



## 305 (RT530) CALIBRATION PROCEDURE

### A. EQUIPMENT REQUIRED

1. FLUKE 5101B CALIBRATOR
2. OMEGA TRC III ICE POINT CELL
3. OMEGA TRP (K) REFERENCE PROBE

### B. CALIBRATION

1. SET UP THE EQUIPMENT AS SHOWN IN FIGURE 1.
2. INSERT THE T/C PROBE INTO THE THERMOCOUPLE JACK.
3. PRESS "°C" AND "0.1°" BUTTONS TO SELECT THE 0.1°C MODE.
4. SET THE OUTPUT OF THE DC CALIBRATOR TO 0.000mV AND ADJUST VR1 UNTIL THE METER INDICATES 00.0°C.
5. PRESS "°F" BUTTON TO SELECT THE 0.1°F MODE.
6. SET THE OUTPUT OF THE DC CALIBRATOR TO -0.692mV AND ADJUST VR5 UNTIL THE METER INDICATES 00.0°F.
7. SET THE OUTPUT OF THE DC CALIBRATOR TO 3.012mV AND ADJUST VR3 UNTIL THE METER INDICATES 165.0°F.
8. PRESS "1.0°" BUTTON TO SELECT THE 1°F MODE.
9. SET THE OUTPUT OF THE DC CALIBRATOR TO 21.109mV AND ADJUST VR6 UNTIL THE METER INDICATES 952°F.
10. PRESS "°C" BUTTON TO SELECT THE 1°C MODE.
11. SET THE OUTPUT OF THE DC CALIBRATOR TO 21.109mV AND ADJUST VR4 UNTIL THE METER INDICATES 511°C.
12. REMOVE THERMOCOUPLE AND REASSEMBLE THE METER.



## 306 (RT550) CALIBRATION PROCEDURE

### A. EQUIPMENT REQUIRED

1. FLUKE 5101B CALIBRATOR
2. OMEGA TRC III ICE POINT CELL
3. OMEGA TRP (K) REFERENCE PROBE

### B. °C ADJUSTMENT:

1. SET UP THE EQUIPMENT AS SHOWN IN FIGURE 1.
2. SET THE THERMOCOUPLE SELECT SWITCH TO "TC1" POSITION.
3. INSERT THE T/C PROBE INTO THE TC1 JACK.
4. SET THE FUNCTION SWITCH TO "°C" POSITION.
5. SET THE OUTPUT OF THE DC CALIBRATOR TO 0.000mV AND ADJUST VR1 AND VR3 UNTIL THE METER INDICATES 00.0°C.

### C. °F ADJUSTMENT

1. USE THE PROCEDURE OF °C ADJUSTMENT STEP 1 THROUGH 3, AND THEN PROCEED AS FOLLOWS,
2. SET THE FUNCTION SWITCH TO "°F" POSITION.
3. SET THE OUTPUT OF THE DC CALIBRATOR TO -0.692mV AND ADJUST VR6 UNTIL THE METER INDICATES 00.0°F.
4. SET THE OUTPUT OF THE DC CALIBRATOR TO 21.109mV AND ADJUST VR5 UNTIL THE METER INDICATES 952°F.
5. REMOVE THERMOCOUPLE AND REASSEMBLE THE METER.

