

MOT-ION™

ADAPTER

USER GUIDE

Revision 1.0

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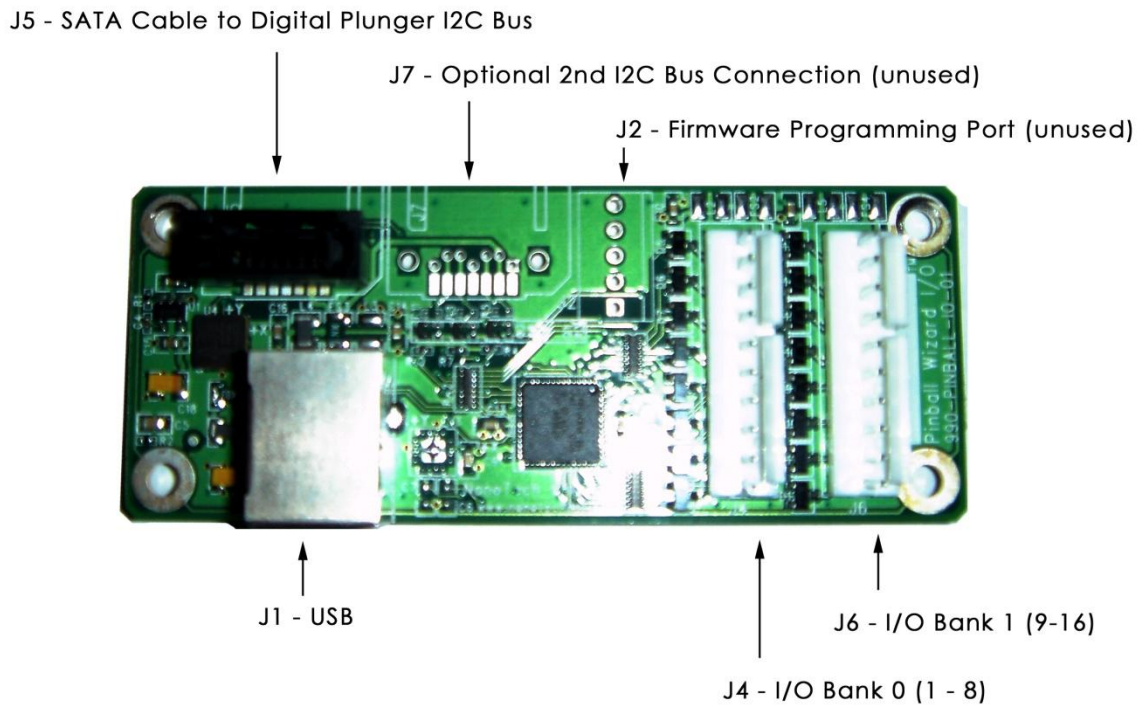
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Overview

The Mot-Ion adapter provides the Do-It-Yourself pinball enthusiast with the electronics to build a pinball cabinet that supports motion input for bumping and nudging as well as an analog plunger for real pinball action. The controller is a USB HID device that is automatically recognized by programs such as Future Pinball 1.8 or greater and Visual Pinball 9.0 and greater.

