Service Manual

Telephone Equipment

MODEL: BKT-2P/T RU

Basic Phone

MAIN FEATURES

1. Ringer Volume Switch
2. Tone/Pulse Switch
3. P T Button
4. PAUSE Button
5. MUTE Button
6. FLASH Button
7. Notepaper Case
8. IN USE Indicator
9. RING Indicator

BBK

Contents

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INSTALLATION

1. Connect one end of coiled cord to the jack of handset and other to the jack of base set.
2. Plug one end of the straight cord to the base unit and other end to the line jack unit/terminal.

SETTING THE TONE/PULSE SWITCH

1. If your home is equipped with a Touch-Tone dialing system, set the Tone/Pulse Switch to the Tone position.
2. If you have a rotary dialing system set the Tone/Pulse Switch to the Pulse position.
3. If you are unsure which system you have, set the Tone/Pulse Switch to the Tone position. Lift the Handset and dial a telephone number when you get a dial tone. If the dial tone continues, move the Tone/Pulse Switch to the Pulse position and dial a number again.

SETTING THE RINGER LO-HI SWITCH

The Ringer Hi/Lo Switch can be used to set the sound level of the unit ringer. Set the Ringer Hi/Lo Switch to the Hi position for normal operation. Set the Ringer Hi/Lo Switch to the Lo position for lower sound.

ANSWERING A CALL

On hearing the ring tone, lift the HANDSET and preceed with conversation. At the end of conversation replace the handset.

MAKEING A CALL

1. Lift the HANDSET and wait a dial tone. The In Use Indicator will light up.
2. Dial the telephone number you wish to call.
3. Replace the HANDSET as soon as you finish you conversation.

REDIAL BUTTON

1. If the number you dialed is busy or you want the last number to be dialed again, press the Hook Switch and release for a new dial tone.
2. Press the Redial button and release.
3. The last called number will automatically be redialed.

P*T BUTTON

Pressing P*T button before inputting numbers requires tone dialing the dial mode will change to P T temporarily. When you hang up the mode return to Pulse.

PAUSE BUTTON

The PAUSE button allows you to insert a pause in the automatic dialing sequence. This is particularly useful if you are using the unit as part of a PABX system, where you must dial an access code (usually numberì0î) to obtain an outside line.

