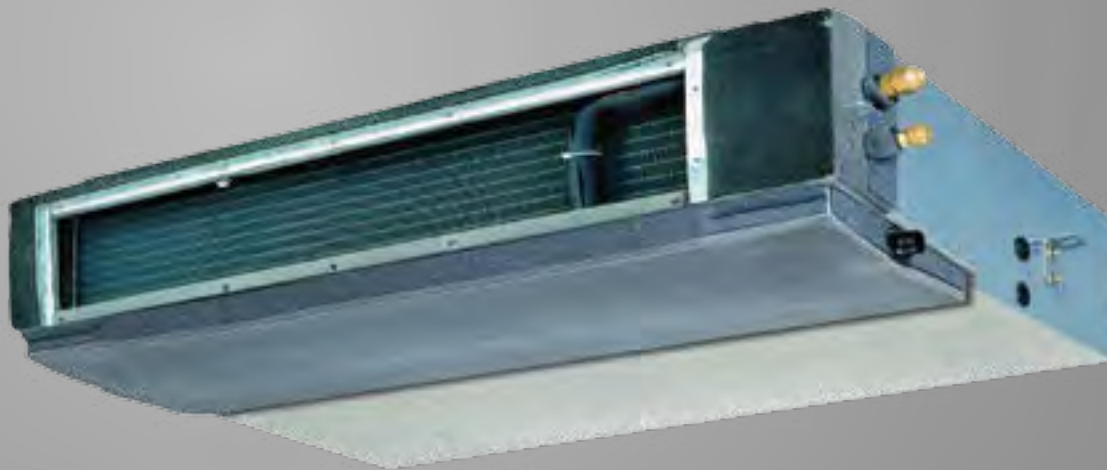


DUCTED SPLIT SYSTEM

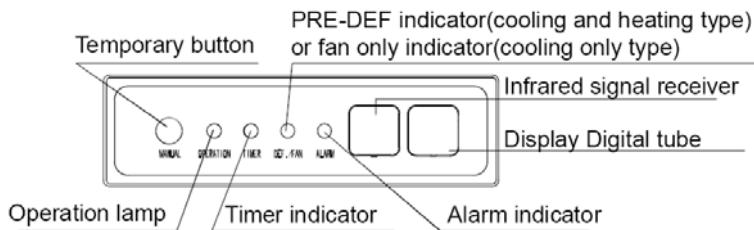


TRUST AIR CONDITIONING EQUIPMENT CO.
Prepared By: Engineering & R & D Department.

1. Troubleshooting

1.1 Self-diagnosis

(1) For series duct unit:



NO.	MALFUNCTION & PROTECTION DEFINE	LED1 OPERATION	LED2 TIMER	LED3 DEF FAN	LED4 ALARM	DISPLAY DIGITAL TUBE
1	Room temperature sensor checking channel is abnormal	●	○	●	●	E0
2	Pipe temperature sensor checking channel is abnormal	○	●	●	●	E1
3	Outdoor TEMP. sensor checking channel is abnormal	●	●	○	●	E2
4	Outdoor malfunction	○	●	●	○	E3
5	Pump temperature sensor malfunction	○	○	○	○	E4
6	EEPROM malfunction	○	○	●	●	E5
7	Water-level alarm malfunction	●	●	●	○	E6
		● Light	○ Flashing at 5HZ	○ Flashing at 1HZ		

(3) For the other types indoor units

No.	Type	Contents	LED Flashing	Remark
1	Normal	Standing-by	Operation lamp flashes at 0.5Hz	Nothing wrong with the unit when LED indicate these contents.
2	Normal	System Off	All lamps are off	
3	Normal	System startup	Operation lamp on	
4	Normal	Forced cooling	Operation lamp flashes at 5Hz, Timer lamp on	
5	Protection	Over current protection of the compressor occurs 4 times in 1h	Lamps of operation, timer, defrosting (only fan) flashing simultaneously at 5Hz.	Whole unit is shut down. It cannot recover unless power is cut off
6	Protection	Outdoor protection (lack of phase, phase sequence and temperature protection)	All lamps flashing at 5Hz	Recover automatically after errors are eliminated (For T3 malfunction of 5HP, can't recover automatically)
7	Error	Room temperature sensor checking channel is abnormal	Timer lamp flashing at 5Hz	
8	Error	Evaporator sensor checking channel is abnormal	Operation lamp flashing at 5Hz	
9	Error	Condenser sensor checking channel is abnormal	Defrosting lamp flashing at 5Hz	
10	Error	Communication of EEPROM malfunction	Operation lamp and timer lamp flashing at 5Hz	
11	Error	Water level alarm/pump sensor malfunction	Alarm lamp flashes at 5Hz	

