

BULK STANDARD PRODUCT PARTS LIST INDEX

Thermo Ramsey

501 90th Avenue N.W.

Minneapolis, MN 55433

<http://www.thermoscientific.com>**EQUIPMENT****PAGE NO**

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**PARTS LIST
FOR
MODEL 10-14A CONVEYOR SCALE**

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<u>EQUIPMENT</u>	<u>PART NUMBER</u>	<u>MANUAL</u> (ref)
<u>LOADCELL</u>		
250 lb. Loadcell, S-PRCN	046915	
500 lb. Loadcell, S-PRCN	046916	
1,000 lb. Loadcell, S-PRCN	046917	
2,500 lb. Loadcell, S-PRCN	046918	
Hardware Kit, Loadcell, "S"-PRCN, 250#-2500# (* Kit purchased separately)	050079	
Loadcell Sub-Assembly, 5000LB	106030	
5000 Lb Loadcell, S-PRCN	080310	
<u>SPEED SENSOR</u>		
60-12C Speed Sensor	003968	REC-3016
60-12F Speed Sensor	002916	REC-3016
61-12C Speed Sensor	005995	REC-3449
60-12ENC-500 Speed Sensor	045047	REC-3016
61-12C/CSA Speed Sensor	081648	
Clamp Bar (Restraint Arm)	002920	
Coupling, Shaft, .625 Bore	002931	
Coupling, Stub Shaft	037711	
Spring, Retaining, For Clamp Bar	001988	
Shim Kit (assorted sizes)	003141	
Shim Kit, Idler, 1/32" (10 pc)	038310	
Shim Kit, Idler, 1/16" (10 pc)	038311	
Shim Kit, Idler, 1/8" (10 pc)	038312	
Shim Kit, Idler, 1/4" (6 pc)	038313	
Cable, 6 Cond., COMM	050133	
WASHER, SPHERICAL, CONCAVE, .53ID	014300	
WASHER, SPHERICAL, CONVEX, .53ID	014301	

**PARTS LIST
FOR
MODEL 10-17 CONVEYOR SCALE**

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<u>EQUIPMENT</u>	<u>PART NUMBER</u>	<u>MANUAL</u>
<u>LOADCELL</u>		
		(ref)
100 lb. Loadcell, S-PRCN Type	046914	
250 lb. Loadcell, S-PRCN	046915	
500 lb. Loadcell, S-PRCN	046916	
1,000 lb. Loadcell, S-PRCN	046917	
2,500 lb. Loadcell, S-PRCN	046918	
Hardware Kit, Loadcell, "S"-PRCN, 100# (* Kit purchased separately)	050080	
Hardware Kit, Loadcell, "S"-PRCN, 250#-2500# (* Kit purchased separately)	050079	
Loadcell Sub-Assembly, 5000LB	106030	
5000 Lb Loadcell, S-PRCN	080310	
<u>SPEED SENSOR</u>		
60-12C Speed Sensor	003968	REC-3016
60-12F Speed Sensor	002916	REC-3016
61-12C Speed Sensor	005995	REC-3449
60-12ENC-500 Speed Sensor	045047	REC-3016
61-12C/CSA Speed Sensor	081648	
Clamp Bar (Restraint Arm)	002920	
Coupling, Shaft, .625 Bore	002931	
Seal, Bridge & Siderail	035556	
Shim Kit (assorted sizes)	003141	
Shim Kit, Idler, 1/32" (10 pc)	038310	
Shim Kit, Idler, 1/16" (10 pc)	038311	
Shim Kit, Idler, 1/8" (10 pc)	038312	
Shim Kit, Idler, 1/4" (6 pc)	038313	
Cable, Shielded, 4 Conductor	003727	
Cable, Shielded, 2 Conductor	003249	
Cable, Shielded, 6 Conductor, (For Distance beyond 200 ft.)	011416	
Kit, Retrofit, Trunnion, 10-17 Scale (use 2 or 4) (Replaces Obsolete #004903 Rubber Plated Bushing)	060816	
FLEXURE,10-17	013173	
BLOCK,MTG,FLEXURE,10-17	013175	
Junction Box, NEMA-4X, Scale	048683	

**PARTS LIST
FOR
MODEL 10-20 CONVEYOR SCALE**

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<u>EQUIPMENT</u>	<u>PART NUMBER</u>	<u>MANUAL</u> (ref)
<u>LOADCELL</u>		
100 lb. Loadcell, S-PRCN Type	046914	
250 lb. Loadcell, S-PRCN	046915	
500 lb. Loadcell, S-PRCN	046916	
1,000 lb. Loadcell, S-PRCN	046917	
2,500 lb. Loadcell, S-PRCN	046918	
Kit, Hardware, Retrofit, Loadcell	036093	
(Price if kit purchased separately)		
Following kits can be used if replacing the same "S" type loadcell:		
Hardware Kit, Loadcell, "S"-TYPE, 100#	068185	
Hardware Kit, Loadcell, "S"-TYPE, 250#-2500#	068186	
(Price if kit purchased separately)		
Spacer, Loadcell, Nylon (Lightening Inhibitor)	(1) 014508	
Mounting Bolts (for above spacer)	(4) 019651	
<u>SPEED SENSOR</u>		
60-12C Speed Sensor	003968	REC-3016
60-12F Speed Sensor	002916	REC-3016
61-12C Speed Sensor	005995	REC-3449
60-12ENC-500 Speed Sensor	045047	REC-3016
61-12C/CSA Speed Sensor	081648	
Coupling, Stub Shaft	037711	
Spring, Retaining, For Clamp Bar	001988	
Shim Kit (assorted sizes)	003141	
Shim Kit, Idler, 1/32" (10 pc)	038310	
Shim Kit, Idler, 1/16" (10 pc)	038311	
Shim Kit, Idler, 1/8" (10 pc)	038312	
Shim Kit, Idler, 1/4" (6 pc)	038313	
Cable, Shielded, 4 Conductor	003727	
Cable, Shielded, 2 Conductor	003249	
Cable, Shielded, 6 Conductor,	011416	
(For Distance beyond 200 ft.)		
Kit, Retrofit, Trunnion, 10-20 Scale (2 req'd)	058586	
(Replaces Obsolete #004903 Rubber Plated Bushing)		
Junction Box, NEMA-4X, Scale	048683	

**PARTS LIST
FOR
MODEL 10-30 CONVEYOR SCALE**

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<u>EQUIPMENT</u>	<u>PART NUMBER</u>	<u>MANUAL</u> (ref)
<u>LOADCELL</u>		
Loadcell, 100#, N/FM, Platf	044935	
Loadcell, 250#, N/FM, Platf	041861	
Loadcell, 500#, N/FM, Platf.	041862	
Loadcell, 1000#, N/FM, Platf.	041863	
Loadcell, 2000#, N/FM, Platf.	045363	
<u>SPEED SENSOR</u>		
60-12C Speed Sensor	003968	REC-3016
60-12F Speed Sensor	002916	REC-3016
61-12C Speed Sensor	005995	REC-3449
60-12ENC-500 Speed Sensor	045047	REC-3016
61-12C/CSA Speed Sensor	081648	
Clamp Bar (Restraint Arm)	002920	
Coupling, Shaft, .625 Bore	002931	
Coupling, Stub Shaft	037711	
Spring, Retaining, For Clamp Bar	001988	
Shim Kit (assorted sizes)	003141	
Shim Kit, Idler, 1/32" (10 pc)	038310	
Shim Kit, Idler, 1/16" (10 pc)	038311	
Cable, Shielded, 4 Conductor	003727	
Cable, Shielded, 2 Conductor	003249	
Cable, Shielded, 6 Conductor, (For Distance beyond 200 ft.)	011416	
Junction Box, NEMA-4X, Scale	048683	

**PARTS LIST
FOR
MODEL 10-101R "IDEA" CONVEYOR SCALE**

<u>EQUIPMENT</u>	<u>PART NUMBER</u>	<u>MANUAL</u>
<u>LOADCELL</u>		
Loadcell, Bending Beam, 20 KG	067971	
Loadcell, Bending Beam, 50 Kg	056768	
Loadcell, Bending Beam, 100 Kg	056769	
Loadcell, Bending Beam, 200 Kg	056770	
Loadcell, Bending Beam, 250 Kg	056771	
Loadcell, Bending Beam, 500 Kg	056772	
Bracket, Mtg., Scale Set (Left & Right)	056767	
Bracket, Mounting, Idler, 10-101R-2 (Note: 2 required for dual module version)	057030	
Bracket, Mounting, Idler, 10-101R-1	057029	
Clamp Bar, Idler (Note: 2 required for either single or dual module version)	042196	
Bridge, Installation, 18" - 36"	057637	
HD Mounting Brkt Assy, 10-101R-2	058783	
60-12C Speed Sensor	003968	REC-3016
60-15UB, Under Belt Speed Sensor	074598	REC-4312
61-12C/CSA Speed Sensor	081648	
Scale Assembly, 10-101R, w/50 Kg Loadcell	056809	
Scale Assembly, 10-101R, w/100 Kg Loadcell	056810	
Scale Assembly, 10-101R, w/200 Kg Loadcell	056813	
Shim Kit (assorted sizes)	003141	
Junction Box, NEMA-4X, Scale	048683	
 Note: A complete single module kit includes the following:		
1 x Scale Assembly Module		REC-4031
1 x Idler Mounting Bracket		
2 x Clamp Bar		
1 x Shim Kit		
TOTAL		
 A complete dual module kit includes the following:		
2 x Scale Assembly Module		REC-4031
1 x Mounting Bracket, Scale Set		
2 x Mounting Bracket Idler, 10-101R-2		
2 x Clamp Bar		
1 x Shim Kit		
TOTAL		

**PARTS LIST
FOR
MODEL 10-201 INTEGRATOR**

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<u>EQUIPMENT</u>	<u>PART NUMBER</u>	
<u>10-201 MICRO-TECH INTEGRATOR</u>	008041	OBSOLETE
Chassis Assy. With I/O (Less Enclosure)	009197	OBSOLETE
Chassis Assy. (Less I/O & Enclosure)	009197(Less #008730)	OBSOLETE
PCBA, CPU Board	008728	OBSOLETE
PCBA, Current Output (I/O)	008730	OBSOLETE
PCBA, Display	008726	OBSOLETE
PCBA, Power Supply	012715	OBSOLETE
Transformer Assembly	012719	OBSOLETE
Fuse, 1/4 AMP, Slo-Blo	001365	
Relay, GP, 24VDC, 10A	008056	
Battery, Lith., 3.6V	008079	

**PARTS LIST
FOR
MODEL 10-301 INTEGRATOR**

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<u>EQUIPMENT</u>	<u>PART NUMBER</u>	
<u>MICRO-TECH II, MODEL 10-301</u>	038118	OBSOLETE
Chassis Assembly, includes I/Out Board (no enclosure)	038119	OBSOLETE
Chassis Assembly without I/Out Board (no enclosure)	038119 (less 037978)	OBSOLETE
PCBA, CPU Board	037975	OBSOLETE
PCBA, I/Out Board (Field Retrofit-See Below)	037978	OBSOLETE
Display Assembly	039659	OBSOLETE
Nameplate Assembly (Without Display Assy.)	039836	OBSOLETE
Transformer, Special, 10-301, 115/230V	038141	OBSOLETE
Transformer, Current Output (I/O)	037974	OBSOLETE
Module, Power Output, 24-280VAC, Opto 22	037289	
Relay, 24VDC	008093	
Battery, Lithium, 3.0V, 1.20Ah. 2/3A	037188	
Fuse, Fast-Blo, .25 Amp (F-2)	038002	
Fuse, Slo-Blo, .50 Amp (F-1)	001366	
Fuse, Fast-Blo, 4.00 Amp	037287	
Module, Power Input, 90-140V	038014	
Module, Power Output, 60V	039669	
Module, Power Input, 180-280VAC	047646	
Current Output Field Retrofit Kit	038137	OBSOLETE
PCBA, Frequency Output Board	038109	OBSOLETE
PCBA, EIA 232 Serial Output Board	037981	OBSOLETE
PCBA, EIA 422/485 Board	045940	OBSOLETE

