



SWIMMING POOL HEAT PUMP UNIT

Installation & Instruction Manual

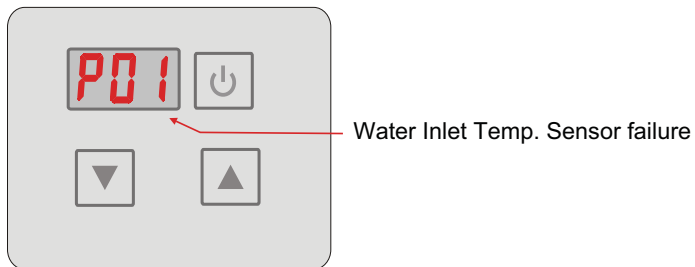
Model HP50CL
 HP65CL
 HP80CL



There will be malfunction code showing on the controller screen when relative malfunction occurs.

If there are more than one malfunctions occurs at the same time, you can check the current error codes list by pressing “▲” or “▼” key.

You can refer to the malfunction table to find out the failure cause and solution. For example :



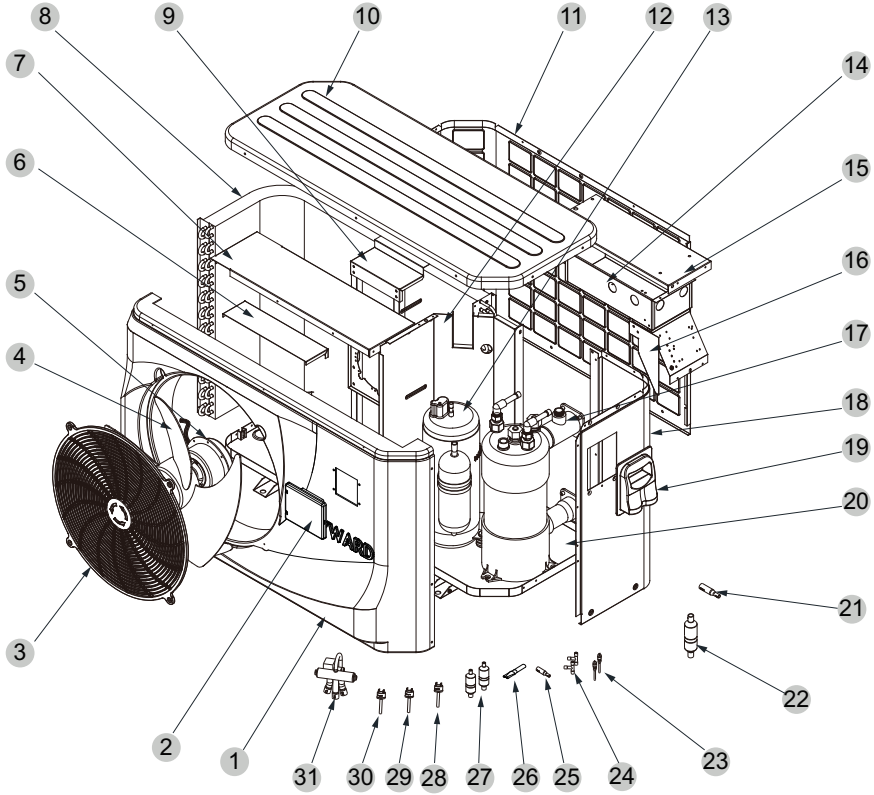
ERROR CODE

The common failure cause and solution.

