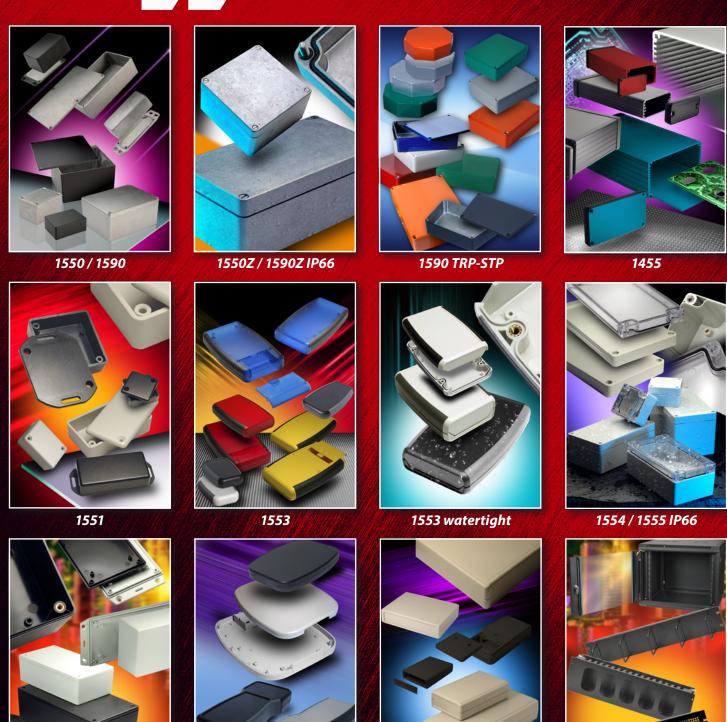
# HAMMOND MANUFACTURING®



Standard and modified aluminium, metal and plastic enclosures

Ritec

Rack basics

1599 Tablet and 1553T

1591 / 1591XX

www.hammondmfg.com

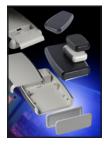
#### **Hammond Electronics**

Hammond is a global force in the enclosures market with facilities in Canada, the United States, Europe, Australia and South East Asia providing local support for customers worldwide. Hammond produces a broad range of standard products, provides factory modification services and technical support to electrical and electronic original equipment manufacturers both directly and through a global network of agents and distributors. Distribution is a key channel to market, providing customers with ex-stock availability of standard products.

Specialising in the design and manufacture of die-cast aluminium, plastic and metal enclosures for portable and hand held equipment, desktop instruments, miniature controllers and similar applications, investment in high performance manufacturing equipment and continuous improvement management techniques ensure consistently high product quality.

## Plastic enclosures













1590ZGRP

1551 1553

1553W 1554/1555

#### Plastic enclosures

Plastic enclosures are moulded in general purpose ABS, flame retardant ABS, polycarbonate and glass reinforced polyester in a wide variety of sizes and styles, including miniature key-fob units, hand-held units, instrument cases and multi- purpose designs. Typically available in black or grey, many styles are also available in translucent material in a choice of different colours. Flanged, plain, deep or styled lids and bases are available, and many families have optional battery boxes available. Removable end panels in both aluminium and plastic are another choice.

