

freewatt®



Hydronic freewatt® Plus System, Model HDJ

PARTS, KITS
& OPTIONAL
ACCESSORIES

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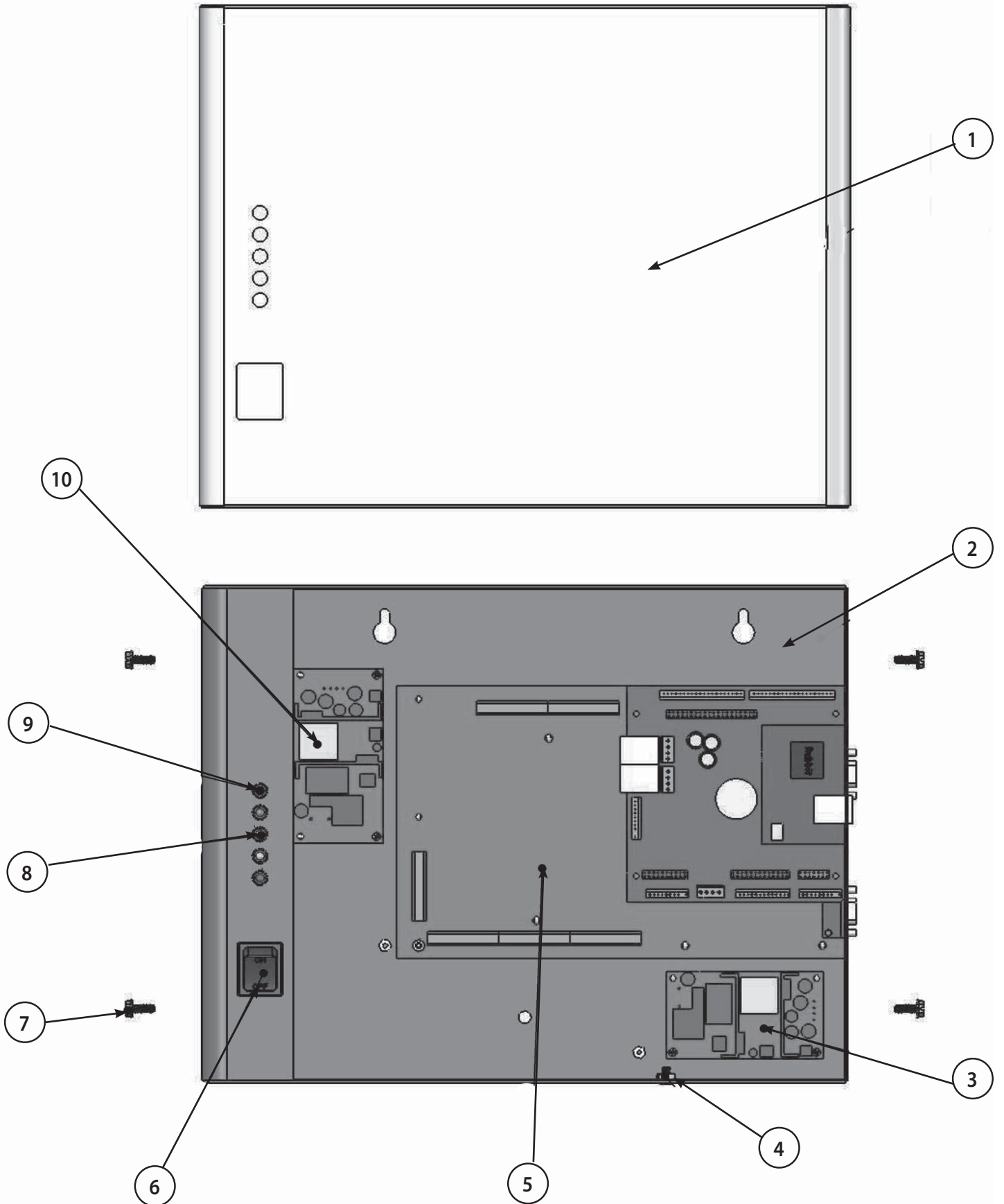
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HYDRONIC freewatt® PLUS MODEL HDJ - CONTROL MODULE

