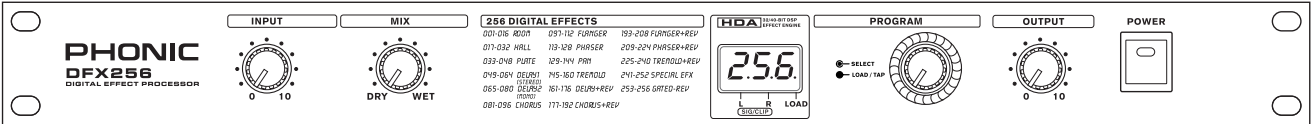


# PHONIC

## DFX256

Digital Effects Processor

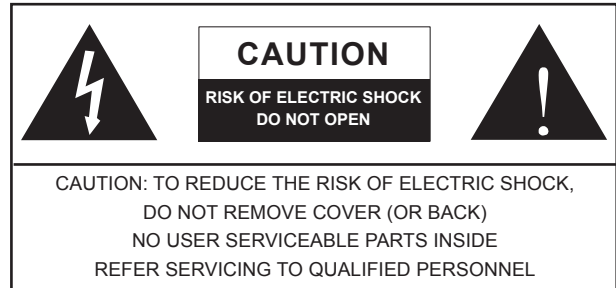


## IMPORTANT SAFETY INSTRUCTIONS

The apparatus shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on the apparatus. The MAINS plug is used as the disconnect device, the disconnect device shall remain readily operable.

**Warning:** the user shall not place this apparatus in the confined area during the operation so that the mains switch can be easily accessible.

1. Read these instructions before operating this apparatus.
2. Keep these instructions for future reference.
3. Heed all warnings to ensure safe operation.
4. Follow all instructions provided in this document.
5. Do not use this apparatus near water or in locations where condensation may occur.
6. Clean only with dry cloth. Do not use aerosol or liquid cleaners. Unplug this apparatus before cleaning.
7. Do not block any of the ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plug, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Use only with a cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

**WARNING:** To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.

**CAUTION:** Use of controls or adjustments or performance of procedures other than those specified may result in hazardous radiation exposure.



# DFX256

## Digital Effects Processor

# USER'S MANUAL

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## INTRODUCTION

Congratulations on your purchase of the Phonic DFX256 digital reverberator. The DFX256 is a high quality and easy-to-use stereo digital reverberator. To take full advantage of the DFX256's functions, and enjoy a long and trouble-free use, please read this user's manual carefully and keep it for future reference.

## FEATURES

- 256 effect programs available
- Programs include reverb, delay, flanger, chorus, tap delay, tremolo, phaser, pan effects and combinations
- 32-40 bit digital signal processing plus 24 bit AD/DA conversions
- True stereo reverb
- Easy-to-read 3-digit LED display
- Compact "1U" rack mount dimensions
- Foot SW Jacks allow the user of a footswitch to mute the effect
- Auto-bypass when power is off.
- Signal and clip LEDs easy setup of the optimum input level
- A professional quality digital reverb designed for musical instruments, recording, and sound reinforcement

## GETTING STARTED

1. Check the AC voltage before connecting the plug. Choose the main supply for the sound system with care. Do not share sockets or earthing with light dimmers.
2. Run audio cables separately from dimmer wiring, using balanced lines wherever possible. If necessary, cross audio and lighting cables at 90° right angles to minimize the possibility of interference. Keep unbalanced cabling as short as possible.
3. Check your cables regularly and label each end for easy identification.
4. Before switching on the main power, keep all output rotary faders all the way down to prevent damage or excessive noise caused by bad level adjustment, wrong wiring, defective cables, or bad connections.
5. Always turn on the DFX256 PRO before the power amplifier; turn off the DFX256 after turning off the amplifier.
6. Always turn off the unit before connecting or disconnecting the unit to the power source.
7. Never use any solvents to clean the unit. Clean it with a soft, dry cloth.

## FRONT-PANEL DESCRIPTION

### 1. INPUT LEVEL CONTROL

The input level control sets the level going into the DFX256. You should set the level so that Peak indicators only flash RED occasionally.