Family	Type and designed IP rating	Min size L x W x H	Max size L x W x H	No of sizes	Material*	Colours
1551	miniature plain lid, IP54	35 x 35 x 15	80 x 40 x 20	12	ABS	BK, GY, TBU
1551MINI	subminiature plain IP54	35 x 20 x 15	65 x 30 x 15	3	ABS	Various
1551USB	miniature USB specific IP54	35 x 20 x 15	65 x 30 x 15	3	ABS	Various
1551FL	miniature flanged lid IP54	35 x 35 x 15	80 x 40 x 20	12	ABS	BK, GY
1553	hand-held plain	75 x 50 x 17	147 x 89 x 25	5	ABS	Various
1553	hand-held with battery box	117 x 79 x 24	147 x 89 x 25	3	ABS	Various
1553T	T case with two end panels IP54	165 x 80-68 x 28	210 x 100-86 x 32	2	FR ABS	BK, GY
1553T	T case with one end panel and battery box IP54	165 x 80-68 x 28	210 x 100-86 x 32	2	FR ABS	BK, GY
1553W	watertight plain IP65	117 x 79 x 25	147 x 90 x 25	3	FR ABS	BK, GY
1554	watertight flat lid IP66	66 x 66 x 41	239 x 160 x 119	19	ABS	GY
1554-2	watertight flat lid IP66	66 x 66 x 41	239 x 160 x 119	19	Polycarbonate	GY
1554-2CL	watertight flat clear lid IP66	66 x 66 x 41	239 x 160 x 119	19	Polycarbonate	GY
1554-2SL	watertight flat smoked lid IP66	66 x 66 x 41	239 x 160 x 119	19	Polycarbonate	GY
1555	watertight styled lid IP66	66 x 66 x 41	239 x 160 x 119	19	ABS	GY
1555-2	watertight styled lid IP66	66 x 66 x 41	239 x 160 x 119	19	Polycarbonate	GY
1555F	watertight flanged lid IP66	119 x 66 x 42	180 x 119 x 62	10	ABS	GY
1555-2F	watertight flanged lid IP66	119 x 66 x 42	180 x 119 x 62	10	Polycarbonate	GY
1590ZGRP	watertight deep plain lid IP66	81 x 75 x 55	600 x 250 x 160	18	GRP	GY

Material\*: FR ABS denotes ABS flame retardant to UL94-V0

Colours: BK black, BU blue, CLR clear, GY grey, RD red, YL yellow, TBU translucent blue, TCL translucent clear, TCS translucent smoked, TRD translucent red. Various: refer to web site for specific family colour options. Other colours for all products available to special order.

## Plastic enclosures

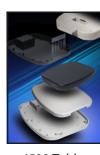












1599 1599 Tablet

#### **Plastic enclosures**

Plastic enclosures are moulded in general purpose ABS, flame retardant ABS, polycarbonate and glass reinforced polyester in a wide variety of sizes and styles, including miniature key-fob units, hand-held units, instrument cases and multi- purpose designs.

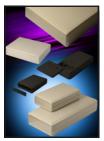
Typically available in black or grey, many styles are also available in translucent material in a choice of different colours. Flanged, plain, deep or styled lids and bases are available, and many families have optional battery boxes available. Removable end panels in both aluminium and plastic are another choice.