**PARTS LIST
FOR
MODEL 11-101F INTEGRATOR**

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<u>EQUIPMENT</u>	<u>PART NUMBER</u>	<u>MANUAL</u> (ref)
Integrator, 11-101F, Complete	051029	REC-3968
Integrator, 11-101F, Complete, CSI Approved	081642	
PCBA, Mother Board	051308	
PCBA, Serial Printer Interface	051034	
PCBA, Keyboard	051311	
PCBA, Display	051312	
PCBA, A/C Board w/Transformer & Relay	051332	
Fuse, Slo-Blo, .50 Amp	047272	
Fuse, Slo-Blo, 1.00 Amp	048438	

**PARTS LIST
FOR
MODEL 2001 INTEGRATOR**

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<u>EQUIPMENT</u>	<u>PART NUMBER</u>	<u>MANUAL</u>
		(ref)
Integrator, Model 2001, complete with 1 Analog Output	048647	P/N 049370
Chassis Assembly, with 1 Analog Output (no enclosure)	050100	P/N 049370
Chassis Assy, Reconditioned	050234	
PCBA, Mother Board	048426	
PCBA, Analog Output (1 Out)	071637	
PCBA, Analog Output (2 In/2 Out)	071636	
PCBA, Comm A @ Select one only:	068053	REC-3949
RS-232C		
RS-485, std. (point to point)		
RS-485, multi-drop		
20 mA (digital) current loop		
PCBA, Comm A-B RIO@	055517	REC-4012
PCBA, Comm AProfibus@	056713	REC-4063
Connector, HSG, AD@ AProfibus@	057416	
PCBA, Comm, DeviceNet	068147	REC-4150
PCBA Field Marshall	058842	
PCBA DeviceNet	067097	
PCBA Comm, Ethernet (TCP/IP)	084727	REC-4251
FRONT PANEL ASSEMBLY	102129	
Touch Panel Model 2001	048651	
Software Upgrade	048999 + 049000	
Fuse, Slo-Blo, .5 Amp (F1 220V)	001366	
Fuse, Slo-Blo, 1.0 Amp (F1 110V)	002443	
Battery, Lithium, 3.0 V.	037188	
Transformer, Power	046863	
Module, Power Input 90-140 VAC	038014	
Module, Power Output 5-60 VDC	039669	
Module, Power Output 24-280 VAC	037289	
Module, Power Input 180-280 VAC	050480	
Module, Power Input 12-32 VDC	044551	
Module, Power Output (DRY-reed Relay)	044552	

**PARTS LIST
FOR
MODEL 2100 STATIC WEIGHT INDICATOR**

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<u>EQUIPMENT</u>	<u>PART NUMBER</u>	<u>MANUAL</u>
Chassis Assembly, Panel Mount, includes Analog 2 In/2 Out	050175	(ref) P/N 050569
2100F, Complete - including enclosure	050176	P/N 050569
Chassis Assembly, Field Mount, includes Analog 2 In/2 Out (no enclosure)	050615	P/N 050569
2100F Weight Indicator, CUL version	081635	
PCBA, Mother Board	051319	
PCBA, A/D, Plant, Single Channel	046409	
PCBA, A/D, Plant, Dual Channel	048985	
PCBA, Analog Output (1 out)	071637	
PCBA, Analog Output (2 in/2 out)	071636	
PCBA, DIO (4 in/16 out)	046841	
PCBA, DIO (16 in/4 out)	046844	
PCBA, Comm A @ Select one only:	068053	REC-3948
RS-232C		
RS-485, std. (point to point)		
RS-485, multi-drop		
20 mA (digital) current loop		
PCBA, Comm A-B RIO@	055517	REC-4013
PCBA, Comm AProfibus@	056713	REC-4062
Connector, HSG, AD@ AProfibus@	057416	
PCBA, Comm, DeviceNet	068147	REC-4150
PCBA Field Marshall	058842	
PCBA DeviceNet	067097	
PCBA Comm, Ethernet (TCP/IP)	084727	REC-4251
PCBA, LED Assembly	046847	
PCBA, Display Assembly	046860	
PCBA, Field Terminal Entry	047572	
PCBA, Load Out DIO (4 in/16 out)	049475	
PCBA, Load Out DIO (16 in/4 out)	049476	
Touch Panel Model 2100	047074	
Software Upgrade	050240+050241	
Fuse, Slo-Blo, .5 Amp (F1 220V)	001366	
Fuse, Slo-Blo, 1.0 Amp (F1 110V)	002443	
Fuse, Fast-Blo, 4.0 Amp (FT Board)	037287	
Battery, Lithium, 3.0 V.	037188	
PROM, U1, MT-2000, Audit Trail	050500	
Transformer, Power	046863	
Module, Power Input 180-240 VAC	047646	**
Module, Power Input 90-120 VAC	047575	**
Module, Power Input 10-32 VDC	048162	**
Module, Power Output 24-240 VAC	046814	**
Module, Power Output 5-60 VDC	046815	**

** Power I/O modules for field mount units with field terminal board only

**PARTS LIST
FOR
MODEL 2200 STATIC WEIGHT INDICATOR**

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<u>EQUIPMENT</u>	<u>PART NUMBER</u>	<u>MANUAL</u> (ref)
Chassis Assembly, Panel Mount, includes Analog 2 In/2 Out	050157	REC-3942
2200F Complete - including enclosure	050158	REC-3942
Chassis Assembly, Field Mount, includes Analog 2 In/2 Out (no enclosure)	051317	REC-3942
2200F, Weight Indicator, CUL version	081632	
PCBA, Mother Board	051325	
PCBA, A/D, 2201, Premium	046856	
PCBA, Analog Output (1 out)	071637	
PCBA, Analog Output (2 in/2 out)	071636	
PCBA, DIO (4 in/16 out)	046841	
PCBA, DIO (16 in/4 out)	046844	
PCBA, Comm A @ Select one only: RS-232C RS-485, std. (point to point) RS-485, multi-drop 20 mA (digital) current loop	068053	REC-3948
PCBA, Comm A-B RIO@	055517	REC-4013
PCBA, Comm AProfibus@ Connector, HSG, AD@ AProfibus@	056713 057416	REC-4062
PCBA, Comm, DeviceNet PCBA Field Marshall PCBA DeviceNet	068147 058842 067097	REC-4149
PCBA Comm, Ethernet (TCP/IP)	084727	REC-4251
PCBA, LED Assembly	046847	
PCBA, Display Assembly	046860	
PCBA, Field Terminal Entry	047572	
PCBA, Load Out DIO (4 in/16 out)	049475	
PCBA, Load Out DIO (16 in/4 out)	049476	
Touch Panel Model 2200	050155	
Software Upgrade	050240+050241	
Fuse, Slo-Blo, .5 Amp (F1 220V)	001366	
Fuse, Slo-Blo, 1.0 Amp (F1 110V)	002443	
Fuse, Fast-Blo, 4.0 Amp (FT Board)	037287	
Battery, Lithium, 3.0 V.	037188	
FRONT PANEL ASSEMBLY	102138	
PROM, U1, MT-2000, Audit Trail	050500	
Transformer, Power	046863	
Module, Power Input 180-240 VAC	047646	**
Module, Power Input 90-120 VAC	047575	**
Module, Power Input 10-32 VDC	048162	**
Module, Power Output 24-240 VAC	046814	**
Module, Power Output 5-60 VDC	046815	**

** Power I/O modules for field mount units with field terminal board only

**PARTS LIST
FOR
MODEL 2102 OR 2202 BATCH WEIGHT INDICATOR**

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<u>EQUIPMENT</u>	<u>PART NUMBER</u>	<u>MANUAL</u>
		(ref)
Chassis Assembly, Panel Mount, Model 2102	050177	P/N 058495
2102F, Complete - including enclosure	050178	P/N 058495
Chassis Assembly, Field Mount, Model 2102	051315	P/N 058495
(no enclosure)		
2102F, Batch Control, CUL version	081629	
PCBA, Mother Board, Model 2102	051321	
PCBA, A/D, 2201, Premium	046856	
PCBA, A/D, Plant, Dual Channel	048985	
PCBA, Premium A/D, 1 Channel	046409	
PCBA, Analog Output (1 out)	071637	
PCBA, Analog Output (2 in/2 out)	071636	
PCBA, DIO (4 in/16 out)	046841	
PCBA, DIO (16 in/4 out)	046844	
PCBA, Comm A @ Select one only:	068053	REC-4037
RS-232C		
RS-485, std. (point to point)		
RS-485, multi-drop		
20 mA (digital) current loop		
PCBA, Comm A-B RIO@	055517	REC-4038
PCBA, Comm AProfibus@	056713	REC-4064
Connector, HSG, AD@ AProfibus@	057416	
PCBA, Comm, DeviceNet	068147	REC-4151
PCBA Field Marshall	058842	
PCBA DeviceNet	067097	
PCBA Comm, Ethernet (TCP/IP)	084727	REC-4251
PCBA, LED Assembly	046847	
PCBA, Display Assembly	046860	
PCBA, Field Terminal Entry	047572	
PCBA, Load Out DIO (4 in/16 out)	049475	
PCBA, Load Out DIO (16 in/4 out)	049476	
Touch Panel Model 2102	047076	
Touch Panel Model 2202	051179	
Software Upgrade standard	050242+050243	
Fuse, Slo-Blo, .5 Amp (F1 220V)	001366	
Fuse, Slo-Blo, 1.0 Amp (F1 110V)	002443	
Fuse, Fast-Blo, 4.0 Amp (FT Board)	037287	
Battery, Lithium, 3.0 V.	037188	
Software Upgrade - Rate Weigh	068330+068331	
PROM, U1, MT-2000, Audit Trail	050500	
FRONT PANEL ASSEMBLY (2102)	102132	
Transformer, Power	046863	
Module, Power Input 180-240 VAC	047646	**
Module, Power Input 90-120 VAC	047575	**
Module, Power Input 10-32 VDC	048162	**
Module, Power Output 24-240 VAC	046814	**
Module, Power Output 5-60 VDC	046815	**

