

freewatt®

**WARM AIR
freewatt PLUS SYSTEM
Model WAJ/WDJ**

**PARTS, KITS &
OPTIONAL
ACCESSORIES**



An ISO 9001-2008 Certified Company
ECR International, Inc.
2201 Dwyer Ave.
Utica, NY 13501

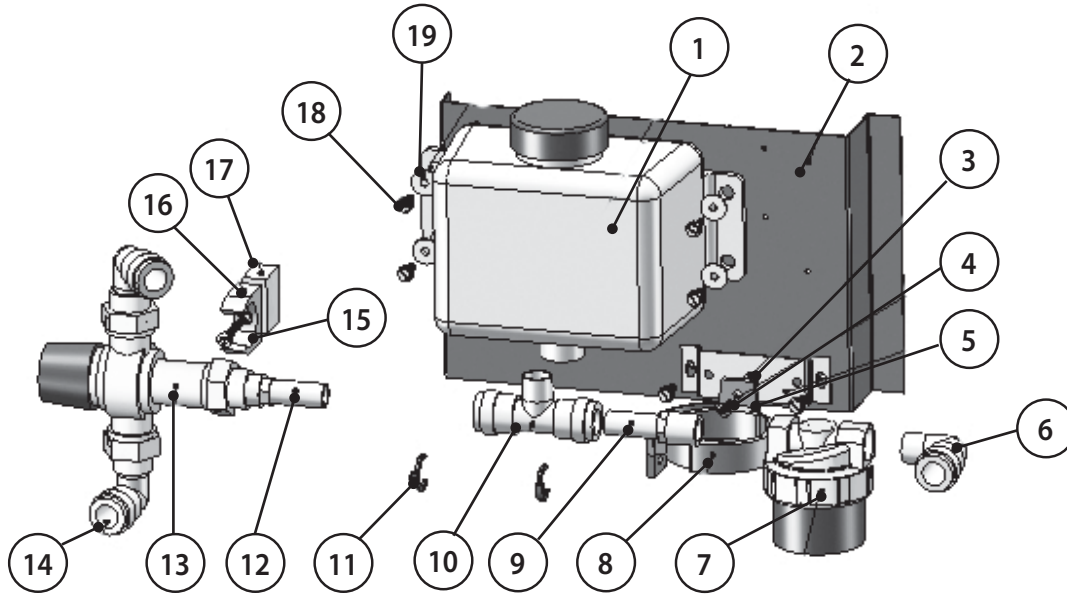


Information and specifications in the manual were in effect at time of printing of this manual. ECR International reserves the right to discontinue, change specifications or system design at any time without notice and without incurring any obligation, whatsoever.

P/N# 240008293, Rev. E [05/2011]

Check our website frequently for updates: www.freewatt.com www.ecrinternational.com

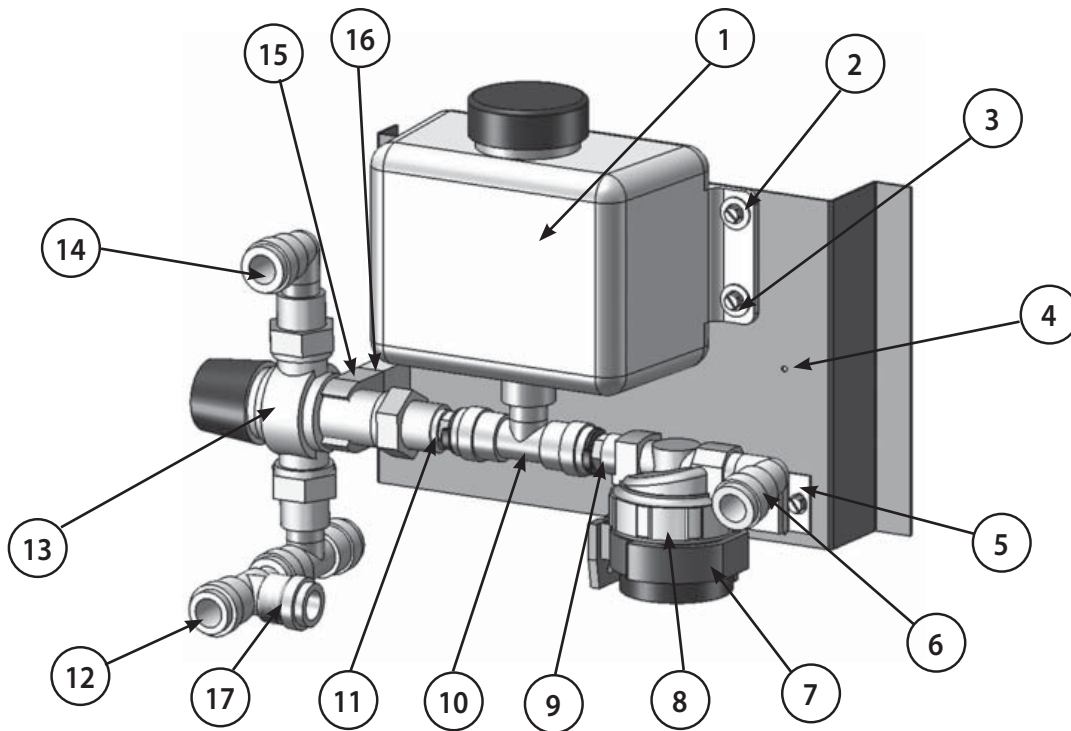
freewatt PLUS MODEL WAJ/WDJ - REPAIR PARTS



freewatt PLUS, WAJ HI MOD MECHANICAL KIT #3001590 [Includes all items listed below]

		ITEM	PART #	DESCRIPTION	QTY.	
KIT # 3001590 Includes all items listed		1	124	Tank, Coolant, 2qt,	1	
		2	109007754	Plate, Mounting Assembly	1	
		3	485	Thin Lock Nut #10-32,	1	
		4	240007792	Screw #10-32x1/2",Philips	1	
		5	109007778	Pump Bracket	1	
		8	240007703	Bracket, PumpLAING # 8114	1	
		10	132	Fitting,Tee,1/2"Male NPTx1/2"CTSx1/2"CTS,PLS	1	
		11	135	Clip, Collet, Watts 3547B-10	2	
		16	130	Clamp, Mixing VLV, freewatt PLUS WA HI Mod	1	
		17	139	Spacer, Plastic, Mixing Valve, freewatt PLUS WA HI Mod	1	
		18	123	Screw,#10x3/4,HWH,Type AB, SLT, SZN	6	
		19	131	Washer,#10x.685" OD, Flat, SZN	4	
		*	377	Label,Tank, freewatt PLUS	1	
	Kit# 3001697 Assembly, Mixing Valve, freewatt PLUS WAJ					
	Kit # 3001697	12	630	Fitting, Male Stem,1/2"CTS x 1/2"MNPT,Plastic	1	
13		240007955	Mixing Valve	1		
14		480	Fitting,Elbow,1/2"CTS x 1/2"NPT,Plastic	2		
YM2J Coolant Pump Replacement Kit # 550002153						
Kit # 550002153	6	480	Fitting,Elbow,1/2"CTS x 1/2"NPT,Plastic	1		
	7	240007702	Pump, FW WAJ/WDJ-LAING-D5-74369	1		
	9	630	Fitting, Male Stem,1/2"CTS x 1/2"MNPT,Plastic	1		

