

Introducing

CC1000

Continuous Caster Pyrometer

DESCRIPTION

The CC1000 is designed to measure steel temperature inside the spray chamber of a continuous caster. The instrument consists of an adjustable mounting bracket, stainless steel housing, sensing head, and indicator.

The housing is a rugged stainless steel housing complete with integral quick disconnects for the signal cable and the air purge. The front of the housing is designed so that different length tubes can be easily interchanged.

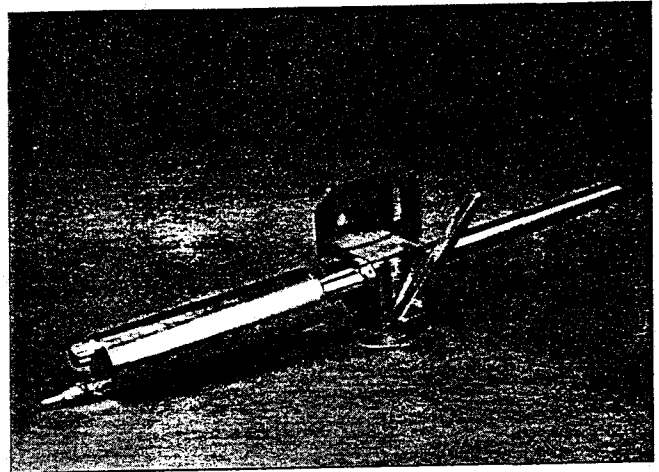
The mounting bracket is stainless steel. It has a cam actuated feature which allows quick installation and removal of the housing without tools. The bracket allows ± 10 degrees angular movement for easy alignment of the optical system between the rolls.

The sensing head uses a silicon detector which can operate in ambients up to 100°C (200°F) without cooling. The sensor is housed within a stainless steel housing and is completely watertight. Because of the presence of water in the spray chamber, no cooling water is necessary.

From the sensing head to the indicator/processor a 25 ft. (7.6 M) waterproof interconnecting cable is provided. This cable is complete with quick disconnects which allow for easy installation and removal.

The indicator/processor can be selected from a number of Ircon models. The indicator/processor provides a digital temperature indication, including peak picker function to avoid scale on the steel and a linear isolated 4-20 mA output. Accuracy starting at 0.75% of full scale reading, depending on the indicator/processor chosen.

The CC1000 can be installed anywhere in the spray chamber. It is installed so that the sensor can sight between the caster rolls. The end of the instrument housing can be 3-4 inches (75-100 mm) away from the slab or billet. Typical installations include locating the sensors near the exit of the mold, close to the beginning of the bend and close to the exit of the spray chamber. Thereafter, they are installed on both sides of the slab and are placed to measure the center as well as the edges of the slab.



Continuous Caster Pyrometer

The CC1000 was specifically designed to operate in the hostile environment of the spray chamber. All parts are interchangeable and easy to replace, calibrate, and service.

FEATURES

- Stainless steel housing features quick-connect coupler for air purge connection designed for quick removal in extremely hostile environments.
- Cam actuated mounting feature allows easy alignment of optical system and angular movement to simplify installation and removal of housing.
- Indicator/processor chosen provides digital temperature indication. Peak picker function and 4-20 mA output or other selected outputs are available.
- Accuracy is dependent on indicator/processor chosen.
- Operates in high ambient temperatures without cooling.

Purchase Order

ATTN: TED *Eyed*
3/24

IRCON, INC.
7300 N. Natchez Ave.
Niles, IL 60714 USA

Phone 847-967-5151
Fax 847-647-0070



001606/773-235-5283

NUMBER	PAGE	P/O DATE	ORDER TYPE	CHANGE/CANCEL
37366-00	01	01/25/99	NORMAL	ORIGINAL 01/25/99

ORDERED FROM FOX TOOL 1665 N. MILWAUKEE AVENUE CHICAGO IL 60647	SHIP TO IRCON, INC. 7300 N. NATCHEZ AVE. NILES, IL. 60714
--	--

TERMS	ACKNOWLEDGE	CONFIRM	FOB	SHIP VIA	COL/PPC
NET 30	YES	YES	SHIPPING PT.	BEST WAY	PPD

QTY. ORDERED	U/M	OUR ITEM NUMBER DESCRIPTION/COMMENTS	YOUR ITEM NUMBER	PRICE/UNIT REQUESTED DATE	EXTENDED PRICE	CHANGE CANCEL
1	EA	EX-4001 PURGED SIGHT TUBE AND CLAMP ASSY <i>**IRCON TO SUPPLY ITEMS 9 THRU 21 OF DRW 453852 REV A</i>		3,100.000 03/05/99	3,100.00	329
1	EA	447352 SENSOR, E-HEAD D-DWG COMPLETE PER PRINT, REV. D <i>**NOTE: MATERIAL TO BE 55-304</i>		300.000 02/19/99	300.00	329
				TOTAL EXTENDED PRICE	3,400.00	

EX-4001
HAVE NOT RECEIVED YET.
THIS ORDER IS LATE.
PLEASE CHECK. THANKS
Ami promised here
3/29 By Ted

3-24-99

NOT FOR RESALE	COMMENTS	CONF TO TED 1-25
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FOR RESALE
PURCHASE ORDER NUMBER AND IRCON PART NUMBER, (IF STATED)
MUST APPEAR ON ALL ACKNOWLEDGMENTS, PACKING SLIPS AND INVOICES.
THIS ORDER MUST BE ACKNOWLEDGED WITHIN 7 DAYS.
THIS ORDER ACCEPTED SUBJECT TO TERMS AND CONDITIONS SHOWN
ON THIS AND THE REVERSE SIDE.

INTERNAL USE

Part No. 020192 Rev H 10/96
R Sep
ORDERED BY
CUSTOMER

DATE: 05-22-2001
REVISION: B
W.O. No.: 67011
CUSTOMER: IRCON GMBH
LOCATION: TAUNUSSTEIN
LOCATION: GERMANY

INFRARAIL SPECIAL NUMBER R722

PURPOSE AND DESCRIPTION:

CUSTOMER REQUIRES A SPECIAL TEMPERATURE RANGE INFRARAIL DNE-31 SYSTEM WITH SPECIAL OPTICAL RESOLUTION . THE INSTRUMENT IS TO BE INSTALLED IN A CONTINUOUS CASTER SYSTEM.

MODEL: DNE99-99C
RANGE: 600 - 1300 DEG. C
OPTICAL RESOLUTION: D/100
FOCAL DISTANCE: FIXES AT 50 INCHES (SPECIAL)
WAVELENGTH: 1.49 - 1.6 um

GENERALITY OF APPLICATION AND RESTRICTRIONS:

UNRESTRICTED, SUITABLE FOR USE WITH ALL STANDARD OPTIONS.

WRITTEN BY: _____

Ami DONADO

AMI DONADO

APPROVED BY: _____

Ami DONADO

DATE: _____

5-22-2001

INFRARAIL SPECIAL NUMBER R722 CONTINUED,

PRODUCTION INSTRUCTIONS:

FOR THE ELECTRONICS MODULE, BUILD THE M1 MODULE PER BILL OF MATERIAL ON PAGE 3.

FOR THE SENSING HEAD, START WITH A MODEL DNE31-50C SENSOR AND MAKE THE FOLLOWING CHANGES:

SECURE THE FOLLOWING FROM ENGINEERING:

1. STAINLESS STEEL SENSING HEAD.
2. SPECIAL LENS PART NUMBER EX-4006

DETECTOR ASSEMBLY CHANGES: (REF. ASSY. # C11209).

1. INSTALL InGaAs DETECTOR P.N. 59094-2 IN LIEU OF THE STANDARD SILICON DETECTOR.
2. WIRE THE DETECTOR PER DETAIL A OF DRAWING No. C-11207.
3. INSTALL FILTER PART NUMBER 64055-2 (1.49 - 1.60 μm).

SPECIAL INTERCONNECTING CABLE INSTRUCTIONS:

DELIVER HIGH TEMPERATURE SILICON CABLE P.N. 560232 TO ENGINEERING FOR INSTALLATION OF SPECIAL QUICK DISCONNECT WATER PROOF LEMO CONNECTOR. MAKE CABLE LENGTH TWO (2) FEET LONGER THAN STANDARD LENGTH TO ALLOW FOR MODIFICATIONS.

CALIBRATION INSTRUCTIONS:

PRE-CAL: CALIBRATE THE ELECTRONIC MODULE PER STANDARD PROCEDURE.

$$I_{scFS} = 10.700 U_a$$

$$I_{scZS} = 0.0931 U_a$$

FINAL-CAL: CALIBRATE PER STANDARD. FOLLOW THE OUTPUT TABLE ON PAGE 3.

FOCAL DISTANCE FOR THIS INSTRUMENT IS 50 INCHES.

ENGINEERING WILL ASSIST IN THE ASSEMBLING OF THE SENSOR INTO THE CC1000 SIGHT TUBE.

MANUAL INSTRUCTIONS:

GENERIC INFRARAIL SERIES MANUAL.

INFRARAIL SPECIAL NUMBER R722 CONTINUED,

BILL OF MATERIAL

MODULE M1 REFERENCE: DWG.NO.C11194

SYMBOL	PART NO.	DESCRIPTION		
R1	103013011	RESISTOR	301 Kohm	METAL FILM 1/4W 1%
R44	101872011	RESISTOR	18.7 Kohm	METAL FILM 1/4W 1%
R54	101433011	RESISTOR	143 Kohm	METAL FILM 1/4W 1%
R45	101302011	RESISTOR	13.0 Kohm	METAL FILM 1/4W 1%
R55	104992011	RESISTOR	49.9 Kohm	METAL FILM 1/4W 1%
R46	109531011	RESISTOR	9.53 Kohm	METAL FILM 1/4W 1%
R56	107322011	RESISTOR	73.2 Kohm	METAL FILM 1/4W 1%
R47	106651011	RESISTOR	6.65 Kohm	METAL FILM 1/4W 1%
R57	101133011	RESISTOR	113 Kohm	METAL FILM 1/4W 1%
R48	104531011	RESISTOR	4.53 Kohm	METAL FILM 1/4W 1%
R58	101743011	RESISTOR	174 Kohm	METAL FILM 1/4W 1%
R49	102871011	RESISTOR	2.87 Kohm	METAL FILM 1/4W 1%
R59	102743011	RESISTOR	274 Kohm	METAL FILM 1/4W 1%
R50	101821011	RESISTOR	1.82 Kohm	METAL FILM 1/4W 1%
R60	104533011	RESISTOR	453 Kohm	METAL FILM 1/4W 1%
R51	101101011	RESISTOR	1.10 Kohm	METAL FILM 1/4W 1%
R61	107683011	RESISTOR	768 Kohm	METAL FILM 1/4W 1%
R52	106490011	RESISTOR	649 ohm	METAL FILM 1/4W 1%
R53	107500011	RESISTOR	750 ohm	METAL FILM 1/4W 1%
R62	101334011	RESISTOR	1.33 Mohm	METAL FILM 1/4W 1%

INFRARAIL SPECIAL NUMBER R722
TEMPERATURE RANGE: 600 TO 1300 DEGREES C
SPECTRUM: 1.49 TO 1.60 MICRONS

TEMPERATURE DEGREES C	SENSOR OUTPUT IN uAMPS	INDICATOR OUTPUT mAMPS
600.0	0.0931	4.000
625.0	0.1253	4.571
650.0	0.1658	5.143
675.0	0.2162	5.714
700.0	0.2782	6.286
725.0	0.3534	6.857
750.0	0.4438	7.429
775.0	0.5512	8.000
800.0	0.6778	8.571
825.0	0.8257	9.143
850.0	0.9971	9.714
875.0	1.1943	10.286
900.0	1.4195	10.857
925.0	1.6751	11.429
950.0	1.9634	12.000
975.0	2.2868	12.571
1000.0	2.6477	13.143
1025.0	3.0483	13.714
1050.0	3.4909	14.286
1075.0	3.9779	14.857
1100.0	4.5114	15.429
1125.0	5.0936	16.000
1150.0	5.7265	16.571
1175.0	6.4124	17.143
1200.0	7.1530	17.714
1225.0	7.9503	18.286
1250.0	8.8061	18.857
1275.0	9.7221	19.429
1300.0	10.7000	20.000

SEE REV. B

A.D. 5-22-01

PAGE 1 OF 4
DATE: 01-21-99
REVISION: A
W.O. NO: 67011
CUSTOMER: IRCON GMBH
LOCATION: GERMANY

INFRARAIL SPECIAL NUMBER R722

PURPOSE AND DESCRIPTION:

CUSTOMER REQUIRES A INFRARAIL TEMPERATURE SYSTEM WITH A SPECIAL TEMPERATURE RANGE AND SPECIAL OPTICAL RESOLUTION TO BE INSTALLED AS PART OF A CONTINUOUS CASTER PYROMETER AS FOLLOWS :

MODEL: DNE99-99C
RANGE: 600 - 1300 DEG. C (SPECIAL RANGE)
OPTICAL RESOLUTION: D/100
SPECIAL FIXED FOCUS AT 50" (STANDARD FOCUS 30")
WAVELENGTH: 1.49 - 1.60 um

GENERALITY OF APPLICATION AND RESTRICTIONS:

UNRESTRICTED: SUITABLE FOR USE WITH ALL STANDARD OPTIONS.

WRITTEN BY:

J. Sch

APPROVED BY:

J. Sch

DATE:

1-21-99

INFRARAIL SPECIAL NUMBER R722

REVISION: A
DATE: 01-21-99

PRODUCTION INSTRUCTIONS:

START WITH A MODEL DNE31-50C ELECTRONICS PROCESSOR, AND INSTALL M1 MODULE AS PER BILL OF MATERIAL ON PAGE 3.

SECURE THE SPECIAL STAINLESS STEEL SENSING HEAD FROM ENGINEERING. INSTALL SPECIAL LENS EX-4006 IN PLACE OF STANDARD LENS. SECURE THIS LENS FROM THE ENGINEERING DEPARTMENT.