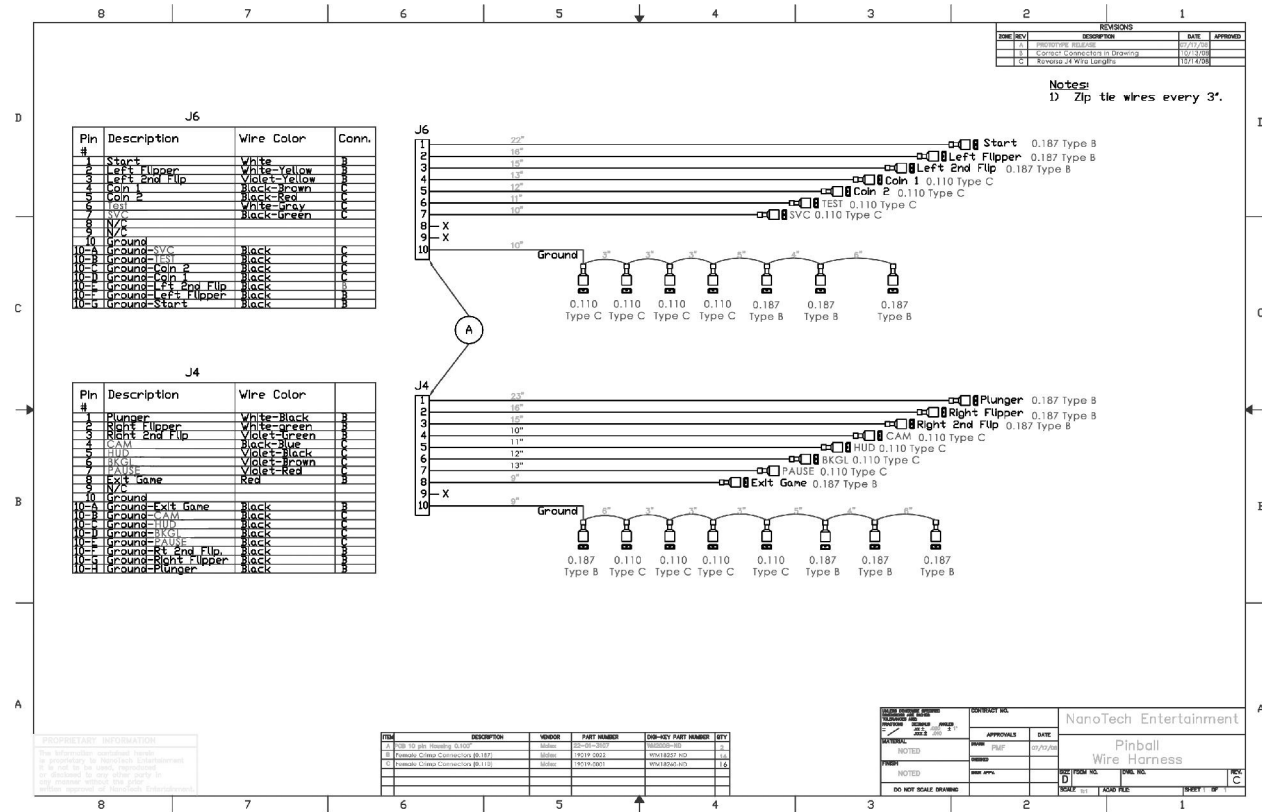
When installing the controller, it will appear to your system as a “Pinball Wizard” controller and is fully compatible with all software that supports the Pinball Wizard.

Connectors



Wiring

The Mot-Ion adapter kit comes with sample wiring harnesses for quick installation into a cabinet. Below is the diagram for those harnesses.



Pinouts

The following pinouts are the suggested use and the default mappings used for the controller.

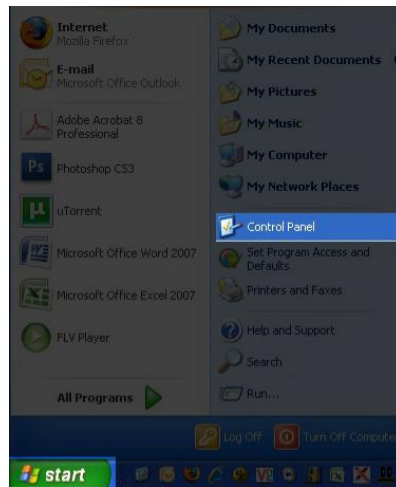
- J4 - 1 Digital Plunger Button
- J4 - 2 Right Flipper
- J4 - 3 Right 2nd Flipper
- J4 - 4 Camera
- J4 - 5 Heads Up Display
- J4 - 6 Backglass
- J4 - 7 Pause Game
- J4 - 8 Exit Game
- J4 - 9 Vcc (+5v)
- J4 - 10 Ground

- J6 - 1 Start
- J6 - 2 Left Flipper
- J6 - 3 Left 2nd Flipper
- J6 - 4 Coin 1
- J6 - 5 Coin 2
- J6 - 6 Test
- J6 - 7 Service
- J6 - 8 Reset
- J6 - 9 Vcc (+5v)
- J6 - 10 Ground

