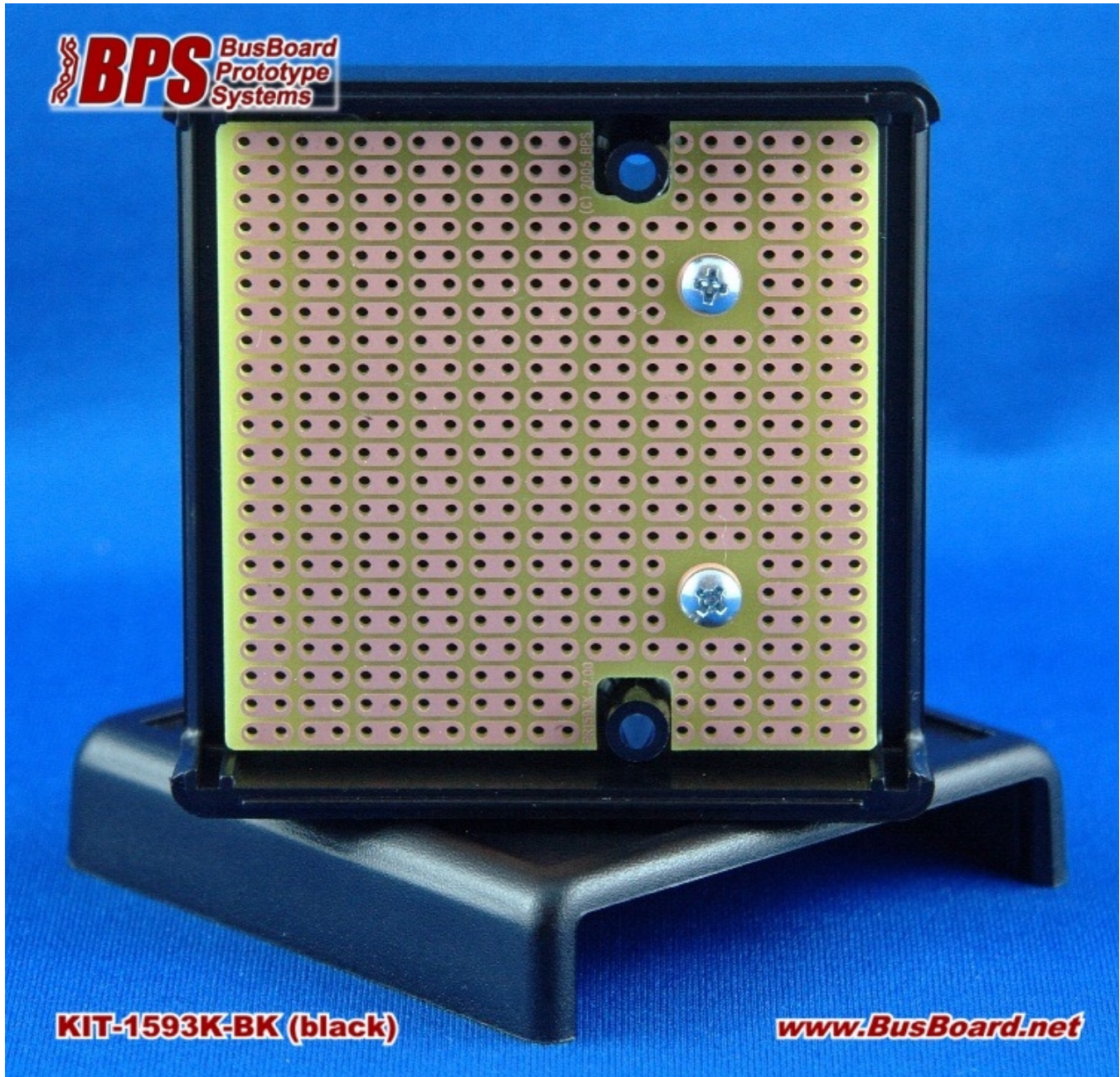


# ProtoBox-1593K Kit (PCB+Box)



*A Hammond 1593K handheld plastic enclosure packaged with a matching ProtoBoard 2-hole per strip PCB.*



**BusBoard Prototype Systems - Built for designers**

[www.BusBoard.com](http://www.BusBoard.com) [sales@busboard.com](mailto:sales@busboard.com)

BPS-MAR-(KIT-1593K)-001 Rev 4.00

# **ProtoBoard-1593K** – for Hammond 1593K Boxes



*A prototyping board designed for the Hammond 1593K handheld enclosure.*

## **Features**

*ProtoBoard* saves time! The PCB is designed specifically for the Hammond 1593K 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.

