

Rockway Industries Ltd

Service Manual Vision X2320



Rockway Industries Ltd.

Service Manual

Model: Vision X2320

Version: A

Date: Dec. 2003

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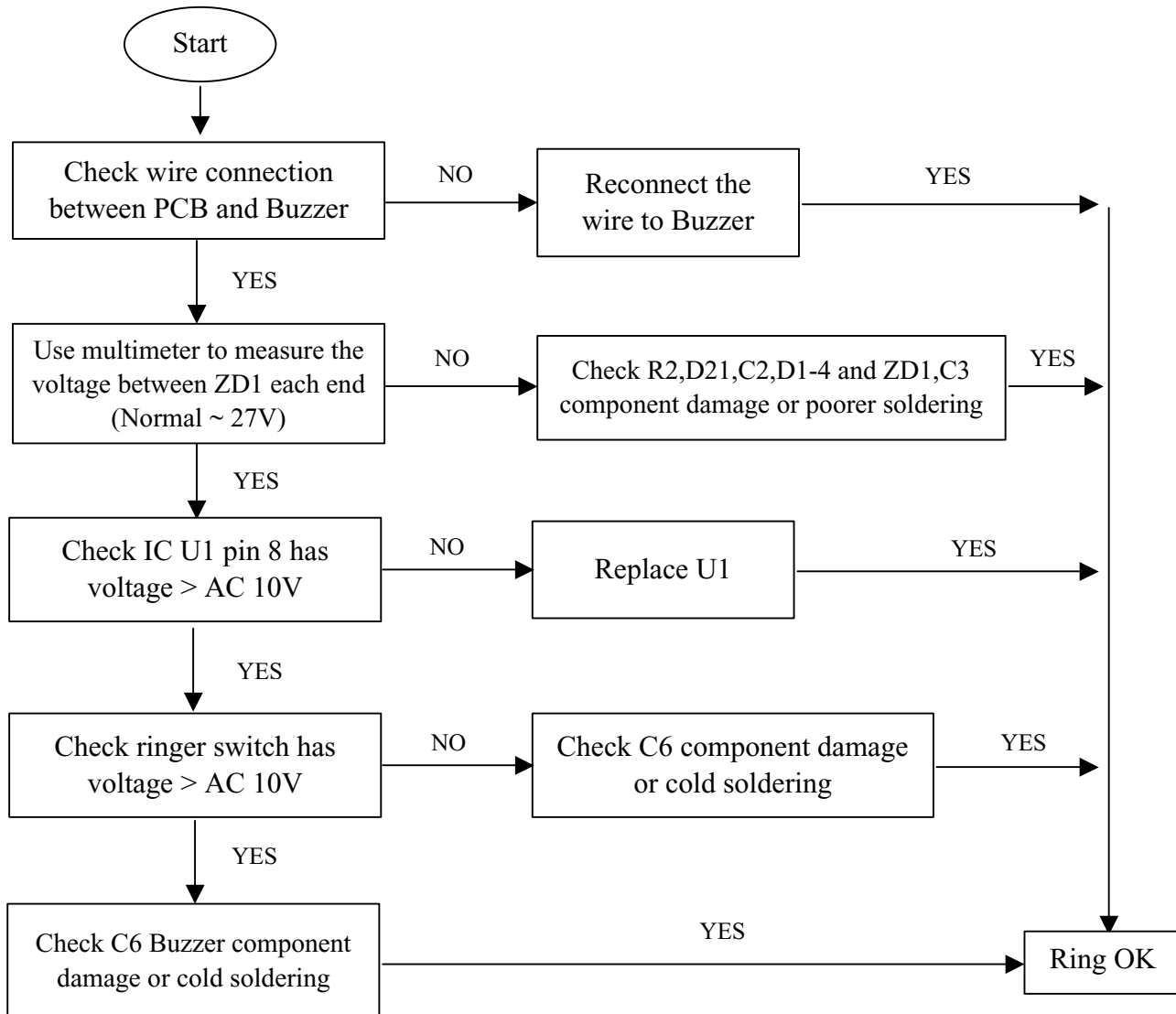
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● **Repair Tools :**

1. Telephone analyzer (1076A DD5601)
2. Oscilloscope
3. Signal Generator
4. Multi-meter
5. Solider Iron
6. Caller ID Tester (DD5300)
7. Plier, Seizer, Screw Driver, Solder Wire
8. Battery 9V (1604A)

Problem : No Ring sound

Condition : Connection the unit to telephone analyzer,Add 50Hz,70V ring signal between telephone line.

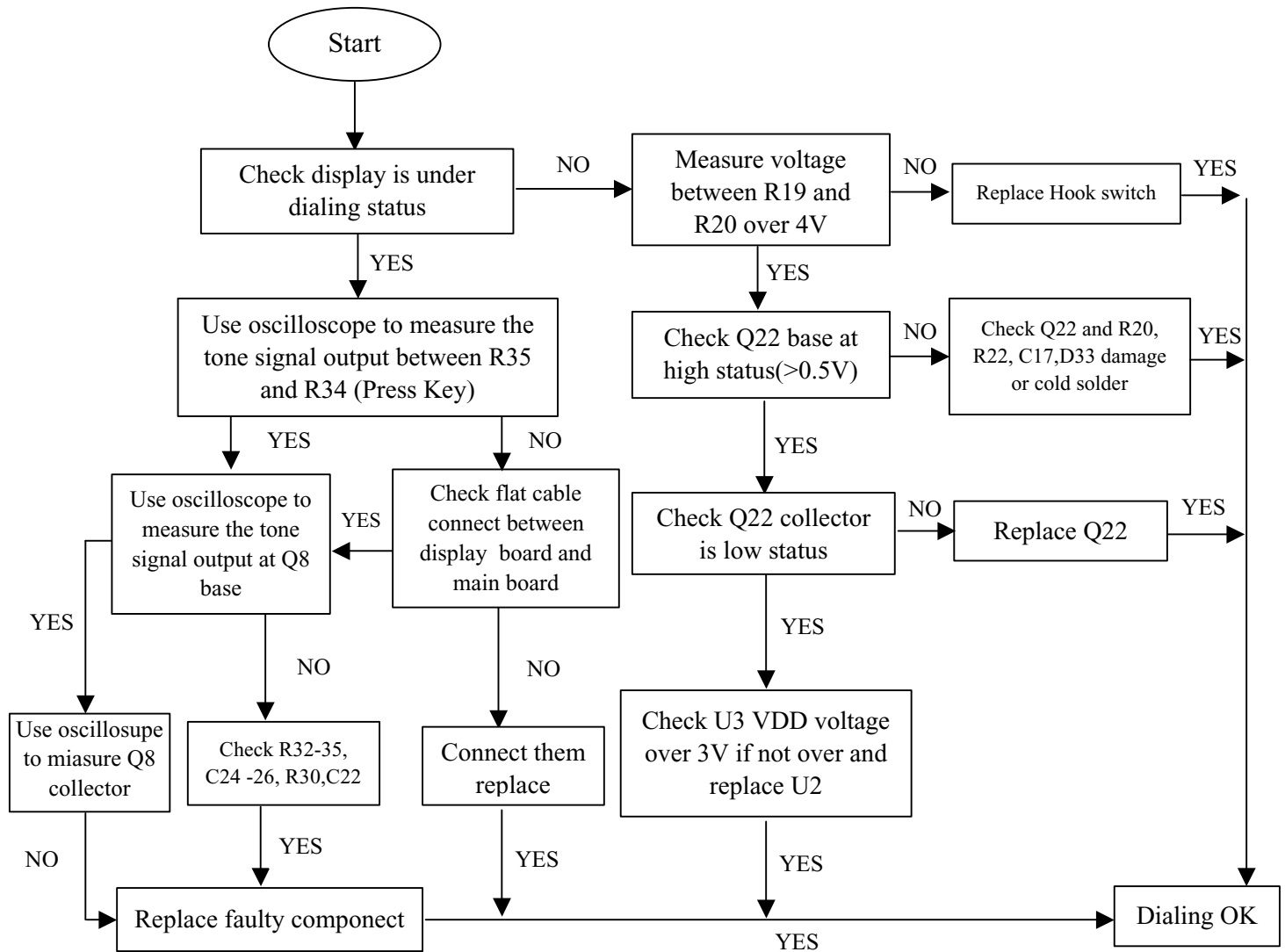


Trouble Shooting Chart

Problem : No dialing but LCD display, timer mode OK

Condition : Connection the unit to real telephone line or telephone analyzer and pick up the handset.