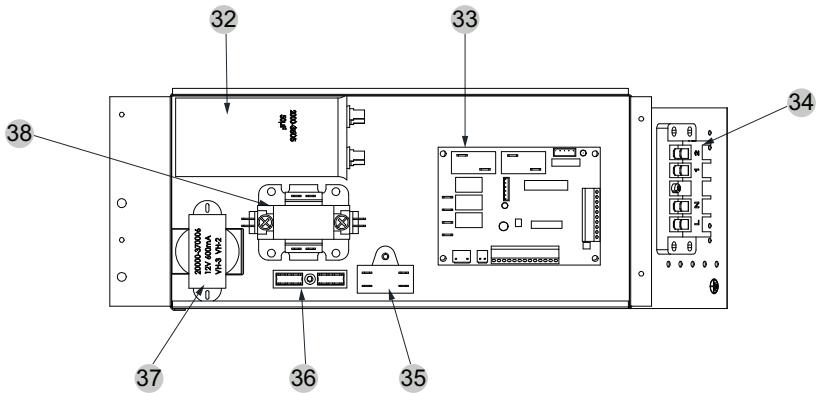
Malfunction	Display	Cause	Solution
Water inlet temp. Sensor failure	P01	The water inlet temp. Sensor is open or short circuit	Check or change the water inlet temp. Sensor
Water outlet temp. Sensor failure	P02	The water outlet temp. sensor is open or short circuit	Check or change the water outlet temp. Sensor
Ambient temp. Sensor failure	P04	The ambient temp. sensor is open or short circuit	Check or change the ambient temp. Sensor
Pipe temp. Sensor failure	P05	The pipe temp. sensor is open or short circuit	Check or change the pipe temp. Sensor
Evaporator temp. Sensor failure	P07	The evaporator temp. Sensor is open or short circuit	Check or change the evaporator temp. Sensor
High pressure protect	E01	The exhaust pressure is high , high pressure switch action	Check high pressure switch and cooling return circuit
Low pressure protect	E02	The suction pressure is low, Low pressure switch action	Check low pressure switch and cooling return circuit
Flow switch failure	E03	No water or litter water in water system	Check the flow volume ,water pump is failure or not
Temp. is too much different between water-inlet and outlet	E06	Water flow volume not enough, Water system pressure difference is small	Check the flow volume,water system is jammed or not
Antifreezing under cooling mode	E07	Water flow volume not enough	Check the flow volume,water system is jammed or not
The primary anti-freezing protection start.	E19	Ambient temperature is too low	
The second anti-freezing protection start	E29	Ambient temperature is too low	
Communication failure	E08	Communication failure between remote wire controller and main board	Check the wire connection between remote wire controller and main board

Exploded View(HP50CL)

Complete machine structure explosion diagram



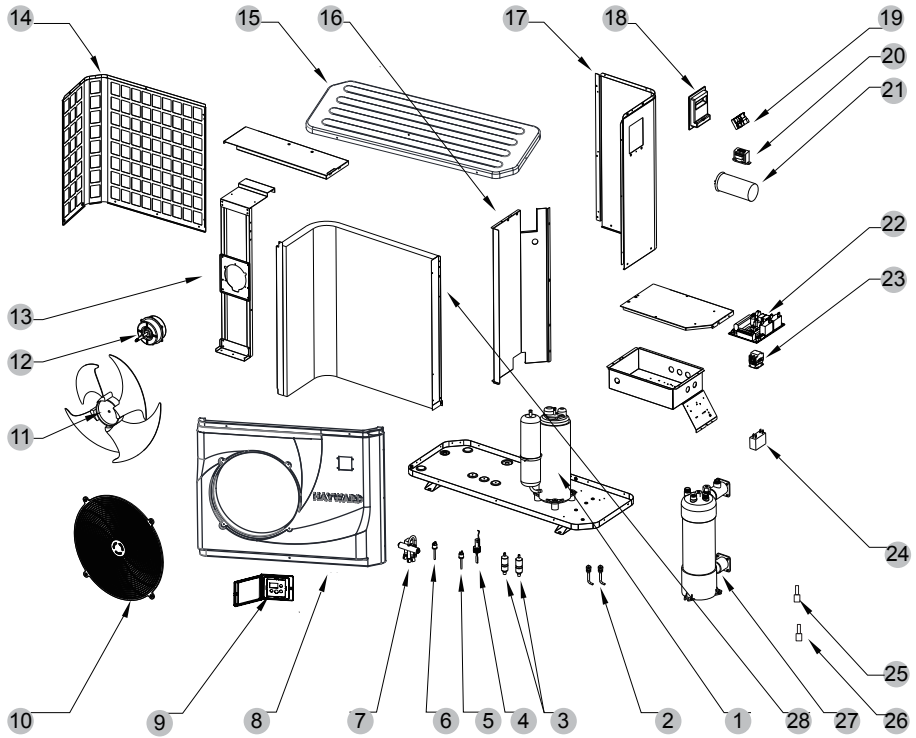
(2) Electrical control structure explosion diagram