Family	Type and designed IP rating	Min size L x W x H	Max size L x W x H	No of sizes	Material*	Colours
1591	plain lid IP54	84 x 56 x 24	190 x 110 x 61	13	FR ABS	Various
1591-FL	flanged lid IP54	84 x 56 x 24	190 x 110 x 61	13	FR ABS	BK, GY
1591-F2	flanged base IP54	84 x 56 x 24	190 x 110 x 61	13	FR ABS	BK, GY
1591XX	no PCB guides plain lid IP54	84 x 56 x 27	221 x 150 x 62	12	FR ABS	BK, GY, TBU
1591XX-FL	no PCB guides flanged lid IP54	84 x 56 x 27	221 x 150 x 62	12	FR ABS	BK, GY
1591-S	PCB guides plain lid IP54	84 x 56 x 24	190 x 110 x 61	13	ABS	BK, GY
1591-FLS	PCB guides flanged lid IP54	84 x 56 x 24	190 x 110 x 61	13	ABS	BK
1591-F2S	PCB guides flanged base IP54	84 x 56 x 24	190 x 110 x 61	13	ABS	BK, GY
1591-T	PCB guides translucent IP54	99 x 51 x 24	191 x 109 x 60	6	Polycarbonate	CLR, TBU, TRD
1591XX-S	no PCB guides plain lid IP54	84 x 56 x 27	221 x 150 x 62	12	ABS	BK
1591XX-FLS	no PCB guides flanged lid IP54	84 x 56 x 27	221 x 150 x 62	12	ABS	BK
1591XX-TBU	no PCB guides translucent IP54	84 x 56 x 27	193 x 112 x 60	10	ABS	TBU
1593	hand held IP54	66 x 66 x 28	140 x 66 x 28	7	ABS	BK, GY, TBU
1593	hand held with battery box IP54	91 x 66 x 21	140 x 66 x 28	5	ABS	BK, GY, TBU
1594-W	watertight IP66	56 x 56 x 40	168 x 107 x 65	5	FR ABS	BK, GY
1594	heavy duty flame retardant IP54	56 x 56 x 40	168 x 107 x 65	5	FR ABS	BK, GY
1594-S	heavy duty standard IP54	56 x 56 x 40	168 x 107 x 65	5	ABS	BK, GY
1596	potting boxes no lid	11 x 11 x 9	100 x 60 x 25	15	ABS	BK
1598	aluminium end panels IP54	134 x 135 x 50	280 x 200 x 76	10	FR ABS	BK, GY
1598-S	aluminium end panels IP54	134 x 135 x 50	280 x 200 x 76	10	ABS	GY
1598-SP	plastic end panels IP54	134 x 135 x 50	280 x 200 x 76	10	ABS	GY/BK
1599	hand held IP54	130 x 65 x 25	220 x 140 x 41	4	FR ABS	BK, GY
1599	hand held with battery box IP54	130 x 65 x 25	220 x 140 x 41	4	FR ABS	BK, GY
1599-S	hand held IP54	130 x 65 x 25	220 x 140 x 41	4	ABS	GY
1599-S	hand held with battery box IP54	130 x 65 x 25	220 x 140 x 41	4	ABS	GY
1599 Tablet	tablet hand held IP54	120 x 95 x 27	240 x 190 x 30	3	FR ABS	BK, GY

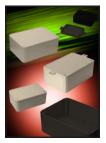
Material\*: FR ABS bezeichnet ABS flammhemmend nach UL94-V0

Farben: BK Schwarz, BU Blau, CLR Transparent, GY Grau, RD Rot, YL Gelb, TBU Transluzent Blau, TCL Transluzent Transparent, TCS Transluzent Rauchfarben, TRD Transluzent Rot. Weitere: siehe Website für spezielle Farbvarianten des Sortiments. Weitere Farben für alle Produkte auf Anfrage erhältlich.

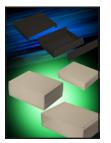
## Ritec plastic enclosures



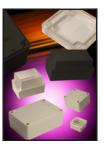




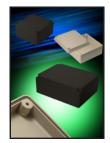
Ritec RL Series



Ritec RM Series



Ritec RP Series



Ritec RS Series

Family	Type and designed IP rating	Min size L x W x H	Max size L x W x H	No of sizes	Material	Colours
RH Series	hand-held	100 x 60 x 25	190 x 100 x 40	6	ABS	GY, BK
RH Series	battery door *IP65	130 x 68 x 25	160 x 84 x 30	2	ABS	GY, BK
RL Series	deep lid IP54	104 x 65 x 40	205 x 105 x 40	4	ABS	GY, BK
RL Series	shallow lid IP54	80 x 60 x 30	200 x 150 x 100	14	ABS	GY, BK
RL Series	flanged lid IP54	80 x 60 x 30	200 x 150 x 100	14	ABS	GY, BK
RM Series	instrument IP43	130 x 100 x 30	250 x 180 x 100	9	ABS	GY, BK
RP Series	standard lid IP65	65 x 60 x 40	220 x 165 x 85	12	ABS	GY, BK
RP Series	clear lid IP65	65 x 60 x 40	220 x 165 x 85	12	ABS	GY, BK
RP Series	standard lid IP65	65 x 60 x 40	220 x 165 x 85	12	Polycarbonate	GY, BK
RP Series	deep lid IP65	125 x 85 x 85	186 x 146 x 110	3	ABS	GY, BK
RP Series	clear deep lid IP65	125 x 85 x 85	186 x 146 x 110	3	ABS / Polycarbonate	GY, BK
RP Series	deep lid IP65	125 x 85 x 85	186 x 146 x 110	3	Polycarbonate	GY, BK
RS Series	styled lid IP65	105 x 105 x 55	250 x 200 x 130	4	ABS	GY, BK