DETECTOR ASSEMBLY (C11209) CHANGES:

1. FOR THE DETECTOR , USE DETECTOR 590792 (InGaAs) IN PLACE OF SILICON DETECTOR.
2. WIRE THE DETECTOR PER **DETAIL A** OF DRAWING **C-11207**.
3. FOR THE FILTER USE P.N. 64055-2 (1.49 - 1.6 um).

DELIVER THE HIGH TEMPERATURE SILICON CABLE (P.N.560232) TO ENGINEERING FOR INSTALLATION OF THE WATERPROOF LEMO CONNECTOR TO THE CABLE. ADD APPROXIMATELY 2 FEET TO THE CABLE LENGTH ORDER FOR ASSEMBLY.

CALIBRATION INSTRUCTIONS:

CALIBRATE AS PER STANDARD BUT NOTE THE CHANGE IN FOCAL DISTANCE OF 50 INCHES. WHEN FINISHED, CALL ENGINEERING TO ASSIST IN ASSEMBLING THE SENSOR INTO THE CC1000 SIGHT TUBE.

MANUAL INSTRUCTIONS:

GENERIC INFRARAIL SERIES MANUAL.

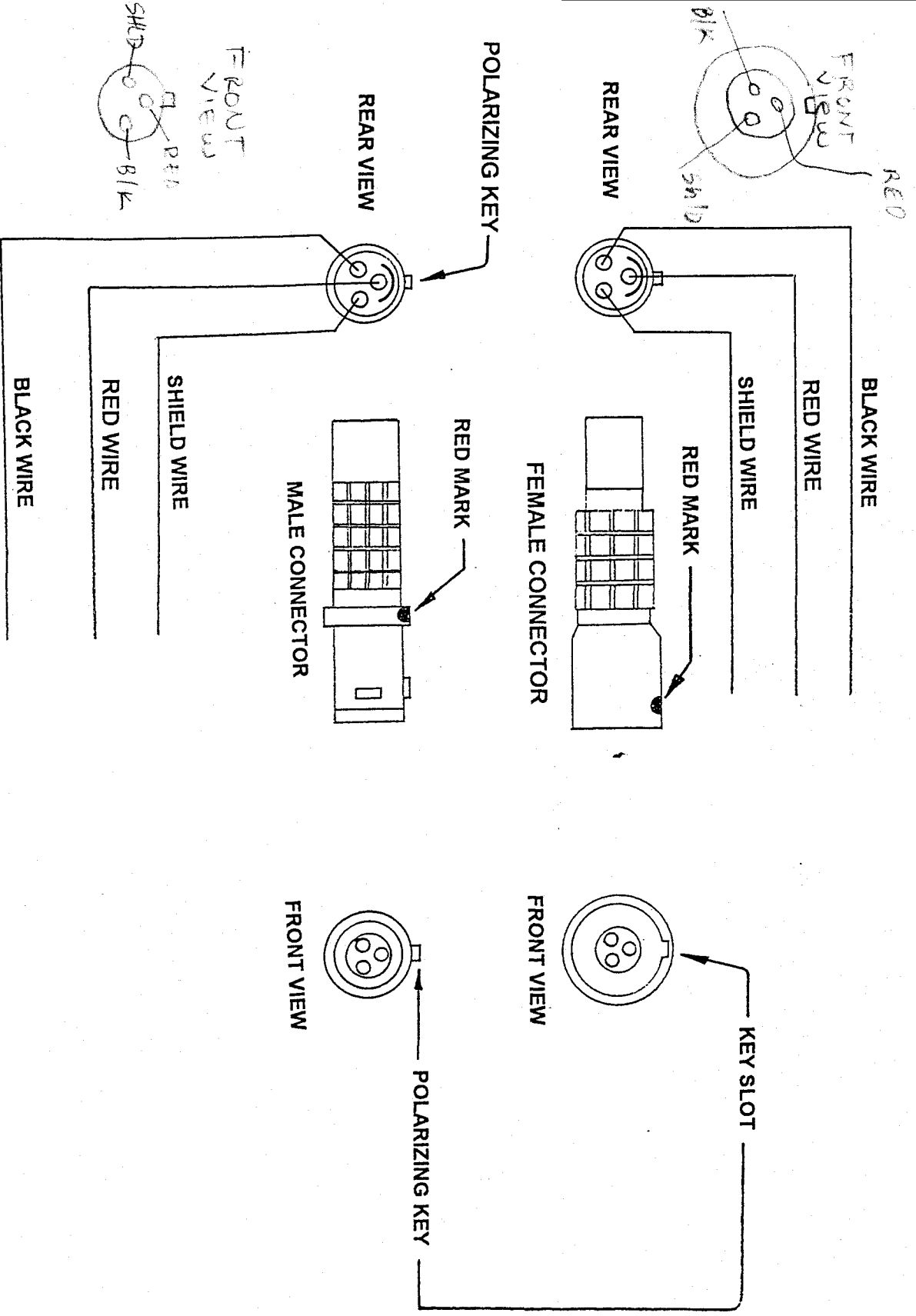
INFRARAIL SPECIAL NUMBER R722
TEMPERATURE RANGE: 600 TO 1300 DEGREES C
SPECTRUM: 1.49 TO 1.60 MICRONS

TEMPERATURE DEGREES C	SENSOR OUTPUT IN uAMPS	INDICATOR OUTPUT mAMPS
600.0	0.0931	4.000
625.0	0.1253	4.571
650.0	0.1658	5.143
675.0	0.2162	5.714
700.0	0.2782	6.286
725.0	0.3534	6.857
750.0	0.4438	7.429
775.0	0.5512	8.000
800.0	0.6778	8.571
825.0	0.8257	9.143
850.0	0.9971	9.714
875.0	1.1943	10.286
900.0	1.4195	10.857
925.0	1.6751	11.429
950.0	1.9634	12.000
975.0	2.2868	12.571
1000.0	2.6477	13.143
1025.0	3.0483	13.714
1050.0	3.4909	14.286
1075.0	3.9779	14.857
1100.0	4.5114	15.429
1125.0	5.0936	16.000
1150.0	5.7265	16.571
1175.0	6.4124	17.143
1200.0	7.1530	17.714
1225.0	7.9503	18.286
1250.0	8.8061	18.857
1275.0	9.7221	19.429
1300.0	10.7000	20.000

DO NOT SHOW AS SHOWN IN ABOVE DIAGRAM.

IT IS RECOMMENDED THAT SHRINK TUBING OR OTHER INSULATING MATERIAL BE USED FOR THE SIGNAL WIRES TO PROTECT AGAINST SHORT CIRCUITS.
SOLDER WIRES BY FOLLOWING ABOVE DIAGRAM AND SLIDE SHRINK TUBING (0.25") ONTO CONNECTOR INSERT PINS, AND HEAT SHRINK THEM.
POSITION MIDPIECE SHELLS ONTO CONNECTOR INSERT MAKING SURE THAT CONNECTOR INSERT KEY APPEARS THROUGH MIDPIECE SHELL WINDOW.
INSTALL OUTER SHELL AND TIGHTEN COLLET NUT TO A MAXIMUM TORQUE OF 2 IN.-LBS.

LEMO CONNECTOR WIRING DIAGRAM
SPECIALS K712, K714 AND R709
R722 R716



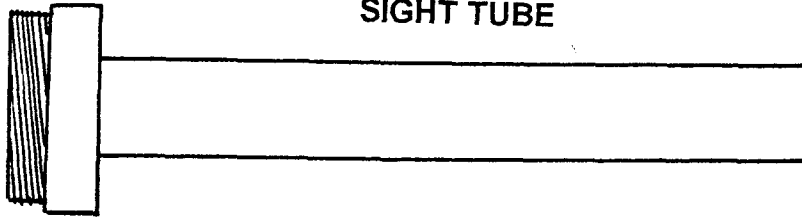
Lemo Connector Wiring Diagram
 Specials K712, K714, and R709

0 CABLE

SENSING HEAD

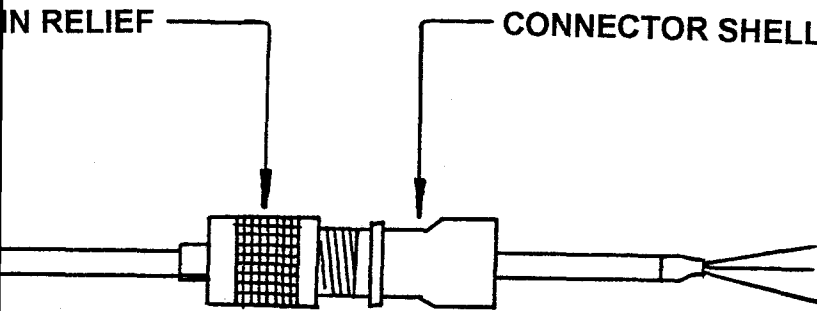


SIGHT TUBE

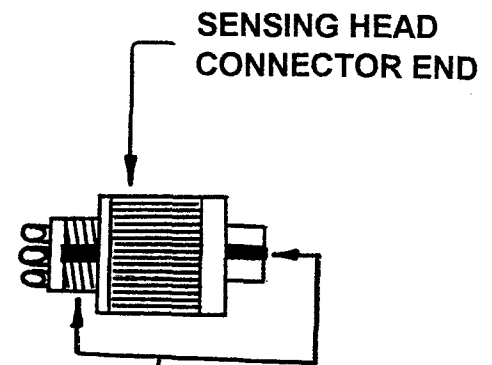


IN RELIEF

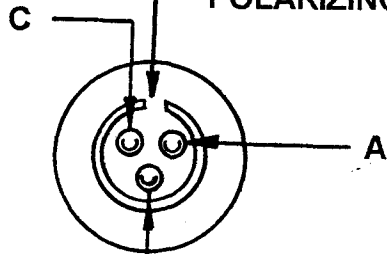
CONNECTOR SHELL



**SENSING HEAD
CONNECTOR END**



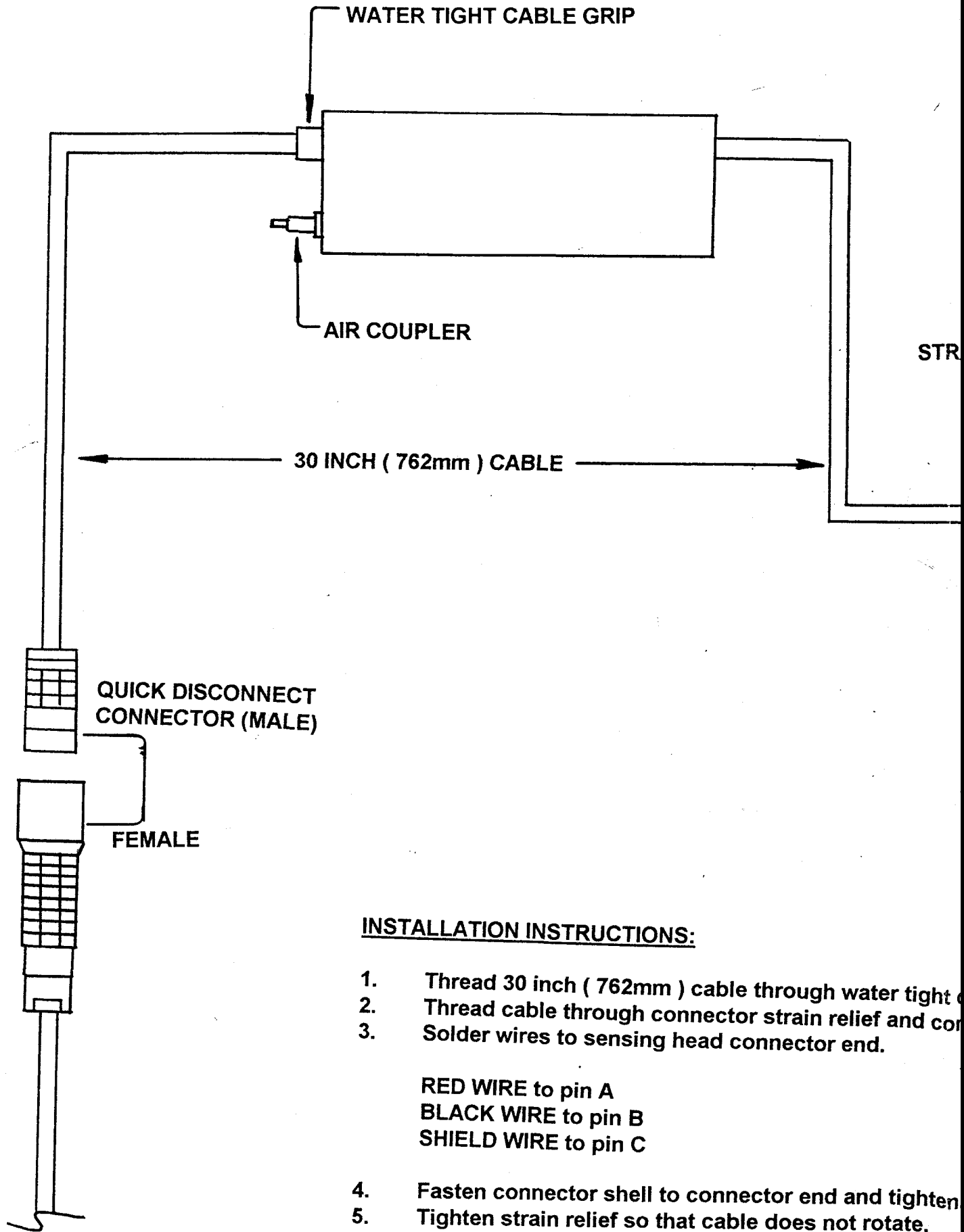
POLARIZING KEY



REAR VIEW

able grip.
ector shell.

e grip so that cable does



INSTALLATION INSTRUCTIONS:

1. Thread 30 inch (762mm) cable through water tight
2. Thread cable through connector strain relief and con
3. Solder wires to sensing head connector end.

RED WIRE to pin A
 BLACK WIRE to pin B
 SHIELD WIRE to pin C

4. Fasten connector shell to connector end and tighten
5. Tighten strain relief so that cable does not rotate.
6. Lock connector to sensor and tighten water tight cab
 not rotate.

