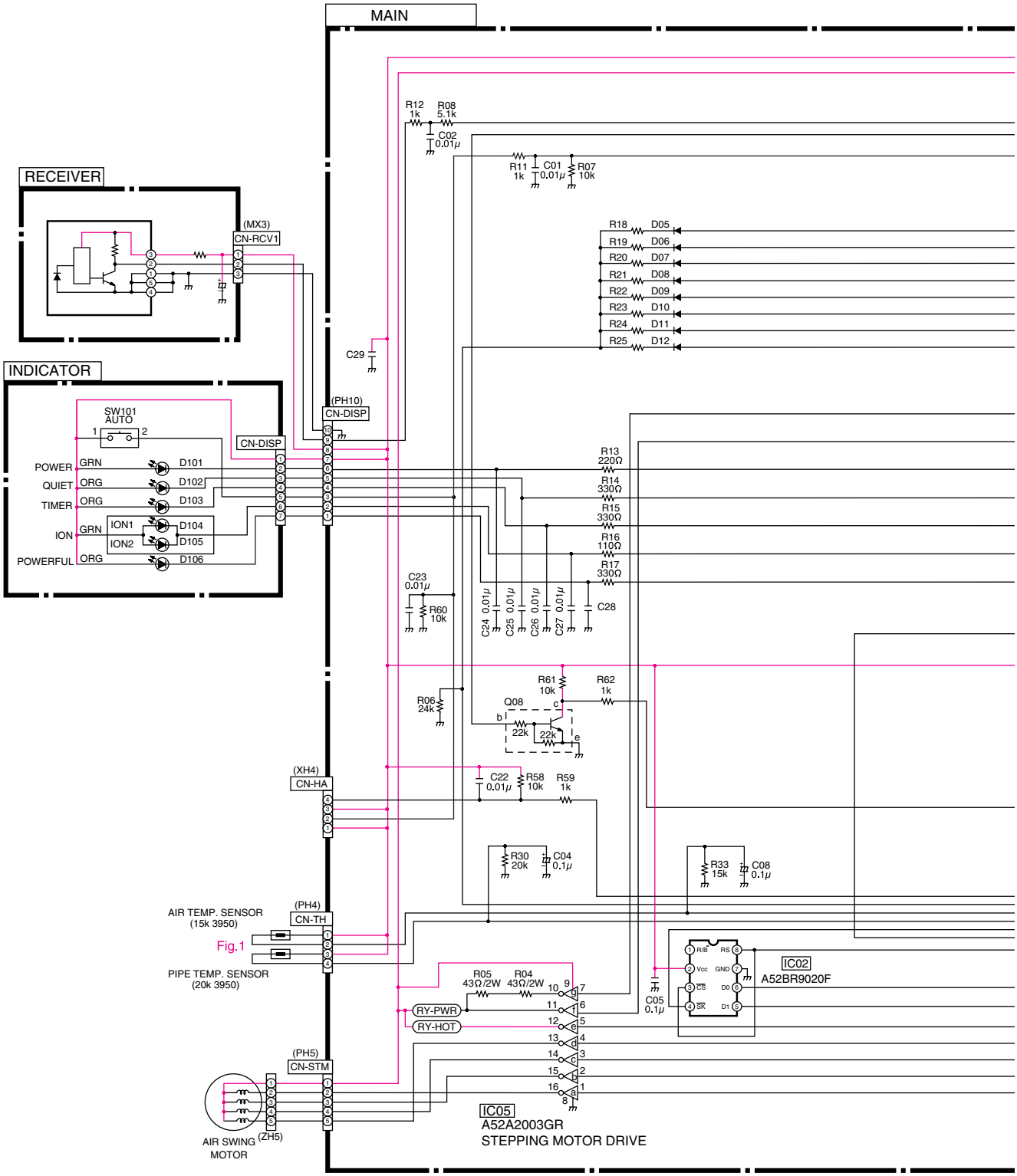