<sup>\*</sup> RH Series with battery door designed to meet IP65 with an optional gasket. Colours: BK black, GY grey. Other colours for all products available to special order.

## **Development board enclosures**



1593

#### **Development board enclosures**

An extensive range of 1593 Series ABS enclosures are available for the Raspberry Pi, Arduino, BeagleBone, freescale and Intel Galileo development boards. Platforms, which give all-round access, are available for Raspberry Pi and Ardino boards.



**Platforms** 

## General accessories

Туре	Description	Web page for full details
Rubber feet	1421 Series. 11 different sizes of square and round rubber feet in clear or black for instrument cases. Mainly self-adhesive, some with self-tapping screw fixings.	hammondmfg.com/rfeet.htm
DIN rail clips	1427 Series. 45mm long nylon and 42, 75 and 100mm long heavy duty aluminium clips for mounting enclosures to standard 35mm DIN rails.	hammondmfg.com/DINclip.htm
Handles	1427 and M Series. Multiple sizes of round metal, styled plastic and aluminium, square and oval metal, vinyl and folding handles for a wide range of applications.	hammondmfg.com/handl.htm
Screw packs	Replacement packs of 29 different screws used in Hammond enclosures.	hammondmfg.com/dwg23.htm
Battery holders	Holders for 1, 2, 3 and 4 AAA, 1 and 2 AA and 1 9V batteries.	hammondmfg.com/dwg23.htm

## Die-cast aluminium enclosures













1550/1550W/1590W

1550Z

1550/1590

1590 STOMP

1590Z

Eddystone

#### **Die-cast enclosures**

Die-cast enclosures offer outstanding mechanical protection, are corrosion resistant and give good EMC screening.

The four main families are available in either plain or painted finish and offer a wide choice of sizes and features. Plain or flanged lids and bases, integral PCB slots, PCB mounting stand-offs and earthing points, gasket kits to enhance the IP rating and thin and thick wall versions can all be specified.

Standard wall	Minimum size L x W x H	Maximum size L x W x H	No of sizes	Lid options	Base options	Designed to meet
1550	60 x 55 x 30	275 x 175 x 66	15	Plain	Plain	IP54/IP66/IP67
1590	50 x 50 x 25	254 x 71 x 55	44	Plain	Plain	IP54/IP65
1590FL	50 x 50 x 25	254 x 71 x 55	33	Flanged	Plain	IP54/IP65
1590F	50 x 50 x 25	254 x 71 x 55	37	Plain	Flanged	IP54/IP65
1590STOMP Stomp box	100 x 50 x 31	145 x 121 x 39	9	Plain	Plain	IP54
1590STP Stomp box	133 x 133 x 39	133 x 133 x 39	1	Plain	Plain	IP54
1590TRP Stomp box	112 x 79-61 x 39	95 x 151-122 x 39	2	Plain	Plain	IP54
1590K Zinc	112 x 62 x 31	188 x 120 x 56	3	Plain	Plain	IP54
Eddystone	50 x 50 x 25	188 x 120 x 82	13	Plain	Plain	IP54