** Power I/O modules for field mount units with field terminal board only

**PARTS LIST
FOR
MODEL 2101 INTEGRATOR**

Thermo Ramsey
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<u>EQUIPMENT</u>	<u>PART NUMBER</u>	<u>MANUAL</u>
Chassis Assembly, Panel Mount, includes 1 Analog Output	047649	(ref) P/N 049064
2101F, Complete - includes encl.& analog output	047650	P/N 049064
Chassis Assembly, Field Mount, includes 1 Analog Output (no enclosure)	050101	P/N 049064
2101F, Integrator, CUL version	081633	
2101F, Integrator, CUL version, w/o I-out	087395	
PCBA, Mother Board	051320	
PCBA, A/D Plant, Single Channel	046409	
PCBA, Analog Output (1 out)	071637	
PCBA, Analog Output (2 in/2 out)	071636	
PCBA, DIO (4 in/16 out)	046841	
PCBA, DIO (16 in/4 out)	046844	
PCBA, Comm A @ Select one only:	068053	REC-3949
RS-232C		
RS-485, std. (point to point)		
RS-485, multi-drop		
20 mA (digital) current loop		
PCBA, Comm A-B RIO@	055517	REC-4012
PCBA, Comm AProfibus@	056713	REC-4063
Connector, HSG, AD@ AProfibus@	057416	
PCBA, Comm, DeviceNet	068147	REC-4150
PCBA Field Marshall	058842	
PCBA DeviceNet	067097	
PCBA Comm, Ethernet (TCP/IP)	084727	REC-4251
PCBA, LED Assembly	046847	
PCBA, Display Assembly	046860	
PCBA, Field Terminal Entry	047572	
PCBA, Load Out DIO (4 in/16 out)	049475	REC-3910
PCBA, Load Out DIO (16 in/4 out)	049476	REC-3910
Touch Panel Model 2101	047075	
Software Upgrade	048448+048449	
Fuse, Slo-Blo, .5 Amp (F1 220V)	001366	
Fuse, Slo-Blo, 1.0 Amp (F1 110V)	002443	
Fuse, Fast-Blo, 4.0 Amp (FT Board)	037287	
Battery, Lithium, 3.0 V.	037188	
FRONT PANEL ASSEMBLY	102131	
PROM, U1, MT-2000, Audit Trail	050500	
Transformer, Power	046863	
Module, Power Input 180-240 VAC	047646	**
Module, Power Input 90-120 VAC	047575	**
Module, Power Input 10-32 VDC	048162	**
Module, Power Output 24-240 VAC	046814	**
Module, Power Output 5-60 VDC	046815	**

** Power I/O modules for field mount units with field terminal board only

**PARTS LIST
FOR
MODEL 2201 INTEGRATOR**

Thermo Ramsey
501 90th Avenue N.W.
Minneapolis, MN 55433
<http://www.thermoscientific.com>

<u>EQUIPMENT</u>	<u>PART NUMBER</u>	<u>MANUAL</u>
		(ref)
Chassis Assembly, 2201, Panel Mount, (No-I out)	049598	P/N 050577
2201F, Complete - includes encl (no I-out)	049597	P/N 050577
Chassis Assembly, 2201, Field Mount (no enclosure / no I-out))	050102	P/N 050577
2201F-NTEP version (I-out, print comm, Audit)	065864	P/N 050577
2201P - NTEP Version (I-out, print comm, Audit)	067640	P/N 050577
PCBA, Mother Board	051326	
PCBA, A/D, Premium	046856	
PCBA, Analog Output (1 out)	071637	
PCBA, Analog Output (2 in/2 out)	071636	
PCBA, DIO (4 in/16 out)	046841	
PCBA, DIO (16 in/4 out)	046844	
PCBA, Comm A @ Select one only:	068053	REC-3949
RS-232C		
RS-485, std. (point to point)		
RS-485, multi-drop		
20 mA (digital) current loop		
PCBA, Comm A-B RIO@	055517	REC-4012
PCBA, Comm AProfibus@	056713	REC-4063
Connector, HSG, AD@ AProfibus@	057416	
PCBA, Comm, DeviceNet	068147	REC-4150
PCBA Field Marshall	058842	
PCBA DeviceNet	067097	
PCBA Comm, Ethernet (TCP/IP)	084727	REC-4251
PCBA, LED Assembly	046847	
PCBA, Display Assembly	046860	
PCBA, Field Terminal Entry	047572	
PCBA, Load Out DIO (4 in/16 out)	049475	REC-3910
PCBA, Load Out DIO (16 in/4 out)	049476	REC-3910
Touch Panel Model 2201	048671	
Software Upgrade (NTEP)	069931+069932	
Fuse, Slo-Blo, .5 Amp (F1 220V)	001366	
Fuse, Slo-Blo, 1.0 Amp (F1 110V)	002443	
Fuse, Fast-Blo, 4.0 Amp (FT Board)	037287	
Battery, Lithium, 3.0 V.	037188	
FRONT PANEL ASSEMBLY	102139	
PROM, U1, MT-2000, Audit Trail	050500	
Transformer, Power	046863	
Module, Power Input 180-240 VAC	047646	**
Module, Power Input 90-120 VAC	047575	**
Module, Power Input 10-32 VDC	048162	**
Module, Power Output 24-240 VAC	046814	**
Module, Power Output 5-60 VDC	046815	**

**** Power I/O modules for field mount units with field terminal board only**

**PARTS LIST
FOR
MODEL 2301 INTEGRATOR**

Thermo Ramsey
501 90th Avenue N.W.
Minneapolis, MN 55433
<http://www.thermoscientific.com>

<u>EQUIPMENT</u>	<u>PART NUMBER</u>	<u>MANUAL</u>
Chassis Assembly, Panel Mount, includes 1 Analog Output	049600	(ref) P/N 050121
2301F Complete - includes encl & I-out Chassis Assembly, Field Mount, includes 1 Analog Output (no enclosure)	049599 050103	P/N 050121 P/N 050121
2301P - NTEP (I-out, print comm, Audit)	055143	P/N 050121
2301F - NTEP(I-out, print comm, Audit)	051018	P/N 050121
PCBA, Mother Board	051327	
PCBA, Analog Output (1 out)	071637	
PCBA, Analog Output (2 in/2 out)	071636	
PCBA, DIO (4 in/16 out)	046841	
PCBA, DIO (16 in/4 out)	046844	
PCBA, Comm A @ Select one only:	068053	REC-3949
RS-232C		
RS-485, std. (point to point)		
RS-485, multi-drop		
20 mA (digital) current loop		
PCBA, Comm A-B RIO@	055517	REC-4012
PCBA, Comm AProfibus@	056713	REC-4063
Connector, HSG, AD@ AProfibus@	057416	
PCBA, Comm, DeviceNet	068147	REC-4150
PCBA Field Marshall	058842	
PCBA DeviceNet	067097	
PCBA Comm, Ethernet (TCP/IP)	084727	REC-4251
PCBA, LED Assembly	046847	
PCBA, Display Assembly	046860	
PCBA, Field Terminal Entry	049606	
PCBA, Load Out DIO (4 in/16 out)	049475	REC-3910
PCBA, Load Out DIO (16 in/4 out)	049476	REC-3910
Touch Panel Model 2301	048672	
Fuse, Slo-Blo, .5 Amp (F1 220V)	001366	
Fuse, Slo-Blo, 1.0 Amp (F1 110V)	002443	
Fuse, Fast-Blo, 4.0 Amp (FT Board)	037287	
Battery, Lithium, 3.0 V.	037188	
PROM, U1, MT-2000, Audit Trail	050500	
Transformer, Power	046863	
Module, Power Input 180-240 VAC	047646	**
Module, Power Input 90-120 VAC	047575	**
Module, Power Input 10-32 VDC	048162	**
Module, Power Output 24-240 VAC	046814	**
Module, Power Output 5-60 VDC	046815	**
FRONT PANEL ASSEMBLY	102140	
Software Upgrade	050563+050564	

**** Power I/O modules for field mount units with field terminal board only**

**PARTS LIST
FOR
MODEL 2301d DIGITIZER**

Thermo Ramsey
501 90th Avenue N.W.
Minneapolis, MN 55433
<http://www.thermoscientific.com>

<u>EQUIPMENT</u>	<u>PART NUMBER</u>
Digitizer, 2301d, NEMA-4, Complete	049536
Chassis Assembly	050598
Chassis Assembly, Refurbished	109238
PCBA, Mother Bd, Dig. 2301-D	048440
Fuse, Slo-Blo, .5 Amp (F1 230V) (Type T)	001366
Fuse, Slo-Blo, 1.0 Amp (F1 115V) (Type T)	002443
Module, Power Input 90-140 VAC	038014
Module, Power Output 5-60 VDC	039669
Module, Power Input 180-280 VAC	050480
Module, Power Input 12-32 VDC	044551
Module, Power Output 24-280 VAC	037289
Module, Power Output DRY (Read Relay)	044552

**PARTS LIST
FOR
MODEL 2305 FEEDER CONTROLLER**

Thermo Ramsey
501 90th Avenue N.W.
Minneapolis, MN 55433
<http://www.thermoscientific.com>

<u>EQUIPMENT</u>	<u>PART NUMBER</u>	<u>MANUAL</u>
Chassis Assembly, Panel Mount	058190	(ref) REC-4069
2305F, Complete	058191	REC-4069
Chassis Assembly, Field Mount,	058189	REC-4069
PCBA, Mother Board	058654	
PCBA, Analog Output (1 out)	071637	
PCBA, Analog Output (2 in/2 out)	071636	
PCBA, DIO (4 in/16 out)	046841	
PCBA, DIO (16 in/4 out)	046844	
PCBA, Comm A @ Select one only:	068053	REC-3949
RS-232C		
RS-485, std. (point to point)		
RS-485, multi-drop		
20 mA (digital) current loop		
PCBA, Comm A-B RIO@	055517	REC-4015
PCBA, Comm AProfibus@	056713	REC-4066
Connector, HSG, AD@ AProfibus@	057416	
PCBA, Comm, DeviceNet	068147	REC-4153
PCBA Field Marshall	058842	
PCBA DeviceNet	067097	
PCBA Comm, Ethernet (TCP/IP)	084727	REC-4251
PCBA, Field Terminal Entry	049606	
PCBA, Load Out DIO (4 in/16 out)	049475	REC-3910
PCBA, Load Out DIO (16 in/4 out)	049476	REC-3910
Touch Panel Model 2305	058192	
Fuse, Slo-Blo, .5 Amp (F1 220V)	001366	
Fuse, Slo-Blo, 1.0 Amp (F1 110V)	002443	
Fuse, Fast-Blo, 4.0 Amp (FT Board)	037287	
Battery, Lithium, 3.0 V.	037188	
PROM, U1, MT-2000, Audit Trail	050500	
Transformer, Power	046863	
Module, Power Input 180-240 VAC	047646	**
Module, Power Input 90-120 VAC	047575	**
Module, Power Input 10-32 VDC	048162	**
Module, Power Output 24-240 VAC	046814	**
Module, Power Output 5-60 VDC	046815	**
FRONT PANEL ASSEMBLY	102141	
Software Upgrade	057587+057588	

**** Power I/O modules for field mount units with field terminal board only**

**PARTS LIST
FOR
MODEL 2104 L-I-W FEEDER CONTROLLER**

Thermo Ramsey
501 90th Avenue N.W.
Minneapolis, MN 55433
<http://www.thermoscientific.com>

<u>EQUIPMENT</u>	<u>PART NUMBER</u>	<u>MANUAL</u>
		(ref)
2104F, Complete (includes enclosure)	050180	P/N 050571
Chassis Assembly, Panel Mount, includes Analog Output, 2 in/2 out	050179	P/N 050571
Chassis Assembly, Field Mount, includes Analog Output, 2 in/2 out (no enclosure)	051316	P/N 050571
2104 L-I-W Control, CUL version	081630	
PCBA, Mother Board	051322	
PCBA, A/D Plant, Single Channel	046409	
PCBA, A/D, Plant, Dual Channel	048985	
PCBA, Analog Output (1 out)	071637	
PCBA, Analog Output (2 in/2 out)	071636	
PCBA, DIO (4 in/16 out)	046841	
PCBA, DIO (16 in/4 out)	046844	
PCBA, Comm A @ Select one only:	068053	REC-3951
RS-232C		
RS-485, std. (point to point)		
RS-485, multi-drop		
20 mA (digital) current loop		
PCBA, Comm A-B RIO@	055517	REC-4014
PCBA, Comm AProfibus@	056713	REC-4065
Connector, HSG, AD@ AProfibus@	057416	
PCBA, Comm, DeviceNet	068147	REC-4150
PCBA Field Marshall	058842	
PCBA DeviceNet	067097	
PCBA Comm, Ethernet (TCP/IP)	084727	REC-4251
PCBA, LED Assembly	046847	
PCBA, Display Assembly	046860	
PCBA, Field Terminal Entry	047572	
Touch Panel Model 2104	047077	
Fuse, Slo-Blo, .5 Amp (F1 220V)	001366	
Fuse, Slo-Blo, 1.0 Amp (F1 110V)	002443	
Fuse, Fast-Blo, 4.0 Amp (FT Board)	037287	
Battery, Lithium, 3.0 V.	037188	
FRONT PANEL ASSEMBLY	102133	
PROM, U1, MT-2000, Audit Trail	050500	
Software Upgrade	050237+050238	
Transformer, Power	046863	
Module, Power Input 180-240 VAC	047646	**
Module, Power Input 90-120 VAC	047575	**
Module, Power Input 10-32 VDC	048162	**
Module, Power Output 24-240 VAC	046814	**
Module, Power Output 5-60 VDC	046815	**