Purchase Order



ATTN: TED *Exped 3/24*

IRCON, INC.
7300 N. Natchez Ave.
Niles, IL 60714 USA

Phone 847-967-5151
Fax 847-647-0070

ISO 9001
Quality System
Certified

001606/773-235-5283

NUMBER	PAGE	P/O DATE	ORDER TYPE	CHANGE/CANCEL
27366-00	01	01/25/99	NORMAL	ORIGINAL 01/25/99

To: Ami

ORDERED FROM FOX TOOL 1665 N. MILWAUKEE AVENUE CHICAGO IL 60647	SHIP TO IRCON, INC. 7300 N. NATCHEZ AVE. NILES, IL. 60714
--	--

TERMS	ACKNOWLEDGE	CONFIRM	FOB	SHIP VIA	COL/PPC
NET 30	YES	YES	SHIPPING PT.	BEST WAY	PPD

QTY. ORDERED	U/M	OUR ITEM NUMBER	YOUR ITEM NUMBER	PRICE/UNIT	EXTENDED PRICE	CHANGE CANCEL
1	EA	EX-4001 PURGED SIGHT TUBE AND CLAMP ASSY **IRCON TO SUPPLY ITEMS 9 THRU 21 OF DRW 453852 REV A	418	3,100.00 2,900.00	3,100.00	329
1	EA	447352 SENSOR, E-HEAD D-DWG COMPLETE PER PRINT, REV. D **NOTE: MATERIAL TO BE SS-304		300.00 02/19/99	300.00	329

EX-4001

3-24-99

am 4/8/99

EX RD 4-6 94

OK

**HAVE NOT RECEIVED YET.
THIS ORDER IS LATE.
PLEASE CHECK. THANKS**

Ami promised here 3/29 by Ted

ILLINOIS PERMIT #2415-9425

TOTAL EXTENDED PRICE

3,400.00

CONF TO TED 1-25

NOT FOR RESALE

COMMENTS

FOR RESALE
PURCHASE ORDER NUMBER AND IRCON PART NUMBER, (IF STATED)
MUST APPEAR ON ALL ACKNOWLEDGMENTS, PACKING SLIPS AND INVOICES.

THIS ORDER MUST BE ACKNOWLEDGED WITHIN 7 DAYS.
THIS ORDER ACCEPTED SUBJECT TO TERMS AND CONDITIONS SHOWN
ON THIS AND THE REVERSE SIDE.

INTERNAL USE

ORDERED BY

Part No. 020192 Rev H 10/96

CUSTOMER

Acknowledgment



IRCON, INC.
7300 N. Natchez Ave.
Niles, IL 60714 USA

Phone 847-967-5151
Toll Free 800-323-7660
Fax 847-647-0948

SCHEDULED SHIPPING WEEK MONTH/DAY/YEAR
ENDING 03/20/99

OUR ORDER NO. ORDER DATE MONTH/DAY/YEAR
SA 067011/00 01/19/99

YOUR ORDER NO. D-6572

TERMS NET 30
X OTHER NET 60

F.O.B. NILES, ILLINOIS
X

CODE 726 .00 03/19/99

VIA MSAS PPD. COLL. X

SPECIAL SHIPPING INSTRUCTIONS

SOLD TO CUSTOMER NO. 008241-01

IRCON GMBH
POSTFACH 1361, D-65221
TAUNUSSTEIN, GRILLPARZERSTR 40
GERMANY

SHIPPING ADDRESS TAX CODE NO TAX

INTROPA
SPEDITIONSGESELLSCHAFT GMBH
FRANKFURT AIRPORT
ZUR VERFUEGUNG IRCONGMBH

LINE NO.	PART NO.	QTY.	DESCRIPTION	UNIT MEAS	DISCOUNT %	PRICE EACH U.S. DOLLAR XXXXXXXXXX	AMOUNT U.S. DOLLAR XXXXXXXXXX
01		1	INFRARAIL TEMPERATURE SYSTEM MODEL DNE99-99C SERIAL NBR 002871	EA		6748.60	6748.60
			CABLE(S) 4 MET. EA (4 MET. EA INCLUDED IN ABOVE			<i>with 25 ft High temp cable</i> <i>\$3000</i>	
			PRODUCT MODIFICATION CHARGES ***** * SPECIAL Z999 <i>New Special with CC1000</i> * <i>and Type E Head</i> ***** !!!!!!!!!!WARNING!!!!!!!!!! ** SPL # TO BE DETERMINED ** ** SEE ENGINEERING DEPT. ** <i>with Special Range</i>			82.30 82.30 <i>WITH EXTENSIO.</i>	
			SUB TOTALS				6830.90
			GRAND TOTAL PACK WITH MOISTURE ABSORBING MATERIAL			<i>600-1300C per spec</i> <i>RMB 4/19</i> <i>R707</i>	6830.90
			BILLINGS IN D.M.				

THIS ORDER IS ACCEPTED SUBJECT TO TERMS AND CONDITIONS SHOWN ON THIS AND THE REVERSE SIDE

IF TAX EXEMPT, PLEASE PROVIDE COPY OF EXEMPTION OR DIRECT PAYMENT CERTIFICATE.

Ship To: IRCON, INC.
7300 N. NATCHEZ AVE.
NILES, IL 60714 USA

ORIGINAL



PURCHASE REQUISITION

Supplier

Mc Master Carr

Date 12-4-97

P.O. # _____

Requisitioner J. Lahrner

Purpose/Reason SPL R709

Attn _____

Date needed 12-10-97

Phone _____

Route to J. LARNER

Material Safety Data Information:

New chemical MSDS received on _____

for sample only

routine use

Previously purchased chemical: Active Index No. _____

Qty	U/M	Part No.	Rev. Level	Description	Price Ea	Total	Acct or W/O No.
2				T-HANDLE #90293A312 QUICK RELEASE T-HANDLE	14.23	28.46	431-109-64745
2				LANYARD #90312A11 TYPE A 3/64" X 6" LANYARD	1.17	2.34	"
12				DISK SPRING #9713K63 BELLVILLE DISK SPRING	.51	6.12	"
8				COMPRESSION SPRING #9435K34	1.81	14.48	"
2				COLLAR #6436K43 2 piece Stainless Steel 1-1/2" BORE DIA.	18.03	36.06	"

Confirming to _____

Approval (under \$100 - Authorized Requisitioner) J. Lahrner

(\$100 - \$5000 - Department Manager) _____

(over \$5000 - General Manager) _____

Total \$ 87.96



PURCHASE REQUISITION

Supplier

Fox TOOC

Attn _____

Phone _____

Date 1-19-99

P.O. # _____

Requisitioner J. LARKNER

Purpose/Reason CE1000 SPECIAL

Date needed 2-19-99

Route to J. LARKNER

Material Safety Data Information:

New chemical MSDS received on _____ for sample only routine use

Previously purchased chemical: Active Index No. _____

Qty	U/M	Part No.	Rev. Level	Description	Price Ea	Total	Acct / Work Order No.
1				SENSING head per DWG 44735-2 REV D (ATTACHED)	*300		131-109-0 67011
				NOTE: MATERIAL CHANGE From ALUMINUM to SS-304			
				Price based on P.O. 081980 1-28-97			

Confirming to _____

Approval (under \$100 - Authorized Requisitioner) J. Larkner

(\$100 - \$5000 - Department Manager) _____

(over \$5000 - General Manager) _____

Total \$ 300



PURCHASE REQUISITION

Supplier

FOX TOOL

Date

1-28-97

P.O. #

081980

Requisitioner

V. LAKNER

Purpose/Reason

CC1000 SPL

Attn

Phone

Date needed

2-21-97

Route to

V. LAKNER

Material Safety Data Information:

New chemical MSDS received on _____

for sample only

routine use

Previously purchased chemical: Active Index No. _____

Qty	U/M	Part No.	Rev. Level	Description	Price Ea	Total	Acct or W/O No.
1				SENSING HEAD PER AMENDED DRAWING # 44735-2 REV D ATTACHED	300		
				NOTE: MATERIAL CHANGE FROM ALUMINUM TO STAINLESS STEEL - 304			

Confirming to _____

Approval (under \$100 - Authorized Requisitioner) _____

Total \$ _____

(\$100 - \$5000 - Department Manager) _____

(over \$5000 - General Manager) _____



PURCHASE REQUISITION

Supplier

Date 12-9-97

FOX TOOL

P.O. # _____

Requisitioner J. LAKNER

Purpose/Reason SPL R709

CC1000

Attn _____

Date needed 1-23-97

Phone _____

Route to J. LAKNER

Material Safety Data Information:

New chemical MSDS received on _____

for sample only

routine use

Previously purchased chemical: Active Index No. _____

Qty	U/M	Part No.	Rev. Level	Description	Price Ea	Total	Acct or W/O No.
1		EX4001	A	PURGED SIGHT TUBE & CLAMP ASSY. Vendor has support DWGS. Ircon will supply parts Items #9-21 of DWG 453852(A) * Price per QUOTE of 4-10-97 attached	3100*		431-109 64745

Confirming to _____

Approval (under \$100 - Authorized Requisitioner) J. Lakner

Total \$ 3100

(\$100 - \$5000 - Department Manager) _____

(over \$5000 - General Manager) _____



12-5-97

PURCHASE REQUISITION

Supplier DAMAR ELEC.
RAINES & ASSOC

Date 12-4-97

P.O. # _____

Requisitioner J. LARKNER

Purpose/Reason SPL R709

Attn _____

Phone ~~708~~ 498-0890

Date needed 12-31-97

Route to J. LARKNER

Material Safety Data Information:

New chemical MSDS received on _____

for sample only

routine use

Previously purchased chemical: Active Index No. _____

Qty	U/M	Part No.	Rev. Level	Description	Price Ea	Total	Acct or W/O No.
3				LEMO CONNECTOR PLUG TYPE FGG2K303CLAC50	46.20		431-109- 6745
3				LEMO CONNECTOR RECEPTACLE TYPE PHG2K303CLLC50	46.20		11

Confirming to _____

Approval (under \$100 - Authorized Requisitioner) J. Larkner

(\$100 - \$5000 - Department Manager) _____

(over \$5000 - General Manager) _____

Total \$ 277.20

SHIP DATE 3-19-99



PURCHASE REQUISITION

Supplier

P.O. # 81366

Date 1-20-99

Fox Tool

P.O. #

Requisitioner J. LAKNER

Purpose/Reason INFRARED SPECIAL

CC1000

R722

Attn

Date needed 3-5-99

Phone

Route to J LAKNER

ORDERED ON 1-20-99
DUE IN ON

Material Safety Data Information:

New chemical MSDS received on

for sample only

routine use

Previously purchased chemical: Active Index No.

Qty	U/M	Part No.	Rev. Level	Description	Price Ea	Total	Acct / Work Order No.
1		EX-4001	A	PURGED SIGHT TUBE + CLAMP ASSY	\$3100*	3100	43-109-00 67011
				IRCON TO SUPPLY ITEMS # 9-21 OF DWG 453852 REV A			
				Price Based on last PO 84642-00 12-4-97			

OK

Confirming to

Approval (under \$100 - Authorized Requisitioner)

J. Lakner

Total \$

\$ 3100

(\$100 - \$5000 - Department Manager)

(over \$5000 - General Manager)



PURCHASE REQUISITION

Supplier

Date 1-20-99

Fox Tool

P.O. # _____

Requisitioner J. LAKNER

Purpose/Reason INFRARED SPECIAL

CC1000

Attn _____

Date needed 3-5-99

Phone _____

Route to J LAKNER

Material Safety Data Information:

New chemical MSDS received on _____

for sample only

routine use

Previously purchased chemical: Active Index No. _____

Qty	U/M	Part No.	Rev. Level	Description	Price Ea	Total	Acct / Work Order No.
<u>1</u>		<u>EX-4001 A</u>		<u>PURGED SIGHT TUBE</u>	<u>\$3100*</u>		<u>93-109-00</u> <u>67011</u>
				<u>+ CLAMP ASSY</u>			
				<u>IRCON TO SUPPLY</u>			
				<u>ITEMS # 9-21 OF</u>			
				<u>DWG 453852 REV A</u>			
				<u>Price Based on last</u>			
				<u>PO 84642-00 12-4-97</u>			

Confirming to _____

Approval (under \$100 - Authorized Requisitioner) J. L.

(\$100 - \$5000 - Department Manager) _____

(over \$5000 - General Manager) _____

Total \$ \$3100

MATERIAL REPORT

CABLE ASSEMBLY E/F SERIES (INFRARAIL) LAST REV: 04/15/96 REV: A
LAST ECO POSTING: / /

IF SILICON CABLE

MIN 2 COND 1100/2000 2 COND. SHIELDED 22AWG PRINT C
IS PER WORK ORDER PLUS 1 FOOT FOR STRIPPING.

ITEMS 2A THRU 2E BELOW OVER THE END OF THE CABLE

2D: STRIP JACKET 1.0"
COMB OUT AND SEPARATE BRAID WIRE
THEN TWIST BRAID WIRE TO FORM ONE CONDUCTOR.
CUT DRAIN WIRE FLUSH TO JACKET.
STRIP WIRES 1/4", TIN ALL WIRES & BRAID...
INSTALL TUBING (ITEMS 4 & 7) BEFORE SOLDERING

2D: STRIP JACKET 1.0"
COMB OUT AND SEPERATE BRAID WIRE
THEN TWIST BRAID TO FORM ONE CONDUCTOR.
CUT DRAIN WIRE FLUSH TO JACKET.
STRIP WIRES 1/4", TIN WIRES & BRAID.
INSTALL TUBING (ITEMS 5 & 7) OVER BRAID
AND CABLE...

OSL-3 BACKSHELL STRAIGHT, NICKEL PLT
STRAIN RELIEF END CAP
FERRULE
RUBBER GROMMET
BACKSHELL

PVC CLEAR .106 ID .016 WALL
PIECES EACH TO 1/4 INCHES LONG
OVER RED & BLACK WIRES BEFORE SOLDERING
TO CONNECTOR...

