

Features

Fully engineered 3D printed housing for maximum rigidity.

Real Structural 3K Carbon Fiber (or) Black G10 plate. (lc)

Four individual SimuBOX or SimuWHEEL button boxes may be used simultaneously on a single PSUSB_28x. Three of these units may be PSB3e encoder boxes but one must remain standard buttons.

28 inputs standard (55 inputs when used in extended mode)

The PSUSB_28x may be used in conjunction with the SimuCUBE sc1, Sim-pli.city SM012 adaptor, and/or additional PSUSB_28x units for a myriad of control options.

Fully Grounded circuitry through the USB back to the computer.

Integrated Mounting tabs.

USB cord included.

Options

SimuWHEELgt & lc

SimuBOX7s & lc

SimuBOX7c & lc

SimuBOX3e & lc



PSUSB_28x

The PSUSB_28x USB interface box allows for any of the SimuWHEEL or SimuBOX button boxes to be use with ANY system capable of using a USB game controller interface regardless as to if you have a compatible Direct Drive system. *(graphite PSUSB_28x version shown)*

Design and Use:

The PSUSB_28x was designed to be a primary or supplementary expansion unit for the SimuSERIES line of products which include all of the SimuWHEEL and SimuBOX units. Multiple PSUSB_28x units can be used at the same time or along with the SimuCUBE SC1 or Sim-Pli.city Direct Drive Controller with the SM012 adaptor. On any single PSUSB_28x unit you may have up to (4) SimuBOX or SimuWHEEL devices with a MAXIMUM of three PSB3e encoder boxes. The PSUSB_28x does not require any additional drivers or interface systems to work, it is completely Plug and Play.

DIY Usage:

The PSUSB_28x can be used as a DIY hub for your own projects the unit has fully diode isolated inputs for standard momentary button usage.

PSUSB_28x & PSUSB_28lcx USB Interface Box

Connection and Setup...



To connect the PSUSB_28x use the provided cord to connect to any available USB port on your computer. This controller requires no additional software or drivers as it is a standard Windows HID device. The PSUSB_28x initializes upon being powered up so any setup changes will not take effect until the device is power cycled either by unplugging it or by turning off your computer.

Notes:

First Connection - Factory first connection of the PSUSB_28x is for all ports to be used with button boxes. Port 1 of the PSUSB_28x cannot be altered from the initial button configuration while ports 2-4 can be used with the PSB3e Encoder box. The Device will show up as Penguin r/c PSUSB_28x in the Windows devices and peripherals.

Opening your PSUSB_28x:

In order to change device set-up for use with the PSB3e or PSB3elc encoder boxes you will need to open the PSUSB_28x to change the programming and ports used for encoders.

- 1) First make sure the PSUSB_28x is disconnected from your computer.
- 2) Open the PSUSB_28x by removing the (3) T-8 TORX screws that hold the top plate to the box using either a T-8 driver or if in a pinch a 2mm Hex Key can work.
- 3) When finished setting up the PSUSB_28x replace the top plate to protect the electronics.

Setting up your PSUSB_28x for encoder and extended use:

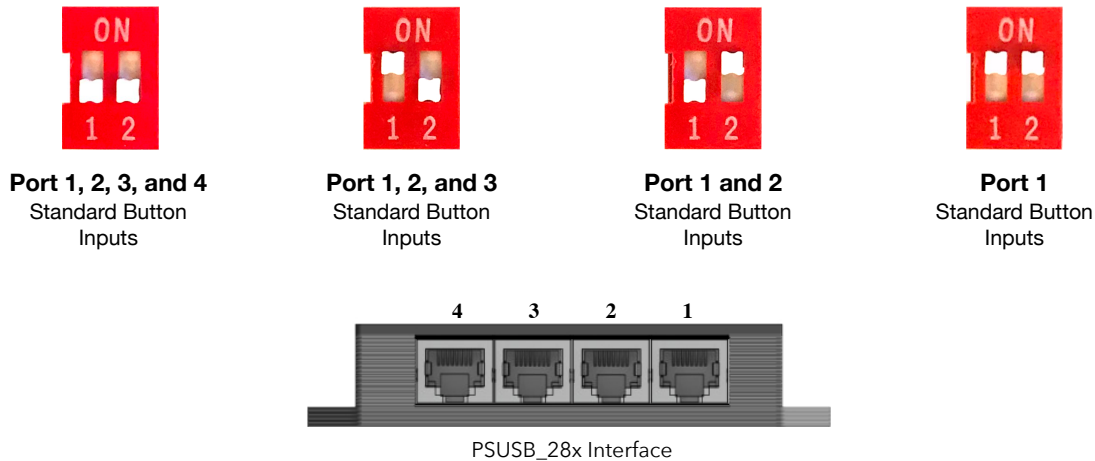
In order to use the PSB3e Encoder box correctly with the PSUSB_28x you will need to set the programming for encoders use. In the process you will also set how many and which Ports are converted for encoder use. It is NOT recommended to use the encoder programming with button boxes as some paired inputs could be ignored causing missed button presses. You may also set your PSUSB_28x for extended button usage which increases the controller button count from 28 to 55.

PSUSB_28x & PSUSB_28lcx USB Interface Box

Connection and Setup continued...

Setting Encoder Programming and Ports:

Inside the PSUSB28x there is a Red DIP switch which controls what programming is set to which ports. By selecting different combinations on the switches you can control how many of the ports provide decoding for the encoder input from the PSB3e. Below is the table showing which ports are converted with each setting.



PSUSB_28x Extended Mode:

Inside the PSUSB_28x there is a switch located in on the right side near the USB Port. This switch enables Extended mode (disabled standard). When enabled the button on Pin 7 of Port 1 becomes a “shift” button and when held down with any other button from any Port, the PSUSB_28x will send a second independent game control signal effectively doubling the button and encoder inputs for devices attached. Pin 7 is normally the “yellow” button on SimuSERIES devices.

Mounting your PSUSB_28x:

The PSUSB_28 can be mounted in many different ways from using double sided tape or by hard mounting using the integrated 5mm mounting tabs. The dimensions for these mounts are provided on the Mounting Schematics Page.

Notes:

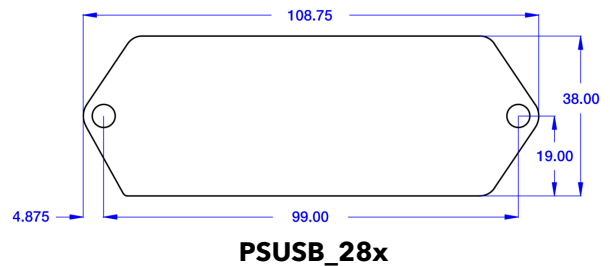
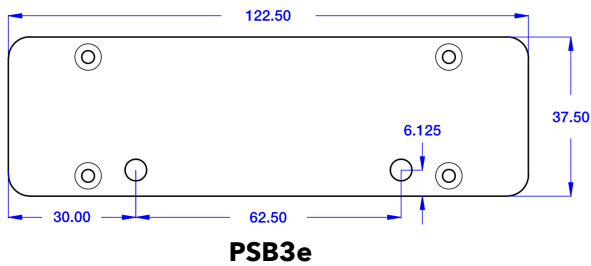
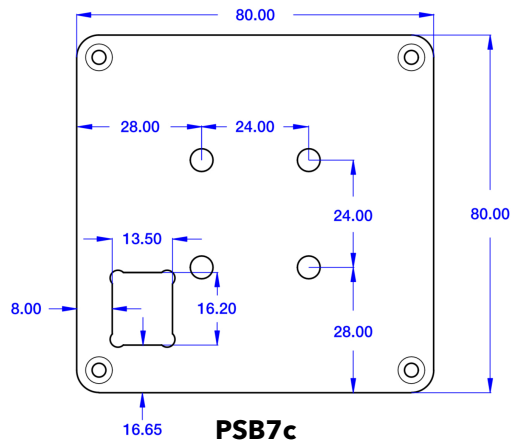
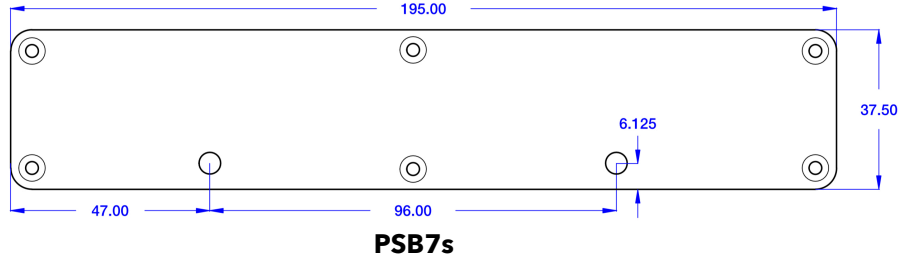
Connection Length - The PSUSB_28x control box inputs are completely diode isolated with pull-up resistance to provide error free button actuation over longer connection lengths. The unit has been fully tested with ethernet cables up to 3 meters and semi-tested with ethernet cables of 10 meters without issue. Environmental conditions could cause shorter or longer wire lengths to be used effectively.

