

### 3. Block diagram

This is the block diagram concerning to the receiver.

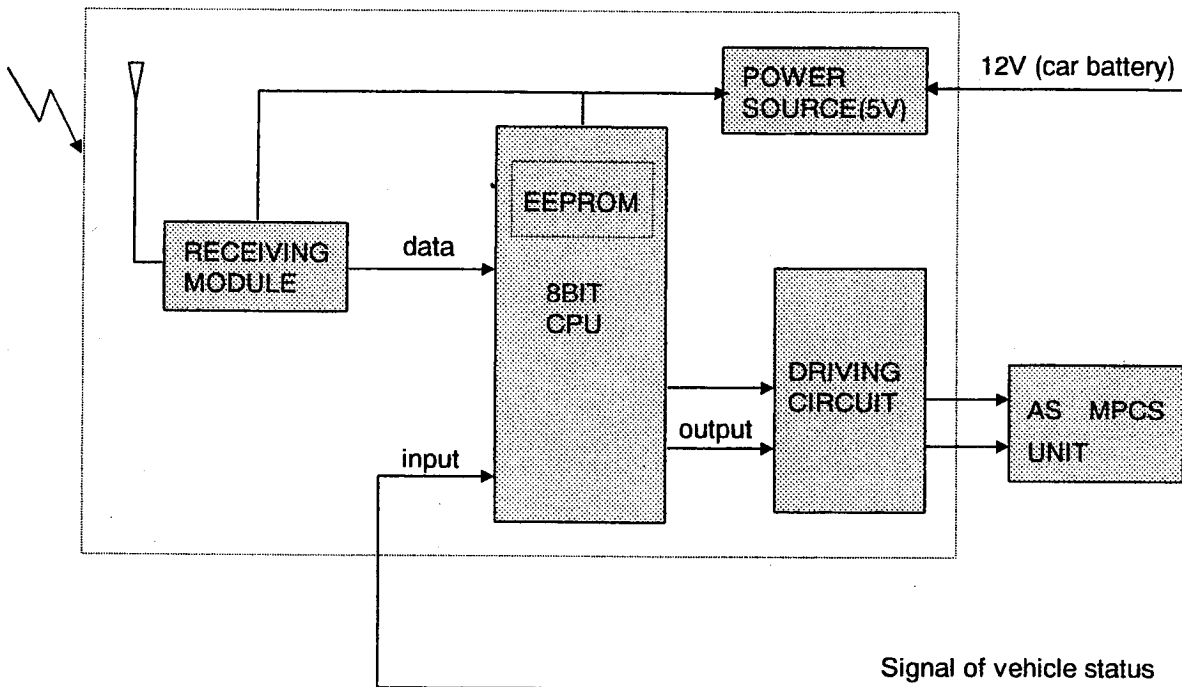


Figure 3.1 block diagram of the receiver