Outdoor unit's LED indication

LEDs' for the indication of outdoor trouble (1 phase type)

Type	Contents	LED1	LED2	LED3
Normal	OK	Off	Off	On
Trouble	Protection of pressure	Flash	Flash	Off
Trouble	Overload of current	Off	Off	Flash
Trouble	Open-circuit and short-circuit trouble of T3	Off	Flash	Flash
Trouble	High temperature protection of condenser	Flash	Flash	Flash

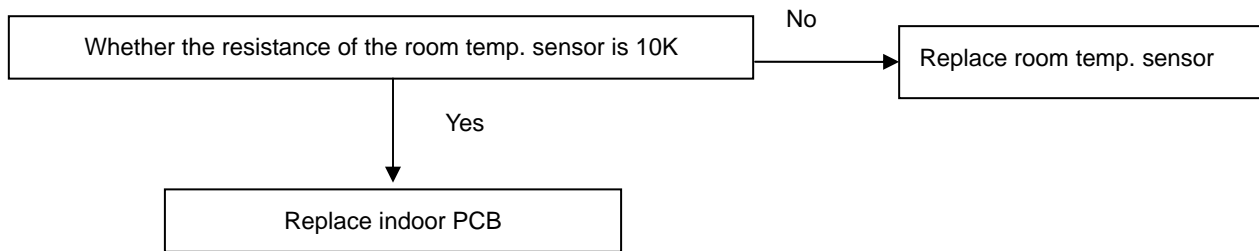
LEDs' for the indication of outdoor trouble (3 phase type)

Type	Contents	LED1	LED2	LED3
Trouble	Phase sequence	Flash	Off	Off
Trouble	Lack of phase(A,B)	Flash	Off	Off
Trouble	Lack of phase(C)	Off	Off	Off
Trouble	Protection of Low pressure	Flash	Flash	Off
Trouble	Overload of current	Off	Off	Flash
Trouble	Communication malfunction	Flash	Off	Flash
Trouble	Open-circuit and short-circuit trouble of T3	Off	Flash	Flash
Trouble	Open-circuit and short-circuit trouble of T4	Off	Flash	Off
Trouble	High temperature protection of condenser	Flash	Flash	Flash

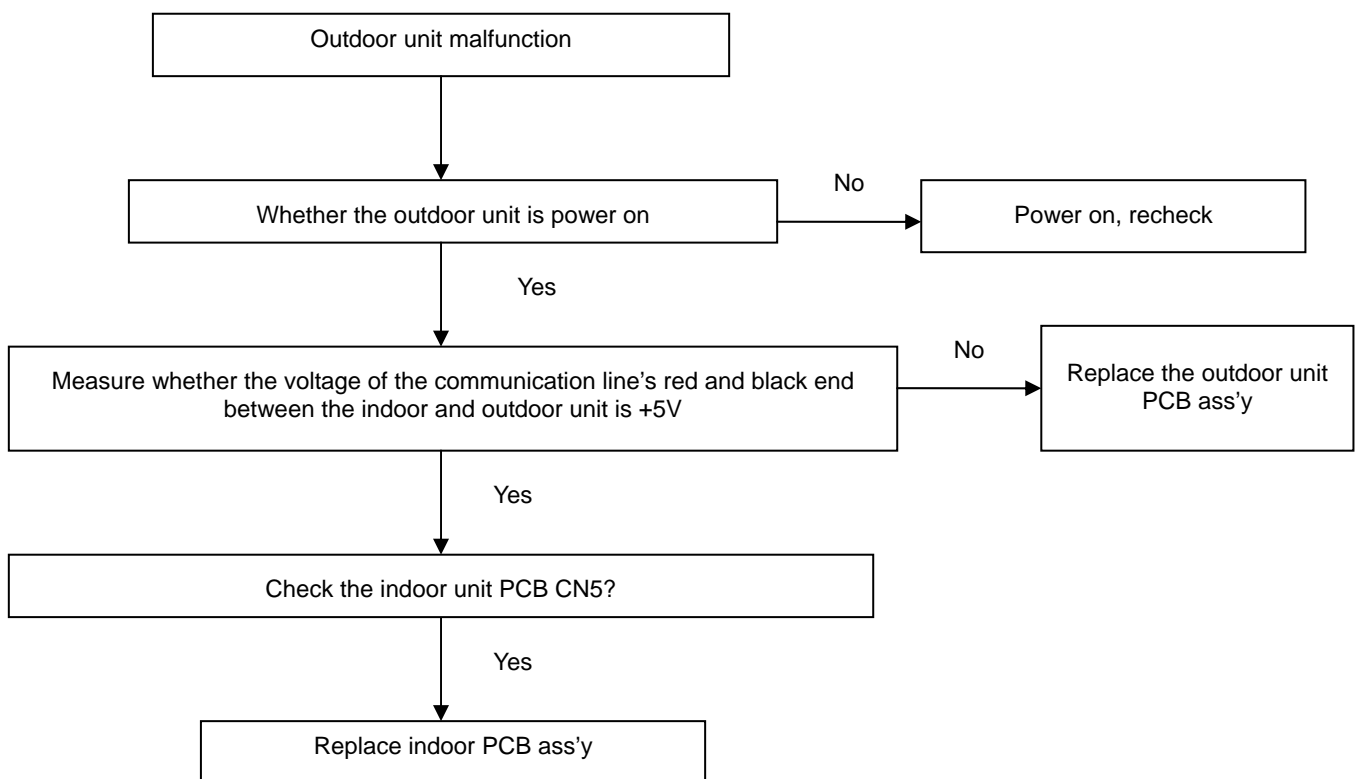
2. Solving steps for typical malfunction