### 2. MIX (DRY / WET) CONTROL

This control sets the balance between the unaffected signal coming through the inputs and the effects being generated by the DFX256 i.e. the balance of wet (effect) and dry (no effect) sounds. By keeping the Mix somewhere in the center, a blend of dry and wet signal can be achieved.

### 3. EFFECT MODES CHART

This chart shows you what 256 effect modes are in the DFX256.

### 4. LED DISPLAY

This 7-segment display indicates the current effect program in Program mode. When the display shows the letter "C" flashing, this means either the right or left input signals are too high and should be reduced.

### 5. PROGRAM SELECT KNOB

Turning this control will allow users to 'preview' the different digital effects. Pushing it in will load the pre-set. If this control is not pushed within a few seconds of changing the effect, the DFX256 will automatically revert back to the previously loaded effect. When this control is held down for a few seconds, the digital effects will be bypassed. Holding it down again will reactivate the effects. When selecting the Tap Delay effect (T1 - T6), pushing the Program Select control will allow users to adjust the delay time. The time between the final two presses will be calculated and used as the delay time.

### 6. OUTPUT LEVEL CONTROL

This rotary control sets the level going to the amplifier or mixer from the output of the DFX256.

### 7. POWER SWITCH

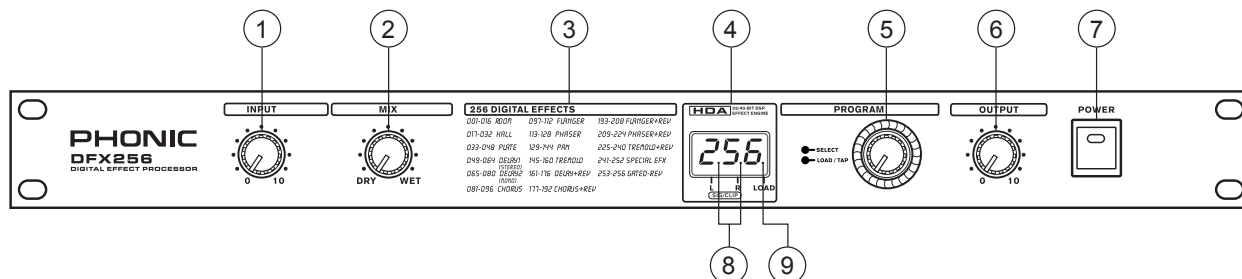
This switch turns the power of the DFX256 on/off. When the power is off, the DFX256 will be in signal bypass position automatically i.e. this feature allows the direct signal to pass through the DFX256 even when the power is not switched on.

### 8. SIGNAL INDICATORS

These 2 small LED indicators, located within the digital effect display, show when either the left or right inputs are receiving a signal (the left LED indicates when the left input is receiving a signal, the right indicates when the right receives a signal). When the LCD display (above these indicators) flashes "C", the signal in the left or right channel is excessive (ie. clip), and should be reduced to keep the audio's integrity.

### 9. LOAD INDICATOR

This small LED indicator, located within the digital effect display, will flash when users are previewing different effects (when turning the program select knob). When a new program is loaded, this LED will stop flashing.



## REAR-PANEL DESCRIPTION

### 10. AC 10V IN INLET

The supplied AC Adapter is plugged into this connector.