# 6. PCB

## 6.1 Circuit diagram

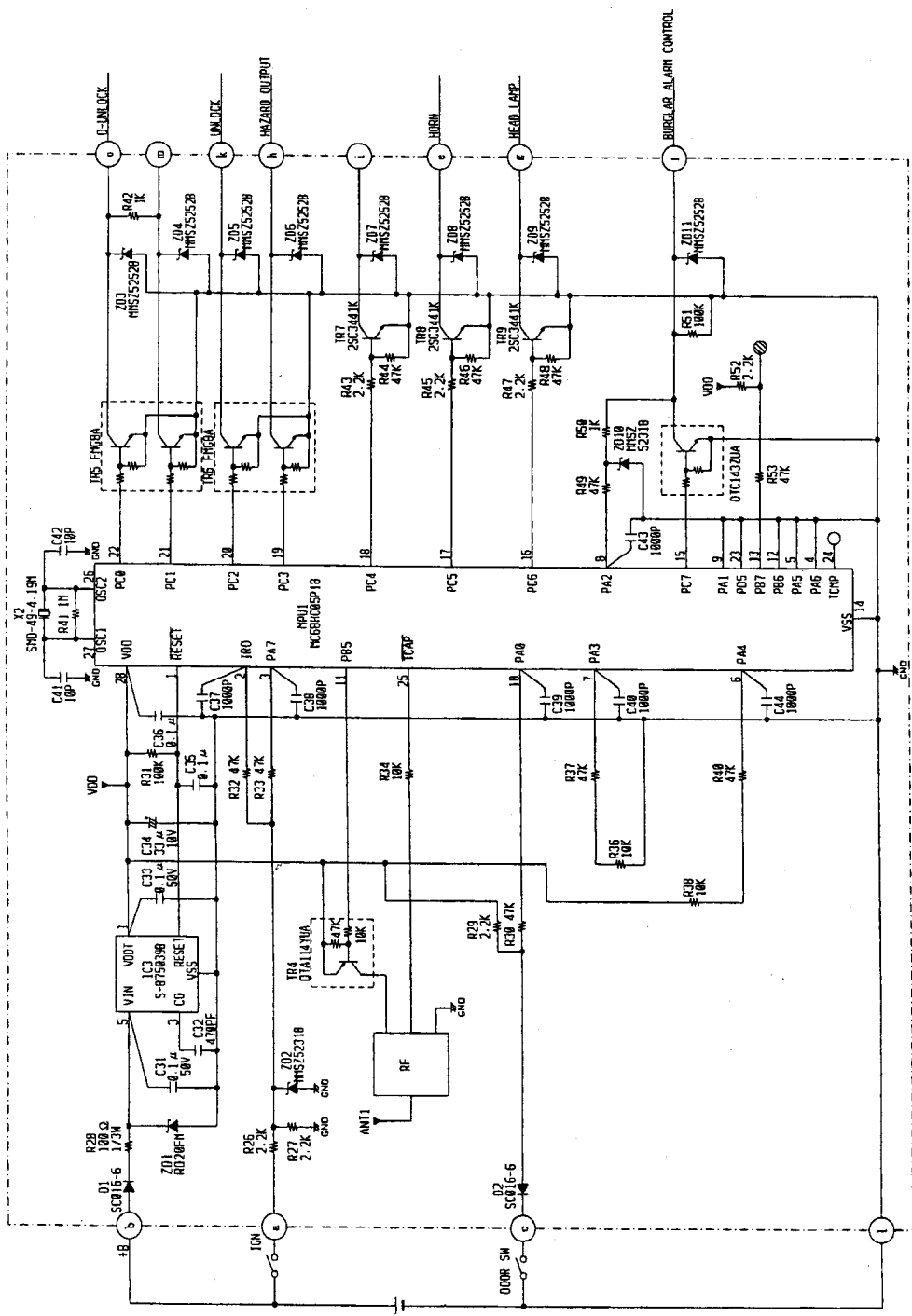


Figure 6.1 Circuit diagrams





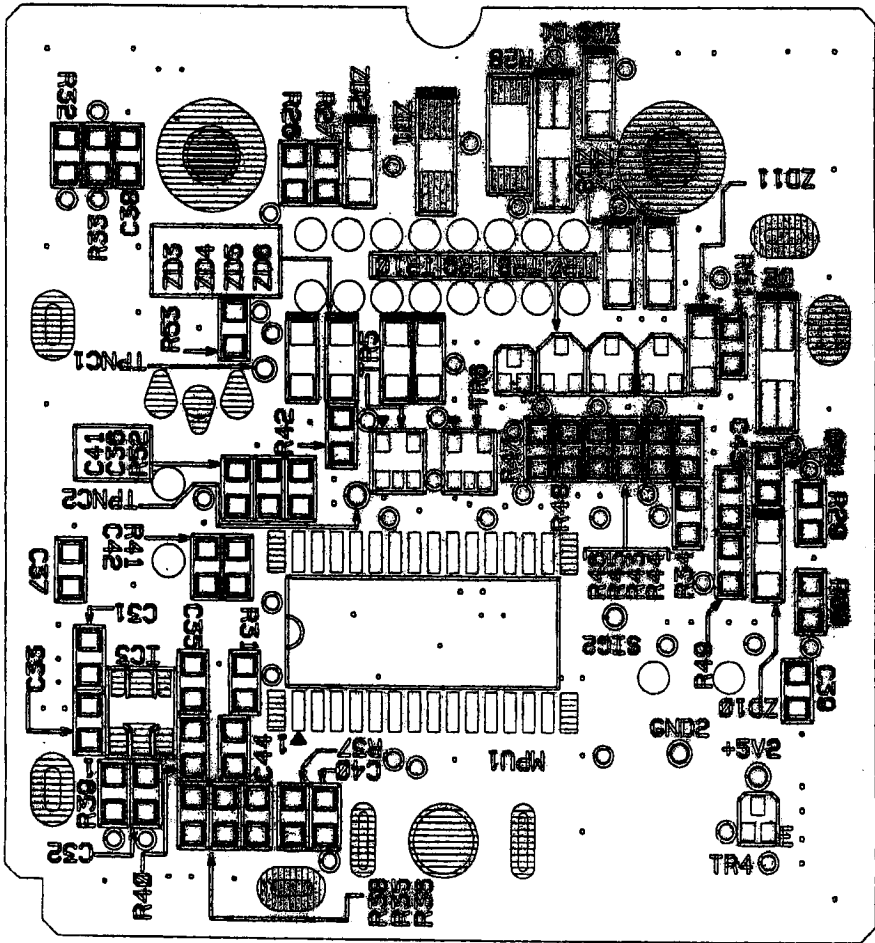


Figure 6.4 Parts layout (back)