PVC CLEAR .106 ID .016 WALL
PIECE TO 3/4 INCHES LONG
OVER Braid WIRE BEFORE SOLDERING TO CONNECTOR...

PVC CLEAR .085 ID .016 WALL
PIECE TO 3/4 INCHES LONG
OVER Braid WIRE AT OPPOSITE END OF CONNECTOR...

OSL-3 STR PLUG NICKEL PLT
WIRES AS SHOWN IN TABLE "A" ON DRAWING...

FRI, MAR 21, 1997

10:00 AM

DC06B001 FLAGS=NNNN, LEVELS=00

BILL OF M

DRAWING ID: D11215 - *Silico 4* SILICONE INTERCONNECT

ALL MODELS *D11198 - PVC*

MISC COMMENT: KIT = L11201

LV SEQ#	COMPONENT NO	QUANTY	UM	SYM/ITEM	DESCRIPTION
01 0010	560232	1.00	FT	1	CABLE SILIC CABLE LENGT

01 0015	"ENG2	3.00			SLIDE IT
---------	-------	------	--	--	----------

01 0020	"ENG1	8.00			CONNECTOR E
---------	-------	------	--	--	-------------

01 0025	"ENG4	8.00			INDICATOR E
---------	-------	------	--	--	-------------

01 0040	575882	1.00	EA	2	CONN. CIRC (ITEM 2A) = (ITEM 2B) = (ITEM 2C) = (ITEM 2D) =
---------	--------	------	----	---	--

01 0050	3210G00X0	2.00	EA	4A	TUBING #10 CUT (2) PIE APPLY TO RE WIRES TO C
---------	-----------	------	----	----	--

				4B	TUBING #10 CUT (1) PIE APPLY TO BR
--	--	--	--	----	--

01 0060	3212G00X0	1.00	EA	5	TUBING #12 - CUT (1) FOR DRA
---------	-----------	------	----	---	------------------------------------

01 0070	575902	1.00	EA	3	CONN. CIRC ATTACH ALL
---------	--------	------	----	---	--------------------------

**DRAWING (S) TOO LARGE
TO SCAN.**

**TO VIEW THE ORIGINAL
DESIGN,
A REQUEST TO VIEW
PHYSICAL FILE
IS YOUR NEXT OPTION.**

R722
w/o 67011

Section 1 — GENERAL INFORMATION

1.5 SPECIAL MODIFICATIONS

IRCON InfraRail Model DNE99-99C, Serial No. 002871 is modified for a special temperature range of 600° to 1300°C, an optical resolution of D/100 with a special fixed focus at 50" and a wavelength of 1.49 - 1.6 μm . Per customer request, the special temperature range and optical resolution are installed as part of a continuous caster pyrometer.

This modified instrument may be used with all standard InfraRail options and accessories.

Details of this modification are retained in IRCON Engineering Files as InfraRail Special No. R722.

NOTE: Ircon, Inc. is the sole owner in all respects of any product or software modification or design herein specified.

ALL MODELS

IF SILICON CABLES

MISC COMMENT: KIT = L11201

LV SEQ# COMPONENT NO QUANTITY UM SYM/ITEM DESCRIPTION

01 0010 560232 1.00 FT 1 CABLE SILICON 2 COND 1100/2000 2 COND. SHIELDED 22AWG PRINT C
CABLE LENGTH IS PER WORK ORDER PLUS 1 FOOT FOR STRIPPING.

01 0015 "ENG2 3.00
SLIDE ITEMS 2A THRU 2E BELOW OVER THE END OF THE CABLE

01 0020 "ENG1 8.00
CONNECTOR END: STRIP JACKET 1.0"
COMB OUT AND SEPERATE BRAID WIRE
THEN TWIST BRAID WIRE TO FORM ONE CONDUCTOR.
CUT DRAIN WIRE FLUSH TO JACKET
STRIP WIRES 1/4", TIN ALL WIRES & BRAID.
INSTALL TUBING (ITEMS 4 & 7) BEFORE SOLDERING

01 0025 "ENG4 8.00
INDICATOR END: STRIP JACKET 1.0"
COMB OUT AND SEPERATE BRAID WIRE
THEN TWIST BRAID TO FORM ONE CONDUCTOR.
CUT DRAIN WIRE FLUSH TO JACKET.
STRIP WIRES 1/4", TIN WIRES & BRAID.
INSTALL TUBING (ITEMS 5 & 7) OVER BRAID
AND CABLE.

01 0040 575882 1.00 EA 2 CONN. CIRC 10SL-3 BACKSHELL STRAIGHT, NICKEL PLT
(ITEM 2A) = STRAIN RELIEF END CAP
(ITEM 2B) = FERRULE
(ITEM 2C) = RUBBER GROMMET
(ITEM 2D) = BACKSHELL

01 0050 3210G00X0 2.00 EA 4A TUBING #10 PVC CLEAR 106 ID .016 WALL
CUT (2) PIECES EACH TO 1/4 INCHES LONG
APPLY TO RED & BLACK WIRES BEFORE SOLDERING
WIRES TO CONNECTOR.

01 0060 3212G00X0 1.00 EA 4B TUBING #10 PVC CLEAR 106 ID .016 WALL
CUT (1) PIECE TO 3/4 INCHES LONG
APPLY TO BRAID WIRE BEFORE SOLDERING TO CONNECTOR.

01 0070 575902 1.00 EA 5 TUBING #12 PVC CLEAR 085 ID .016 WALL
- CUT (1) PIECE TO 3/4 INCHES LONG
FOR DRAIN WIRE AT OPPOSITE END OF CONNECTOR.

01 0070 575902 1.00 EA 3 CONN. CIRC 10SL-3 STR PLUG NICKEL PLT
ATTACH ALL WIRES AS SHOWN IN TABLE "A" ON DRAWING

MISC COMMENT: KIT = L11201

LV SEQ# COMPONENT NO QUANTITY UN SYM/ITEM DESCRIPTION

01 0100 321611400 1.00 EA 7 TUBING 1/4" SHRINKABLE BLACK SEMI RIGID POLYOLEFIN 4' PC

CUT (2) PIECES TO 1-1/4 INCHES LONG
APPLY ON JACKET & WIRES APPROX HALF WAY ON CONN. END, 1/4"
OVER INDIVIDUAL INSULATION ON TERMINAL END BY APPLYING HEAT.
(BOTH ENDS OF CABLE ASSY)

01 0105 990100027 1.00 AR 8 ADHESIVE LOCITE 272 THREAD LOCKER SPEC

APPLY (2) DROPS OPPOSITE EACH OTHER ON (ITEM 3) CONN. THREAD

01 0110 C-CABLE 1.00
01 0120 477202 1.00 EA 9 LABEL INFRARAIL (2.0" X 0.5") BLK LET W/ ORG BK (ROLL FORM)

GET CABLE LENGTH FROM WORK ORDER FILE
APPLY LABEL TO CABLE AT CONNECTOR END APPROX. 2 INCHES
FROM THE CONNECTOR UPON COMPLETION OF THE ASSY...
(AS SHOWN ON DRAWING)

END OF REPORT

MISC COMMENT: KIT = L11201

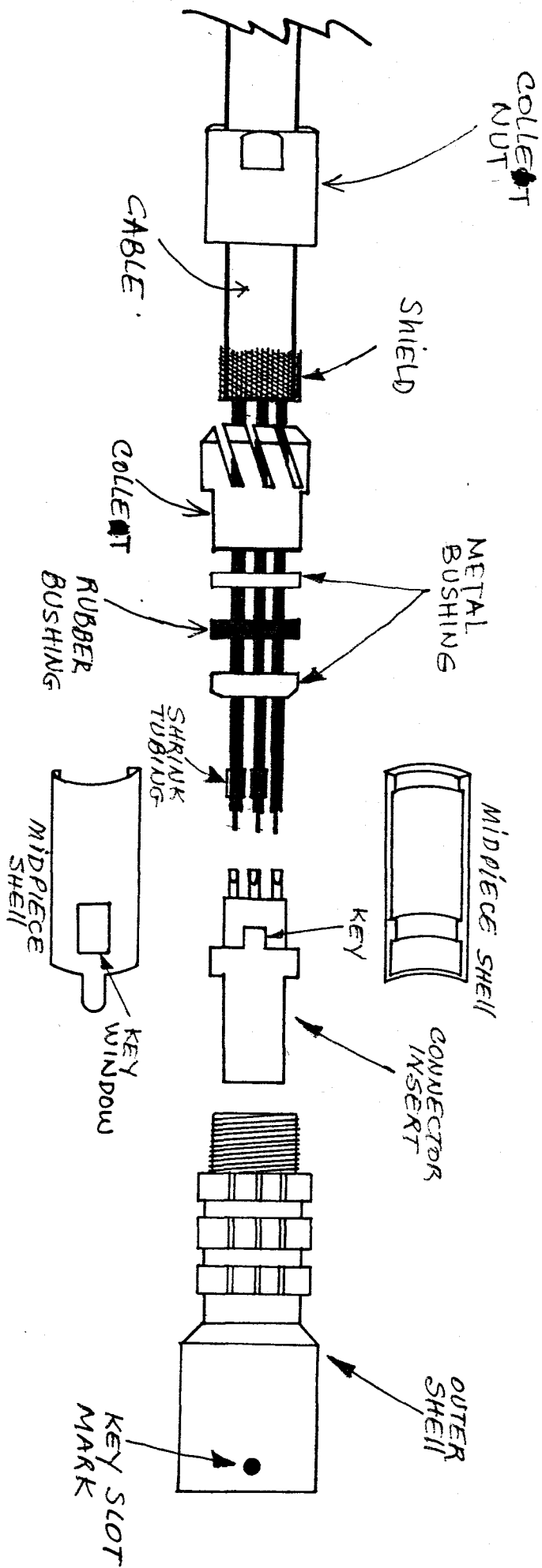
LV SEQ#	COMPONENT NO	QUANTITY	UM	SYM/ITEM	DESCRIPTION
01 0100	321611400	1.00	EA	7	TUBING 1/4" SHRINKABLE BLACK SEMI RIGID POLYOLEFIN 4' PC CUT (2) PIECES TO 1-1/4 INCHES LONG APPLY ON JACKET & WIRES APPROX HALF WAY ON CONN. END, 1/4" OVER INDIVIDUAL INSULATION ON TERMINAL END BY APPLYING HEAT. (BOTH ENDS OF CABLE ASSY)
01 0105	990100027	1.00	AR	8	ADHESIVE LOCITE 272 THREAD LOCKER SPEC APPLY (2) DROPS OPPOSITE EACH OTHER ON (ITEM 3) CONN. THREAD
01 0110	C-CABLE	1.00			GET CABLE LENGTH FROM WORK ORDER FILE
01 0120	477202	1.00	EA	9	LABEL INFERRAIL (2.0" X 0.5") BLK LET W/ ORG BK (ROLL FORM) APPLY LABEL TO CABLE AT CONNECTOR END APPROX. 2 INCHES FROM THE CONNECTOR UPON COMPLETION OF THE ASSY... (AS SHOWN ON DRAWING)