### 11. FOOTSWITCH

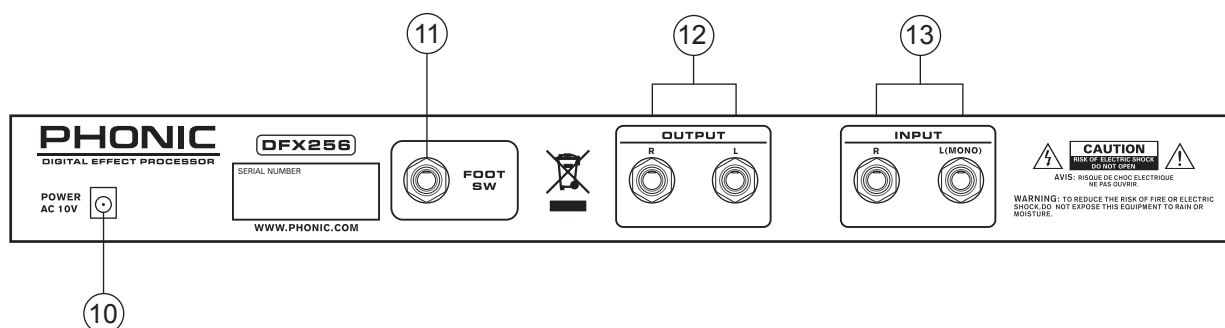
This is a 1/4" stereo phone jack. If a foot switch is connected to this jack, you can use your foot to switch the effect mute on/off (bypass).

### 12. OUTPUT (LEFT & RIGHT)

There are 1/4" phone jacks which connect to devices such as the effects returns on a mixing console or power amplifier inputs.

### 13. INPUT (LEFT/MONO & RIGHT)

There are 1/4" phone jacks which connect to sources such as the effects sends of mixing consoles. For mono application, use the "Left/Mono" input.



## PRESET PROGRAMS

### EFFECT 1: ROOM

7 Segment LED Room	ROOM	REV-TIME	PREDELAY	HI-RATIO	HPF	LPF	DRY/WET
1	1	0.05	40	0.5	80	2.5K	0~100
2	2	0.05	0	0.6	0	1.8K	0~100
3	3	0.4	0	0.95	382	9K	0~100
4	4	0.4	0	0.93	430	1.25K	0~100
5	5	0.45	5	0.95	500	12.5K	0~100
6	6	0.45	30	0.9	0	6.3K	0~100
7	7	0.6	0	0.9	550	2.36K	0~100
8	8	0.6	6	0.92	0	5.6K	0~100
9	9	0.65	22	1	0	19K	0~100
10	10	0.9	6	0.96	0	8K	0~100
11	11	1	10	1	500	20K	0~100
12	12	1.2	15	0.98	410	9.5K	0~100
13	13	1.4	60	0.98	0	5.6K	0~100
14	14	1.4	0	0.96	22	6.7K	0~100
15	15	1.6	22	1	0	10.6K	0~100
16	16	3.85	25	0.96	0	4.75K	0~100

### EFFECT 2: HALL

7 Segment LED Hall	HALL	REV-TIME	PREDELAY	HI-RATIO	HPF	LPF	DRY/WET
17	1	0.9	0	0.9	0	9K	0~100
18	2	1	20	0.95	26	10.6K	0~100
19	3	1.95	40	0.98	0	15k	0~100
20	4	1.75	48	0.98	0	9.5K	0~100
21	5	1.8	20	0.83	0	4.25K	0~100
22	6	1.85	40	0.95	340	7.1K	0~100
23	7	1.9	30	0.98	675	8.5K	0~100
24	8	2.2	25	0.99	0	2.24K	0~100
25	9	2.3	100	0.7	0	6.7K	0~100
26	10	2.45	30	0.95	25	8.5K	0~100
27	11	2.5	40	0.8	85	12.5K	0~100
28	12	2.5	0	4	75	3.15K	0~100
29	13	2.7	85	1	40	12.5K	0~100
30	14	2.7	20	0.85	0	8K	0~100
31	15	2.8	40	0.97	0	8.5K	0~100
32	16	3.3	75	0.85	63	10K	0~100

## EFFECT 3: PLATE

7 Segment LED Plate	PLATE	REV-TIME	PREDELAY	HI-RATIO	HPF	LPF	DRY/WET
33	1	0.55	0	1	625	20K	0~100
34	2	0.55	0	1	625	20K	0~100
35	3	0.75	20	1	0	12.5K	0~100
36	4	0.9	12	0.98	0	12.5K	0~100
37	5	1	10	1	0	10.6K	0~100
38	6	1.2	25	1	20	7.1K	0~100
39	7	1.3	35	1	0	20K	0~100
40	8	1.8	30	0.98	80	12.5K	0~100
41	9	2	1	1	67	20K	0~100
42	10	2.25	25	1	42	20K	0~100
43	11	2.6	180	0.97	0	15K	0~100
44	12	2.75	30	0.98	0	4.25K	0~100
45	13	3	0	1	625	20K	0~100
46	14	3	5	0.99	0	8K	0~100
47	15	3.35	1	0.98	0	16K	0~100
48	16	3.8	20	0.85	0	1.4K	0~100