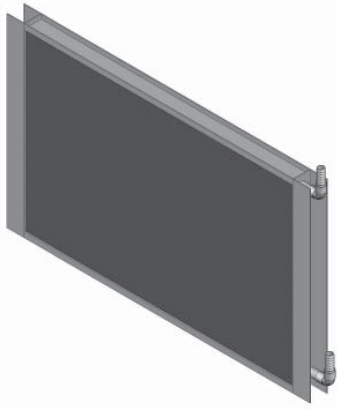
freewatt PLUS MODEL WAJ/WDJ - REPAIR PARTS



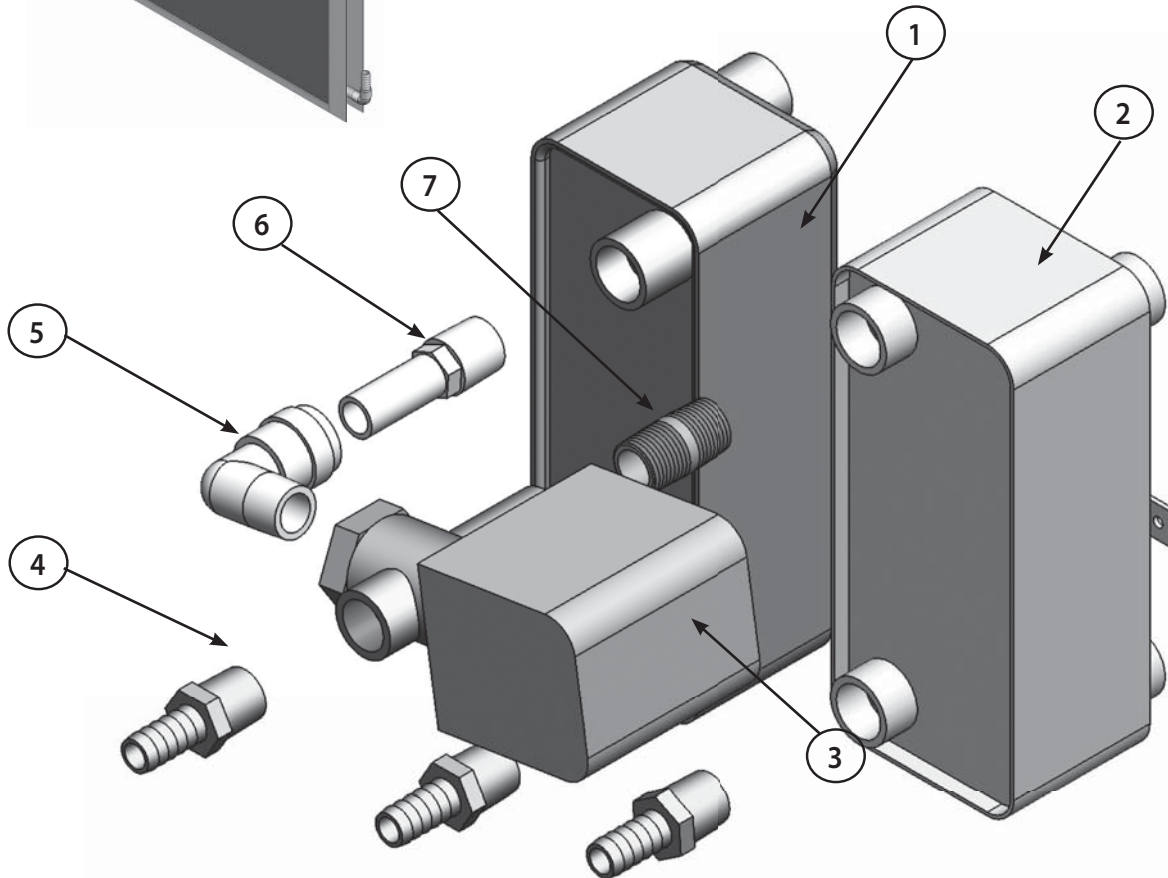
freewatt PLUS, WDJ MECHANICAL SUB ASSEMBLY Kit # 3001576
(includes all items listed below)

freewatt PLUS, WDJ MECHANICAL SUB ASSEMBLY Kit # 3001576 (includes all items listed below)				
	ITEM	PART #	DESCRIPTION	QTY.
KIT # 3001576 Includes all items listed	1	124	Tank, Coolant, 2QT, freewatt PLUS WA HI Mod	1
	2	123	#10x3/4 Screw	6
	3	131	Washer, #10x.685" OD, Flat, SZN	4
	4	109007754	Mechanical Sub Assembly Plate	1
	5	109007778	Pump bracket mounting plate	1
	7	240007703	Bracket ,Pump, WAJ/WDJ-LAING # 8114	1
	10	132	Fitting, Tee, 1/2" Male NPT x 1/2" CTS x 1/2" CTS, PLS	1
	15	130	Clamp, Mixing Valve, WA HI MOD	1
	*	240007792	#10-32x1/2" Screw for pump bracket	1
	*	485	#10-32 Lock Nut for pump bracket	1
	*	135	Collet Clip	2
	*	136	#10x1-3/4 Screw for Mixing Valve Spacer	1
	Assembly, Mixing Valve, freewatt PLUS WDJ/HDZ			
Kit# 3001577	11	630	Fitting, Male Stem, 1/2" CTS x 1/2" MNPT, Plastic	1
	13	240007955	Mixing Valve	1
	14	480	Fitting, Elbow, 1/2" CTS x 1/2" NPT, Plastic	1
	12	132	Fitting, Tee, 1/2" Male NPT x 1/2" CTS x 1/2" CTS, Plastic	1
Kit# 550002153 YM2J Coolant Pump Replacement Kit				
Kit# 550002153	6	480	Fitting, Elbow, 1/2" CTS x 1/2" NPT, Plastic	1
	8	240007702	Pump, WAJ/WDJ-LAING-D5-74369	1
	9	630	Fitting, Male Stem, 1/2" CTS x 1/2" MNPT, Plastic	2
	17	632	Fitting, Stackable Tee, 1/2"	1