(1) For the Indoor units:

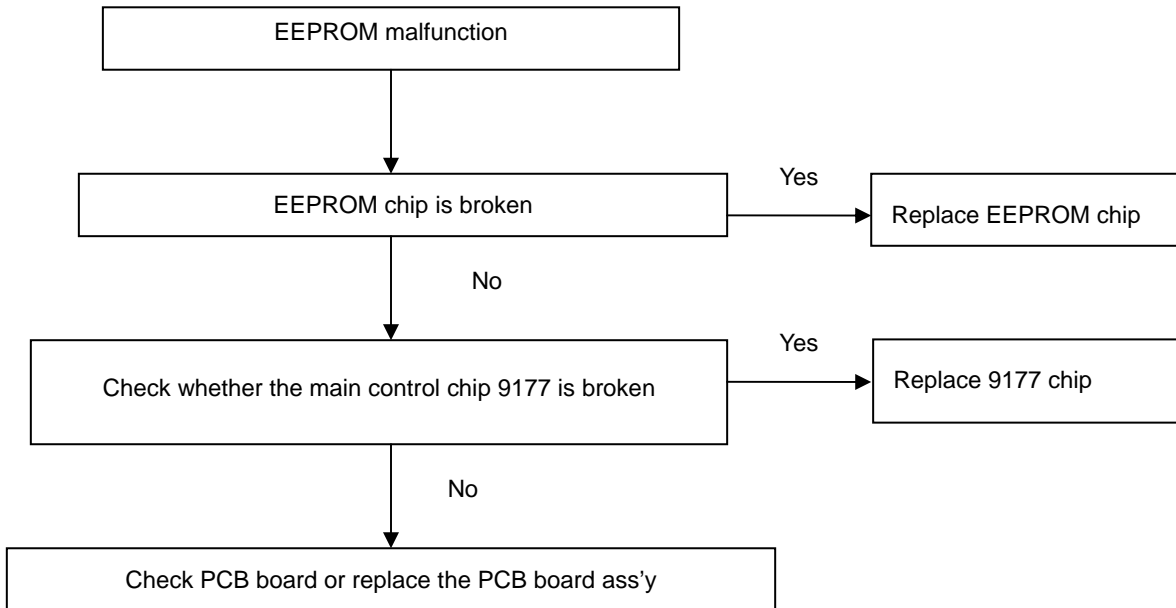
Temperature sensor is abnormal



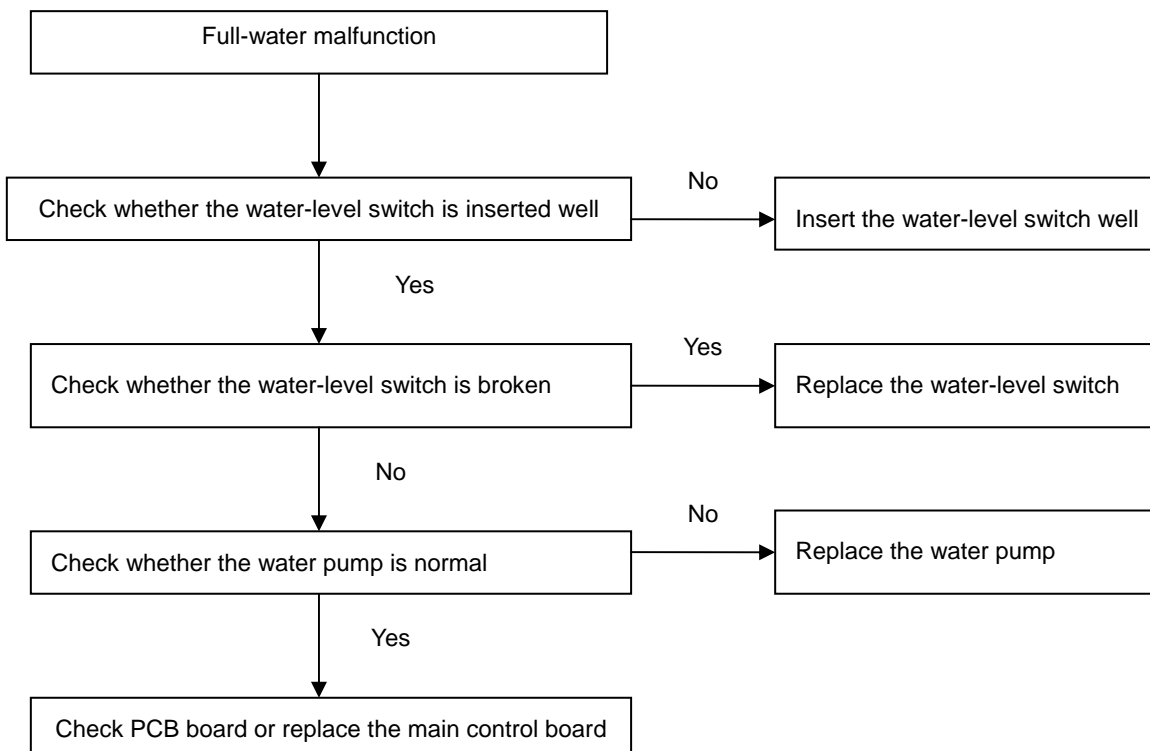
Outdoor units malfunction



EEPROM malfunction

