SRG

STRING RESONANCE GENERATOR

D1 - DRONE User Manual

D Series

rev. 3.0

1 SET UP

1.1 Overview

The SRG D Series are a line of instrument mounted, externally powered string resonators, based on nano scale SMDI architecture Available in monophonic and polyphonic models.

The **D1 DRONE** is a 6 channel polyphonic resonator for guitar.

The SRG D1 DRONE package includes :

- **D1 DRONE Surface Mounted String Resonator**
- **XL6-U Above String Divided String Sensor Kit**
- **DX1 Power Supply / Channel Expander**
- **Auxilliary 1300 mA 12 V DC Adapter**
- **(3x) 9 Volt Alkaline-Manganese Primary Cells**
- **Mounting Velcro**

The **D1** features **6** highly inductive, low resonant frequency sensor coils, and **6** highly inductive driver coils, directly wound on high flux density neodymium core magnets.

The **D1** also features **6** ultra bright - deep blue LED power indicators.

SET UP >

After unpacking the box, remove the 2 backing strips from the mounting velcro for the **D1 Transducer Module** and apply the velcro to the instrument, directly under the strings, ideally below the instrument neck pickup, with the strings aligned with the LEDs on the **D1** Transducer Module **- as illustrated on page 9.**

After applying the velcro strips – mount the **D1** Transducer Module, with the LEDs pointing towards the fingerboard.
Each of the **6** LEDs should align with the string below it.
The **D1** should have a string clearance of at least 1 mm after mounting.
It may be necessary to adjust the height of the saddles.

Next – plug the Trigger Module into the 12 pin socket on the left side of the **D1** Transducer Module. Then - remove the backing strip from the padding velcro for the Control Module, and apply the velcro strip to the space to the right of the **D1** Transducer Module, then plug the 34 pins on the Control Module into the 34 pin socket on the right side of the **D1** Transducer Module.

After fully mounting and connecting the **D1** System - remove the backing strips from the mounting velcro for the **DX1** Power Supply.
Apply the adhesive velcro strips to the back of the body – in 'any suitable location' on the front of back of the instrument.

Before connecting the DC cable - check that the Master Power Switch on the Control Module is in the OFF position. Then mount the **DX1** Power Supply.
Slide the three **9** volt batteries into the battery connector. - as illustrated on page 7.
Then onnect the DC cable first to the Control Module and then to the **DX1** Power Supply.

The **XL6-U** mounts with velcro on top of the Control Module with the XL6-U extending over the strings as a cantilever.

The cable is hardwired to the **XL6-U** and the 13-pin DIN connects to the

DX1 Channel Expander on the back of the instrument, or to the VX adapter.

The **D1 DRONE Trigger Module** features **6** onboard channel switches and **6** channel triggers - easily accessable during performance.

The **Preset Module** has **6** channel mode preset controls for Normal Mode – HPF Mode and LPF Mode.

To Enable Normal Mode, slide upper and lower switches towards each other.
To Enable LPF Mode, slide upper and lower switches towards the player.
To Enable HPF Mode, slide upper and lower switches towards the stage.

The **D1** is fully operational the moment the **6** blue power LEDs are illuminated.

The **DX1** Power Supply / Channel Expander may be mounted on the front or back of the instrument.

Optionally - a 12 volt 1300 mA DC adapter may be used as an alternative power supply, with the **DX1** used only as a channel expander.

1.2 Power Supply

The DX1 features an ultra-fast *slide-in* battery compartment for three 9 volt primary cells.

Eliminating the frustration of fumbling in the dark with clumsy floppy wire **9** volt battery connectors, the slide mount battery port allows rapid battery changes in as little as 5 seconds.

The **3** batteries are connected in parallel, and will discharge together at a constant rate.

Always check that the master power switch on the Preset Module is in the **OFF** position before installing the batteries. and that the **+** polarity is correctly orientated – **as illustrated on page 7**.

Slide the included **9** Volt Batteries into the battery compartment until firmly connected.

