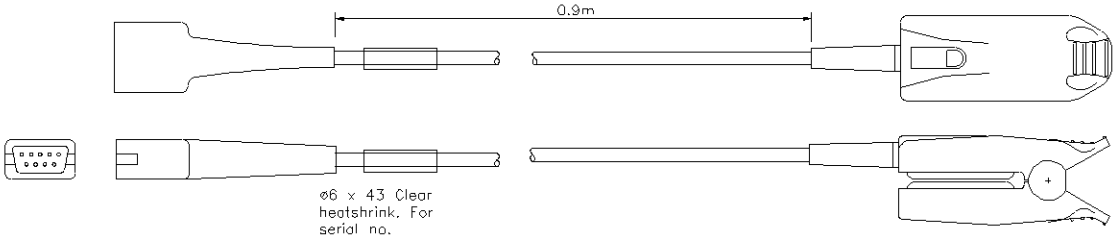

D-Type Male 9 Pin
Finger Probe
0.9m
ø6 x 43 Clear heatshrink For serial no.
D-type male 9-pin
OUTER SHIELD
INNER SHIELD
RED
YELLOW
ORANGE
BLUE
BLACK
WHITE
Red
IR
Detector
R1
R1 - 47.5 K OHM 1% 1/8W RESISTOR
* INNER SHIELD AND OUTER SHIELD TO BE TWISTED TOGETHER.

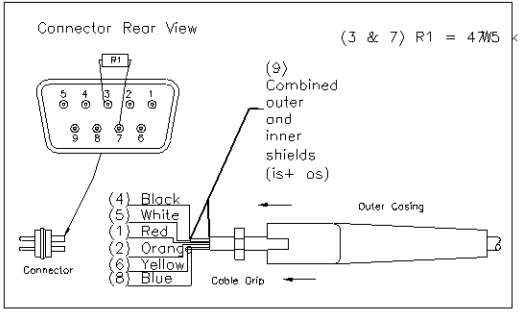

D-Type Male 9 Pin
Finger Probe
0.9m
ø6 x 43 Clear heatshrink. For serial no.
Connector Rear View
(3 & 7) R1 = 47k6 k
R1
[9] Combined outer and inner shields (1st 06)
(4) Black
(5) White
(1) Red
(2) Orange
(6) Yellow
(8) Blue
Connector
Cable Grip
Strain Relief
White
Black
Red
Yellow
Orange
(-) Blue
Detector
Top Shell
Button x 2
Support pad
Top pad
Spring
Bottom Pad
Support pad
Bottom Shell

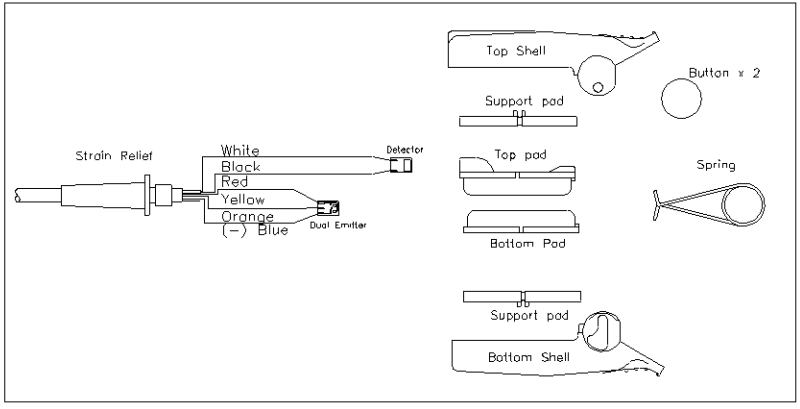

D-Type Male 9 Pin
Finger Probe
0.9m
ø6 x 43 Clear heatshrink. For serial no.
D-type male 9-pin
OUTER SHIELD
INNER SHIELD
RED
YELLOW
ORANGE
BLUE
BLACK
WHITE
Red
IR
Detector
R1
R1 = 47.6 K OHM 1%, 1/8W RESISTOR
* INNER SHIELD AND OUTER SHIELD TO BE TWISTED TOGETHER

D-Type Male 9 Pin

Finger Probe







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									Tol	± 0.2
						Scale	Not To Scale		Drawn	J.Nirwan
REV	Date	N°	Drawn	Approv	Part No. 0018630	Date	29/01/02	Dwg No.	SPF-863	

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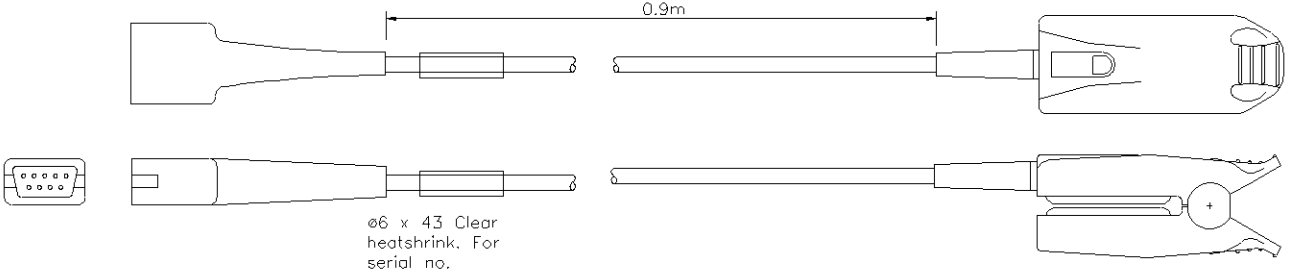
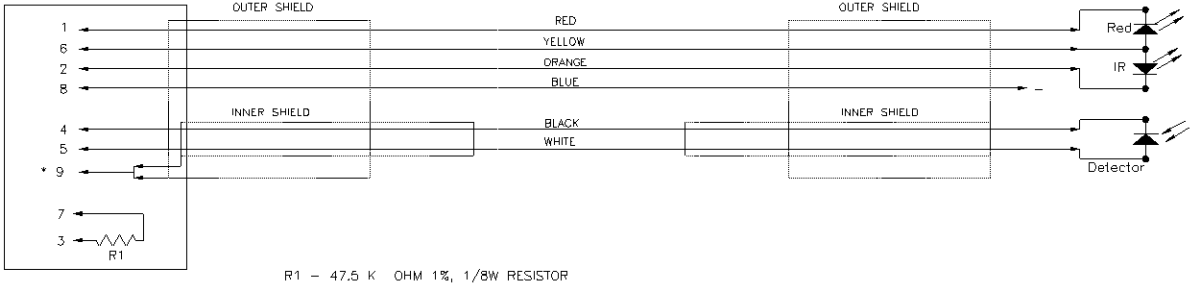
D-Type Male 9 Pin

Finger Probe



D-type male 9-pin



R1 – 47.5 K OHM 1%, 1/8W RESISTOR

* INNER SHIELD AND OUTER SHIELD TO BE TWISTED TOGETHER.