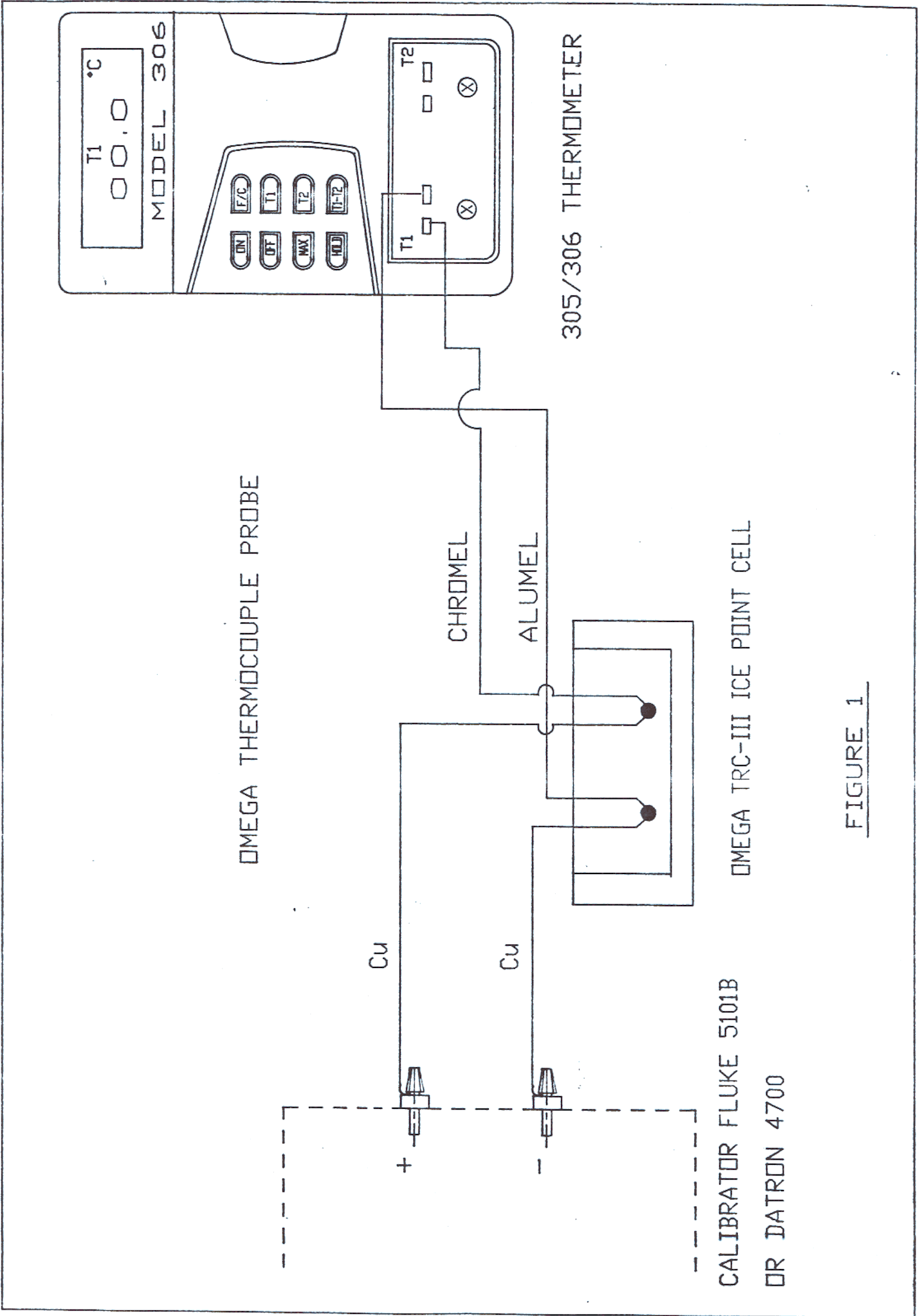


FIGURE 1

	PART NO.	DESCRIPTION	OUTCLASS	UN
E	0100-1001	RES, MET FILM, 1K 1%, 1/4W	1	1
I	0100-3481	RES, MET FILM, 3.48K 1%, 1/4W	1	1
6	0100-4022	RES, MET FILM, 40.2K 1%, 1/4W	1	1
	0100-4532	RES, MET FILM, 45.3K 1%, 1/4W	1	1
L	0100-4872	RES, MET FILM, 48.7K 1%, 1/4W	1	1
	0100-7872	RES, MET FILM, 78.7K 1%, 1/4W	1	1
S	0100-7873	RES, MET FILM, 787K 1% 1/4W	1	1
	0753-1013	RES, VAR, B2K, TOP ADJ(S)	1	2
E	0753-1014	RES, VAR, 250K, TOP ADJ (S)	1	1
	0753-1016	RES, VAR, B20K, TOP ADJ(S)	1	1
I	0753-1017	RES, VAR, B5K, TOP ADJ(S)	1	1
	0753-1025	RES, VAR, 100	5	1
6	0910-1001	RES, SMC, 1K 1%, 1/10W(0805)	1	1
	0910-1304	RES, SMC, 1.3M 1%, 1/10W(0805)	1	1
L	0910-1543	RES, SMC, 154K 1%, 1/10W(0805)	1	1
	0910-1912	RES, SMC, 19.1K 1%, 1/10W(0805)	1	1
S	0910-2000	RES, SMC, 200 1%, 1/10W(0805)	1	1
	0910-2001	RES, SMC, 2K, 1%, 1/10W(0805)	1	2
E	0910-2262	RES, SMC, 22.6K 1%, 1/10W(0805)	1	1
	0910-2743	RES, SMC, 274K 1%, 1/10W(0805)	1	1
I	0910-3741	RES, SMC, 3.74K 1%, 1/10W(0805)	1	1
	0910-4222	RES, SMC, 42.2K 1%, 1/10W(0805)	1	1
6	0910-4532	RES, SMC, 45.3K 1%, 1/10W(0805)	1	1
	0910-5051	RES, SMC, 5.05K, 1%, 1/10W(0805)	1	1
L	0910-5113	RES, SMC, 511K 1%, 1/10W(0805)	1	1
	0910-5362	RES, SMC, 53.6K 1%, 1/10W(0805)	1	1
S	0910-5601	RES, SMC, 5.6K 1%, 1/10W(0805)	1	2
	0910-8873	RES, SMC, 887K 1%, 1/10W(0805)	1	1
E	0910-9092	RES, SMC, 90.9K 1%, 1/10W(0805)	1	1