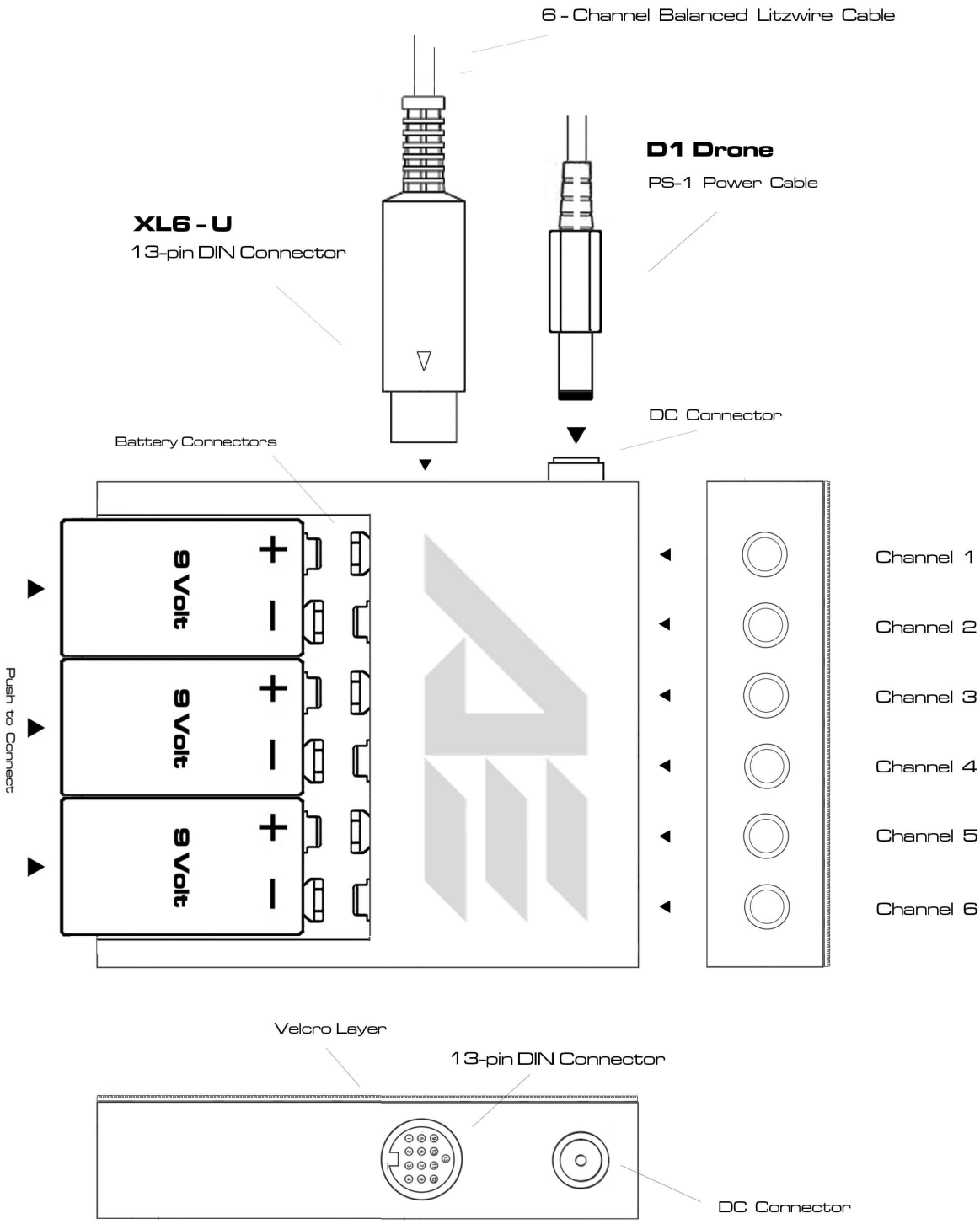
If the LEDs do not light, or flicker – either 1 or more batteries are not firmly connected, or 1 or more batteries may be weak or dead.

The DX1 includes three **9** volt Alkaline-Manganese primary cells, which are safely disposable. Under No Circumstances is the battery to be recharged or dismantled. The storage life of the battery is 5 years.

