

# Natural & Painted (1590 Series)

Diecast

*Countersunk lid with machine screws into drilled and tapped holes...*

*Vibra finished for a smooth surface with no sharp edges...*



*Nickel plated machine screws for superior corrosion protection...*

*Lap joint construction...*

*Low draft angle for easy P.C. board mounting...*

## OTHER KEY FEATURES

- Rugged, diecast aluminum alloy (tough yet easy to machine), electronic instrument enclosure.
- Lap joint construction provides protection against access of dust and splashing water. Also provides for improved EMI/RFI shielding.
- Painted version (shown below) is painted with tough polyester powder paint for a lasting finish, even after machining.
- Four (or 6 in 1590D, 1590DD & 1590E, 8 in 1590F) 6-32 x 1/2" machine screws secure lid - into tapped holes.
- Designed to meet IP54.
- Replacement screws for natural finish series, nickel plated, 6-32 x 1/2" - **1590MS100** - Package of 100
- Replacement screws for black painted series, 6-32 x 1/2" - **1590MS50BK** - Package of 50

*Countersunk lid with machine screws into drilled and tapped holes...*

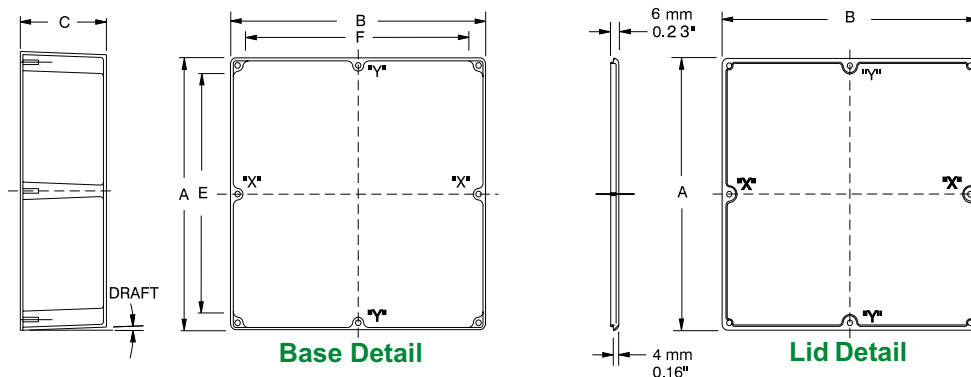
*Vibra finished for a smooth surface with no sharp edges, then painted with tough polyester powder paint...*



*Enclosure uses machine screws into drilled & tapped holes matched to enclosure color...*

*Lap joint construction - lip masked to ensure good EMI/RFI connection to base...*