### 6.3 pattern layout

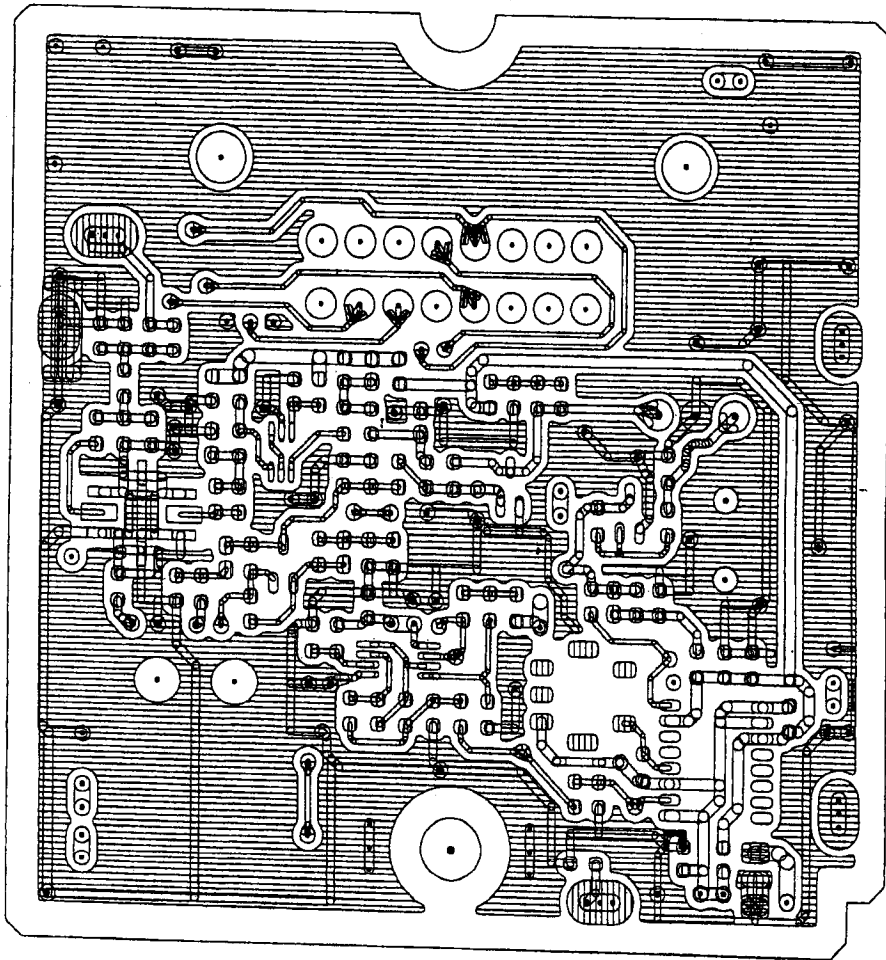


Figure 6.5 pattern layout (front)