Do not install a rechargeable NiMH battery, as rechargeable 9V batteries actually supply only 8.4 volt rather than 9 volt.

The D1 requires a full 9 volt at 330 mA for stable operation.

WARNING - Damage resulting from the use of rechargeable batteries, oversized batteries or incorrect installation can invalidate the warranty !



DX1

6 CHANNEL EXPANDER / POWER SUPPLY

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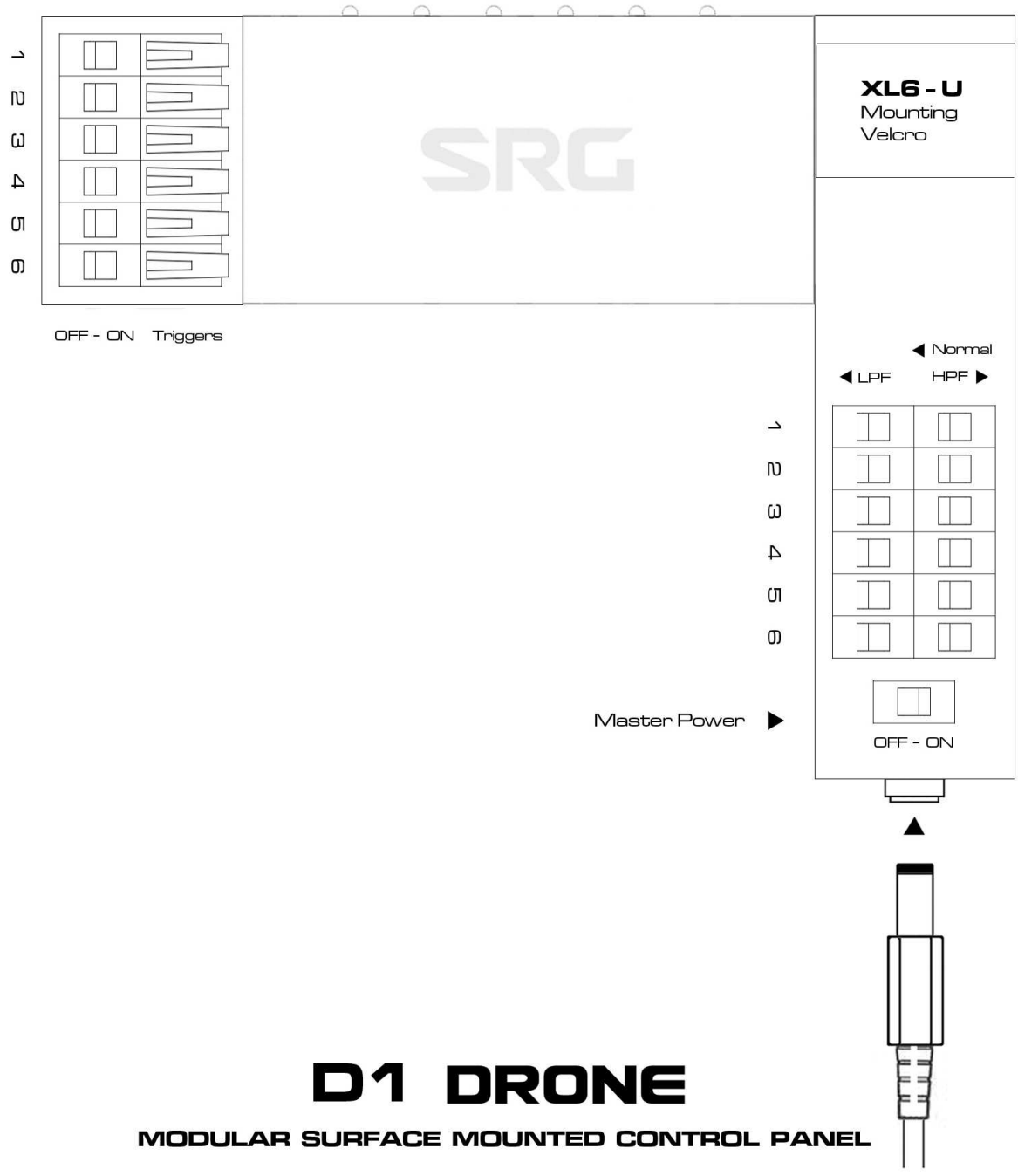