# Natural & Painted (1590 Series)



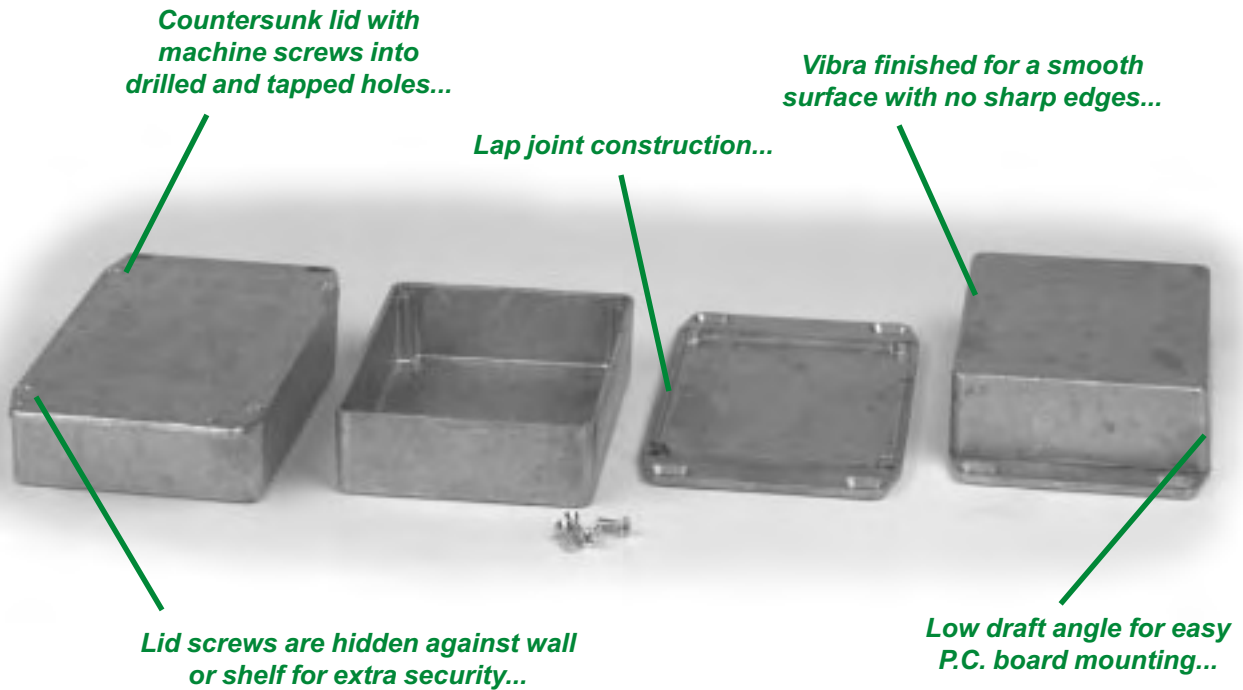
Part Number		Units	Dimensions					Apx. Draft
Unpainted	Black		A	B	C (No Lid)	E	F	
1590LLB	1590LLBBK	inch mm	1.97 50	1.97 50	.83 21	1.22 31	1.22 31	1°15'
1590LB	1590LBBK	inch mm	1.99 50.5	1.99 50.5	1.06 27	1.36 34.5	1.36 34.5	1°15'
1590H	1590HBK	inch mm	2.07 52.5	1.50 38	1.06 27	1.41 35.9	.86 21.8	1°15'
1590Y	1590YBK	inch mm	3.62 92	3.62 92	1.50 38	2.70 69	2.70 69	1°15'
1590A	1590ABK	inch mm	3.64 92.5	1.52 38.5	1.06 27	3.01 76.5	.89 22.5	1°15'
1590G	1590GBK	inch mm	3.94 100	1.97 50	0.83 21	3.31 84	1.34 34	1°15'
1590S	1590SBK	inch mm	4.35 110.5	3.21 81.5	1.57 40	3.72 94.5	2.58 65.5	1°15'
1590B	1590BBK	inch mm	4.39 111.5	2.34 59.5	1.06 27	3.76 95.5	1.71 43.5	1°15'
1590BB	1590BBBK	inch mm	4.67 118.5	3.68 93.5	1.18 30	4.04 102.5	3.05 77.5	1°15'
1590U	1590UBK	inch mm	4.70 119.5	4.70 119.5	2.17 55	4.07 103.5	4.07 103.5	1°15'
1590V	1590VBK	inch mm	4.70 119.5	4.70 119.5	3.54 90	4.07 103.5	4.07 103.5	1°15'
1590C	1590CBK	inch mm	4.72 120	3.70 94	2.07 52.5	4.09 104	3.07 78	2°
1590Q	1590QBK	inch mm	4.72 120	4.72 120	1.18 30	4.09 104	4.09 104	1°15'
1590T	1590TBK	inch mm	4.74 120.5	3.13 79.5	2.17 55	4.11 104.5	2.50 63.5	1°15'
1590N1	1590N1BK	inch mm	4.77 121.1	2.60 66	1.39 35.3	4.09 103.8	1.92 48.7	1°15'
1590KK	1590KKBK	inch mm	4.92 125	4.92 125	2.10 53	4.13 105	4.13 105	1°15'
1590K	1590KBK	inch mm	4.92 125	4.92 125	2.95 75	4.27 108.5	4.27 108.5	1°15'
1590J	1590JBK	inch mm	5.71 145	3.74 95	1.77 45	5.06 128.5	3.09 78.5	2°
1590P1	1590P1BK	inch mm	6.01 153	3.24 82	1.81 46	5.38 137	2.48 63	2°
1590DD	1590DDBK	inch mm	7.38 187.5	4.70 119.5	1.30 33	6.77 172	4.07 103.5	1°15'
1590D	1590DBK	inch mm	7.38 187.5	4.70 119.5	2.05 52	6.75 171.5	4.07 103.5	2°
1590E	1590EBK	inch mm	7.38 187.5	4.70 119.5	3.07 78	6.75 171.5	4.07 103.5	2°
1590F	1590FBK	inch mm	7.38 187.5	7.38 187.5	2.48 63	6.75 171.5	6.75 171.5	2°
1590R1	1590R1BK	inch mm	7.55 192	4.38 111	2.24 57	6.92 176	3.76 95.4	2°

**Notes:** Assembled height = dimension "C" + .16" (4.0 mm). Wall & lid thickness is roughly .08" (2 mm) and varies with draft due to part being cast. Posts "X" exist on parts 1590D, 1590DD & 1590E. Posts "X" & "Y" exist on part 1590F. For detailed drawings, CAD files or color photos visit our website at: [www.hammondmg.com](http://www.hammondmg.com)