					Material :	Title	P863RA Datascope	Dim in	mm
								Tol	± 0.2
						Scale	Not To Scale	Drawn	J.Nirwan
REV	Date	N°	Drawn	Approv	Part No. 0018630	Date	17/02/03	Dwg No.	SPF-863.1

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West Yorkshire
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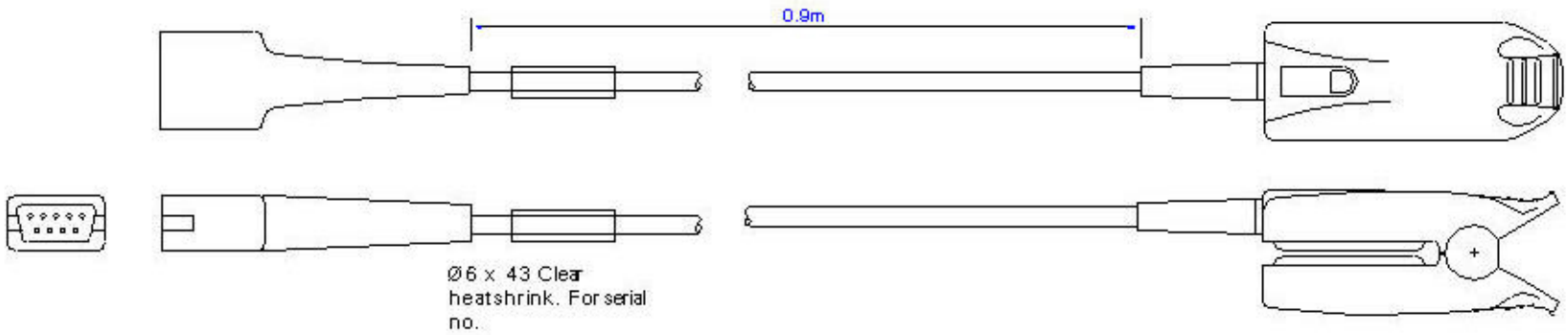
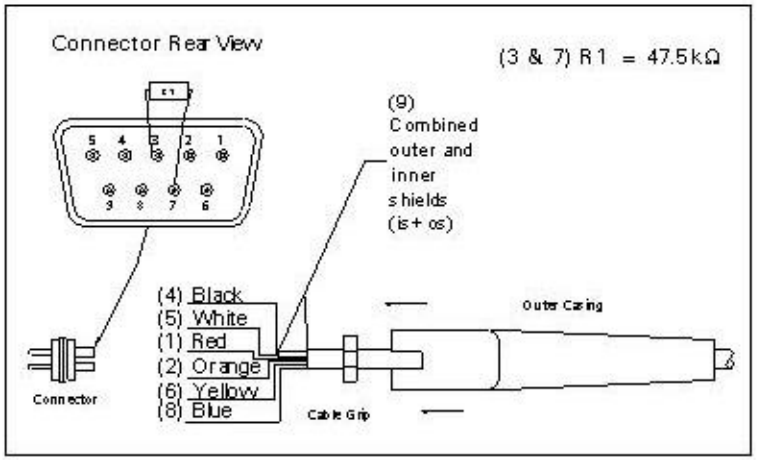
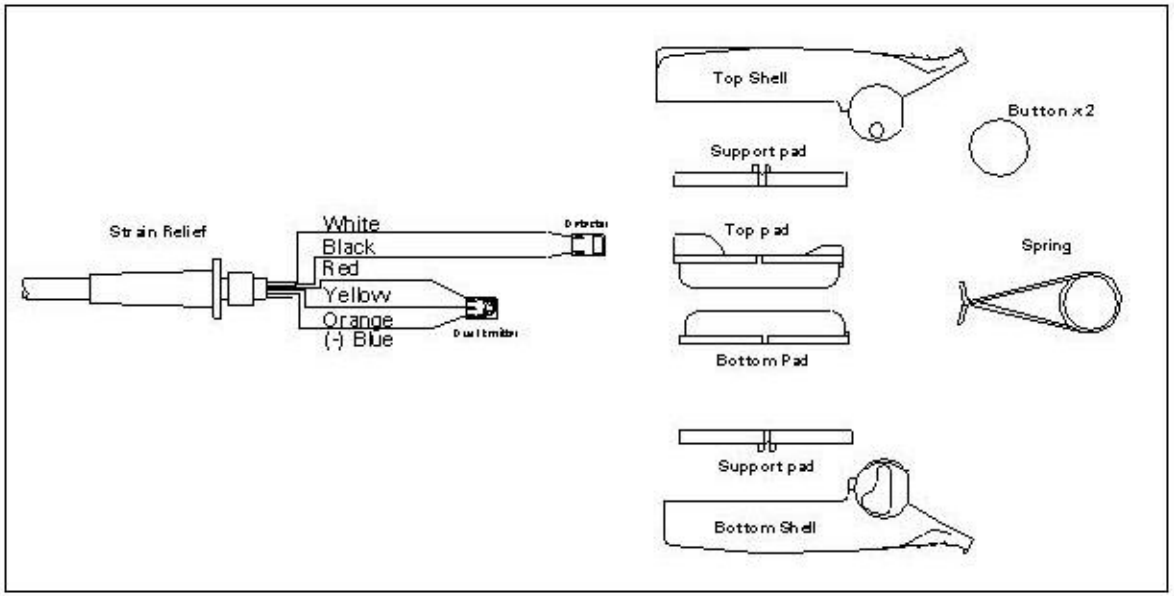
D-Type Male 9 Pin

Finger Probe







					Material:	Title	P863RA Datascope	Dim in	mm
								Tol	± 0.2
						Scale	Not To Scale	Drawn	J.Nirwan
REV	Date	N°	Drawn	Approv	Part No. 0018630	Date	29/01/02	Dwg No.	SPF-863