D1 DRONE

MODULAR SURFACE MOUNTED CONTROL PANEL

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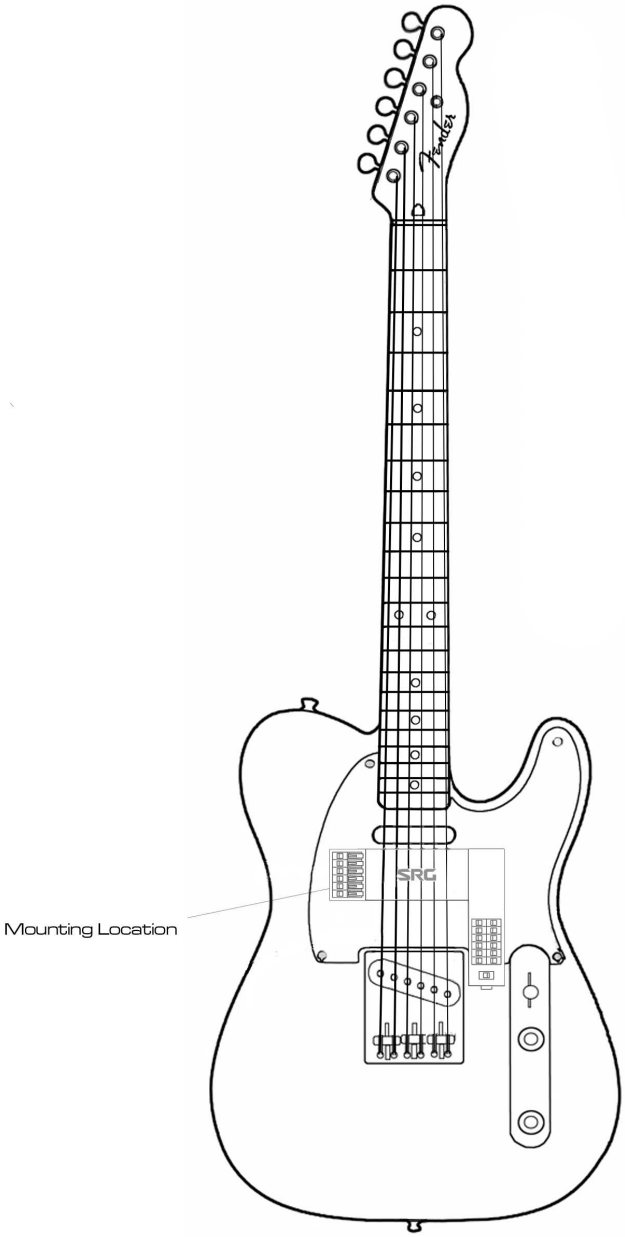