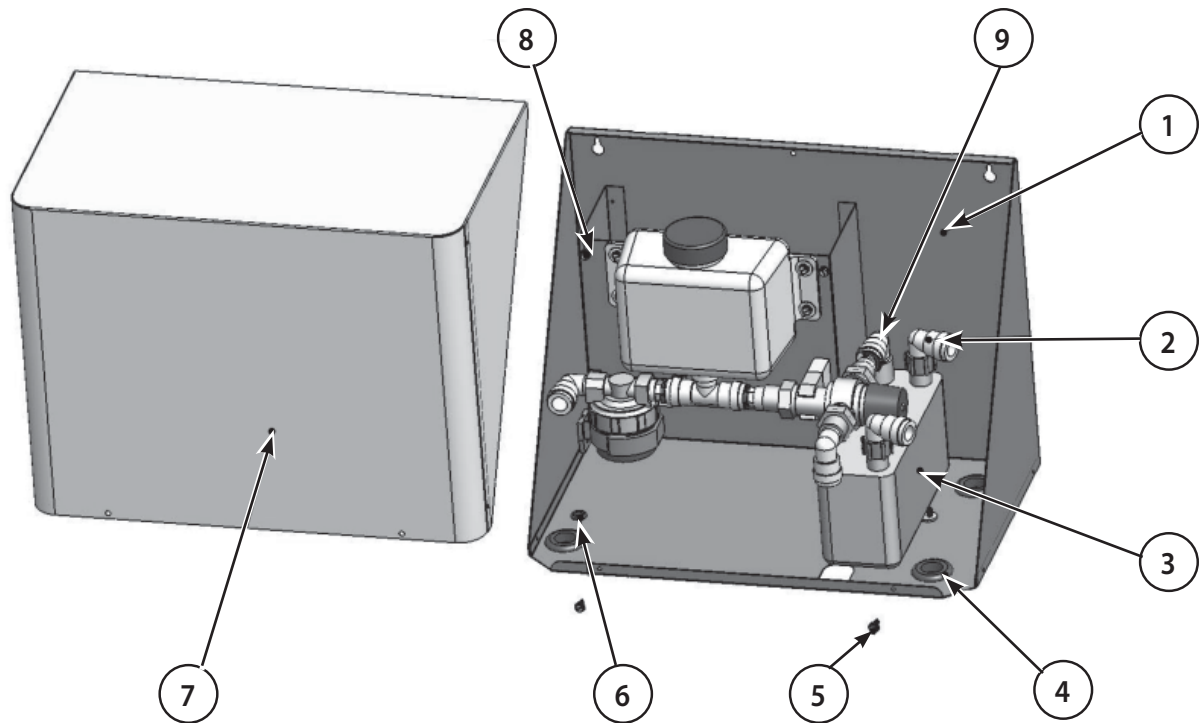


HYDRONIC freewatt® PLUS MODEL HDJ - CONTROL MODULE

freewatt® PLUS HDJ CONTROL MODULE ASSEMBLY, # 3001705				
	Item	Part Number	Description	QTY.
Hydronic Control Module Assembly #3001705 includes all items listed	1	109008037	Sheet Metal Cover	1
	2	109008131	Sheet Metal Base	1
	3	656	Power Supply, 12VDC, 20W	1
	4	659	Hex Nut, #6-32	1
	5	240007884	Assy, Brd, Ctrl, Gen II, R2.0.3.1, FW, HD	1
	6	160	Switch, 2 Position	1
	7	14695307	10-32x1/2" Screw	4
	8	240008202	Backup LED Cable Assembly (Yellow)	1
	9	406	LED Cable Assembly (Red/Yellow/Green/Green)	1
	10	240007844	24VDC Power Supply	1
	*	700	AC Power Harness	2
	*	240007705	Cable, DC Power, 24V, Tfmr to Ctrl	2
	*	664	3/8" Snaplock Standoff	4
	*	662	Standoff, #4 - 40 x 3/8"	4
	*	668	#4-40x3/16" Screw	4
	*	658	1/4" Standoff	5
	*	660	#6-32x1/4" Alum Standoff	1
	*	663	#10-32 Nut	1
	*	702	Ground Cable	1
	*	657	1/4" Snaplock Standoff	2
	*	240007684	Polyester ECR Label	1
	*	240007766	PC Diagnostics Label	1
	*	240007765	Internet Label	1
*	240007764	Honda-MCHP Label	1	

