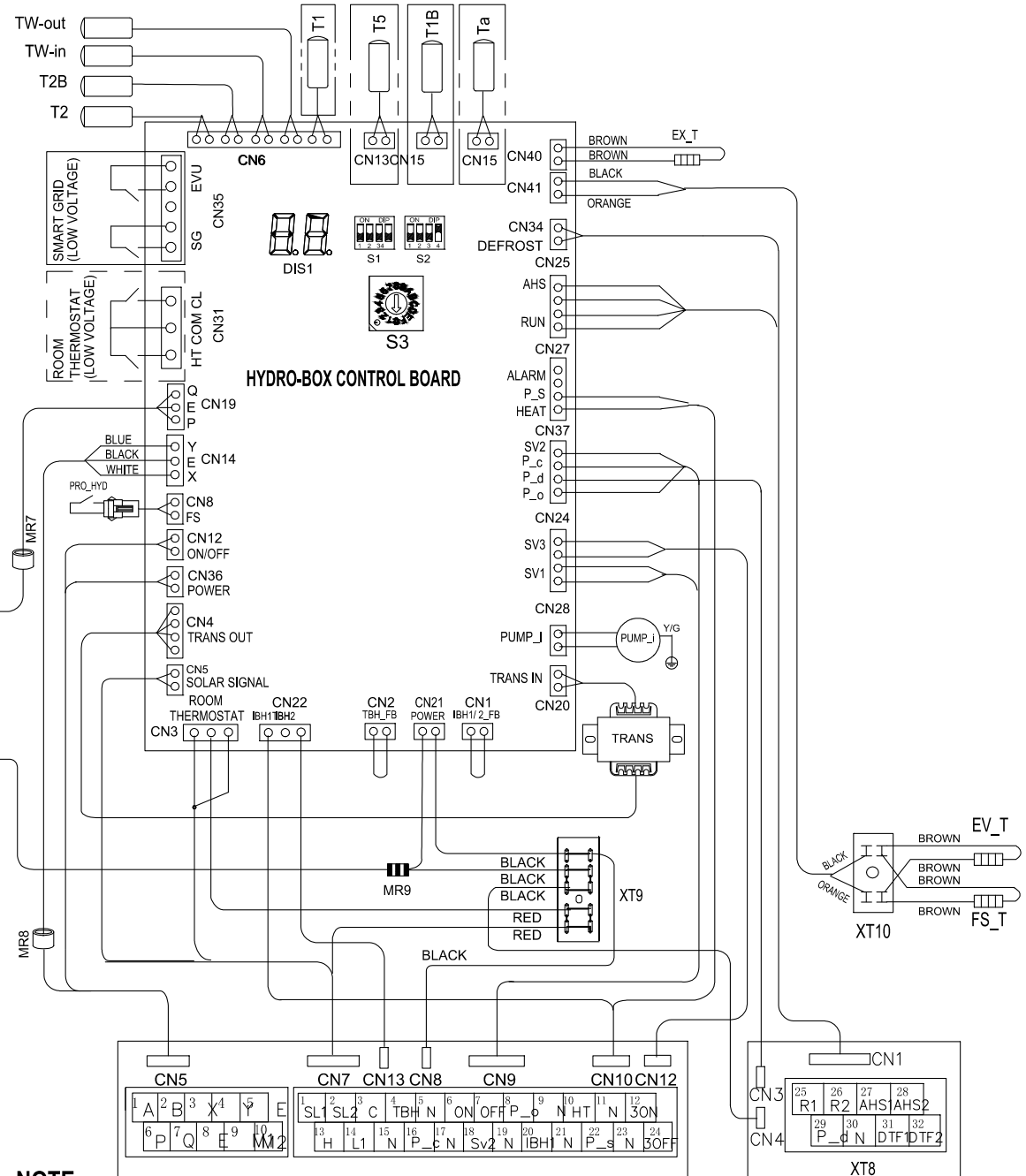
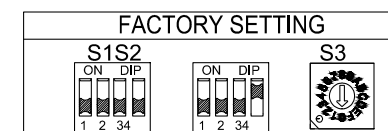


OUTDOOR UNIT POWER SUPPLY
 Leakage Protection Switch must be installed to the Power Supply of the electric heating.
Equipment must be grounded.



NOTE

- Equipment must be grounded.
- All high-voltage external load, if it is metal or a grounded port, must be grounded.
- External load current is needed less than 0.5A, if the load current is greater than 0.5A, the load must be controlled through AC contactor. Each external load current is needed less than 0.5A
- "AHS1" "AHS2", "A1" "A2", "R1" "R1" and "DTF1" "DTF2" wiring terminal ports provide only the switch signal.



DIP switch	ON=1	OFF=0	Factory defaults
1	Reserved	Reserved	OFF
2	With solar energy	Without solar energy	OFF
3/4	0/0=Without IBH and AHS 0/1=With AHS for heat mode 1/0=With IBH 1/1=With AHS for heat mode and DHW mode		3:OFF 4:OFF
1	Start outside circulator pump after six hours will be invalid	Start outside circulator pump after six hours will be valid	OFF
2	Without TBH/With TBH		OFF
3/4	0/0=variable speed pump(Max head:8.5m) 0/1=constant speed pump 1/0=variable speed pump(reserved) 1/1=variable speed pump(Max head:9m)		3:OFF 4:ON

CODE	PART NAME
IBH1/2	Internal electric heater
XT6-XT11	Terminal blocks
PRO_HYD	Flow switch
FS_T	Flow switch E-Heating tape
EV_T	Expansion valve E-Heating tape
EX_T	Plate heat exchanger E-Heating tape
MR7-MR9	Magnetic ring

