

HLS®7 Series
Multipoint Hardware System



HLS®7 Series Multipoint Hardware System....

the next generation of Multipoint Locking Systems from
HOPPE North America, Inc.

- Stainless Steel and other non-corrosive components.
- Anti-Back Drive prevents locking points from disengaging from the outside for added security.
- Latch Blocker on inactive systems will not allow multipoint activation until inactive system is activated.
- Lock Out Feature on interior system allows for multipoint activation from the exterior of the door by lifting handle.
- Backsets of 45mm (1.77), 60mm (2.375) 70mm (2.75) available.
- Available with HOPPE Athinai, München, New Orleans, Ródos, Toronto and Verona handles.
- Backplate and cylinder housing are forged into one piece for improved appearance and easier installation.
- HOPPE's proprietary Quick-Fit® Connection handle mounting system allows for the handle to be pushed onto the spindle eliminating set screws for easy installation.
- US style cylinder lock located above the handle.
- Simultaneous retraction feature enables all locking points to be retracted by pushing down on the handle.
- Locked or unlocked status of the door can easily be seen from a distance due to 90 degree cylinder operation.

Systems:

- Active Shootbolt
- Active Tongue
- Active Swinghook
- Active Shootbolt / Swinghook
- Active Shootbolt / Tongue
- Inactive Shootbolt
- Inactive Rod Lock