* Not Shown

HYDRONIC freewatt® PLUS MODEL HDJ - HI MOD ASSEMBLY



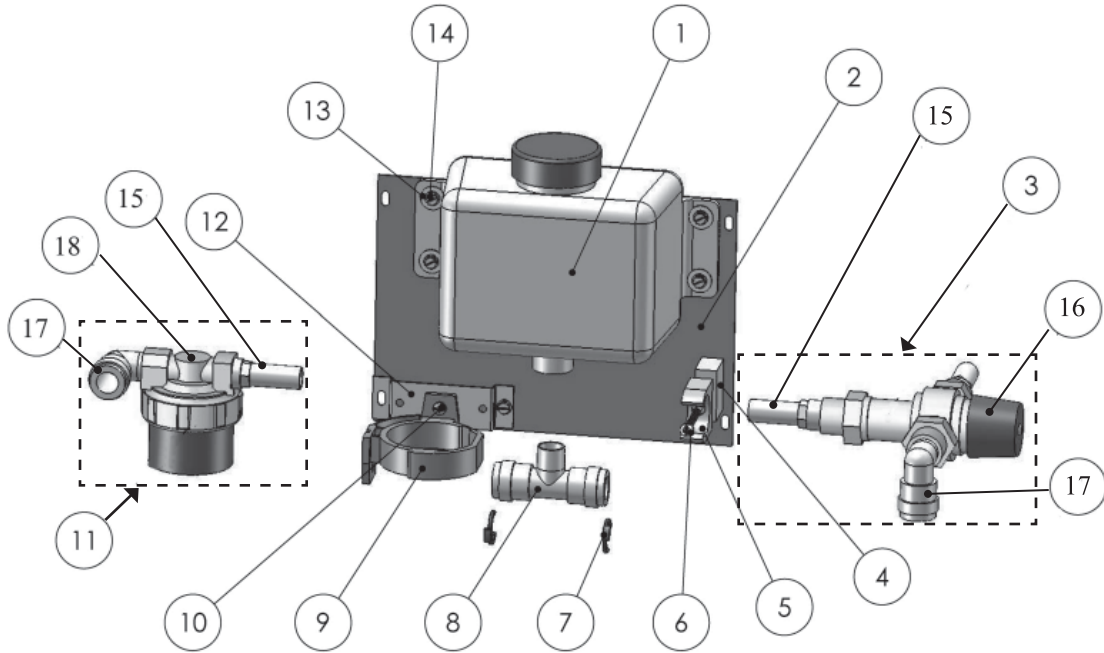
freewatt® PLUS, HI MOD Assembly HDJ, #3001706

	Item	Part Number	Description	QTY.
#3001706 HI MOD Assy includes all items listed	1	109008039	HDJ HI MOD Base	1
	2	134	1/2" PLASTIC SWIVEL ELBOW	2
	3	240008201	HTEX, FLAT PLT, B&G BP400 50/20/30 FW HDJ	1
	4	495	7/8" ID X 1-5/8" OD, 1/16" RUBBER GROMMET	3
	5	14695307	10-32x1/2" SCREW	2
	6	421	5/16" ID x 1/2" OD, 1/16" RUBBER GROMMET	1
	7	109008038	HDJ HI Mod Cover	1
	8	14695074	SCR, 10x1/2, Type AB, SLT, HWH, SZN	4
	*	240008218	DC PUMP CABLE	1
	*	240008212	10-32-1/2" SELF TAPPING BPHX MOUNTING SCREWS	2
	*	240007683	2-1/8" x 4", ECR FW Label	1
	*	135	COLLET CLIP	1
	9	480	FTG,ELBOW,1/2"CTS x 1/2"NPT,PLSTC	1