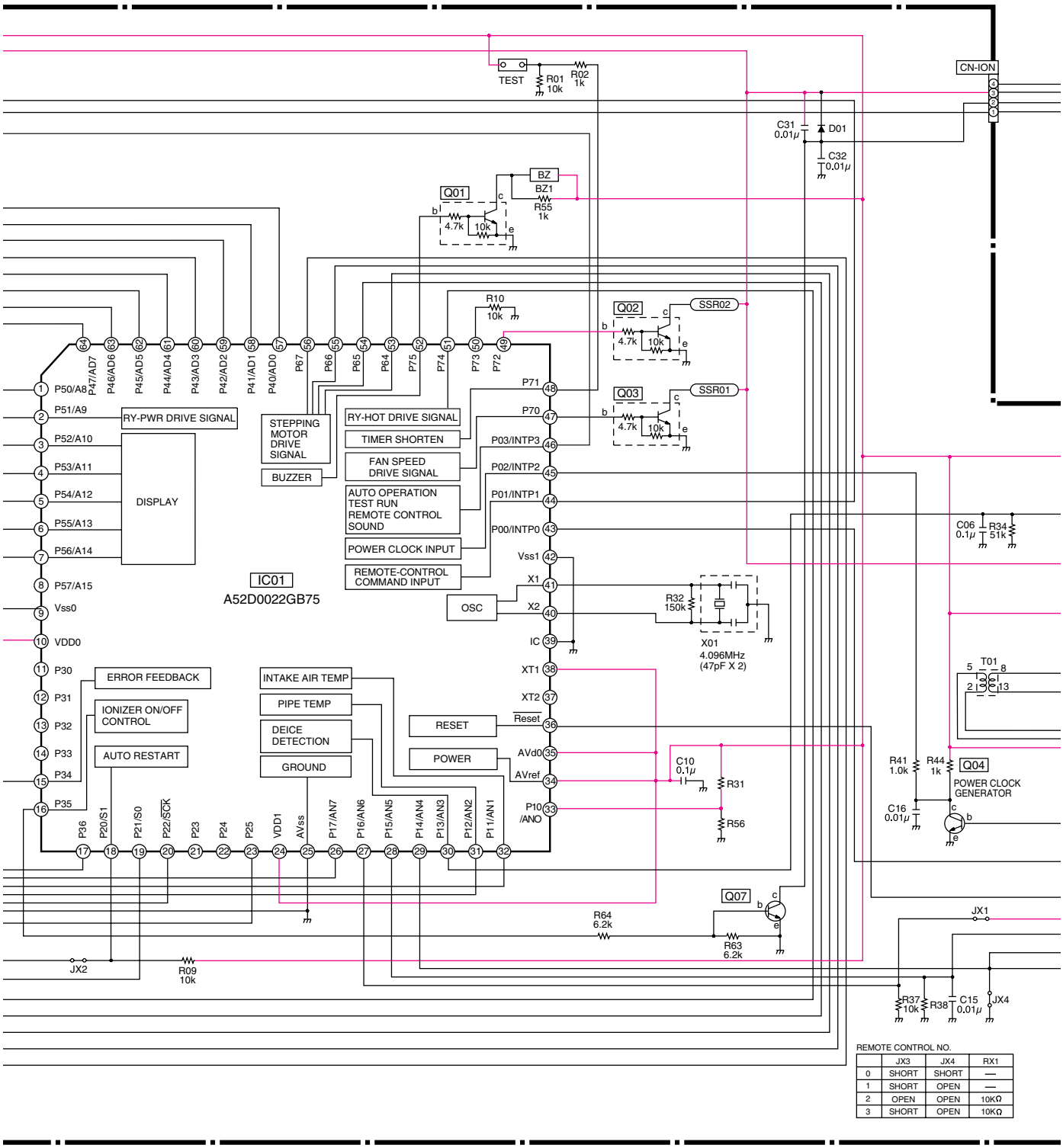
19 Electronic Circuit Diagram

