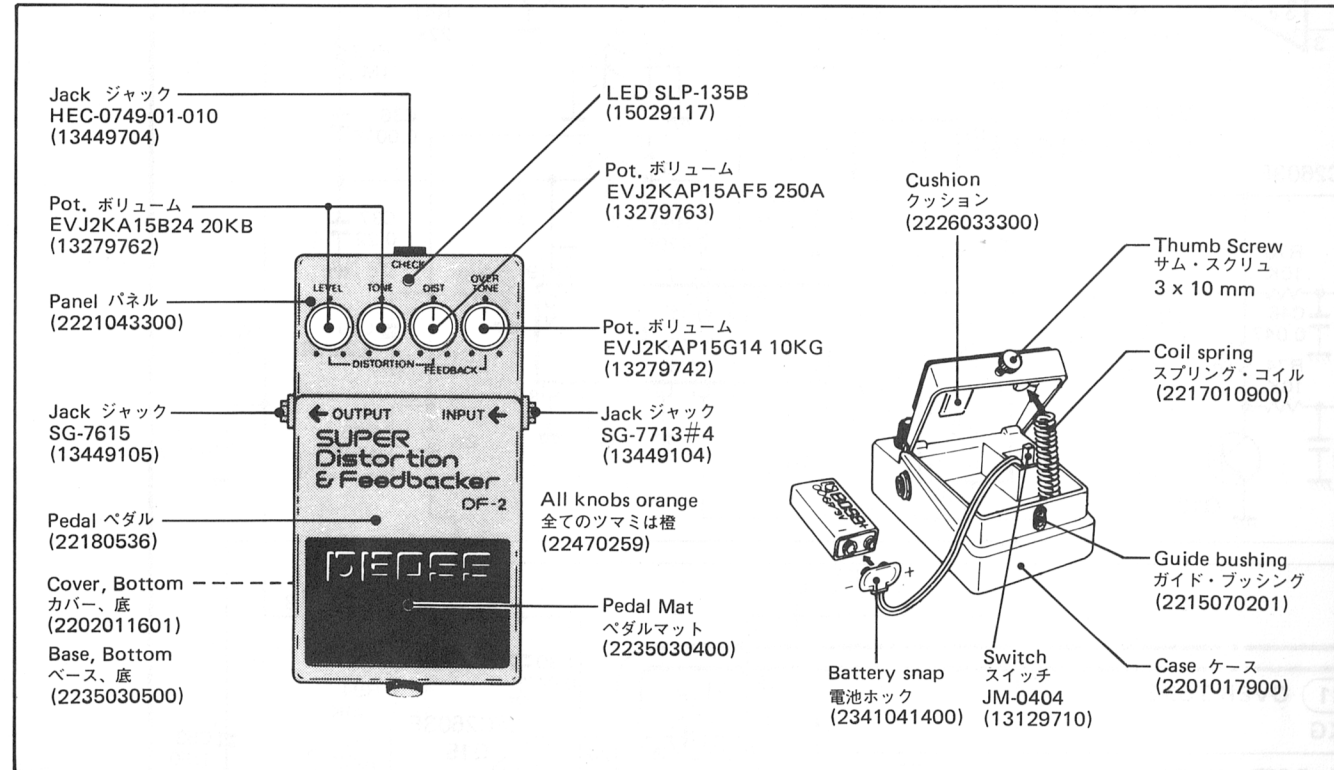


# BOSS DF-2 SERVICE NOTES

First Edition

## SPECIFICATIONS

Power : 9V Battery or AC adaptor (ACA-120, 220 or 240)  
 Current Draw : 10mA at 9V  
 Input Impedance : 1MΩ  
 Output Load Impedance : 10KΩ min.  
 Dimensions : 70(W) x 55(H) x 125(D) mm  
 2-3/4"(W) x 2-3/16"(H) x 4-15/16"(D)  
 Weight : 450 g / 1 lb.