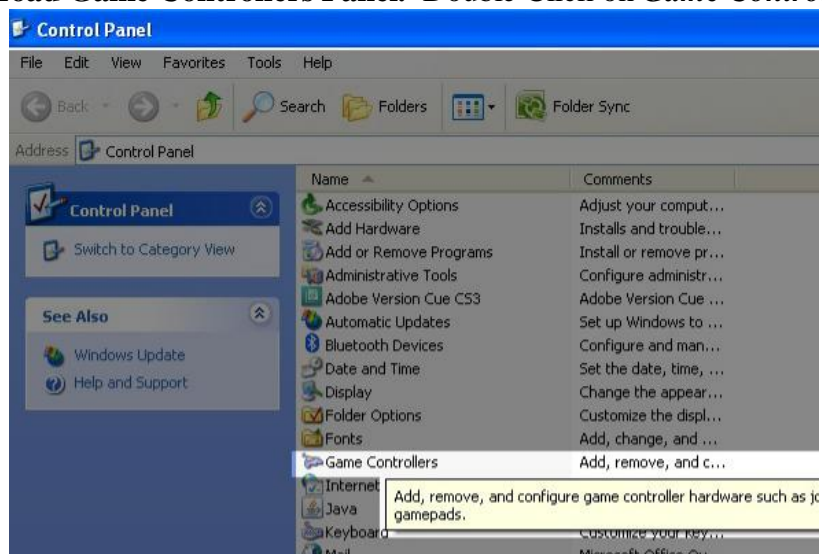
Calibration

Once your Mot-Ion adapter has been connected to your PC, you will need to calibrate its settings.

1. **Open Windows Control Panel.** Start Menu -> *Control Panel*



2. **Load Game Controllers Panel.** Double Click on *Game Controllers*



3. **Choose Pinball Wizard.** Select the “PinballWizard” and click on the *Properties* button



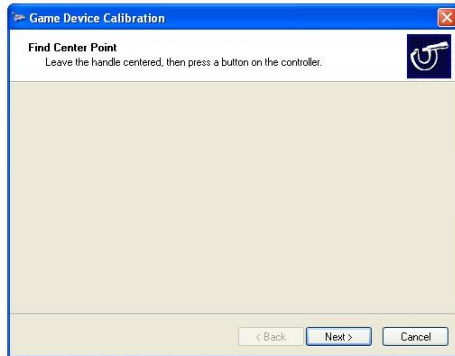
4. **Choose Calibration.** Click on the Settings Tab. Click on the *Calibrate* Button.



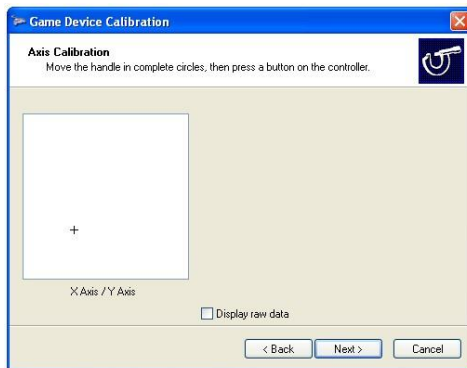
5. **Start Calibration.** Click on the *Next* Button



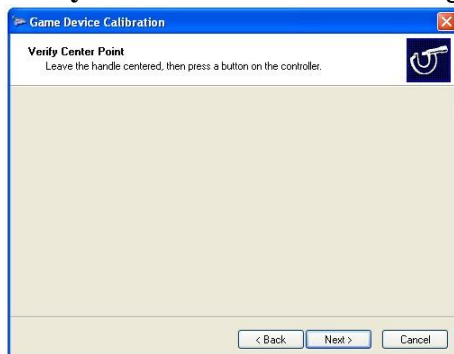
6. **Find Center Point.** Press the right flipper button



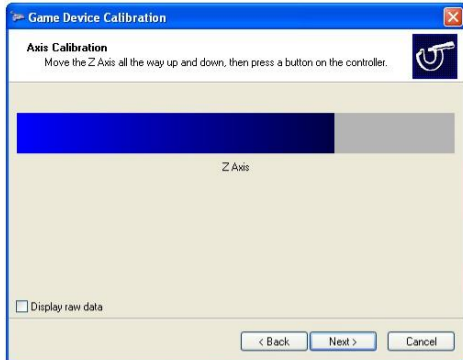
7. **Motion Input (X,Y Axis) Calibration.** Tilt the cabinet forward, backward, left, and right. Then shake the cabinet quickly. Now stop all movement and press the right flipper button



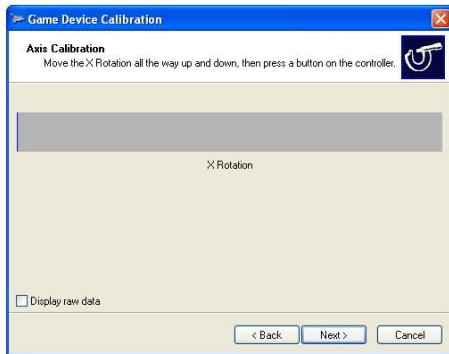
8. **Verify Center Point.** Press the Right Flipper Button again



