# ProtoBox-1593Q Kit (PCB+Box)



A Hammond 1593Q handheld plastic enclosure with battery compartment, packaged with a matching BPS ProtoBoard 2-hole per strip PCB.



## **Hammond Battery Holders (Sold Separately by Hammond)**

| Hammond Part #                    | Battery Holder Kit | Battery Holder Kit Includes                                                                                                                                                                                |
|-----------------------------------|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| BH1AAW Single AA Battery          | AMIL OF            | <ul> <li>Battery holder for one AA battery</li> <li>Wire leads</li> <li>Double sided tape backing</li> <li>Battery NOT included</li> </ul>                                                                 |
| BH2AAW  Double AA Batteries       |                    | <ul> <li>Battery holder for two AA batteries</li> <li>Wire leads</li> <li>Foam with adhesive tape on one side</li> <li>Divider for 1599 series - NOT included</li> <li>Battery NOT included</li> </ul>     |
| BH1AAAW Single AAA Battery        |                    | <ul> <li>Battery holder for one AAA battery</li> <li>Wire leads</li> <li>Double sided tape backing</li> <li>Battery NOT included</li> </ul>                                                                |
| BH2AAAW  Double AAA  Batteries    |                    | <ul> <li>Battery holder for two AAA batteries</li> <li>Wire leads</li> <li>Double sided tape backing</li> <li>Batteries NOT included</li> </ul>                                                            |
| BH3AAAW Triple AAA Batteries      |                    | <ul> <li>Battery holder for three AAA batteries</li> <li>Wire leads</li> <li>Double sided tape backing (two strips)</li> <li>Batteries NOT included</li> </ul>                                             |
| BH4AAAW  Quad AAA Batteries       |                    | <ul> <li>Battery holder for four AAA batteries</li> <li>Wire leads</li> <li>Foam with adhesive tape on one side</li> <li>Divider for 1599 series - NOT included</li> <li>Batteries NOT included</li> </ul> |
| <b>BS61</b> Single 9 Volt Battery |                    | <ul> <li>Battery holder for one 9V battery</li> <li>Wire leads</li> <li>Foam with adhesive tape on one side</li> <li>Dividers for 1599 series - NOT included</li> <li>Battery NOT included</li> </ul>      |

## ProtoBoard-1593Q - for Hammond 1593Q Boxes



A prototyping board designed for the Hammond 1593Q handheld enclosure with battery compartment.

### **Features**

*ProtoBoard* saves time! The PCB is designed specifically for the Hammond 1593Q box. No cutting is required. The mounting holes are present in the right spots.

The convenient 2-hole ProtoBoard pattern provides an easy way to connect parts while maximizing usable board area.

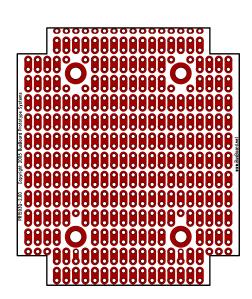
**Lead free** etched copper PCB with an anti-tarnish coating for easy soldering.

## **PCB Specifications**

- High-quality FR4 glass epoxy board.
- Four 0.125" (1/8") mounting holes.
- Four 4-40 PCB mounting screws provided.
- Single sided, 1oz/ft<sup>2</sup> copper PCB
- 0.042" holes drilled on 0.1" centers
- PCB Size 2.4 x 2.7 in. (62 x 69mm)

Order Part# PR1593Q (for PCB only)

### **Board Layout (actual size)**

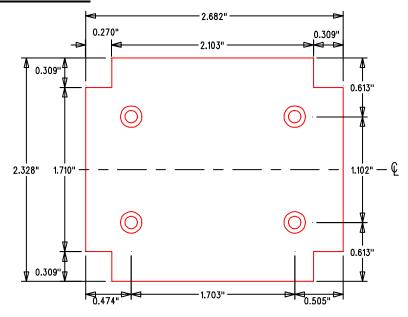




PR1593Q Prototyping Board shown with the Hammond 1593QBK box (box not included).

To purchase the PCB + Box together, order BPS part# KIT-1593Q-BK

#### **PCB Mechanical Dimensions**



- 1. PCB is symmetrical along the centerline.
- 2. All solder pads are located on a 0.100" grid.
- 3. The mounting holes are NOT located on the 0.100" grid. PCB Design Copyright 2005 BusBoard Prototype Systems Ltd.