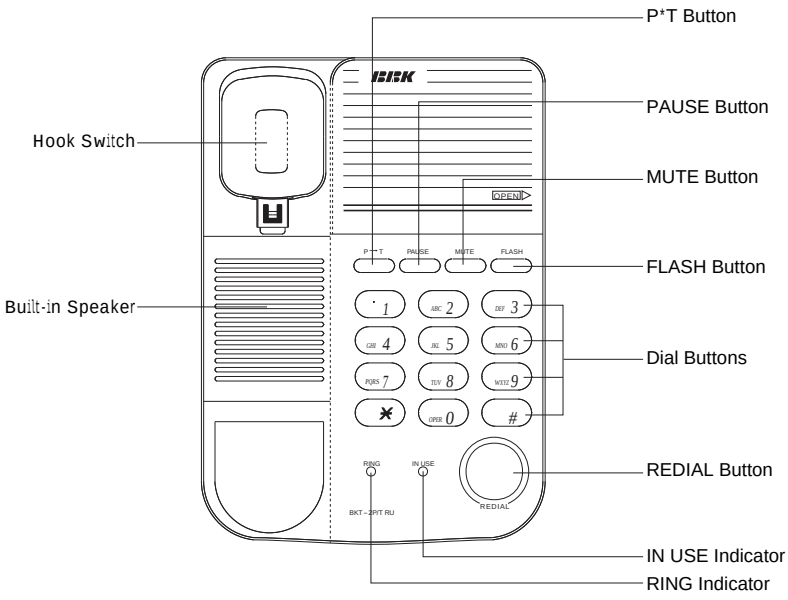
FLASH BUTTON

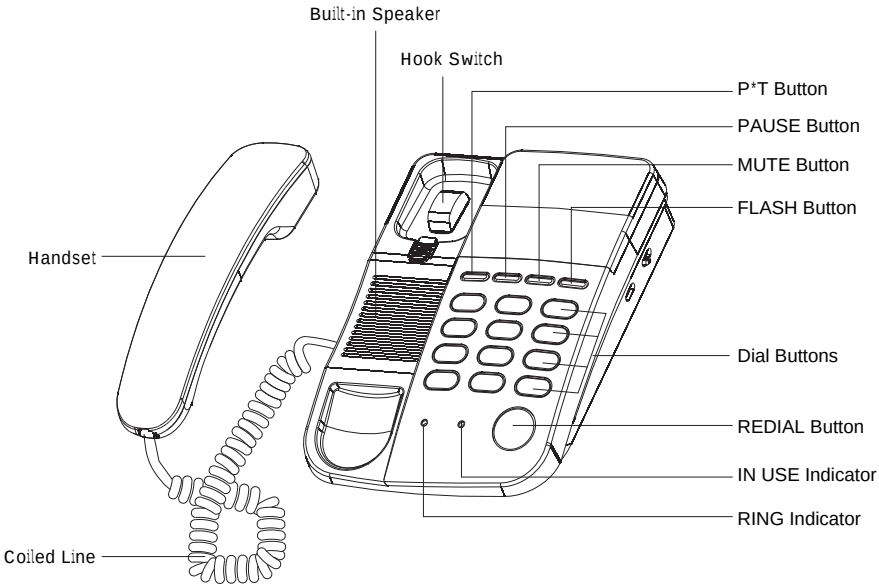
FLASH button allows the user to take advantage of special calling services offered by the PABX telephone exchange. Press FLASH button to switch from current call to incoming call. Press FLASH button once again to return to the original call.

NOTEPAPER CASE

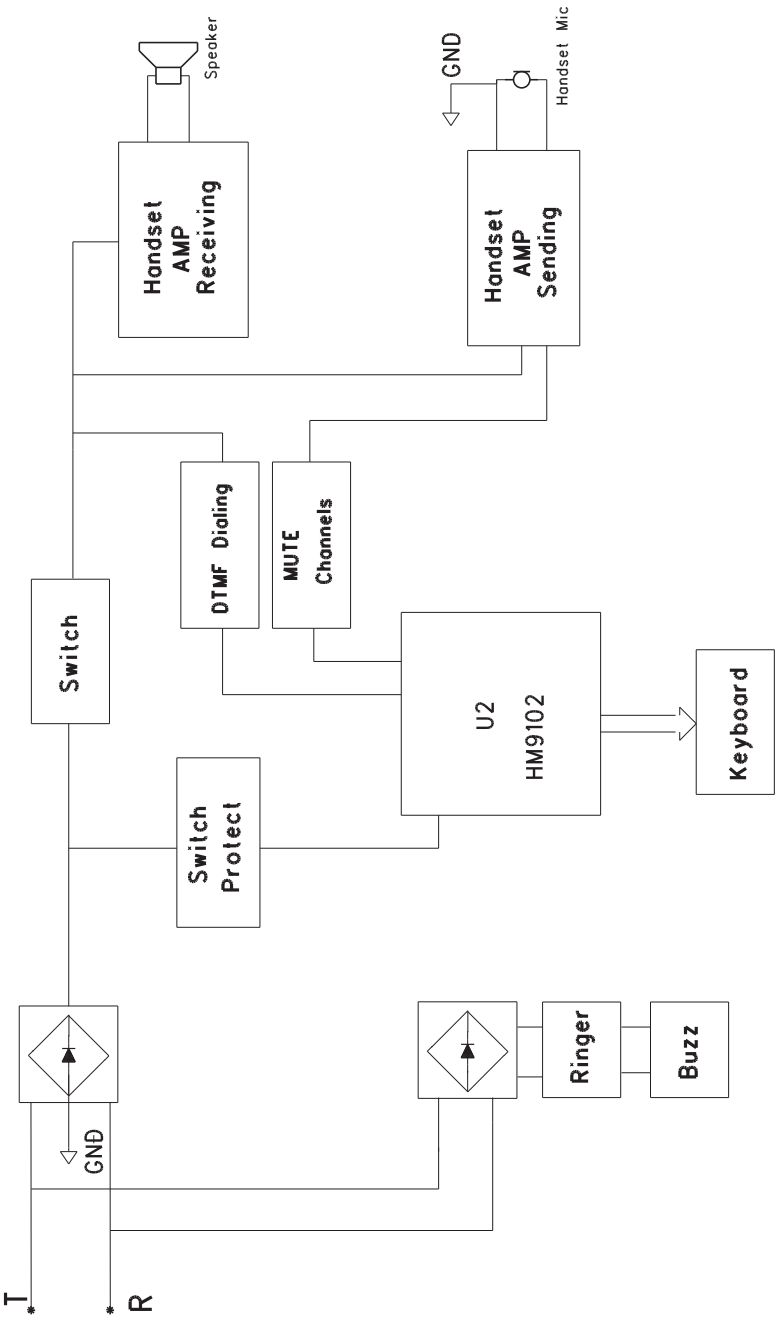
On the unit, there is a notepaper case with notepaper in it. It is convenient for user write down something or phone number.