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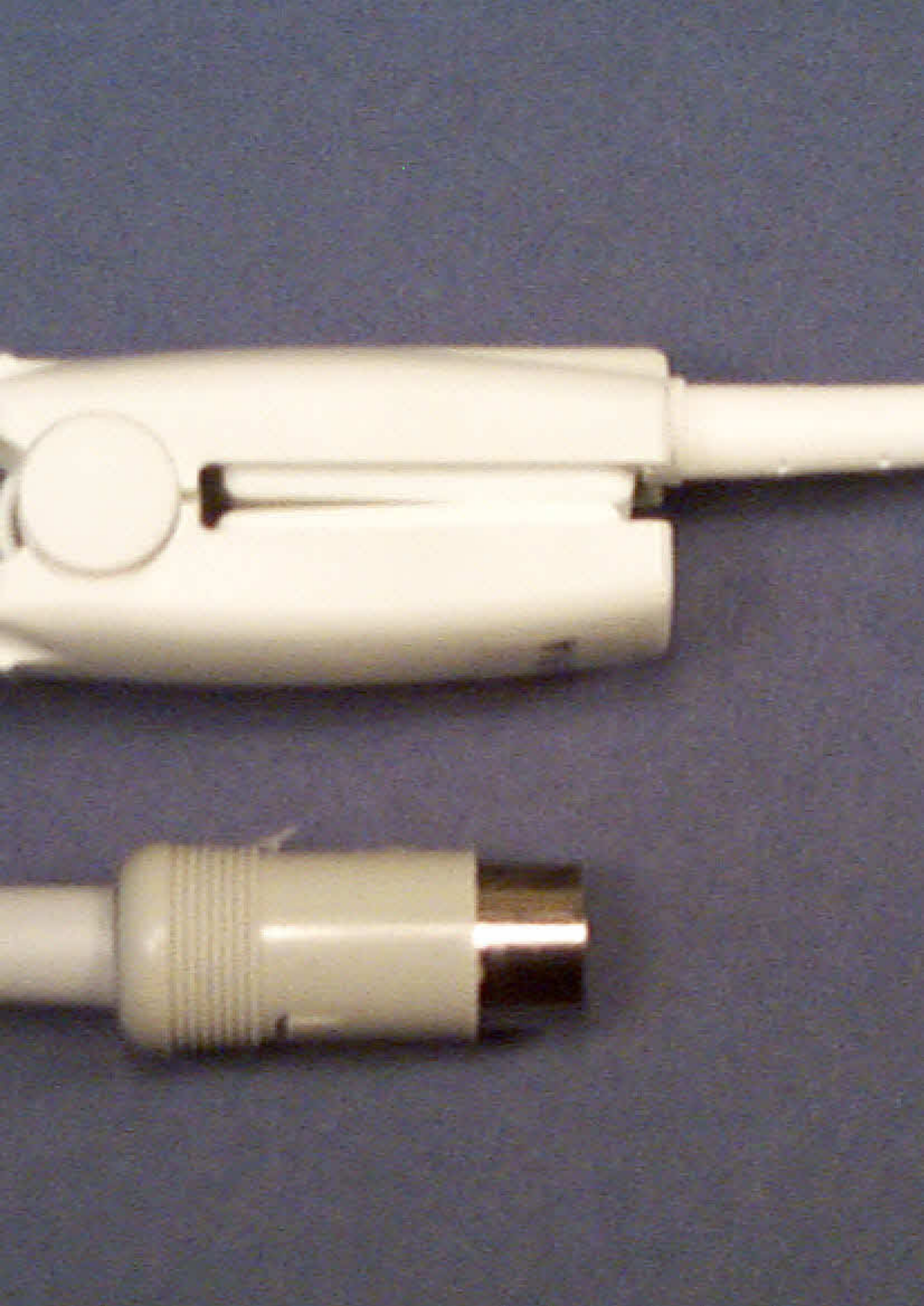

Equipment type: Finger probe	Part Number:	
Batch Size		
Nos	**Viamed Part number**	**Description**
1	0010100	Viamed SpO2 finger probe service kit (white pads)
1	0010790	DIN connector, 8 pin
1	0032110	Resistor - 47K5, metal film
1	0032020	Resistor - 22R, metal film
3.65m	0030513	SpO2 cable - version D (production)
30mm	0032331	Heatshrink tubing - clear, 6.0mm, 7m reel
15mm	0032321	Heatshrink tubing - black, 6.0mm, 7m reel
35mm	0032312	Heatshrink tubing - black, 3.2mm, 25m reel
10mm	0032310	Heatshrink tubing - black, 1.6mm, 25m 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 paper and outer shield, and cut off Kevlar fibres.
   d. Cut blue wire to 78mm from end of strain relief, strip and tin last 1mm of blue wire.
   e. Cut other relevant coloured wires (from red, yellow, orange) to 13mm from end of cable cover. Strip and tin last 1mm of each wire.
   f. Cut inner white cable to 78mm from end of outer cable cover, strip last 70mm of inner cable cover, strip and tin last 1mm of black and white wires, cut off inner shield and discard.
   g. Strip and tin ends of black and white wires.
   h. Cover black, white and blue wires, and any remaining inner cable cover, with a 70mm length of 1.6mm white heatshrink.
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

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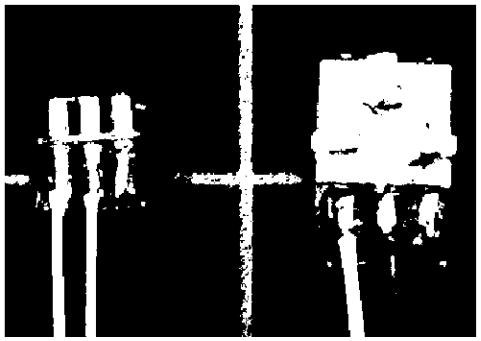
up with small amounts of silicone from a screwdriver tip - however these steps should be taken within 2 minutes of the pad being placed on the component, before the silicone has had time to become tacky, so that it is still flowing enough to ensure that the window will return to a smooth flat surface

d. Leave pads to set for 24 hours.

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.

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 metal barrel (black) with attached boot (black), 1 x metal screw,
   1 x connector retaining cord grip, 1 x 8 pin insert

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

c/ Add the metal barrel with attached boot to the cable.

d/ Add a 15mm length of heatshrink (0032321) to the cable.

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

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f/ 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.

g/ 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.

h/ Twist together the outer and inner shield, and tin this between 12-18mm from the cable cover.

i/ Cut the twisted shields at 15mm from the outer cable cover using the flush cutter. Trim off any loose strands of shield flush to the cable cover. Cover this with 10mm length of heatshrink (0032310), and shrink on using a heatgun.

j/ Cut the wires to 15mm from the outer cable cover. Strip and tin the last 2mm of each wire.

k/ Cut one of the legs of the 47K5 resistor (0032110) 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.

l/ Solder the short leg of the 47K5 resistor into pin 8 of the insert, then solder the long leg of the 47K5 resistor into pin 6 of the insert.

m/ Isolate the 47K5 resistor from the metal parts of the connector as follows:

i/ Push the 15mm length of black heatshrink (0032321) over the hairpinned resistor, pushing it as close to the insert as possible.

ii/ Shrink the heatshrink onto the resistor using a heatgun.

iii/ While the heatshrink is still warm enough to be manipulated,pinch the heatshrink together above the resistor, using the snipe nose pliers (0060021), to seal the top part of the heatshrink.

n/ Cut both of the legs of the 22R resistor (0032020) to 4mm from the resistor body. Solder the yellow wire to one leg of the 22R resistor. Solder the other leg of the 22R resistor into pin 2.

o/ Isolate the 22R resistor from the metal parts of the connector as follows:

i/ Push the 15mm length of black heatshrink (0032321) over the hairpinned resistor with the yellow wire attached, pushing it as close to the insert as possible.

ii/ Shrink the heatshrink onto the resistor using a heatgun.

iii/ While the heatshrink is still warm enough to be manipulated,pinch the heatshrink together above the resistor, using the snipe nose pliers, to seal the top part of the heatshrink.

p/ Referring to the wiring diagram, but ignoring the blue wire for now, solder the remaining wires and shield into the connector insert.

q/ Solder the blue wire to the connector retaining cord grip, as near to the smaller hole in the cord grip as possible. Isolate the soldered part of the cord grip from the pins of the insert by pushing a 5mm length of heatshrink (0032321) over the soldered part, and shrinking into position using a heatgun. Ensure that the larger screw retaining hole is not blocked by careless soldering, or careless positioning of the blue wire or heatshrink.

r/ Push the 15mm piece of heatshrink (0032321) up over the cable cover, so that 10mm of the heatshrink covers the white cable cover, and the remaining 5mm projects beyond the cable cover and over onto the wires. Shrink this into position using a heatgun.

s/ Clamp the rear part of the connector retaining cord grip onto the cable, at a point just above where the cable cover ends, so that the cord grip does not bite down upon the cable at a point where there is

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Date	
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Date	
Revised By	

no cable cover beneath the heatshrink to protect the wires.