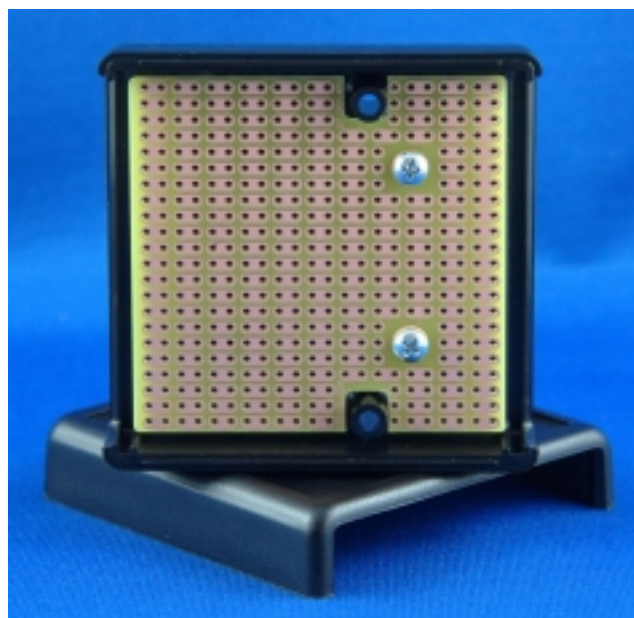
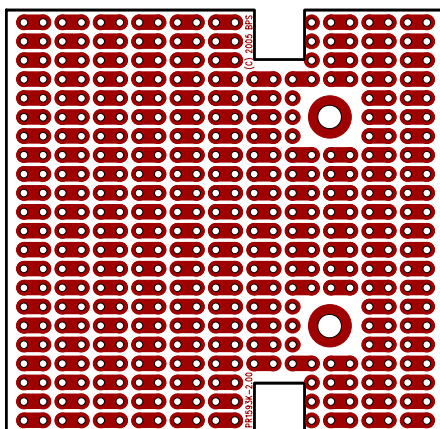
**Lead free** etched copper PCB with an anti-tarnish coating for easy soldering.

## **PCB Specifications**

- High-quality FR4 glass epoxy board.
- Two 0.125" (1/8") mounting holes.
- Two 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 2.3 x 2.3 inches (58 x 58mm)

**Order Part# PR1593K (for PCB only)**

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

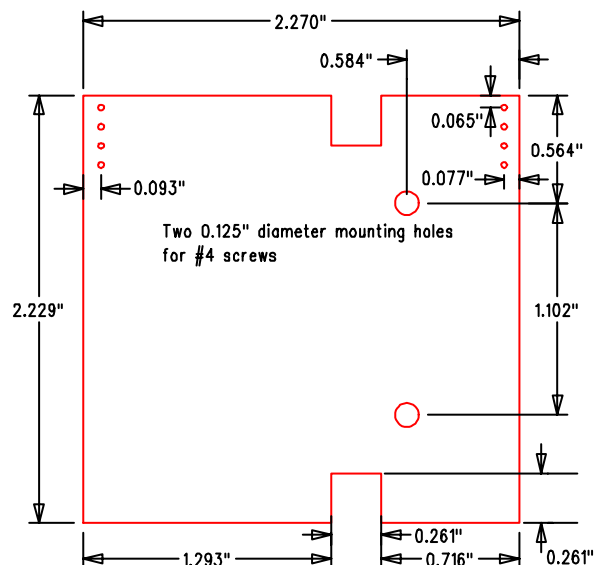


**PR1593K Prototyping Board shown with the Hammond 1593KBK box (box not included).**

**To purchase the PCB + Box together,  
order BPS part# KIT-1593K-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 1593K Hand Held Case Features

Note: The box is **NOT** included with BPS part# PR1593K.

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

Hand-held electronic instrument enclosure.

Built-in PCB standoffs.

2 flat removable end panels (included).

2 rounded end panels (included).

Recessed top for membrane overlay or keypad.

Lap joint construction provides protection against dust accumulation and splashing water.