END OF REPORT

**DRAWING (S) TOO LARGE
TO SCAN.**

**TO VIEW THE ORIGINAL
DESIGN,**

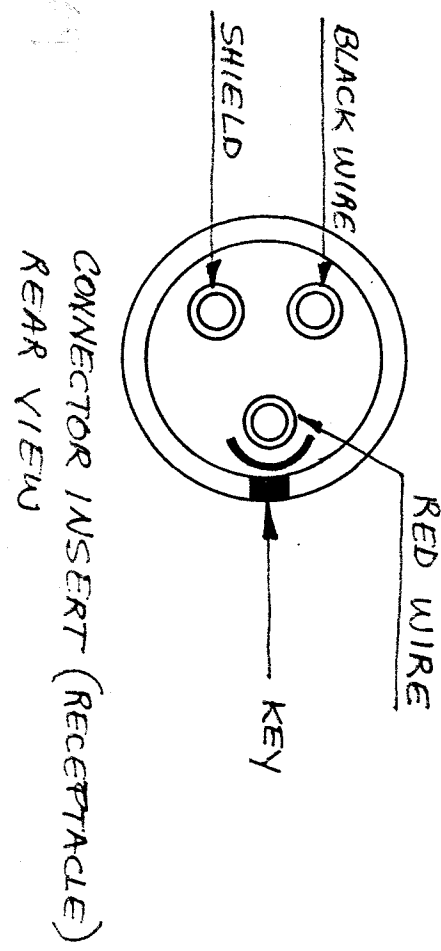
**A REQUEST TO VIEW
PHYSICAL FILE
IS YOUR NEXT OPTION.**



WIRING INSTRUCTIONS

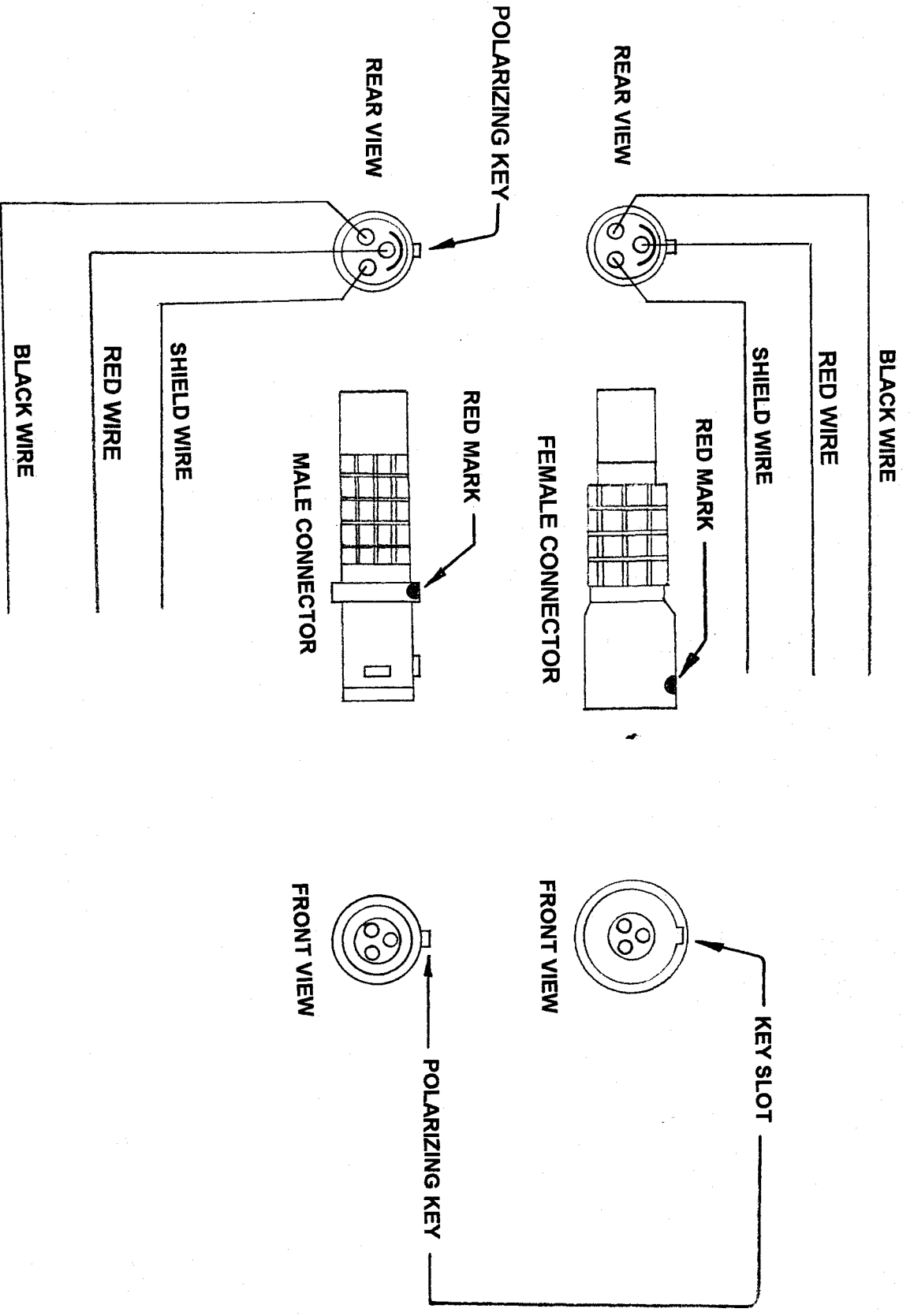
1. STRIP CABLE JACKET ~~0.512 INCHES~~ 1.06" AND TRIM END OF WIRES 0.118 INCHES
2. TRIM BRAIDED SHIELD TO A LENGTH OF 0.276 INCHES AND FOLD BACK ONTO CABLE JACKET MAKING SURE THAT THE SHIELD CONDUCTOR IS NOT GUT.
3. SLIDE "COLLECT NUT" AND "COLLECT" ONTO CABLE.

FOR RING



IT IS RECOMMENDED THAT SHRINK TUBING OR OTHER INSULATING MATERIAL BE USED FOR THE SIGNAL WIRES TO PROTECT AGAINST SHORT CIRCUITS.
SOLDER WIRES BY FOLLOWING ABOVE DIAGRAM AND SLIDE SHRINK TUBING (0.25") ONTO CONNECTOR INSERT PINS, AND HEAT SHRINK THEM.
POSITION MIDPIECE SHELLS ONTO CONNECTOR INSERT MAKING SURE THAT CONNECTOR INSERT KEY APPEARS THROUGH MIDPIECE SHELL WINDOW.
INSTALL OUTER SHELL AND TIGHTEN COLLECT NUT TO A MAXIMUM TORQUE OF 2 IN.-LBS.

LEMO CONNECTOR WIRING DIAGRAM
SPECIALS K712, K714 AND R709



Lemo Connector Wiring Diagram
 Specials K712, K714, and R709

**DRAWING (S) TOO LARGE
TO SCAN.**

**TO VIEW THE ORIGINAL
DESIGN,**

**A REQUEST TO VIEW
PHYSICAL FILE
IS YOUR NEXT OPTION.**

C O N F I G U R A T I O N B I L L S O F M A T E R I A L

Configuration ID: 629	Base Price...:	
Type.....: SO	Unit Price...:	800.0000
Model ID.....: DN-NC	Unit Cost...:	377.9592
Part ID.....: DN-NC#629	Ext Price...:	800.0000
Description.....: IRCON INFRARAIL IRT	Margin.....:	53.00
Revision Number.: 0	1. Create BOM...: Y	
	2. Allow Update: Y	

LI	Part Number....	Description.....	Qty Req'd..	Cost.....	Price.....
	Subconfig No.				
1	DN0DNE	DN PRICES	1.0000	0.0000	800.0000
2	C11201-R722	SENSING HEAD FINAL ASS	1.0000	114.8415	
3	D11191	INFRARAIL BOX ASSEMBLY	1.0000	147.6050	
4	E3113C -M-R722	MODULE ASSEMBLY - M1 -	1.0000	0.0020	
5	NL13354 NLR721-D	NEW 'N'# FOR L13354	1.0000	70.8004	0.0000

CONTROL:

Enter '?' for HELP

Zoom End

W/o cable!!

FOR REFERENCE ONLY

LR721-D - DET ASSY FOR SPL# R721

Level	X	Part Number	Description	Rev	Quantity	U/M	MB	ECO	ECO Date	Strt Use	End Use	*
0		P LR721-D	DET ASSY FOR SPL# R721	A	1.0000	EA						M
1		P LR721-D/01	SEE EXTENDED DESCRIPTION		3.0000	EA						B
1		431432	DET. HOLDER MR20 SERIES	A	1.0000	EA						B
1		640552	FILTER, BANDPASS	A	1.0000	EA						B
1		590792	DETECTOR INGAAS 1.6 MICRO	E	1.0000	EA						B
1		P LR721-D/02	SEE EXTENDED DESCRIPTION		4.0000	EA						B
1		560372	CABLE PVC 1 COND SHIELD 2		3.0000	IN						B
1		312430100	WIRE 24AWG BARE SOLID		1.0000	IN						B
1		430292	CONN. GASKET 2000 SERIES	D	1.0000	EA						B
1		575892	CONN. CIRC 3 RECPT 10SL-3		1.0000	EA						B
1		490042	SPRING DETECTOR RETAINER	A	1.0000	EA						B
1		630092	FOLDING MIRROR SH MROA SE	B	1.0000	EA						B
1		490032	SPRING FOLDING MIRROR MOD	B	1.0000	EA						B
1		200204130	SCREW #2-56 X 1/8 BH SLOT		1.0000	EA						B
1		990100016	EPOXY HARDMAN #4001 3-5 M		1.0000	EA						B
1		3214G00X0	TUBING #14 PVC CLEAR		1.0000	IN						B

FOR REFERENCE ONLY

L13354 - SH DETECTOR ASSEMBLY E-SE

Level	X	Part Number	Description	Rev	Quantity	U/M	MB	ECO	ECO Date	Strt Use	End Use	*
0		P L13354	SH DETECTOR ASSEMBLY E-SE	B	1.0000	EA	M					
1		431432	DET. HOLDER MR20 SERIES	A	1.0000	EA	B	3770	08-21-96			
1		640642	FILTER, BANDPASS	A	1.0000	EA	B	3770	08-21-96			
1		590672	DET. SI VACTEC 21D459		1.0000	EA	B	3770	08-21-96			
1		560372	CABLE PVC 1 COND SHIELD 2		3.0000	IN	B	3770	08-21-96			
1		312430100	WIRE 24AWG BARE SOLID		1.0000	IN	B	3770	08-21-96			
1		430292	CONN. GASKET 2000 SERIES	D	1.0000	EA	B	3770	08-21-96			
1		575892	CONN. CIRC 3 RECEPT 10SL-3		1.0000	EA	B	3770	08-21-96			
1		490042	SPRING DETECTOR RETAINER	A	1.0000	EA	B	3770	08-21-96			
1		630092	FOLDING MIRROR SH MROA SE	B	1.0000	EA	B	3770	08-21-96			
1		490032	SPRING FOLDING MIRROR MOD	B	1.0000	EA	B	3770	08-21-96			
1		200204130	SCREW #2-56 X 1/8 BH SLOT		1.0000	EA	B	3770	08-21-96			
1		990100016	EPOXY HARDMAN #4001 3-5 M		1.0000	EA	B	3770	08-21-96			
1		3214G00X0	TUBING #14 PVC CLEAR		1.0000	IN	B	3770	08-21-96			

BOM Number : DN-NC#629 - IRCON INFRARAIL IRT SO-LI: 70006*1

Level	Part Number	Description	Quantity	UM	Alt.	MB X	ECO No.	ECO Date	StartUse	End Use
1	DN0DNE	DN PRICES	1.0000	EA		M P				
1	C11201	SENSING HEAD FINAL ASSEMB	1.0000	EA		M P				
2	451322	FIELD STOP .022DIA	1.0000	EA		B	3709	05-17-96		
2	C11201/01	SEE EXTENDED DESCRIPTION	8.0000	EA		B				
2	990300005	RETAINING RING 7/16 OD, .2	1.0000	EA		B	3709	05-17-96		
2	431442	DET. LOCATOR MOD2	1.0000	EA		B	3709	05-17-96		
2	C11209	SH DETECTOR ASSEMBLY (E-S	1.0000	EA		M P	3709	05-17-96		
3	T-C11209-1	SELECT DET. ASSY. (E-SERI	1.0000	EA		B	3770	08-21-96		
2	447352	SENSOR, E-HEAD	1.0000	EA		B	3709	05-17-96		
2	610432	EYE LENS FOR A HEAD	1.0000	EA		B	3709	05-17-96		
2	990100004	EPOXY HB FULLER FE 7004	1.0000	EA		B	3709	05-17-96		
2	447372	FIELD STOP, .312 DIA	1.0000	EA		B	3709	05-17-96		
2	447382	FIELD STOP, .437 DIA	1.0000	EA		B	3709	05-17-96		
2	610402	LENS PLANO CONVEX 30" F/L	1.0000	EA		B	3709	05-17-96		
2	431752	O RING 13/16 X 1/16 TH 70	1.0000	EA		B	3709	05-17-96		
2	447362	LENS RING E-HEAD SENSOR	1.0000	EA		B	3709	05-17-96		
2	200412440	SCREW #4-40 X 3/8 FIL SLO	4.0000	EA		B	3709	05-17-96		
2	220403200	WASHER #4 LOCK SPLIT RING	4.0000	EA		B	3709	05-17-96		
2	454152	SCREW, ADJUSTMENT,	1.0000	EA		B	3709	05-17-96		
2	433372	O RING 3/32 X 7/32 X 1/16	1.0000	EA		B	3709	05-17-96		
2	220602200	WASHER #6 LOCK EXT TOOTH	1.0000	EA		B	3709	05-17-96		
2	200606040	SCREW #6-32 X 3/16 PH SLO	1.0000	EA		B	3709	05-17-96		
2	C11201/02	SEE EXTENDED DESCRIPTION	3.0000	EA		B				
2	443502	RETAINING NUT	1.0000	EA		B	3709	05-17-96		
2	477142	LABEL, SERIAL NUMBER, SEN	1.0000	EA		B	3709	05-17-96		
2	474772	LABEL GROUND WARNING	1.0000	EA		B	3709	05-17-96		
2	T-C11201-1	DETERMINE IF CABLE IS REQ	1.0000	EA		B	3709	05-17-96		
2	C11201/03	SEE EXTENDED DESCRIPTION	5.0000	EA		B				
2	999900013	CAP PLUG #SC-1-1/4	1.0000	EA		B	3709	05-17-96		
2	990100028	SEALANT RTV SILICONE BLAC	1.0000	EA		B	3709	05-17-96		
2	999900014	STEM BUMPER 3/8OD .275T	1.0000	EA		B	3709	05-17-96		
1	D11191	INFRARAIL BOX ASSEMBLY	1.0000	EA		M P				
2	433332	ENCLOSURE, DIN BOX, MODIF	1.0000	EA		B	3671	04-08-96		
2	C11187	POWER SUPPLY/ PEAK-PICKER	1.0000	EA		M P	3671	04-08-96		
3	C20212	SCHEMATIC: POWER SUPPLY/	1.0000	EA		M P	4202	01-14-99		
3	LDN200	PWR SUPPLY/ PP PCB ASSY	1.0000	EA		M P	4202	01-14-99		
4	502505	PCB DIN RAIL POWER PEAK-P	1.0000	EA		B	3769	08-05-96		
4	LDN200/01	SEE EXTENDED DESCRIPTION	8.0000	EA		B P				
4	533082	TRAN. MJE800 NPN - DARLIN	1.0000	EA		B	3769	08-05-96		
4	LDN200/02	SEE EXTENDED DESCRIPTION	8.0000	EA		B P				
4	LDN200/03	SEE EXTENDED DESCRIPTION	5.0000	EA		B P				
4	530882	DIODE 1N4002 GP RECTIFIER	1.0000	EA		B	3769	08-05-96		
4	532952	OP-AMP OP80GP ULTRA LOW B	2.0000	EA		B	3769	08-05-96		
4	532322	IC 4053B ANALOG MUX/DEMUX	1.0000	EA		B	3769	08-05-96		
4	531862	OP-AMP LM346N PROGRAM QUA	1.0000	EA		B	3769	08-05-96		
4	102493011	RES. 249K OHM MF 1/4W 1%	1.0000	EA		B	3769	08-05-96		
4	103321011	RES. 3.32K OHM MF 1/4W 1%	1.0000	EA		B	3769	08-05-96		
4	101820011	RES. 182 OHM MF 1/4W 1%	1.0000	EA		B	3769	08-05-96		
4	104421011	RES. 4.42K OHM MF 1/4W 1%	1.0000	EA		B	3769	08-05-96		
4	106654011	RES. 6.65M OHM MF 1/4W 1%	1.0000	EA		B	3769	08-05-96		
4	104993011	RES. 499K OHM MF 1/4W 1%	1.0000	EA		B	3769	08-05-96		

