

QRS Music Technologies, Inc.

PNOscan

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

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.



Alexander Paley, one of the finest pianists in the world—is shown here creating a QRS Performance Video on a PNOscan™ equipped Blüthner Grand Piano.

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.



SUBTLE PEDAL MOVEMENTS CAPTURED

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.



PNOscan™ allows you to use powerful online software applications like PianoMarvel that step you through the process of learning to play. Its innovative scoring makes learning addictive.

LEARN, PRACTICE, CREATE, AND PERFORM

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



PianoArc, a product conceived and developed by Brockett Parsons (GaGa Keyboardist) and his team, using a custom manufactured PNOscan™.

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

BRPS/0116

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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