Assy #3001706 Includes Assy #3001708 - Shown on page 5

* Not Shown

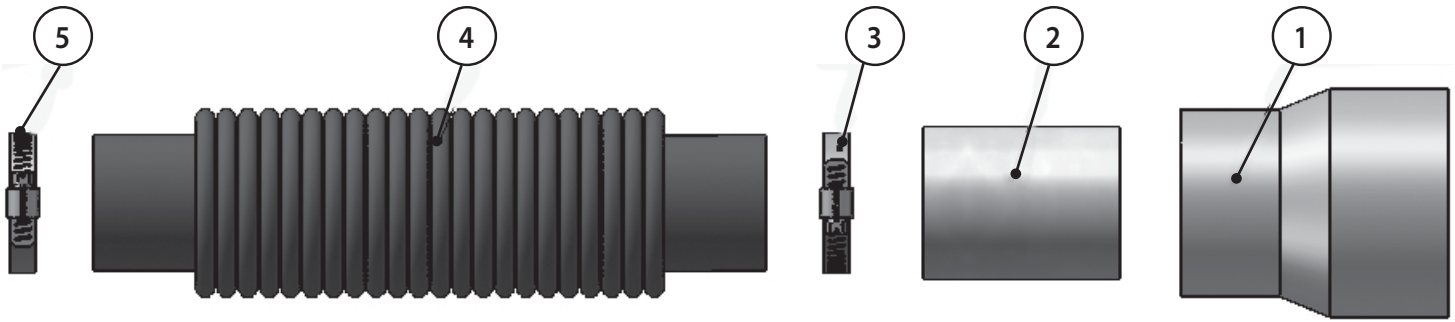
HYDRONIC freewatt® PLUS MODEL HDJ - MECHANICAL ASSEMBLY



freewatt® PLUS, HDJ MECHANICAL ASSEMBLY, #3001708

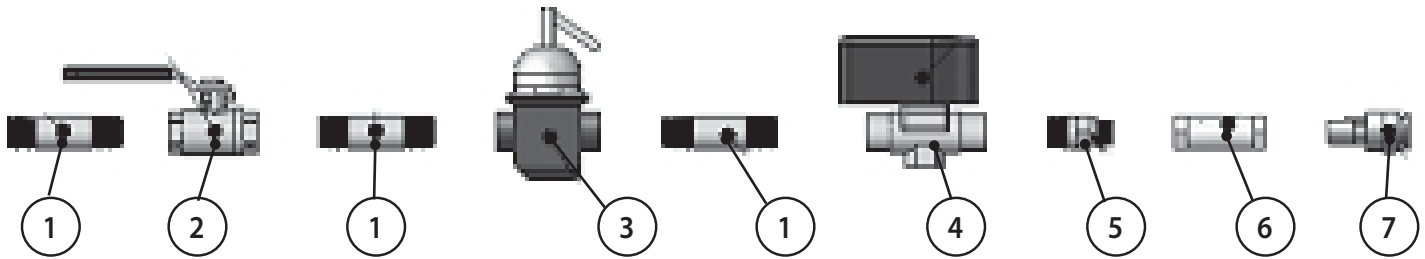
		ITEM	PART #	Description	QTY.
HDJ Mechanical Assy #3001708	includes all items listed	1	124	TANK, COOLANT, 2QT, Includes Cap and Gasket	1
		2	109008087	MECHANICAL SUB ASSY BACKING PLATE	1
		4	139	SPCR,PLSTC,MIXING VLV, freewatt® PLUS WA HI MOD	1
		5	130	CLAMP,MIXING VLV, freewatt® PLUS WA HI MOD	1
		6	136	SCR, #10x1-3/4", PH, PHL SLT, SZN	1
		7	135	CLIP,COLLET,WATTS 3547B-10	2
		8	132	FTG,TEE,1/2"MALE NPTx1/2"CTSx1/2"CTS,PLS	1
		9	240007703	BKT,PUMP,FW J-LAING # 8114	1
		10	240007792	SCR,#10-32x1/2",PH,PHL SLT,SZN	1
		12	109007778	BRKT,PUMP,FW J	1
		13	131	WSHR,#10x.685" OD,FLAT,SZN	4
		14	123	SCR,#10x3/4,HWH,TYPE AB,SLT,SZN	4
		*	14695074	SCR. #10X1/2. HWH, TYPE AB, SLT, SZN	10
		*	485	NUT LOCK, THIN #10-32, SZN	1
		*	377	LBL,TANK, freewatt® PLUS	1
(Item # 3) # 3001709 ASSY, MIXING VLV, freewatt® PLUS HDJ					
Assy # 3001709		15	630	FTG,MALE STEM,1/2"CTS x 1/2"MNPT,PLSTC	2
		16	240007955	VLV,MIXING	1
		17	480	FTG, Elbow, 1/2" CTS x 1/2" NPT, PLSTC	
(ITEM # 11) YM2J Coolant Pump Replacement Kit # 550002153					
Kit# 550002153		17	480	FTG,ELBOW,1/2"CTS x 1/2"NPT,PLSTC	1
		18	240007702	PUMP,FW J-LAING-D5-74369	1
		15	630	FTG,MALE STEM,1/2"CTS x 1/2"MNPT,PLSTC	1

