



PROLINE

PSS20 Universal Sustain Pedal **User Manual**

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Introduction and Overview

Product Description

Specifications

The Proline PSS20 Universal Sustain Pedal is an essential addition to any digital keyboard or synthesizer. Weighing in at 1.5 lbs (0.68 kg) and an overall length of 10.25 in (26.0 cm), the heavy-duty design is built to withstand the physical demands of studio and live performances. A 6-foot **unbalanced cable** terminates in a standard 1/4" TS (Tip-Sleeve) connector, providing a secure connection with the instrument's sustain input jack. The stamped metal chassis houses a **momentary switch** that completes an electrical circuit to signal the keyboard's internal software to bypass the **note-off** command.

Operation

When the chrome-plated pedal is depressed, the internal momentary switch closes the low-voltage electrical circuit. By opening or closing the circuit, the switch generates a **binary signal**. The keyboard's internal software interprets these "on" and "off" logic states to trigger or terminate the sustain effect. To ensure universal compatibility, a **polarity switch** is located on the underbody of the housing. This allows the user to invert the binary signal to match the software design of various keyboard manufacturers. To provide a realistic "weighted" feel, the chrome-plated pedal is supported by an internal **high-tension steel coil spring**. This creates mechanical resistance to ensure the pedal quickly returns to its default position.

Functional Analogy

Think of this pedal as a standard household light switch. A light switch is a binary device, it is either "on" or "off." The PSS20 uses this same principle. When you press the pedal down, the electricity can flow through, lighting up the software. However, the use of the coil spring makes it act like a walkie-talkie button, allowing the pedal to spring back to "off" when you let go.

Performance Summary

The Proline PSS20 Universal Sustain Pedal is a durable, highly compatible accessory designed to bridge the gap between traditional grand pianos and modern electronic keyboards. By combining a rugged stamped metal chassis with an adjustable polarity switch, the unit provides a consistent and authentic playing experience across nearly all digital keyboard platforms. Whether utilized in a studio, on a stage, or at home, the PSS20 offers mechanical precision and electrical reliability for professional grade sustain control.

Important Safety Instructions

Cable Management

CAUTION: TRIPPING HAZARD. The PSS20 is equipped with a fixed 6-foot cable. Improper routing of this cable may create a significant tripping hazard for the user and others, especially in low-light stage environments.

To prevent injury or equipment damage:

- **Route Securely:** Always run the cable along the base of the keyboard stand or floor monitors, keeping it away from open walkways and foot traffic.
- **Secure Excess:** Do not leave loose loops of cable on the floor. Coil any unused cable length near the pedal base and secure it with a cable tie or gaffer tape.
- **Check Clearance:** Ensure the cable is not pulled tight across open spaces where it could snag on feet or equipment.

Liquid and Moisture Exposure

NOTICE: EQUIPMENT DAMAGE RISK. The internal components of the PSS20 are not water-resistant. Exposure to liquids can cause corrosion to the internal momentary switch, leading to signal failure or intermittent sustain issues.

To protect the internal electronics:

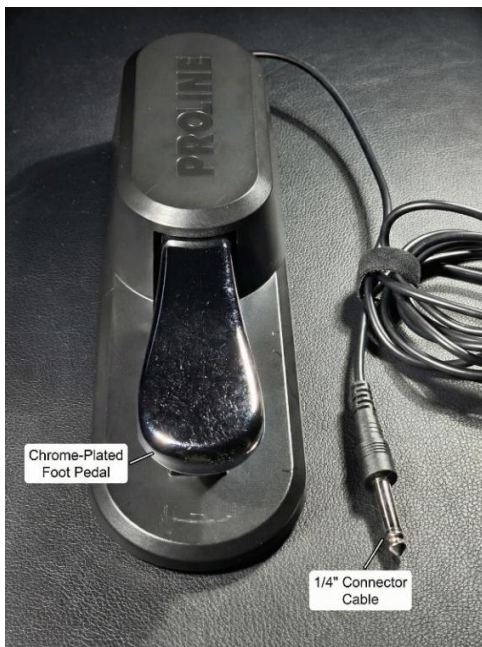
- **Keep Dry:** Do not operate the pedal in wet environments or on damp surfaces.
- **Beverage Safety:** Keep beverages and open liquid containers away from the floor area where the pedal is positioned to prevent accidental spills.
- **Response to Exposure:** If liquid enters the metal housing, disconnect the cable from the keyboard immediately. Allow the unit to dry completely before attempting to use it again.