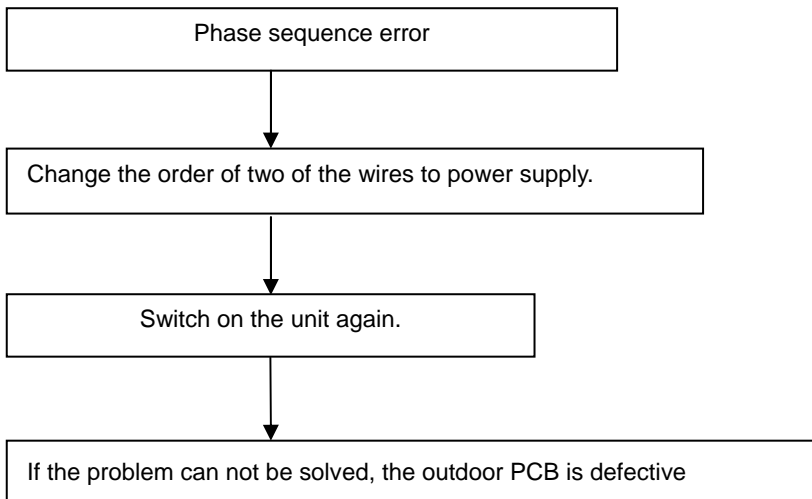


Full-water malfunction

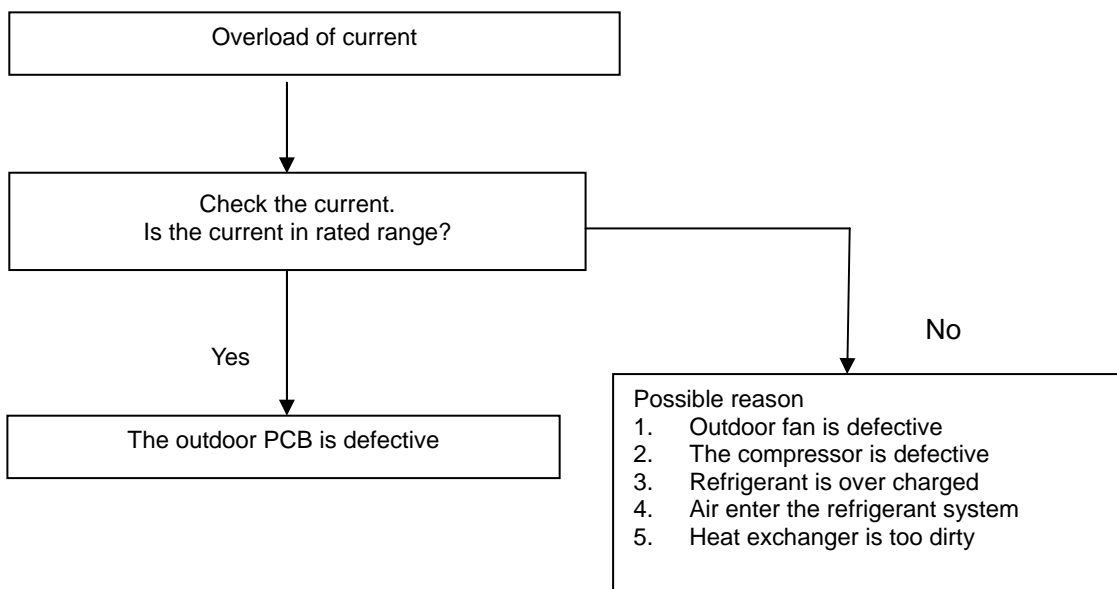


2) For the outdoor units

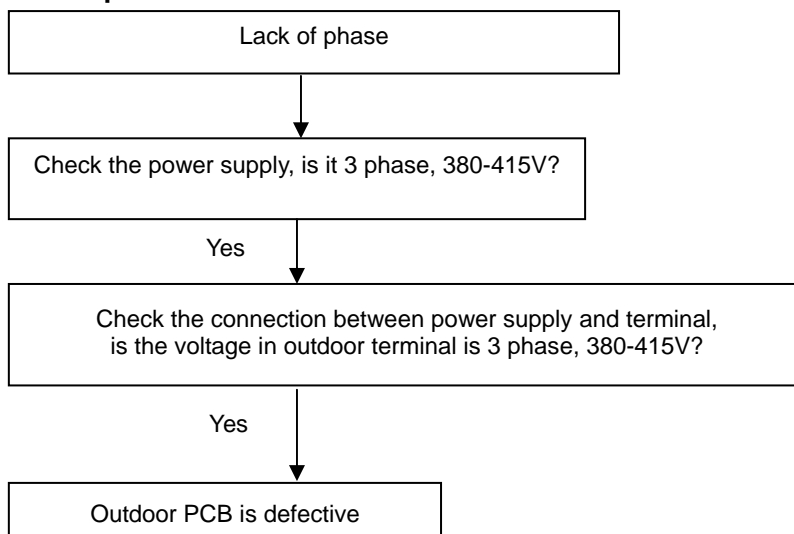
a. Phase sequence error:



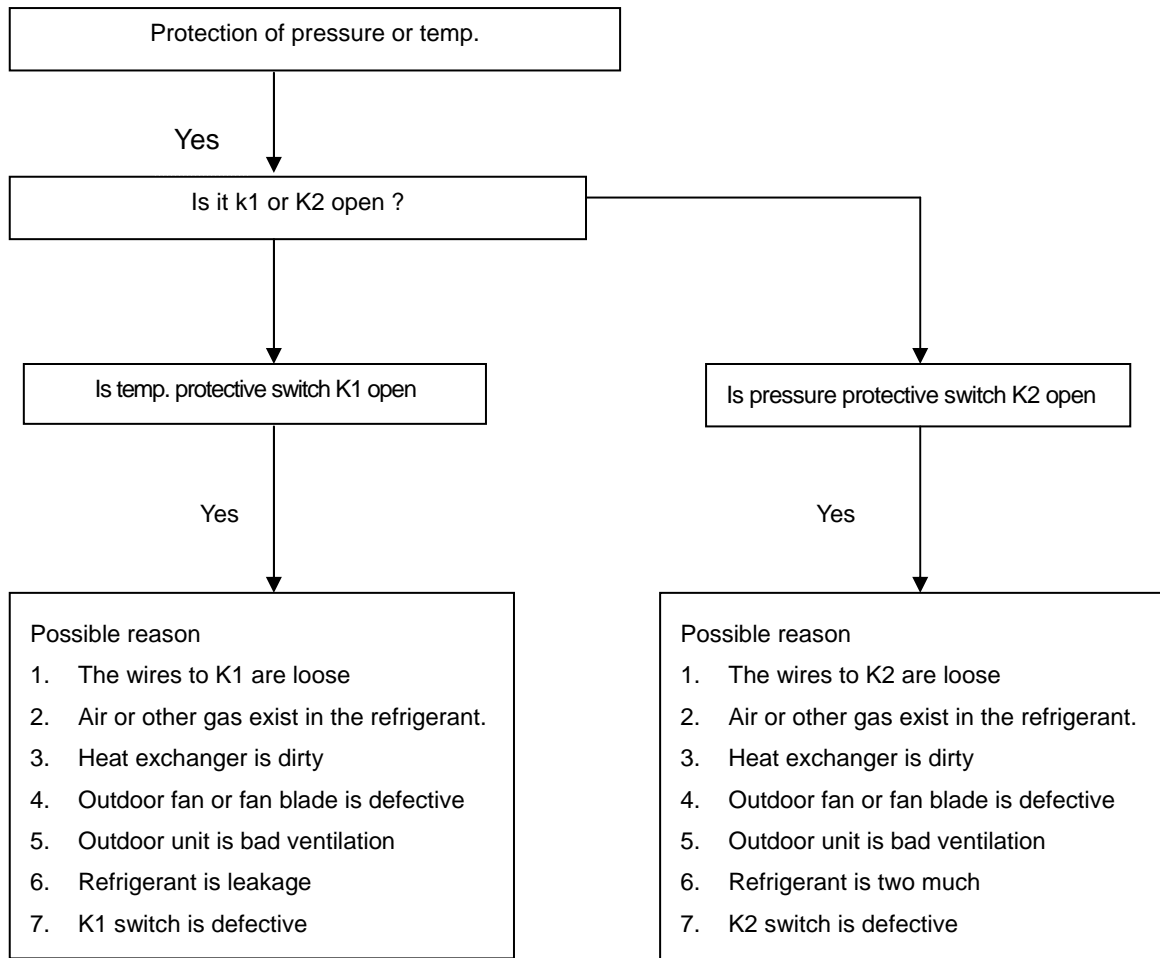
b. Overload of current



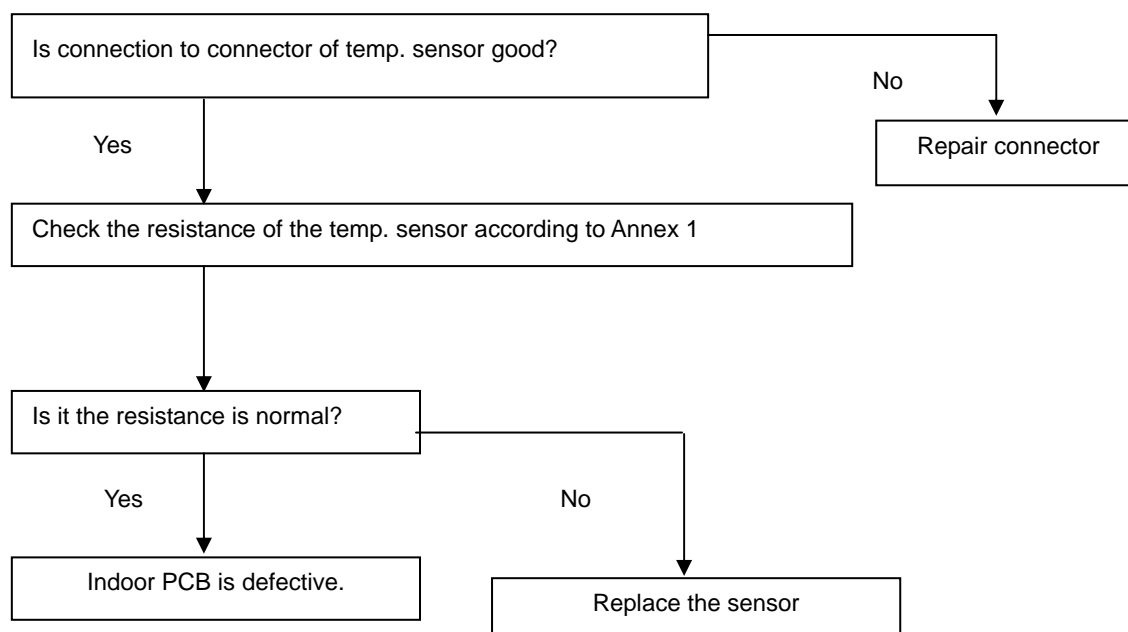