Diecast

# Natural & Painted Flanged Lid (1590 Series)

Diecast

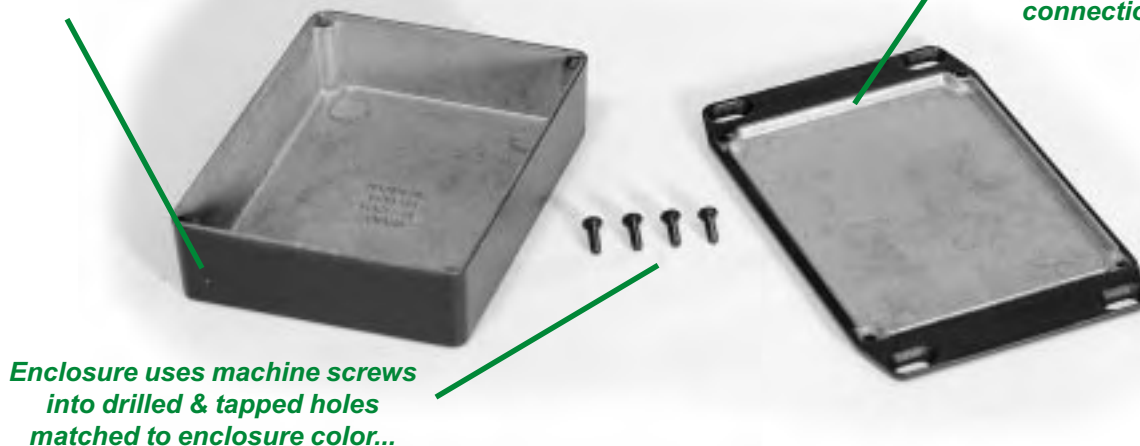


## KEY FEATURES

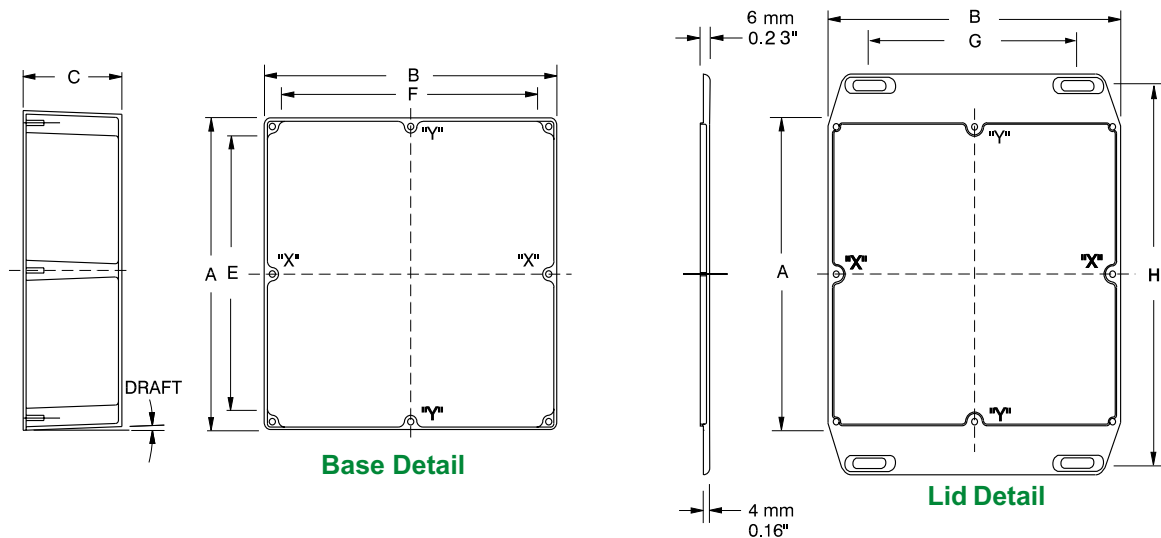
- Rugged, diecast aluminum alloy (tough yet easy to machine), electronic instrument enclosure.
- Lap joint construction provides protection against access of dust and splashing water. Also provides for improved EMI/RFI shielding.
- Flanged lid allows for easy mounting to walls or shelves.
- These enclosures share the same body and features as our regular type 1590 enclosure except the lid is extended and four countersunk holes are cast into the flanges.
- The flanged lid allows for added security as the lid screws are hidden against the wall or shelf.
- Painted version is painted with tough polyester powder paint for a lasting finish, even after machining.
- Four (or 6 in 1590D, 1590DD & 1590E, 8 in 1590F) 6-32 x 1/2" machine screws secure lid - into tapped holes.
- Designed to meet IP54.
- Replacement screws for natural finish series, nickel plated, 6-32 x 1/2" - **1590MS100** - Package of 100
- Replacement black chromate screws for black series, 6-32 x 1/2" - **1590MS50BK** - Package of 50

*Vibra finished for a smooth surface with no sharp edges, then painted with tough polyester powder paint...*

*Lap joint construction - lip masked to ensure good EMI/RFI connection to base...*