	0910-9313	RES, SMC, 931K 1%, 1/10W(0805)	1	1
I	0916-1047	RES, SMC, 100K 5%, 1/10W(0805)	1	3
	0916-1057	RES, SMC, 1M 5%, 1/10W(0805)	1	2
6	0916-1147	RES, SMC, 110K 5%, 1/10W(0805)	1	1
	0916-1547	RES, SMC, 150K 5%, 1/10W(0805)	1	1
L	0916-2237	RES, SMC, 22K 5%, 1/10W(0805)	1	1
	0916-2247	RES, SMC, 220K 5%, 1/10W(0805)	1	1
S	0916-3037	RES, SMC, 30K 5%, 1/10W(0805)	1	1
	0916-4737	RES, SMC, 47K 5%, 1/10W(0805)	1	1
E	0916-7537	RES, SMC, 75K 5%, 1/10W(0805)	1	1
	0916-9157	RES, SMC, 9.1M 5%, 1/10W(0805)	1	1
I	2010-22691	CAP, ELECT, 22uF 16V(S)	1	1
	2043-22481	CAP, MET POLYE, 0.22uF 10%, 63V(S)	1	1
6	2301-1018	CAP, SMC, 100PF 10%, 63V(0805)NPO	1	1
	2401-1029	CAP, SMC, 1000PF 20%, 63V(0805)X7R	1	1
L	2401-1039	CAP, SMC, 10nF 20%, 63V(0805)X7R	1	1
	2412-1049	CAP, SMC, 0.1uF, +80%-20%, 25V(1206)	1	1
S	2412-2249	CAP, SMC, 0.22uF, +80%-20%, 25V(1206)	1	1
	3000-4001	DIODE, RECTIFIER, 1A(1N4001)	1	1
E	3018-1005	DIODE, SWITCHING SMC, BAS32L(SOD-80)	1	4
	3200-1959	TRANSISTOR, NPN, 2SC1959	1	1
I	3208-1001	TRANSISTOR SMC, NPN, BSR14(SOT23)	1	1
	3218-1001	TRANSISTOR SMC, PNP, BSR16(SOT23)	1	1
6	3800-1005	IC, OP-AMP, TLC27L2CN	1	1
	3810-0324	IC, LM324(TEXAS)	1	1
L	3810-4013	IC, C-MOS, MC14013BCP	1	1
	3810-4053	IC, C-MOS, MC14053BCP	1	1
S	3830-1002	IC, V-REF, 1.22V 100ppm, (TSC04BJ)	1	1
	3840-7108	IC, UMC7108	1	1
E	4031-1025	CONDUCTIVE RUBBER, 51.5x7.8x1.8	3	1
	4110-5027	LCD	3	1
I	4233-1292	PC BOARD	1	1