** Power I/O modules for field mount units with field terminal board only

**PARTS LIST
FOR
MODEL 2105 BELT FEEDER CONTROLLER**

Thermo Ramsey
501 90th Avenue N.W.
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<http://www.thermoscientific.com>

<u>EQUIPMENT</u>	<u>PART NUMBER</u>	<u>MANUAL</u>
		(ref)
2105F, complete - includes enclosure	049462	P/N 049461
Chassis Assembly, Panel Mount, includes Analog Output, 2 in/2 out	049463	P/N 049461
Chassis Assembly, Field Mount, includes Analog Output, 2 in/2 out (no enclosure)	050104	P/N 049461
2105 Feeder Control, CUL version	081631	
PCBA, Mother Board	051323	
PCBA, A/D Plant, Single Channel	046409	
PCBA, Analog Output (1 out)	071637	
PCBA, Analog Output (2 in/2 out)	071636	
PCBA, DIO (4 in/16 out)	046841	
PCBA, DIO (16 in/4 out)	046844	
PCBA, Comm A @ Select one only:	068053	REC-3952
RS-232C		
RS-485, std. (point to point)		
RS-485, multi-drop		
20 mA (digital) current loop		
PCBA, Comm A-B RIO@	055517	REC-4015
PCBA, Comm A Profibus@	056713	REC-4066
Connector, HSG, AD@ A Profibus@	057416	
PCBA, Comm, DeviceNet	068147	REC-4153
PCBA Field Marshall	058842	
PCBA DeviceNet	067097	
PCBA Comm, Ethernet (TCP/IP)	084727	REC-4251
PCBA, LED Assembly	046847	
PCBA, Display Assembly	046860	
PCBA, Field Terminal Entry	047572	
PCBA, Load Out DIO (4 in/16 out)	049475	REC-3910
PCBA, Load Out DIO (16 in/4 out)	049476	REC-3910
Touch Panel Model 2105	047078	
Fuse, Slo-Blo, .5 Amp (F1 220V)	001366	
Fuse, Slo-Blo, 1.0 Amp (F1 110V)	002443	
Fuse, Fast-Blo, 4.0 Amp (FT Board)	037287	
Battery, Lithium, 3.0 V.	037188	
PROM, U1, MT-2000, Audit Trail	050500	
Transformer, Power	046863	
Module, Power Input 180-240 VAC	047646	**
Module, Power Input 90-120 VAC	047575	**
Module, Power Input 10-32 VDC	048162	**
Module, Power Output 24-240 VAC	046814	**
Module, Power Output 5-60 VDC	046815	**
FRONT PANEL ASSEMBLY	102134	
Software Upgrade	049464+049465	
** Power I/O modules for field mount units with field terminal board only		

**PARTS LIST
FOR
MODEL 2106 IMPACT FLOW METER**

Thermo Ramsey
501 90th Avenue N.W.
Minneapolis, MN 55433
<http://www.thermoscientific.com>

<u>EQUIPMENT</u>	<u>PART NUMBER</u>	<u>MANUAL</u>
		(ref)
2106 Complete - includes enclosure & I-out	049138	REC-3903
Chassis Assembly, Panel Mount, includes 1 Analog Output	049139	REC-3903
Chassis Assembly, Field Mount, includes 1 Analog Output (no enclosure)	050105	REC-3903
PCBA, Mother Board	051324	
PCBA, PFM Input	050831	
PCBA, Analog Output (1 out)	071637	
PCBA, Analog Output (2 in/2 out)	071636	
PCBA, DIO (4 in/16 out)	046841	
PCBA, DIO (16 in/4 out)	046844	
PCBA, Comm A @ Select one only:	068053	REC-3953
RS-232C		
RS-485, std. (point to point)		
RS-485, multi-drop		
20 mA (digital) current loop		
PCBA, Comm A-B RIO@	055517	REC-4016
PCBA, Comm A Profibus@	056713	REC-4067
Connector, HSG, AD@ A Profibus@	057416	
PCBA, Comm, DeviceNet	068147	REC-4154
PCBA Field Marshall	058842	
PCBA DeviceNet	067097	
PCBA Comm, Ethernet (TCP/IP)	084727	REC-4251
PCBA, LED Assembly	046847	
PCBA, Display Assembly	046860	
PCBA, Field Terminal Entry	047572	
PCBA, Load Out DIO (4 in/16 out)	049475	REC-3910
PCBA, Load Out DIO (16 in/4 out)	049476	REC-3910
Touch Panel Model 2106	048422	
Fuse, Slo-Blo, .5 Amp (F1 220V)	001366	
Fuse, Slo-Blo, 1.0 Amp (F1 110V)	002443	
Fuse, Fast-Blo, 4.0 Amp (FT Board)	037287	
Battery, Lithium, 3.0 V.	037188	
PROM, U1, MT-2000, Audit Trail	050500	
Transformer, Power	046863	
Module, Power Input 180-240 VAC	047646	**
Module, Power Input 90-120 VAC	047575	**
Module, Power Input 10-32 VDC	048162	**
Module, Power Output 24-240 VAC	046814	**
Module, Power Output 5-60 VDC	046815	**
FRONT PANEL ASSEMBLY	102135	
Software Upgrade	049467+049468	

**** Power I/O modules for field mount units with field terminal board only**

**PARTS LIST
FOR
MODEL 2107 IMPACT FLOW METER FEEDER CONTROLLER**

Thermo Ramsey
501 90th Avenue N.W.
Minneapolis, MN 55433
<http://www.thermoscientific.com>

<u>EQUIPMENT</u>	<u>PART NUMBER</u>	<u>MANUAL</u>
2107F - Complete, includes enclosure	056447	(ref) REC-3985
Chassis Assembly, Panel Mount, includes Analog 2 In/2 Out	056448	REC-3985
Chassis Assembly, Field Mount, includes Analog 2 In/2 Out (no enclosure)	055961	REC-3985
PCBA, Mother Board	055960	
PCBA, PFM Input	050831	
PCBA, Analog Output (1 out)	071637	
PCBA, Analog Output (2 in/2 out)	071636	
PCBA, DIO (4 in/16 out)	046841	
PCBA, DIO (16 in/4 out)	046844	
PCBA, Comm A @ Select one only:	068053	REC-3987
RS-232C		
RS-485, std. (point to point)		
RS-485, multi-drop		
20 mA (digital) current loop		
PCBA, Comm A-B RIO@	055517	REC-4017
PCBA, Comm A Profibus@	056713	REC-4068
Connector, HSG, AD@ A Profibus@	057416	
PCBA, Comm, DeviceNet	068147	REC-4155
PCBA Field Marshall	058842	
PCBA DeviceNet	067097	
PCBA Comm, Ethernet (TCP/IP)	084727	REC-4251
PCBA, LED Assembly	046847	
PCBA, Display Assembly	046860	
PCBA, Field Terminal Entry	047572	
PCBA, Load Out DIO (4 in/16 out)	049475	REC-3910
PCBA, Load Out DIO (16 in/4 out)	049476	REC-3910
Touch Panel Model 2107	055479	
Fuse, Slo-Blo, .5 Amp (F1 220V)	001366	
Fuse, Slo-Blo, 1.0 Amp (F1 110V)	002443	
Fuse, Fast-Blo, 4.0 Amp (FT Board)	037287	
Battery, Lithium, 3.0 V.	037188	
PROM, U1, MT-2000, Audit Trail	050500	
Transformer, Power	046863	
Module, Power Input 180-240 VAC	047646	**
Module, Power Input 90-120 VAC	047575	**
Module, Power Input 10-32 VDC	048162	**
Module, Power Output 24-240 VAC	046814	**
Module, Power Output 5-60 VDC	046815	**
FRONT PANEL ASSEMBLY	102136	
Software Upgrade	056462+056463	

**** Power I/O modules for field mount units with field terminal board only**

**PARTS LIST
FOR
SPEED SENSORS
P/N 003968 Manual REC-3016
EQUIPMENT PART NUMBER**

Speed Sensor, 60-12C	003968
Speed Sensor, 61-12C	005995
Speed Sensor, 60-12ENC-500	045047
Speed Sensor, 61-12C/CSA	081648
Speed Sensor, 60-15UB	074598
Speed Sensor, 60-12F	002916
Speed Sensor, 60-12G	005905
Speed Sensor, 60-12CHS	010243
60-241-500P Speed Sensor	045056
60-242-12P-24V Speed Sensor	042278
Bearing, RB, .593 X 1.375 X 406, Z99502	001046
Bearing, RB, .593 X 1.375 X 406, Z499502 With Snap Ring	001047
Clamp Bar (Restraint Arm)	002920
Coupling, Shaft, Modified, DWG B04780D-0012	002931
Coupling, Stub Shaft	037711
Gasket, Faceplate, DWG B04780D-000	003971
Motor, Synch, AC, Slo-Syn SS25	001522
Seal, Oil, .625 X 1.128 X 484, #30009	001945
Shaft, DWG B04780D-0007	002928
Pin, Spring, .094 x .625	003151
Spring, Retaining, 3/4" X 5" Long, For Clamp Bar	001988
Washer, Finger Spring, SPR-1128 (Loading Spring)	005745
60-242 Install Kit	042117
Ring, Retaining, 5101-59	005740

**PARTS LIST
FOR
MODEL 10-62D AND 10-62E LOADOUT CONTROL**

Thermo Ramsey
501 90th Avenue N.W.
Minneapolis, MN 55433
<http://www.thermoscientific.com>

<u>EQUIPMENT</u>	<u>PART NUMBER</u>	
Panel Assembly, 10-62E & F	068190	
PCBA, Loadout Control, 10-62D	004153	OBSOLETE
Counter, Predetermining, 5 Digit (10-62D)	013710	OBSOLETE
Controller, Single Level, 5 Digit (used on 10-62E)	013374	
Spacer (for use with #013374 Controller only)	013375	
Counter, Key-Reset, 7 Digit, 115V	001271	OBSOLETE
Switch, OT, PB, Red, 1NO-1NC, Mushrm. Hd.	002044	
Switch, OT, Selector, 3 Position, 3NO-NC	002050	
Switch, OT, PB, Illum., 1NO-NC, No Lens	002051	
Lamp, Incand, 115V, Screw Base	001470	
Fuse, Slo-Blo, 2 Amp, .25 x 1.25	001367	
Relay, GP HD, 120VAC, 25A, 4PDT	001752	
Relay, GP, 120VAC, 3A, 4PDT	001755	