c. Lack of phase



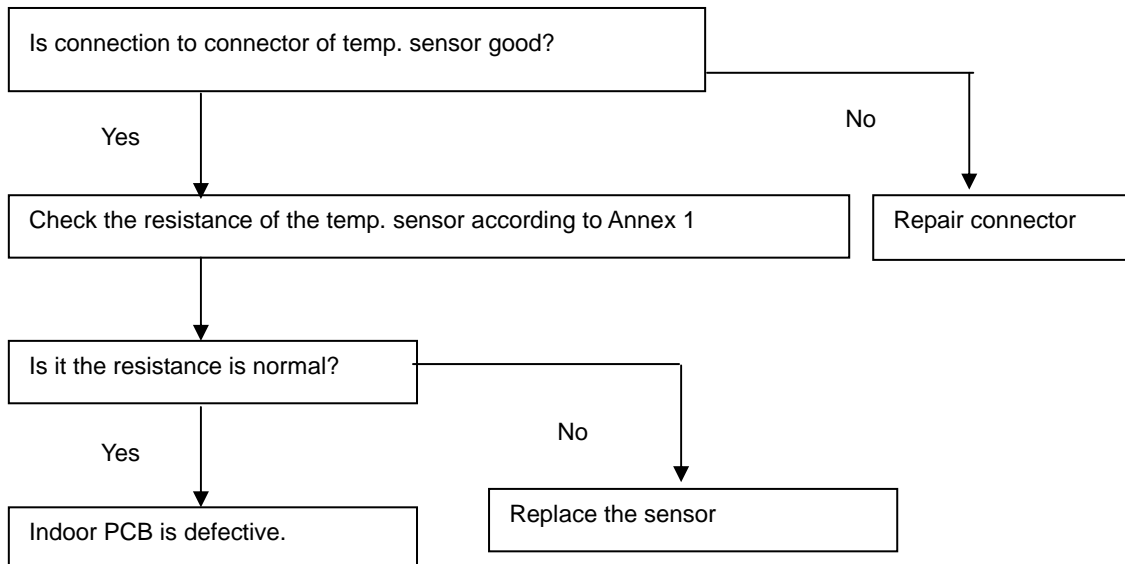
d. Protection of pressure or temp.