Package Contents and Identification

What's Included

- Proline PSS20 Sustain Pedal
- Built-in 1/4" Connector Cable
- User Manual
- Limited Warranty Card

Diagram of Pedal



Setup and Installation

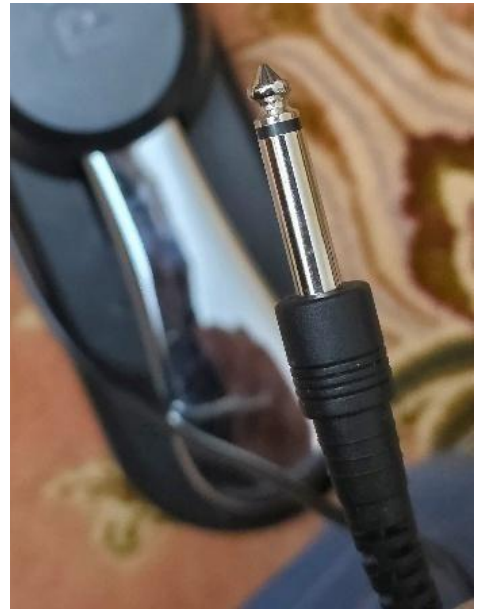
Required Tools & Equipment

- Proline PSS Sustain Pedal
- Compatible Electronic Keyboard
- Keyboard Stand
- Cable ties or straps (optional)

Phase 1: Preparation & Inspection

1. Unbox and Inspect the Pedal

Remove the pedal from its packaging and unravel the cable. Identify the various parts of the assembly. Visually inspect the pedal, the cable and the connector to ensure there are no broken or damaged wires.



2. Identify the Sustain Input Port

Locate the 1/4" input jack labeled "FOOT PEDAL 1" (or "SUSTAIN"), usually located on the rear of the keyboard. "FOOT PEDAL 2" is used when you have more than one accessory to connect.



3. Position the Pedal

Place the pedal on the floor, in your preferred playing position, typically just to the right of the centerline of the keyboard. Ensure the rubber grip on the bottom is flush with the floor surface.



Phase 2: Installation

4. Verify Keyboard Power State

Make sure the keyboard is currently turned **OFF**. This ensures the keyboard correctly detects the pedal's polarity during its boot-up sequence.

5. Connect the Plug

Insert the 1/4" connector into the sustain input port (identified in Step 2) on the back of the keyboard. Press firmly until you hear or feel it click into place to ensure a solid electrical connection. Ensure the cable is not pulled tight – there should be a small amount of slack to prevent stress on the internal wiring components.



6. Route the Cable

Run the pedal's cable up the back of the keyboard stand using wire ties to secure.



7. Secure Excess Cable

If the cable is too long, coil the excess cable near the floor or the back of the stand. Use wire ties to secure the cable to the stand to prevent tripping or product damage.



Phase 3: Configuration

8. Power ON the Keyboard

Press the power button to turn on the keyboard, wait for the boot sequence to finish.



9. Perform the “Decay” Test

Without touching the pedal, play a single key or chord on the keyboard and release the keys immediately. The sound should stop (decay) the instant you lift your hands.

10. Perform the “Sustain” Test

Press the pedal down with your foot and hold it. Play the same keys again and then release your hands from the keys. The sound should continue to ring out (sustain).



11. Perform the Release Test

With the sound still playing, lift your foot off. The sound should stop immediately.



12. Troubleshooting Polarity (if needed)

If the sound sustains when the pedal is UP and stops when the pedal is DOWN:

1. Locate the “Polarity” switch on the bottom of the pedal.
2. Flip the switch to the opposite position.
3. Retest to confirm the pedal now sustains only when pressed.



13. Final Stability Check

Ensure the pedal is positioned comfortably and does not slide during use.

You are now ready to play!



Operation

Mechanical Action

The PSS20 is designed with a high-tension internal spring to provide realistic resistance. This mechanism mimics the mechanical action of an acoustic piano damper pedal, offering tactile feedback that allows for precise control over sustain timing.

Engaging the Effect

The pedal functions by electrically sustaining notes after your hands release the keys.

Standard Operation:

- **Sustain:** While playing a note or chord, press the pedal down firmly with your foot.
- **Hold:** Keep the pedal depressed to let the notes ring out.
- **Decay:** Lift your foot off the pedal to stop the sound.

Technique: Legato Pedaling: To achieve a smooth "flow" between chords without gaps or muddiness, use the legato technique:

- Play the first chord and hold the pedal down.
- Play the *next* chord.
- **Immediately after** striking the new keys, quickly lift your foot and press the pedal down again.

Why it works: This split-second release clears the previous chord just as the new one begins, creating a seamless, connected sound.

