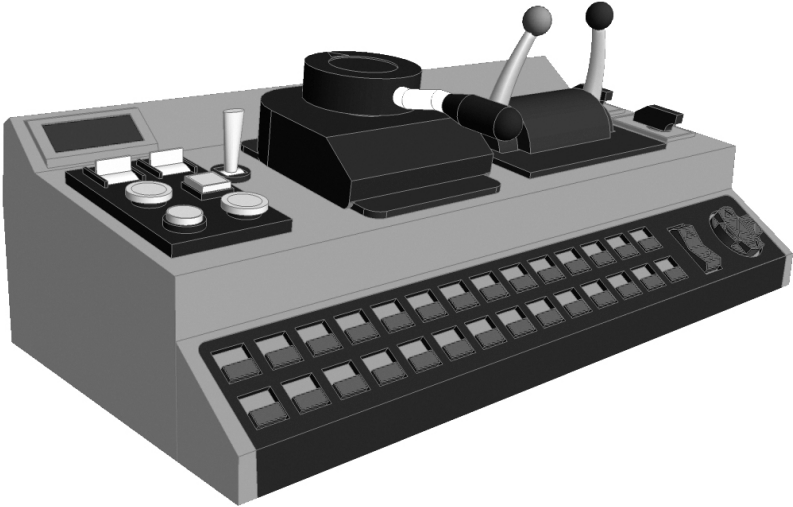


ShipDriver



SD-829-WTS-R Watercraft Simulation Controller

Product Manual

ShipDriver

A Product of P.I. Engineering

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Williamston, Michigan 48895-1663

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www.shipdriver.com



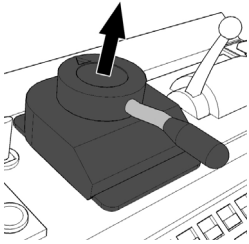
"The No Slogan Company"

P.I. Part #378

Box Contents

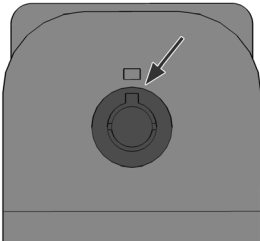
- ✓ ShipDriver control unit with tiller control
- ✓ Classic ship's wheel
- ✓ Modern steering wheel
- ✓ Power supply (AC adapter)
- ✓ Label sheets & game button identification strips
- ✓ Operating manual (this document)

Installing and Operating Wheel and Tiller Controls



Carefully pulling up and wiggling the hub of the tiller or wheel control will free it from the steering mechanism and allow the user to install one of the included controls. Pressing the tab on the back of the steering housing will release the housing and allow it to be tipped into an upright position and held in place with a supporting bale.

ShipDriver features two different steering modes depending on the type of control attached. Press the seventh button in the top row to select Tiller Mode (the ShipDriver display will read “-1-“). Press the eighth button in the top row to select Wheel Mode (the ShipDriver display will read “-2-“).



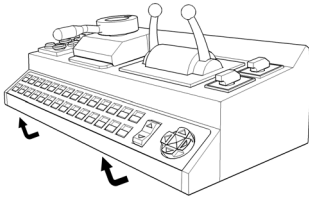
When replacing the tiller always ensure the steering key is aligned with the tiller stop in the 12 o'clock position as shown in the picture to the left. The tiller control may be attached with the handle pointing up or down, but the key must always start in the 12 o'clock position.

In Tiller Mode the rudder will be centered when the tiller is centered and the rudder will turn to its full port or starboard position when the tiller control reaches the end of its range in each direction.

In Wheel Mode the rudder starts in the center position and will turn with the wheel until it reaches full port or full starboard. Turning the wheel further in the same direction will not change the position of the rudder. Turning the wheel in the opposite direction will bring the rudder back until it reaches the end of its range in the opposite direction.

NOTE: Always use the tiller control and put the ShipDriver in Tiller Mode when calibrating the ShipDriver or assigning the steering control in a simulation software.