## PARTS LIST

### CASE ケース

2201017900	Case	ケース	
2221043300	Panel	パネル	
2202011600	Cover	カバー	底 bottom
2235030500	Base	ベース	底 bottom
2218053600	Pedal	ペダル	
2235030400	Pedal Mat	ペダル・マット	
2247025900	Knob	つまみ	橙 orange

### PCB ASSEMBLY 基板完成品

75227510	(pcb 2292010500)	VR基板付き W/VR BARD
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### IC

15159101H0	HD14001BP	quad NOR gate
15159105H0	HD14013BP	dual D flip-flop
15159115H0	HD14066BP	quad analog switch
15189115C0	IR-9022	OP amp
	(or 15189115 TL-022)	
15189136	M5218L	OP amp
15199109F0	μA78L05	V.RGL
15159111H0	HD14046BP	PLL

### TRANSISTOR トランジスタ

15129104	2SC732TM-GR	
15129137	2SC2603-28-F	
15139101	2SK30ATM-Y	FET

### DIODE ダイオード

15019125	1SS-133	
15019209T0	S-5500G	
15019523	RD5.1EB-3	ツェナー zener
15029117	SLP-135B	LED

### JACK ジャック

13449704	HEC-0749-01-010	AC adaptor
13449105	SG-7615#1	OUTPUT
13449104	SG-7713#4	INPUT

### SWITCH スイッチ

13129710	JM-0404	プッシュ push
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### POTENTIOMETER ボリューム

13279742	EVJ-2KAP15G14 10KG	OVERTONE
13279762	EVJ-2KAP15B24 20KB	TONE, LEVEL
13279763	EVJ-2KAP15AF5 250KA	DIST

### RESISTOR 抵抗

13809157T0	R-16U 22Ω	1/6W 5%
13809173T0	R-16U 100Ω	1/6W 5%
13809185T0	R-16U 330Ω	1/6W 5%
13809197T0	R-16U 1K	1/6W 5%
13809205T0	R-16U 2.2K	1/6W 5%
13809213T0	R-16U 4.7K	1/6W 5%
13809217T0	R-16U 6.8K	1/6W 5%
13809221T0	R-16U 10K	1/6W 5%
13809229T0	R-16U 22K	1/6W 5%
13809233T0	R-16U 33K	1/6W 5%
13809237T0	R-16U 47K	1/6W 5%
13809241T0	R-16U 68K	1/6W 5%
13809245T0	R-16U 100K	1/6W 5%
13809249T0	R-16U 150K	1/6W 5%
13809251T0	R-16U 180K	1/6W 5%
13809253T0	R-16U 220K	1/6W 5%
13809257T0	R-16U 330K	1/6W 5%
13809261T0	R-16U 470K	1/6W 5%
13809269T0	R-16U 1M	1/6W 5%

### ELECTROLYTIC CAPACITOR (miniature) 電解コンデンサ(ミニチュア型)

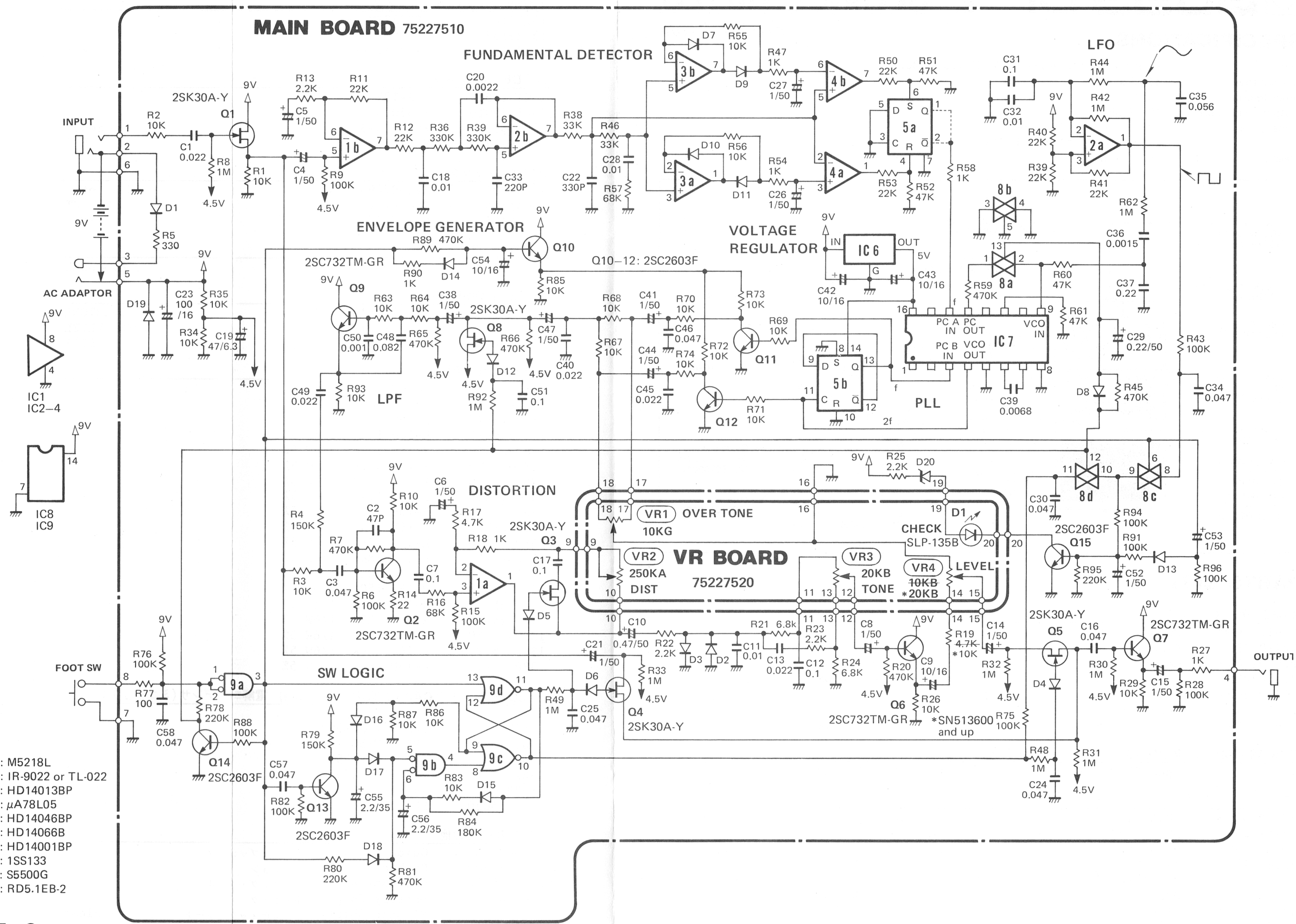
13629416	SRE 0.22μF/50V
13629401	SRE 0.47μF/50V
13629402	SRE 1μF/50V
13629383	SRE 2.2μF/35V
13629346	SRE 10μF/16V
13629309	SRE 47μF/6.3V
13629150J0	SRE 100μF/16V