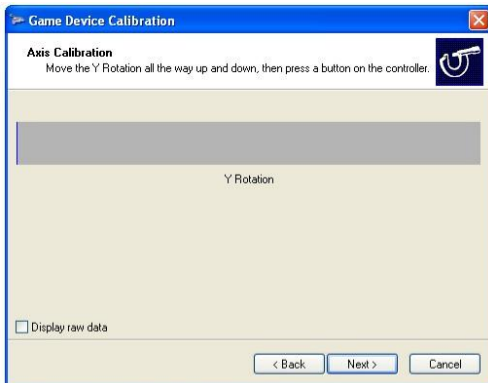
9. **Plunger (Z Axis) Calibration.** Now move the plunger all the way out and then press it all the way forward. Then press the right flipper button



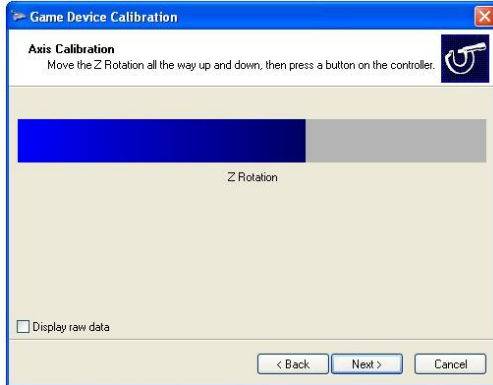
10. **X Rotation Axis Calibration.** Press the right flipper button



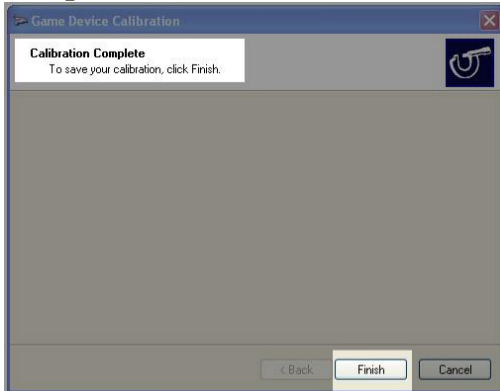
11. **Y Rotation Axis Calibration.** Press the right flipper button



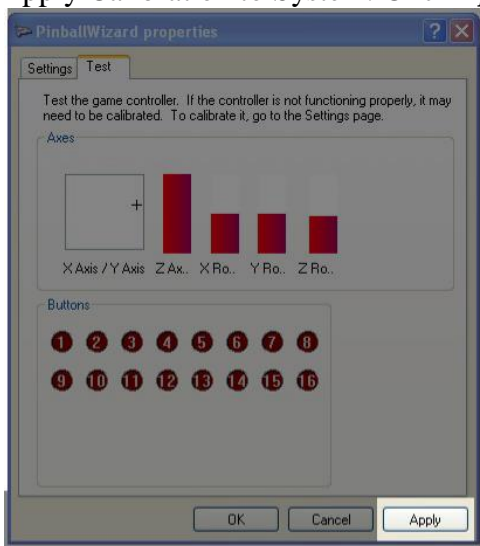
12. **Z Rotation Axis Calibration.** Now move the plunger all the way out and then press it all the way forward. Then press the right flipper button.



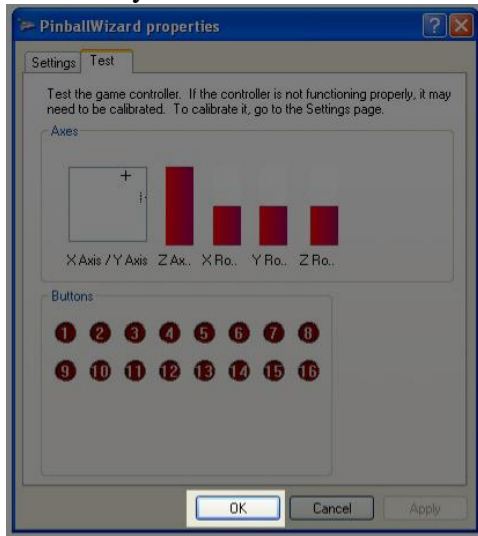
13. **Complete Calibration.** Click *Finish*.



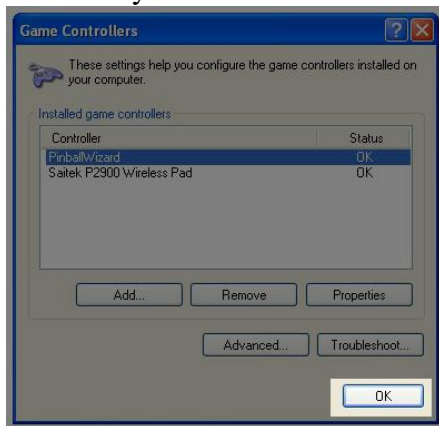
14. **Apply Calibration to System.** Click *Apply*.