FOR REFERENCE ONLY

BOM Number : DN-NC#629 - IRCON INFRARAIL IRT

SO-LI: 70006*1

Level	Part Number	Description	Quantity	UM	Alt	MB X	ECO No.	ECO Date	StartUse	End Use
4	104021011	RES. 4.02K OHM MF 1/4W 1%	1.0000	EA		B	3769	08-05-96		
4	105364011	RES. 5.36M OHM MF 1/4W 1%	2.0000	EA		B	3769	08-05-96		
4	103480011	RES. 348 OHM MF 1/4W 1%	1.0000	EA		B	3769	08-05-96		
4	100000990	JUMPER DUMMY RESISTOR	4.0000	EA		B	3769	08-05-96		
4	101000011	RES. 100 OHM MF 1/4W 1%	1.0000	EA		B	3769	08-05-96		
4	101003011	RES. 100K OHM MF 1/4W 1%	1.0000	EA		B	3769	08-05-96		
4	101004011	RES. 1.00M OHM MF 1/4W 1%	4.0000	EA		B	3769	08-05-96		
4	102001011	RES. 2.00K OHM MF 1/4W 1%	1.0000	EA		B	3769	08-05-96		
4	102003011	RES. 200K OHM MF 1/4W 1%	2.0000	EA		B	3769	08-05-96		
4	104991011	RES. 4.99K OHM MF 1/4W 1%	1.0000	EA		B	3769	08-05-96		
4	530572	DIODE 1N4446 SWITCHING	2.0000	EA		B	3769	08-05-96		
4	530532	DIODE FD300 GENERAL PURPO	1.0000	EA		B	3769	08-05-96		
4	521852	CAP. 0.68 MFD 50V CERAMIC	1.0000	EA		B	3769	08-05-96		
4	521972	CAP. .047 MFD 50V CER X7	1.0000	EA		B	3769	08-05-96		
4	521072	CAP. 22MFD 16V TANT 10%	2.0000	EA		B	3769	08-05-96		
4	551122	CHOKO 9250-122 1.2 UH, .1	2.0000	EA		B	3769	08-05-96		
4	521902	CAP. 1000 PFD 200V CERAMI	1.0000	EA		B	3769	08-05-96		
4	521862	CAP. 3.3 MFD 50V CERAMC X	1.0000	EA		B	3769	08-05-96		
4	521872	CAP. 1.0 MFD 50V CERAMIC	5.0000	EA		B	3769	08-05-96		
4	522002	CAP. .01 MFD 200V CERAMIC	6.0000	EA		B	3769	08-05-96		
4	531892	REG. LM317LZ +1.2/37V ADJ	1.0000	EA		B	3769	08-05-96		
4	431902	BIVAR PERMO PAD 0.250 DIA	1.0000	EA		B	3769	08-05-96		
4	530862	TRAN. 2N2222A NPN MED POW	1.0000	EA		B	3769	08-05-96		
4	551152	INDUCTOR 100UH +/-10% IMS	2.0000	EA		B	3769	08-05-96		
4	531882	DIODE LM385BZ-2.5 2.5V RE	6.0000	EA		B	3769	08-05-96		
4	575602	CONN. HDR AMP STRAIGHT 5	1.0000	EA		B	3769	08-05-96		
4	574592	CONN. HDR AMP STRAIGHT 4	1.0000	EA		B	3769	08-05-96		
4	LDN200/04	SEE EXTENDED DESCRIPTION	6.0000	EA		B P				
4	572732	HEADER SNGL 36 PIN .1 CNT	11.0000	EA		B	3769	08-05-96		
4	LDN200/05	SEE EXTENDED DESCRIPTION	5.0000	EA		B P				
2	C11186	PREAMP/ LINEARIZER PCB AS	1.0000	EA		M P	3671	04-08-96		
3	C20211	SCHEMATIC: PREAMP/ LINEAR	1.0000	EA		M P	3659	04-12-96		
3	LDN100	PREAMP/ LIN PCB ASSY INFR	1.0000	EA		M P	3659	04-12-96		
4	502493	PCB DIN RAIL LINEARIZER	1.0000	EA		B	3767	08-07-96		
4	LDN100/01	SEE EXTENDED DESCRIPTION	8.0000	EA		B P				
4	LDN100/02	SEE EXTENDED DESCRIPTION	1.0000	EA		B P				
4	532982	OP-AMP AD548CQ LOW PWR BI	1.0000	EA		B	3767	08-07-96		
4	531862	OP-AMP LM346N PROGRAM QUA	2.0000	EA		B	3767	08-07-96		
4	532992	OP-AMP OP490EY LOW VOLT Q	1.0000	EA		B	3767	08-07-96		
4	530532	DIODE FD300 GENERAL PURPO	16.0000	EA		B	3767	08-07-96		
4	514632	RES. 330K NETWORK 10 PIN	2.0000	EA		B	3767	08-07-96		
4	514642	RES. 330K NETWORK 10 PIN	2.0000	EA		B	3767	08-07-96		
4	104533011	RES. 453K OHM MF 1/4W 1%	1.0000	EA		B	3767	08-07-96		
4	1010R0011	RES. 10.0 OHM MF 1/4W 1%	1.0000	EA		B	3767	08-07-96		
4	102743011	RES. 274K OHM MF 1/4W 1%	1.0000	EA		B	3767	08-07-96		
4	102103011	RES. 210K OHM MF 1/4W 1%	1.0000	EA		B	3767	08-07-96		
4	105364011	RES. 5.36M OHM MF 1/4W 1%	4.0000	EA		B	3767	08-07-96		
4	101002011	RES. 10.0K OHM MF 1/4W 1%	1.0000	EA		B	3767	08-07-96		
4	101003011	RES. 100K OHM MF 1/4W 1%	1.0000	EA		B	3767	08-07-96		
4	102003011	RES. 200K OHM MF 1/4W 1%	2.0000	EA		B	3767	08-07-96		
4	101000011	RES. 100 OHM MF 1/4W 1%	2.0000	EA		B	3767	08-07-96		

BOM Number : DN-NC#629 - IRCON INFRARAIL IRT

SO-LI: 70006*1

Level	Part Number	Description	Quantity	UM	Alt.	MB X	ECO No.	ECO Date	StartUse	End Use.
4	100000990	JUMPER DUMMY RESISTOR	1.0000	EA		B	3767	08-07-96		
4	551122	CHOKO 9250-122 1.2 UH, .1	1.0000	EA		B	3767	08-07-96		
4	540412	FERRITE BEAD ON LEAD AXIA	3.0000	EA		B	3767	08-07-96		
4	522002	CAP. .01 MFD 200V CERAMIC	7.0000	EA		B	3767	08-07-96		
4	521902	CAP. 1000 PFD 200V CERAMI	2.0000	EA		B	3767	08-07-96		
4	521932	CAP. 100 PFD 200V CERAMIC	1.0000	EA		B	3767	08-07-96		
4	521962	CAP. 10 PFD 200V CERAMIC	2.0000	EA		B	3767	08-07-96		
4	514612	POT. 50K 25T 1/2W 10%	1.0000	EA		B	3767	08-07-96		
4	514242	POT. 25K OHM 25T 1/2W 10%	1.0000	EA		B	3767	08-07-96		
4	514622	POT. 100K 25T 1/2W 10%	1.0000	EA		B	3767	08-07-96		
4	574922	CONN. HDR AMP STRAIGHT 3	1.0000	EA		B	3767	08-07-96		
4	LDN100/03	SEE EXTENDED DESCRIPTION	7.0000	EA		B P				
4	574432	SOCKET 40 POS DIP .5HT EL	1.0000	EA		B	3767	08-07-96		
4	LDN100/04	SEE EXTENDED DESCRIPTION	6.0000	EA		B P				
4	526002	CAP. SMC 330PF COG 50V 5%	1.0000	EA		B	3767	08-07-96		
4	572732	HEADER SNGL 36 PIN .1 CNT	11.0000	EA		B	3767	08-07-96		
4	LDN100/05	SEE EXTENDED DESCRIPTION	3.0000	EA		B P				
2	C11193	PCB INTERCONNECT ASSEMBLY	1.0000	EA		M P	3671	04-08-96		
3	LDN300	PCB INTERCONN ASSY (INFRA	1.0000	EA		M P				
4	502533	PCB DIN RAIL POWER PEAK-P	1.0000	EA		B	3721	08-01-96		
4	575922	CONN. FEMALE 11 POSITION	2.0000	EA		B	3721	08-01-96		
2	477112	LABEL, COVER, DIN BOX	1.0000	EA		B	3671	04-08-96		
2	C11190	DECAY RATE POT/ CONNECTOR	1.0000	EA		M P	3671	04-08-96		
3	LDN003	DECAY RATE POT/ CONN. ASS	1.0000	EA		M P	4030	10-08-97		
4	514592	POT. 50K OHM 1T 1/2W 10%	1.0000	EA		B				
4	LDN003/01	SEE EXTENDED DESCRIPTION	4.0000	EA		B P				
4	302479000	WIRE 24AWG VIO/WHITE STRA	1.0000	IN		B				
4	302409000	WIRE 24AWG BLK/WHITE STRA	1.0000	IN		B				
4	302459000	WIRE 24AWG GRN/WHITE STRA	1.0000	IN		B				
4	574662	CONN. CONTACT 20-24 AWG C	3.0000	EA		B				
4	574692	CONN. HOUSING 5 POSITION-	1.0000	EA		B				
2	C11189	RESPONSE TIME POT/ CONNEC	1.0000	EA		M P	3671	04-08-96		
3	LDN002	RESP. TIME POT/ CONN. ASS	1.0000	EA		M P				
4	514602	POT. 5M OHM 1T 1/2W 10% P	1.0000	EA		B				
4	302440000	WIRE 24AWG YEL/BLACK STRA	1.0000	IN		B				
4	302460000	WIRE 24AWG BLU/BLACK STRA	1.0000	IN		B				
4	302430000	WIRE 24AWG ORG/BLACK STRA	1.0000	IN		B				
4	574662	CONN. CONTACT 20-24 AWG C	3.0000	EA		B				
4	574682	CONN. HOUSING 4 POSITION-	1.0000	EA		B				
2	C11188	EMISSIVITY POT/ CONNECTOR	1.0000	EA		M P	3671	04-08-96		
3	LDN001	EMISSIVITY POT/ CONN. ASS	1.0000	EA		M P	3767	08-07-96		
4	513722	POT. 100K 2 DIGIT 1% DIGI	1.0000	EA		B	3767	08-07-96		
4	30245X000	WIRE 24AWG GREEN STRANDED	1.0000	IN		B	3767	08-07-96		
4	30249X000	WIRE 24AWG WHITE STRANDED	1.0000	IN		B	3767	08-07-96		
4	30246X000	WIRE 24AWG BLUE STRANDED	1.0000	IN		B	3767	08-07-96		
4	574662	CONN. CONTACT 20-24 AWG C	3.0000	EA		B	3767	08-07-96		
4	574672	CONN. HOUSING 3 POSITION-	1.0000	EA		B	3767	08-07-96		
4	477212	LABEL - CLEAR WINDOW	1.0000	EA		B	3767	08-07-96		
2	575852	KNOB, 9MM COLLET TYPE,	2.0000	EA		B	3671	04-08-96		
2	575872	POINTER, 9MM COLLET TYPE	2.0000	EA		B	3671	04-08-96		
2	575862	CAP. 9MM COLLET TYPE KNOB	2.0000	EA		B	3671	04-08-96		

BOM Number : DN-NC#629 - IRCON INFRARAIL IRT

SO-LI: 70006*1

Level	Part Number	Description	Quantity	UM	Alt	MB	X	ECO No.	ECO Date	Start Use	End Use
2	C11194	MODULE ASSEMBLY - M1 - (I	1.0000	EA		M	P	3671	04-08-96		
3	573912	HEADER 40 PIN DIP .6 CENT	1.0000	EA		B					
3	T-C11194-1	SELECT "M1" MODULE VALUES	1.0000	EA		B					
2	575912	CONN. KEYING ELEMENT (DN-	2.0000	EA		B		3671	04-08-96		
2	477132	LABEL, SERIAL NUMBER, DIN	1.0000	EA		B		3671	04-08-96		
2	477122	LABEL, DIN BOX, INFRARAIL	1.0000	EA		B		3671	04-08-96		
2	574082	TERM. BLOCK JUMPER QUICK	1.0000	EA		B		3671	04-08-96		
2	LDNKIT	MTG CLIP KIT FOR INFRARAI	1.0000	EA		M	P	3671	04-08-96		
3	990300010	CLIP MTG FOR DIN BOX	2.0000	EA		B		3694	04-17-96		
3	LDNKIT/01	SEE EXTENDED DESCRIPTION	6.0000	EA		B	P				
2	477182	LABEL-CE MARK (PRODUCTS)	1.0000	EA		B		3671	04-08-96		
1	U-E3113C	MODULE ASSEMBLY - M1 - (I	1.0000	EA		M	P				
2	101474011	RES. 1.47M OHM MF 1/4W 1%	1.0000	EA		B					
2	101872011	RES. 18.7K OHM MF 1/4W 1%	1.0000	EA		B					
2	101213011	RES. 121K OHM MF 1/4W 1%	1.0000	EA		B					
2	101332011	RES. 13.3K OHM MF 1/4W 1%	1.0000	EA		B					
2	105492011	RES. 54.9K OHM MF 1/4W 1%	1.0000	EA		B					
2	109531011	RES. 9.53K OHM MF 1/4W 1%	1.0000	EA		B					
2	108452011	RES. 84.5K OHM MF 1/4W 1%	1.0000	EA		B					
2	106341011	RES. 6.34K OHM MF 1/4W 1%	1.0000	EA		B					
2	101303011	RES. 130K OHM MF 1/4W 1%	1.0000	EA		B					
2	104221011	RES. 4.22K OHM MF 1/4W 1%	1.0000	EA		B					
2	102103011	RES. 210K OHM MF 1/4W 1%	1.0000	EA		B					
2	102671011	RES. 2.67K OHM MF 1/4W 1%	1.0000	EA		B					
2	103323011	RES. 332K OHM MF 1/4W 1%	1.0000	EA		B					
2	101651011	RES. 1.65K OHM MF 1/4W 1%	1.0000	EA		B					
2	105363011	RES. 536K OHM MF 1/4W 1%	1.0000	EA		B					
2	101001011	RES. 1.00K OHM MF 1/4W 1%	1.0000	EA		B					
2	109313011	RES. 931K OHM MF 1/4W 1%	1.0000	EA		B					
2	106040011	RES. 604 OHM MF 1/4W 1%	1.0000	EA		B					
2	107680011	RES. 768 OHM MF 1/4W 1%	1.0000	EA		B					
2	101584011	RES. 1.58M OHM MF 1/4W 1%	1.0000	EA		B					
1	NL13354	NEW 'N'# FOR L13354	1.0000	EA		M	P				
2	L13354	SH DETECTOR ASSEMBLY E-SE	1.0000	EA		M	P				
3	431432	DET. HOLDER MR20 SERIES	1.0000	EA		B		3770	08-21-96		
3	640642	FILTER, BANDPASS	1.0000	EA		B		3770	08-21-96		
3	590672	DET. SI VACTEC 21D459	1.0000	EA		B		3770	08-21-96		
3	560372	CABLE PVC 1 COND SHIELD 2	3.0000	IN		B		3770	08-21-96		
3	312430100	WIRE 24AWG BARE SOLID	1.0000	IN		B		3770	08-21-96		
3	430292	CONN. GASKET 2000 SERIES	1.0000	EA		B		3770	08-21-96		
3	575892	CONN. CIRC 3 RECPT 10SL-3	1.0000	EA		B		3770	08-21-96		
3	490042	SPRING DETECTOR RETAINER	1.0000	EA		B		3770	08-21-96		
3	630092	FOLDING MIRROR SH MROA SE	1.0000	EA		B		3770	08-21-96		
3	490032	SPRING FOLDING MIRROR MOD	1.0000	EA		B		3770	08-21-96		
3	200204130	SCREW #2-56 X 1/8 BH SLOT	1.0000	EA		B		3770	08-21-96		
3	990100016	EPOXY HARDMAN #4001 3-5 M	1.0000	EA		B		3770	08-21-96		
3	3214G00X0	TUBING #14 PVC CLEAR	1.0000	IN		B		3770	08-21-96		