### OTHERS その他

2215070201	Guide Bushing	ガイド・ブッシング
2226033300	Cushion	クッション
2217010900	Coil Spring	スプリング・コイル
2341041400	Battery Snap	電池ホック
2216052900	Plastic Sheet	プラスチック・シート
		透明 clear

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38

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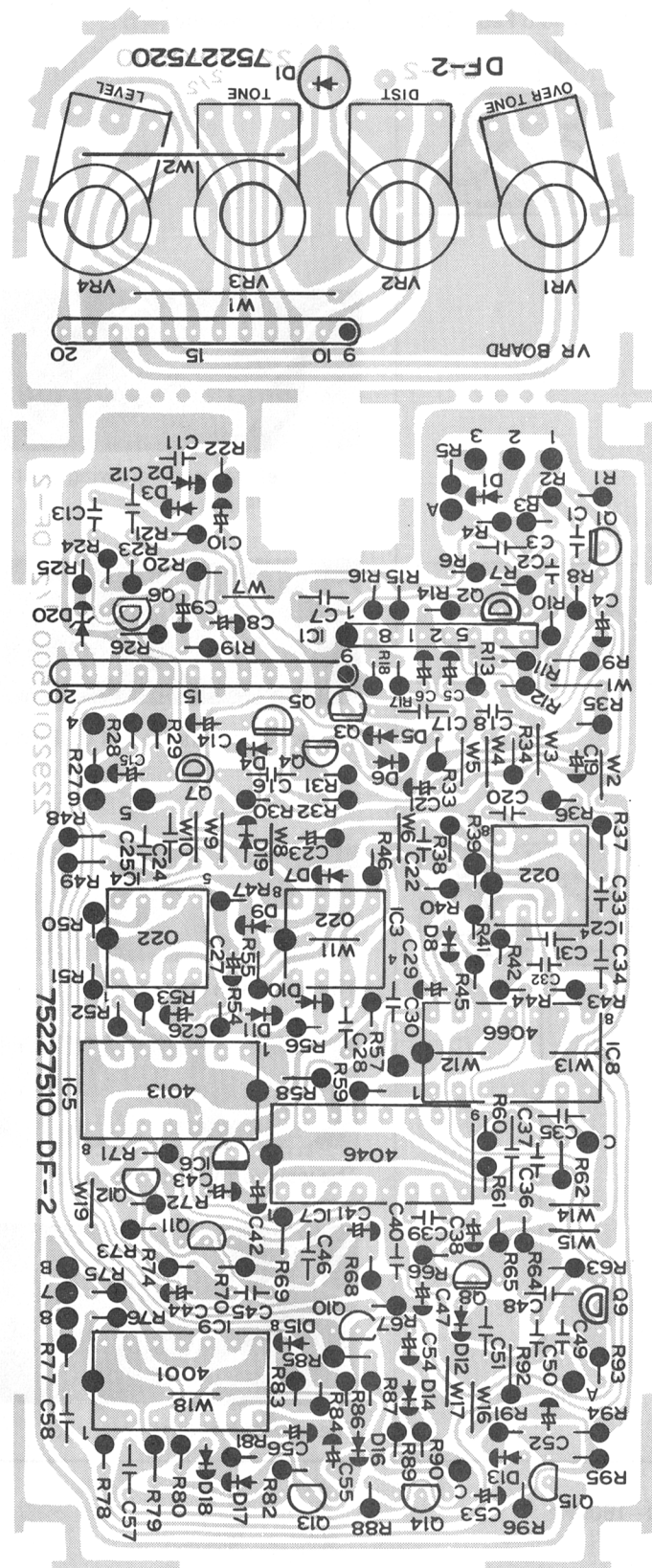
- IC1 : M5218L
- IC2-4 : IR-9022 or TL-022
- IC5 : HD14013BP
- IC6 :  $\mu$ A78L05
- IC7 : HD14046BP
- IC8 : HD14066B
- IC9 : HD14001BP
- D1-18 : 1SS133
- D19 : S5500G
- D20 : RD5.1EB-2