Location of Controls

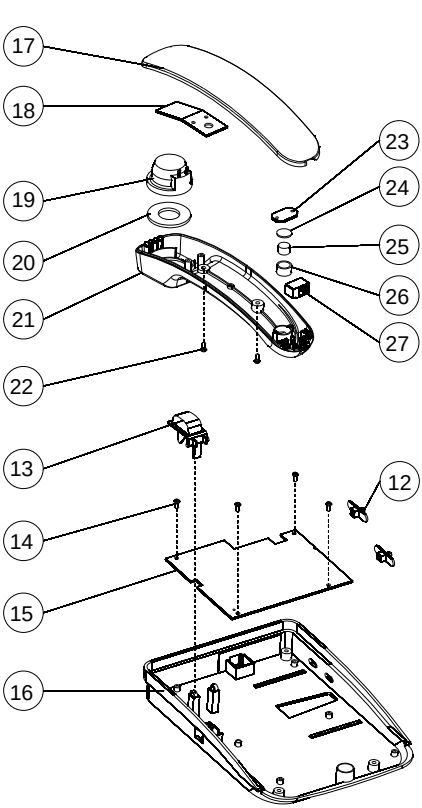


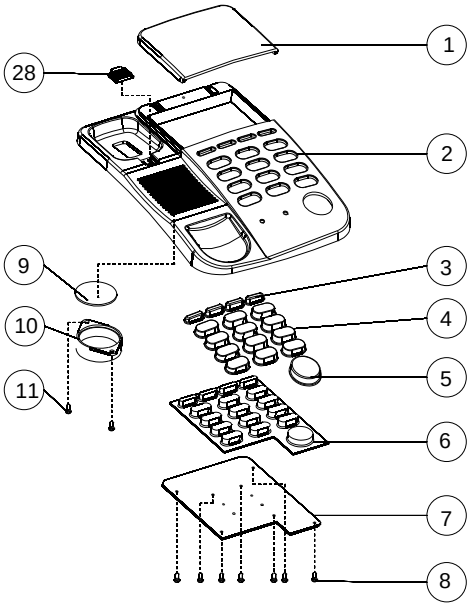


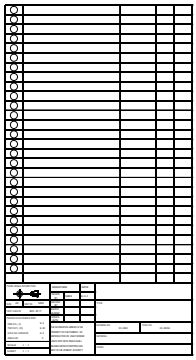
Block Diagram



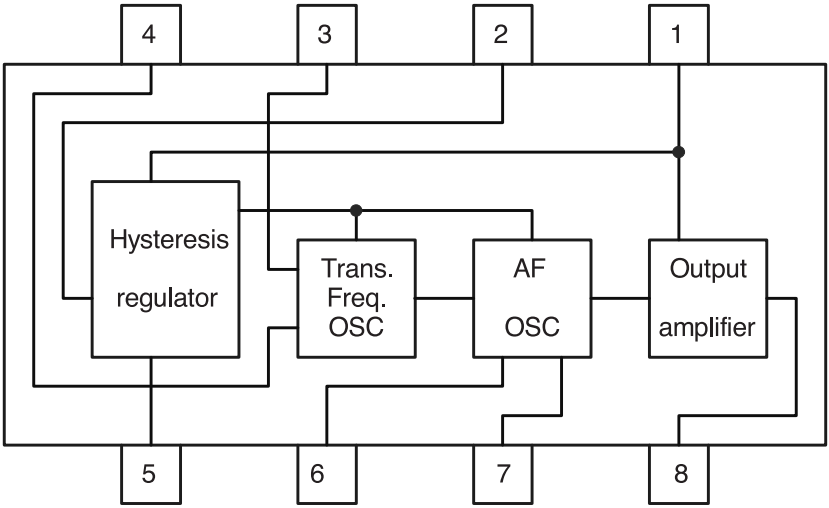
Explosion Diagram







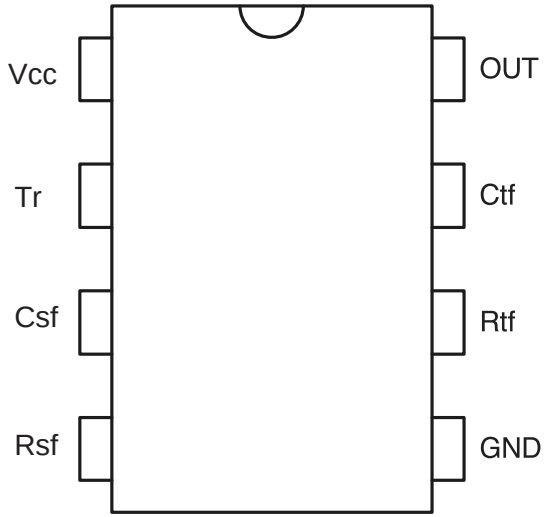
BLOCK DIAGRAM



NOTE: Trans. Freq. OSC is Transform frequency oscillator.