PART NO.	DESCRIPTION	OUTCLASS	UN
4401-0009	BATTERY, 9V(006P)	4	1
4660-1004	INSULATION TUBE, 27.5x18x42	4	1
4920-1003	WRISTLET	5	1
5103-1012	SPRING PLATE FOR THERMOCOUPLE	2	2
5143-1014	BATTERY CONTACT PLATE	1	2
5162-1039	SHIELD	4	1
5189-1010	SHOCK-PROOF SPONGE	4	1
5196-1078	DESOLDERING TAPE, 305	1	1
5260-1004	SCREW, TP3x18	4	3
5278-1029	SPRING, 3.5x15	2	1
6009-1074	TOP COVER	3	1
6019-2054	BOTTOM COVER	4	1
6200-1001	CONDUCTIVE RUBBER HOLDER	3	1
6228-1019	RUBBER, 36.7x4.7x2	4	1
6228-1021	RUBBER, 3.8x8.8x1.5t	4	2
6228-1024	RUBBER	5	1
6229-1013	METER HOLDER	5	1
6320-1012	CONTROL PLANKING	3	1
6418-1009	HOLSTER	5	1
7000-1267	INSTRUCTION MANUAL, 305	5	1
7020-1200	COLOR BOX	5	1
7030-1089	SERIAL NO	5	1
7030-1094	LABEL	4	1
7052-1514	OVERLAY, 305(S)	5	1
8000-1012	TEMPERATURE PROBE(TP-K01	5	1

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MODEL: 306

PART NO.	DESCRIPTION	OUTCLASS	UNI
I 0100-1001	RES, MET FILM, 1K 1%, 1/4W	1	1
0100-3481	RES, MET FILM, 3.48K 1%, 1/4W	1	1
6 0100-4022	RES, MET FILM, 40.2K 1%, 1/4W	1	1
0100-4532	RES, MET FILM, 45.3K 1%, 1/4W	1	1
L 0100-4872	RES, MET FILM, 48.7K 1%, 1/4W	1	1
0753-1013	RES, VAR, B2K, TOP ADJ(S)	1	2
9 0753-1014	RES, VAR, 250K, TOP ADJ (S)	1	1
0753-1017	RES, VAR, B5K, TOP ADJ(S)	1	1
E 0753-1025	RES, VAR, 100	3	2
0910-1004	RES, SMC, 1M, 1%, 1/10W(0805)	1	1
I 0910-1005	RES, SMC, 10M 1%, 1/10W(0805)	1	1
0910-1304	RES, SMC, 1.3M 1%, 1/10W(0805)	1	1
6 0910-1543	RES, SMC, 154K 1%, 1/10W(0805)	1	1
0910-1912	RES, SMC, 19.1K 1%, 1/10W(0805)	1	1
L 0910-2000	RES, SMC, 200 1%, 1/10W(0805)	1	1
0910-2001	RES, SMC, 2K, 1%, 1/10W(0805)	1	3
9 0910-2262	RES, SMC, 22.6K 1%, 1/10W(0805)	1	1
0910-3603	RES, SMC, 360K 1%, 1/10W(0805)	1	2
E 0910-4222	RES, SMC, 42.2K 1%, 1/10W(0805)	1	1
0910-4532	RES, SMC, 45.3K 1%, 1/10W(0805)	1	1
I 0910-4751	RES, SMC, 4.75K 1%, 1/10W(0805)	1	1
0910-4991	RES, SMC, 4.99K 1%, 1/10W(0805)	1	1
6 0910-5051	RES, SMC, 5.05K, 1%, 1/10W(0805)	1	1
0910-5113	RES, SMC, 511K 1%, 1/10W(0805)	1	1
L 0910-5362	RES, SMC, 53.6K 1%, 1/10W(0805)	1	1
0910-5601	RES, SMC, 5.6K 1%, 1/10W(0805)	1	2
9 0910-6802	RES, SMC, 68K 1%, 1/10W(0805)	1	1
0910-8873	RES, SMC, 887K 1%, 1/10W(0805)	1	1
E 0910-9092	RES, SMC, 90.9K 1%, 1/10W(0805)	1	1
0910-9313	RES, SMC, 931K 1%, 1/10W(0805)	1	1
I 0916-1047	RES, SMC, 100K 5%, 1/10W(0805)	1	5
0916-1057	RES, SMC, 1M 5%, 1/10W(0805)	1	16
6 0916-1067	RES, SMC, 10M 5%, 1/10W(0805)	1	1
0916-1147	RES, SMC, 110K 5%, 1/10W(0805)	1	3
L 0916-1547	RES, SMC, 150K 5%, 1/10W(0805)	1	1
0916-2247	RES, SMC, 220K 5%, 1/10W(0805)	1	1
9 0916-3037	RES, SMC, 30K 5%, 1/10W(0805)	1	1
0916-4747	RES, SMC, 470K 5%, 1/10W(0805)	1	1
E 0916-7537	RES, SMC, 75K 5%, 1/10W(0805)	1	1
2010-22691	CAP, ELECT, 22uF 16V(S)	1	5
I 2043-2248	CAP, MET POLYE, 0.22uF 10%, 50V	1	1
2301-1018	CAP, SMC, 100PF 10%, 63V(0805)NPO	1	1
6 2301-4718	CAP, SMC, 470PF 10%, 63V(0805)NPO	1	1
2401-1029	CAP, SMC, 1000PF 20%, 63V(0805)X7R	1	5
L 2401-1039	CAP, SMC, 10nF 20%, 63V(0805)X7R	1	1
2401-4729	CAP, SMC, 4.7nF 20%, 63V(0805)X7R	1	1
9 2412-1049	CAP, SMC, 0.1uF, +80%-20%, 25V(1206)	1	6
2412-2249	CAP, SMC, 0.22uF, +80%-20%, 25V(1206)	1	1
E 3000-4001	DIODE, RECTIFIER, 1A(1N4001)	1	1
3018-1005	DIODE, SWITCHING SMC, BAS32L(SOD-80)	1	9
I 3200-1959	TRANSISTOR, NPN, 2SC1959	1	1
3208-1001	TRANSISTOR SMC, NPN, BSR14(SOT23)	1	1
6 3218-1001	TRANSISTOR SMC, PNP, BSR16(SOT23)	1	3
3800-1006	IC, OP-AMP, 27M2	1	1
L 3810-0324	IC, LM324(TEXAS)	1	1
3810-1002	IC, 74HC125	1	1
9 3810-4013	IC, C-MOS, MC14013BCP	1	2
3810-4024	IC, C-MOS, 4024	1	1
E 3810-4053	IC, C-MOS, MC14053BCP	1	2
3810-4066	IC, C-MOS, MC14066BCP	1	1
3810-4088	IC, C-MOS, MC14088BCP (TSC0481)	1	1