Standard wall watertight	Minimum size L x W x H	Maximum size L x W x H	No of sizes	Lid options	Base options	Designed to meet
1550W	60 x 55 x 30	275 x 175 x 66	15	Plain	Plain	IP66/IP67
1590W	50 x 50 x 25	254 x 71 x 55	39	Plain	Plain	IP65
1590W-FL	50 x 50 x 25	254 x 71 x 55	33	Flanged	Plain	IP65
1590W-F	50 x 50 x 25	254 x 71 x 55	34	Plain	Flanged	IP65

Thick wall heavy duty watertight	Minimum size L x W x H	Maximum size L x W x H	No of sizes	Lid options	Base options	Designed to meet
1550Z	50 x 45 x 30	223 x 147 x 83	18	Plain	Plain	IP66
1590Z	50 x 45 x 30	361 x 120 x 80	19	Plain	Plain	IP66

Eddystone and 1590K available in natural finish only. 1590Z available in natural, black and grey.

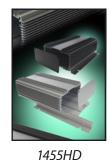
Colours for all others except 1590 STOMP boxes: natural and black.

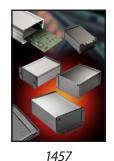
STOMP box colours: Cobalt Blue, Green, Light Grey, Orange, Purple, Red, Yellow.

Other colours for all products available to special order.

### Extruded enclosures









Sink Box

Extruded enclosures

Extruded enclosures are available in different widths and depths. PCBs are retained horizontally in slots in the extrusion and plastic and aluminium end panels are available. The 1457 variant is fitted with either IP65 rated or EMC screened end panels and gaskets to enable use in harsh environments. The 1455 is available in clear, blue, red and black anodise and the 1457 in clear anodise or black paint. The 1457 is available with either flanged or plain end panels. The channel mount versions feature recessed channels on both sides that accept T-bolts for easy mounting to rails or surfaces. The Sink Box has fins on the top to aid heat dissipation; it is sized to accept 85mm or 100mm Eurocard PCBs mounted horizontally, it also features three T Slots for securing components or chassis to the top or base.

Family	Туре	Min size L x W x H	Max size L x W x H	No of sizes	Sealing	Colours
1455	aluminium panels	60 x 45 x 25	220 x 165 x 52	22	-	CLR, BK, BU, RD
1455	plastic panels	60 x 45 x 25	220 x 165 x 52	28	-	CLR, BK, BU, RD
1455NC	channel mount aluminium or plastic panels	120 x 103 x 53	220 x 103 x 53	3	_	CLR
1455TH	heat dissipating aluminium panels external mounting flanges	120 x 86 x 51	160 x 111 x 61	4	_	CLR, BK
1455ZT	wall mount	160 x 89 x 56	220 x 89 x 56	2	-	CLR, BK
1457	die-cast plain panels	80 x 59 x 31	220 x 165 x 55	12	IP65	CLR, BK
1457	die-cast flanged panels	80 x 59 x 31	220 x 165 x 55	12	IP65	CLR, BK
1457-E	EMC screened die-cast plain panels	80 x 59 x 31	220 x 165 x 55	12	IP54	CLR, BK
1457-E	EMC screened die-cast flanged panels	80 x 59 x 31	220 x 165 x 55	12	IP54	CLR, BK
Sink Box	aluminium panels	100 x 90 x 51	285 x 105 x 60	7	_	CLR, BK

Colours: BK black, BU blue, CLR clear, RD red.

## **Rack Mount Units**



#### **Aluminium Rack Mount Units**

The RM family of rack mounting and desktop enclosures are available in 19" 1 - 4U, 203 - 559mm deep and half width 1 - 3U 108 and 203mm deep with plain or vented top and base covers. The front and rear panels are interchangeable and all 19" sizes are supplied with front panel mounting angles. Adjustable rear panel mounting angles are also available as an accessory for the 457 and 559mm deep versions.



**RMC** 

The RMC family is available in 19" 1 - 6U, 203 - 381mm deep and half width 1 - 3U, 203mm deep versions with plain or vented top and base covers. An internal aluminium chassis is optionally available.