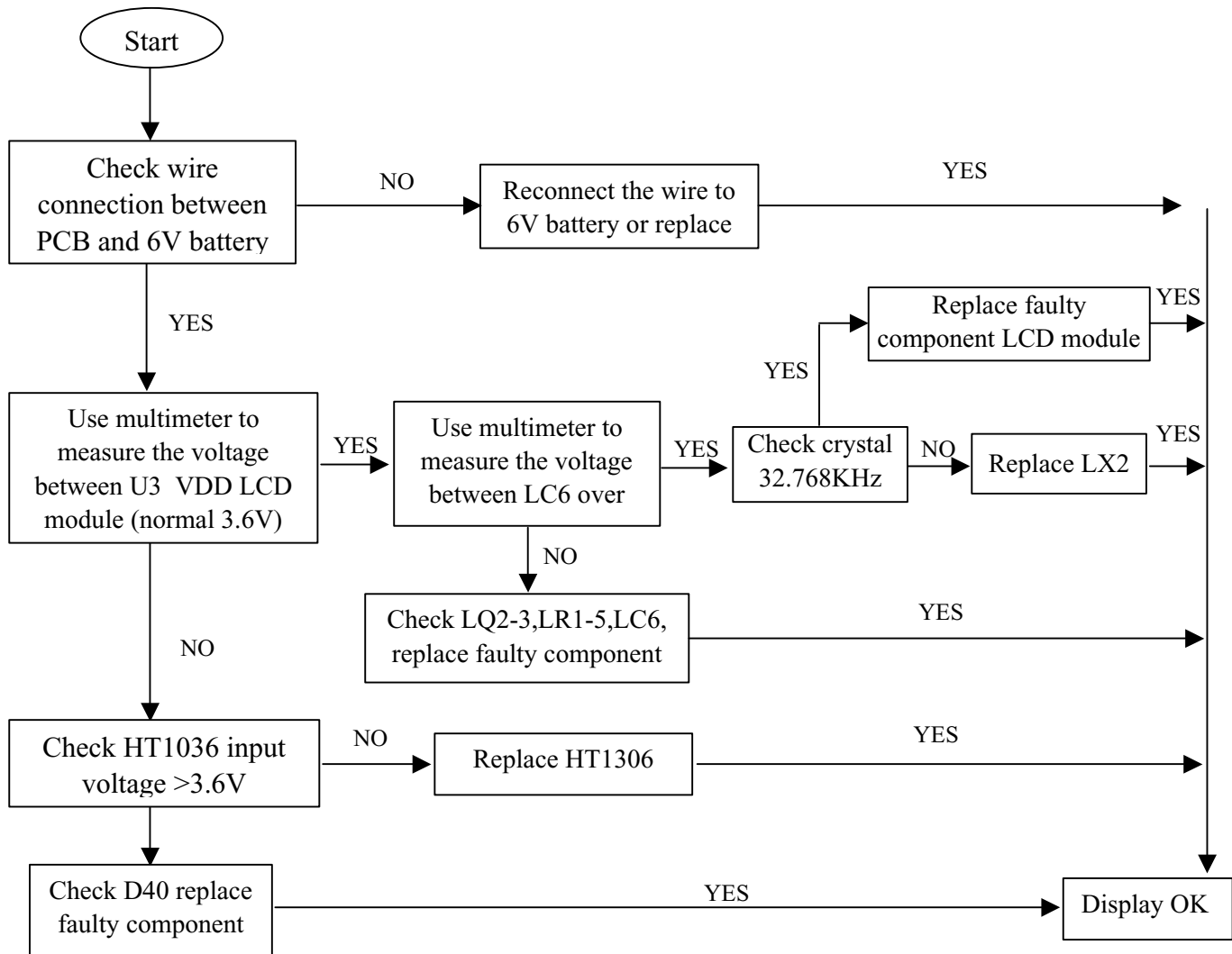
(No battery)



Trouble Shooting Chart

Problem : No display

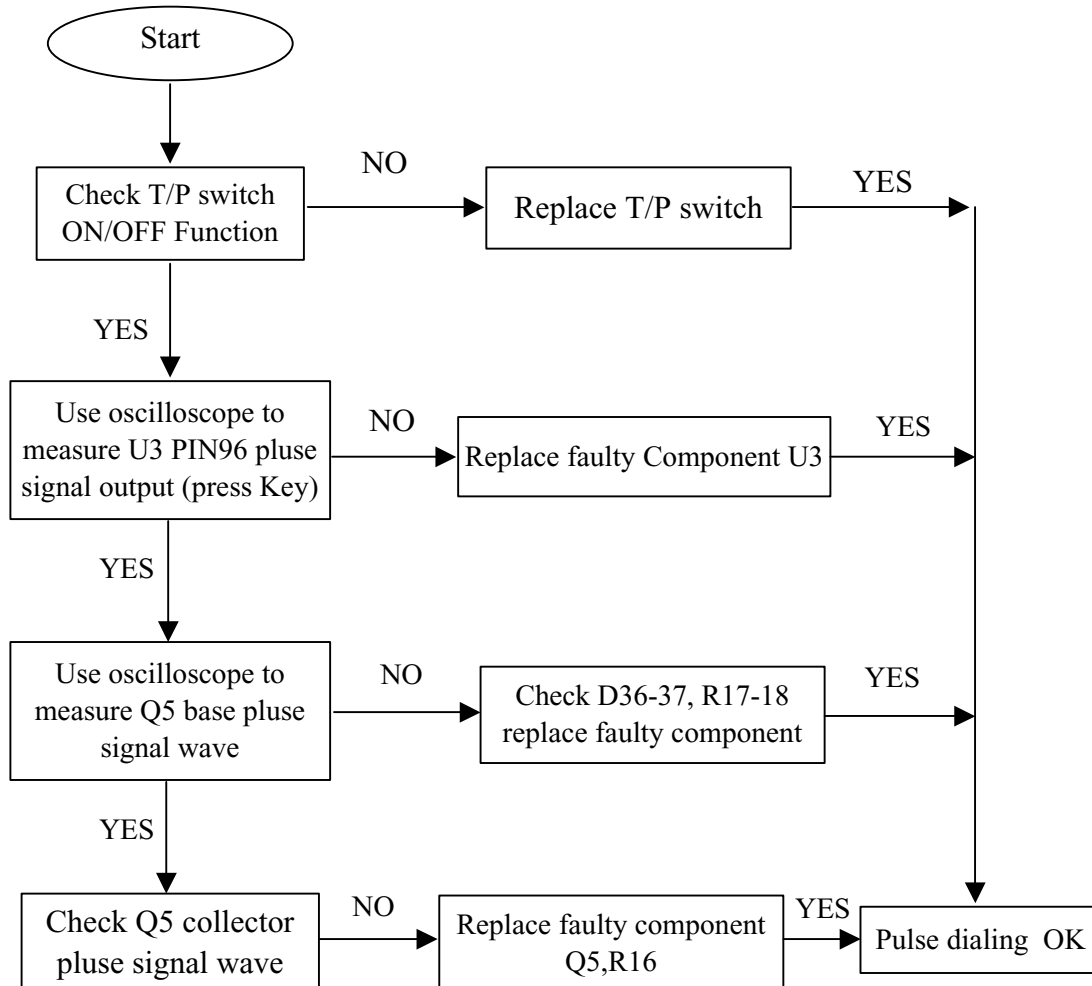
Condition : Unit need to instal 6V battery



Trouble Shooting Chart

Problem : No pulse dialing but rest function OK

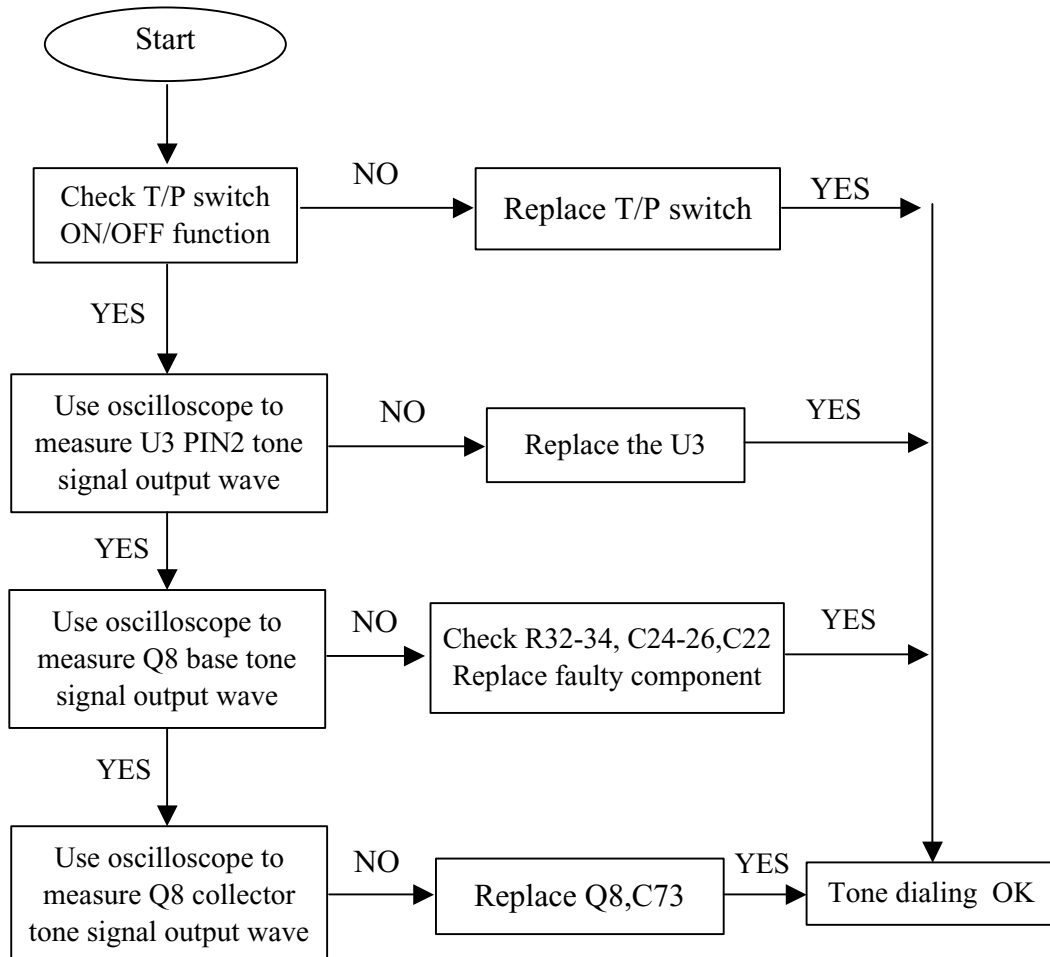
Condition : connection the unit to real telephone line or telephone analyzer and pick up the handset