freewatt PLUS MODEL WAJ/WDJ - REPAIR PARTS



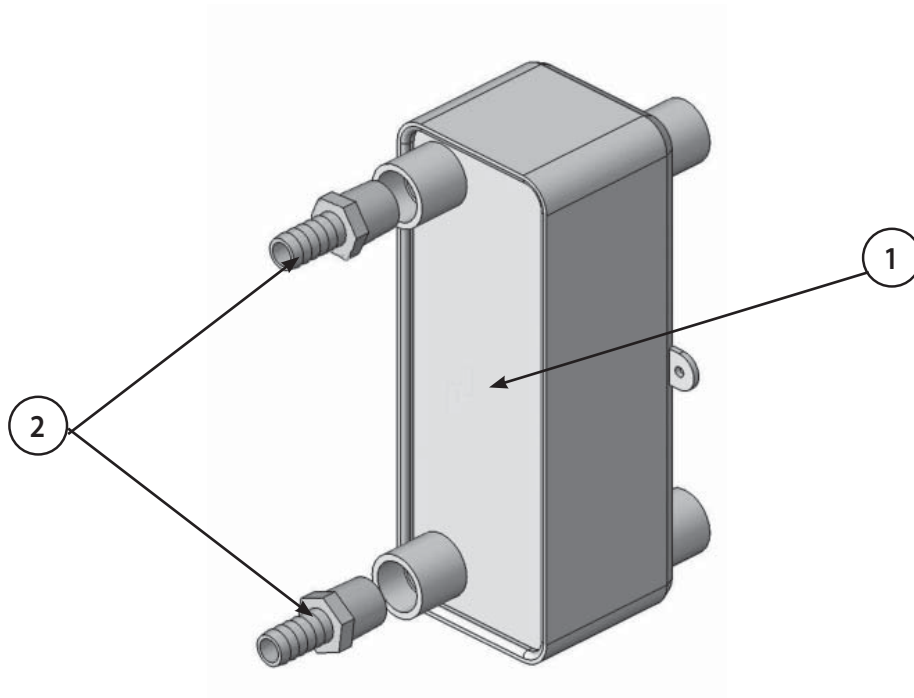
freewatt Aircoil Assembly		
Part Number	Description	QTY
104000426	freewatt Aircoil Assembly	1



WDJ Heat Exchanger Parts

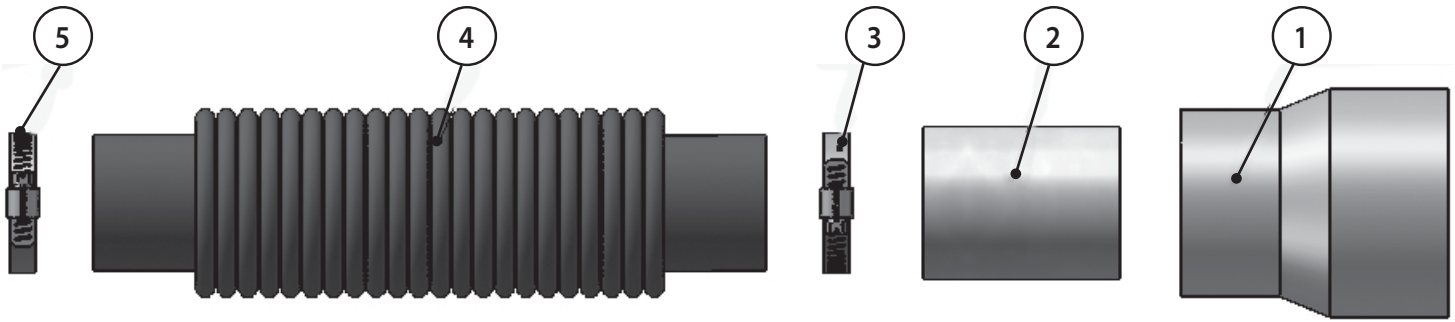
ITEM	PART #	DESCRIPTION	QTY.
1	240008506	Flat Plate Heat Exchanger	1
2	240008627	Double Wall flat Plate Heat Exchanger	1
3	240007890	3-Way Zone Valve	1
4	246	1/2 Brass Barb	3
5	480	1/2 Plastic Elbow	1
6	630	1/2 Male Stem	1
7	240007542	1/2" Brass Nipple	1
*	240008447	120V 3-Way DHW Pump Cable <i>with</i> inline fuse	1
*	240007994	120V 3-Way DHW Pump Cable <i>without</i> inline fuse	1
*	14695307	10-32 x 1/2" Mounting Screws	4
*	135	Collet Clip	1

Control Board Revision E5.0.8 Uses 3-way/DHW Cable *with* inline fuse P/N 240008447
 Control Board Revision E5.0.8b Uses 3-way/DHW Cable *without* inline fuse P/N 24007994



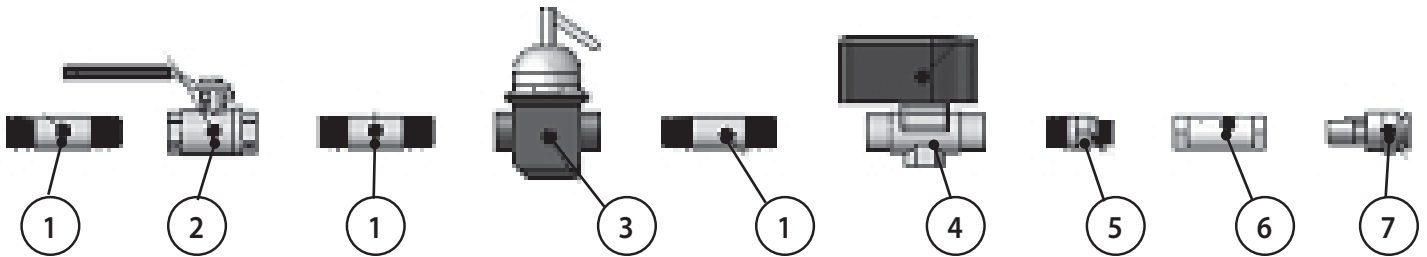
WAJ Heat Exchanger Parts			
ITEM	PART #	DESCRIPTION	QTY.
1	240008506	Flat Plate Heat Exchanger	1
2	246	1/2 Brass Barb	2
*	14695307	10-32 x 1/2" Mounting Screw	2
* Not shown			

freewatt PLUS MODEL WAJ/WDJ - REPAIR PARTS



freewatt PLUS, MCHP YM2J EXHAUST KIT #550002038				
Kit # 550002038	ITEM	PART #	DESCRIPTION	QTY.
	1	240007862	Coupling, Reduce, PBC. SCH 40, 2" x 1-1/2", S636	1
	2	240007863	Pipe, PVC, SCH 40, 1-1/2" X 1/2" S636	1
	3	240007864	Clamp, Ss, Worm Gear, 1-9/16" TO 2-1/2" ID	1
	4	240007861	Adapter, Flexible Hose, YM2J	1
	5	240	Clamp, Worm Gear. 13/16", 1-3/4", 301SS	1

freewatt PLUS, WDJ DHW Thermistor Replacement Kit #55002091			
Kit # 550002091	PART #	DESCRIPTION	QTY.
	55000201	Kit, Mounting, Exhaust, Thermistor	1
	240008058	Instruction, Exhaust, Thermistor	1
	240007977	Thermistor, Exhaust Vent	1
	240007978	Cable Tie, Flush-Fit	2
	3001696	Foam, Vinyl Rubber 1/4" X 1" X 2"	1