Best Practices

To ensure consistent performance and stability during use:

- **Positioning:** Place the pedal directly under your foot's natural resting position to avoid strain.
- **Stability:** Ensure the rubber grip on the bottom is flush with the floor. If playing on a slippery surface (like hardwood or tile), consider using a small non-slip mat or gaffer tape to prevent the pedal from sliding during aggressive playing.

Maintenance and Care

Cleaning

To maintain the pedal's shine and prevent rust, wipe the chrome pedal surface regularly with a soft, dry microfiber cloth to remove fingerprints and sweat.

Use a slightly damp cloth to clean the rubber traction pad on the bottom. Allow it to air dry completely before use to ensure maximum grip.

Warning: Do not use harsh chemical solvents, alcohol, or abrasives, as these may damage the finish or degrade the rubber components.

Storage

When storing the pedal, loosely coil the cable in a circular loop.

Never wrap the cable tightly around the body of the pedal. This creates stress points at the connection housing that can lead to internal wire breakage over time.

Periodically inspect the cable for signs of wear, particularly near the 1/4" connector and the base of the pedal unit. If the outer insulation is cracked or frayed, discontinue use to prevent electrical shorts.

Specifications

Feature	Specification
Model	Proline
Connector	1/4" Tip-Sleeve Unbalanced
Cable Length	6 Feet (1.8 Meters)
Switch Type	Momentary
Polarity	Switchable
Weight	1.5 lbs (0.68 kg)
Dimensions	10.5" (L) x 3.25" (W) x 2.5" (H)

Troubleshooting

Inverted Sustain (Notes ring when pedal is UP)

Problem: The pedal functions in reverse—notes sustain when your foot is OFF the pedal and stop when you press it DOWN.

Cause: The polarity setting of the pedal does not match the keyboard's default requirement.

Solution: Flip the pedal over. Locate the **Polarity Switch** on the bottom housing. Slide the switch to the opposite position. Retest to confirm the pedal now sustains only when pressed.

No Signal (Pedal does not sustain at all)

Problem: Pressing the pedal has no effect on the sound.

Solution Checklist:

- **Check the Connection:** Ensure the 1/4" plug is inserted fully until it clicks. A loose connection is the most common cause of failure.
- **Check the Port:** Confirm the pedal is plugged into the jack labeled "SUSTAIN" or "DAMPER." Do not plug it into "Volume" or "Phones."
- **Power Cycle:** Turn the keyboard OFF and then ON again.

Important: Do not press the pedal down while the keyboard is powering up, as this can confuse the auto-calibration.

Sliding Pedal (Pedal keeps moving around)

Problem: The pedal assembly moves across the floor during aggressive playing.

Solution Checklist:

- **Clean the Grip:** Wipe the rubber pad on the bottom of the pedal with a damp cloth to remove dust buildup that reduces traction.
- **Surface Check:** If playing on a slippery surface like polished wood or tile, place a small non-slip mat or a strip of gaffer tape on the floor under the pedal.

Glossary of Terms

Binary Signal

A simple electronic signal that has only two possible states: "On" or "Off." Unlike an expression pedal (which sends a continuous range of values), a sustain pedal sends a binary signal to tell the keyboard either to hold the notes or release them.

High-Tension Coil Spring

The internal mechanical component that provides physical resistance when the pedal is pressed. In the PSS20, this spring is calibrated to push back against your foot, mimicking the heavy, mechanical feel of the damper pedal on an acoustic grand piano.

Momentary Switch

A type of switch that remains active only as long as it is being pressed. This differs from a "latching" switch (like a light switch) that stays in position. The momentary action allows you to sustain notes only for the specific duration you hold the pedal down.

Note-Off

The digital command a keyboard generates when you lift your finger off a key, telling the sound engine to stop playing that note. The sustain pedal works by temporarily blocking this "Note-Off" command, allowing the sound to continue ringing out.

Polarity Switch

A hardware toggle located on the bottom of the pedal that reverses the electrical logic of the signal (swapping "On" for "Off"). This feature allows the PSS20 to be compatible with all major keyboard brands.

Unbalanced Cable

A standard audio cable design consisting of a single signal wire and a ground wire (identified by a TS or "Tip-Sleeve" connector). While susceptible to noise over long distances, this is the industry standard for connecting short-range instrument accessories.

References

- Proline. Proline PSS20 Owner's Manual. 2022.
<https://prolinestands.com/pss20-universal-piano-style-sustain-pedal/>
- Guitar Center. Proline Universal Piano-Style Sustain Pedal. 2026
https://www.guitarcenter.com/Proline/Universal-Piano-Style-Sustain-Pedal-With-Polarity-Switch_1500000360671.gc