**PARTS LIST
FOR
MODEL 10-62S LOADOUT CONTROL**

Thermo Ramsey
501 90th Avenue N.W.
Minneapolis, MN 55433
<http://www.thermoscientific.com>

<u>EQUIPMENT</u>	<u>PART NUMBER</u>
Controller, Single Level, 5 Digit	013374
Spacer (for use with #013374 Controller only)	013375
Relay, GP, 120VAC, 10A, DPDT	001748
Relay, TD, 120VAC, 60 Sec., DPDT	002326
Fuse, Slo-Blo, 2.00 Amp	001367
Switch, OT, PB, Red, 1NO-1NC, Mushrm. Hd	002044
Switch, OT, PB, Black, 1NO-1NC, Flush Hd	002041
Switch, Toggle, SPST	002011
Module, Logic, Conv., 75-150VAC	014999
Reference: Instruction Manual REC-3613	036146

**PARTS LIST
FOR
MODEL 10-62F LOADOUT CONTROL**

Thermo Ramsey
501 90th Avenue N.W.
Minneapolis, MN 55433
<http://www.thermoscientific.com>

<u>EQUIPMENT</u>	<u>PART NUMBER</u>
Counter, LCD, Backlit, Red, 6 Digit	046666
Counter, Cont., Sgl. Lvl., 5 Digit	013374
Spacer for 5 Digit Counter	013375
Panel Assembly, 10-62E & F	068190
Switch, OT, Sel, 3 Posn., 3NO-3NC	002050
Switch, OT, PB, Illum, 1NO-1NC, No Lens	002051
Lens/Cap, Sw., OT, Green	003750
Contact Block, Sw., Ot, 1NO-1NC	002052
Switch, OT, PB, Red, 1NO-1NC, Mushrm. Hd	002044
Switch, Key, 2 Posn., Removable, 1 Pole	046668
Lamp, Incand., 115V, Screw Base	001470
Module, Triac Conv., 115 VAC, 9 mA	048019
Module, Volt Conv., 75-150 VAC/DC	014999
Power Supply, Sgl., 12V, 80 mA	046667

**PARTS LIST
FOR
MODEL 30-200 ORETRONICS II TRAMP METAL DETECTOR**

Thermo Ramsey
501 90th Avenue N.W.
Minneapolis, MN 55433
<http://www.thermoscientific.com>

<u>EQUIPMENT</u>	<u>PART NUMBER</u>	<u>MANUAL</u> (ref)
PCBA, Field Terminal	013853	OBSOLETE
Chassis Assy, 30-200	013790	OBSOLETE REC-3476
PCBA, Display	013775	OBSOLETE
PCBA, CPU	013870	OBSOLETE
Fuse, Slo-Blo, 0.5 Amp, 3AG	001366	
Relay, Alarm Output; GP, 24VDC	013861	
Lamp, Front Panel; Incand., 28V, Min	013781	
Coil, Generator, Flat (Specify Size)	-----	OBSOLETE
Dual Wound Receiver Coil, Flat, 15-1/2" Wide Ref. Dwg. D07080B-C002 (Specify Size)	-----	OBSOLETE **
Detector, Clip, 3/4" Pipe Mounted	043826	
Cable, Clip Detector, 3/C	002346	
Cable, (Generator, Receiver, 50 Ft. Ea.)	003249	
Swing Brackets (for Generator Coil) Switch Assy., High Pile	014459 013808 (REF)	OBSOLETE
Horn, Alarm, Weatherproof Type, 120V	034889	
Horn, Alarm, Weatherproof Type, 240V	034890	

*** CONSULT FACTORY FOR AVAILABILITY**

**PARTS LIST
FOR
ORETRONICS III TRAMP METAL DETECTOR (page 1)**

Thermo Ramsey
501 90th Avenue N.W.
Minneapolis, MN 55433
<http://www.thermoscientific.com>

<u>EQUIPMENT</u>	<u>PART NUMBER</u>	<u>MANUAL</u> (ref)
<u>ELECTRONICS</u>		
Control Unit, NEMA 4X, Complete	060095	REC-4105
Chassis Assembly	067169	
PCBA, CPU	058550	
PCBA, Display	058547	
Touchpanel	060093	
Transformer, Power, Special, 115/230V	059782	
Relay, GP, 24VDC, 5A, 2 SPST, PC	049637	
Fuse, Slo-Blo, .37 A (1/4 x 1 1/4 Type T)	027784	
Fuse, Slo-Blo, .12 A (1/4 x 1 1/4 Type T)	011169	
<u>FRAME</u>		
Bracket, Side, Left, 55" LH	066107	
Bracket, Side, Right, 55" RH	066106	
Bracket, Swing Arm, Left	066105	
Bracket, Swing Arm, Right	066104	
STOP ASSY KIT, STD HDWE, ORE III	067219	
Stop Assembly, Left	066117	
Stop Assembly, Right	066116	
- Block, Stop, Left	066109	
- Block, Stop, Right	066108	
- Spring, Compression, 1.100 x 4.00	066098	
- Screw, Cap, Hex, 1/4"-20 x 2" SS	060686	
- Nut, Locking, 1/4" x 20	021740	
Hex Screw, 1/2" X 5.00", fagl.for frames < 62"	066101	
Hex Screw, 1/2" X 6.00", fagl,for frames > 62"	068383	
Nut Hex, 1/2-13, fiberglass	066097	
Complete Stand w/o coils	066599	
Swing Arm Assy w/coils 18: - 60"	ref D07328C-A003	
Swing Arm Assy w/coils 72"-96"	ref D07328C-A003	
Top Cross Beam Support, 18" - 60"	ref D07328C-C022	
Top Cross Beam Support, 72" -960"	ref D07328C-C022	
<u>COILS</u>		
Coil, Transmitter, Flat, 9" wide by ___ long	(specify size)	
Coil, Receiver, Flat, 15.5" wide x ___ long	(specify size)	
Coil, Sgl Sd, Flat	(specify size)	

**PARTS LIST
FOR
ORETRONICS III TRAMP METAL DETECTOR page 2)**

Thermo Ramsey
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EQUIPMENT**PART NUMBER****OPTIONS**

Remote Display, Complete	060094
Fuse, Slo-Blo, .25 A (1/4 x 1 1/4)	001365
Power Supply, Sgl, 5V, 1.2A (RMT DSP ONLY)	011575
PCBA, Remote Display/CPU	065459
Detector, Clip, 3/4", Pipe Mounted	043826
Detector, Clip, Class II	050076
Switch Assembly, Clip Detector	035535
Switch Assy, High Pile	066361
Junction Box, NEMA 4	066359
Junction Box, NEMA 4X	066360
Cable, 2 Conductor (coils, high pile)	003249
Cable, 3 Conductor (Clip Detector)	002346
Flag Drop Marker Assy (115 VAC)	011002
Flag Drop Marker Assy (230 VAC)	014144
Flag Drop Marker Assy NEMA 3/4/9 (115 VAC)	056895
Flag Drop Marker Assy nema 3/4/9 (230 VAC)	056894
Pin Assembly, flag Drop Marker	073102
Alarm Horn (115 VAC)	034889
Alarm Horn (230 VAC)	034890
Rotating Signal Light (115 VAC)	057391
Rotating Signal Light (230 VAC)	057392
High Pile Detector, NEMA-4X	066361
High Pile Detector, NEMA-9	066362

**PARTS LIST
FOR
MODEL 10-56A RATE WEIGH II CONTROL**

Thermo Ramsey
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<u>EQUIPMENT</u>	<u>PART NUMBER</u>	
PCBA, I/OUT	008730	OBSOLETE
PCBA, CPU, 10-56A	013142	OBSOLETE
PCBA, Display, 10-56A	013143	OBSOLETE
PCBA, Power Supply	012715	OBSOLETE
Transformer Assembly	012719	OBSOLETE
Power Supply Assembly, 10-56A	011574	OBSOLETE
PCBA, I/O Interface	011086	OBSOLETE
PCBA, I/O Board	011572	OBSOLETE
Light, LED, Yellow	011017	OBSOLETE
Light, LED, Red	011016	OBSOLETE
Light, LED, Green	011015	OBSOLETE
Fuse, 1 Amp, Slo-Blo, (Suggest 5)	002443	
Fuse, 1/4 AMP, Slo-Blo, (Suggest 5)	001365	
Relay, GP, 24VDC, 10A	008056	

**PARTS LIST
FOR
MODEL 20-72B MANTLE POSITION TRANSMITTER
WITH MODEL 20-72C CONVERTER**

Thermo Ramsey
501 90th Avenue N.W.
Minneapolis, MN 55433
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<u>EQUIPMENT</u>	<u>PART NUMBER</u>	
Housing Assembly, Transmitter B04616B-0011-(Specify Size)	----	
Plunger Assembly, Dwg. C04616C-0013 (Specify: 7" thru 18" Strokes)	----	
Bottom Bearing	007416	
Top Bearing Assembly	----	
O-Ring, 1.312 x 1.562	002336	
O-Ring, End Cap, 4.00 x 4.25	002337	
Sensor Assy., Position (Includes LVDT Transformer)	003906	
PCBA, Converter, 20-72C	003911	
Potentiometer, 5W, 10T, 5K	001648	
Potentiometer, 2W, 1T, 5K	001650	
Transformer, Control 115/230 Pri.-27/24 Sec.	002142	
Fuse, 1/2 Amp	001366	
<u>OPTIONAL:</u>		
PCBA, Converter W/Phone Jack & Remote Zero	006418 (REF)	OBSOLETE
<u>ACCESSORIES:</u>		
Remote Indicator, Digital/Bargraph, 4-20 mA, High-Low Alarm Set Points, N-4X Enclosure	050956	
Meter Only, Digital/Bargraph, 4-20 mA, High- Low Alarm Set Points	050958	

**PARTS LIST
FOR
MODEL 20-73 MANTLE POSITION TRANSMITTER**

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<u>EQUIPMENT</u>	<u>PART NUMBER</u>		
Flange Body & Bushing Housing, Dwg. D06398A-0014	006451		*
Bearing, Cyl. Pl., 1.25 x 1.50 x 3.50	006458		
Cover, Sensor, Dwg. B06398A-0012	006449		*
Guide, Spring, Dwg. D06398A-0013	006450	OBSOLETE	*
Screw, Retaining, Dog Point	006440		
Retainer, Screen, Vent	006452		
Screen, Vent	006453		
O-Ring, 5.75" x 6.00" x .125"	004915		
Spring, Load	004815		
Sensor Assy., 20-73, Ref. Dwg. C06398A-0010	----		
7" - 10" Stroke	006441	OBSOLETE	
10" - 14" Stroke	006447		
14" - 18" Stroke	006468	OBSOLETE	
Spring, Measuring, (Specify Stroke)	----		
7" - 10" Stroke	004816		
10" - 14" Stroke	004817		
14" - 18" Stroke	004818		
LVDT Transformer and Rear Core Extension	002162 / 006227		
Clamp, Transformer	006228		
O-Ring, 1.875" x 2.00" x .062	004914		
Cable, Shielded, 25 feet	004913		
PCBA, Converter, 20-72C	003911		
Potentiometer, 5W, 10T, 5K	001648		
Potentiometer, 2W, 1T, 5K	001650		
Transformer, Control 115/230 Pri.-27/24 Sec.	002142		
Fuse, 1/2 Amp	001366		
Remote Indicator, Digital/Bargraph, 4-20 mA, High-Low Alarm Set Points, N-4X Enclosure	050956		
Meter Only, Digital/Bargraph, 4-20 mA, High- Low Alarm Set Points	050958		

*** BUILT TO ORDER - PLEASE ALLOW 4-6 WEEKS FOR DELIVERY.**

**PARTS LIST
FOR
SETTLING METER (page 1)**

<u>EQUIPMENT</u>	<u>PART NUMBER</u>	
<u>CONTROLLER :</u>		
Operator Interface	051246	OBSOLETE
Light, LED, Red w/Resister	051243	
Rack, 6 Slot	051247	OBSOLETE
Module, CPU, PLC, DL240 (Programmed for Controller)	051248	OBSOLETE *
4 Pt In/Out, 120 VAC	051249	OBSOLETE
Relay Output Module	051250	OBSOLETE
Analog Output Module	051251	OBSOLETE
Switch, Pushbutton, SPDT	002851	
Communication Module	051252	OBSOLETE
Switch, Circuit Breaker, 1 Pole, 2A	003722	OBSOLETE
Pump, Press/Vac, Diaph., .180" Stroke	014184	OBSOLETE
Solenoid Valve, Air, 3-Way, 2 Posn	014185	OBSOLETE
Valve, 2-Way, 2 Posn., 1/4 NPT, Brass (Rinse Line)	036091	OBSOLETE
Muffler, Solenoid Valve	005274	
Rack, 6 Slot	051247	OBSOLETE
Module, CPU, PLC, DL240 (Programmed for Sampler)	051248	OBSOLETE *
DC Input Module	051255	OBSOLETE
Relay Output Module, Isolated	051254	OBSOLETE
Converter, RS232/422	051278	

** Must specify if CPU module is to be programmed for controller or sampler.*

If for sampler, specify 1 or 2 photocells.