Installing Labels for the Controls and Function Keys



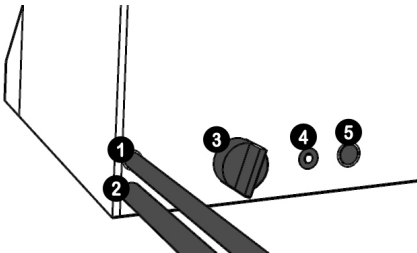
To apply legends for the function keys, pry out carefully, but with force, the panel cover to unsnap the five locking tabs on the front edge. Then lift the panel straight up from the buttons. Place the legend strips above the keys. Insert the top of the

panel cover first and snap the bottom back into place.

Printable versions and a template for the legend strips can be found on our website.

Apply the stickers of your choice to the helm buttons and switches. Thruster labels are split so that they may be applied without removing the control knob.

Connecting Sound and Vibration Features



The numbers on the illustration to the left correspond with the following.

1. USB cable to computer
2. ShipDriver audio input connected to stereo output on computer
3. Amplitude control for ShipDriver subwoofer
4. Stereo pass through for computer speakers
5. ShipDriver DC input from power supply

Power and audio connections are not required for operation of the ShipDriver controls, but they do enhance the experience. Set the Amplitude control to mid level and adjust the setting when ShipDriver is running with your simulation software.

Note: The ShipDriver Desktop contains a speaker which has been magnetically shielded to prevent color distortion on video displays. Exposing magnetic media (jump drive, memory card, or digital tape) to magnetic materials may cause data loss.

Installing the ShipDriver Controller

Plug the ShipDriver USB connection into an available USB port. After Windows recognizes and installs the ShipDriver, the display on the ShipDriver will read “PIE”.

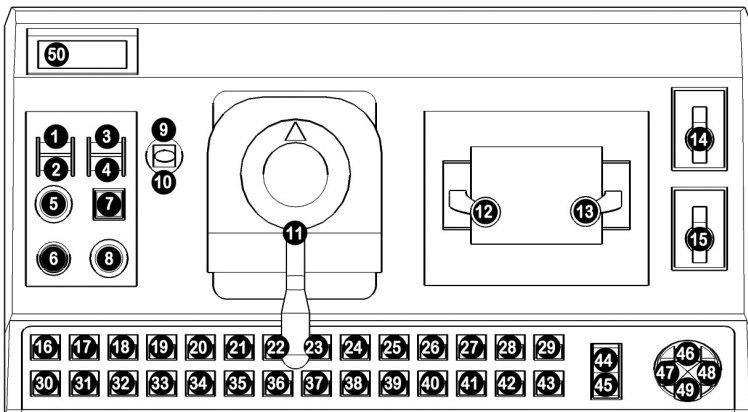
When calibrating or assigning the steering control in your simulation software, use the tiller control and put the ShipDriver into Tiller Mode by pressing the seventh button on the top bank of blue buttons. The ShipDriver display should then read “-1-“.

Start the simulation software and select the option for defining controls. This will be different in each simulation software but is normally found under an Options, Controls, or Settings menu. Follow the instructions in the software to assign controls from the ShipDriver. You may assign the controls to match the included legend strips or modify the layout at your discretion. A template for MS Word is available on our website for editing and printing new legend strips.

Note: The thruster controls on the ShipDriver are analog controls and not switches. When assigning analog controls in the simulation software, be sure to start at the center position and move the control to the full end of its range.

Note: The 7th and 8th blue button on the ShipDriver are reserved for changing the steering control to Tiller or Wheel Mode and are not available for other assignment.