## EFFECT 4: DELAY-1 (ST)

7 Segment LED Delay-1(ST)	DELAY-1(stereo)	L-DELAY	R-DELAY	C-DELAY	FB-DELAY
49	1	0.16	0.03	0.03	0.04
50	2	0.16	0.08	0.16	0
51	3	0.16	0.08	0	0
52	4	0.16	0	0.18	0
53	5	0.16	0	0.16	0.14
54	6	0.16	0	0.16	0.2
55	7	0.16	0	0.16	0.21
56	8	0.52	0.2	0.5	0.3
57	9	0.6	0.2	0.6	0.4
58	10	0.6	0.2	0.6	0.4
59	11	0.8	0.3	0.5	0.7
60	12	0.21	0.2	0.2	0.1
61	13	0.14	0.05	0.16	0.16
62	14	0.25	0.05	0	0.5
63	15	0.03	0.06	0.06	0.05
64	16	0.3	0.06	0	0.6



## EFFECT 5: DEALY-2 (MONO)

7 Segment LED Delay-2(MONO)	DELAY-2(mono)	L-DELAY	R-DELAY	C-DELAY	FB-DELAY
65	1	0	0	0.5	0.3
66	2	0	0	0.5	0.3
67	3	0	0	0.15	0.1
68	4	0	0	0.15	0.03
69	5	0	0	0.15	0.15
70	6	0	0	0.2	0.3
71	7	0	0	0.2	0.2
72	8	0	0	0.4	0.4
73	9	0	0	0	0.3
74	10	0	0	0	0.4
75	11	0	0	0	0.4
76	12	0	0	0	0.55
77	13	0	0	1.2	1
78	14	0	0	1.2	1.2
79	15	0	0	0.5	1
80	16	0	0	0.15	0.4

## EFFECT 6: CHORUS

7 Segment LED Chorus	CHORUS	LFO	PER-DELAY	PHASE	LPF
81	1	0.3	2	180	7.1K
82	2	0.8	5	180	6K
83	3	1.2	20	0	8K
84	4	1.8	1	0	6.3K
85	5	2.2	60	180	10K
86	6	3.6	15	180	500
87	7	3.2	30	180	8K
88	8	4	90	0	1.25K
89	9	5.6	120	180	10K
90	10	6.4	200	0	1K
91	11	7.5	88	180	10K
92	12	7.8	80	180	500
93	13	8.4	50	0	10K
94	14	8.8	10	180	850
95	15	9.2	5	0	10K
96	16	10	115	180	10K

## EFFECT 7: FLANGER

7 Segment LED Flanger	FLANGER	LFO	PER-DELAY	PHASE
97	1	0.1	2	180
98	2	0.3	6	0
99	3	0.6	10	180
100	4	0.7	15	180
101	5	1	1	180
102	6	1	10	180
103	7	1.6	20	180
104	8	1.6	20	180
105	9	2	1	180
106	10	2	2	180
107	11	2	2	180
108	12	2.6	2	180
109	13	2.8	6	180
110	14	2.8	4	180
111	15	4.6	2	180
112	16	4.6	4	180

## EFFECT 8: PHASER

7 Segment LED Phaser	PHASER	LFO	DELAY	PHASE
113	1	0.1	3.5	180
114	2	0.4	0.6	90
115	3	0.8	3.2	180
116	4	1.4	0.6	180
117	5	2.2	1.6	180
118	6	2.6	4	180
119	7	3.3	1	180
120	8	4	2.8	180
121	9	4.8	1	180
122	10	5.2	0.1	180
123	11	5.8	0.8	180
124	12	6	1.2	90
125	13	6	3.2	180
126	14	7.2	5	180
127	15	7.8	2.6	180
128	16	10	5	180