15. Click Okay



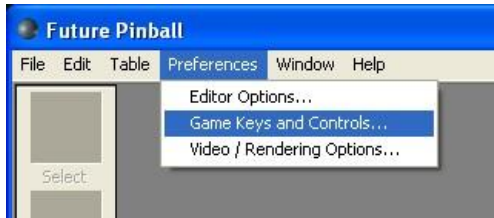
16. Click Okay



17. Close Control Panels

Configuring Future Pinball

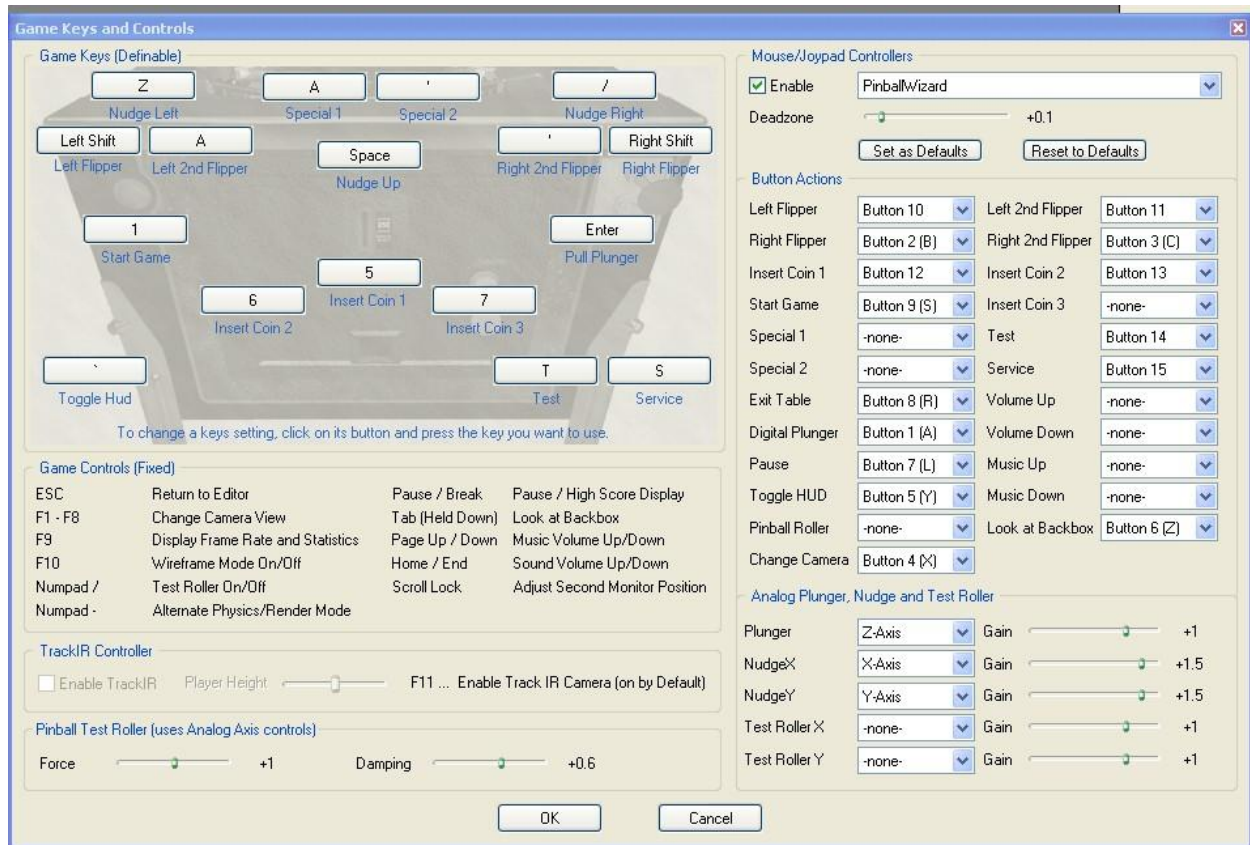
Future Pinball 1.8 and later has built in support for the Pinball Wizard controller. To setup the Controller for use with Pinball Wizard, open the Future Pinball editor and Select the Preferences Menu -> Game Keys and Controls....