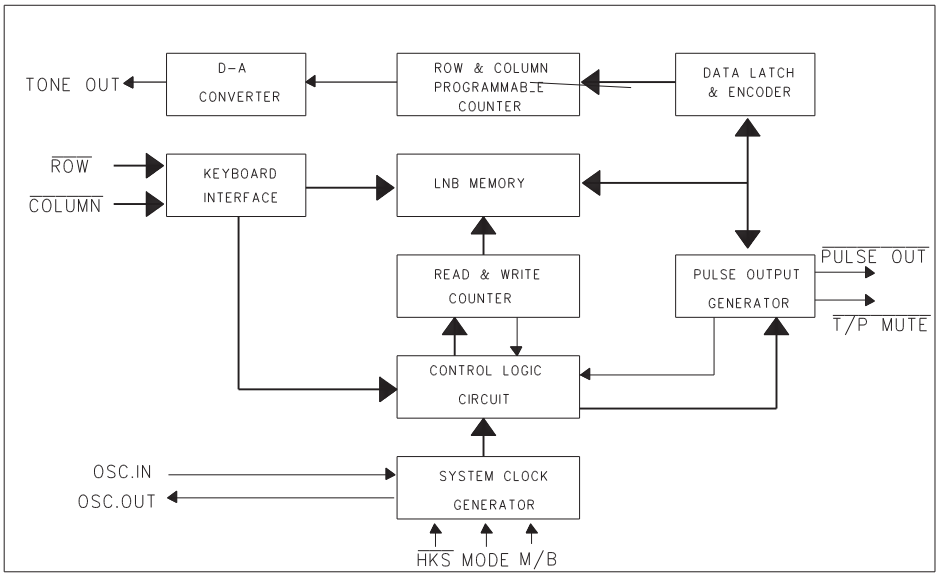
AF OSC is Audio-frequency oscillator.

PIN CONNECTION (Top view)



Pin No.	Symbol	Pin Name
1	Vcc	Supply voltage
2	Tr	Trigger input
3	Csf	Transform-frequency OSC capacitance
4	Rsf	Transform-frequency OSC capacitance
5	GND	Ground pin
6	Rtf	Audio-frequency OSC resistance
7	Ctf	Audio-frequency OSC capacitance
8	OUT	Output