## MODEL: 306

PART NO.	DESCRIPTION	OUTCLASS	UN.
194031-1025	CONDUCTIVE RUBBER, 51.5x7.8x1.8	3	1
4110-5027	LCD	3	1
64233-1293	PC BOARD	1	1
4313-1010	SILCON, RUBBER SWITCH	3	1
74401-0009	BATTERY, 9V (006P)	4	1
4660-1004	INSULATION TUBE, 27.5x18x42	4	1
94920-1003	WRISTLET	5	1
5103-1012	SPRING PLATE FOR THERMOCOUPLE	2	1
85143-1014	BATTERY CONTACT PLATE	1	2
5162-1039	SHIELD	4	1
15189-1010	SHOCK-PROOF SPONGE	4	1
5196-1078	DESOLDERING TAPE, 305	1	1
615260-1004	SCREW, TP3x18	4	3
5278-1029	SPRING, 3.5x15	2	1
76009-1075	TOP COVER	3	1
6019-2054	BOTTOM COVER	4	1
916200-1001	CONDUCTIVE RUBBER HOLDER	3	1
	RUBBER, 36.7x4.7x2	4	1
	RUBBER, 3.8x8.8x1.5t	4	2
6228-1024	RUBBER		
116229-1013	METER HOLDER	5	1
6320-1012	CONTROL PLANKING	3	1
686418-1009	HOLSTER	5	1
7000-1268	INSTRUCTION MANUAL, 306	5	1
7020-1200	COLOR BOX	5	1
7030-1089	SERIAL NO	5	1
97030-1094	LABEL	4	1
7052-1515	OVERLAY, 306(S)	5	1
8000-1012	TEMPERATURE PROBE (TP-K01	5	2

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