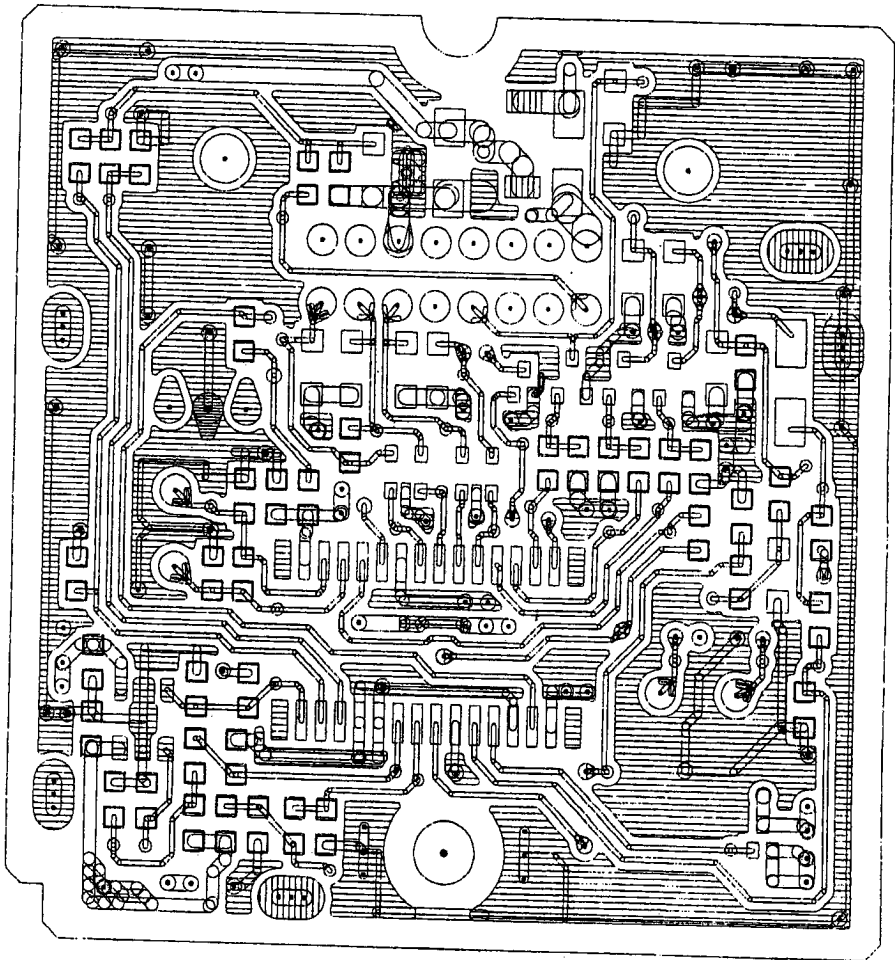


Figure 6.6 pattern layout (back)





No	PARTS NAME	MANUFACTURER	QTY	TYPE	SPECIFICATION	REMARK
20	CHIP RESISTOR		1	RK16CAY27KJ-T1	27k $\Omega$ 1/16W	R19
21	CHIP RESISTOR		1	RK16CAY33KJ-T1	33k $\Omega$ 1/16W	R20
22	CHIP RESISTOR		1	RK16CAY68KJ-T1	68k $\Omega$ 1/16W	R21
23	CHIP RESISTOR		1	RK16CAY30KJ-T1	30k $\Omega$ 1/16W	R22
24	CHIP RESISTOR		1	RK16CAY15KJ-T1	15k $\Omega$ 1/16W	R23
25	CHIP RESISTOR		1	RK16CAY160KJ-T1	160k $\Omega$ 1/16W	R24
26	CHIP RESISTOR		1	RK16CAY2KJ-T1	2k $\Omega$ 1/16W	R25
27	CERAMIC CAPACITOR		1	CCM-L16CK1H030D -T2	3pF 50V	C1
28	CERAMIC CAPACITOR		10	CKM-L16R1H102K -T2	1000pF 50V	C3, 5, 8, 10, 12 13, 21, 22, 26, 29
29	CERAMIC CAPACITOR		1	CCM-L16CH1H120J -T2	12pF 50V	C4
30	CERAMIC CAPACITOR		1	CCM-L16CH1H180J -T2	18pF 50V	C6
31	CERAMIC CAPACITOR		1	CCM-L16CH1H270J -T2	27pF 50V	C7
32	CERAMIC CAPACITOR		1	CCM-L16CH1H0R5C -T2	0.5pF 50V	C9
33	CERAMIC CAPACITOR		3	CCM-L16CH1H471J -T2	470pF 50V	C11, 19, 20
34	CERAMIC CAPACITOR		1	CCM-L16CH1H080J -T2	8pF 50V	C14
35	CERAMIC CAPACITOR		1	CCM-L16CH1H331J -T2	330pF 50V	C16
36	CERAMIC CAPACITOR		1	CCM-L16CH1H220J -T2	22pF 50V	C17
37	CERAMIC CAPACITOR		1	CCM-L16CH1H470J -T2	47pF 50V	C18
38	CERAMIC CAPACITOR	MURATA industry	5	GRM39R104K16PT	0.1 $\mu$ F 50V	C23, 24, 25, 27, 30

注

RF MODULE PARTS LIST

G8D-320A-B

SHEET No ( 2 / 3 )

DWG NO.