Trouble Shooting Chart

Problem: No tone dialing and LCD display , but timer mode OK

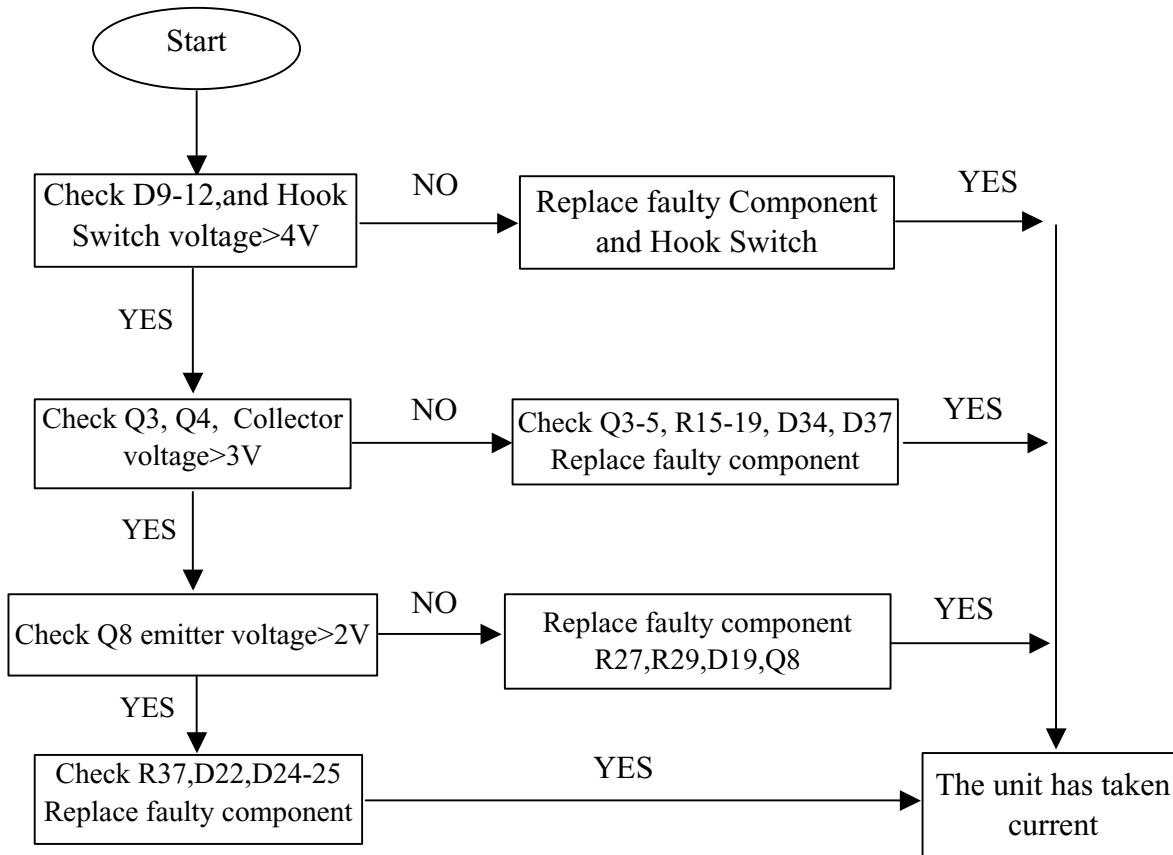
Condition: Connection the unit to real telephone line or telephone analyzer and pick up the handset



Trouble Shooting Chart

Problem: The unit not taking current but ring OK

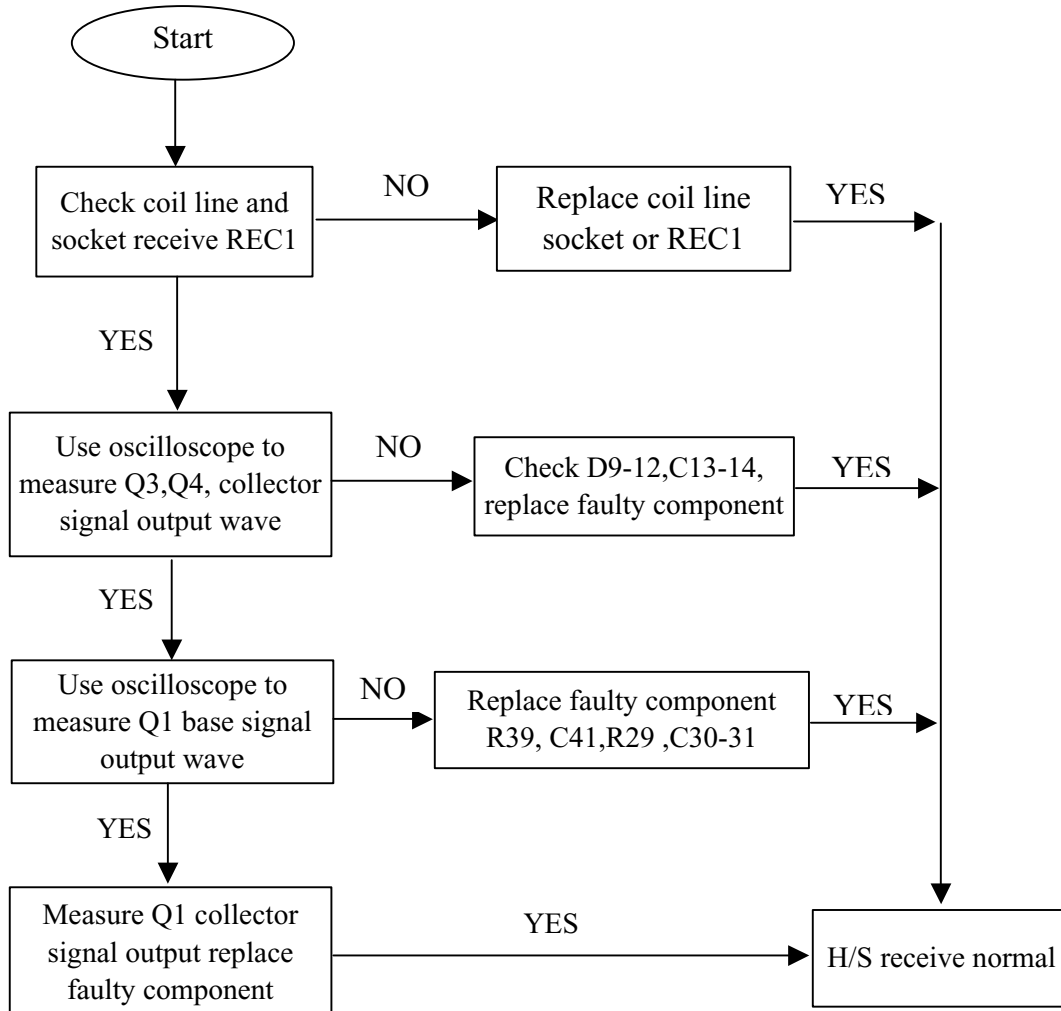
Condition: connection the unit to real telephone line or telephone analyzer and pick up the handset