*Add note: attached to Detector BOM
to use Detail "A" of Drawing C11207
for Wiring.*

Phantoms Exploded

C11201-R722 - SH FINAL ASSY E-SERIES

Item.. X	..Part Number..	Rev	Quantity	Alt-Part	Reference Designator	UM	ECO No.	ECO Date	Strt Use	End Use
	Description		Inv	Oper.			Yield%			
P	C11201-R722	A	1.0000			EA				
	SH FINAL ASSY E-SERIES									
	451322	C	1.0000			EA	3709	05-17-96		
	FIELD STOP .022DIA		10		1		100.00			
	C11201/01		8.0000			EA				
	SEE EXTENDED DESCRIPTION		10				100.00			
	990300005		1.0000			EA	3709	05-17-96		
	RETAINING RING 7/16 OD, .2		10		2		100.00			
	431442	A	1.0000			EA	3709	05-17-96		
	DET. LOCATOR MOD2		10		3		100.00			
P	C11209	B	1.0000			EA	3709	05-17-96		
	SH DETECTOR ASSEMBLY (E-S		5		4		100.00			
PC	T-C11209-1		1.0000			EA	3770	08-21-96		
	SELECT DET. ASSY. (E-SERI		5		N/C		100.00			
	TEXT D		1.0000			EA	3709	05-17-96		
	USE REF DESIGNATOR TEXT		10		5		100.00			
	610432		1.0000			EA	3709	05-17-96		
	EYE LENS FOR A HEAD		10		6		100.00			
	990100004		1.0000			EA	3709	05-17-96		
	EPOXY HB FULLER FE 7004		10		7		100.00			
	447372	A	1.0000			EA	3709	05-17-96		
	FIELD STOP, .312 DIA		10		20		100.00			
	447382	A	1.0000			EA	3709	05-17-96		
	FIELD STOP, .437 DIA		10		21		100.00			
	TEXT A		1.0000			EA	3709	05-17-96		
	USE REF DESIGNATOR TEXT		10		11		100.00			
	431752	A	1.0000			EA	3709	05-17-96		
	O RING 13/16 X 1/16 TH 70		10		10		100.00			
	447362	B	1.0000			EA	3709	05-17-96		
	LENS RING E-HEAD SENSOR		10		12		100.00			
	200412440		4.0000			EA	3709	05-17-96		
	SCREW #4-40 X 3/8 FIL SLO		10		13		100.00			
	220403200		4.0000			EA	3709	05-17-96		
	WASHER #4 LOCK SPLIT RING		10		14		100.00			
	454152	C	1.0000			EA	3709	05-17-96		
	SCREW, ADJUSTMENT,		10		15		100.00			
	433372		1.0000			EA	3709	05-17-96		
	O RING 3/32 X 7/32 X 1/16		10		22		100.00			
	220602200		1.0000			EA	3709	05-17-96		
	WASHER #6 LOCK EXT TOOTH		10		23		100.00			
	200606040		1.0000			EA	3709	05-17-96		
	SCREW #6-32 X 3/16 PH SLO		10		24		100.00			
	C11201/02		3.0000			EA				
	SEE EXTENDED DESCRIPTION		10				100.00			
	443502	A	1.0000			EA	3709	05-17-96		
	RETAINING NUT		10		18		100.00			
	477142	A	1.0000			EA	3709	05-17-96		
	LABEL, SERIAL NUMBER, SEN		10		19		100.00			
	474772	B	1.0000			EA	3709	05-17-96		
	LABEL GROUND WARNING		10		25		100.00			
	T-C11201-1		1.0000			EA	3709	05-17-96		
	DETERMINE IF CABLE IS REQ		15				100.00			
	C11201/03		5.0000			EA				
	SEE EXTENDED DESCRIPTION		10				100.00			
	999900013		1.0000			EA	3709	05-17-96		
	CAP PLUG #SC-1-1/4		10		17		100.00			
	990100028		1.0000			EA	3709	05-17-96		
	SEALANT RTV SILICONE BLAC		10		26		100.00			
	999900014		1.0000			EA	3709	05-17-96		
	STEM BUMPER 3/8OD .275T		10		16		100.00			

This is STANDARD 1.0M

Procedure: CFG-R-09

change to 1.6M

BOM Number : DN-NC#629 -- IRCON INFRARAIL IRT

SO-LIT: 70006*1

Level	Part Number	Description	Quantity	UM	Alt.	MB X	ECO No.	ECO Date	StartUse	End Use
1	DNODNE	DN PRICES	1.0000	EA		M P				
1	C11201-R722	SH FINAL ASSY E-SERIES	1.0000	EA		M P				
2	451322	FIELD STOP .022DIA	1.0000	EA		B	3709	05-17-96		
2	C11201/01	SEE EXTENDED DESCRIPTION	8.0000	EA		B				
2	990300005	RETAINING RING 7/16 OD, .2	1.0000	EA		B	3709	05-17-96		
2	431442	DET. LOCATOR MOD2	1.0000	EA		B	3709	05-17-96		
2	C11209	SH DETECTOR ASSEMBLY (E-S	1.0000	EA		M P	3709	05-17-96		
3	T-C11209-1	SELECT DET. ASSY. (E-SERI	1.0000	EA		B	3770	08-21-96		
2	TEXT	USE REF DESIGNATOR TEXT	1.0000	EA		M	3709	05-17-96		
2	610432	EYE LENS FOR A HEAD	1.0000	EA		B	3709	05-17-96		
2	990100004	EPOXY HB FULLER FE 7004	1.0000	EA		B	3709	05-17-96		
2	447372	FIELD STOP, .312 DIA	1.0000	EA		B	3709	05-17-96		
2	447382	FIELD STOP, .437 DIA	1.0000	EA		B	3709	05-17-96		
2	TEXT	USE REF DESIGNATOR TEXT	1.0000	EA		M	3709	05-17-96		
2	431752	O RING 13/16 X 1/16 TH 70	1.0000	EA		B	3709	05-17-96		
2	447362	LENS RING E-HEAD SENSOR	1.0000	EA		B	3709	05-17-96		
2	200412440	SCREW #4-40 X 3/8 FIL SLO	4.0000	EA		B	3709	05-17-96		
2	220403200	WASHER #4 LOCK SPLIT RING	4.0000	EA		B	3709	05-17-96		
2	454152	SCREW, ADJUSTMENT,	1.0000	EA		B	3709	05-17-96		
2	433372	O RING 3/32 X 7/32 X 1/16	1.0000	EA		B	3709	05-17-96		
2	220602200	WASHER #6 LOCK EXT TOOTH	1.0000	EA		B	3709	05-17-96		
2	200606040	SCREW #6-32 X 3/16 PH SLO	1.0000	EA		B	3709	05-17-96		
2	C11201/02	SEE EXTENDED DESCRIPTION	3.0000	EA		B				
2	443502	RETAINING NUT	1.0000	EA		B	3709	05-17-96		
2	477142	LABEL, SERIAL NUMBER, SEN	1.0000	EA		B	3709	05-17-96		
2	474772	LABEL GROUND WARNING	1.0000	EA		B	3709	05-17-96		
2	T-C11201-1	DETERMINE IF CABLE IS REQ	1.0000	EA		B	3709	05-17-96		
2	C11201/03	SEE EXTENDED DESCRIPTION	5.0000	EA		B				
2	999900013	CAP PLUG #SC-1-1/4	1.0000	EA		B	3709	05-17-96		
2	990100028	SEALANT RTV SILICONE BLAC	1.0000	EA		B	3709	05-17-96		
2	999900014	STEM BUMPER 3/8OD .275T	1.0000	EA		B	3709	05-17-96		
1	D11191	INFRARAIL BOX ASSEMBLY	1.0000	EA		M P				
2	433332	ENCLOSURE, DIN BOX, MODIF	1.0000	EA		B	3671	04-08-96		
2	C11187	POWER SUPPLY/ PEAK-PICKER	1.0000	EA		M P	3671	04-08-96		
3	C20212	SCHEMATIC: POWER SUPPLY/	1.0000	EA		M P	4202	01-14-99		
3	LDN200	PWR SUPPLY/ PP PCB ASSY	1.0000	EA		M P	4202	01-14-99		
4	502505	PCB DIN RAIL POWER PEAK-P	1.0000	EA		B	3769	08-05-96		
4	LDN200/01	SEE EXTENDED DESCRIPTION	8.0000	EA		B P				
4	533082	TRAN. MJE800 NPN - DARLIN	1.0000	EA		B	3769	08-05-96		
4	LDN200/02	SEE EXTENDED DESCRIPTION	8.0000	EA		B P				
4	LDN200/03	SEE EXTENDED DESCRIPTION	5.0000	EA		B P				
4	530882	DIODE 1N4002 GP RECTIFIER	1.0000	EA		B	3769	08-05-96		
4	532952	OP-AMP OP80GP ULTRA LOW B	2.0000	EA		B	3769	08-05-96		
4	532322	IC 4053B ANALOG MUX/DEMUX	1.0000	EA		B	3769	08-05-96		
4	531862	OP-AMP LM346N PROGRAM QUA	1.0000	EA		B	3769	08-05-96		
4	102493011	RES. 249K OHM MF 1/4W 1%	1.0000	EA		B	3769	08-05-96		
4	103321011	RES. 3.32K OHM MF 1/4W 1%	1.0000	EA		B	3769	08-05-96		
4	101820011	RES. 182 OHM MF 1/4W 1%	1.0000	EA		B	3769	08-05-96		
4	104421011	RES. 4.42K OHM MF 1/4W 1%	1.0000	EA		B	3769	08-05-96		
4	106654011	RES. 6.65M OHM MF 1/4W 1%	1.0000	EA		B	3769	08-05-96		
4	104993011	RES. 499K OHM MF 1/4W 1%	1.0000	EA		B	3769	08-05-96		

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BOM Number : DN-NC#629 - IRCON INFRARAIL IRT