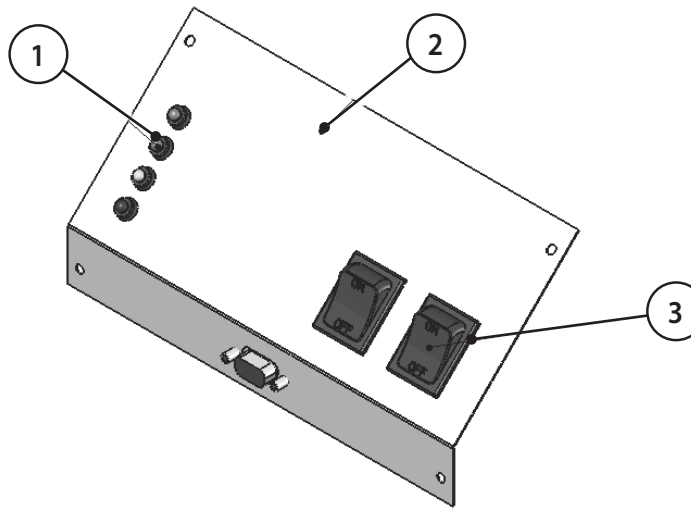


Water Cooled Heat Rejection Kit #550002037				
Water Cooled Heat Rejection Kit #550002037	ITEM	PART #	DESCRIPTION	QTY.
	1	240007830	Nipple, 1/2" NPT x 3", Brass	3
	2	240007829	Valve, Ball, 1/2", NPT x NPT, Female	1
	3	240007807	Regulator, Feed Water, Watts TB1156F	1
	4	240007805	Valve, Zone, 1/2" NPT, 2 WAY, 24V, Taco ZO50T2-1	1
	5	240007831	Fitting, Reducing Hex, 1/2" NPTF x 3/8" NPTF, Brass	1
	6	240008792	Regulator, Flow, Press Comp, 0.35GPM	1
	7	240007832	Fitting, Connector, 1/2" CTS Female x 3/8" NPT Male	1
	*	464	Grommet	4
	*	240007865	Water Cooled Heat Rejection Supplement	1

* Not Shown

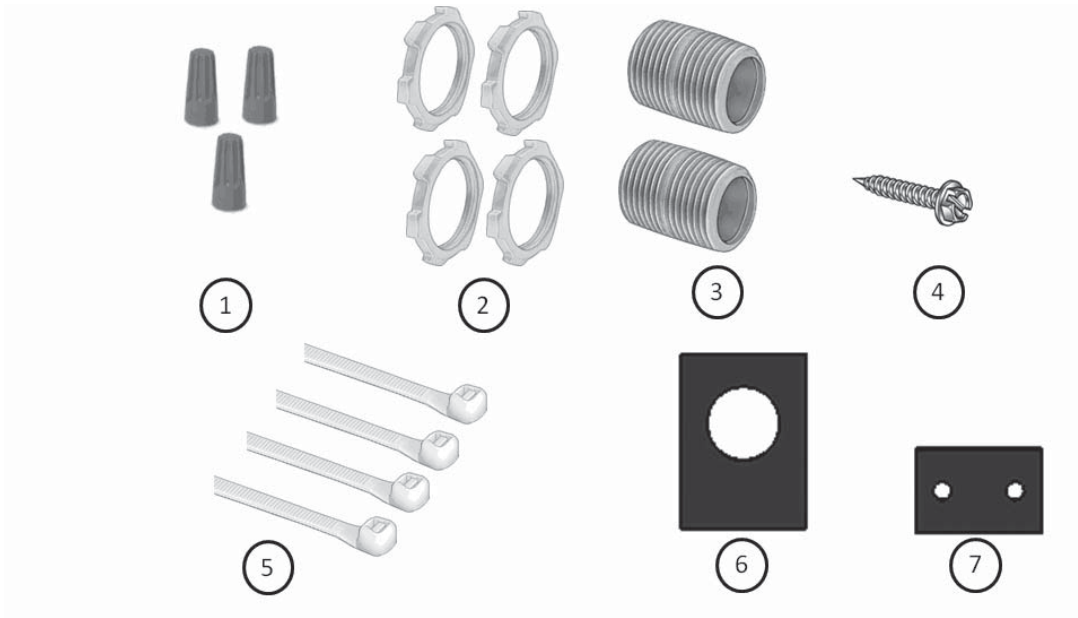


RC-1000 Thermostat Replacement		
Part Number	Description	QTY
240007731	RC1000WH-ECR Thermostat	1



Kit# 3001588 ASSY,FRT PNL, freewatt PLUS WAJ				
	ITEM	PART #	DESCRIPTION	QTY.
Kit # 3001588	1	406	Cable, LED Assembly, freewatt PLUS	1
	2	109007762	Panel, Front Display, EE, WAJ/WDJ HI Mod	1
	3	160	SW,2 Pos,DPST,16A	2
	*	240007822	Cable, AC Power, freewatt PLUS WAJ/WDJ	1
	*	240007791	Cable, Backup LED, freewatt PLUS	1
	*	405	Cable, Serial Comm, freewatt PLUS	1
	*	240007845	Cable, Furnace AC Assy freewatt PLUS WAJ/WDJ	1
	*	362	Kit, Connection MTG HDW, Newark 45K1514	1
Mounting Screws				
	*	174	Screw,#6x5/16",PH,PHL,B,Self Tap	4