ShipDriver Controls



The numbers on this illustration refer to the table on the next page.

| No. | Description | Output | Suggested Ship Sim Control |
|-----|------------------|---------------|----------------------------|
| 1 | Rocker 1 up | GCB 1 | Engine 1 Start/Stop |
| 2 | Rocker 1 down | GCB 2 | Engine 1 Start/Stop |
| 3 | Rocker 2 up | GCB 3 | Engine 2 Start/Stop |
| 4 | Rocker 2 down | GCB 4 | Engine 2 Start/Stop |
| 5 | Round button 1 | GCB 5 | Show/Hide Panels |
| 6 | Round button 2 | GCB 6 | Show/Hide Mooring |
| 7 | Square button | GCB 7 | Show/Hide Map |
| 8 | Round button 3 | GCB 8 | Show/Hide Info |
| 9 | Switch up | GCB 9 | Horn |
| 10 | Switch down | GCB 10 | Horn |
| 11 | Steering | GC slider | Rudder |
| 12 | Throttle 1 | GC x axis | Engine 1 Throttle |
| 13 | Throttle 2 | GC y axis | Engine 2 Throttle |
| 14 | Thruster 1 | GC z axis | Bow Thruster L/Off/R |
| 15 | Thruster 2 | GC z rotation | Stern Thruster L/Off/R |
| 16 | Blue button 1 | Esc | Quit |
| 17 | Blue button 2 | F1 | Pause |
| 18 | Blue button 3 | F2 | Save |
| 19 | Blue button 4 | F3 | Reset |
| 20 | Blue button 5 | F4 | Show/Hide Controls |
| 21 | Blue button 6 | F5 | Settings |
| 22 | Blue button 7 | | Tiller Mode |
| 23 | Blue button 8 | | Wheel Mode |
| 24 | Blue button 9 | 0 | Reset View |
| 25 | Blue button 10 | 1 | Standard View |
| 26 | Blue button 11 | 2 | Helm View |
| 27 | Blue button 12 | 3 | Walk View |
| 28 | Blue button 13 | 4 | Ship View |
| 29 | Blue button 14 | 5 | Hull View |
| 30 | Blue button 15 | GCB 11 | Chart Zoom Out |
| 31 | Blue button 16 | GCB 12 | Chart Zoom In |
| 32 | Blue button 17 | GCB 13 | Show/Hide Waypoints |
| 33 | Blue button 18 | GCB 14 | Show/Hide Objectives |
| 34 | Blue button 19 | GCB 15 | Ships Log |
| 35 | Blue button 20 | GCB 16 | Globe |
| 36 | Blue button 21 | GCB 17 | Next Ship |
| 37 | Blue button 22 | GCB 18 | Take Photo |
| 38 | Blue button 23 | GCB 19 | Show/Hide Cameras |
| 39 | Blue button 24 | GCB 20 | Run |
| 40 | Blue button 25 | GCB 21 | Walk Forward |
| 41 | Blue button 26 | GCB 22 | Walk Back |
| 42 | Blue button 27 | GCB 23 | Walk Left |
| 43 | Blue button 28 | GCB 24 | Walk Right |
| 44 | Zoom rocker up | GCB 25 | Zoom In |
| 45 | Zoom rocker down | GCB 26 | Zoom Out |
| 46 | Quad pad up | GC hat up | Look Up |
| 47 | Quad pad left | GC hat left | Look Left |
| 48 | Quad pad right | GC hat right | Look Right |
| 49 | Quad pad down | GC hat down | Look Down |
| 50 | Display | | |

Technical Support

Should you experience difficulties installing or running the ShipDriver Desktop, please contact our Technical Support Department:

Web: <http://www.shipdriver.com/support/contact.php>

E-mail: tech@shipdriver.com

Phone: (517) 655-5523

Normal staffing hours are M-F 9-5 EST

How to Find Us

ShipDriver

A Product of P.I. Engineering

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Telephone: (517) 655-5523 **Sales:** (800) 628-3185

Fax: (517) 655-4926

Web: www.ShipDriver.com

E-mail: info@ShipDriver.com

FCC Declaration of Conformity

This device complies with Part 15 of the FCC rules.

Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.



This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and if not installed and used in accordance with the instruction manual may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio TV technician for help.

Any changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.