- **CS-A7CK / CU-A7CK**
- **CS-A9CK / CU-A9CK**
- **CS-A12CK / CU-A12CK**

SCHEMATIC DIAGRAM 1/3



SCHEMATIC DIAGRAM 2/3



SCHEMATIC DIAGRAM 3/3

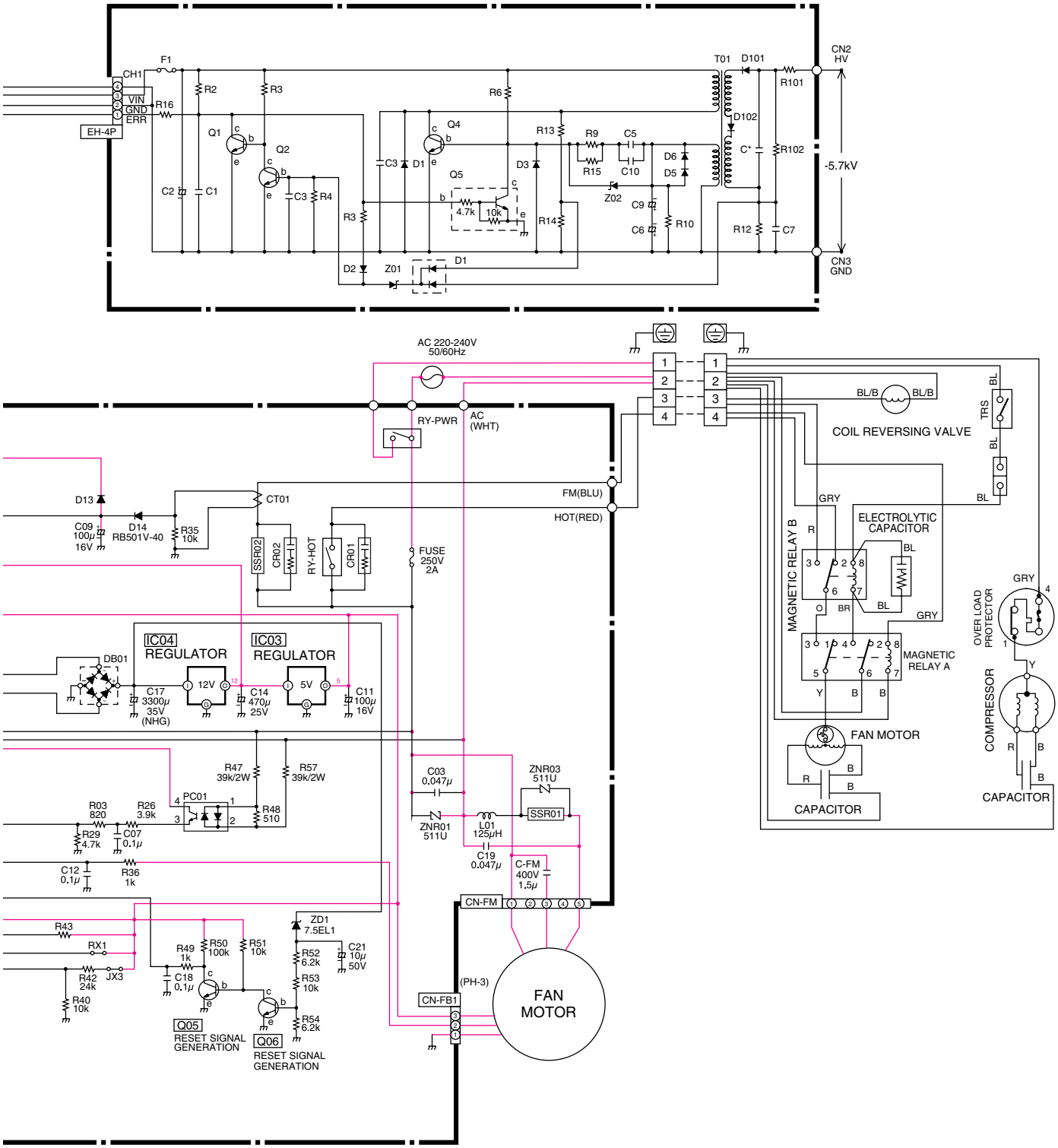


Fig. 1

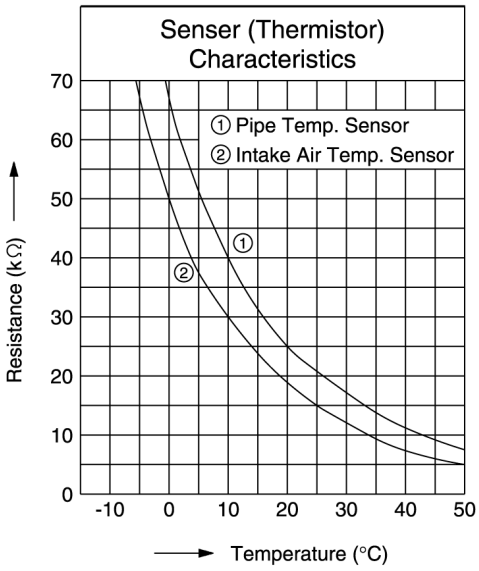


Fig. 2

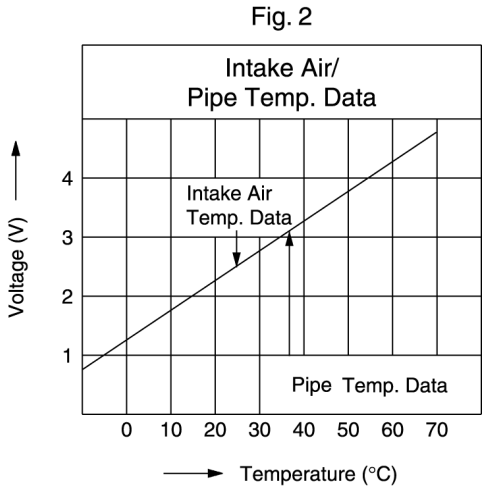