Black or grey general purpose ABS plastic.

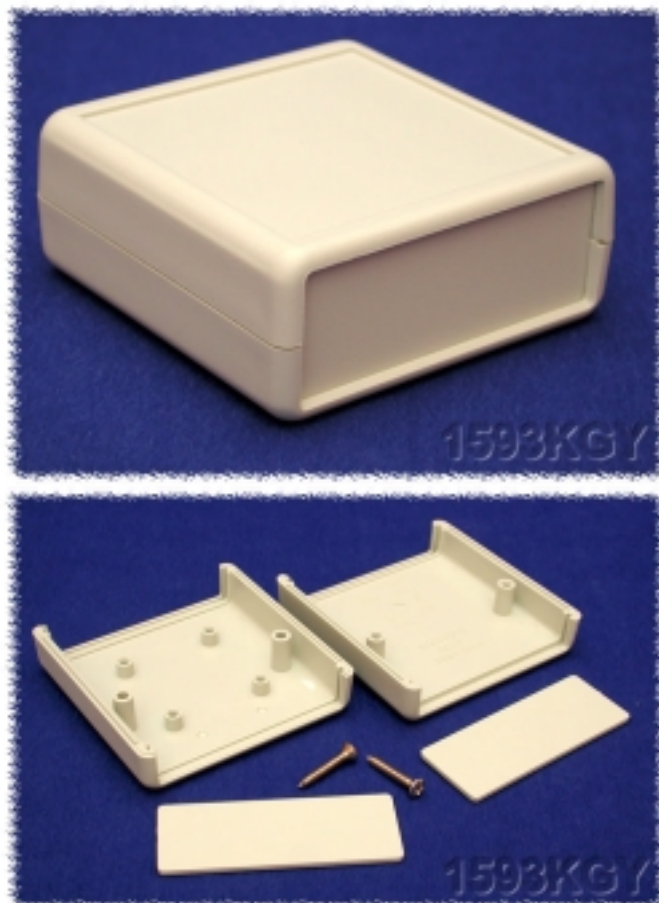
Secured with self tapping screws (included).

Box Size 2.6 x 2.6 x 1.1 in. (66 x 66 x 28 mm)

To order the box by itself order Hammond part# 1593KBK (black) 1593KGY (gray)

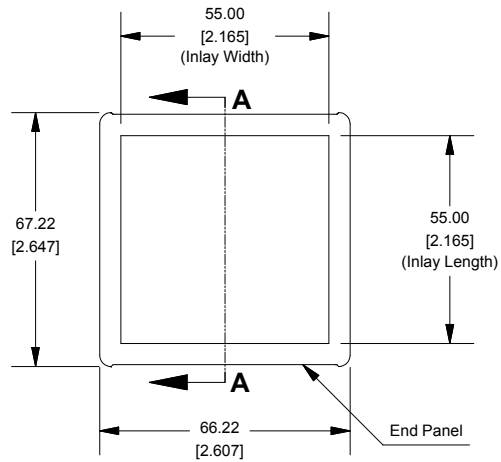
See <http://www.hammondmfg.com/dwg8.htm>

<http://www.hammondmfg.com/dwg8TBU.htm>

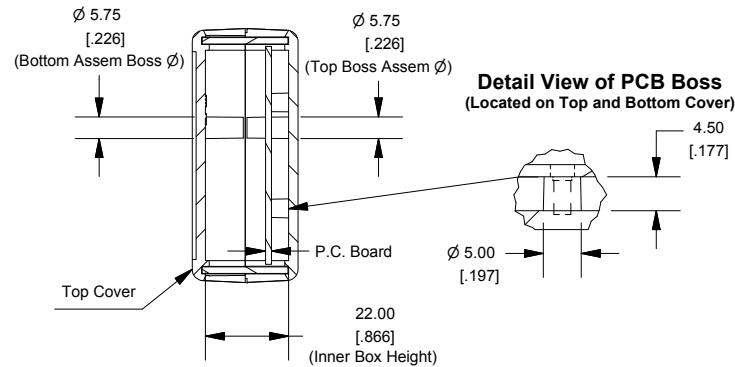


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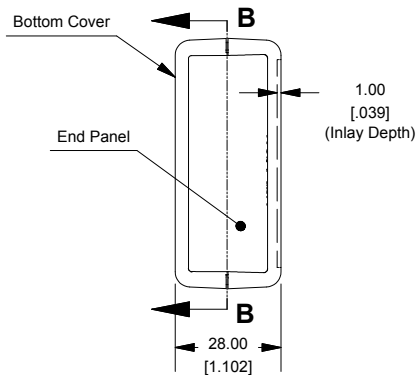
### Top View of Assembly