LIMITED WARRANTY

For all ShipDriver products purchased and installed in the United States and Canada, P.I. Engineering warrants that the ShipDriver product will be free from defects in materials and workmanship under normal use and service, and will meet the specifications presented by P.I. Engineering at the time of original purchase, for one year as evidenced by a copy of the purchase receipt. Under this warranty, P.I. Engineering will, at its sole option, repair or replace any ShipDriver product which is defective, provided that you are responsible for (i) the cost of transportation of the product to P.I. Engineering or its designated service facility, and (ii) any loss or damage to the product resulting from such transportation.

Upon discovery of a defect in the product within the Warranty Period, you should notify P.I. Engineering Technical Support via telephone to obtain an RMA (return authorization number) and instructions for shipping the product to a service location designated by P.I. Engineering. You should send the product, shipping charges prepaid, to the designated location, accompanied by the return authorization number, your name, address, and telephone number, proof of purchase, and a description of the defect. P.I. Engineering will pay for return of product(s) to the customer. P.I. Engineering shall have no responsibility to repair or replace the ShipDriver product if the failure has resulted from accident, abuse, mutilation, misuse, or repair/modification performed by any entity other than P.I. Engineering.

THIS WARRANTY IS EXCLUSIVE OF ALL OTHER WARRANTIES, WHETHER EXPRESSED, IMPLIED, OR STATUTORY. P.I. ENGINEERING DOES NOT WARRANT THIS **SHIPDRIVER** PRODUCT FOR FITNESS FOR A PARTICULAR PURPOSE OR MERCHANTABILITY. P.I. ENGINEERING AND ITS EMPLOYEES SHALL NOT BE HELD LIABLE FOR ANY CONSEQUENTIAL, INDIRECT, OR INCIDENTAL DAMAGES, EVEN IF ADVISED OF THEIR POSSIBILITY, ARISING OUT OF THE USE OR INABILITY TO USE THIS PRODUCT. SOME STATES DO NOT ALLOW FOR THE EXCLUSION OR LIMITATION OF CERTAIN LIABILITIES, SO THE ABOVE LIMITATIONS MAY NOT APPLY TO YOU. THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER LEGAL RIGHTS WHICH VARY FROM STATE TO STATE.

In the event that the above limitations are held unenforceable, P.I. Engineering's liability for any damages to you or to any party shall not exceed the purchase price you paid, regardless of the form of any claim.

This limited warranty is valid for and only applies to products purchased and used inside the United States (and its territories) and Canada. This limited warranty is governed by the laws of the United States of America and the State of Michigan.

ShipDriver Electronic Design: P.I. Engineering, Inc., Williamston, Michigan

Patent Pending

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Other Products from P.I. Engineering

Visit our web sites www.xkeys.com or www.raildriver.com for detailed descriptions.

***RailDriver*[®]**

Desktop Train Cab Controller - USB controller for train simulation software

Historic Cyclopedias on CD - high resolution printable images and text

Decorative Hitch Coupler - hitch cover for your vehicle

Reproduction Operating Manuals - accurate, inexpensive reproductions

***X-keys*[®]**

XK-24 Programmable USB Keyboard - 24 keys, dual backlighting

X-keys Stick - 16 keys with backlighting, USB or PS/2

XK-80/60 - 80 programmable keys

XK-12+Touchpad - 12 programmable keys with a touchpad

XK-12+Joystick - 12 programmable keys with a precision USB joystick

XK-12+Jog & Shuttle - 12 programmable keys with a jog & shuttle control

X-keys Matrix Board - Do-it-yourself circuit board with 128 switch points

***Y-mouse*[®]**

Y-mouse USB Adapter - adapt a PS/2 keyboard and mouse, or KVM to USB

Y-see two Video Adapter - split one VGA output to two monitors

Y-key key Dual Keyboard Adapter - connect two PS/2 keyboards to one port

Y-mouse Dual Mouse Adapter - connect two PS/2 mice to one port