Functional Block Diagram

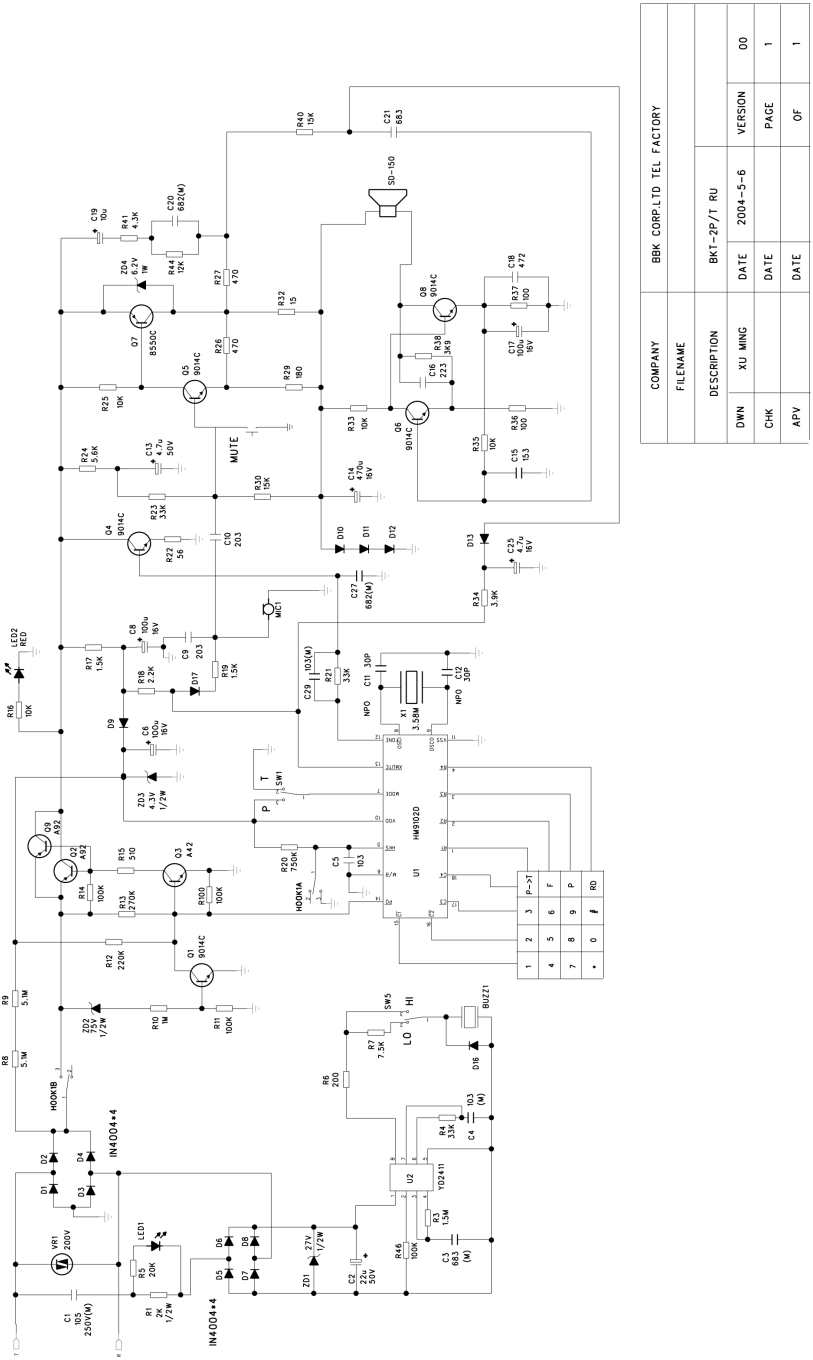


IC Data - Pin Description

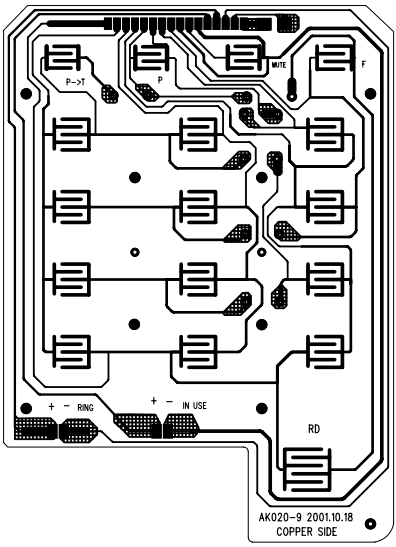
Pin Description

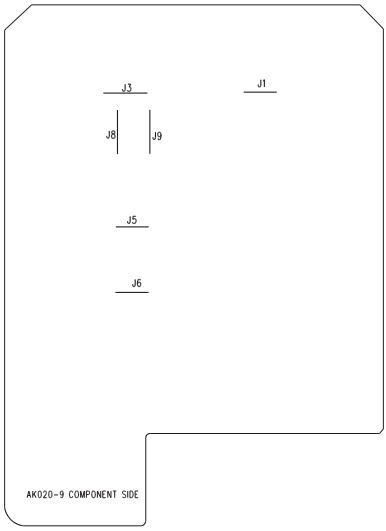
Pin	Symbol	Function
	C1-C4	Keyboard scan pin of column grow.While HKS pin is LOW ,the column group stays in"High" state.
1-4	R1-R4	Keyboard scan pin of ROW grow.While HKS pin is LOW ,the column group stays in"Low" state.
8-9	OSCI-OSCO	Oscillator input and output pins.A 3.579545 MHz crystal or ceramic resonator must be crossed connection to OSCI and OSCO pins which generate system clock.
	XMUTE	The Tone/Pulse MUTE signal output pin that is NMOS open-drain outut structure.This pin will switch to "Low" level during Tone/Pulse dialing.Otherwise,this pin stays "High impedance" level.
	Vss	Negative power supply pin.
	VDD	Positive power supply pin.
	HKS	Hook switch input pin. When the handset is in ON-HOOK state,thispin must be pulled"High" in order to disale the dialing operation and decrease the power consumption.When in OFF-HOOK statr,theHKS pin must be pulled "Low" state for alll functin operation.
	PO	Pulse output signal pin. NMOS opendrain output structure. The output is "during pulse dialing and flash operation, otherwise this output is "floating".
	TONE	Dual Tone Multi-frequency output pin. In TONE mode,when a entry of dogit key(include*,#ken),this pin will sent out a corresponding DTMF signal. The TONE pin provides minimum tone duration & minimum intertone pause time to support rapid key-in. If key-in time is less then 100 ms, DTMF signal will last for100 ms, otherwise the tone duration willlast as long as the key is pressed.
	MODE	Mode select pin
	M/B	Make/Break ratio selection pin.