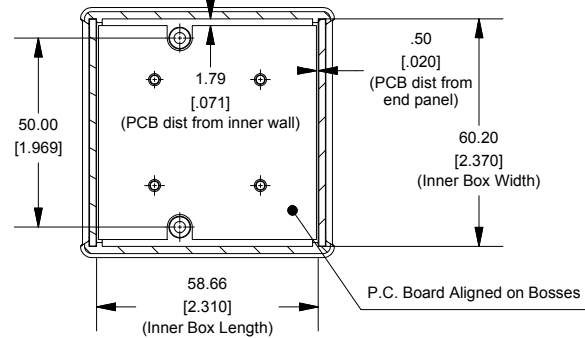
### SECTION A-A (Side View Inside Assembly)



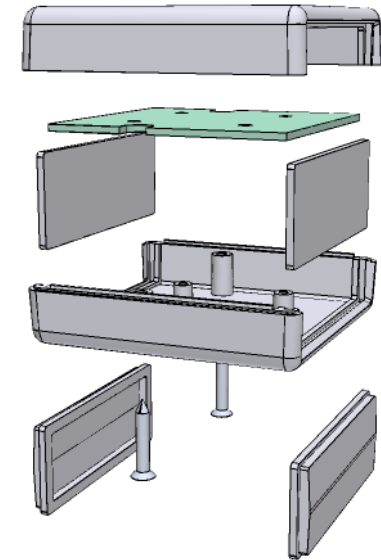
### End View of Assembly



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



## Hand Held Instrument (1593K)



Enclosures can be Factory Modified ( Milling, Drilling, Printing etc. )  
Solid models of this enclosure available in STEP or IGES.  
Contact Factory [mjm@hammondmfg.com](mailto:mjm@hammondmfg.com)

#### NOTE

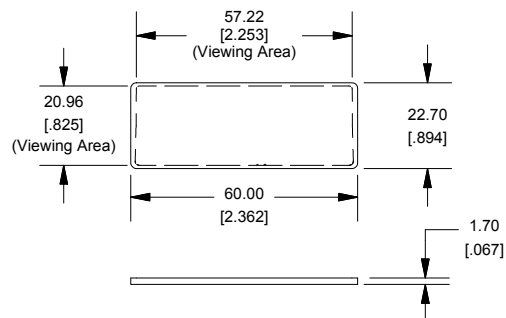
Enclosure molded from GP ABS (UL94-HB) plastic.

Purchased assembly includes top and bottom cover, front and rear plastic panels (2 types - flat and contoured) and 2 cover screws.

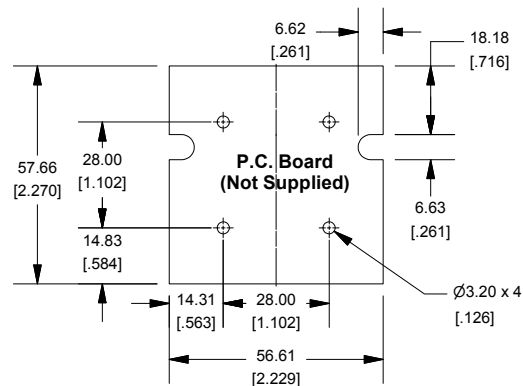
#### PART NUMBERS

1593K Enclosure	
Black Enclosure	1593KBK
Grey Enclosure	1593KGY
ACCESSORIES	
Cover Screws (Pkg 100)	1593QS100 (Silver)
[#4 x 3/4" self-tapping oval head (19.1mm)]	1593QS100BK (Black)
P.C. Board Screws	1593ATS50 (Pkg 50)
[#4 x 1/4" self-tapping (6.4mm)]	1593ATS100 (Pkg 100)
Belt or Pocket Clip	1599CLIP (Black)
	1599CLIPGY (Grey)
Infrared Panels (Pkg 10)	1593PIR10

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



### Maximum P.C. Board Size



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1593K

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