Locked Position

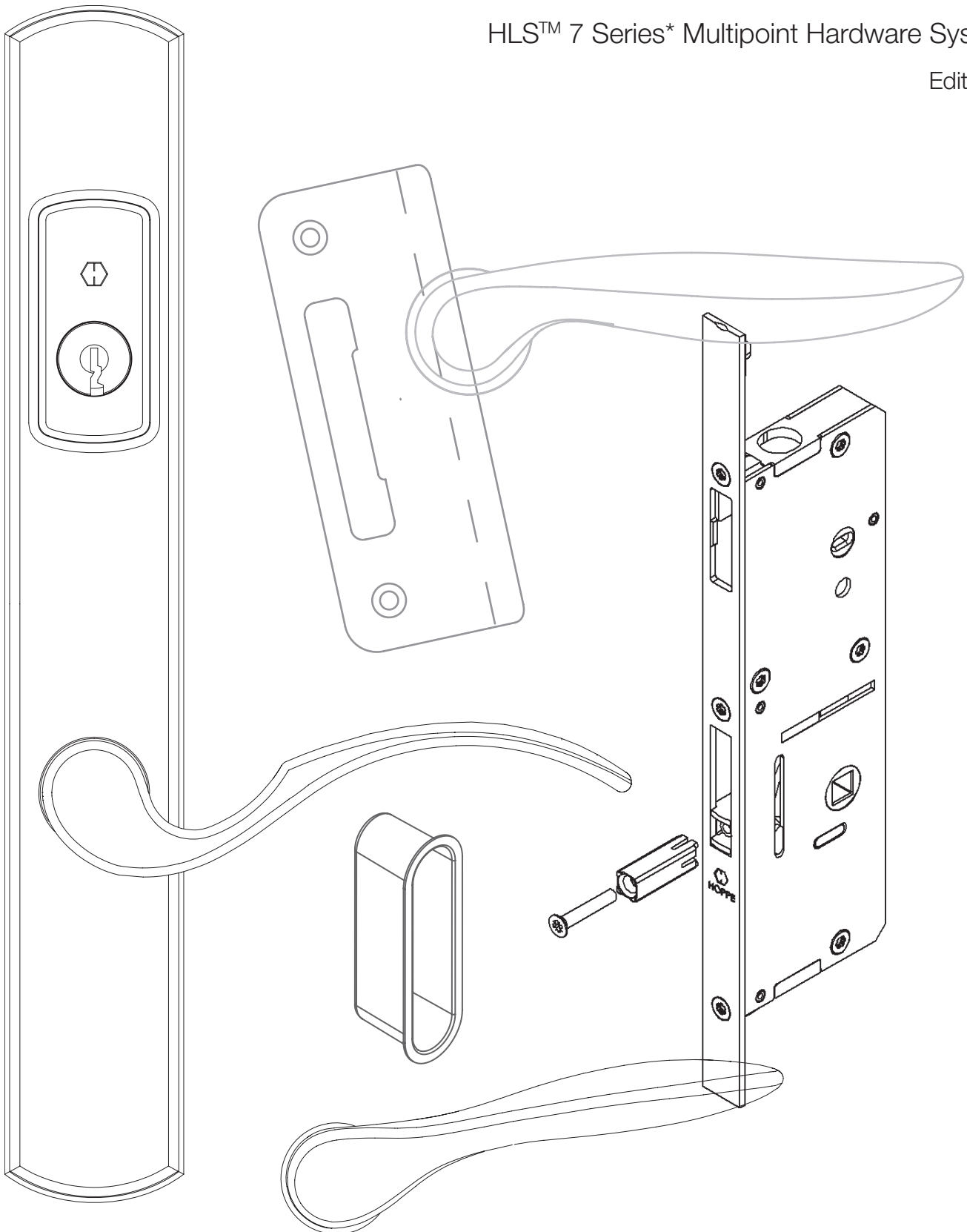


Unlocked Position



HLS™ 7 Series* Multipoint Hardware System

Edition 2



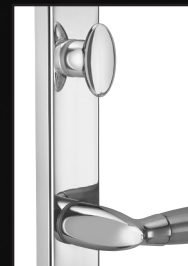
HLS™ 7 Series* Multipoint Hardware System....

the next generation of Multipoint Locking Systems from
HOPPE North America, Inc.

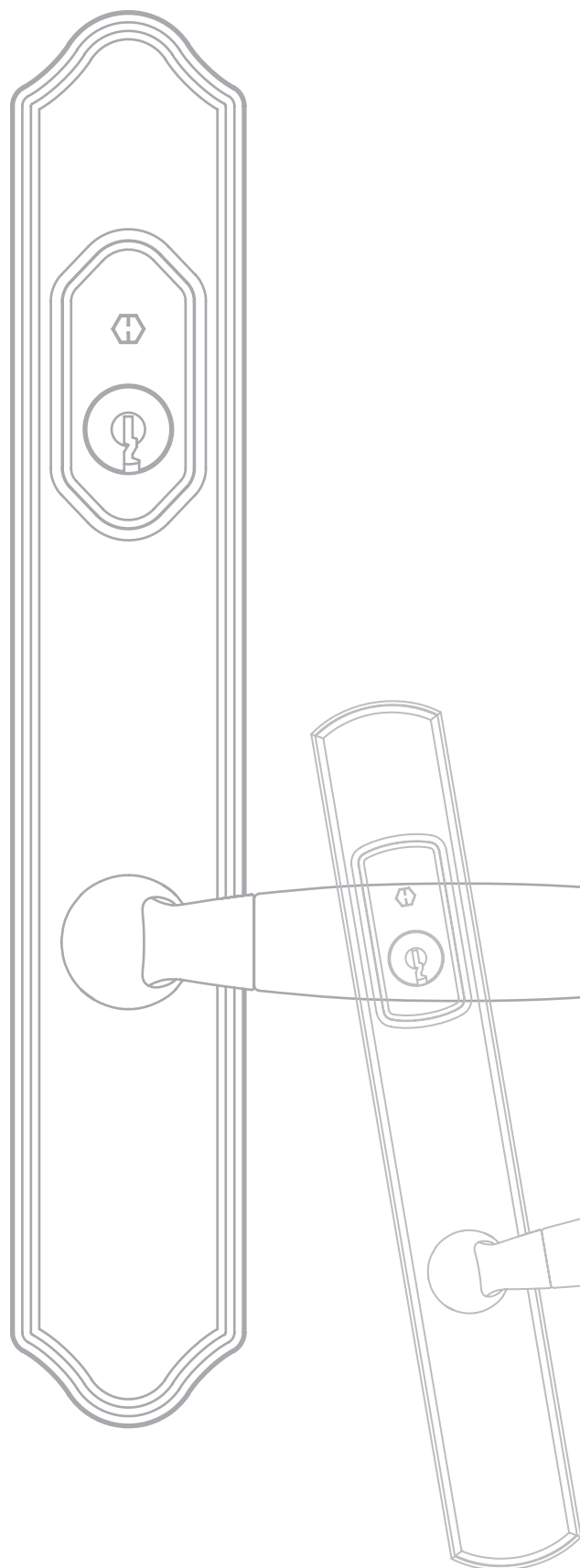
- Stainless Steel and other non-corrosive components.
- Anti-Back Drive prevents locking points from disengaging from the outside for added security.
- Latch Blocker on inactive systems will not allow multipoint activation until inactive system is activated.
- Lock Out Feature on interior system allows for multipoint activation from the exterior of the door by lifting handle.
- Backset of 45mm (1.77) available.
- Available in the active systems of Shootbolt, Tongue, Swinghook, Swinghook/Shootbolt, Tongue/Shootbolt and the inactive systems of Shootbolt and Rod Lock.
- Available in all current HOPPE Brass handle series and finishes with two new backplate styles.
- Backplate and cylinder housing are forged into one piece for improved appearance and easier installation.
- HOPPE's proprietary Quick-Fit Connection™* handle mounting system allows for the handle to be pushed onto the spindle eliminating set screws for easy installation.
- US style cylinder lock located above the handle.
- Simultaneous retraction feature enables all locking points to be retracted by pushing down on the inside handle.
- Locked or unlocked status of the door can easily be seen from a distance due to 90 degree cylinder operation.