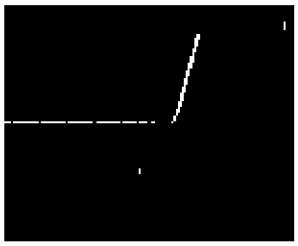
t/ Orientate the connector retaining cord grip so that it fits into the designated gap in the insert.

u/ Push the metal barrel, with boot attached, up over the conjoined connector retaining cord grip and insert, orienting the internal parts so the screw retaining hole in the cord grip lines up with the screw hole in the metal barrel. Place the screw into the hole and tighten using a flat blade screwdriver.

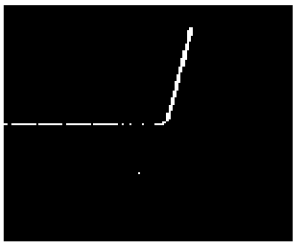
. Test using component tester and test box:

Connector rear view:

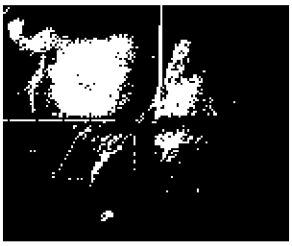
Position 1:Red emitter



Position 2:IR emitter



Position 3:Photo-diode



1. Red

5. Main + inner shields

2. R1 + Yellow **6. R2**

3. Black **7. White**

4. Orange **8. R2**

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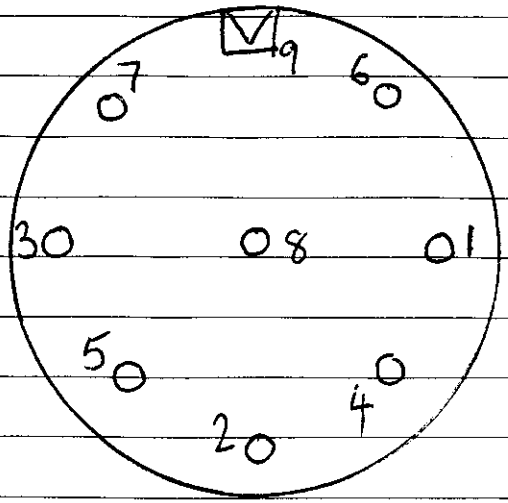
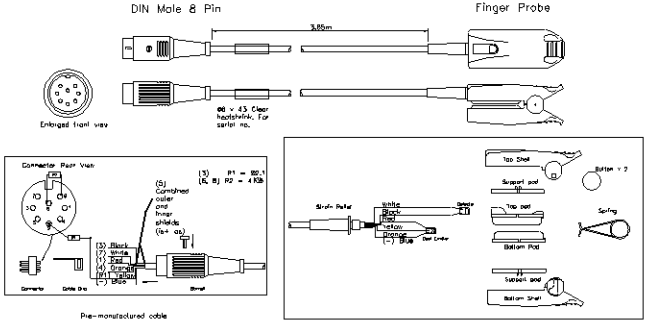
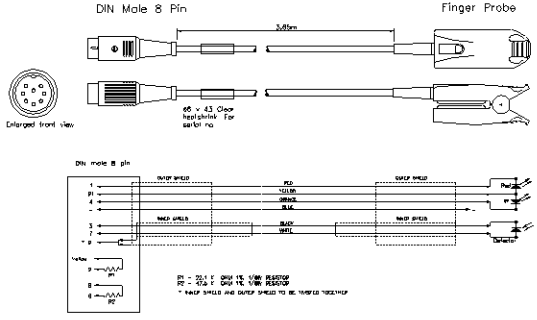
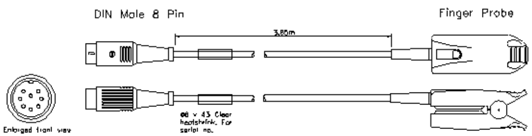


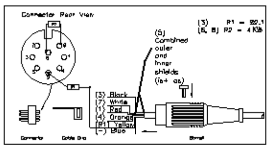
1 Yellow
2 22Ω red
3 White
4 Orange
5 Main shield
6 47k
7 Black
8 47k
9 (MAIN BOX) Inner Shield

06
S/N
9F2028C

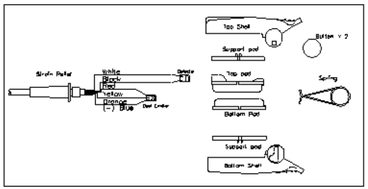

DIN Male 8 Pin
Finger Probe
3.85m
Enlarged front view
Ø8 x 43 Clear heatshrink. For serial no.
Connector Rear View
Pre-manufactured cable
Top Shell
Support pad
Top pad
Bottom Pad
Spring
Support pad
Bottom Shell
Strain Relief
Sensor

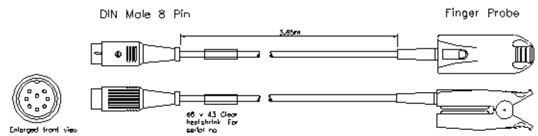

DIN Male 8 Pin
Finger Probe
3.85m
Enlarged front view
Ø8 x 43 Clear heatshrink. For serial no.
DIN male 8 pin
OUTER SHIELD
RED
YELLOW
BRAWN
BLUE
INNER SHIELD
BLACK
WHITE
Values
R1 = 22.1 K OHM 1% 1/8W RESISTOR
R2 = 47.5 K OHM 1% 1/8W RESISTOR
* INNER SHIELD AND OUTER SHIELD TO BE WIRED TOGETHER