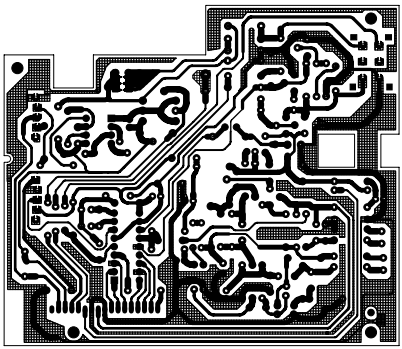
Elements Diagram

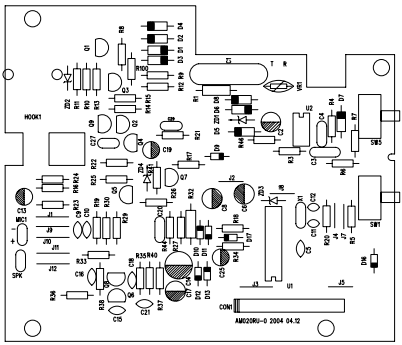


PCB Diagram


P->T
P
MUTE
F
+ − RING
+ − IN USE
RD
AK020-9 2001.10.18
COPPER SIDE


J3
J1
J8
J9
J5
J6
AK020-9 COMPONENT SIDE





Replacement Parts List

BKT-2PT RU REPLACEMENT PARTS LIST			
MAIN BOARD(CM020-0) PARTS			
S/N	DESCRIPTION	QUANTITY	Ref.No.
1	RESISTOR CARBON FILY 1/2W 15Ω ±5C	1	R32
2	RESISTOR CARBON FILY 1/2W 2K ±5C	1	R1
3	RESISTOR CARBON FILY 1/4W 1.5K ±5C	2	R19 R17
4	RESISTOR CARBON FILY 1/4W 1.5MΩ ±5C	1	R3
5	RESISTOR CARBON FILY 1/4W 100Ω ±5C	2	R37 R36
6	RESISTOR CARBON FILY 1/4W 100K ±5C	4	R11 R14 R100 R46
7	RESISTOR CARBON FILY 1/4W 10K ±5C	4	R25 R33 R35 R16
8	RESISTOR CARBON FILY 1/4W 12K ±5C	1	R44
9	RESISTOR CARBON FILY 1/4W 15K ±5C	2	R40 R30
10	RESISTOR CARBON FILY 1/4W 180Ω ±5C	1	R29
11	RESISTOR CARBON FILY 1/4W 1MΩ ±5C	1	R10
12	RESISTOR CARBON FILY 1/4W 2.2K ±5C	1	R18
13	RESISTOR CARBON FILY 1/4W 200Ω ±5C	1	R6
14	RESISTOR CARBON FILY 1/4W 20K ±5C	1	R5
15	RESISTOR CARBON FILY 1/4W 220K ±5C	1	R12
16	RESISTOR CARBON FILY 1/4W 270K ±5C	1	R13
17	RESISTOR CARBON FILY 1/4W 3.9K ±5C	2	R34 R38
18	RESISTOR CARBON FILY 1/4W 33K ±5C	3	R4 R23 R21
19	RESISTOR CARBON FILY 1/4W 4.3K ±5C	1	R41
20	RESISTOR CARBON FILY 1/4W 470Ω ±5C	2	R26 R27
21	RESISTOR CARBON FILY 1/4W 5.1MΩ ±5C	2	R8 R9
22	RESISTOR CARBON FILY 1/4W 5.6K ±5C	1	R24
23	RESISTOR CARBON FILY 1/4W 510Ω ±5C	1	R15
24	RESISTOR CARBON FILY 1/4W 56Ω ±5C	1	R22
25	RESISTOR CARBON FILY 1/4W 7.5K ±5C	1	R7
26	RESISTOR CARBON FILY 1/4W 750K ±5C	1	R20
27	CERAMIC CAPACITOR 50V 103 ±20% 5MM&	1	C5
28	CERAMIC CAPACITOR 50V 223 ±20C 5MM	1	C16
29	CERAMIC CAPACITOR 50V 30P± 10C NPO 2.5MM	2	C11 C12
30	CERAMIC CAPACITOR 50V 472± 20C 2.5MM	1	C18
31	CERAMIC CAPACITOR 50V 683 ±20C 5MM	1	C21
32	CERAMIC CAPACITOR 50V 203± 20% 5MM	2	C10 C9