D1 DRONE

INSTALLATION

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D1 DRONE

MIRROR SYSTEM INSTALLATION

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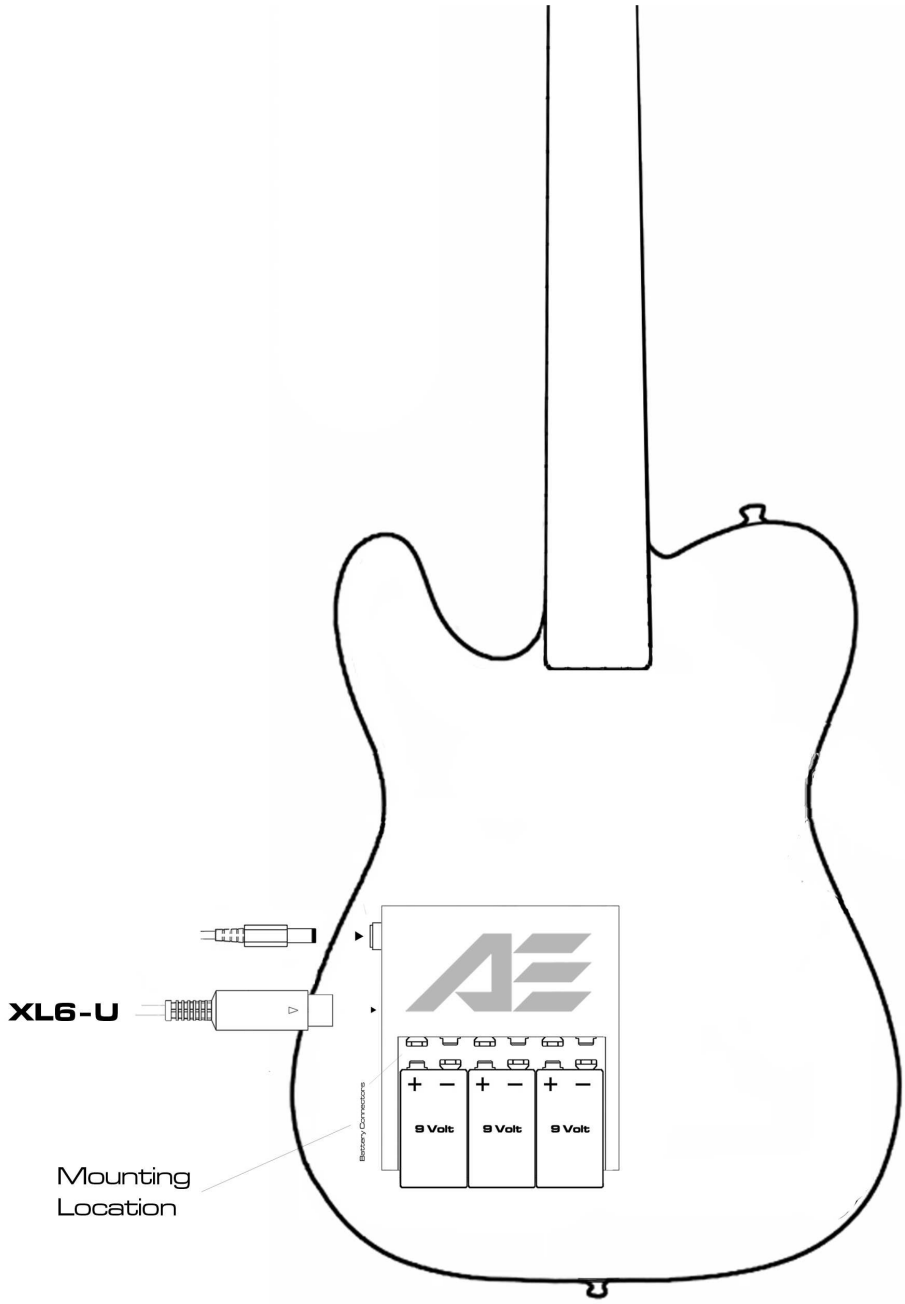

DX1

INSTALLATION

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1.3 Functions

The **D1 Preset Panel** features **3** Preset modes of operation for each string channel :

- **Normal Mode**
- **HPF Mode (high pass filter)**
- **LPF Mode (low pass filter)**

HPF Mode attenuates low frequencies and enhances harmonics.

L**PF** Mode attenuates high frequencies by 26 dB, with the effect of a bass boost, which produces a cello effect on heavy gauge strings.

The **D1 Trigger Panel** has 1 MUTE switch and 1 Trigger for each channel. The Latch switches are in MUTE mode in the forward position, towards the D1, and in UN-MUTE mode in the backward position, away from the D1. The triggers UN-MUTE a channel when the latch switch is in MUTE mode.

1.4 Versions

The **D1 DRONE** is available in 4 standard versions :

TYPE 1

SUITABLE FOR TELECASTER STYLE GUITARS

Mirror Version

TYPE 2

SUITABLE FOR STRATOCASTER STYLE GUITARS

Pedal Controller Versi on

TYPE 3

SUITABLE FOR ALL GUITARS

Internally Installed Versi on

TYPE 4

SUITABLE FOR ALL GUITARS

2 OPERATION

2.1 Instrument Compatibility

The **SRG** functions on any guitar with ferromagnetic strings, including plain steel strings and steel core strings, and a bridge saddle spacing of 12 mm.