HYDRONIC freewatt® PLUS MODEL HDJ



freewatt® PLUS, MCHP YM2J EXHAUST KIT #550002038				
	Item	Part #	Description	QTY.
Kit # 550002038 includes all items listed	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
	*	240008216	Supplemental Instructions	1

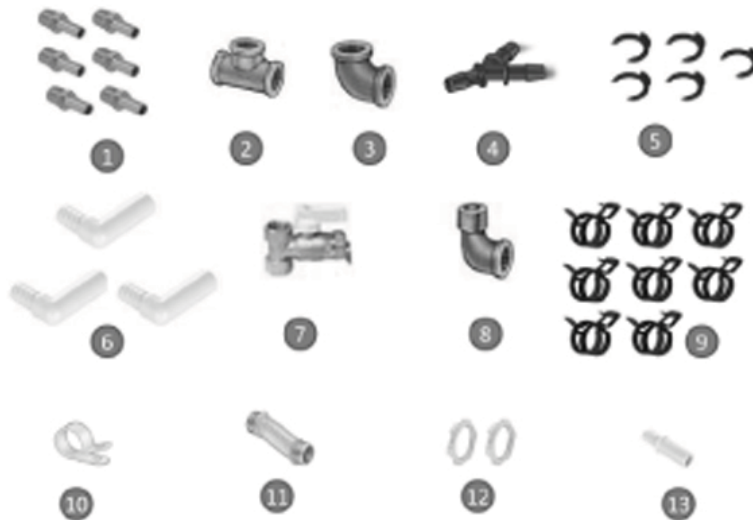
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Water Cooled Heat Rejection Kit #550002037				
	Item	Part #	Description	QTY.
Water Cooled Heat Rejection Kit #550002037 includes all items listed	1	240007830	Nipple, 1/2" NPT x 3", Brass	3
	2	240007829	Valve, Ball, 1/2", NPT x NPT, Female	1
	3	240007807	Regulator, Feed Water, Watts TB1156F	1
	4	240007805	Valve, Zone, 1/2" NPT, 2 WAY, 24V, Taco Z050T2-1	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