Trouble Shooting Chart

Problem: No H/S receive but rest normal

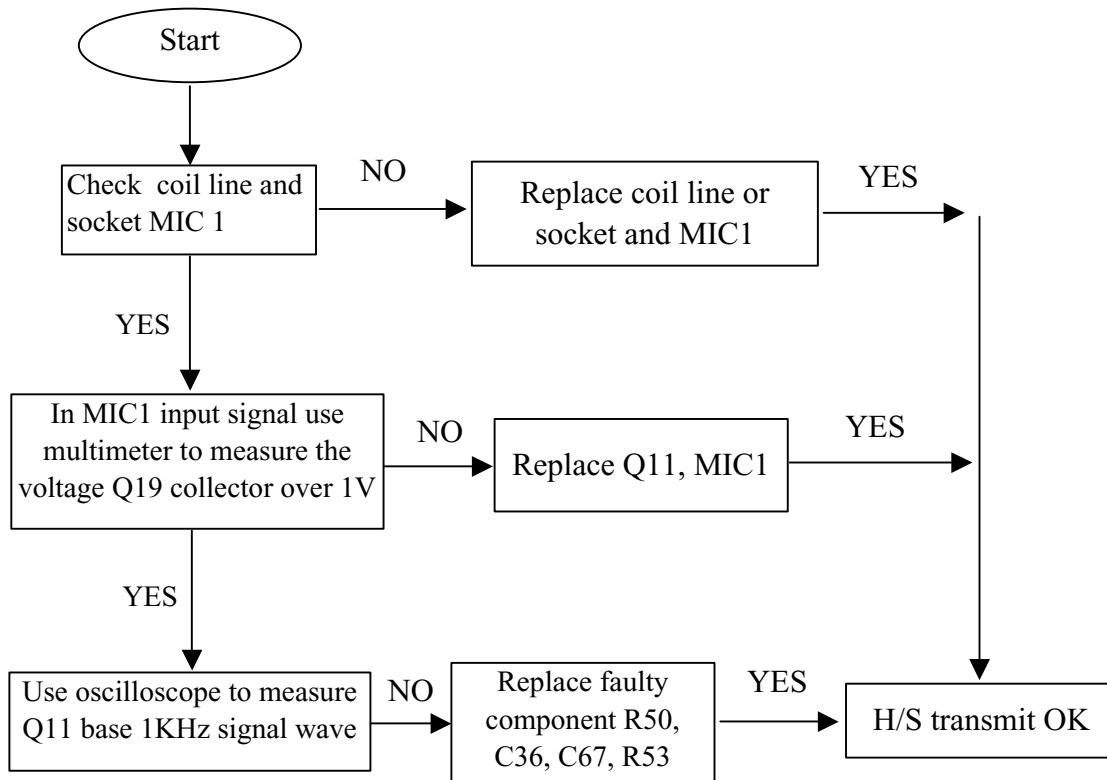
Condition: connection the unit to real telephone line or telephone analyzer and pick up the handset
set frequency and level at 1KMz , -15dBm



Trouble Shooting Chart

Problem: H/S no transmit but rest normal

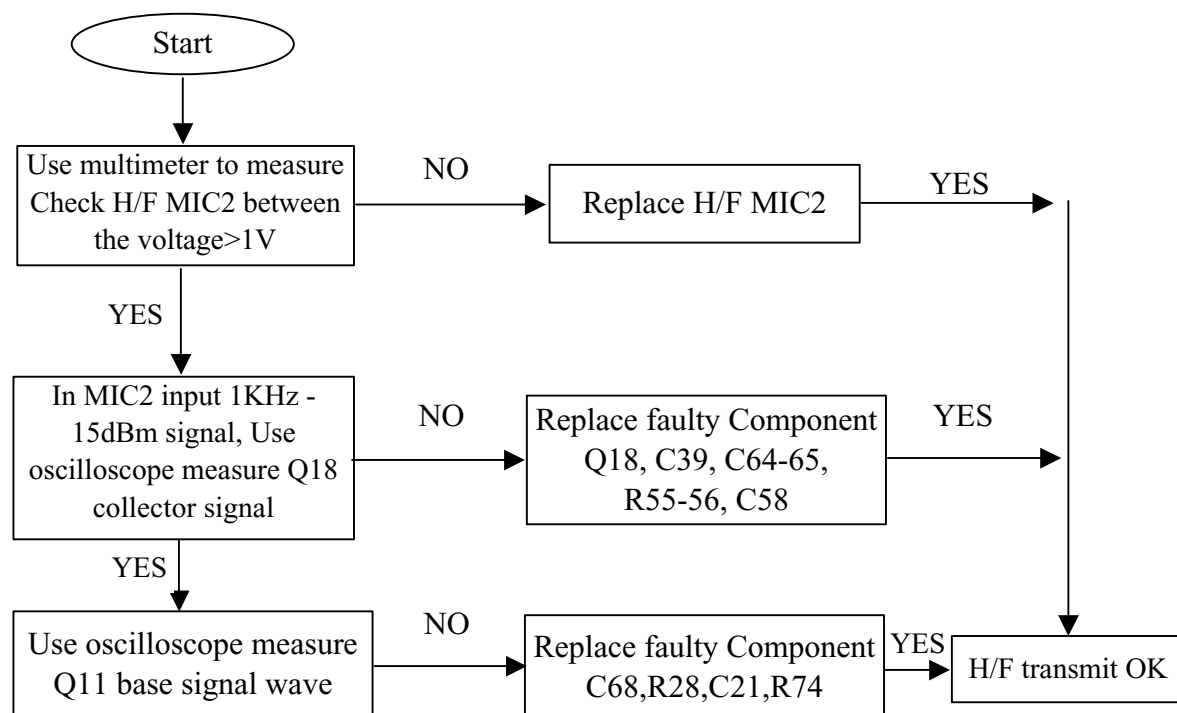
Condition: connection the unit to real telephone line or telephone analyzer and pick up the handset
set frequency and level at 1KMz , -15dBm



Trouble Shooting Chart

Problem: H/F no transmit, but rest normal

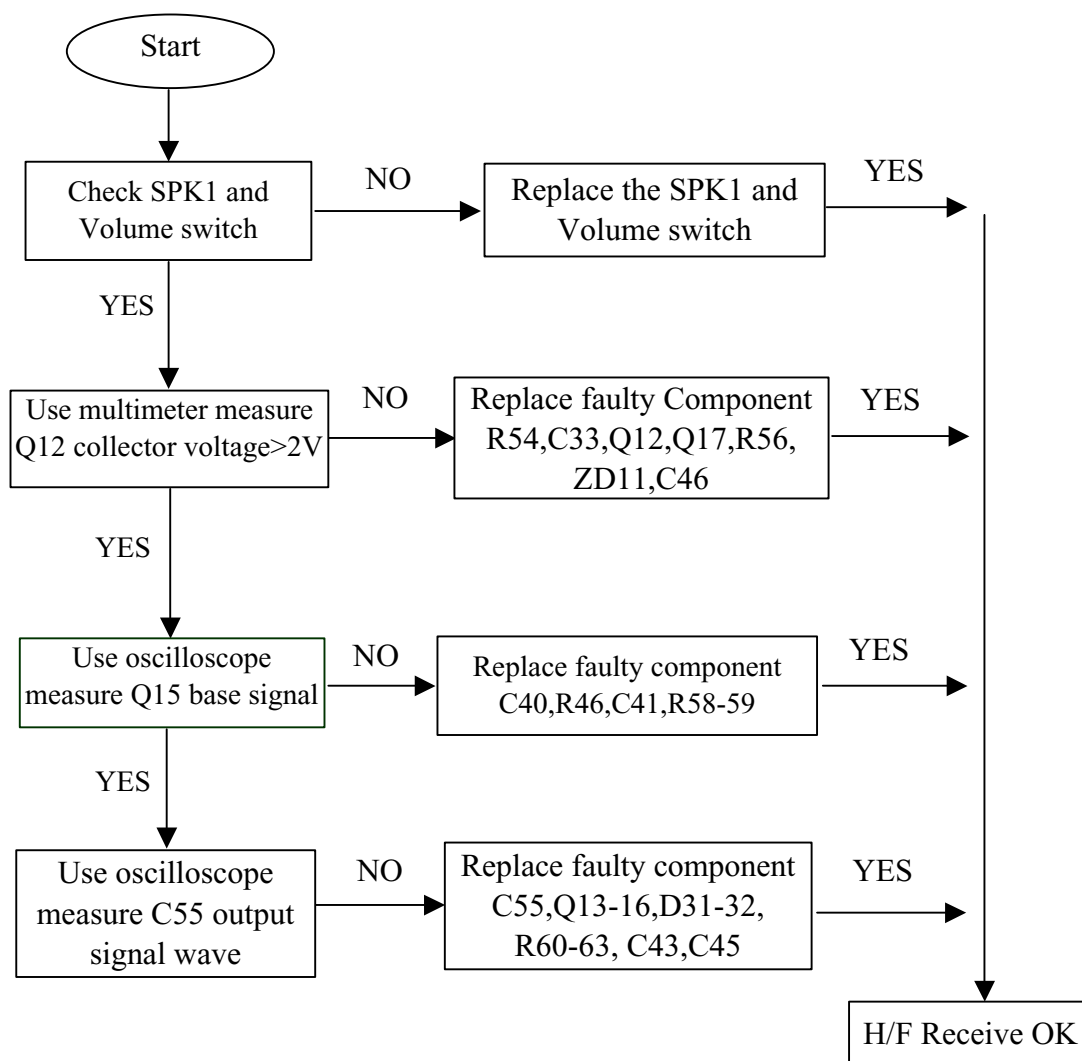
Condition: connection the unit to real telephone line or telephone analyzer and press speaker key turn press speaker key turn set frequency and level at 1KHz , -15dBm