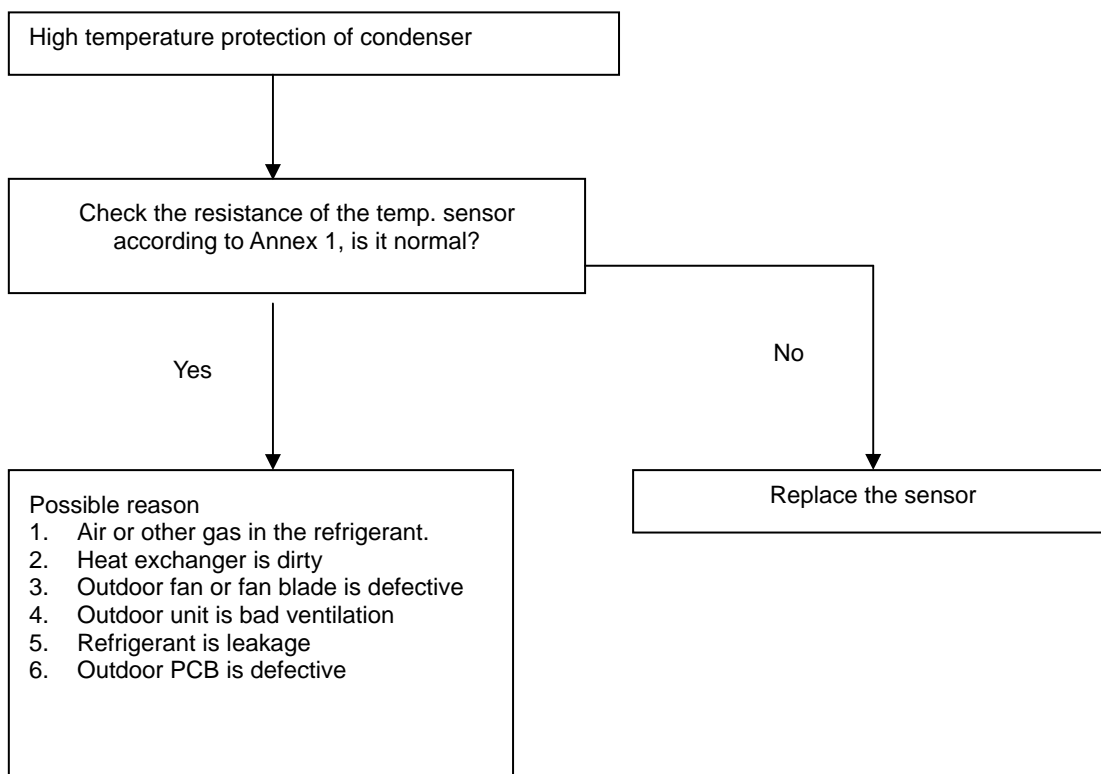
e Open-circuit and short-circuit trouble of T3