DIY Supported Capability - The PSUSB_28x control box inputs allow for DIY connections through the RJ45 plugs if you are inclined to do so. Pins 1-7 on each RJ45 port correspond to an independent button which can be triggered with any momentary release button you choose. Pin 8 is a common ground. Diode isolation ensures no additional hardware is required.

Encoder programming for 1:1 (full greyscale cycle, 4 pulse per detent) encoders is enabled through the dip switch. When the encoder programming is enabled Pin 1 is a standard button input while Pins 1+2, 3+4, and 5+6 are linked for encoder decoding. Pin 8 remains a common ground when encoder programming is enabled.

Mounting Schematics

Dimension and Shape...



Notes:

Measurements - All measurements are provided in millimeters

Scale - the drawings provided on this page are not actual size but are to scale of the actual parts..



About, Contacts, and Custom Projects

Contact Information

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Catalog Notes

Pricing - There are no prices in this catalog. Current pricing can be found on our website along with further information.

Ordering - Throughout this catalog there are "Visit our website..." links that will open up the ordering page for the items in this catalog.

Questions - Feel free to email us at any time.

Warranty - Lifetime, 90 day full coverage. See website for details.

About us...

Penguin r/c was opened in April of 1997 with the intent of creating the best products that could be made for reasonable prices. Originally we started business focusing on aftermarket parts and chassis upgrades for high performance remote control vehicles, pinpointing the areas where existing cars could be made to perform beyond their original design. Penguin r/c made a name for itself by achieving this goal through products where the additional performance gained far outweighed the cost of the parts. Having racked up a couple of championships and a good name in the market place we slowly transitioned into becoming a more involved OEM supplier for other manufactures in the r/c industry and other industries. We still sell and support our r/c products to this day and will continue to do so with every product we produce including our new Simulation Products. In 2010 we started manufacturing parts for a high-end simulation company and found a renewed love for racing in the virtual world. In 2018 we decided that we could bring our expertise in manufacturing and design to the Simulation market and started our newest products. We hope to bring the same values and customer support to the simulation marketplace as we have for years as an OEM manufacturer and part supplier to the r/c industry.

Custom Designs...

Penguin r/c is capable of Custom Manufacturing and Design of prototype and production parts for individuals and companies. Most of our manufacturing is done in-house which allows us significant control over the quality and assembly of parts we manufacture and allows us to make prototypes that have the quality and durability of production pieces. If you have anything that you would like to produce please feel free to contact us about the possible product.