# Natural & Painted Flanged Lid (1590 Series)



Part Number		Units	Dimensions							Apx. Draft
Unpainted	Black		A	B	C (No Lid)	E	F	G	H	
1590LBFL	1590LBFLBK	inch mm	1.99 50.5	1.99 50.5	1.06 27	1.36 34.5	1.36 34.5	1.04 26	2.57 65	1°15'
1590AFL	1590AFLBK	inch mm	3.64 92.5	1.52 38.5	1.06 27	3.01 76.5	.89 22.5	.54 14	4.32 110	1°15'
1590GFL	1590GFLBK	inch mm	3.94 100	1.97 50	0.83 21	3.31 84	1.34 34	0.99 25.3	4.45 113	1°15'
1590SFL	1590SFLBK	inch mm	4.35 110.5	3.21 81.5	1.57 40	3.72 94.5	2.58 65.5	2.26 57	5.03 128	1°15'
1590BFL	1590BFLBK	inch mm	4.39 111.5	2.34 59.5	1.06 27	3.76 95.5	1.71 43.5	1.40 35.6	4.99 127	1°15'
1590BBFL	1590BBFLBK	inch mm	4.67 118.5	3.68 93.5	1.18 30	4.04 102.5	3.05 77.5	2.73 69	5.38 137	1°15'
1590UFL	1590UFLBK	inch mm	4.70 119.5	4.70 119.5	2.17 55	4.07 103.5	4.07 103.5	3.77 96	5.42 138	1°15'
1590VFL	1590VFLBK	inch mm	4.70 119.5	4.70 119.5	3.54 90	4.07 103.5	4.07 103.5	3.73 96	5.42 138	1°15'
1590CFL	1590CFLBK	inch mm	4.72 120	3.70 94	2.07 52.5	4.09 104	3.07 78	2.73 69	5.38 137	2°
1590QFL	1590QFLBK	inch mm	4.72 120	4.72 120	1.18 30	4.09 104	4.09 104	2.73 69	8.04 204	1°15'
1590TFL	1590TFLBK	inch mm	4.74 120.5	3.13 79.5	2.17 55	4.11 104.5	2.50 63.5	2.19 56	5.42 138	1°15'
1590N1FL	1590N1FLBK	inch mm	4.77 121.1	2.60 66	1.39 35.3	4.09 103.8	1.92 48.7	1.52 38.5	5.35 135.8	1°15'
1590P1FL	1590P1FLBK	inch mm	6.01 153	3.24 82	1.81 46	5.38 137	2.48 63	2.20 56	6.62 168	2°
1590DDFL	1590DDFLBK	inch mm	7.38 187.5	4.70 119.5	1.30 33	6.77 172	4.07 103.5	3.73 95	8.08 205	1°15'
1590DFL	1590DFLBK	inch mm	7.38 187.5	4.70 119.5	2.05 52	6.75 171.5	4.07 103.5	3.73 96	8.08 205	2°
1590EFL	1590EFLBK	inch mm	7.38 187.5	4.70 119.5	3.07 78	6.75 171.5	4.07 103.5	3.73 96	8.08 205	2°
1590FFL	1590FFLBK	inch mm	7.38 187.5	7.38 187.5	2.48 63	6.75 171.5	6.75 171.5	6.43 163	8.08 205	2°
1590R1FL	1590R1FLBK	inch mm	7.55 192	4.38 111	2.24 57	6.92 176	3.76 95.4	3.13 79.4	8.05 204	2°

**Notes:** Assembled height = dimension "C" + .16" (4.0 mm). Wall & lid thickness is roughly .08" (2 mm) and varies with draft due to part being cast. Posts "X" exist on parts 1590D, 1590DD & 1590E. Posts "X" & "Y" exist on part 1590F. For detailed drawings, CAD files or color photos visit our website at: [www.hammondmfg.com](http://www.hammondmfg.com)