On the right hand side of the screen, Enable Mouse/Joypad Controllers, and Select PinballWizard in the drop down menu. You may set the Buttons to map to any configuration you like, but the default settings are:

Left Flipper	Button 10
Left 2 nd Flipper	Button 11
Right Flipper	Button 2
Right 2 nd Flipper	Button 3
Insert Coin 1	Button 12
Insert Coin 2	Button 13
Start Game	Button 9
Test	Button 14
Service	Button 15
Exit Table	Button 8
Digital Plunger	Button 1
Pause	Button 7
Toggle HUD	Button 5
Look at Backbox	Button 6
Change Camera	Button 4

Set the Plunger to Z-Axis, with a Gain of +1
Set the NudgeX to X-Axis, with a Gain of +1.5
Set the NudgeY to Y-Axis, with a Gain of +1.5
Set the Deadzone to +0.2



Press OK. Now you can play with all Future Pinball tables using the Pinball Wizard Controller.

Warranty

All Mot-Ion adapters are covered by a 90-day product Limited Manufacturer's Warranty. Any and all claims must be brought to the attention of NanoTech Entertainment, Inc. In order to receive proper service from NanoTech Entertainment, Inc.; please register the product using the Manufacturer's registration card that is provided with the product. Refunds will only be made to the original purchaser. Remember to retain your bill of sale for warranty service. Any items returned without a copy of the bill of sale will be considered out of warranty.

NanoTech Entertainment, Inc. warrants the Mot-Ion adapter against defects in materials or workmanship as follows:

Labor: For a period of 90 days from the original date of purchase, if NanoTech Entertainment, Inc. determines that the equipment is defective subject to the limitations of this warranty, it will be replaced at no charge for labor. NanoTech Entertainment, Inc. warrants any such work done against defects in materials or workmanship for the remaining portion of the original warranty period.

Parts: For the period of 90 days from the original date of purchase, NanoTech Entertainment, Inc. will supply, at no charge, new or remanufactured parts in exchange for parts determined to be defective, subject to the limitations of this warranty. NanoTech Entertainment, Inc. warrants any such replacement parts against defects in materials or workmanship for the remaining portion of the original warranty period. When shipping for repairs, please package the Mot-Ion adapter into a static protected bag, using either the original shipping materials or the packaging in which the replacement equipment is shipped. Contact NanoTech Entertainment, Inc. for an RMA number, write the RMA number in large, clearly visible characters on the outside of the shipping box that you use to return the equipment. To avoid confusion and misunderstanding, shipments without the RMA number clearly visible on the outside of the box will be returned at your expense. Shipping and handling charges are not refundable. If the product is returned in used, or not in new condition or not in its original packaging complete with all accessories & documentation, the purchase price will be refunded less a 15% restocking fee. Products damaged by abuse or improper usage and not by manufacturer's defect, will not be accepted for refund or exchange. Mot-Ion is a continually developing product! This means that at any time NanoTech Entertainment, Inc., may offer upgraded models, upgraded components, or a service to upgrade your controller and reserves the right to set down rules regarding trade-ins, conversions or upgrades. If NanoTech Entertainment, Inc. offers upgrades for the Mot-Ion adapter, it is the customer's responsibility to notify NanoTech Entertainment, Inc. to inquire about these upgrades. NanoTech Entertainment, Inc. will post upgrade info via the Mot-Ion web site support page if and when it's available. If you would like more information regarding warranty info and RMA numbers, feel free to e-mail us at support@nanotechent.com.

Legal

NanoTech Entertainment, Inc will not be held liable for incidental or consequential damages for breach of any expressed or implied warranty on the Mot-Ion adapter, nor any incidental or consequential damages resulting from the use of, or inability to use the Mot-Ion adapter. Under no circumstances shall NanoTech Entertainment, Inc. liability, if any, exceed the purchase price paid for the Pinball Wizard Controller. NanoTech Entertainment, Inc. reserves the right to refuse to honor this warranty if NanoTech Entertainment, Inc determines any of the above exceptions to have caused the Mot-Ion adapter not to perform properly. This warranty shall be void if any factory-applied serial numbers have been altered or removed. This warranty shall also be void if the Mot-Ion adapter has been opened by an unauthorized person.

The information in this guide is subject to change without notice. Revisions may be issued to advise you of such changes and/or additions. For the latest information and updates please check the NanoTech web site <http://www.nanotechent.com> Correspondence regarding this guide should be addressed directly to:

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