## EFFECT 9: PAN

7 Segment LED Pan	PAN	SPEED	DEPTH	TYPE
129	1	0.1	100	L-->R
130	2	0.4	100	L-->R
131	3	0.8	100	L-->R
132	4	1.2	100	L-->R
133	5	0.1	100	R-->L
134	6	0.4	100	R-->L
135	7	0.8	100	R-->L
136	8	1.2	100	R-->L
137	9	0.1	100	R<-->L
138	10	0.4	100	R<-->L
139	11	0.8	100	R<-->L
140	12	1.2	100	R<-->L
141	13	1.8	100	L-->R
142	14	1.8	100	R-->L
143	15	1.8	100	R<-->L
144	16	3.4	100	R<-->L

## EFFECT 10: TREMOLO

7 Segment LED Tremolo	TREMOLO	SPEED	DEPTH
145	1	0.5	100
146	2	0.8	100
147	3	1	100
148	4	1.2	100
149	5	1.6	100
150	6	2	100
151	7	2.4	100
152	8	3	100
153	9	3.4	100
154	10	4	100
155	11	4.4	100
156	12	5.2	100
157	13	6	100
158	14	6.6	100
159	15	8	100
160	16	10	100

## EFFECT 11: DELAY + REV

7 Segment LED Delay+Rev	DELAY+REV	DELAY-1	REV
161	1	1	ROOM1
162	2	2	ROOM7
163	3	3	ROOM11
164	4	4	ROOM12
165	5	5	ROOM14
166	6	6	ROOM15
167	7	7	HALL 1
168	8	8	HALL3
169	9	9	HALL6
170	10	10	HALL11
171	11	11	HALL15
172	12	12	HALL16
173	13	13	PLAT1
174	14	14	PLAT3
175	15	15	PLAT6
176	16	16	PLAT12

## EFFECT 12: CHORUS + REV

7 Segment LED Chorus+Rev	CHORUS+REV	CHORUS	REV
177	1	1	ROOM1
178	2	2	ROOM7
179	3	3	ROOM11
180	4	4	ROOM12
181	5	5	ROOM14
182	6	6	ROOM15
183	7	7	HALL 1
184	8	8	HALL3
185	9	9	HALL6
186	10	10	HALL11
187	11	11	HALL15
188	12	12	HALL16
189	13	13	PLAT1
190	14	14	PLAT3
191	15	15	PLAT6
192	16	16	PLAT12

## EFFECT 13: FLANGER + REV

7 Segment LED Flanger+Rev	FLANGER+REV	FLANGER	REV
193	1	1	ROOM1
194	2	2	ROOM7
195	3	3	ROOM11
196	4	4	ROOM12
197	5	5	ROOM14
198	6	6	ROOM15
199	7	7	HALL1
200	8	8	HALL3
201	9	9	HALL6
202	10	10	HALL11
203	11	11	HALL15
204	12	12	HALL16
205	13	13	PLAT1
206	14	14	PLAT3
207	15	15	PLAT6
208	16	16	PLAT12

## EFFECT 14: PHASER + REV

7 Segment LED Phaser+Rev	PHASER+REV	PHASER	REV
209	1	1	ROOM1
210	2	2	ROOM7
211	3	3	ROOM11
212	4	4	ROOM12
213	5	5	ROOM14
214	6	6	ROOM15
215	7	7	HALL1
216	8	8	HALL3
217	9	9	HALL6
218	10	10	HALL11
219	11	11	HALL15
220	12	12	HALL16
221	13	13	PLAT1
222	14	14	PLAT3
223	15	15	PLAT6
224	16	16	PLAT12