Spare Parts List

SN	HPX Code	Description	Specifications	Qty
1	HPX80900197	Front frame	ABS	1
2	HPX72200268	LED207 Wire controller	82300029+82400226	1
3	HPX20000-220188	Plastic fan net	Φ507 ABS+30%GF	1
4	HPX3500-2701	Fan blade	Φ440×152 AS+20%GF	1
5	HPX20000-330124	Motor	YDK45-6(YY060-1206P01-004) UL	1
6	HPX32008-210069	Before the fixed plate	Galvanized sheet	1
7	HPX32012-210737	Support plate	Galvanized sheet	1
8	HPX32012-120165	Finned heat exchanger	746.5×284×600×Φ7×2 2.0	1
9	HPX32012-210742	Motor bracket	Galvanized sheet	1
10	HPX32012-220009	Top	ABS	1
11	HPX80700707	On the left side of the plate	Galvanized sheet	1
12	HPX80700713	Partition	Galvanized sheet	1
13	HPX20000-110041	Compressor	PA270X3CS-3MUU	1
14	HPX32012-210739	Electrical box	Galvanized sheet	1
15	HPX32012-210740	Cover plate	Galvanized sheet	1
16	HPX32012-210220	Fire damper	Galvanized sheet	1
17	HPX32012-120036	Titanium tube heat exchanger	Φ12.7×9m Φ160	1
18	HPX80700706	Right side of the plate	Galvanized sheet	1
19	HPX32009-220029	Junction box body	ABS	1
20	HPX80700708	Chassis	Galvanized sheet	1
21	HPX2002-1443	Get straight through	Φ19-Φ12.9×1.0 T2M	1
22	HPX2001-1499	Check valve	PKV-6X1	1
23	HPX20000-140150	Needle valve	40mm 1/2"	2
24	HPX2000-1460	Tee	Φ6.5-2×Φ6.5(T)×0.75 T2M	2
25	HPX20000-140058	Get straight through	Φ9.52-Φ3.×0.75 T2M	1
26	HPX20000-140067	Double capillary joint	2×Φ3.4-Φ9.52	1
27	HPX2004-1444	Filter	Φ9.7-Φ9.7 (Φ28) T2Y2	2
28	HPX2000-3603	Pressure switch	0.30MPa/0.15MPa ±0.05 NO	1
29	HPX2001-3605	Pressure switch	3.2MPa/4.4MPa ±0.15 NC	1
30	HPX20000-360059	Pressure switch	3.2MPa/4.0MPa ±0.15 NC	1
31	HPX2001-1418	Four-way valve	SHF-7H-34U-P/C02C00S	1
32	HPX2000-3505	Compressor capacitor	CBB65-50μF/450V P2 Blv	1
33	HPX95005-310145	PC1001	20000-430001+35005-310145	1
34	HPX20000-390231	Five position connector	UTD-32/5P(L1、L2、PE、1、2)	1
35	HPX2000-3501	Fan capacitor	CBB61-3μF/500V(450V)P2	1
36	HPX2000-3909	Two position connector	RS9211(450V~ 4mm ²)	1
37	HPX20000-370006	Power transformer	41X26.5F+red(VH-3)、yellow(VH-2)	1
38	HPX20000-360103	Single-phase ac contactor	HCC-2XU04AA415	1

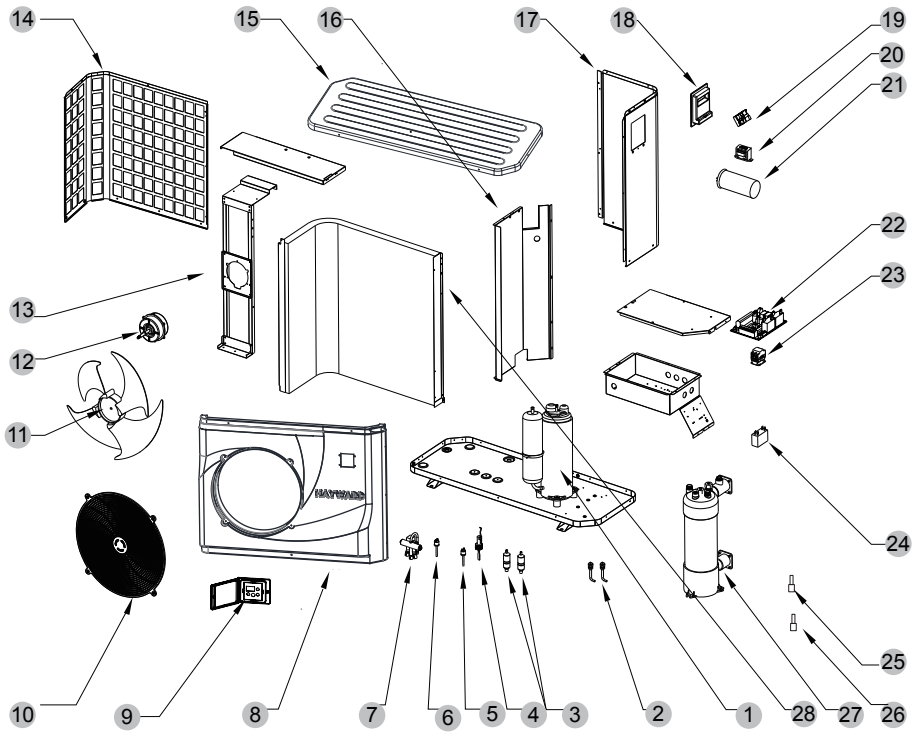
Exploded View(HP65CL)