Trouble Shooting Chart

Problem: H/F no receive ,but rest normal

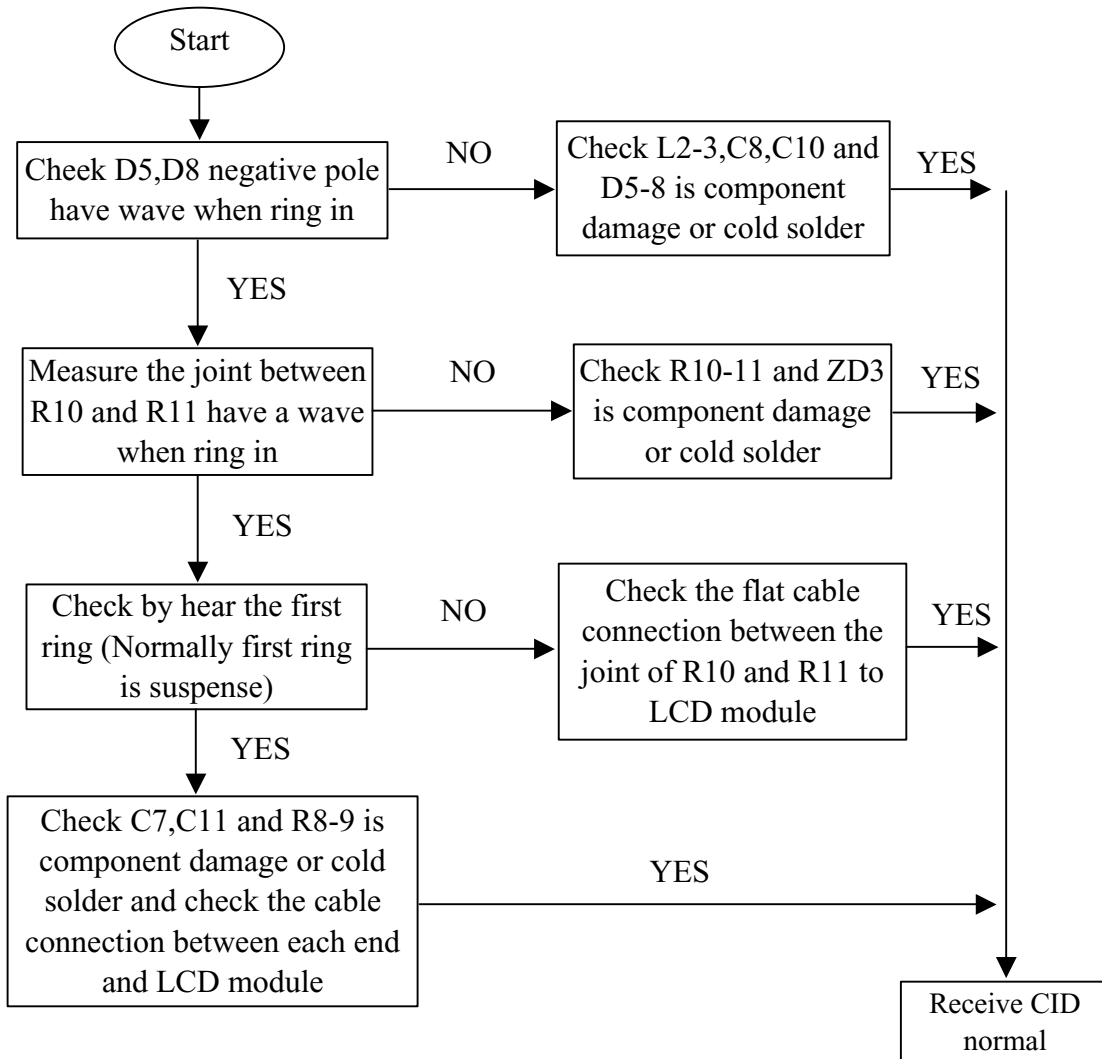
Condition: connection the unit to real telephone line or telephone analyzer and press speaker key turn



Trouble Shooting Chart

Problem: Can not receive CID, other operations are work normal

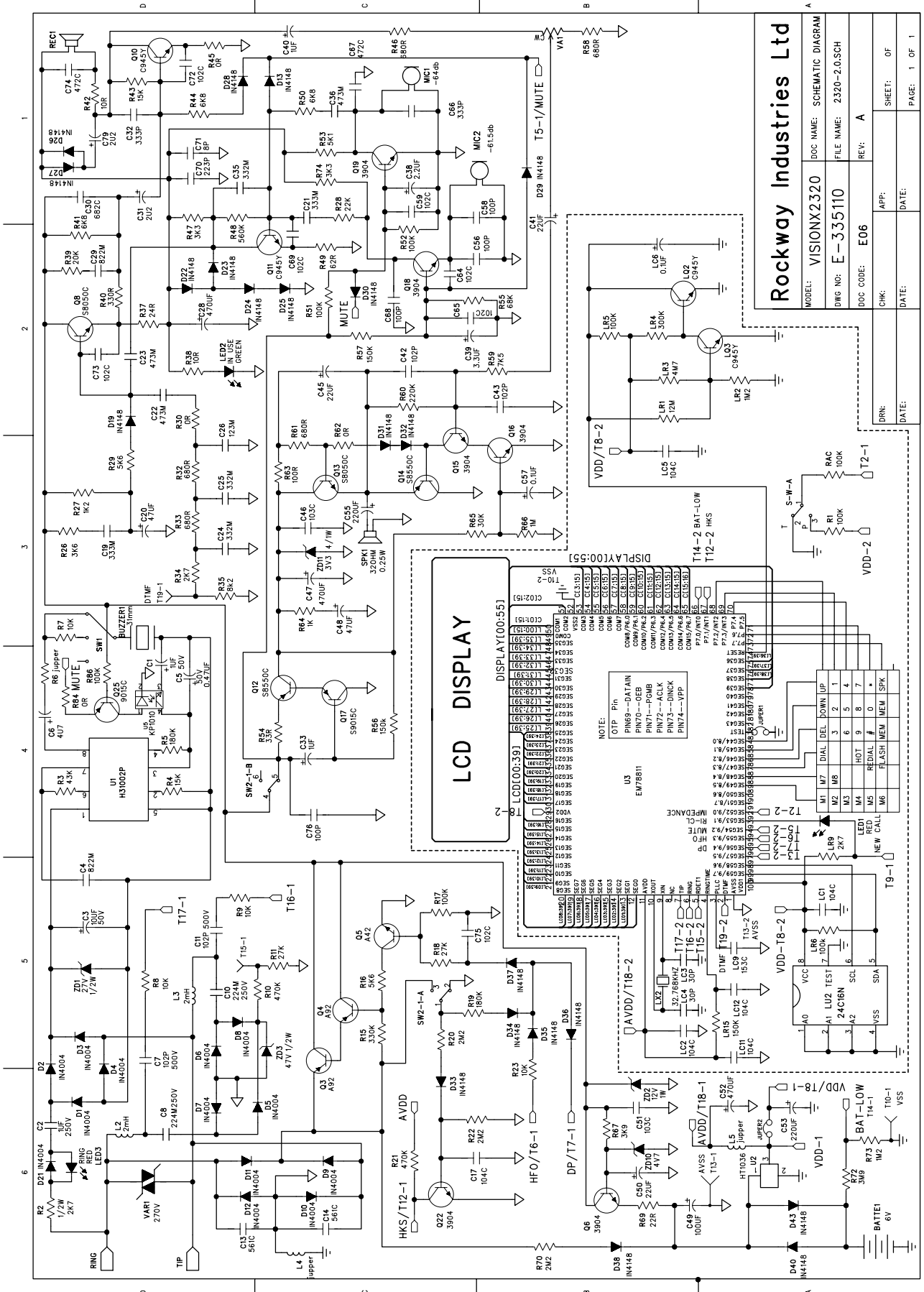
Condition: Unit need to instal 6V battery and connect the unit to CID simulator