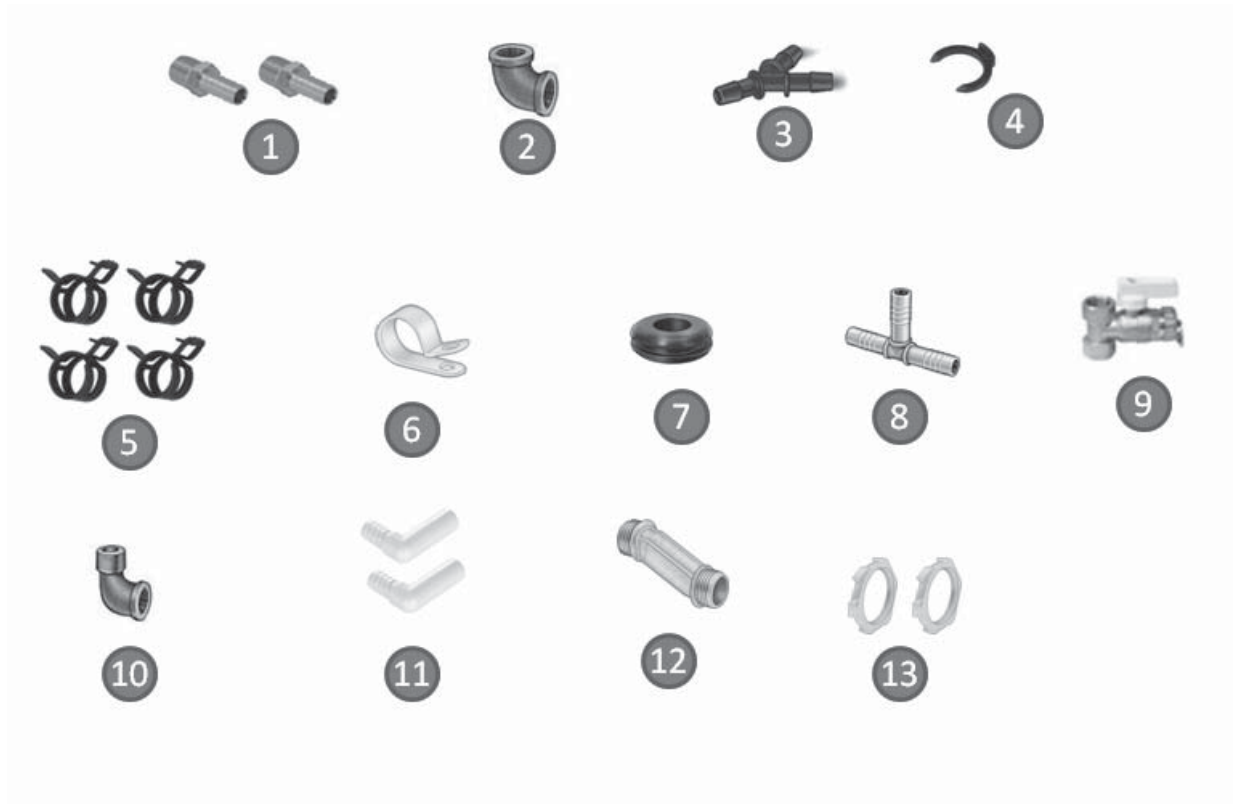
freewatt PLUS MODEL WAJ/WDJ - REPAIR PARTS



WARM AIR INTEGRATION KIT #275				
	ITEM	PART #	DESCRIPTION	QTY.
Kit # 275	1	1130001	Wire Nuts, 73b, Org, Ideal, 30-073	3
	2	291	Nut, Lock, 1/2" Conduit	4
	3	473	Nipple, EXT, 1/2" Conduit, STL-7513K55	2
	4	143	Screw, #10x3/4, Self Tap, HH, SLT	1
	5	254	Tie, Wire W/Back, Quick Twist, 1/2"MAX, nylonH	3
	6	113	Bracket, Air, Coil, FRT, freewatt PLUS WA	1
	7	114	Bracket, Rear MTG, freewatt PLUS WA	2
	*	367	Foam, Poly, 1/4"X1/2" (PSA)	6.58ft.