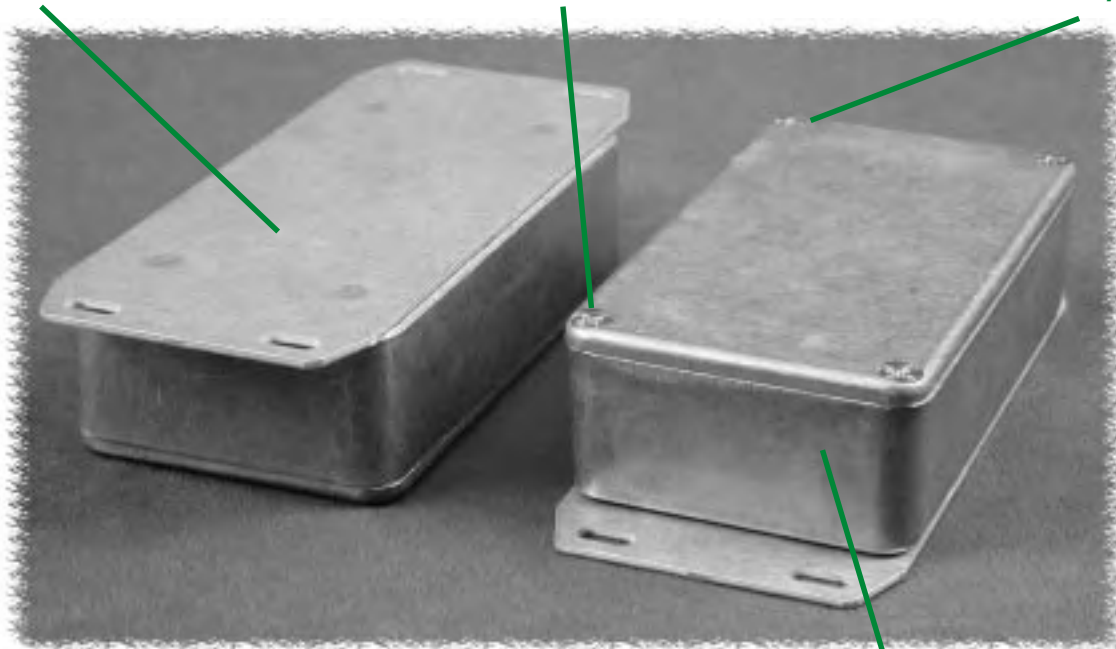
Diecast

# Natural & Painted With Flange (1590 Series)

*Bottom flange is an aluminum plate, welded onto the base of the enclosure...*

*Lid screws are exposed for easy enclosure access...*

*Countersunk lid with machine screws into drilled and tapped holes...*



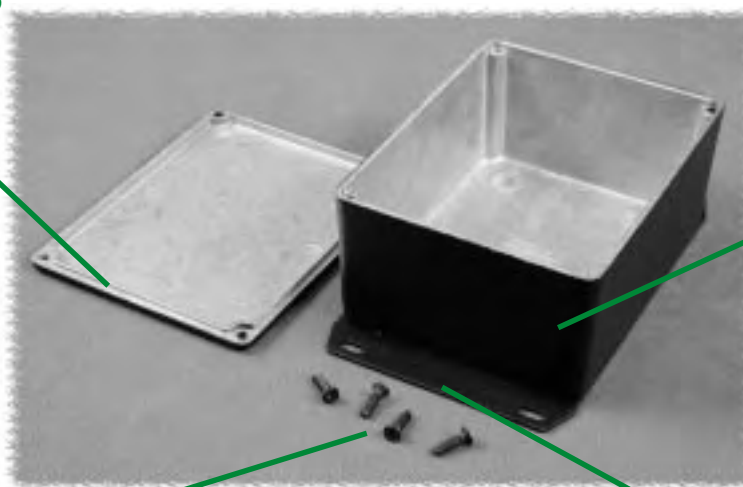
Diecast

*Vibra finished for a smooth surface with no sharp edges...*

## OTHER KEY FEATURES

- Rugged, diecast aluminum alloy (tough yet easy to machine), electronic instrument enclosure.
- Lap joint construction provides protection against access of dust and splashing water. Also provides for improved EMI/RFI shielding.
- Painted version (shown below) is painted with tough polyester powder paint for a lasting finish, even after machining.
- Four (or 6 in 1590D, 1590DD & 1590E, 8 in 1590F) 6-32 x 1/2" machine screws secure lid - into tapped holes.
- Designed to meet IP54
- Replacement screws for natural finish series, nickel plated, 6-32 x 1/2" - **1590MS100** - Package of 100
- Replacement black chromate screws for black series, 6-32 x 1/2" - **1590MS50BK** - Package of 50

*Lap joint construction - lip masked to ensure good EMI/RFI connection to base...*

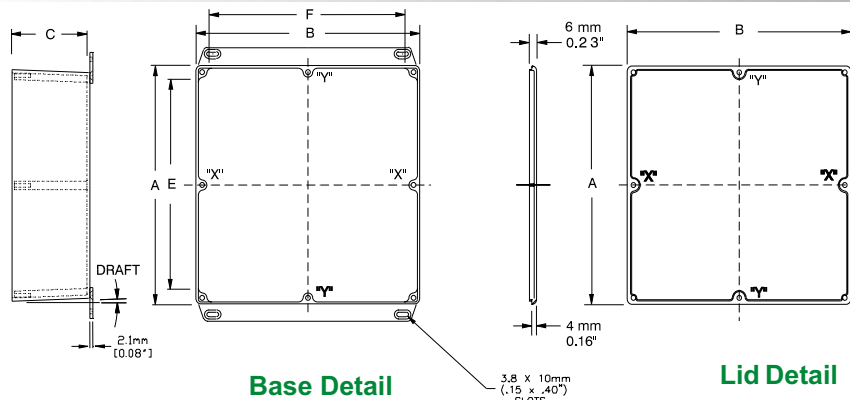


*Vibra finished for a smooth surface with no sharp edges, then painted with tough polyester powder paint...*

*Enclosure uses machine screws into drilled & tapped holes matched to enclosure color...*