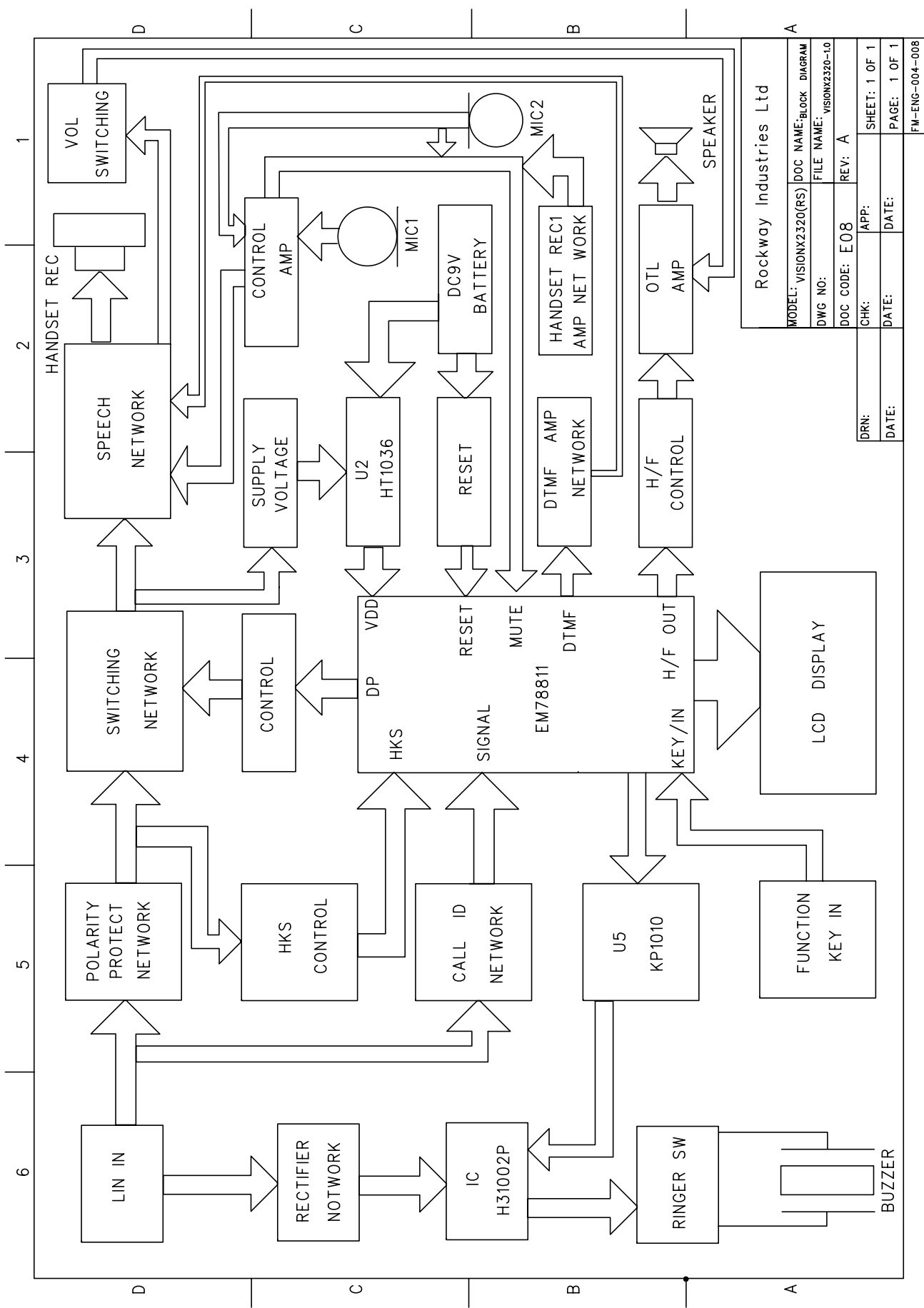


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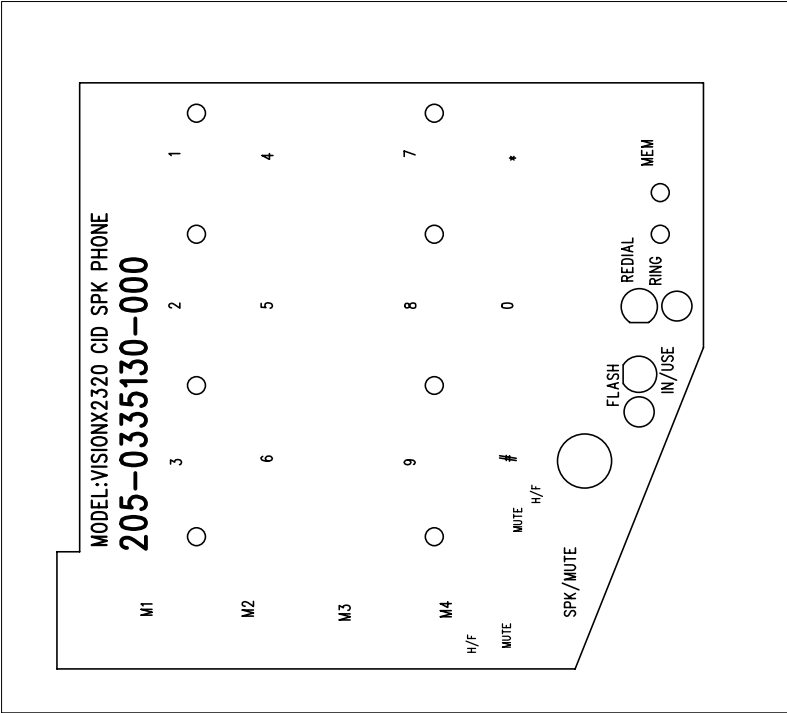
產品測試指標

產品型號: VISION X 2320(RS)		文件代碼: E 04		資料輸入: 李紅偉	
文件版本號: A		制 作: 沈書浪		日 期: Dec.23, 2003	
TEST CONDITION: FCC 600R LOOP SIMULATOR @20mA TO 80mA LOOP CURRENT UNLESS OTHERWISE SPECIFIED			REMARKS: 1. "*"之項目為QA.生產及IPI不測試 2. 設置咪發送電平信號時,聲壓隔一H/S底殼. 3. QA要測試並機記憶&掛機記憶.		
	TEST ITEM	NORMAL	LIMIT	UNIT	REMARKS
1)	DTMF TONE OUTPUT FREQUENCY				
	ROW1	697	687-707	Hz	
	ROW2	770	759-781	Hz	
	ROW3 LOW GROUP	852	840-864	Hz	
	ROW4	941	927-955	Hz	
	COLUMN 1	1209	1191-1227	Hz	
	COLUMN 2 HIGH GROUP	1336	1316-1356	Hz	
	COLUMN 3	1477	1455-1499	Hz	
2)	DTMF LEVEL (DD-5601 600 OHM)	HI(-5)	HI(-3 ~ -7)	dBm	
		LO(-7)	LO(-5 ~ -9)	dBm	
3)	RINGER O/P, 70V RMS.1M FROM UNIT CENTER (25HZ)	HI	>70	dB SPL	*
		LO	>60	dB SPL	*
4)	MAKE/BREAK RATIO	40	38 ~ 42.5	%	
5)	DIAL PULSE SPEED	10	±1	PPS	
6)	ON-HOOK CURRENT	19	7 ~ 24	uA	
7)	OFF-HOOK DC @20mA	6	4 ~ 7	V	
8)	VOIC TRANSMIT LEVEL(92dB SPL INTO HF MIC)(40mA 1KHz) HANDFREE	-21	-24 ~ -16	dBm	
9)	VOICE TRANSMIT LEVER(92dBSPL.INTO MIC.)(HANDSET) (40mA 1KHZ)	-7.5	-10 ~ -3	dBm	
10)	SPEAKER OUTPUT INPUT FROM DD-5601 DIAGTONG HANDFREE	70	>65	dB SPL	*
11)	RECEIVER OUTPUT @-15dB INPUT FROM TEL(HANDSET) (40mA 1KHZ)	80	>75	dB SPL	
12)	DTMF TWIST (DD-5601 600 OHM 測試)	2.3	1 ~ 4	dBm	
13)	RINGER DET.	25	15 ~ 30	Vrms	
14)	RECALL (40mA)	94	83 ~ 103	ms	
15)	DTMF FREQUENCY TOLERANCE		±1.5	%	
16)	OFF HOOK AC IMPEDANCE (@40mA. 1KHz) (CTR-38)	600	400 ~ 800	OHM	*
17)	ECHO RETURN LOSS (40mA) (CTR-38)	12	≥7	dB	*
18)	LOW BATTERY DISPLAY	4.5	4 ~ 5	V	*
19)	ROLR 500 OHM CTR-38	-6.3	-10 ~ -2	dB	*
	ROLR 1000 OHM CTR-38	-6	-10 ~ -2	dB	*
	ROLR 2800 OHM CTR-38	-5.5	-10~ -2	dB	*
20)	TOLR 500 OHM CTR-38	7	3 ~ 11	dB	*
	TOLR 1000 OHM CTR-38	7.1	3 ~ 11	dB	*
	TOLR 2800 OHM CTR-38	7.5	3 ~ 11	dB	*
21)	SIDETONE 500 OHM CTR-38 (Impedance a)	16.1	≥8	dB	*
	SIDETONE 1000 OHM CTR-38 (Impedance b)	20.0	≥12	dB	*
	SIDETONE 2800 OHM CTR-38 (Impedance c)	21.2	≥15	dB	*
22)	MEMORY LAST NUMBER REDIAL	32	32	DIGITS	
23)	4ONE-TOUCH+10 TWO TOUCH MEMORY	16	16	DIGITS	
	HI-POT (1500VAC,0.5mA,FOR 2 SECOND)	PASS			
檢查: 沈書江		覆核: 游志良		審批: 楊良泰	



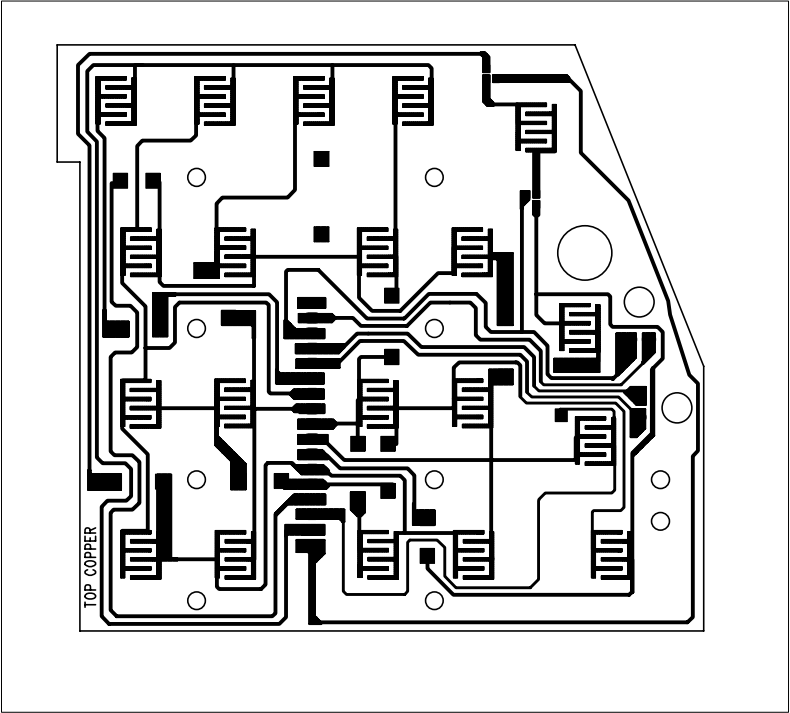


Rockway Industries Ltd	
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FW-ENG-004-008	