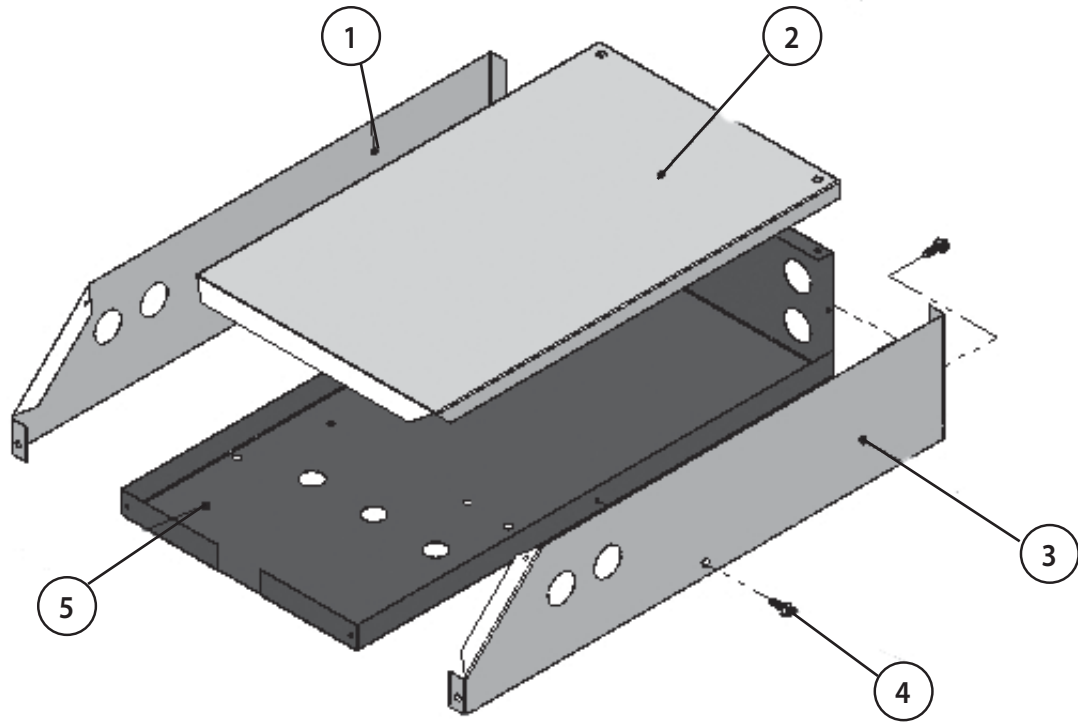
* Not Shown

freewatt PLUS MODEL WAJ/WDJ - REPAIR PARTS



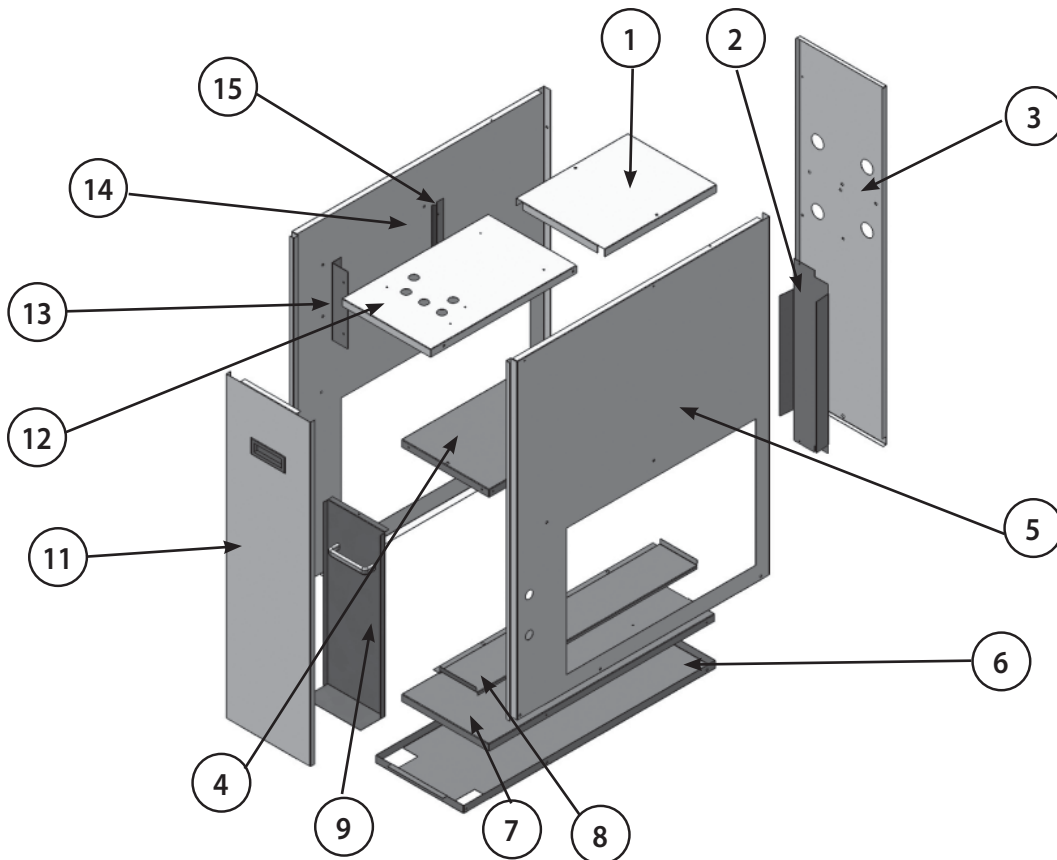
Kits # 550002083 KIT, COOLING TUBNG, MCHP, WAJ/WDJ				
Kit# 550002083	ITEM	PART #	DESCRIPTION	QTY.
	1	246	Fitting, 1/2" MNPT x 1/2" Barb Straight	2
	2	245	Fitting, Elbow, 1/2", BR	1
	3	422	Fitting, Wye, 1/2" Tube Barb, Nylon	1
	4	135	Clip, Collet, Watts 3547B-10	2
	5	248	Clamp, Hose, 1/2" Selftite	4
	6	383	Clamp, 1/4"OD, Sing Hole, Nylon	1
	7	464	Grommet, 5/8"ID X 1-1/8"OD, 1/16"THK, Rubber+	1
	8	626	Fitting, Tee, 1/2" Barbed, Nylon	1
	9	240008038	Valve, Ball, Tee, 1/2" IPS, Brass	1
	10	721	Fitting, Elbow, Strt 90, 1/2"MNPT x 1/2"FNPT, BR	1
	11	494	Fitting, Elbow, 1/2"CTS x 1/2"Barb, Plastic	2
	12	240007811	Nipple, Conduit Offset	1
13	240008037	Nut, Lock, 3/4"Conduit, SZN	2	

freewatt PLUS MODEL WAJ/WDJ - REPAIR PARTS



Electrical Enclosure Repair Parts				
	ITEM	PART #	DESCRIPTION	QTY.
	*	464	Rubber Grommet	3
Kit# 3001578 Assembly ,EE Control Sheet Metal ,freewatt PLUS WAJ/WDJ				
Kt #3001578	1	109007654	Panel, Side, Left, EE, freewatt PLUS WA	1
	2	109007655	Panel, Top, EE, freewatt PLUS WA	1
	3	109007656	Panel, Side, Right, EE, freewatt PLUS WA	1
	4	177	Screw,#8x1/2",Type B,HH,SLT	6
	5	109007755	Assembly, PNL, Base, EE, freewatt PLUS WAJ/WDJ	1
* Not Shown				

freewatt PLUS MODEL WAJ/WDJ - REPAIR PARTS

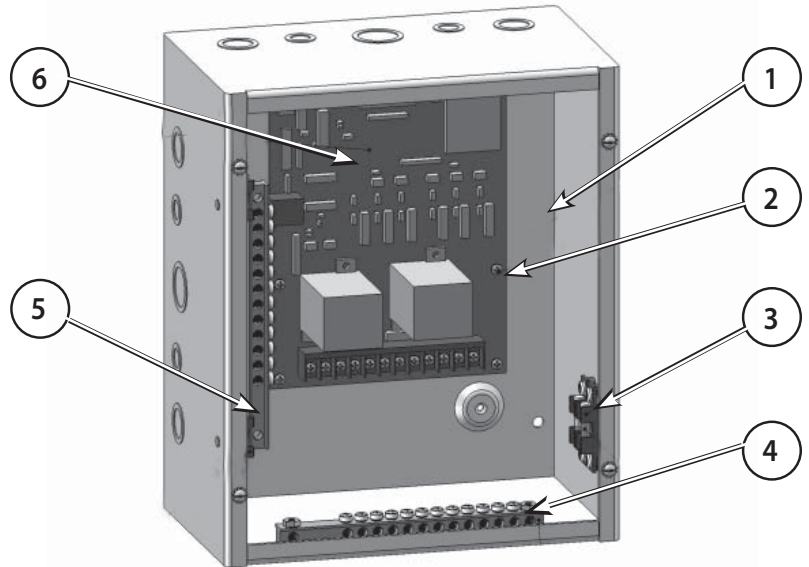


Kit# 3001575 HI Module Sheet Metal WAJ/WDJ				
	ITEM	PART #	DESCRIPTION	QTY.
Kit# 3001575	1	109007776	Top Rear panel, WAJ/WDJ	1
	3	109007747	Rear Panel. WAJ/WDJ	1
	4	109007752	Interior Panel, WAJ/WDJ	1
	5	109007750	Right Side Panel, WAJ,WDJ	1
	6	109007748	Bottom Panel, WAJ/WDJ	1
	7	109007753	Interior Bottom Panel, WAJ/WDJ	1
	11	109007764	Front Panel, WAJ/WDJ	1
	12	109007751	Top Front Panel, WAJ/WDJ	1
	13	115	Front pump bracket	1
	14	109007749	Left Panel, WAJ/WDJ	1
	15	116	Rear pump bracket	1
	*	367	Foam,1/4"X1/2"	14ft
	*	386	Foam,1/8"X1/2"	2.4ft
	*	26873	Handle	1
	Aircoil Bracket parts (not included in 30001575)			
	2	109007759	Aircoil Rear Bracket WAJ/WDJ	1
	8	109007760	Aircoil Bottom Bracket WAJ/WDJ	1
	10	109007763	Aircoil Front Bracket WAJ/WDJ	4
Air Filter Panel Assembly (not included in 30001575)				
	9	3001586	Air filter panel assembly, WAJ/WDJ	1

freewatt PLUS MODEL WAJ/WDJ - REPAIR PARTS

NOTICE

Drawing depicts main fuse block (item 3) as used with transfer switch control board Rev 2.2.0. For transfer switch control board REV 2.2.1 main fuse block (item 3) is eliminated and 15A/250VAC main fuses are located on the control board.