*Bottom flange is an aluminum plate, welded onto the base of the enclosure...*

# Natural & Painted With Flange (1590 Series)



Base Detail

Lid Detail

Part Number		Units	Dimensions					Apx. Draft
Unpainted	Black		A	B	C (No Lid)	E	F	
1590LLBF	1590LLFBK	inch mm	1.97 50	1.97 50	0.83 21	1.22 31	1.22 31	1°15'
1590LBF	1590LBFBK	inch mm	1.99 50.5	1.99 50.5	1.06 27	1.36 34.5	1.36 34.5	1°15'
1590HF	1590HFBK	inch mm	2.07 52.5	1.50 38	1.06 27	1.41 35.9	.86 21.8	1°15'
1590YF	1590YFBK	inch mm	3.62 92	3.62 92	1.50 38	2.70 69	2.70 69	1°15'
1590AF	1590AFBK	inch mm	3.64 92.5	1.52 38.5	1.06 27	3.01 76.5	.89 22.5	1°15'
1590GF	1590GFBK	inch mm	3.94 100	1.97 50	0.83 21	3.31 84	1.34 34	1°15'
1590SF	1590SFBK	inch mm	4.35 110.5	3.21 81.5	1.57 40	3.72 94.5	2.58 65.5	1°15'
1590BF	1590BFBK	inch mm	4.39 111.5	2.34 59.5	1.06 27	3.76 95.5	1.71 43.5	1°15'
1590BBF	1590BBFBK	inch mm	4.67 118.5	3.68 93.5	1.18 30	4.04 102.5	3.05 77.5	1°15'
1590UF	1590UFBK	inch mm	4.70 119.5	4.70 119.5	2.17 55	4.07 103.5	4.07 103.5	1°15'
1590VF	1590VFBK	inch mm	4.70 119.5	4.70 119.5	3.54 90	4.07 103.5	4.07 103.5	1°15'
1590CF	1590CFBK	inch mm	4.72 120	3.70 94	2.07 52.5	4.09 104	3.07 78	2°
1590QF	1590QFBK	inch mm	4.72 120	4.72 120	1.18 30	4.09 104	4.09 104	1°15'
1590TF	1590TFBK	inch mm	4.74 120.5	3.13 79.5	2.17 55	4.11 104.5	2.50 63.5	1°15'
1590N1F	1590N1FBK	inch mm	4.77 121.1	2.60 66	1.39 35.3	4.09 103.8	1.92 48.7	1°15'
1590KKF	1590KKFBK	inch mm	4.92 125	4.92 125	2.10 53	4.13 105	4.13 105	1°15'
1590KF	1590KFBK	inch mm	4.92 125	4.92 125	2.95 75	4.27 108.5	4.27 108.5	1°15'
1590JF	1590JFBK	inch mm	5.71 145	3.74 95	1.77 45	5.06 128.5	3.09 78.5	2°
1590P1F	1590P1FBK	inch mm	6.01 153	3.24 82	1.81 46	5.38 137	2.48 63	2°
1590DDF	1590DDFBK	inch mm	7.38 187.5	4.70 119.5	1.30 33	6.77 172	4.07 103.5	1°15'
1590DF	1590DFBK	inch mm	7.38 187.5	4.70 119.5	2.05 52	6.75 171.5	4.07 103.5	2°
1590EF	1590EFBK	inch mm	7.38 187.5	4.70 119.5	3.07 78	6.75 171.5	4.07 103.5	2°
1590FF	1590FFBK	inch mm	7.38 187.5	7.38 187.5	2.48 63	6.75 171.5	6.75 171.5	2°
1590R1F	1590R1FBK	inch mm	7.55 192	4.38 111	2.24 57	6.92 176	3.76 95.4	2°