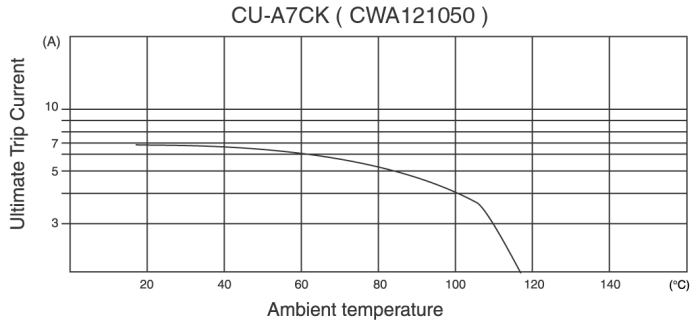
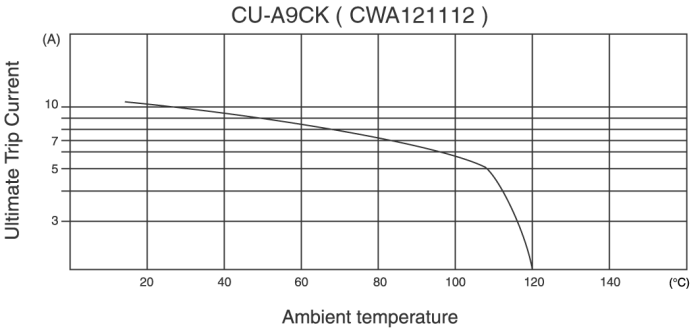
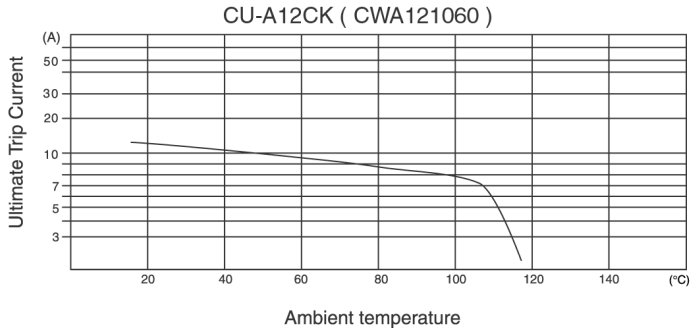


Fig. 3 OLP Characteristics (Compressor)







How to use electronic circuit diagram

Before using the circuit diagram, read the following carefully.