The **SRG D Series** are also capable of driving Acoustic Steel String Instruments.

2.2 Mounting

The **SRG D Series** includes both internally mounted and surface mounted models.

The **D1i** is an internally mounted **SRG** which requires permanent installation by a professional Luthier.

The **D1** is a surface mounted **SRG** designed to be quickly and easily mounted without modification to the instrument, using self-adhesive velcro.

The **XL6-U** 'Above String' Divided String Sensor mounts over the drivers on the **D1 Transducer Module**.

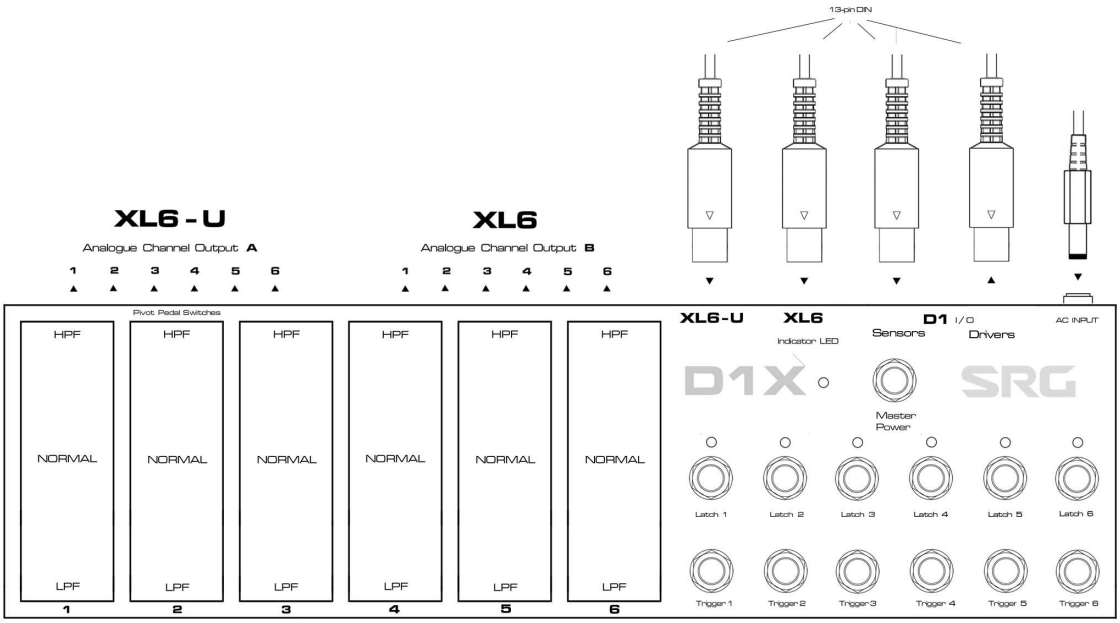
The **XL6-U** Kit includes the **VX** Adapter for the Roland VSystem.

2.3 Controllers

Operating Modes and Master Power on the **D1** are controlled by the Preset Panel. Each individual channel resonator will initiate immediately after switching the channel power switch or channel trigger on the Trigger Panel ON.

Alternatively the **D1** can interface with the **D1X** pedal controller, which has all the functions of the mounted system in foot pedal form. The **D1X** pedal controller is recommended for the Fender Stratocaster and other instruments with insufficient space on the right side for the **D1** control panel.

The **D1 System** can also be produced in a mirror image configuration, with the Trigger Module on the right side, and the Control Module on the left, which works perfectly on Stratocaster guitars.



D1X

D1 PEDAL CONTROLLER

2.4 Onboard Effects

The D1 has **2** Effects:

- **HPF Mode (high pass filter) Harmonic**
- **LPF Mode (low pass filter) Bass Boost**

Optionally - The D1 can also be produced (on request) with **Hyperdrive** which engages a bank of 6 x 1 Watt M21 Resonator Engines.