NOTICE

On board fuses are not available from ECR International. Service technicians should procure the following fuses for **freewatt** PLUS Transfer Switch service from local suppliers.

PN# 3001572 freewatt PLUS Transfer Switch Assembly				
Kit# 3001572	ITEM #	PART #	DESCRIPTION	QTY.
	1	3001585	Transfer Switch Enclosure	1
	2	240007797	Screw #6-32x1/4"	7
	3	240008018	Main fuse block	1
	4	240007721	Ground Bar	2
	5	240007722	Neutral Isolation Mounts	1
	6	240007803	Transfer Switch Control board	1
	*	659	Hex Nut, #6-32	2
	*	240008021	Slotted Screw #6-32x1/4"	2
	*	240008020	Fuse block pigtail	1
	*	240008019	Fuse block cable	1
	*	240007720	fTS front panel label	1
	*	240007796	Standoff #6-32x1/2"	7
	*	240007810	Lock Washer #10	4
	*	240007798	Hex Nut #10-32	4
	*	667	Clinch Stud #10-32x3/8"	2
	*	240007800	Clinch Stud #10-32x3/4"	2
	*	240007795	Clinch Stud #6-32x3/8"	7
*	240007801	LED Assembly	1	
*	240007980	Transfer switch IOM	1	
* NOT SHOWN				

freewatt PLUS Transfer Switch Fuses		
Device ID	Cooper-Bussman 5mm x 20mm	Littlefuse 5mm x 20mm
F01, F02	GDB1A 1A, Fast Acting	0235001HXP 1A, Fast Acting
F03,F04, F05, F06, F07,F08	GDB-500mA 500mA, Fast Acting	0235.500HXP 500mA, Fast Acting
F09, F10	GMA15-R 15A, Fast Acting	0217015,MXP 15A, Fast Acting
Control Board Rev. 2.2.1		
F11, F12	GMA15-R 15A, Fast Acting	0217015,MXP 15A, Fast Acting
Device ID	Cooper-Bussman 1/4" x 1 -1/4"	Littlefuse 1/4"x1-1/4"
Control Board Rev. 2.2.0		
Main Fuse Block	BK/ABC-15-R 15A, 250VAC	314015.HXP 15A, 250VAC

freewatt PLUS MODEL WAJ/WDJ - REPAIR PARTS

NOTICE

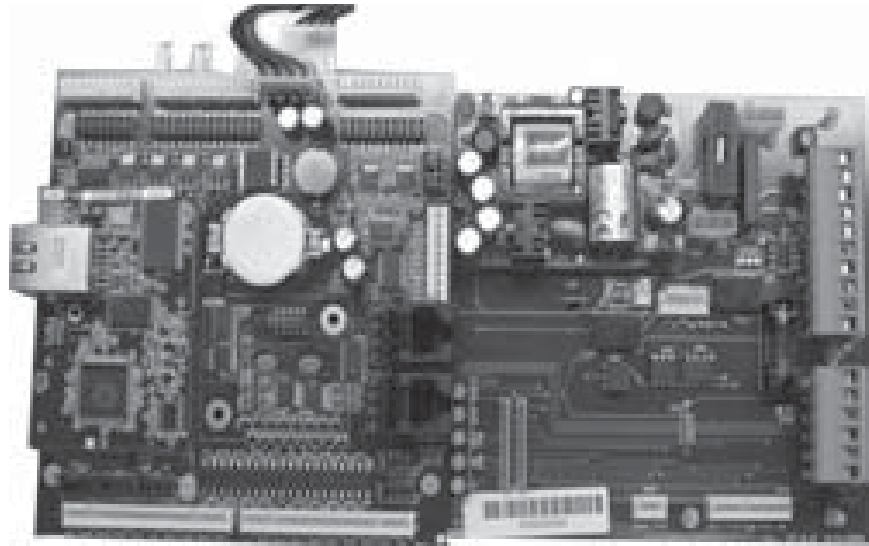
On board fuses are not available from ECR International. Service technicians should procure the following fuses for **freewatt** PLUS Transfer Switch service from local suppliers.

APC Universal Transfer Switch Fuses	
Device ID	Littlefuse KLKR 15
Main Control Board	Qty 6; 15A, 600VAX 10.3mm x 38.1mm

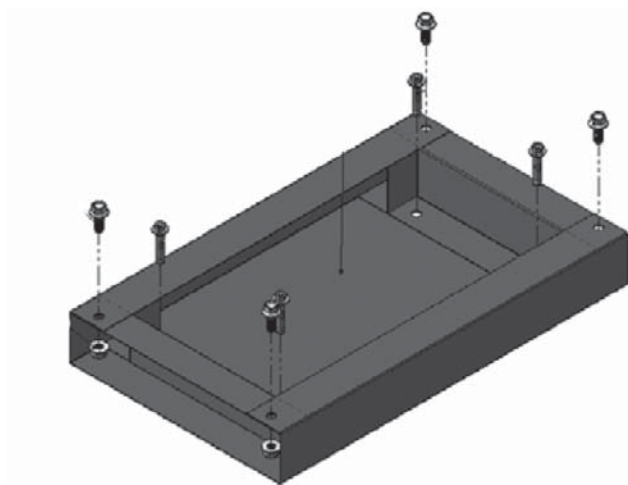


APC UTS6H		
Part Number	Description	QTY
240007804	Switch, Transfer, APC Universal	1
240007866	APC Hardwire Kit	1

Transformer (Not Shown)		
Part Number	Description	QTY
3001689	Load Balancing Transformer	1



freewatt Control Board Assembly Parts		
Part Number	Description	QTY.
240007704	freewatt Control Board Assembly GEN II	1
364	Nylon Nut	2
240007844	24 Volt Power Supply	1
240007717	Honda MCHP Communication Cable	1
240007790	Furnace Control Cable	1
240008177	freewatt Transfer Switch Comm Cable	1