Display	Malfunction or Protection
E0	water flow fault(three times E8)
E2	Communication malfunction between controller and indoor unit
E3	The backup heater exchanger outlet water temp.sensor (T1) malfunction
E4	water tank temp.sensor(T5) malfunction
E8	water flow fault
Ed	Inlet water temp.sensor(Tw_in) malfunction
EE	Hydro-box PCB EEPROM fault
H0	Communication malfunction between hydro-box and outdoor unit
H2	Hydro-box plate exchanger freon outlet (heat) temp.sensor (T2) malfunction
H3	Hydro-box plate exchanger freon inlet (heat) temp.sensor (T2B) malfunction
H5	Room temp.sensor (Ta) malfunction
HA	Hydro-box plate exchanger water outlet temp.sensor (Tw_out) malfunction
H9	Auxiliary heat source water outlet temp. sensor (T1B) malfunction
P5	[Tw_out-Tw_in] value too big protection
Pb	Anti-freeze mode protection
PP	Tw_out-Tw_in unusual protection

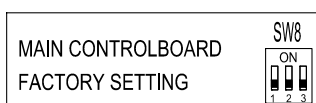
Temp. Sensor code	Property values
T2/T2B	B _{25/50} =4100K , R _{25°C} =10kΩ
T1/T5/T1B TW_in/TW_out	B _{0/100} =3970K , R _{50°C} =17.6kΩ

HYDRO-BOX CONTROL BOARD	
Sequence	Content
0	Normal display :OFF:0;ON:T1 (Show Twout When T1 invalid and including T1 is not set or T1 fault)
1	Mode (0/Off;2/Cool;3/Heat;5/Heat water)
2	Capacity requirements
3	Capacity requirements (Correct)
4	T1:final outlet water temperature
5	T1B: outlet water temperature of zone2
6	T1S:setting outlet water or zone 1 temprature
7	T1S2: setting outlet water temprature for Zone 2
8	Ta:room temperature
9	T5:tank water temperature
10	T2: refrigerant liquid temperature
11	T2B: refrigerant gas temperature
12	Tw_out: outlet water temperature of plate heat exchanger
13	Tw_in: inlet water temprature of plate heat exchanger
14	T4:ambient temperature of outdoor
15	Current IBH2
16	Current IBH1
17	Last fault
18	Last second failure
19	Last third failure
20	Software version
21	---

MAIN CONTROL BOARD	
Sequence	Content
0	Normal display: OFF:0; ON:frequency
1	Mode: 0:Off; 2:Cool 3:Heat;4:Force Cool
2	Fan speed
3	Capacity requirements
4	Capacity requirements (Correct)
5	Frequency limit code
6	T3
7	T4
8	Tp
9	Th
10	---
11	Electric expansive calve
12	Input current
13	Compressor current
14	input voltage
15	DC bus voltage
16	Pressure value
17	Software version
18	Last fault
19	---

CN35--SMART GRID		
Operating behavior	EVUSG	
Increased operation	ON	ON
output	ON	OFF
Normal operation	OFF	ON
Decreased operation	OFF	OFF

Temp. Sensor code	Property values
T3/T4/T6(Th)	B _{25/50} =4100K , R _{25°C} =10kΩ
T5(Tp)	B _{25/50} =3950K , R _{50°C} =5kΩ



Code	Part Name
CAP1-CAP5	Capacitor
COMP.	Compressor
CT1	AC current detector
EEV.	Electric expansive valve
FAN	Outdoor fan motor
HEAT1	Compressor electrical heating tape
H-PRO	High pressure switch
H-SEN	Pressure sensor
KM1,KM2	AC contactor
L-PRO	Low pressure switch
MR1-MR6	Magnetic ring
PTC1,PTC2	Thermal resistor
R1-R5	Resistor
STF1	4-Way valve
SV5	Chassis electrical heating tape
SV6	SV6 valve
	Condenser temp.sensor
	Outdoor ambient temp.sensor
	Compressor discharge temp.sensor
	Suction temp.sensor
XT1-XT4	Terminal block
	Voltage dependent resistor

Display	Malfunction or Protection
E1	Power fault
E5	Outdoor unit T3 temp.sensor malfunction
E6	Outdoor unit T4 temp.sensor malfunction
E9	Outdoor unit T6(Th) temp.sensor malfunction
EA	Outdoor unit T5(Tp) temp.sensor malfunction
F1	DC generatrix low voltage protection
H0	Communication malfunction between hydro-box and outdoor unit
H1	Communication malfunction between inverter board and main control board
H4	Three times P6 protection Heat pump syserm high pressure protection
H6	DC fan motor fault
H7	Voltage protection
H8	Pressure sensor malfunction
HF	Outdoor unit EEPROM fault
HH	10 times H6 in 120 minutes
HLPFC	module fault
HP	3 times low pressure protection in 1 hour

Display	Malfunction or Protection
L0	Module protection Heat pump syserm high pressure protection
L1	DC generatrix low voltage protection Heat pump syserm high pressure protection
L2	DC generatrix high voltage protection Heat pump syserm high pressure protection
L4	MCE malfunction
L5	Zero speed protection
L7	Phase sequence protection
L8	Speed difference >15Hz protection between the front and the back clock
L9	Speed difference >15Hz protection between the real and the setting speed
P0	Heat pump system low pressure protection
P1	Heat pump syserm high pressure protection
P3	Compressor overcurrent protection
P4	Compressor discharge temp. too high protection
P6	Transducer module (IPM) protection
Pd	Outdoor unit exchanger temperature (T3) too high protection