### Hammond 1593Q Hand Held Case Features

Note: The box is **NOT** included with BPS part# PR1593Q.

The box is included with part# KIT-1593Q-BK.

Hand-held electronic instrument enclosure.

Built-in PCB standoffs.

1 removable end panel (included).

Battery compartment for 1xAA, 2xAA, 1 to 4 AAA, or 1x9V battery (battery connector or holder not included). Long life "three snap" battery door.

Recessed top for membrane overlay or keypad.

Lap joint construction provides protection against dust.

Black, gray, or blue general purpose ABS plastic.

Secured with self tapping screws (included).

Box Size 4.4 x 2.6 x 1.1 inches (122 x 66 x 28 mm)

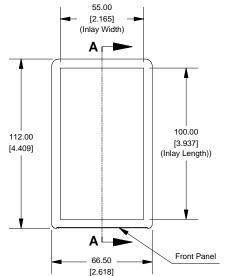
To order the box by itself order Hammond part# 1593QBK (black), 1593QGY (gray) or 1593QTBU (translucent blue)

See <a href="http://www.hammondmfg.com/dwg8.htm">http://www.hammondmfg.com/dwg8.htm</a></a>
<a href="http://www.hammondmfg.com/dwg8TBU.htm">http://www.hammondmfg.com/dwg8TBU.htm</a></a>
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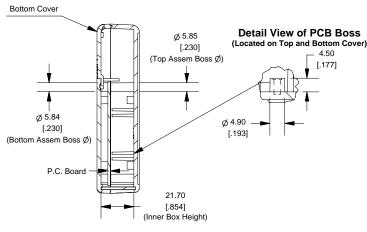


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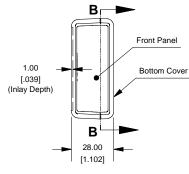
### **Top View of Assembly**



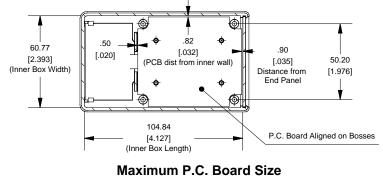
# SECTION A-A (Side View Inside Assembly)



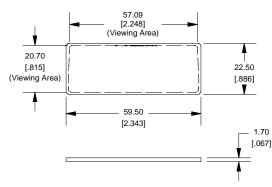
## **End View of Assembly**

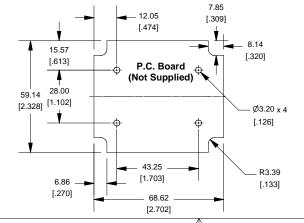


## SECTION B-B (Inside of Bottom Cover)

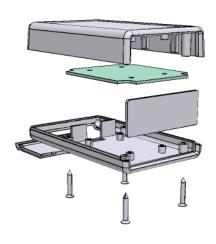


## Front/Rear Panel (Dashed Line Indicates Viewing Area)





## Hand Held Instrument (1593Q)



Enclosures can be Factory Modified ( Milling, Drilling, Printing etc. ) Solid models of this enclosure available in STEP or IGES.

Contact Factory mjm@hammondmfg.com

#### NOTE

Enclosure molded from GP ABS (UL94-HB) plastic.

Purchased assembly includes top and bottom cover, front panel (plastic), battery door and 4 cover screws.

| PART NUMBERS                                                          |                                            |  |  |
|-----------------------------------------------------------------------|--------------------------------------------|--|--|
| 1593Q Enclosure                                                       |                                            |  |  |
| Black Enclosure                                                       | 1593QBK                                    |  |  |
| Grey Enclosure                                                        | 1593QGY                                    |  |  |
| ACCESSORIES                                                           |                                            |  |  |
| Cover Screws (Pkg 100)<br>[#4 x 3/4" self-tapping oval head (19.1mm)] | 1593QS100 (Silver)<br>1593QS100BK (Black)  |  |  |
| P.C. Board Screws<br>[#4 x 1/4" self-tapping (6.4mm)]                 | 1593ATS50 (Pkg 50)<br>1593ATS100 (Pkg 100) |  |  |
| Belt or Pocket Clip                                                   | 1599CLIP (Black)<br>1599CLIPGY (Grey)      |  |  |
| Infrared Panels (Pkg 10)                                              | 1593DIR10                                  |  |  |



HAMMOND MANUFACTURING THE

1593Q

www.hammondmfg.com

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- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
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- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

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- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



#### Как с нами связаться

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