Spare Parts List

SN	HPX Code	Description	Specifications	Qty
1	HPX20000-110192	Compressor	C-SBP105H16A	1
2	HPX20000-140153	Needle valve	90mm 1/2" T0306-10	2
3	HPX2004-1444	Filter	Φ9.7-Φ4.2(Φ28) T2Y2	2
4	HPX20000-360005	Water Flow switch	PSL-1 3/4	1
5	HPX2000-3603	Pressure switch	0.30MPa/0.15MPa ±0.05	1
6	HPX20000-360059	Pressure switch	3.2MPa/4.0MPa ±0.15	1
7	HPX2004-1437	4-way valve	SHF-9H-35U-P/C03C01S	1
8	HPX80901028	Front panel	ABS	1
9	HPX72200268	LED207 Wire controller	82300029+82400226	1
10	HPX20000-220169	Plastic fan net	Φ500	1
11	HPX20000-270004	Axial flow fan	Z500-145	1
12	HPX20000-330143	Axial flow fan	YDK90-6(YV070-1206P01-001)	1
13	HPX32009-210204	Fan Motor bracket	Galvanized sheet	1
14	HPX80708920	Back net	Galvanized sheet	1
15	HPX32009-210331	Top cover	ABS	1
16	HPX32009-210220	Middle partition	Galvanized sheet	1
17	HPX80711034	Right panel	Galvanized sheet	1
18	HPX20000-220284	The junction box body	ABS	1
19	HPX2000-3909	3-position terminal block	RS9211(450V~ 4mm ²)	1
20	HPX20000-370006	Transformer	41X26.5F+(VH-3)、(VH-2)	1
21	HPX2000-3524	Compressor capacitor	BB65A-98μF/300VAC	1
22	HPX95005-310145	PC1001 Controller	82300022+35005-310145	1
23	HPX20000-360125	Ac contactor	XTCG032C00AO	1
24	HPX2000-3509	Fan capacitor	CBB61-5uF/500V(450V)P2	1
25	HPX2000-3242	Sensor	150-502-98674(5K) 800mm	1
26	HPX2000-3223	Sensor	714×353×800×Φ7×2 2.0	1
27	HPX32009-120025	Titanium Tube Heat Exchanger	Φ12.7×12m Φ160	1
28	HPX32009-120021	Fin Heat Exchanger	150-503-96115(50K) 600mm	1

Exploded View(HP80CL)



Spare Parts List

SN	HPX Code	Description	Specifications	Qty
1	HPX20000-110038	Compressor	C-SBP120H16A	1
2	HPX20000-140153	Needle valve	90mm 1/2" T0306-10	2
3	HPX2004-1445	Filter	Φ9.7-Φ4.2(Φ28) T2Y2	2
4	HPX20000-360005	Water Flow switch	PSL-1 3/4	1
5	HPX2000-3603	Pressure switch	0.30MPa/0.15MPa ±0.05	1
6	HPX20000-360059	Pressure switch	3.2MPa/4.0MPa ±0.15	1
7	HPX2001-1491	4-way vlave	SHF-20A-46/V6-412080-1XX	1
8	HPX80901028	Front panel	ABS	1
9	HPX72200268	LED207 Wire controller	82300029+82400226	1
10	HPX20000-220169	Plastic fan net	Φ500	1
11	HPX20000-270004	Axial flow fan	Z500-145	1
12	HPX20000-330143	Axial flow fan	YDK90-6(YY070-1206P01-001)UL	1
13	HPX32009-210204	Fan Motor bracket	Galvanized sheet	1
14	HPX80708920	Back net	Galvanized sheet	1
15	HPX32009-210331	Top cover	ABS	1
16	HPX32009-210220	Middle partition	Galvanized sheet	1
17	HPX80711034	Right panel	Galvanized sheet	1
18	HPX20000-220284	The junction box body	ABS	1
19	HPX2000-3909	3-position terminal block	UTD-63A/3P(L N PE)	1
20	HPX20000-370006	Transformer	41X26.5F+(VH-3)、(VH-2)	1
21	HPX2000-3524	Compressor capacitor	BB65A-98μF/300VAC	1
22	HPX95005-310145	PC1001 Controller	82300022+35005-310145	1
23	HPX20000-360125	Ac contactor	XTCG032C00AO	1
24	HPX2000-3509	Fan capacitor	CBB61-5uF/500V(450V)P2	1
25	HPX2000-3242	Sensor	150-502-98674(5K) 800mm	1
26	HPX2000-3223	Sensor	150-503-96115(50K) 600mm	1
27	HPX32010-120012	Titanium Tube Heat Exchanger	Φ12.7×14m Φ160SSSS	1
28	HPX32009-120021	Fin Heat Exchanger	714×353×800×Φ7×2 2.0	1