f. Open-circuit and short-circuit trouble of T4



g. High temperature protection of condenser



Appendix Indoor Temp. and Pipe Temp. Sensor Resistance Value Table (°C--K)

°C	K Ohm	°C	K Ohm	°C	K Ohm	°C	K Ohm
-20	115.266	20	12.6431	60	2.35774	100	0.62973
-19	108.146	21	12.0561	61	2.27249	101	0.61148
-18	101.517	22	11.5000	62	2.19073	102	0.59386
-17	96.3423	23	10.9731	63	2.11241	103	0.57683
-16	89.5865	24	10.4736	64	2.03732	104	0.56038
-15	84.2190	25	10.000	65	1.96532	105	0.54448
-14	79.3110	26	9.55074	66	1.89627	106	0.52912
-13	74.5360	27	9.12445	67	1.83003	107	0.51426
-12	70.1698	28	8.71983	68	1.76647	108	0.49989
-11	66.0898	29	8.33566	69	1.70547	109	0.48600
-10	62.2756	30	7.97078	70	1.64691	110	0.47256
-9	58.7079	31	7.62411	71	1.59068	111	0.45957
-8	56.3694	32	7.29464	72	1.53668	112	0.44699
-7	52.2438	33	6.98142	73	1.48481	113	0.43482
-6	49.3161	34	6.68355	74	1.43498	114	0.42304
-5	46.5725	35	6.40021	75	1.38703	115	0.41164
-4	44.0000	36	6.13059	76	1.34105	116	0.40060
-3	41.5878	37	5.87359	77	1.29078	117	0.38991
-2	39.8239	38	5.62961	78	1.25423	118	0.37956
-1	37.1988	39	5.39689	79	1.21330	119	0.36954
0	35.2024	40	5.17519	80	1.17393	120	0.35982
1	33.3269	41	4.96392	81	1.13604	121	0.35042
2	31.5635	42	4.76253	82	1.09958	122	0.3413
3	29.9058	43	4.57050	83	1.06448	123	0.33246
4	28.3459	44	4.38736	84	1.03069	124	0.32390
5	26.8778	45	4.21263	85	0.99815	125	0.31559
6	25.4954	46	4.04589	86	0.96681	126	0.30754
7	24.1932	47	3.88673	87	0.93662	127	0.29974
8	22.5662	48	3.73476	88	0.90753	128	0.29216
9	21.8094	49	3.58962	89	0.87950	129	0.28482
10	20.7184	50	3.45097	90	0.85248	130	0.27770
11	19.6891	51	3.31847	91	0.82643	131	0.27078
12	18.7177	52	3.19183	92	0.80132	132	0.26408
13	17.8005	53	3.07075	93	0.77709	133	0.25757
14	16.9341	54	2.95896	94	0.75373	134	0.25125
15	16.1156	55	2.84421	95	0.73119	135	0.24512
16	15.3418	56	2.73823	96	0.70944	136	0.23916
17	14.6181	57	2.63682	97	0.68844	137	0.23338
18	13.9180	58	2.53973	98	0.66818	138	0.22776
19	13.2631	59	2.44677	99	0.64862	139	0.22231



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برترین نام و نشان‌های تجاری ایران