33	POLY CAPACITOR 100V 103±10C 3.5MM	2	C4 C29
34	POLY CAPACITOR 100V 682±10C 3.5MM	2	C20 C27
35	POLY CAPACITOR 250V 105±10C 20MM	1	C1
36	POLY CAPACITOR 100V 153±10C 3.5MM	1	C15
37	POLY CAPACITOR 100V 683±10C 6MM	1	C3
38	CD11 16V 100μ F±20% 6X12 2.5	3	C6 C8 C17
39	CD11 16V 470μ F±20% 8X12 3.5	1	C14
40	CD11 50V 10μ F ±20% 5X11 2.0	1	C19
41	CD11 50V 22μ F±20% 6X12 2.5	1	C2
42	CD11 50V 4.7μ F ±20% 5X11 2.0	2	C13 C25
43	TANSISTOR 8550C	1	Q7
44	TANSISTOR 9014C 300≤ß≤ 400	5	Q4 Q1 Q5 Q6 Q8
45	TANSISTOR A92 100 ≤ß≤ 200 VCES≤ 0.1V	2	Q2 Q9
46	TANSISTOR MPS-A42 120 ≤ß≤ 180	1	Q3
47	DIODE 1N4004	8	D1 D2 D3 D4 D5 D6 D7 D8
48	DIODE IN4148	7	D9 D10 D11 D12 D13 D16 D17
49	ZENERDIODE 27V 1/2W	1	ZD1
50	ZENERDIODE 4.3V 1/2W	1	ZD3

Replacement Parts List

51	ZENERDIODE 6.2V 1W	1	ZD4
52	ZENERDIODE 75V 1/2W	1	ZD2
53	PCB AM020RU-0 192X119.5X1.6/2 HB SX	1	
54	PCB AK020-9	1	
55	WAFER 16P 110MM 2.0MM	1	
56	IC HM9102D DIP	1	U1
57	IC YD2411 DIP	1	U2
58	CERAMIC RESONATOR 3.58MHZ	1	X1
59	VSR 10D 180V	1	VR1
60	LED f 3	2	LED1 LED2
61	BUZZLE f 31	1	BUZZ1
62	SW SS-12F23-G5	2	SW1 SW5
63	HOOK THK-1AN-0019 38-62G	1	HOOK1
	HANSET PARTS		
1	PCB MIC-2	1	
2	MIC 62 \ B 9.7X6.5 PINS	1	MIC1
3	RECEIVER SD-150/38	1	SPK1

TROUBLE SHOOTING

The telephone does not ring when you receive a call

1. Make sure the telephone cord is connected firmly to the base unit and the telephone jack.

2. Make sure the handset is placed correctly.

There is no dial tone

1. Check whether the telephone line is disconnected

2. Check whether the telephone line has signal.

The number canít be dialed out

Check to see if the **Pulse/Tone Switch** is in the correct position.

Redial button does not work

The phone may have been momentarily disconnected from the phone jack.

BBK

Telephone Equipment

MODEL: BKT-2P/T RU

Basic Phone