DF-2 CIRCUIT DIAGRAM

# PCB Assembly

75227510

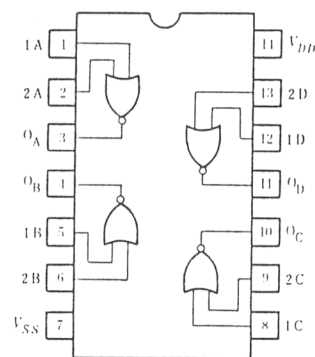
(pcb 2292010500)



## IC DATA

### HD14001BP

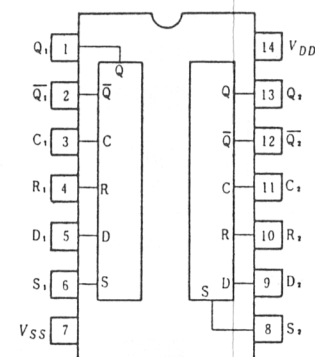
Pin Configuration



(Top View)

### HD14013BP

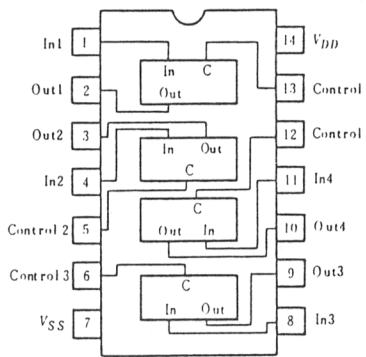
Pin Configuration



(Top View)

### HD14066BP

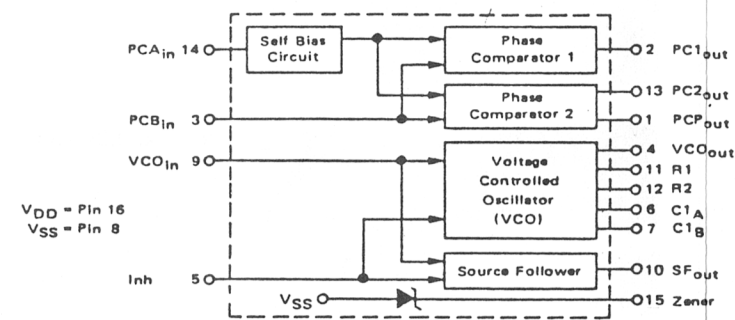
Pin Configuration



(Top View)