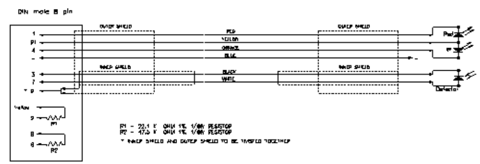




Pre-manufactured cable

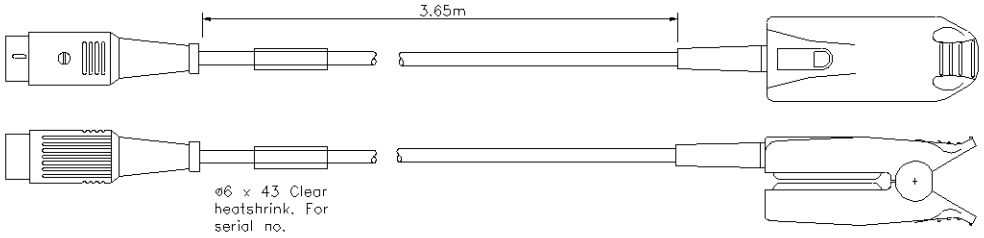




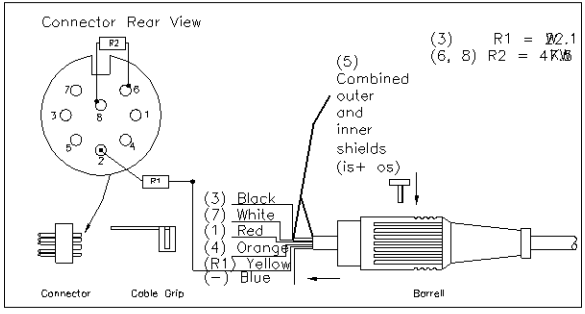


DIN Male 8 Pin

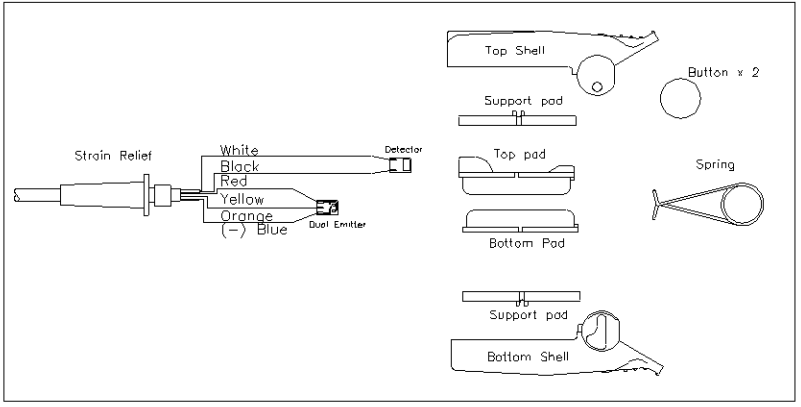
Finger Probe



Enlarged front view



Pre-manufactured cable



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								Tol	± 0.2
						Scale	Not To Scale	Drawn	J.Nirwan
REV	Date	N°	Drawn	Approv	Part No. 0018640	Date	29/01/02	Dwg No.	SPF-864

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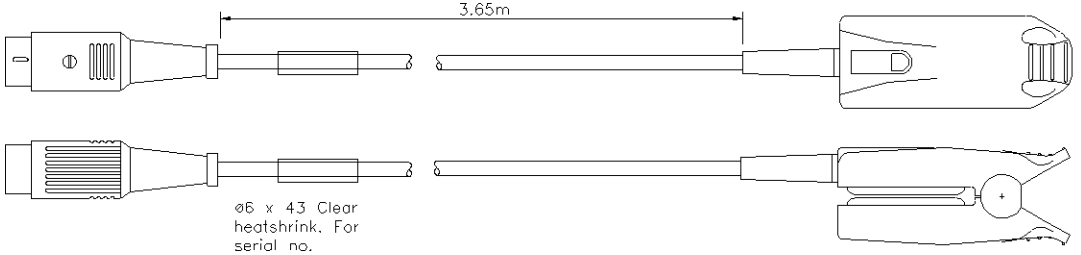
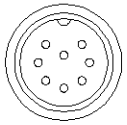
15 Station Rd
Cross Hills, Keighley
West Yorkshire
BD20 7DT

DIN Male 8 Pin

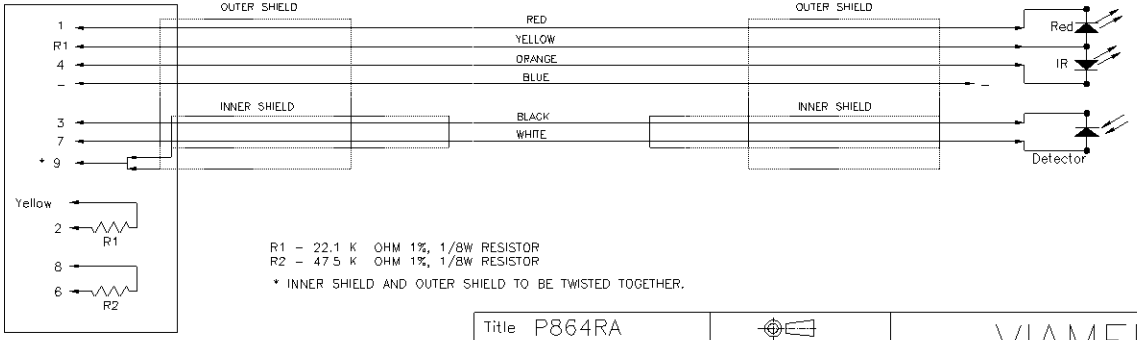
Finger Probe





Enlarged front view

DIN male 8 pin



R1 – 22.1 K OHM 1%, 1/8W RESISTOR
R2 – 47.5 K OHM 1%, 1/8W RESISTOR

* INNER SHIELD AND OUTER SHIELD TO BE TWISTED TOGETHER.

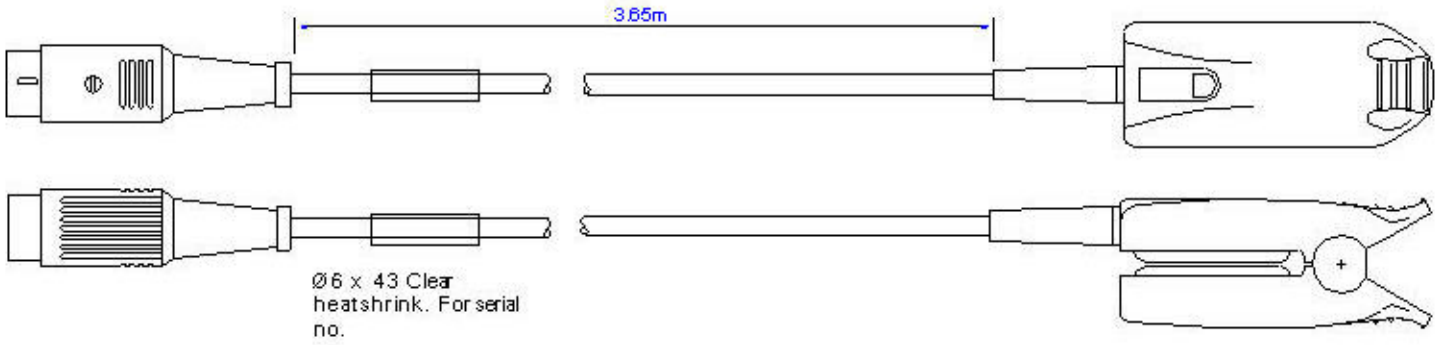
					Material :
REV	Date	N°	Drawn	Approv	Part No. 0018640