## EFFECT 15: TREMOLO + REV

7 Segment LED Tremolo+Rev	TREMOLO+REV	REV	TREMOLO
225	1	ROOM1	1
226	2	ROOM7	2
227	3	ROOM11	3
228	4	ROOM12	4
229	5	ROOM14	5
230	6	ROOM15	6
231	7	HALL1	7
232	8	HALL3	8
233	9	HALL6	9
234	10	HALL11	10
235	11	HALL15	11
236	12	HALL16	12
237	13	PLATE 1	13
238	14	PLATE 3	14
239	15	PLATE 6	15
240	16	PLATE 12	16

## EFFECT 16: SPECIAL EFX

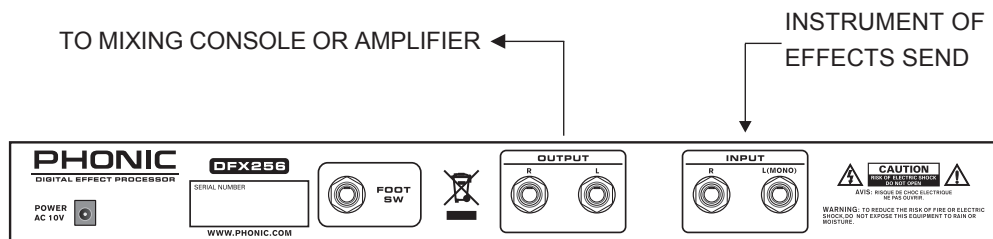
7 Segment LED Special efx	SPECIAL EFX		
241	1	DELAY-1-1	FLANGE-3
242	2	DELAY-1-1	CHORUS-4
243	3	DELAY-1-1	PHASER-7
244	4	CHORUS-2	FLANGE-1
245	5	CHORUS-5	PHASER-10
246	6	TREMOLO-6	FLANGE-11
247	7	TREMOLO-12	CHORUS-4
248	8	PHASER-5	FLANGE-9
249	9	PHASER-5	TREMOLO-12
250	10	FLANGE-1	TREMOLO-6
251	11	PHASER-7	PAN-2
252	12	PAN-2	FLANGE-3

## EFFECT 17: GATED + REV

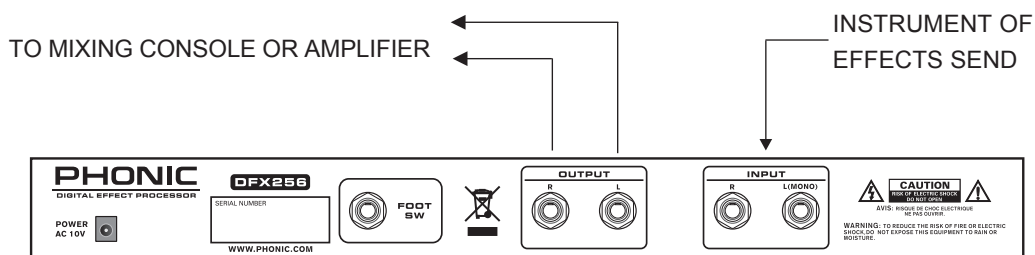
7 Segment LED Gated+Rev	GATED-REV	THRESHOLD	ATTACK	RELEASE	REV
253	1	-20	0	0.02	PLAT-1
254	2	-20	0	0.5	PLAT-8
255	3	-20	0	0.1	HALL-15
256	4	-20	200	0.01	HALL-16

## SAMPLE CONNECTIONS

**ONE MONO CORD IN, ONE MONO CORD OUT** (to an amplification system or mixer input)

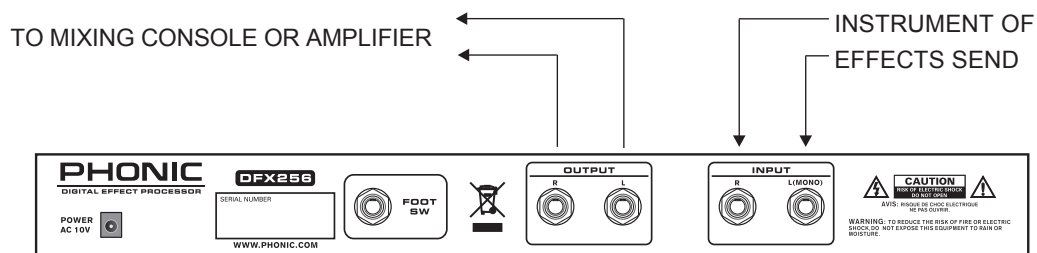


**ONE MONO CORD IN, TWO MONO CORDS OUT** (to a stereo amplifier or two mixer inputs)



**TWO MONO CORDS IN AND OUT** (to a stereo amplifier or two mixer inputs)

This can be stereo signal in/out or mono signal in/out.