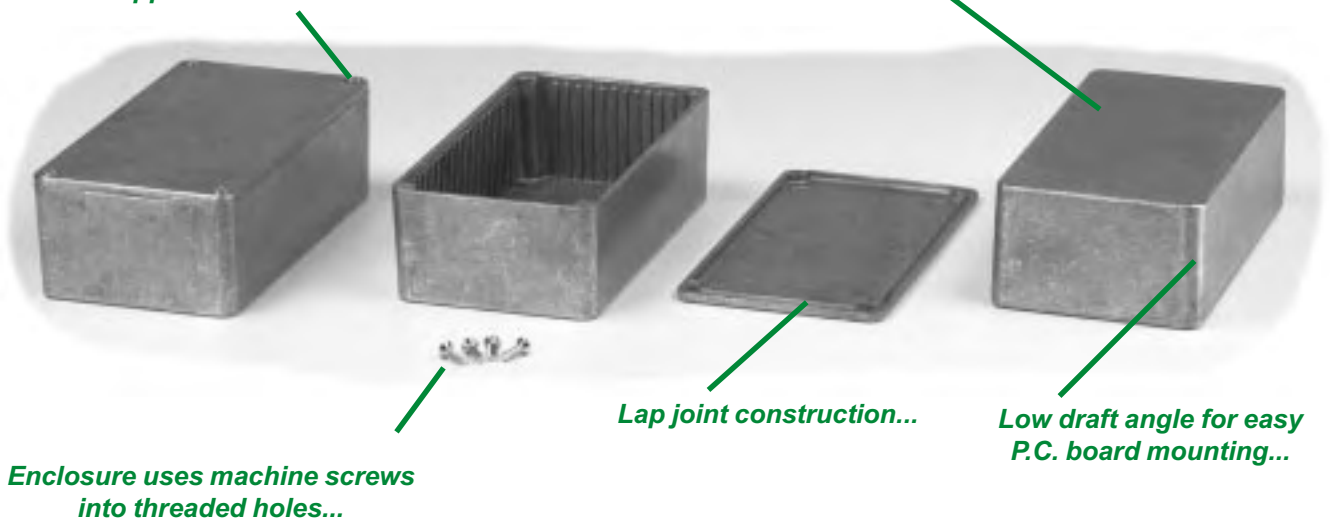
**Notes:** Assembled height = dimension "C" + .16" (4.0 mm). Wall & lid thickness is roughly .08" (2 mm) and varies with draft due to part being cast. Posts "X" exist on parts 1590D, 1590DD & 1590E. Posts "X" & "Y" exist on part 1590F. For detailed drawings, CAD files or color photos visit our website at [www.hammondmg.com](http://www.hammondmg.com)

Diecast

# P.C. Card Guide (1590 Series)

Countersunk lid with machine screws into drilled and tapped holes...

Vibra finished for a smooth surface with no sharp edges...



Enclosure uses machine screws into threaded holes...

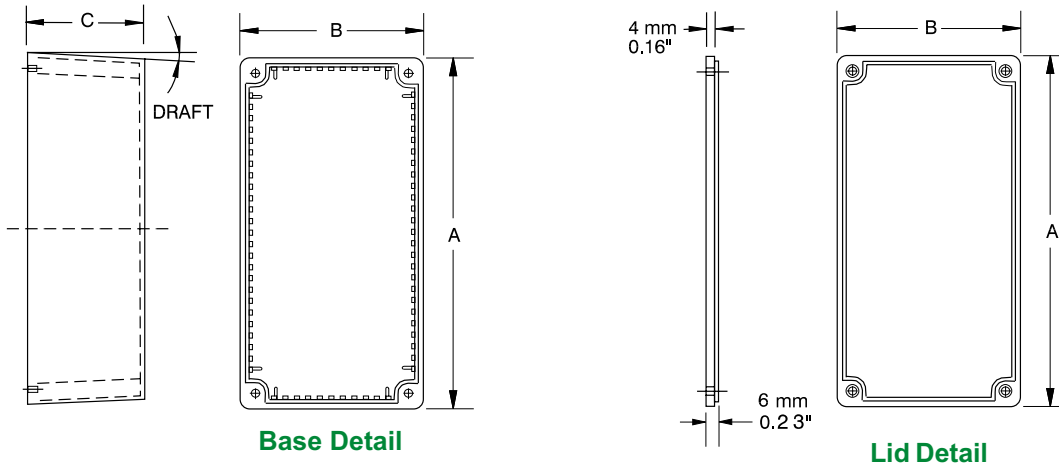
Lap joint construction...

Low draft angle for easy P.C. board mounting...

Diecast

## OTHER KEY FEATURES

- Rugged, diecast aluminum alloy (tough yet easy to machine), electronic instrument enclosure.
- Lap joint construction provides protection against access of dust and splashing water. Also provides for improved EMI/RFI shielding.
- Painted version is painted with tough powder paint for a lasting finish, even after machining.
- Designed to meet IP54.
- Integral card guides cast in, accept 1.5 mm (0.062") P.C. cards.



- Notes:**
- Assembled height = dimension "C" + .16" (4.0 mm)
  - Wall & lid thickness is roughly .08" (2 mm) and varies with draft due to part being cast.
  - For detailed drawings, CAD files or color photos visit our website at: [www.hammondmfg.com](http://www.hammondmfg.com)

## ACCESSORIES



### P.C. Board Card Adaptors

Allows horizontal mounting of P.C. board(s). See "Accessories Section" for full details!