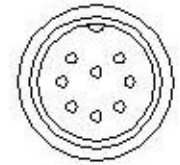
Title	P864RA Datascope	Dim in	mm
		Tol	± 0.2
Scale	Not To Scale	Drawn	J.Nirwan
Date	17/02/03	Dwg No.	SPF–864.1

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

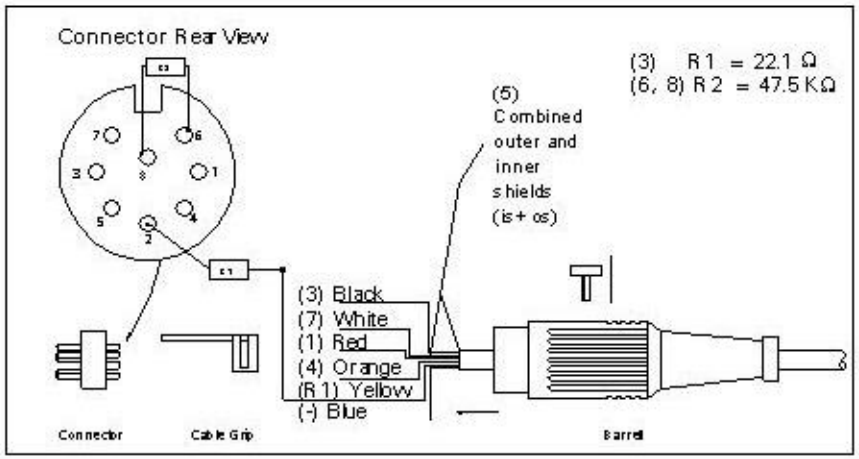
DIN Male 8 Pin

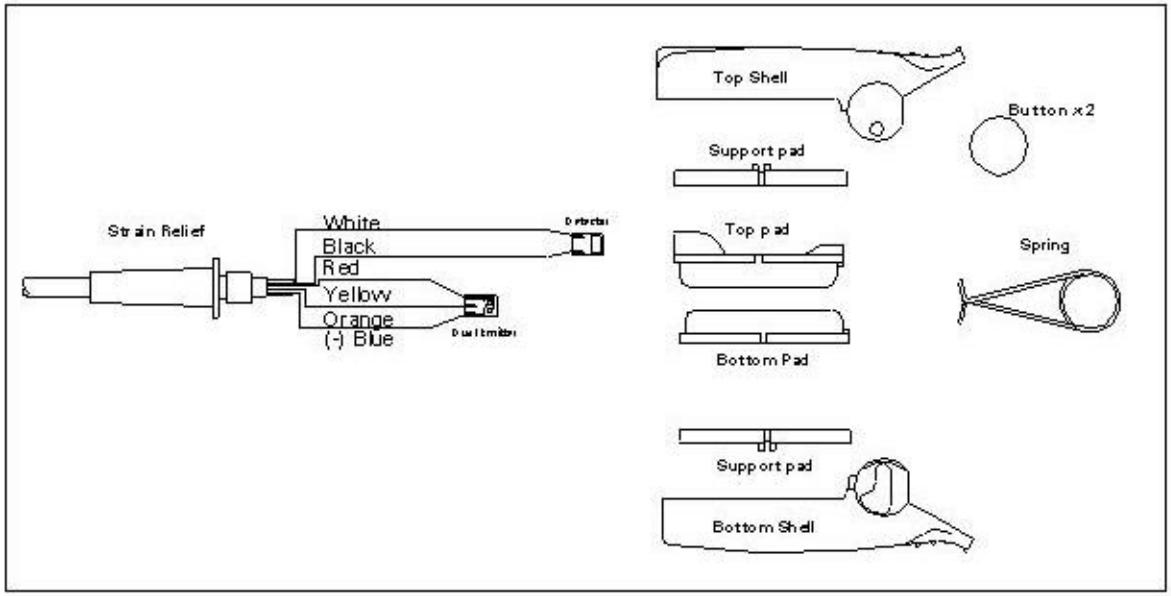
Finger Probe





Enlarged front view

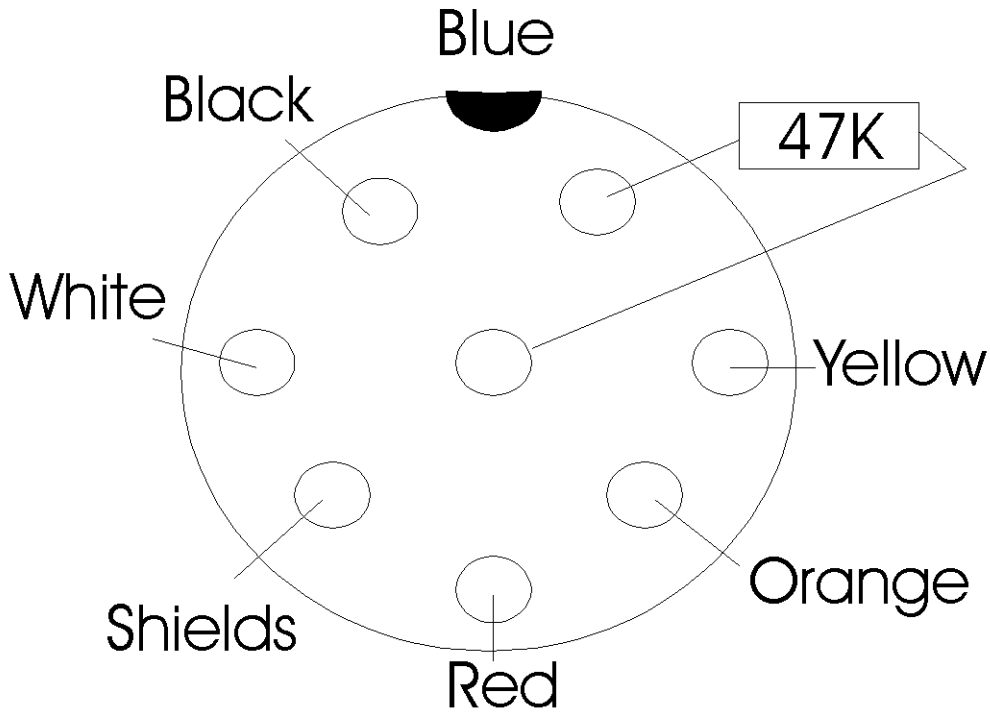


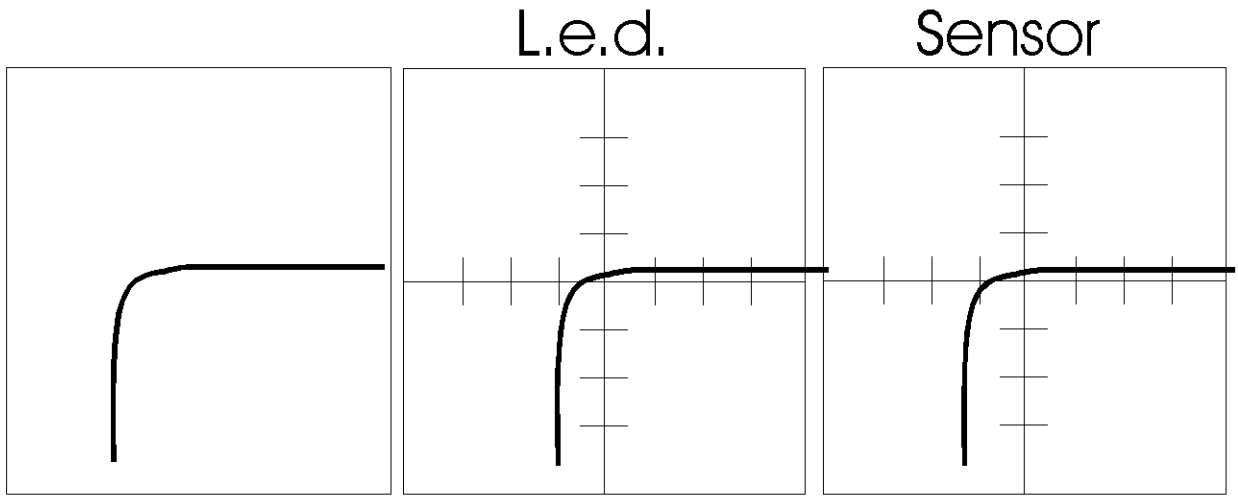


					Material:	Title	P864RA Datascope	Dim in	mm
								Tol	± 0.2
						Scale	Not To Scale	Drawn	J.Nirwan
REV	Date	N°	Drawn	Approv	Part No. 0018640	Date	29/01/02	Dwg No.	SPF-864

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

Date	01/04/97	Type	Datascope

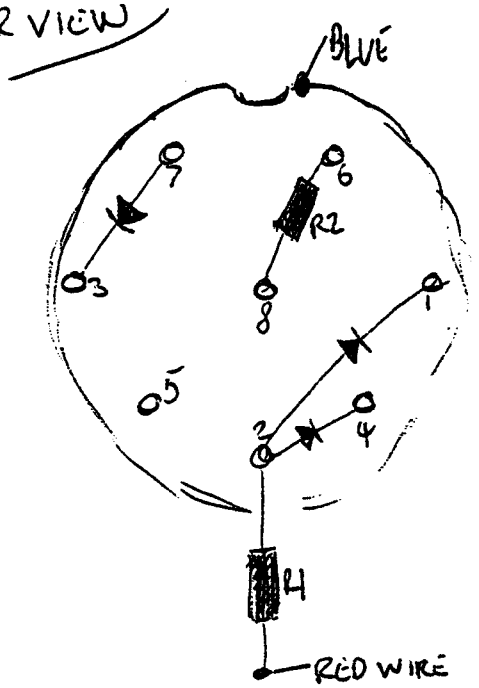




Drawn By:		Signed	

Date		Type	DATASCOPE

REAR VIEW



1/ YELLOW (RED EMITTER)