Locked Position



Unlocked Position



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Door Information

Gear Version References

An **active gear** is the primary functioning gear in a door. The active gear must be disengaged first to unlock the door or engaged last in a pair of French doors for locking.

An **inactive gear** is the secondary functioning gear in a pair of French doors and can only be opened after the “active gear” or primary gear has been activated. The inactive gear makes the secondary door handle operable.

RH is the standard abbreviation for right handed. HLS™ 7 Series* gears are orientated for left or right doors. See handing chart below.

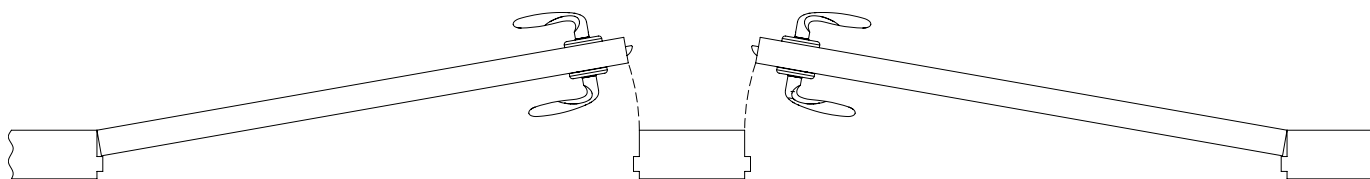
LH is the standard abbreviation for left handed. HLS™ 7 Series* gears are orientated for left or right doors. See handing chart below.

Standard backset of 45mm featured in this catalog.
For deeper backsets, contact Customer Service at 888-485-4885.

All information is for reference only and subject to change without notice.

* Patent Pending

Handing



Exterior

Door handing is always determined from the exterior. When hinges are on the left, the door is LH; when hinges are on the right, door is RH. Inswing or outswing does not determine handing.

Technical drawing of a stepped shaft with the following dimensions and tolerances:

- Overall length: $16.2^{+0.2}_{-0.1}$
- Step 1 (left): $.11^{+.008}_{-.004}$ (width), $2.7^{+0.2}_{-0.1}$ (height)
- Step 2 (middle): $.480^{+.008}_{-.004}$ (width), $12.2^{+0.2}_{-0.1}$ (height)
- Step 3 (right): $.32 \pm .004$ (width), 8.1 ± 0.1 (height)
- Overall diameter: $.366^{+.008}_{-.004}$ (width), $9.3^{+0.2}_{-0.1}$ (height)

Generic Profile Shown

Technical drawing of a mechanical part with dimensions and tolerances:

- Overall width: $146 \pm .008$
- Overall height: 3.7 ± 0.2
- Top surface width: $.638 \begin{smallmatrix} +.008 \\ -.004 \end{smallmatrix}$
- Top surface height: $16.2 \begin{smallmatrix} +0.2 \\ -0.1 \end{smallmatrix}$
- Inner width: $.480 \pm .004$
- Inner height: 12.2 ± 0.1
- Left side width: $.319 \pm .004$
- Left side height: 8.1 ± 0.1
- Right side width: $.106 \begin{smallmatrix} +.008 \\ -.004 \end{smallmatrix}$
- Right side height: $2.7 \begin{smallmatrix} +0.2 \\ -0.1 \end{smallmatrix}$
- Bottom surface width: $.366 \begin{smallmatrix} +.008 \\ -.004 \end{smallmatrix}$
- Bottom surface height: $9.3 \begin{smallmatrix} +0.2 \\ -0.1 \end{smallmatrix}$