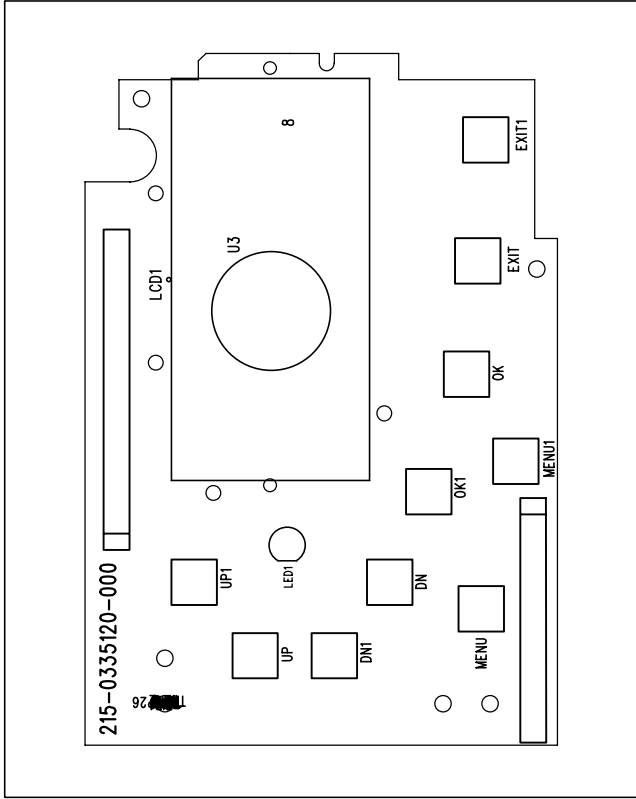


Rockway Industries Ltd.			
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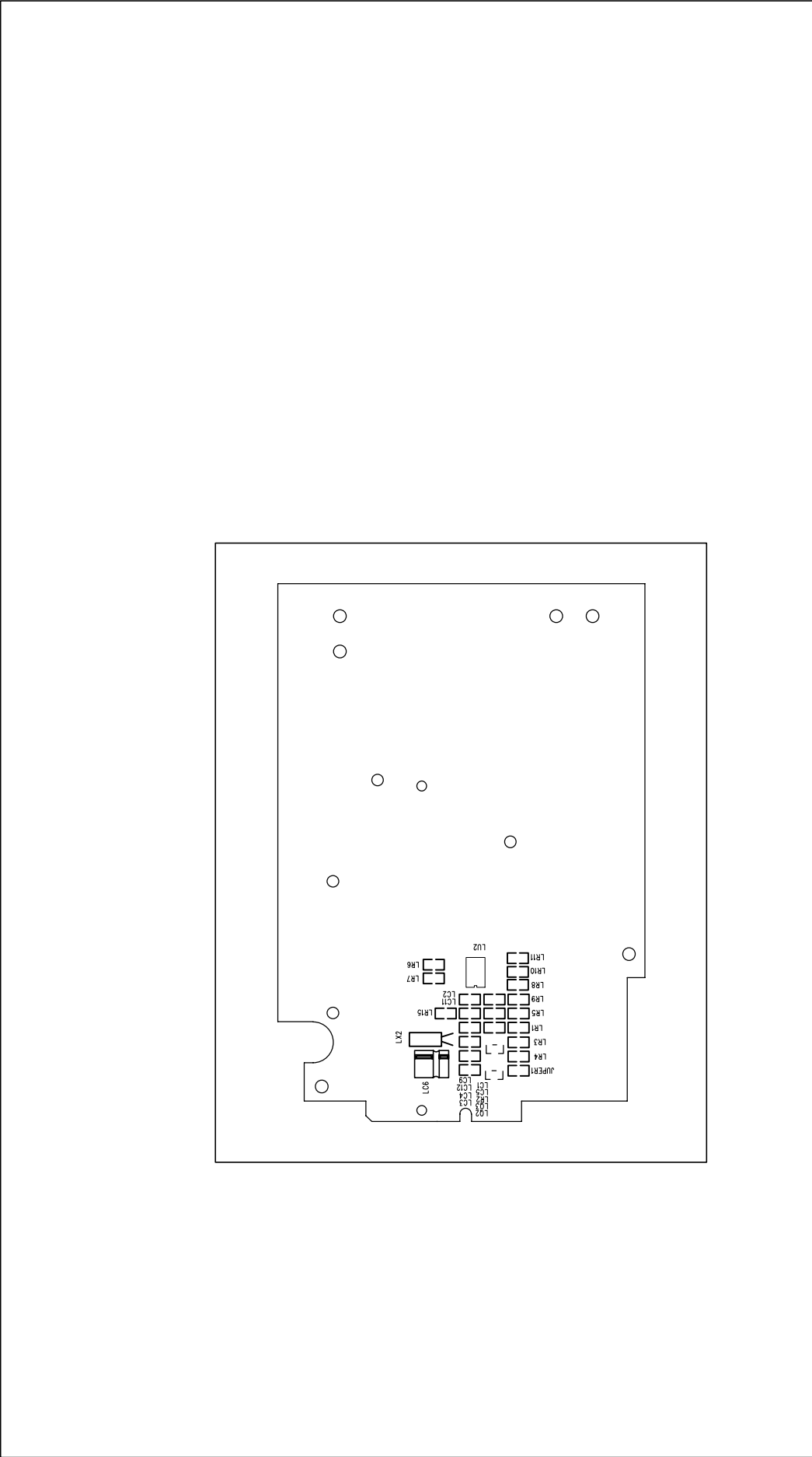
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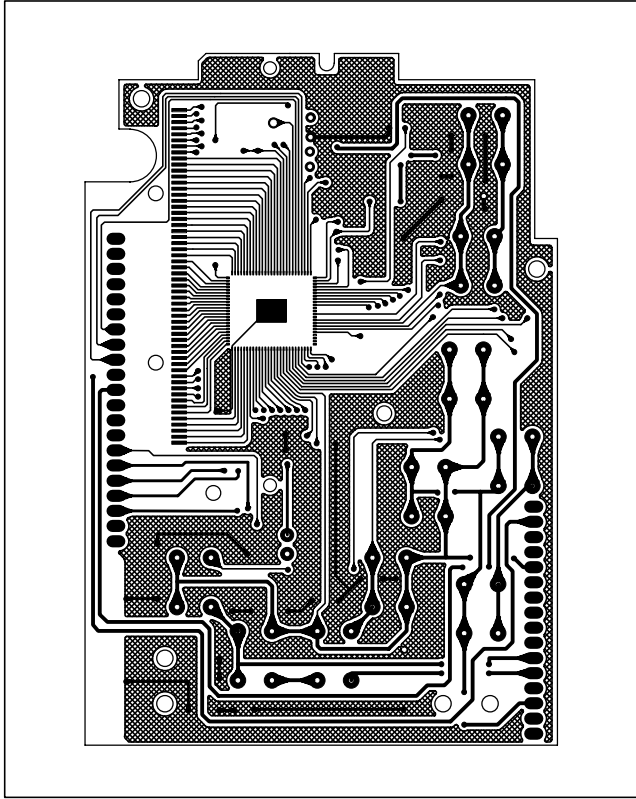


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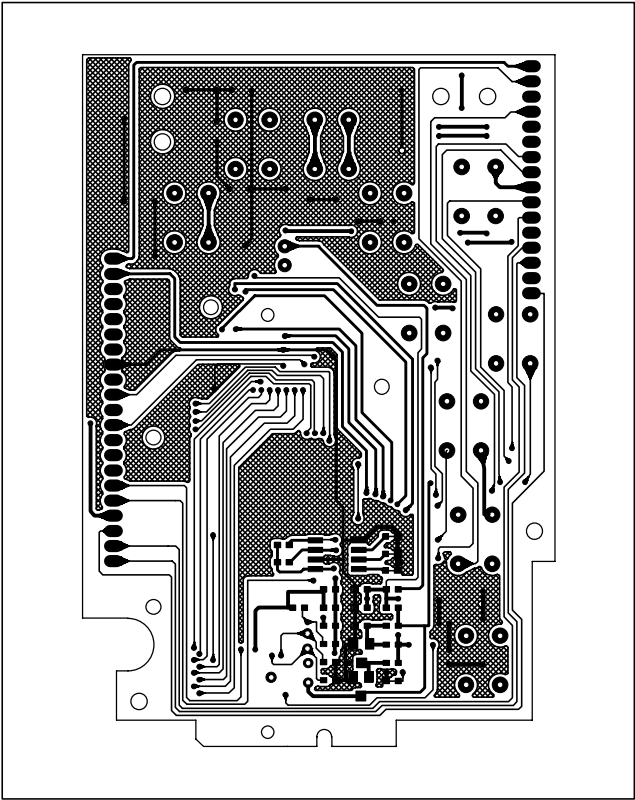