2/ RESISTOR 1 + COMMON

3/ WHITE (PHOTODIODE)

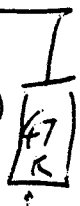
4/ ORANGE (I.R. EMITTER)

5/ INNER + MAIN SHIELD

6/ RESISTOR 2

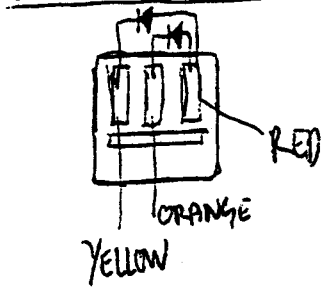
7/ BLACK (PHOTODIODE)

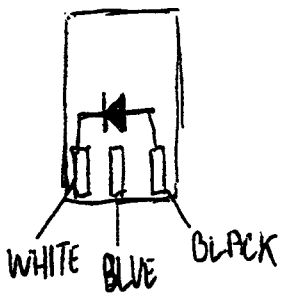
8/ RESISTOR 2



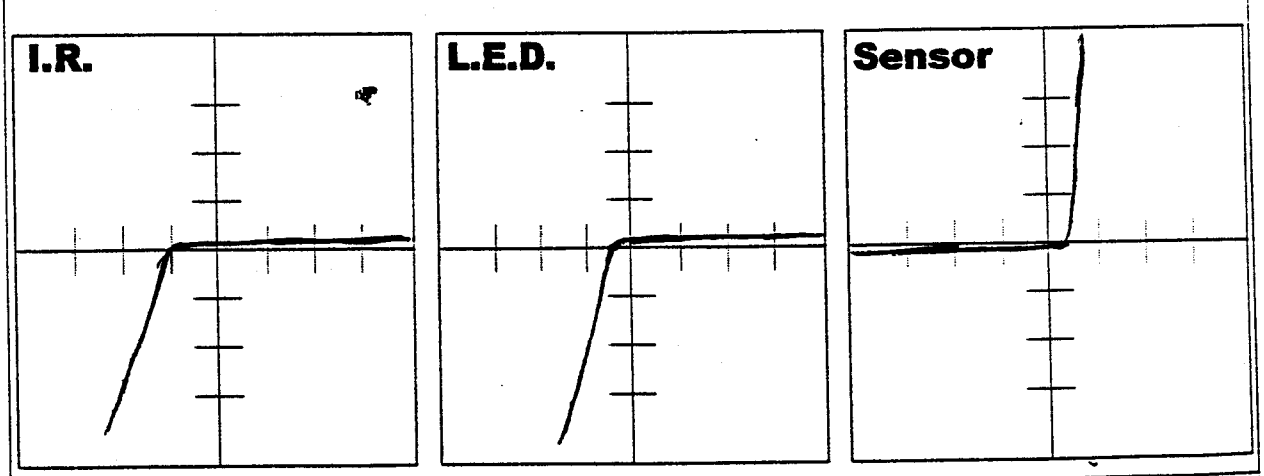
NB/ BLUE WIRE CONNECTS TO SHROUD OF CONNECTOR

LED FACE DOWN





$R1 = 22.1\,\Omega \pm 5\%$



Drawn By:		Signed	

110.000 1300

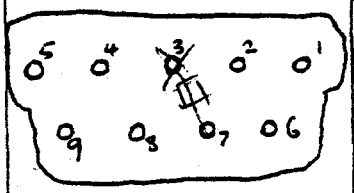
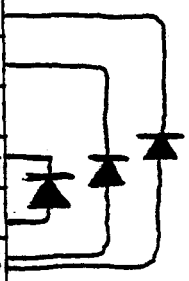
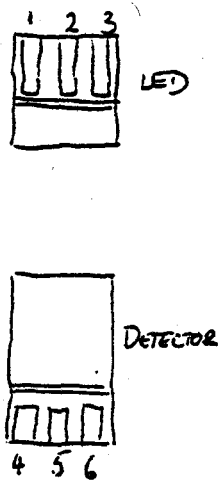
New Information Data Sheet

Viamed

Viamed

Date	17 11 98	Technician	DB
Original Manufacturer	Datascope	Original part Number	
Work requested by	W/S	Length	32"
Description	Short Dulscope	Time taken mins	60
New part number if required	MCI EQUIV - BG3a A	Photographs	Yes (No)

