QRS Music Technologies, Inc.

PNOscan & PNOscan Pro Record

for your acoustic piano

RECORD-PRACTICE-PERFORM

Unparalleled Versatility
Professional level touchless / optical sensing for acoustic pianos

Make Your Acoustic Piano one that's full of Options and Opportunities

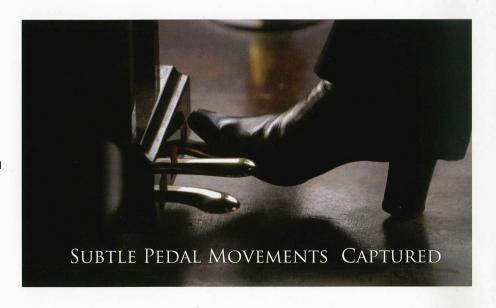


PATENTED FILTERING

Unless you are able to filter out the noise from lights, smoke, radios, and adjoining sensors, Optical sensors will be prone to hot notes and false triggers. QRS's patents speak to this capability—without it, the setup of an optic sensor is too delicate a procedure to be reliable. PNOscan™ is by far the best product ever produced for recording or tracking a performance on an acoustic piano.

EVERY NUANCE OPTICALLY CAPTURED

The best record technologies sense the movement of the keys continuously. This means they see the entire movement of the key up and down. That data can then be used to set trigger points and assign controller values, leaving the most accurate recording possible. The sensors also need to be non-evasive—in other words, nothing affects the touch of the key; there is no mechanical link to cause potential noise or breakage.



PNOscan™ allows you to use powerful online software

5 EASY STEPS TO START USING PNOSCAN™

- 1. Choose your application and device interface.
- 2. Plug your USB cable from your device into the PNOscan™ or PNOmation™ USB port.
- 3. Turn on your device and open your application.
- 4. Choose the QRS driver.



- 5. Enjoy.
 - 3rd party iPad applications will require the Apple Camera Kit and a USB cable.
 - Macs or PCs will require a USB cable.

LEARN, PRACTICE, CREATE, AND PERFORM

applications like PianoMarvel that step you through

the process of learning to play. Its innovative scoring makes learning addictive.

What integration with PNOmation™ controller adds:

- Graphical Setup: Log in through any WiFi device to setup.
- Silent practice: Add a Key Stop to deliver this feature.
- **PNOmation™ Player Engine:** This addition allows for the keys to playback the performance.
- Sound Fonts: You pick the sounds.
- Third Party Software Integration: Packages such as PianoMarvel, Uplay Piano, Internet MIDI, Home Concert extreme, Logic, Pianotec networked MIDI.
- Auto Record: No technology in the way–just play.
- PianoArc, a product conceived and developed by Brockett Parsons (GaGa Keyboardist) and his team, using a custom manufactured PNOscan™.

• **Auto Save:** Locally and to your free PNOcloud™.com account.

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	PNOscan	PNOscan Pro Record
 Continuous optical scanning of keys and pedals 		•
Patented filtering for stage and studio use		•
USB MIDI Out, 5 Pin MIDI Out	•	•
 Capability to upload your own "SoundFont" or choose from a preset selection 	0	
 Wireless App access to all features via any WiFi enabled device 	0	
 Auto Record—simply touch the keys and you're recording 	0	•
 One button access from inside the app to your online Piano Marvel music lessons 	Requires a laptop or iPad	•••
Headphones and Key Stop Rail for practicing in silence	0	•
• Speaker	0	•
Studio Connections—MIDI, USB, Audio		•
Plenty of expandable memory	0	

SPECIFICATIONS

Sensors: Optical Sensing of Keys and Pedals

Sampling rate: 1000 times per second/per sensor

Latency: <2ms

Retrofit capable: (no need to move the piano)

I/O: 5 pin MIDI, USB, and PNOmation™

- Configuration: # of notes in system configurable
- Variable Trigger Threshold: Captures trills and fast repeats
- Advanced Customization: Using an available PC based application

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