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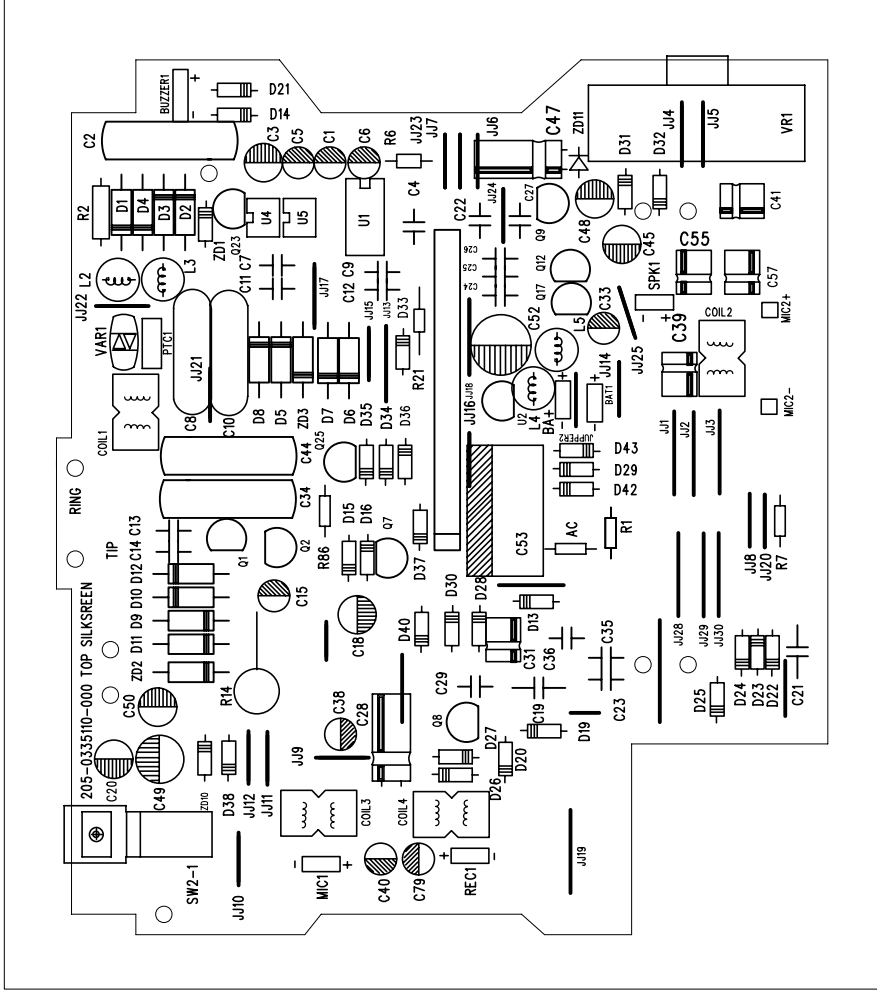
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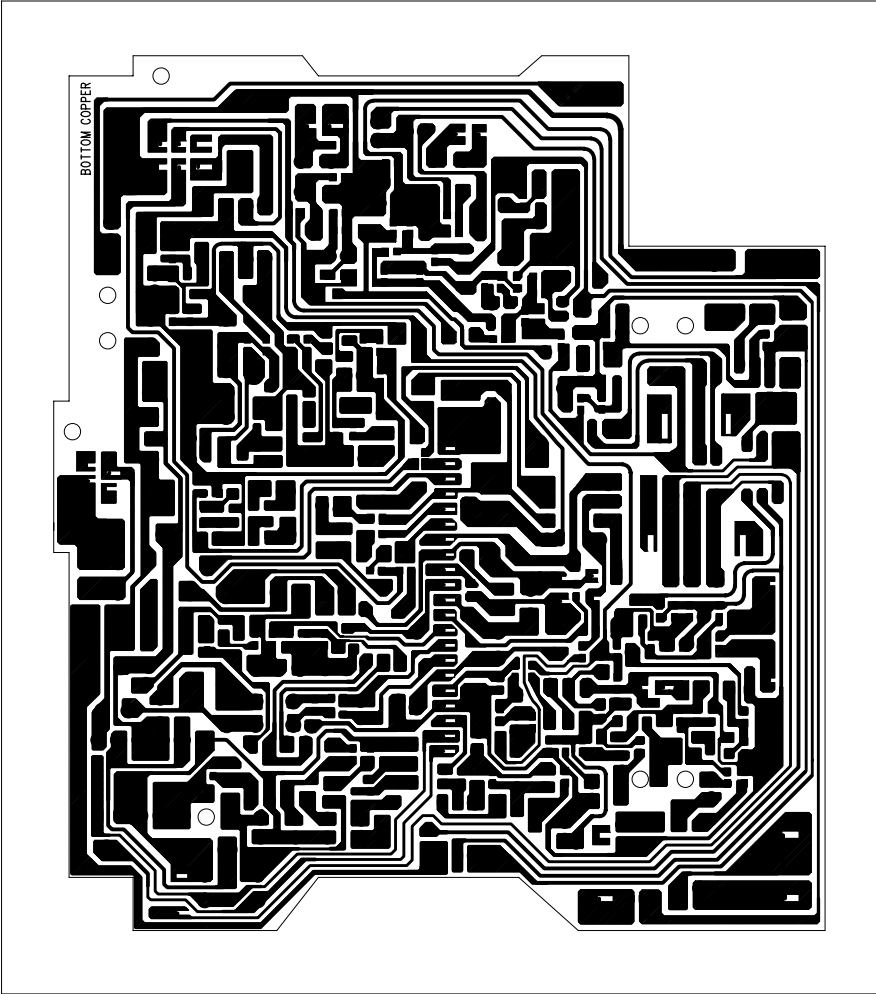


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DATE:	DATE:	PAGE: OF	



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MODEL:	VISIONX2320(rs)	DOC NAME:	PCB FILM/ARTWORK
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DOC CODE:	E10	REV:	A
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DATE:	DATE:	DATE:	PAGE: OF
FM-ENG-004-010			



ROCK WAY INDUSTRIES LDT.					
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DWG NO:		FILE NAME: VISIONX2320 MAIN-PCB			
DOC CODE: E10		REV: A			
DRN:	CHK:	APP:	SHEET: OF		
DATE:	DATE:	DATE:	PAGE: OF		
FM-ENG-004-010					

Critical Parts List :

1. Transistor
 - MPSA92, E.B.C type, P/N: 227-0009209-000
 - MPSA42, E.B.C type, P/N: 227-0004209-000
 - S8050C, E.B.C type, P/N: 227-08050C2-000
2. Crystal
 - CRYSTAL 32.768KHz, Side: 3X8mm, P/N: 209-0032767-310
3. LCD Display
 - HTN LCD, Side: 53X26X2.4mm, P/N: 211-216881P-000
4. Regulator
 - IC HT7136A, P/N: 215-7136A21-000
5. Varistor
 - Voltage 270V, Size: ϕ 7mm, P/N: 224-2270221-000
6. Zener Diode
 - DIODE ZENER 47V 1/2W, P/N: 232-1047002-000
 - DIODE ZENER 12V 1W, P/N: 232-1012003-000
 - DIODE ZENER 27V 1/2W, P/N: 232-1027002-000
7. Ringer IC
 - IC H31002P, P/N: 215-3100215-000
8. MEMORY
 - Memory IC (AT24LC16), SMD type, P/N: 215-24LC160-000
9. Photo Coupler
 - IC KP1010(CAMBRIDGE), P/N: 215-0101026-000

10. MIC

- Condenser Mic., Sensitive: -61.5 ± 1.5 dB, P/N: 218-2020741-000
- Condenser Mic., Sensitive: -64 dB ± 2 dB, P/N: 218-1010631-000

11. Speaker

- Paper Basin Speaker ϕ 50mm 32 OHM 0.25W P/N: 223-1413208-000

12. Receiver

Receiver (SD153B), Size: 28X7.4mm L=130mm, Sound level: 94 ± 2 dB, P/N: 220-1025C02-000

13. Switch

- Hook Switch PS-22F-12G3, Force: (60g-80g) P/N: 225-0402043-000

14. Light Emitting Diode

- New Call LED, Size: 3mm, Color: Red, P/N: 217-1158173-000
- In Use LED Size: 3mm, Color: Green, P/N:, 217-1134172-000
- Visual Ringer LED Size: 3mm, Color: Red, P/N:LED 217-1132112-000

15. Buzzer

- Buzzer Piezo (HY-1T-2.6E), Side: 31mm, P/N: 203-0221015-000

16. Slide Switch.

- Tone/Pulse Switch (SSA-22D02-G2-TA), P/N: 225-0102090-000
- Ringer Switch (SSA-23D01-G2-7A), P/N: 225-0102085-000

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End