* Voltage measurement
  Voltage has been measured with a digital tester when the indoor fan is set at high fan speed under the following conditions without setting the timer. Use them for servicing.
  Voltage indication is in Red at all operations.

	Intake air temperature	Temperature setting	Discharge air temperature	Pipe temperature
Cooling	27°C	16°C	17°C	15°C

* Indications for resistance
  a. K....kΩ M....MΩ
  W...watt Not indicated....1/4W
  b. Type
  Not indicated.....carbon resister
  Tolerance±5%
  .....metal oxide resister
  Tolerance±1%

* Indications for capacitor
  a. Unit μ....μF P....pF
  b. Type Not indicated....ceramic capacitor
  (S).....S series aluminium electrolytic capacitor
  (Z).....Z series aluminium electrolytic capacitor
  (SU).....SU series aluminium electrolytic capacitor
  (P).....P series polyester system
  (SXE).....SXE series aluminium electrolytic capacitor
  (SRA).....SRA series aluminium electrolytic capacitor
  (KME).....KME series aluminium electrolytic capacitor

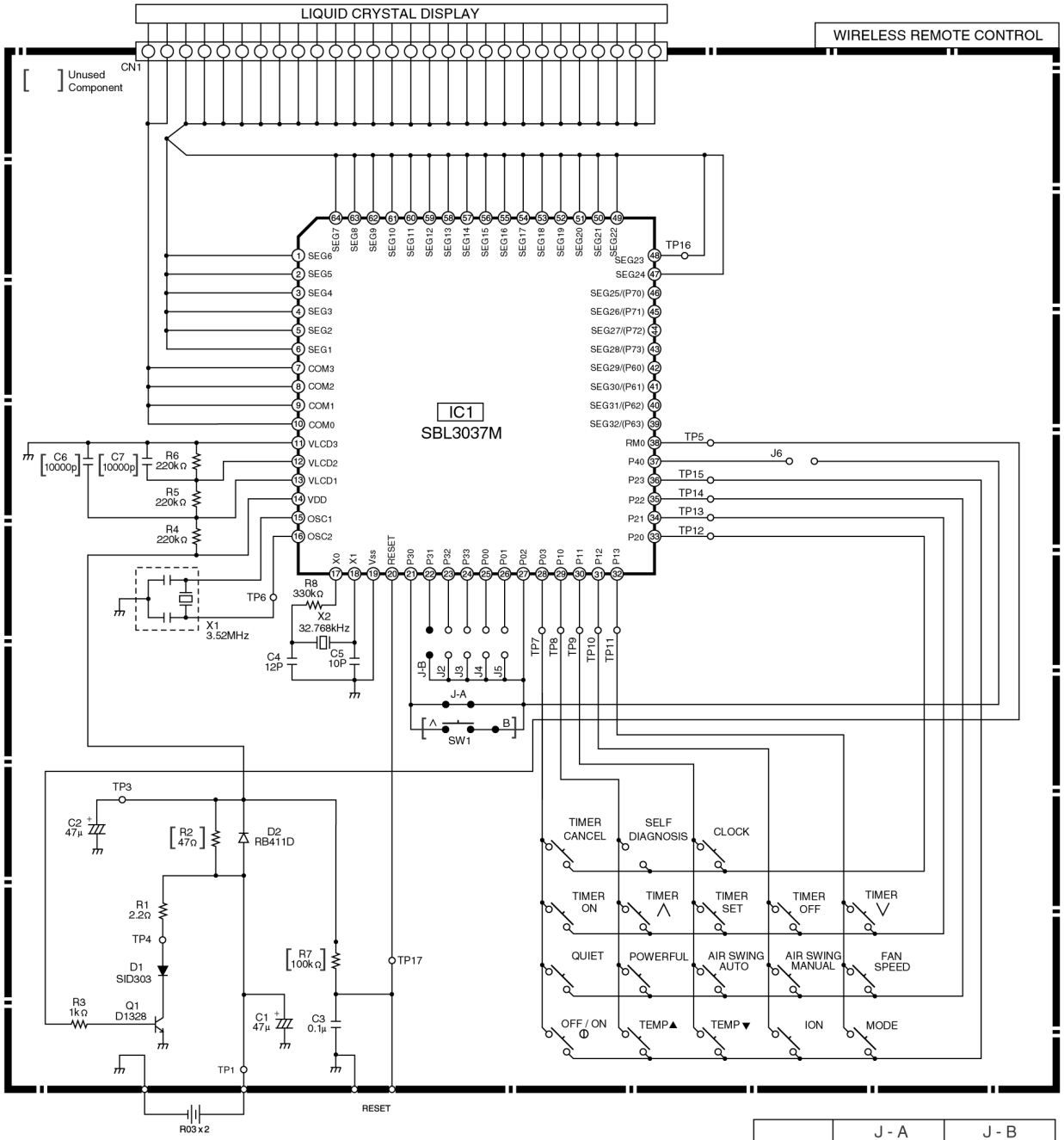
* Diode without indication.....MA165

※ Circuit Diagram is subject to change without notice for further development.

TIMER TABLE

Name		Time	Test Mode (When test point Short-circuited)	Remarks
Real Timer		1 hr.	1 min.	
		10 min.	10 sec.	
		1 min.	1 sec.	
Time Delay Safety Control		2 min. 58 sec.	0 sec.	