No	PARTS NAME	MANUFACTURER	QTY	TYPE	SPECIFICATION	REMARK
1	CPU	MOTOROLA	1	MC68HC05P18	28PIN SOP	MPU1
2	RESET IC	SEIKO electronics	1	S-875039BUP-ABD-T	SOT-89-5	IC3
3	CRYSTAL OSCILLATOR	DAISHINKU	1		4.00MHz	X2
4	DEGITAL TRANSISTOR	ROHM	1	DTA114YUAT106	100mA	TR4
5	DEGITAL TRANSISTOR	ROHM	2	FMG8A		TR5, TR6
6	DEGITAL TRANSISTOR	MITSUBISI electronics	3	2SC3441T T12-1F		TR7, TR8, TR9
7	DEGITAL TRANSISTOR	ROHM	1	DTC143ZUA		TR10
8	DIODE	FUJI electornics	2	SC016-6-TE12RA	1A 600V	D1, D2
9	ZENER DIODE	NEC	1	RD20FMB-T1	1W 20V	ZD1
10	ZENER DIODE	MOTOROLA	2	MMSZ5231B-T1	500mW 5.1V	ZD2, ZD10
11	ZENER DIODE	MOTOROLA	7	MMSZ5252B-T1	500mW 24V	ZD3, 4, 5, 6, 7, 8, 9.
12	CHIP RESISTOR		7	RK20CAY2.2KJ-T1	2.2K $\Omega$ 1/10W	R26, 27, 29, 43, 45, 47, 52
13	CARRBON RESISTOR		1	RD1/3LL1A100J-T2	100 $\Omega$ 1/4W	R28
14	CHIP RESISTOR		10	RK20CAY47KJ-T1	47k $\Omega$ 1/10W	R30, 32, 33, 37, 40, 44, 46, 48, 49, 53
15	CHIP RESISTOR		2	RK20CAY100KJ-T1	100k $\Omega$ 1/10W	R31, R51
16	CHIP RESISTOR		1	RK20CAY1MJ-T1	1M $\Omega$ 1/10W	R41
17	CHIP RESISTOR		2	RK20CAY1KJ-T1	1k $\Omega$ 1/10W	R42, 50
18	CHIP RESISTOR		3	RK20CAY10KJ-T1	10k $\Omega$ 1/10W	R34, 36, 38
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RECEIVER PARTS LIST

G8D-320A-B

SHEET No ( 1 / 2 )

DWG NO

No	PARTS NAME	MANUFACTURER	QTY	TYPE	SPECIFICATION	REMARK
20	CERAMIC CAPACITOR	MURATA industry	4	GRM40-034R104K 50PT	0.1 $\mu$ F 50V	C31, 33, 35, 36
21	CERAMIC CAPACITOR		1	CKM-L20R1H471K-T2	470pF 50V	C32
22	TANTALUM CAPACITOR	NEC	1	TFMSVB21A336M8R	33 $\mu$ F 10V	C34
23	CERAMIC CAPACITOR		5	CCM-L20R1H102K-T2	1000pF 50V	C37, 38, 39, 40 43, 44
24	CERAMIC CAPACITOR		2	CCM-L20CH100D-T2	10pF 50V	C41, 42
25	PWB	CMK	1	FCL-FR435M416	t=1.6	
26	CONNECTOR	SUMITOMO electronics	1	6098-2021	16P	
27	ANTENNA		1	C2680 1/2H	t=0.5	
28	CASE		1	ABS	BLACK	
29	BASE		1	ABS	BLACK	
30	ERATH PLATE		1	C5210R-EH	t=0.15	
31	TAPPING SCREW		2	M3 $\times$ 8		
32	LABEL		1		FCC LABEL	

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RECEIVER PARTS LIST

G8D-320A-B

SHEET No ( 2 / 2 )

DWG NO.

## 6.4 Connector

This is the pin assignment of the connector.

No.	I/O	Assignment	Memorandum
a	INPUT	Ignition switch	Active High
b		Battery	12V
c	INPUT	Door switch	Active Low
d		(not used)	
e	OUTPUT	Horn	Active Low
f		(not used)	
g	OUTPUT	Head lamp	Active Low
h	OUTPUT	Hazard	Active Low
i	OUTPUT	Boot Release	Active Low
j	OUTPUT	Burglar alarm control	Active Low
k	OUTPUT	Unlock	Active Low
l		Ground	GND
m		(not used)	
n		(not used)	
o	OUTPUT	D-Unlock	Active Low
p		(not used)	