**PARTS LIST
FOR
SETTLING METER (page 2)**

<u>EQUIPMENT</u>	<u>PART NUMBER</u>	
<u>SAMPLER (Cont.) :</u>		
PCBA, Resistance Relay, 20-37	003612	OBSOLETE
Fuse, 5 Amp, .41" x 1.5", Slo-Blo	001359	
Suppressor	002001	
Lamp, Fluorescent, 8W, 12" Long	036880	
Heater, Elect., 200W/120VAC, w/Fan	036879	
Settling Chamber Assembly	014189	OBSOLETE
Cap Assembly w/Rinse Line Input	041433	OBSOLETE
Ftg., Cap Assy. Rinse	041945	OBSOLETE
O-Ring	014707	OBSOLETE
Sample Tube, Glass (2.25" ID Tube) Std. Tube	037642	OBSOLETE
Photocell, Emitter	014710	OBSOLETE
Photocell Amplifier (Syn. Controller)	014712	OBSOLETE
Sinker Assembly	014714	OBSOLETE
Tube, Pinch Valve (Thick Wall Rubber)	014924	OBSOLETE
Pinch Valve Parts		
Solenoid, Pinch Valve, 110VAC	014713	OBSOLETE
Coupling Block	014141	OBSOLETE
Pin, Cotter, .187 x 1.5"	041545	
Pull Bar	014138	OBSOLETE
Pull Rod	014139	OBSOLETE
Clamp Bar	014140	OBSOLETE
Spring, Compression, .24 x 1.50	014186	OBSOLETE
Nut, Lock, 6-32	024722	
High Power Photocell Modification Kit	055151	OBSOLETE
Controller, Amplifier, Hi Power	042022	OBSOLETE
Photocell, Emitter, Hi Power	042023	OBSOLETE
Photocell, Receiver, Hi Power	042024	OBSOLETE

**PARTS LIST
FOR
CLAROMETER CONTROL SYSTEM (page 1)**

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<u>EQUIPMENT</u>	<u>PART NUMBER</u>	
PCBA, Display (Displays Not Sold Separately)	014121	OBSOLETE
PCBA, Thumbwheel (Thumbwheel Switches Not Sold Separately)	014123	OBSOLETE
Switch, Pushbutton, SPDT	002851	
Light, LED, Red W/Spacer	011016	OBSOLETE
Power Supply, Dual 5V/12V	011258	
Switch, Circuit Breaker, 1 Pole, 1A	003722	OBSOLETE
Pump, Press/Vac, Diaph., .180" Stroke	014184	OBSOLETE
Solenoid Valve, 3-Way, 2 Posn	014185	OBSOLETE
Muffler, Solenoid Valve	005274	
PCBA, Sampler Interface	014260	OBSOLETE
Power Output Module, 120VAC (OAC5)	013643	
PCBA, Process Control Board	014262	OBSOLETE
PCBA, Resistance Relay, 20-37	003612	OBSOLETE
Suppressor	002001	
<u>Pinch Valve Parts</u>		
Solenoid, P.V., 110 VAC	014713	OBSOLETE
Coupling Block	014141	OBSOLETE
Cotter Pin, .187 X 1.500 LG	041545	
Pull Bar	014138	OBSOLETE
Pull Rod	014139	OBSOLETE
Clamp Bar	014140	OBSOLETE
Spring, Compression, .240 X 1.50	014186	OBSOLETE
Nut, Lock, 6-32	024722	

**PARTS LIST
FOR
CLAROMETER CONTROL SYSTEM (page 2)**

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<u>EQUIPMENT</u>	<u>PART NUMBER</u>	
Settling Chamber Assembly	014189	OBSOLETE
Components:		
Cap Assembly, Top Rinse	041433	OBSOLETE
O-Ring	014707	OBSOLETE
Sample Tube, Large, 2.7", Glass (STD)	037642	OBSOLETE
Photocell, Emitter	014710	OBSOLETE
Photocell, Receiver	014711	OBSOLETE
Photocell Amplifier (Syn. Controller)	014712	OBSOLETE
Solenoid, Pinch Valve, 110VAC	014713	OBSOLETE
Sinker Assembly	014714	OBSOLETE
Tube, Pinch Valve (Thick wall rubber)	014924	OBSOLETE
<u>REPLACEMENT PARTS FOR EQUIPMENT WITH LIGHT AND/OR HEATER OPTIONS:</u>		
Heater, electric, 200W, 120V, W/FAN	036879	
<u>HIGH POWER PHOTOCELL MODIFICATION KIT</u>	042021	OBSOLETE
Control Module Hi-Power, On-Off Logic	042022	OBSOLETE
Photocell Emitter, Hi-Power, Remote Modulated	042023	OBSOLETE
Photocell Receiver, Hi-Power Remote Modulated	042024	OBSOLETE
Modification Procedure Dwg. C07098S-A027	REF	REF

**PARTS LIST
FOR
MODEL 3101 INTEGRATOR**

Thermo Ramsey
501 90th Avenue N.W.
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<u>EQUIPMENT</u>	<u>PART NUMBER</u>	<u>MANUAL</u>
MODEL 3101F (FIELD MOUNT) COMPLETE	073248	(ref) REC-4175
MODEL 3101P (PANEL MOUNT) COMPLETE	073249	REC-4175
Chassis Assembly, Panel Mount	n/a	
Chassis Assembly, Field Mount	n/a	
PCBA, Mother Board (W/O software)	073283	
PCBA, Mother Board, 3101	073283 + software	
PCBA, Analog Output (1 out)	071637	
PCBA, Analog Output (2 in/2 out)	071636	
PCBA, DIO (4 in/16 out)	046841	
PCBA, DIO (16 in/4 out)	046844	
PCBA, Comm A @ Select one only:	068053	REC-3949
RS-232C		
RS-485, std. (point to point)		
RS-485, multi-drop		
20 mA (digital) current loop		
PCBA, Comm A-B RIO@	055517	REC-4012
PCBA, Comm AProfibus@	056713	REC-4063
Connector, HSG, AD@ AProfibus@	057416	
PCBA, Comm, DeviceNet	068147	REC-4150
PCBA Field Marshall	058842	
PCBA DeviceNet	067097	
PCBA Comm, Ethernet (TCP/IP)	084727	REC-4251
PCBA, Relay Output	073284	
PCBA, Display Assembly	073281	
PCBA, Load Out DIO (4 in/16 out)	049475	REC-3910
PCBA, Load Out DIO (16 in/4 out)	049476	REC-3910
Touch Panel Model 3101	073246	
BEZEL ASSEMBLY	073289	
Fuse, Slo-Blo, .5 Amp (F1 220V)	001366	
Fuse, Slo-Blo, 1.0 Amp (F1 110V)	002443	
Battery, Lithium, 3.0 V.	037188	
PROM, U54, MT-3000, Audit Trail	073300	
Power Supply Assembly	073280	

**PARTS LIST
FOR
MODEL 3102 BATCH CONTROLLER**

Thermo Ramsey
501 90th Avenue N.W.
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<u>EQUIPMENT</u>	<u>PART NUMBER</u>	<u>MANUAL</u>
MODEL 3102F (FIELD MOUNT) COMPLETE	073301	(ref) REC-4192
MODEL 3102P (PANEL MOUNT) COMPLETE	073302	REC-4192
Chassis Assembly, Panel Mount	n/a	
Chassis Assembly, Field Mount	n/a	
PCBA, Mother Board (W/O software)	073283	
PCBA, Mother Board, 3102	073283 + software	
PCBA, Analog Output (1 out)	071637	
PCBA, Analog Output (2 in/2 out)	071636	
PCBA, DIO (4 in/16 out)	046841	
PCBA, DIO (16 in/4 out)	046844	
PCBA, Comm A @ Select one only:	068053	REC-4037
RS-232C		
RS-485, std. (point to point)		
RS-485, multi-drop		
20 mA (digital) current loop		
PCBA, Comm A-B RIO@	055517	REC-4038
PCBA, Comm AProfibus@	056713	REC-4064
Connector, HSG, AD@ AProfibus@	057416	
PCBA, Comm, DeviceNet	068147	REC-4151
PCBA Field Marshall	058842	
PCBA DeviceNet	067097	
PCBA Comm, Ethernet (TCP/IP)	084727	REC-4251
PCBA, Relay Output	073284	
PCBA, Display Assembly	073281	
PCBA, Load Out DIO (4 in/16 out)	049475	REC-3910
PCBA, Load Out DIO (16 in/4 out)	049476	REC-3910
Touch Panel Model 3102	073245	
BEZEL ASSEMBLY	073290	
Fuse, Slo-Blo, .5 Amp (F1 220V)	001366	
Fuse, Slo-Blo, 1.0 Amp (F1 110V)	002443	
Battery, Lithium, 3.0 V.	037188	
PROM, U54, MT-3000, Audit Trail	073300	
Power Supply Assembly	073280	

**PARTS LIST
FOR
MODEL 3104 LOSS-IN-WEIGHT CONTROLLER**

Thermo Ramsey
501 90th Avenue N.W.
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<u>EQUIPMENT</u>	<u>PART NUMBER</u>	<u>MANUAL</u>
MODEL 3104F (FIELD MOUNT) COMPLETE	073303	(ref) REC-4185
MODEL 3104P (PANEL MOUNT) COMPLETE	073304	REC-4185
Chassis Assembly, Panel Mount	n/a	
Chassis Assembly, Field Mount	n/a	
PCBA, Mother Board (W/O software)	073283	
PCBA, Mother Board, 3104	073283 + software	
PCBA, Analog Output (1 out)	071637	
PCBA, Analog Output (2 in/2 out)	071636	
PCBA, DIO (4 in/16 out)	046841	
PCBA, DIO (16 in/4 out)	046844	
PCBA, Comm A @ Select one only:	068053	REC-3951
RS-232C		
RS-485, std. (point to point)		
RS-485, multi-drop		
20 mA (digital) current loop		
PCBA, Comm A-B RIO@	055517	REC-4014
PCBA, Comm AProfibus@	056713	REC-4065
Connector, HSG, AD@ AProfibus@	057416	
PCBA, Comm, DeviceNet	068147	REC-4152
PCBA Field Marshall	058842	
PCBA DeviceNet	067097	
PCBA Comm, Ethernet (TCP/IP)	084727	REC-4251
PCBA, Relay Output	073284	
PCBA, Display Assembly	073281	
PCBA, Load Out DIO (4 in/16 out)	049475	REC-3910
PCBA, Load Out DIO (16 in/4 out)	049476	REC-3910
Touch Panel Model 3104	073244	
BEZEL ASSEMBLY	073291	
Fuse, Slo-Blo, .5 Amp (F1 220V)	001366	
Fuse, Slo-Blo, 1.0 Amp (F1 110V)	002443	
Battery, Lithium, 3.0 V.	037188	
PROM, U54, MT-3000, Audit Trail	073300	
Power Supply Assembly	073280	