Forced Operation		60 sec.	0 sec.	
Time Save Control		7 min.	4.2 sec.	
Anti-Freezing		4 min.	0 sec.	
Auto Mode Judgement		25 sec.	0 sec.	
Soft Dry	OFF	6 min.	36 sec.	
	ON	10 min.	60 sec.	Soft Dry: 10 min. operation
Deodorizing Control	Cooling	40 sec.	4 sec.	
		70 sec.	7 sec.	
		20 sec.	2 sec.	
		180 sec.	18 sec.	
	Soft Dry	40 sec.	4 sec.	
		360 sec.	36 sec.	
Comp. Reverse Rotation Detection		5 min.	30 sec.	Comp. ON 5 min. and above
		2 min.	0 sec.	
Comp./ Fan Motor Delay Timer		1.6 sec.	0 sec.	
Powerful Mode Operation		15 min.	15 sec.	
Random Auto Restart Control		0 ~ 62 sec.	0 ~ 6.2 sec.	
TRS Recovery Detection		12 min.	72 sec.	
		6 min.	36 sec.	
		3 min.	18 sec.	
		1 min.	6 sec.	
Time Save Control (Heating)		30 min.	3 sec.	
4 Way Valve Control (Delay)		5 min.	30 sec.	
Deice Operation Occurs		60 min.	6 sec.	60 min. after previous deice
		4 min.	24 sec.	Continuously 4 min. Comp. ON
		50 sec.	0 sec.	TRS ON continuously for 50 sec. check
Overload Deice Timer		1 min.	6 sec.	Comp. ON continuously for 1 min. check
Deice End		12 min.	72 sec.	Max. Operation time
		30 sec.	3 sec.	30 sec. Comp. OFF after deice
		10 sec.	1 sec.	4-Way Valve ON 10 sec. later after deice
Deice Operation (Extend)		60 sec.	0 sec.	
		120 sec.	0 sec.	
		180 sec.	0 sec.	
Hotstart Finish		30 sec.	0 sec.	
Ion OFF Timer		10 min.	10 sec.	