2.5 Maintenance

If possible - always store the SRG in a dry, dust-free environment at room temperature (15 - 20° C).

Always remember to turn the Master Power Switch on the D1 OFF when not in use.

Clean the SRG using a soft cotton cloth or t-shirt soaked in warm water.

Never attempt to clean any part of the SRG with alcohol, acetone, ammonia, or any household cleaner!

TECHNICAL SPECIFICATIONS

SRG MODEL D1

Pole Spacing	11 mm
Supply Voltage	9 V
Power Output	3 W
Driver Resonant Frequency	2300 Hz
Sensor Resonant Frequency	2300 Hz
Core Magnets	Neodymium
Quiescent Current Drain	8 mA
Operating Current Drain	330 mA
Voltage Gain	46 dB
LPF Attenuation	26 dB
THD	0.2%
Storage Temperature	15° - 25° C
Operating Temperature	0° - 35° C
Width	161 mm
Length	124 mm
Height (mounted)	11 mm
Height (without velcro)	9 mm
Mass	280 g

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HANDMADE IN THE EUROPEAN UNION

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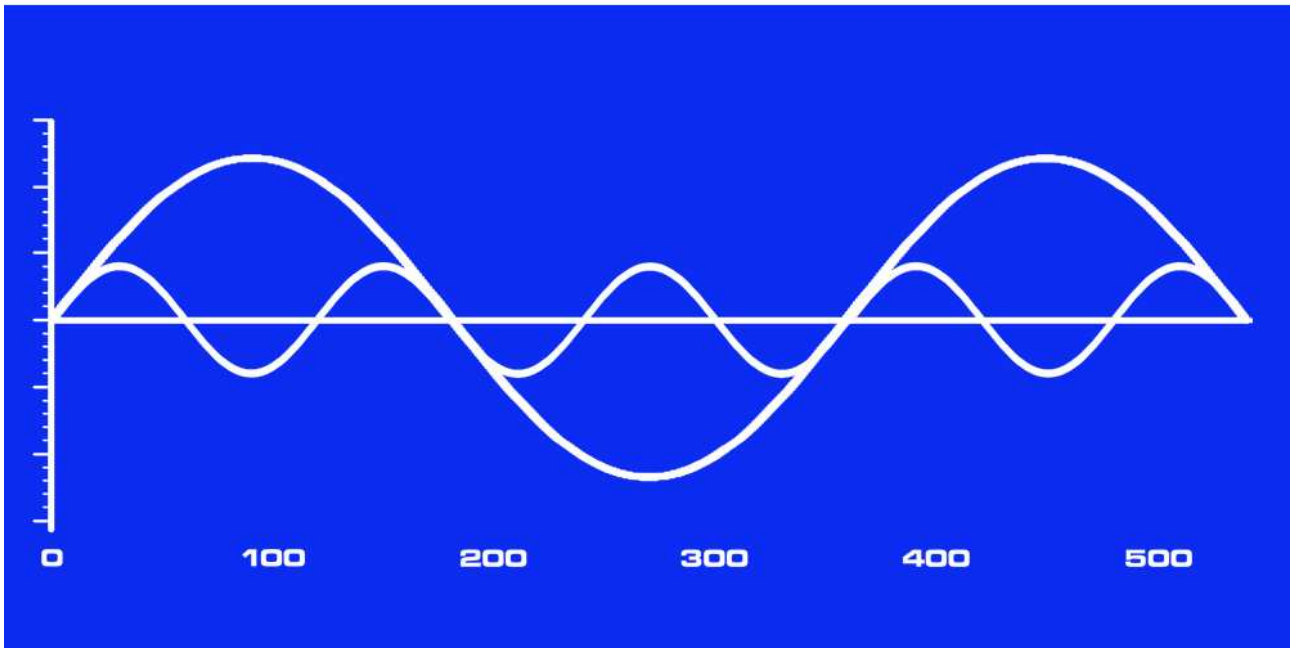
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