MCHP Base Assembly Kit - #550002122 (includes all items listed below)					
Kit #550002122 Base Assembly		Item	Part Number	Description	QTY.
	Kit #273 MCHP Hardware Base Kit	1	284	Anchor Sleeve, 3/8" x x 1-7/8", 5/16-18 Threaded	4
		2	281	Lock Nut, 7/16-14	4
		3	282	Bolt, 7/16-14 x 1", FLG HH, Grade 8	4
		4	279	freewatt MCHP Base Assembly	1

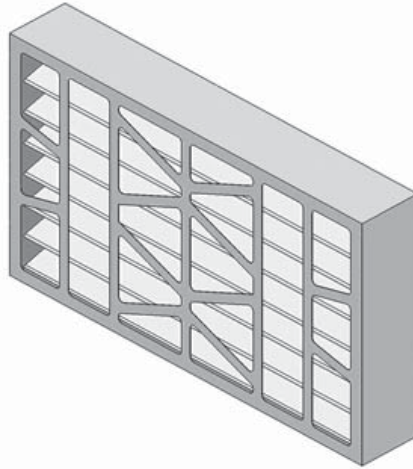
freewatt PLUS MODEL WAJ/WDJ - REPAIR PARTS

KIT # 550002075SVC ,Replacement,BATTERY,YM2J			
Kit	Part Number	Description	QTY.
#550002075 SVC Replacement Battery , YM2J	240007729SVC	Battery, YM2J SVC, Honda 315000-YM2K-A52	1
	240008144	Supplement Literature, Battery	1
	240008345	Literature, MSDS, MCHP Honda Battery	1

Two Stage freewatt WAJ/WDJ, Literature Document Kit #3001571, (not shown)			
	Part Number	Description	QTY.
Kit #3001571 2 Stage freewatt PLUS WAJ/WDJ Literature Document	240007714	IOM, Two Stage System freewatt PLUS Instruction Operation Maintenance Manual WAJ/WDJ	1
	240007981	Two Stage ECR freewatt PLUS Limited Warranty	1
	240007715	Manual Owners, 2 Stage Sys, freewatt PLUS WAJ/WDJ	1
	240007836	Label, Honda, Main Panel, freewatt PLUS	1
	240008321	Schematics, WAJ/WDJ	1
	240008347	Commissioning Procedure, WAJ/WDJ	1
	240007618	Extended Warranty Envelope	1
	240008293	Repair Parts WAJ/WDJ	1

Exhaust Gas Sensor (not shown)		
Part Number	Description	QTY.
287	Carbon Monoxide Detector	1

Outdoor Sensor, (not shown)		
Part Number	Description	QTY.
288	Outdoor Sensor	1

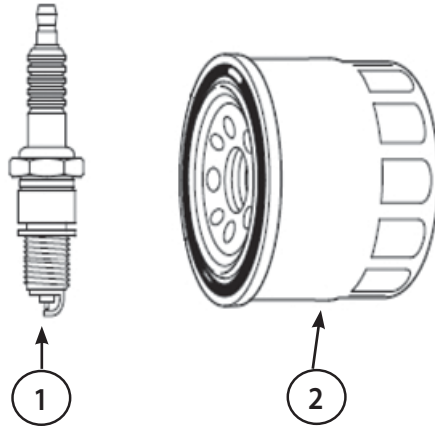


Replacement Air Filters		
Part Number	Description	QTY.
550002032	MERV8 Replacement Air Filter 3 Pack	1
550002033	MERV8 Replacement Air Filter 6 Pack	1
550002051	MERV14 Replacement Air Filter 3 Pack	1

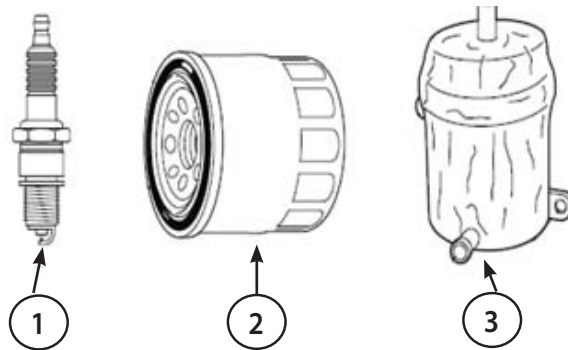
Honda MCHP Shop Manual, (not shown)		
Part Number	Description	QTY.
61YM210	Honda MCHP 1.2D/1.2DP (YM2J) Shop Manual	1

MCHP, Honda Coolant Kit # 3001566, (not shown)		
Part Number	Description	QTY.
222	MCHP Coolant, 4 Liters, Honda 08CLA-H9914ZA8	2
Note: Item 222 is not sold individually, MCHP coolant is only available in coolant kit #3001566, which includes two (2) 4 Liter cans.		

freewatt PLUS MODEL WAJ/WDJ - PERIODIC MAINTENANCE



freewatt MCHP, YM2 (A, Z & J), 6K/18K Hr Service Kit #550002024				
	Item	Part Number	Description	QTY.
Service Kit #550002024 freewatt MCHP 6K/18K Hour	1	240007667	MCHP Spark Plug	1
	2	240007665	MCHP Oil Filter	1
	*	221	MCHP Oil 4 Liters	1
	*	240007672	12mm Crush Washer	1
	*	240007697	MCHP Oil Literature	1
	*	240007668	MCHP Head Cover Gasket	1
	*	240008862	MCHP1.2U Instructions	1
	*	240008879	MCHP1.2D/DP Instructions	1
* Not Shown				



freewatt MCHP, YM2 (A, Z & J), 12K Hr Service Kit #550002045				
	Item	Part Number	Description	QTY.
Service Kit #550002045 freewatt MCHP 12K Hour	1	240007667	MCHP Spark Plug	1
	2	240007665	MCHP Oil Filter	1
	3	240007809	MCHP Crankcase Breather Separator	1
	*	221	MCHP Oil 4 Liters	1
	*	240007672	12mm Crush Washer	1
	*	240007697	MCHP Oil Literature	1
	*	240007668	MCHP Head Cover Gasket	1
	*	240007815	MCHP Crankcase Breather Tube	1
	*	240008862	MCHP1.2U Instructions	1
	*	240008879	MCHP1.2D/DP Instructions	1
* Not Shown				

Condensate Pump - Low Power Consumption, (not shown)		
Part Number	Description	QTY.
240007793	Laing TP1 Condensate Pump	1

freewatt®



An ISO 9001-2008 Certified Company

P.O. Box 4729
Utica, NY 13504-4729
www.freewatt.com
www.ecrinternational.com

MEMBER: *The Hydronics Institute*