### HD14046BP

Block Diagram


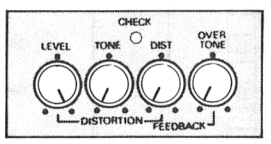
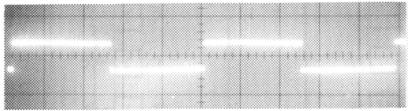
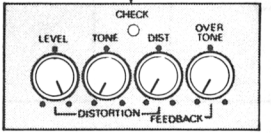
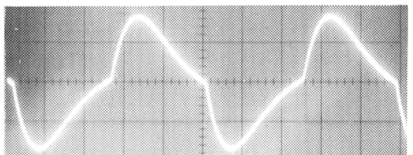
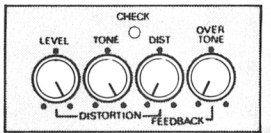
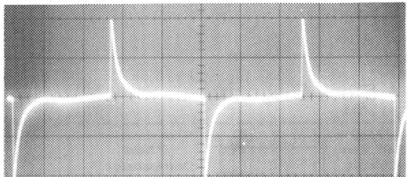
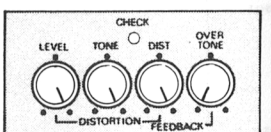
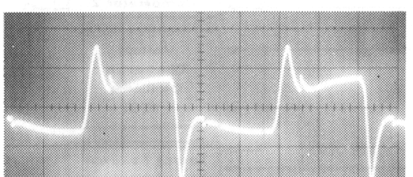
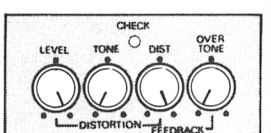
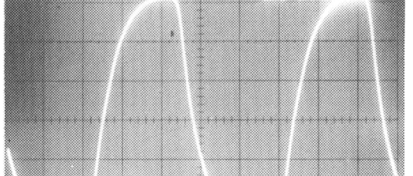
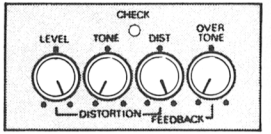


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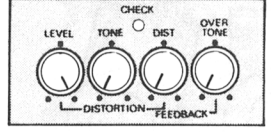
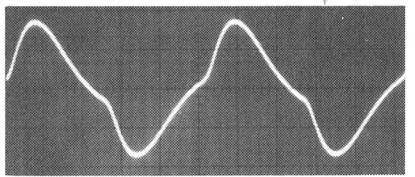

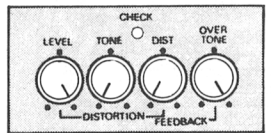
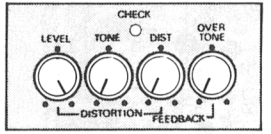
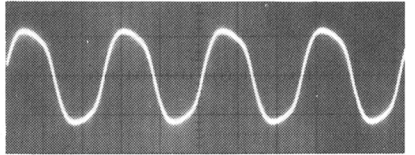
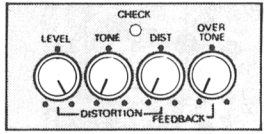
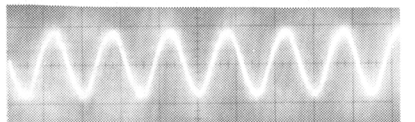

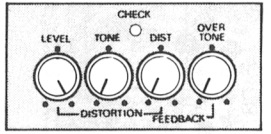
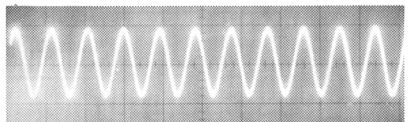

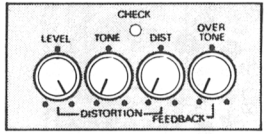


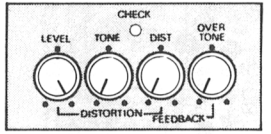



# CHECKING

1. Feed the test signal to INPUT jack.
2. Connect the scope to OUTPUT jack.

CHECK	INPUT	SET CONTROLS	WAVEFORM & REMARK
NORMAL	200Hz 80mVp-p 		0.1V/div; 1ms/div 
DISTORTION		Press and release the pedal instantaneously. lights up 	0.1V/div; 1ms/div  Approx. 0.28Vp-p
			 Approx. 0.35Vp-p
			 Approx. 0.34Vp-p
			 Approx. 0.62Vp-p
			

↓  
To be continued

CHECK	INPUT	SET CONTROLS	WAVEFORM & REMARK
FEEDBACK	200Hz 80mVp-p 	Press and hold Pedal ON. blink 	0.1V/div; 1ms/div  0.35Vp-p max.
	0V 		The waveform starts growing continuously up to 0.35Vp-p.
			 The waveform stands still 0.35Vp-p max. for more than 8s.
	Set scope H TRIG to EXT.		 The waveform starts growing.
Starting Level	1kHz -40dBm 		 The waveform starts growing.
Frequency Range	1.4kHz -30dBm 		 The waveform starts growing.
	80Hz -30dBm 		 The waveform starts growing.

Frequency Range: 80-1600Hz