Connector Datascope manufacturer DB9	Observations on the cable:-	~~Manufacturer~~ component manufacturer Dulbscope
View Solder Side		View SOLDER SIDE

Connector Diagram	Colour	Pins	Cross wiring diagram	Pin	Colour	~~Connector~~ component Diagram
	Yellow	1		1	Yellow	
	Orange	2		2	Orange	
		3		3	Red	
	White	4		4	White	
	Black	5		5	Blue	
	Red	6		6	Black	
		7		7		
	Blue	8		8		
	Shield	9		9		
		10		10		
		11		11		
		12		12		
		13		13		
		14		14		
		15		15		
		16		16		

Electronic components		Pin	Are there any changes from Viamed records	Pin		Electronic components
~~47K~~ 47.5KΩ 1%		3				
		7				

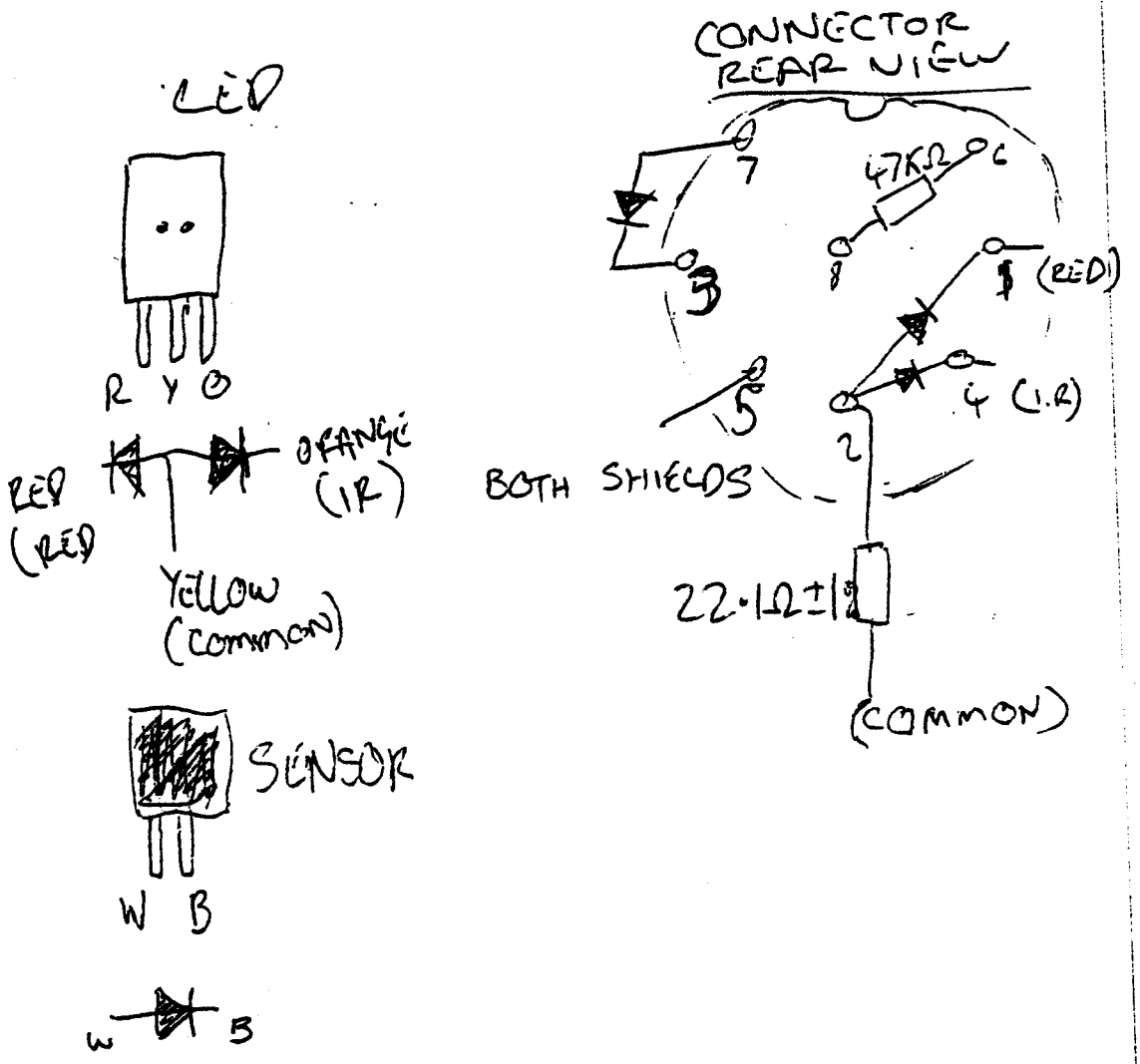
This diagram has been validated by : Date

Cable works on original equipment	Cable diagram correct	Components correct	Colours correct

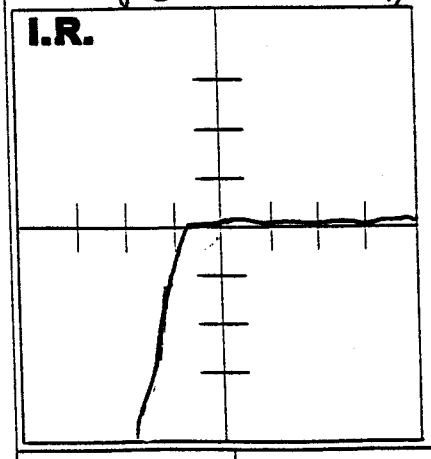
Confidential not for customer use

Date		Type	P864RA DATASCOPE

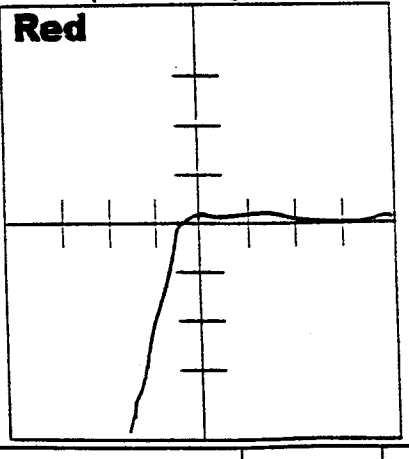
8 PIN DIN



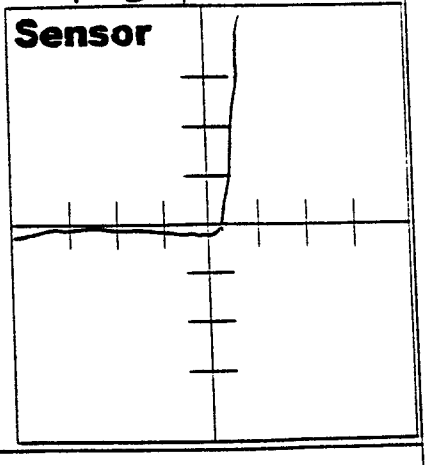
POS 2 RED



POS 3 IR



POS 4 SEN



Drawn By:		Signed	