SO-LI: 70006*1

Level	Part Number	Description	Quantity	UM	Alt.	MB X	ECO No.	ECO Date	StartUse	End Use.
4	104021011	RES. 4.02K OHM MF 1/4W 1%	1.0000	EA		B	3769	08-05-96		
4	105364011	RES. 5.36M OHM MF 1/4W 1%	2.0000	EA		B	3769	08-05-96		
4	103480011	RES. 348 OHM MF 1/4W 1%	1.0000	EA		B	3769	08-05-96		
4	100000990	JUMPER DUMMY RESISTOR	4.0000	EA		B	3769	08-05-96		
4	101000011	RES. 100 OHM MF 1/4W 1%	1.0000	EA		B	3769	08-05-96		
4	101003011	RES. 100K OHM MF 1/4W 1%	1.0000	EA		B	3769	08-05-96		
4	101004011	RES. 1.00M OHM MF 1/4W 1%	4.0000	EA		B	3769	08-05-96		
4	102001011	RES. 2.00K OHM MF 1/4W 1%	1.0000	EA		B	3769	08-05-96		
4	102003011	RES. 200K OHM MF 1/4W 1%	2.0000	EA		B	3769	08-05-96		
4	104991011	RES. 4.99K OHM MF 1/4W 1%	1.0000	EA		B	3769	08-05-96		
4	530572	DIODE 1N4446 SWITCHING	2.0000	EA		B	3769	08-05-96		
4	530532	DIODE FD300 GENERAL PURPO	1.0000	EA		B	3769	08-05-96		
4	521852	CAP. 0.68 MFD 50V CERAMIC	1.0000	EA		B	3769	08-05-96		
4	521972	CAP. .047 MFD 50V CER X7	1.0000	EA		B	3769	08-05-96		
4	521072	CAP. 22MFD 16V TANT 10%	2.0000	EA		B	3769	08-05-96		
4	551122	CHOKO 9250-122 1.2 UH, 1	2.0000	EA		B	3769	08-05-96		
4	521902	CAP. 1000 PFD 200V CERAMI	1.0000	EA		B	3769	08-05-96		
4	521862	CAP. 3.3 MFD 50V CERAMC X	1.0000	EA		B	3769	08-05-96		
4	521872	CAP. 1.0 MFD 50V CERAMIC	5.0000	EA		B	3769	08-05-96		
4	522002	CAP. .01 MFD 200V CERAMIC	6.0000	EA		B	3769	08-05-96		
4	531892	REG. LM317LZ +1.2/37V ADJ	1.0000	EA		B	3769	08-05-96		
4	431902	BIVAR PERMO PAD 0.250 DIA	1.0000	EA		B	3769	08-05-96		
4	530862	TRAN. 2N2222A NPN MED POW	1.0000	EA		B	3769	08-05-96		
4	551152	INDUCTOR 100UH +/-10% IMS	2.0000	EA		B	3769	08-05-96		
4	531882	DIODE LM385BZ-2.5 2.5V RE	6.0000	EA		B	3769	08-05-96		
4	575602	CONN. HDR AMP STRAIGHT 5	1.0000	EA		B	3769	08-05-96		
4	574592	CONN. HDR AMP STRAIGHT 4	1.0000	EA		B	3769	08-05-96		
4	LDN200/04	SEE EXTENDED DESCRIPTION	6.0000	EA		B P				
4	572732	HEADER SNGL 36 PIN .1 CNT	11.0000	EA		B	3769	08-05-96		
4	LDN200/05	SEE EXTENDED DESCRIPTION	5.0000	EA		B P				
2	C11186	PREAMP/ LINEARIZER PCB AS	1.0000	EA		M P	3671	04-08-96		
3	C20211	SCHEMATIC: PREAMP/ LINEAR	1.0000	EA		M P	3659	04-12-96		
3	LDN100	PREAMP/ LIN PCB ASSY INFR	1.0000	EA		M P	3659	04-12-96		
4	502493	PCB DIN RAIL LINEARIZER	1.0000	EA		B	3767	08-07-96		
4	LDN100/01	SEE EXTENDED DESCRIPTION	8.0000	EA		B P				
4	LDN100/02	SEE EXTENDED DESCRIPTION	1.0000	EA		B P				
4	532982	OP-AMP AD548CQ LOW PWR BI	1.0000	EA		B	3767	08-07-96		
4	531862	OP-AMP LM346N PROGRAM QUA	2.0000	EA		B	3767	08-07-96		
4	532992	OP-AMP OP490EY LOW VOLT Q	1.0000	EA		B	3767	08-07-96		
4	530532	DIODE FD300 GENERAL PURPO	16.0000	EA		B	3767	08-07-96		
4	514632	RES. 330K NETWORK 10 PIN	2.0000	EA		B	3767	08-07-96		
4	514642	RES. 330K NETWORK 10 PIN	2.0000	EA		B	3767	08-07-96		
4	104533011	RES. 453K OHM MF 1/4W 1%	1.0000	EA		B	3767	08-07-96		
4	1010R0011	RES. 10.0 OHM MF 1/4W 1%	1.0000	EA		B	3767	08-07-96		
4	102743011	RES. 274K OHM MF 1/4W 1%	1.0000	EA		B	3767	08-07-96		
4	102103011	RES. 210K OHM MF 1/4W 1%	1.0000	EA		B	3767	08-07-96		
4	105364011	RES. 5.36M OHM MF 1/4W 1%	4.0000	EA		B	3767	08-07-96		
4	101002011	RES. 10.0K OHM MF 1/4W 1%	1.0000	EA		B	3767	08-07-96		
4	101003011	RES. 100K OHM MF 1/4W 1%	1.0000	EA		B	3767	08-07-96		
4	102003011	RES. 200K OHM MF 1/4W 1%	2.0000	EA		B	3767	08-07-96		
4	101000011	RES. 100 OHM MF 1/4W 1%	2.0000	EA		B	3767	08-07-96		

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Level	Part Number	Description	Quantity	UM	Alt.	MB X	ECO No.	ECO Date	StartUse	End Use
4	100000990	JUMPER DUMMY RESISTOR	1.0000	EA		B	3767		08-07-96	
4	551122	CHOKO 9250-122 1.2 UH, .1	1.0000	EA		B	3767		08-07-96	
4	540412	FERRITE BEAD ON LEAD AXIA	3.0000	EA		B	3767		08-07-96	
4	522002	CAP. .01 MFD 200V CERAMIC	7.0000	EA		B	3767		08-07-96	
4	521902	CAP. 1000 PFD 200V CERAMI	2.0000	EA		B	3767		08-07-96	
4	521932	CAP. 100 PFD 200V CERAMIC	1.0000	EA		B	3767		08-07-96	
4	521962	CAP. 10 PFD 200V CERAMIC	2.0000	EA		B	3767		08-07-96	
4	514612	POT. 50K 25T 1/2W 10%	1.0000	EA		B	3767		08-07-96	
4	514242	POT. 25K OHM 25T 1/2W 10%	1.0000	EA		B	3767		08-07-96	
4	514622	POT. 100K 25T 1/2W 10%	1.0000	EA		B	3767		08-07-96	
4	574922	CONN. HDR AMP STRAIGHT 3	1.0000	EA		B	3767		08-07-96	
4	LDN100/03	SEE EXTENDED DESCRIPTION	7.0000	EA		B P				
4	574432	SOCKET 40 POS DIP .5HT EL	1.0000	EA		B	3767		08-07-96	
4	LDN100/04	SEE EXTENDED DESCRIPTION	6.0000	EA		B P				
4	526002	CAP. SMC 330PF COG 50V 5%	1.0000	EA		B	3767		08-07-96	
4	572732	HEADER SNGL 36 PIN .1 CNT	11.0000	EA		B	3767		08-07-96	
4	LDN100/05	SEE EXTENDED DESCRIPTION	3.0000	EA		B P				
2	C11193	PCB INTERCONNECT ASSEMBLY	1.0000	EA		M P	3671		04-08-96	
3	LDN300	PCB INTERCONN ASSY (INFRA	1.0000	EA		M P				
4	502533	PCB DIN RAIL POWER PEAK-P	1.0000	EA		B	3721		08-01-96	
4	575922	CONN. FEMALE 11 POSITION	2.0000	EA		B	3721		08-01-96	
2	477112	LABEL, COVER, DIN BOX	1.0000	EA		B	3671		04-08-96	
2	C11190	DECAY RATE POT/ CONNECTOR	1.0000	EA		M P	3671		04-08-96	
3	LDN003	DECAY RATE POT/ CONN. ASS	1.0000	EA		M P	4030		10-08-97	
4	514592	POT. 50K OHM 1T 1/2W 10%	1.0000	EA		B				
4	LDN003/01	SEE EXTENDED DESCRIPTION	4.0000	EA		B P				
4	302479000	WIRE 24AWG VIO/WHITE STRA	1.0000	IN		B				
4	302409000	WIRE 24AWG BLK/WHITE STRA	1.0000	IN		B				
4	302459000	WIRE 24AWG GRN/WHITE STRA	1.0000	IN		B				
4	574662	CONN. CONTACT 20-24 AWG C	3.0000	EA		B				
4	574692	CONN. HOUSING 5 POSITION-	1.0000	EA		B				
2	C11189	RESPONSE TIME POT/ CONNEC	1.0000	EA		M P	3671		04-08-96	
3	LDN002	RESP. TIME POT/ CONN. ASS	1.0000	EA		M P				
4	514602	POT. 5M OHM 1T 1/2W 10% P	1.0000	EA		B				
4	302440000	WIRE 24AWG YEL/BLACK STRA	1.0000	IN		B				
4	302460000	WIRE 24AWG BLU/BLACK STRA	1.0000	IN		B				
4	302430000	WIRE 24AWG ORG/BLACK STRA	1.0000	IN		B				
4	574662	CONN. CONTACT 20-24 AWG C	3.0000	EA		B				
4	574682	CONN. HOUSING 4 POSITION-	1.0000	EA		B				
2	C11188	EMISSIVITY POT/ CONNECTOR	1.0000	EA		M P	3671		04-08-96	
3	LDN001	EMISSIVITY POT/ CONN. ASS	1.0000	EA		M P	3767		08-07-96	
4	513722	POT. 100K 2 DIGIT 1% DIGI	1.0000	EA		B	3767		08-07-96	
4	30245X000	WIRE 24AWG GREEN STRANDED	1.0000	IN		B	3767		08-07-96	
4	30249X000	WIRE 24AWG WHITE STRANDED	1.0000	IN		B	3767		08-07-96	
4	30246X000	WIRE 24AWG BLUE STRANDED	1.0000	IN		B	3767		08-07-96	
4	574662	CONN. CONTACT 20-24 AWG C	3.0000	EA		B	3767		08-07-96	
4	574672	CONN. HOUSING 3 POSITION-	1.0000	EA		B	3767		08-07-96	
4	477212	LABEL - CLEAR WINDOW	1.0000	EA		B	3767		08-07-96	
2	575852	KNOB, 9MM COLLET TYPE,	2.0000	EA		B	3671		04-08-96	
2	575872	POINTER, 9MM COLLET TYPE	2.0000	EA		B	3671		04-08-96	
2	575862	CAP. 9MM COLLET TYPE KNOB	2.0000	EA		B	3671		04-08-96	

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.....Level.....	..Part Number..Description.....	.Quantity.	.UM.	Alt.	MB X	.ECO No.	ECO Date	StartUse	End Use.
2	C11194	MODULE ASSEMBLY - M1 - (I	1.0000	EA		M P	3671	04-08-96		
3	573912	HEADER 40 PIN DIP .6 CENT	1.0000	EA		B				
3	T-C11194-1	SELECT "M1" MODULE VALUES	1.0000	EA		B				
2	575912	CONN. KEYING ELEMENT (DN-	2.0000	EA		B	3671	04-08-96		
2	477132	LABEL, SERIAL NUMBER, DIN	1.0000	EA		B	3671	04-08-96		
2	477122	LABEL, DIN BOX, INFRARAIL	1.0000	EA		B	3671	04-08-96		
2	574082	TERM. BLOCK JUMPER QUICK	1.0000	EA		B	3671	04-08-96		
2	LDNKIT	MTG CLIP KIT FOR INFRARAI	1.0000	EA		M P	3671	04-08-96		
3	990300010	CLIP MTG FOR DIN BOX	2.0000	EA		B	3694	04-17-96		
3	LDNKIT/01	SEE EXTENDED DESCRIPTION	6.0000	EA		B P				
2	477182	LABEL-CE MARK (PRODUCTS)	1.0000	EA		B	3671	04-08-96		
1	U-M1-R722	MODULE ASSEMBLY - M1 - (I	1.0000	EA		M P				
2	103013011	RES. 301K OHM MF 1/4W 1%	1.0000	EA		B				
2	101872011	RES. 18.7K OHM MF 1/4W 1%	1.0000	EA		B				
2	101433011	RES. 143K OHM MF 1/4W 1%	1.0000	EA		B				
2	101302011	RES. 13.0K OHM MF 1/4W 1%	1.0000	EA		B				
2	104992011	RES. 49.9K OHM MF 1/4W 1%	1.0000	EA		B				
2	109531011	RES. 9.53K OHM MF 1/4W 1%	1.0000	EA		B				
2	107322011	RES. 73.2K OHM MF 1/4W 1%	1.0000	EA		B				
2	106651011	RES. 6.65K OHM MF 1/4W 1%	1.0000	EA		B				
2	101133011	RES. 113K OHM MF 1/4W 1%	1.0000	EA		B				
2	104531011	RES. 4.53K OHM MF 1/4W 1%	1.0000	EA		B				
2	101743011	RES. 174K OHM MF 1/4W 1%	1.0000	EA		B				
2	102871011	RES. 2.87K OHM MF 1/4W 1%	1.0000	EA		B				
2	102743011	RES. 274K OHM MF 1/4W 1%	1.0000	EA		B				
2	101821011	RES. 1.82K OHM MF 1/4W 1%	1.0000	EA		B				
2	104533011	RES. 453K OHM MF 1/4W 1%	1.0000	EA		B				
2	101101011	RES. 1.10K OHM MF 1/4W 1%	1.0000	EA		B				
2	107683011	RES. 768K OHM MF 1/4W 1%	1.0000	EA		B				
2	106490011	RES. 649 OHM MF 1/4W 1%	1.0000	EA		B				
2	107500011	RES. 750 OHM MF 1/4W 1%	1.0000	EA		B				
2	101334011	RES. 1.33M OHM MF 1/4W 1%	1.0000	EA		B				
1	NLR721-D	NEW 'N'# FOR LR721-D	1.0000	EA		M P				
2	LR721-D	DET ASSY FOR SPL# R721	1.0000	EA		M P				
3	LR721-D/01	SEE EXTENDED DESCRIPTION	3.0000	EA		B P				
3	431432	DET. HOLDER MR20 SERIES	1.0000	EA		B				
3	640552	FILTER, BANDPASS	1.0000	EA		B				
3	590792	DETECTOR INGAAS 1.6 MICRO	1.0000	EA		B				
3	LR721-D/02	SEE EXTENDED DESCRIPTION	4.0000	EA		B P				
3	560372	CABLE PVC 1 COND SHIELD 2	3.0000	IN		B				
3	312430100	WIRE 24AWG BARE SOLID	1.0000	IN		B				
3	430292	CONN. GASKET 2000 SERIES	1.0000	EA		B				
3	575892	CONN. CIRC 3 RECPT 10SL-3	1.0000	EA		B				
3	490042	SPRING DETECTOR RETAINER	1.0000	EA		B				
3	630092	FOLDING MIRROR SH MROA SE	1.0000	EA		B				
3	490032	SPRING FOLDING MIRROR MOD	1.0000	EA		B				
3	200204130	SCREW #2-56 X 1/8 BH SLOT	1.0000	EA		B				
3	990100016	EPOXY HARDMAN #4001 3-5 M	1.0000	EA		B				
3	3214G00X0	TUBING #14 PVC CLEAR	1.0000	IN		B				