## SPECIFICATIONS

	DFX256
<b>Frequency Response</b> <b>Dynamic Range</b> <b>AD/DA</b> <b>DSP processing</b> <b>Sampling rate</b> <b>Maximum Input Level</b> <b>Residual Noise</b> <b>T.H.D.</b>	20Hz ~ 20kHz 90dB 24-bit 32~40-bit 44.1kHz 0dB < -80dB (20Hz ~ 20kHz) < .05% (typical)
<b>Input</b> Number of Channel: Nominal Level: Impedance:	2 (phone jack) -20dB 20k ohms (mono: 10k ohms)
<b>Output</b> Number of Channel: Nominal Level: Impedance:	2 (phone jack) -20dB 600 ohms
<b>Effect Programs</b>	ROOM HALL PLATE DELAY-1(stereo) DELAY-2(mono) CHORUS FLANGER PHASER PAN TREMOLO DELAY+REV CHORUS+REV FLANGER+REV PHASER+REV TREMOLO+REV SPECIAL EFX GATED-REV TAP DELAY
<b>Front Panel Controls</b>	Input level, Mix-dry/wet, Program select, Output level, Power Sw.
<b>Real Panel Jack</b>	2 Input phone jacks, 2 Output phone jacks, foot Sw- phone jack, DC jack
<b>Dimensions (WxHxD)</b>	19"x1.75"x4.2" / 483 x 44 x 107mm (1U)
<b>Net Weight</b>	2.64 lbs / 1.2 kg

The specifications are subject to change without notice.



## **TO PURCHASE ADDITIONAL PHONIC GEAR AND ACCESSORIES**

To purchase Phonic gear and optional accessories, contact any authorized Phonic distributor. For a list of Phonic distributors please visit our website at [www.phonic.com](http://www.phonic.com) and click on Get Gear. You may also contact Phonic directly and we will assist you in locating a distributor near you.

## **SERVICE AND REPAIR**

For replacement parts, service and repairs please contact the Phonic distributor in your country. Phonic does not release service manuals to consumers, and advice users to not attempt any self repairs, as doing so voids all warranties. You can locate a dealer near you at <http://www.phonic.com/where/>.

## **WARRANTY INFORMATION**

Phonic stands behind every product we make with a no-hassles warranty. Warranty coverage may be extended, depending on your region. Phonic Corporation warrants this product for a minimum of one year from the original date of purchase against defects in material and workmanship under use as instructed by the user's manual. Phonic, at its option, shall repair or replace the defective unit covered by this warranty. Please retain the dated sales receipt as evidence of the date of purchase. You will need it for any warranty service. No returns or repairs will be accepted without a proper RMA number (return merchandise authorization). In order to keep this warranty in effect, the product must have been handled and used as prescribed in the instructions accompanying this warranty. Any tempering of the product or attempts of self repair voids all warranty. This warranty does not cover any damage due to accident, misuse, abuse, or negligence. This warranty is valid only if the product was purchased new from an authorized Phonic dealer/distributor. For complete warranty policy information, please visit <http://www.phonic.com/warranty/>.

## **CUSTOMER SERVICE AND TECHNICAL SUPPORT**

We encourage you to visit our online help at <http://www.phonic.com/support/>. There you can find answers to frequently asked questions, tech tips, driver downloads, returns instruction and other helpful information. We make every effort to answer your questions within one business day.

# **PHONIC**

**support@phonic.com <http://www.phonic.com>**

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