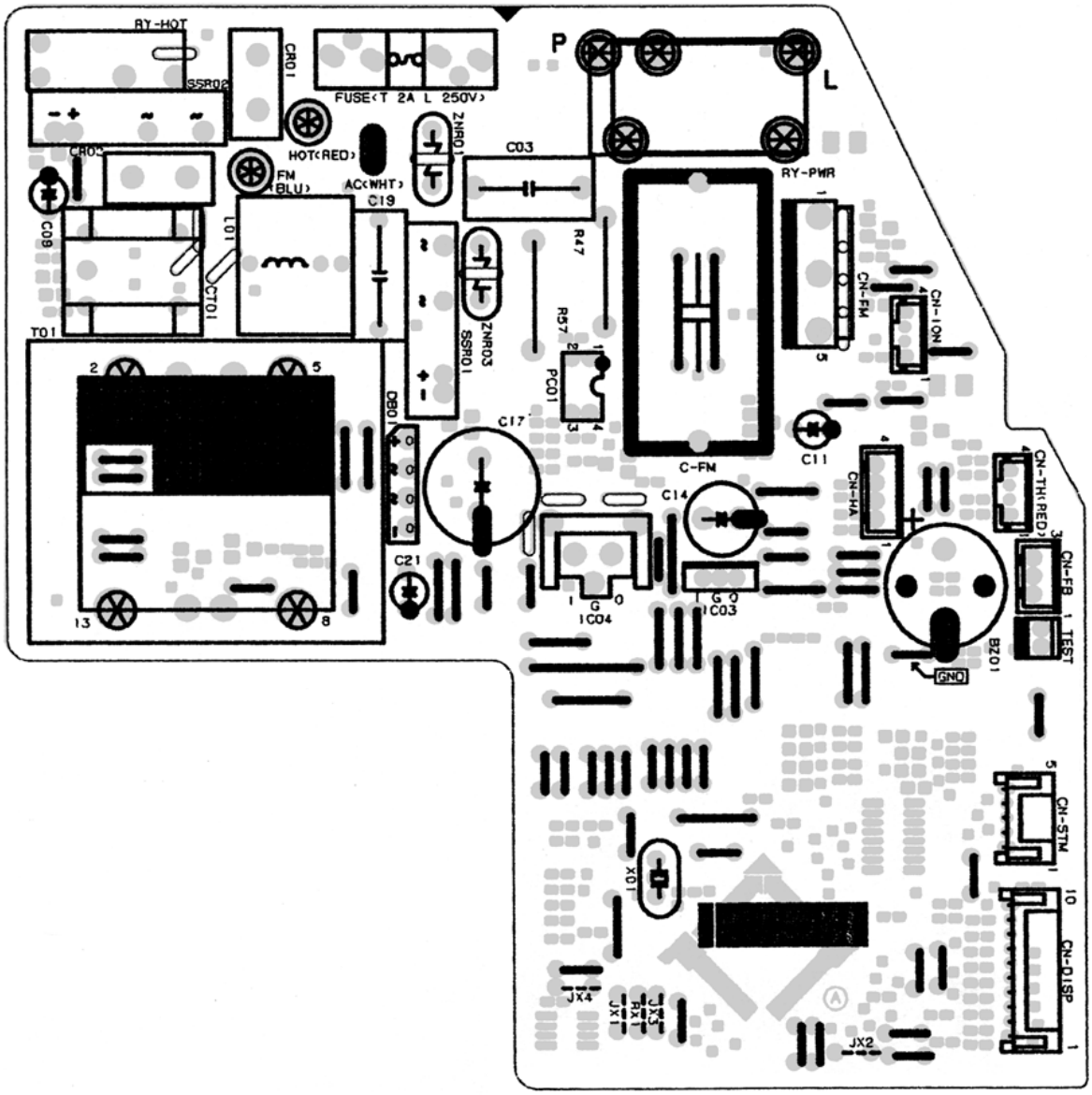
19.1. REMOTE CONTROL



	J - A	J - B
0	SHORT	OPEN
1	OPEN	OPEN
2	SHORT	SHORT
3	OPEN	SHORT

19.2. PRINT PATTERN
INDOOR UNIT PRINTED CIRCUIT BOARD

TOP VIEW



19.3. PRINT PATTERN
INDOOR UNIT PRINTED CIRCUIT BOARD

BOTTOM VIEW