**1591Z6** - Package of 6

**1591Z50** - Package of 50

**1591Z100** - Package of 100



### Replacement Screws

See Parts Table (next page)

# P.C. Card Guide (1590 Series)

## Flanged Version

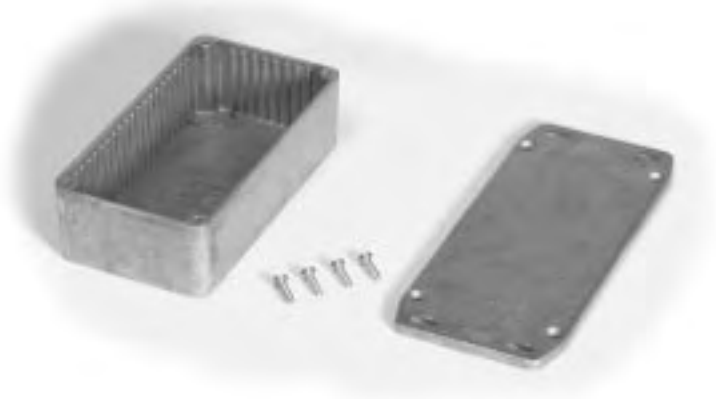


### KEY FEATURES

- Same as previous page.
- Factory installed flanges.
- Lid screws are exposed for easy enclosure access.
- Designed to meet IP54.

Diecast

## Flanged Lid Version



### KEY FEATURES

- Same as previous page.
- Lid screws are hidden against wall or shelf for extra security.
- Designed to meet IP54.

Part Number				Units	Dimensions			Apx. Draft	Screw Thread	Part Number
Unpainted	Black	Flanged (Unpainted)	Flanged Lid (Unpainted)		A	B	C (No Lid)			Replacement Screws (Pkg. 100)
1590L	1590LBK	1590LF	-	inch mm	3.96 101	1.98 50	.83 21	2°	M3-0.5x10mm	1591MS100
1590M	1590MBK	1590MF	-	inch mm	4.48 114	2.49 63	1.06 27	2°	M3-0.5x10mm	1591MS100
1590N	1590NBK	1590NF	1590NFL	inch mm	4.75 121	2.61 66	1.42 36	2°	6-32x1/2"	1590MS100
1590P	1590PBK	1590PF	1590PFL	inch mm	6.01 153	3.24 82	1.81 46	2°	6-32x1/2"	1590MS100
1590R	1590RBK	1590RF	-	inch mm	7.55 192	4.38 111	2.24 57	2°	6-32x1/2"	1590MS100

**Notes:** Assembled height = dimension "C" + .16" (4.0 mm). Wall & lid thickness is roughly .08" (2 mm) and varies with draft due to part being cast. For detailed drawings, CAD files or color photos visit our website at: [www.hammondmfg.com](http://www.hammondmfg.com)

# P.C. Card Guide (1590 Series)

## Watertight Version



### KEY FEATURES

- Same as previous page.
- Bead of silicone rubber around lid perimeter.
- Designed to meet IP65.
- Painted version uses tough powder paint on exterior only.

Part Number		Units	Dimensions			Apx. Draft
Unpainted	Black		A	B	C (No Lid)	
1590WN	1590WNBK	inch mm	4.75 121	2.61 66	1.42 36	2°
1590WP	1590WPBK	inch mm	6.01 153	3.24 82	1.81 46	2°

Diecast

## Watertight Flanged Lid Version



### KEY FEATURES

- Same as previous page.
- Lid screws are hidden against wall or shelf for extra security.
- Bead of silicone rubber around lid perimeter.
- Designed to meet IP65.
- Painted version uses tough powder paint on exterior only.

Part Number		Units	Dimensions			Apx. Draft
Unpainted	Black		A	B	C (No Lid)	
1590WNFL	1590WNFLBK	inch mm	4.75 121	2.61 66	1.42 36	2°
1590WPFL	1590WPFLBK	inch mm	6.01 153	3.24 82	1.81 46	2°

## Watertight Flanged Version

### KEY FEATURES



- Same as previous page.
- Bead of silicone rubber around lid perimeter.
- Designed to meet IP65.
- Painted version uses tough powder paint on exterior only.

Part Number		Units	Dimensions			Apx. Draft
Unpainted	Black		A	B	C (No Lid)	
1590WNF	1590WNFBK	inch mm	4.75 121	2.61 66	1.42 36	2°
1590WPF	1590WPFBK	inch mm	6.01 153	3.24 82	1.81 46	2°

# Accessories (1590 Series)

## Replacement Screws



As used in the natural finish 1590 diecast series (except 1590L, 1590LBK, 1590LGY, 1590M, 1590MBK, 1590MGY use 1591MS100 below)

Machine screw, nickel plated. 6-32 x 1/2"

**1590MS100** - Package of 100



As used in the 1590 diecast series 1590L, 1590LBK, 1590LGY, 1590M, 1590MBK, 1590MGY only.

Machine screw, nickel plated. M3 - 0.5 x 10 mm

**1591MS100** - Package of 100



Machine screw, black oxide finish, as used in the black 1590 diecast series.

6-32 x 1/2"

**1590MS50BK** - Package of 50



Stainless steel, machine screw as used in the watertight 1590 diecast series.

6-32 x 1/2"

**1590WMS100** - Package of 100



Black stainless steel (not painted, black oxide finished), machine screw as used in the black watertight 1590 diecast series.

6-32 x 1/2"

**1590WMS100BK** - Package of 100

Diecast