**PARTS LIST
FOR
MODEL 3105 FEEDER CONTROLLER**

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<u>EQUIPMENT</u>	<u>PART NUMBER</u>	<u>MANUAL</u>
MODEL 3105F (FIELD MOUNT) COMPLETE	073305	(ref) REC-4186
MODEL 3105P (PANEL MOUNT) COMPLETE	073306	REC-4186
Chassis Assembly, Panel Mount	n/a	
Chassis Assembly, Field Mount	n/a	
PCBA, Mother Board (W/O software)	073283	
PCBA, Mother Board, 3105	073283 + software	
PCBA, Analog Output (1 out)	071637	
PCBA, Analog Output (2 in/2 out)	071636	
PCBA, DIO (4 in/16 out)	046841	
PCBA, DIO (16 in/4 out)	046844	
PCBA, Comm A @ Select one only:	068053	REC-3952
RS-232C		
RS-485, std. (point to point)		
RS-485, multi-drop		
20 mA (digital) current loop		
PCBA, Comm A-B RIO@	055517	REC-4015
PCBA, Comm AProfibus@	056713	REC-4066
Connector, HSG, AD@ AProfibus@	057416	
PCBA, Comm, DeviceNet	068147	REC-4153
PCBA Field Marshall	058842	
PCBA DeviceNet	067097	
PCBA Comm, Ethernet (TCP/IP)	084727	REC-4251
PCBA, Relay Output	073284	
PCBA, Display Assembly	073281	
PCBA, Load Out DIO (4 in/16 out)	049475	REC-3910
PCBA, Load Out DIO (16 in/4 out)	049476	REC-3910
Touch Panel Model 3105	073243	
BEZEL ASSEMBLY	073292	
Fuse, Slo-Blo, .5 Amp (F1 220V)	001366	
Fuse, Slo-Blo, 1.0 Amp (F1 110V)	002443	
Battery, Lithium, 3.0 V.	037188	
PROM, U54, MT-3000, Audit Trail	073300	
Power Supply Assembly	073280	

**PARTS LIST
FOR
MODEL 3106 IMPACT FLOW METER**

Thermo Ramsey
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<u>EQUIPMENT</u>	<u>PART NUMBER</u>	<u>MANUAL</u>
MODEL 3106F (FIELD MOUNT) COMPLETE	073307	(ref) REC-4187
MODEL 3106P (PANEL MOUNT) COMPLETE	073308	REC-4187
Chassis Assembly, Panel Mount	n/a	
Chassis Assembly, Field Mount	n/a	
PCBA, Mother Board (W/O software)	073283	
PCBA, Mother Board, 3106	073283 + software	
PCBA, Analog Output (1 out)	071637	
PCBA, Analog Output (2 in/2 out)	071636	
PCBA, DIO (4 in/16 out)	046841	
PCBA, DIO (16 in/4 out)	046844	
PCBA, Comm A @ Select one only:	068053	REC-3953
RS-232C		
RS-485, std. (point to point)		
RS-485, multi-drop		
20 mA (digital) current loop		
PCBA, Comm A-B RIO@	055517	REC-4016
PCBA, Comm AProfibus@	056713	REC-4067
Connector, HSG, AD@ AProfibus@	057416	
PCBA, Comm, DeviceNet	068147	REC-4154
PCBA Field Marshall	058842	
PCBA DeviceNet	067097	
PCBA Comm, Ethernet (TCP/IP)	084727	REC-4251
PCBA, Relay Output	073284	
PCBA, Display Assembly	073281	
PCBA, Load Out DIO (4 in/16 out)	049475	REC-3910
PCBA, Load Out DIO (16 in/4 out)	049476	REC-3910
Touch Panel Model 3106	073242	
BEZEL ASSEMBLY	073293	
Fuse, Slo-Blo, .5 Amp (F1 220V)	001366	
Fuse, Slo-Blo, 1.0 Amp (F1 110V)	002443	
Battery, Lithium, 3.0 V.	037188	
PROM, U54, MT-3000, Audit Trail	073300	
Power Supply Assembly	073280	

**PARTS LIST
FOR
MODEL 3107 IMPACT FLOW METER FEEDER CONTROL**

Thermo Ramsey
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<u>EQUIPMENT</u>	<u>PART NUMBER</u>	<u>MANUAL</u>
MODEL 3107F (FIELD MOUNT) COMPLETE	073309	(ref) REC-4189
MODEL 3107P (PANEL MOUNT) COMPLETE	073310	REC-4189
Chassis Assembly, Panel Mount	n/a	
Chassis Assembly, Field Mount	n/a	
PCBA, Mother Board (W/O software)	073283	
PCBA, Mother Board, 3107	073283 + software	
PCBA, Analog Output (1 out)	071637	
PCBA, Analog Output (2 in/2 out)	071636	
PCBA, DIO (4 in/16 out)	046841	
PCBA, DIO (16 in/4 out)	046844	
PCBA, Comm A @ Select one only:	068053	REC-3987
RS-232C		
RS-485, std. (point to point)		
RS-485, multi-drop		
20 mA (digital) current loop		
PCBA, Comm A-B RIO@	055517	REC-4017
PCBA, Comm AProfibus@	056713	REC-4068
Connector, HSG, AD@ AProfibus@	057416	
PCBA, Comm, DeviceNet	068147	REC-4155
PCBA Field Marshall	058842	
PCBA DeviceNet	067097	
PCBA Comm, Ethernet (TCP/IP)	084727	REC-4251
PCBA, Relay Output	073284	
PCBA, Display Assembly	073281	
PCBA, Load Out DIO (4 in/16 out)	049475	REC-3910
PCBA, Load Out DIO (16 in/4 out)	049476	REC-3910
Touch Panel Model 3107	073241	
BEZEL ASSEMBLY	073294	
Fuse, Slo-Blo, .5 Amp (F1 220V)	001366	
Fuse, Slo-Blo, 1.0 Amp (F1 110V)	002443	
Battery, Lithium, 3.0 V.	037188	
PROM, U54, MT-3000, Audit Trail	073300	
Power Supply Assembly	073280	

**PARTS LIST
FOR
MODEL 2109 GRANUCOR CORRELATOR**

Thermo Ramsey
501 90th Avenue N.W.
Minneapolis, MN 55433
<http://www.thermoscientific.com>

<u>EQUIPMENT</u>	<u>PART NUMBER</u>	<u>MANUAL</u>
2109 Complete - includes enclosure & I-out	058080	(ref) REC-4076
Chassis Assembly, Panel Mount, includes 1 Analog Output	058075	REC-4076
Chassis Assembly, Field Mount, includes 1 Analog Output (no enclosure)	058536	REC-4076
PCBA, Mother Board (requires software change)	051324	
PCBA, Correlator	057727	
PCBA, PFM Input	050831	
PCBA, Analog Output (1 out)	071637	
PCBA, Analog Output (2 in/2 out)	071636	
PCBA, DIO (4 in/16 out)	046841	
PCBA, DIO (16 in/4 out)	046844	
PCBA, Comm A @ Select one only:	068053	REC-3953
RS-232C		
RS-485, std. (point to point)		
RS-485, multi-drop		
20 mA (digital) current loop		
PCBA, Comm A-B RIO@	055517	REC-4016
PCBA, Comm A Profibus@	056713	REC-4067
Connector, HSG, AD@ A Profibus@	057416	
PCBA, Comm, DeviceNet	068147	
PCBA Field Marshall	058842	
PCBA DeviceNet	067097	
PCBA Comm, Ethernet (TCP/IP)	084727	REC-4251
PCBA, LED Assembly	046847	
PCBA, Display Assembly	046860	
PCBA, Field Terminal Entry	047572	
Touch Panel Model 2109	058173	
Fuse, Slo-Blo, .5 Amp (F1 220V)	001366	
Fuse, Slo-Blo, 1.0 Amp (F1 110V)	002443	
Fuse, Fast-Blo, 4.0 Amp (FT Board)	037287	
Battery, Lithium, 3.0 V.	037188	
Transformer, Power	046863	
Module, Power Input 180-240 VAC	047646	**
Module, Power Input 90-120 VAC	047575	**
Module, Power Input 10-32 VDC	048162	**
Module, Power Output 24-240 VAC	046814	**
Module, Power Output 5-60 VDC	046815	**
FRONT PANEL ASSEMBLY	102137	
Software Upgrade	058076+058077	

** Power I/O modules for field mount units with field terminal board only

**PARTS LIST
FOR
GRANUCOR DC13 CONCENTRATION SENSOR**

<u>EQUIPMENT</u>	<u>PART NUMBER</u>	<u>MANUAL</u>
DC13 SENSOR ASSEMBLY		(ref)
Must specify the following (ref price book)		REC-4076
A) diameter / flange size		
B) material (carbon steel or stainless steel)		
C) pressure		
D) Area Classification		
PCBA, AMP, DC13, 220 VAC	051784	
PCBA, AMP, DC13, 115 VAC	051786	
PCBA, AMP, DC13, 42 VAC	051787	
PCBA, AMP, DC13, 24 VAC	051788	
PCBA, AMP, DC13, 16-32 VDC	051789	
PCBA, AMP, DC13, 110 VAC	051790	
PCBA, AMP, DC13, 127 VAC	051791	
PCBA, AMP, DC13, 230 VAC	051792	
PCBA, AMP, DC13, 240 VAC	051793	
PCBA, AMP, DC13, 48 VAC	051794	

**PARTS LIST
FOR
GRANUCOR DK13 VELOCITY SENSOR**

Thermo Ramsey
501 90th Avenue N.W.
Minneapolis, MN 55433
<http://www.thermoscientific.com>

<u>EQUIPMENT</u>	<u>PART NUMBER</u>	<u>MANUAL</u>
DK13 SENSOR ASSEMBLY		
Must specify the following (ref price book)		
A) diameter / flange size		
B) material (carbon steel or stainless steel)		
C) pressure		
D) Area Classification		
<u>DK13 AMP PCBA, non-hazardous area, 0.5" - 2"</u>		
PCBA, AMP, DK13,ACTIVE, 220 VAC	051796	
PCBA, AMP, DK13,ACTIVE, 115 VAC	051798	
PCBA, AMP, DK13,ACTIVE, 42 VAC	051799	
PCBA, AMP, DK13,ACTIVE, 24 VAC	051800	
PCBA, AMP, DK13,ACTIVE, 16-32 VDC	051801	
PCBA, AMP, DK13,ACTIVE, 110 VAC	051802	
PCBA, AMP, DK13,ACTIVE, 127 VAC	051803	
PCBA, AMP, DK13,ACTIVE, 230 VAC	051804	
PCBA, AMP, DK13,ACTIVE, 240 VAC	051805	
PCBA, AMP, DK13,ACTIVE, 48 VAC	051806	
<u>DK13 AMP PCBA, hazardous area, 0.5" - 2"</u>		
PCBA,AMP,DK13,ACT,220 V, CLASS I	086365	
PCBA,AMP,DK13,ACT,115 V, CLASS I	086366	
PCBA,AMP,DK13,ACT,110 V, CLASS I	086369	
PCBA,AMP,DK13,ACT,127 V, CLASS I	086370	
PCBA,AMP,DK13,ACT,230 V, CLASS I	086371	
PCBA,AMP,DK13,ACT,240 V, CLASS I	086372	
PCBA,AMP,DK13,ACT,48 V, CLASS I	086373	
<u>DK13 AMP PCBA, ALL AREAS, 2.5" - 8.00"</u>		
PCBA, AMP, DK22, 24 VAC	051814	
PCBA, AMP, DK22, 42 VAC	051815	
PCBA, AMP, DK22, 48 VAC	051816	
PCBA, AMP, DK22, 110/115 VAC	051817	
PCBA, AMP, DK22, 127 VAC	051818	
PCBA, AMP, DK22, 220 VAC	051819	
PCBA, AMP, DK22, 230 VAC	051820	
PCBA, AMP, DK22, 240 VAC	051821	
PCBA, AMP, DK22, 24 VDC	051823	