Family	Size	Height	Depth	Top cover	Base cover
RMU	422mm 19"	1, 2, 3, 4U	203, 330, 457 and 559mm	solid or ventilated	solid or ventilated
RMU	211mm half width	1, 2, 3U	108 and 203mm	solid or ventilated	solid or ventilated
RMCS	422mm 19"	1, 2, 3, 4, 5, 6U	203, 330 and 381mm	solid	solid
RMCS	216mm half width	1, 2, 3U	203mm	solid	solid
RMCV	422mm 19"	1, 2, 3, 4, 5, 6U	203, 330 and 381mm	ventilated	ventilated
RMCV	216mm half width	1, 2, 3U	203mm	ventilated	ventilated

## Rack accessories

#### 19" rack accessories

An extensive range, compatible with any IEC 60297 compliant enclosure, provides an easy method of housing equipment of varying sizes, weights and access and cabling requirements in a rack or cabinet.

For an overview of all available products, visit hammfg.com/dci/products/accessories.

Туре	Description
Shelves	Adjustable, Cantilever, Centred, Deep Channel, Keyboard and Clamping Shelves, Locking Drawer and Rail Depth Adapter.
Cable Management	Horizontal and Vertical Managers, Lacing Bars, Cable Rings, Cable Chimneys and Overhead Cable Management.
Panels	Steel, Aluminium and Plastic Panels, Panel Covers and Monitor Panels.
Mounting Hardware	Rack Screws, Thumb Screws, Cage Nuts, Clip Nuts and Ganging Kits.
Chassis Supports	Rackmount Chassis Supports and Side Support Angles.
Grounding kits	Grounding Leads, Busbars, Isolation and Lugs
Doors	Cabinet Doors, Door Accessories and Cable Entries
Handles and Locks	Pull Handles, Combination, Electronic and Panel Locks
Castors and Feet	Castors, Levelling Feet and Bolting Down Kits

### Wall boxes



#### **RB-FW** wall boxes

The 600 x 600mm RB-FW family is available in heights of 6, 9, 12 and 15U. A lockable glass front door and lockable side panels give good security. Two pairs of adjustable 19" mounting rails are provided. The front and sides of the frame are ventilated and locations for two fans are provided in the top cover. Cable access is through the rear.

## Power distribution strips



#### 1581 and 1582 power distribution strips

The 100 - 240VAC 10A 50/60Hz 1582EDP 1U rack mount and 1581DP free standing power distribution panels are available in DPDT switched and unswitched versions. Both versions feature a 10A resettable circuit breaker for overload protection. All types have a single IEC320 C14 inlet and multiple IEC320 C13 outlets.

The 1U rack mount has 8 outlets on either the front or rear face. The free standing units have 4, 5, 6 or 8 top mounted outlets.

## Factory modification services for aluminium, metal and plastic enclosures

We can modify any of our standard enclosures in-house to meet the specific requirements of the application. Our pricing is economical for pre-production, start-up and production quantities. Orders can be placed directly with us or through our network of distributors. Our in-house modification capabilities include CNC milling, drilling, punching, engraving and printing, EMC coatings, front panel overlays, custom colours for moulded enclosures and a variety of different paint finishes for metal enclosures. In addition to the fabrication capability, service is another key focus. PDF drawings or CAD files for all products are available on www.hammondmfg.com, allowing customers easily to specify the modifications required.

#### We offer

- fast pre-production samples
- machining
- custom lengths up to 1000 mm for extruded cases
- silk screening
- special paint or moulded colours
- custom kitting and packaging

#### Contact us to discuss your requirements

- call to discuss the options with our technical sales team
- download PDF drawings or AutoCAD files from our web site
- mark up the drawings or amend the AutoCAD files
- email your amended files to us
- receive your quotation
- place your order
- leave the rest to us



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