HYDRONIC freewatt® PLUS MODEL HDJ



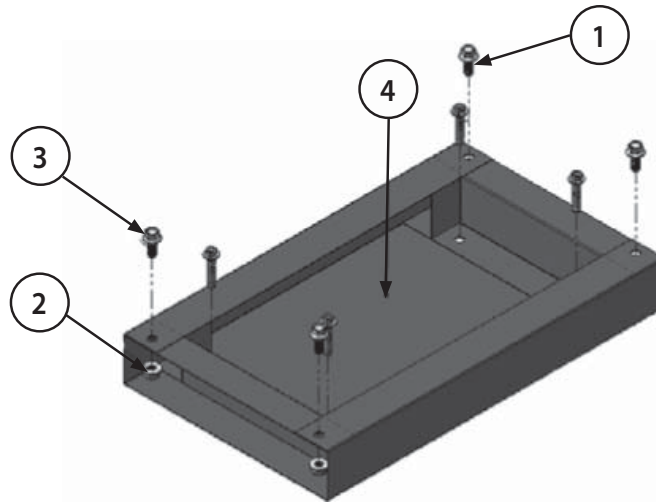
Kit# 550002144 Kit, Cooling Tubing, MCHP, HDJ				
Kit# 550002083 includes all items listed	Item	Part #	Description	QTY.
	1	246	FTG,1/2" MNPT x 1/2" BARB STRAIGHT	6
	2	24008203	1/2" BRASS TEE	1
	3	245	FTG,ELBOW,1/2",BR	1
	4	422	FTG,WYE,1/2" TUBE BARB,NYLON	1
	5	135	CLIP,COLLET,WATTS 3547B-10	5
	6	494	FTG,ELBOW,1/2"CTS x 1/2"BARB,PLSTC	3
	7	720	1/2" BALL VALVE	1
	8	721	FTG,ELBOW,STRT 90,1/2"MNPT x 1/2"FNPT,BR	1
	9	248	CLAMP,HOSE,1/2" SELFTITE	10
	10	383	CLAMP, 1/4"OD, SING HOLE, NYLON	1
	11	240007811	NIPPLE,CONDUIT OFFSET	1
	12	240008037	NUT,LOCK,3/4"CONDUIT,SZN	2
	13	138	PLASTIC HOSE BARB FITTING	1



RC-1000 freewatt Communicating Smart Zone Thermostat		
Part #	Description	QTY
240007731	RC1000WH-ECR Thermostat	1

HYDRONIC freewatt® PLUS MODEL HDJ

Hydronic freewatt® PLUS Integration Parts		
Part Number	Description	QTY.
247	Onix Tubing	25 FT
295	Threaded Tube, 1/2" Id, 15/16-16D, 1/2" FIP x 1/2" FIP	1
Z216FW	ARM-6P Pump Controller/Switching Relay	1
Z140CFW	AR822-II Pump Controller/Switching Relay	1
240007717	YM2J Communication Harness	1
Z298FW	AZ-6CP Zone Valve Controller	1
Z180FW	ARH-3 Air Handler Controller	1



MCHP Base Assembly Kit - #550002122 (includes all items listed below)

		Item	Part #	Description	QTY.
Kit #550002122 Base Assembly includes all items listed	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

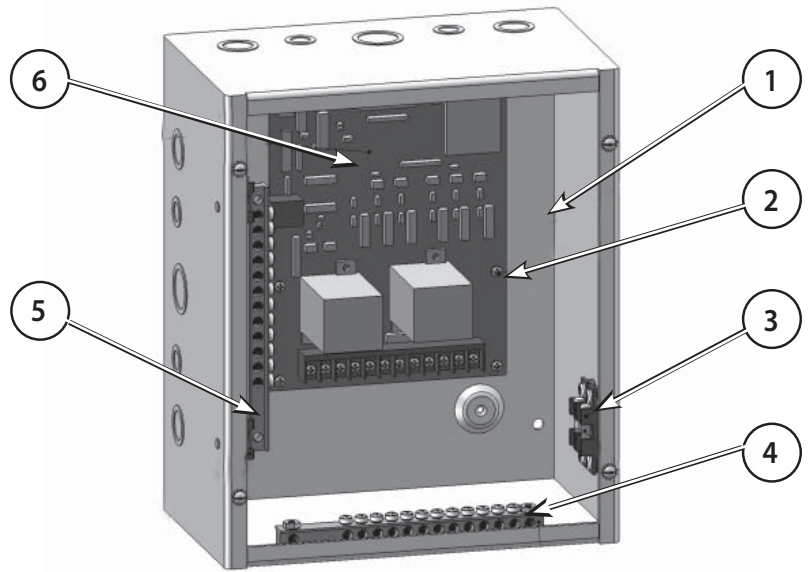
freewatt® HDJ , Literature Document Kit #3001703, (not shown)