**PARTS LIST
FOR
DE10 IMPACT SCALE**

Thermo Ramsey
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Minneapolis, MN 55433
<http://www.thermoscientific.com>

<u>EQUIPMENT</u>	<u>PART NUMBER</u>	<u>MANUAL</u>
<i>NOTE: Coil springs should be sold and installed in pairs. Pricing shown is each (qty 1)</i>		
COIL, SPRING, C1, 1.2 LB / IN	055393	
COIL, SPRING, C3, 2.6 LB / IN	054832	
COIL, SPRING, C5, 7.8 LB / IN	054833	
COIL, SPRING, C8, 21 LB / IN	054834	
COIL, SPRING, C10, 42 LB / IN	055399	
COIL, SPRING, C12, 84 LB / IN	054835	
COIL, SPRING, C13, 168 LB / IN	054836	
COIL, SPRING, C15, 368 LB / IN	054837	
SPRING, CORR'D, SENSING, 0.2MM	054797	OBSOLETE
SPRING, CORR'D, SENSING, 0.3MM	054798	
SPACER, SPRING, STRIP, 0.59"	054870	
SPACER, SPRING, STRIP, 1.50"	054871	
SEAL, SHAFT SILICONE	054872	
GUARD, SHAFT, SEAL	052508	
BARRIER, PROT, SILICONE *DUST SHIELD)	052893	
DIAPHRAGM, SEALING, NEOPRENE	054873	
CONTROL, PREAMP, HMI-361	058496	
TRANSFORMER ASSY, LVDT	051885	
KIT, DAMPING OIL, 12500 VISC	054370	
HEATER, FLAT, 220V 70W	054904	
HEATER ASSY, 220 VAC, 10.00" (USE 054904)	057300	OBSOLETE
HEATER, 115VAC, 40W (OBS, USE 054903)	057297	OBSOLETE
HEATER, FLAT, 110V, 40w	054903	
HEATER, 115 VAC, 40W, 8" (USE 054903)	057298	OBSOLETE
HEATER ASSY, SGL, 110V	052171	
HEATER ASSY, SGL, 220V	052172	
HEATER ASSY, DUAL, 110V	052173	
HEATER ASSY, DUAL, 220V	052174	

**PARTS LIST
FOR
DE20 IMPACT SCALE**

Thermo Ramsey
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<u>EQUIPMENT</u>	<u>PART NUMBER</u>	<u>MANUAL</u>
DAMPER ASSEMBLY	056042	REC-3976
DAMPER OIL, .2000 VISC. (USE p/n 056962)	056965	OBSOLETE
KIT, OIL, DAMPING, SUPPL, 2000 VISC	056962	
DAMPER OIL, 5000 VISC (USE P/N 056961)	056966	OBSOLETE
KIT, OIL, DAMPING, SUPPL, 5000 VISC	056961	
DAMPER OIL, 12,5000 VISC (USE P/N 0543701)	053999	OBSOLETE
KIT, DAMPING OIL, 12500 VISC	054370	
SEAL, FLANGE, NEOPRENE	056064	
SEAL, FLANGE, SILICONE (HIGH TEMP ONLY)	058773	
HEATER, 220 VAC, 70W (USE P/N 057305	057299	OBSOLETE
HEATER, 220 VAC, 70W (USE P/N 057305	057300	OBSOLETE
HEATER, 110 VAC, 40W (USE P/N 057387)	057297	OBSOLETE
HEATER, 110 VAC, 40W (USE P/N 057387)	057298	OBSOLETE
HEATER ASSY, 120 VAC	057387	OBSOLETE
HEATER, ASSY, 220 VAC	057305	OBSOLETE
PCBA, PREAMP, HMI-361	054766	
CONTROL, PREAMP, HMI-361	058157	
LVDT CORE / HSG ASSY	056092	
MEMBRANE, NEOPRENE, BLACK	056008	
IMPACT PLATE AND SHAFT ASSY (ADJ)	059720 + 052672	
SPRING, TORSION, 0.27	056017	
SPRING, TORSION, 0.55	056098	
SPRING, TORSION, 1.10	056104	
COVER, TORSO, DE20	058578	
GASKET, COVER	058579	

**PARTS LIST
FOR
GRANUFLOW DTR 131/231 and GTR 130**

Thermo Ramsey
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Minneapolis, MN 55433
<http://www.thermoscientific.com>

<u>EQUIPMENT</u>	<u>PART NUMBER</u>
<u>DTR131/231</u>	
90° FLANGE MOUNTING KIT - STEEL	054826
FLANGE MOUNTING KIT - STAINLESS STEEL	054827
45° FLANGE MOUNTING KIT	054828
GUNN DIODE (OSCILLATOR)	054383
GUNN DIODE (CW TRANS) UK	054384
PCBA, AMPLIFIER, FM/CE	051782
PCBA, POWER SUPPLY, 110-240V, FM/CSA	051732
PCBA, AC POWER SUPPLY (DOM/CE)	054706
PCVA, POWER SUPPLY, 24 VDC, CE/DOM	054760
TEFLON PLUG FOR DTR131 - 45°	054830
TEFLON PLUG FOR DTR 131 - 90°	058520
<u>GTR130</u>	
MODULE, GTR, 20-28VDC, CE	054703
MODULE/ANTENNA ASSY, GTR 130 UK VER	057127

**PARTS LIST
FOR
Spectra Quad (page 1)**

Thermo Ramsey
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<u>EQUIPMENT</u>	<u>PART NUMBER</u>	
PCBA,MAIN BD,SPECTRA,SQ4000	159399	
PCBA,MAIN BD,SPECTRA,SQ4000TA	159400	
PCBA,MAIN BD,SPECTRA,SQ5000	159401	OBSOLETE
IC,D,CMOS,EPROM, 27C040 120NS	153867	
PROGRAMMED DEVICE, SQ EPROM 0	153931	
PROGRAMMED DEVICE, SQ EPROM 1	153932	
WHEEL,6 FILTER ,SQ5000	157142	
WHEEL ,3 FILTER ,SQ4000	157143	
BATTERY,1/2 AA 3V LITHIUM, CR	153902	
ASSY,DETECTOR AMP,SQ SENSOR	159382	
Dark detector assy	184948	
ASSY,SQ POWER SPLY,PCB,TESTED	184628	
PCBA,CABLE INTCON BD,SPEC-QUAD	159381	
Assy, Halogen lamp	158386	
ASSY,SPECTRA-QUAD MOTOR	155011	
data box		
TOUCHPNL,SPECTRA-QUAD,D300	154389	
ASSY, LCD DISPLAY, REWORKED	154396	
ASSY,SQ LCD-CONTROLLER PCB	159379	
IC, PIC18C452, DIP40	155841	
PCBA,D-BOX LCD INTCON,REMOTE	159384	
PCBA,D-BOX LCD INTCON,LOCAL	159385	
PCBA,D-BOX LCD INTCON,COMM	159386	
PCBA,BACKPLANE BD,SPECTRA-QUAD	159370	
FUSE,SLO-BLO, 2.00AMP,5MMX20MM	062103	
interconnect cable		
ASSY, SQ MAIN CABLE, 6 FT	154435	
ASSY, SQ MAIN CABLE, 12 FT	154436	
ASSY, SQ MAIN CABLE, 25 FT	154437	

**PARTS LIST
FOR
Spectra Quad (page 2)**

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<u>EQUIPMENT</u>	<u>PART NUMBER</u>	
general assy		
DATA BOX,SQ,D300,LOCAL	159319	
ASSY,SQ SENSOR,SQ4400,ENAMEL	159338	OBSOLETE
ASSY,SQ SENSOR,SQ4400TA,ENAMEL	159341	OBSOLETE
ASSY,SQ SENSOR,SQ5000,ENAMEL	159344	OBSOLETE
ASSY,SQ SENSOR,SQ4400,KYNAR	159339	OBSOLETE
ASSY,SQ SENSOR,SQ5000,KYNAR	159345	OBSOLETE
ASSY,SQ SENSOR,SQ4400,NICKEL	159340	OBSOLETE
ASSY,SQ SENSOR,SQ5000,NICKEL	159346	OBSOLETE
filters		
FILTER,OPTICAL,BANDPASS,1230NB	152669	
FILTER,OPTICAL,BANDPASS,1300NB	152671	
FILTER,OPTICAL,BANDPASS,1350NB	152672	
FILTER,OPTICAL,BANDPASS,1430NB	152673	
FILTER,OPTICAL,BANDPASS,1550NB	152675	
FILTER,OPTICAL,BANDPASS,1600NB	152676	
FILTER,OPTICAL,BANDPASS,1650NB	152677	
FILTER,OPTICAL,BANDPASS,1720NB	152678	
FILTER,1.73	152681	
FILTER,1.75	152682	
FILTER,OPTICAL,BANDPASS,1820NB	152683	
FILTER,1.85	152686	
FILTER,OPTICAL,BANDPASS,1890NB	152687	
FILTER,OPTICAL,BANDPASS,1910NB	152688	
FILTER,OPTICAL,BANDPASS,1940NB	152689	
FILTER,1.98	152692	
FILTER,2.03	152693	
FILTER,OPTICAL,BANDPASS,2050NB	152694	
FILTER,2.105	152697	
FILTER, 2120NB	152698	
FILTER,2.143 CWL,48BANDPASS,RE	152699	
FILTER,OPTICAL,BANDPASS,2180NB	152700	
FILTER,OPTICAL,BANDPASS,2200NB	152701	
FILTER,OPTICAL,BANDPASS,2250NB	152704	
FILTER,OPTICAL,BANDPASS,2300NB	152705	
FILTER,OPTICAL,BANDPASS,2340NB	152706	
FILTER,OPTICAL,VISIBLE LEAK	152709	
FILTER,2.08	152718	
FILTER	152732	OBSOLETE
FILTER,OPTICAL,BANDPASS,2330WB	152734	
FILTER,OPTICAL,BANDPASS,2200WB	152739	

**PARTS LIST
FOR
MISCELLANEOUS INSTRUMENTS & ACCESSORIES**

Thermo Ramsey
501 90th Avenue N.W.
Minneapolis, MN 55433
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<u>EQUIPMENT</u>	<u>PART NUMBER</u>
Counter, LCD, Backlit, Red, 6 Digit	046666
Power Supply, Sgl., 12V, 80 mA	046667
Printer, TMU-220 (replaces TMU-200)	087686
Recorder, Chart, DR-4300	037355