		Part #	Description	QTY.
Kit #3001703 freewatt® HDJ Literature Document includes all items listed	240008214	freewatt® PLUS HDJ Instruction Operation Maintenance Manual	1	
	240008215	freewatt® PLUS User's Information Manual HDJ	1	
	240008219	ECR, freewatt® PLUS Limited Warranty HDJ	1	
	240007836	freewatt® PLUS , Label, Honda, Main Panel	1	
	240008295	freewatt® PLUS , IOM, Control Mod, HDJ	1	
	240008323	freewatt® PLUS , Commissioning Procedure HDJ	1	
	240008322	freewatt® PLUS , Color Wiring Schematics HDJ	1	
	240007618	freewatt® PLUS , Extended Warranty Envelope	1	
	240008294	freewatt® PLUS , Repair Parts HDJ	1	

HYDRONIC freewatt® PLUS MODEL HDJ - TRANSFER SWITCH

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

HYDRONIC freewatt® PLUS MODEL HDJ



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

NOTICE

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

Transformer (Not Shown)

Part #	Description	QTY
3001689	Load Balancing Transformer	1

KIT # 550002075SVC ,Replacement,BATTERY,YM2J

Kit	Part #	Description	QTY.
#550002075SVC Replacement Battery, YM2J includes all items listed	240007729SVC	Battery, YM2J SVC, Honda 315000-YM2K-A52	1
	240008144	Supplement Literature, Battery	1
	240008345	Literature, MSDS, MCHP Honda Battery	1

Exhaust Gas Sensor

Part #	Description	QTY.
287	Carbon Monoxide Detector	1

Outdoor Sensors, (not shown)

Part #	Description	QTY.
288	Tekmar (freewatt® Control Module)	1
240004804	Outdoor Sensor Honeywell (Boiler)	1

HYDRONIC freewatt® PLUS MODEL HDJ - ACCESSORIES

Condensate Pump - Lower Power Consumption (not shown)

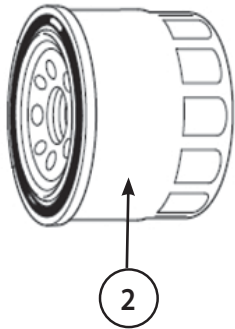
Part #	Description	QTY.
240007793	Laing TP1 Condensate Pump	1

HYDRONIC freewatt® PLUS MODEL HDJ - PERIODIC MAINTENANCE

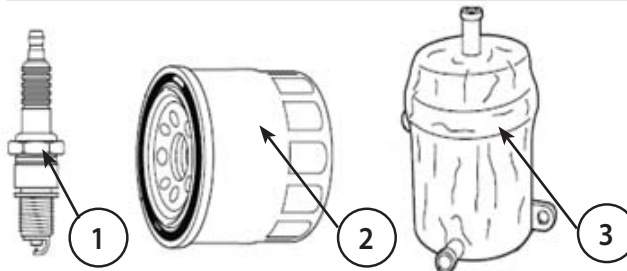
Honda MCHP Shop Manual, (not shown)		
Part #	Description	QTY.
61YM210	Honda MCHP1.2D/DP (YM2J) Shop Manual	1

MCHP, Honda Coolant Kit #3001566, (not shown)		
Part #	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 MCHP, YM2 (A, Z & J), 6K/18K Hr Service Kit #550002024				
	Item	Part Number	Description	QTY.
Service Kit #550002024 freewatt® PLUS MCHP 6K/18K Hour includes all items listed	1	240007667	MCHP Spark Plug	1
	2	240007665	MCHP Oil Filter	1
	*	240007668	MCHP Head Cover Gasket	1
	*	221	MCHP Oil 4 Liters	1
	*	240007672	12mm Crush Washer	1
	*	240007697	MCHP Oil Literature	1
	*	240008862	MCHP1.2U Instructions	1
	*	240008879	MCHP1.2D/DP Instructions	1
	* Not Shown			



freewatt® PLUS MCHP, YM2 (A, Z & J), 12K Hr Service Kit #550002045				
	Item	Part Number	Description	QTY.
Service Kit #550002045 freewatt® PLUS MCHP 12K Hour includes all items listed	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			

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