Generic Profile Shown

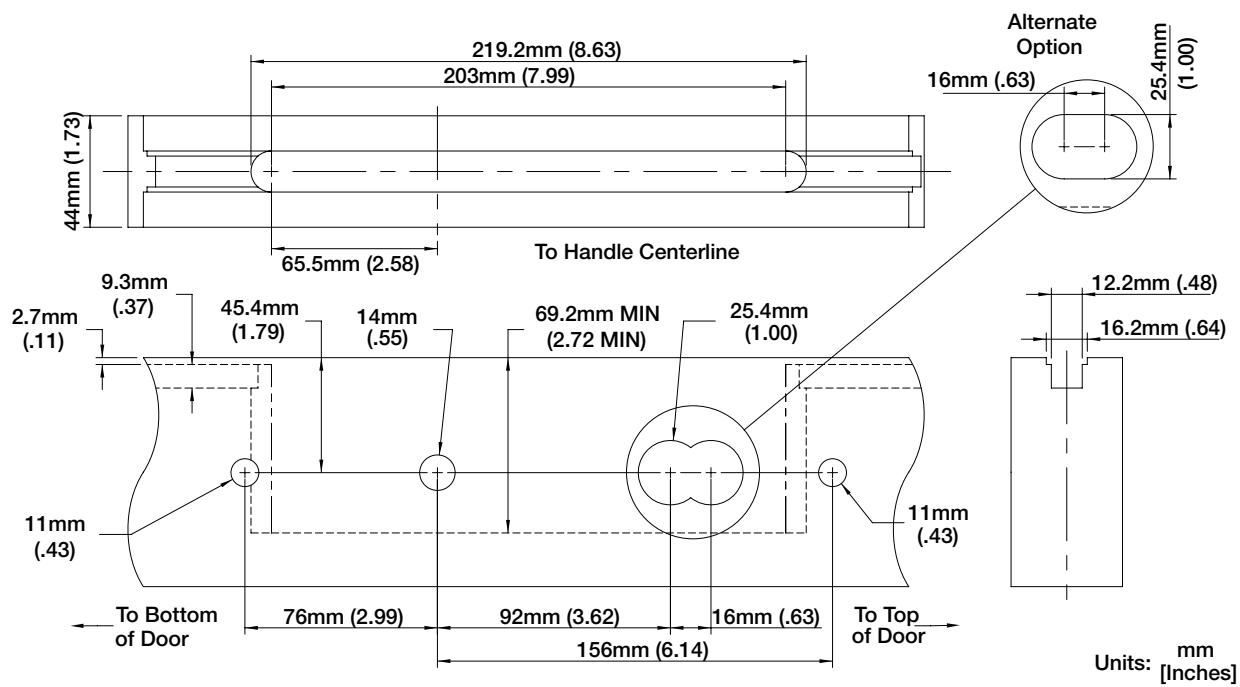
Technical drawing of a mechanical part with dimensions in inches and tolerances in brackets. The drawing shows a cross-section of a part with a central vertical hole and two horizontal flanges. The dimensions are as follows:

- Top flange thickness: $.64 \begin{matrix} +.008 \\ -.004 \end{matrix}$
- Top flange width: $16.20 \begin{matrix} +.02 \\ -.01 \end{matrix}$
- Top flange hole diameter: $.5 \pm .004$
- Top flange hole position from left edge: 12.2 ± 0.1
- Top flange hole position from right edge: $2.7 \begin{matrix} +.02 \\ -.01 \end{matrix}$
- Top flange hole diameter: $.106 \begin{matrix} +.008 \\ -.004 \end{matrix}$
- Top flange hole position from left edge: 8.10 ± 0.1
- Top flange hole position from right edge: $2.7 \begin{matrix} +.02 \\ -.01 \end{matrix}$
- Top flange hole diameter: $.366 \begin{matrix} +.008 \\ -.004 \end{matrix}$
- Top flange hole position from left edge: $9.3 \begin{matrix} +.02 \\ -.01 \end{matrix}$
- Top flange hole position from right edge: $2.7 \begin{matrix} +.02 \\ -.01 \end{matrix}$
- Top flange hole diameter: $.146 \pm .008$
- Top flange hole position from left edge: 3.7 ± 0.2
- Top flange hole position from right edge: $2.7 \begin{matrix} +.02 \\ -.01 \end{matrix}$

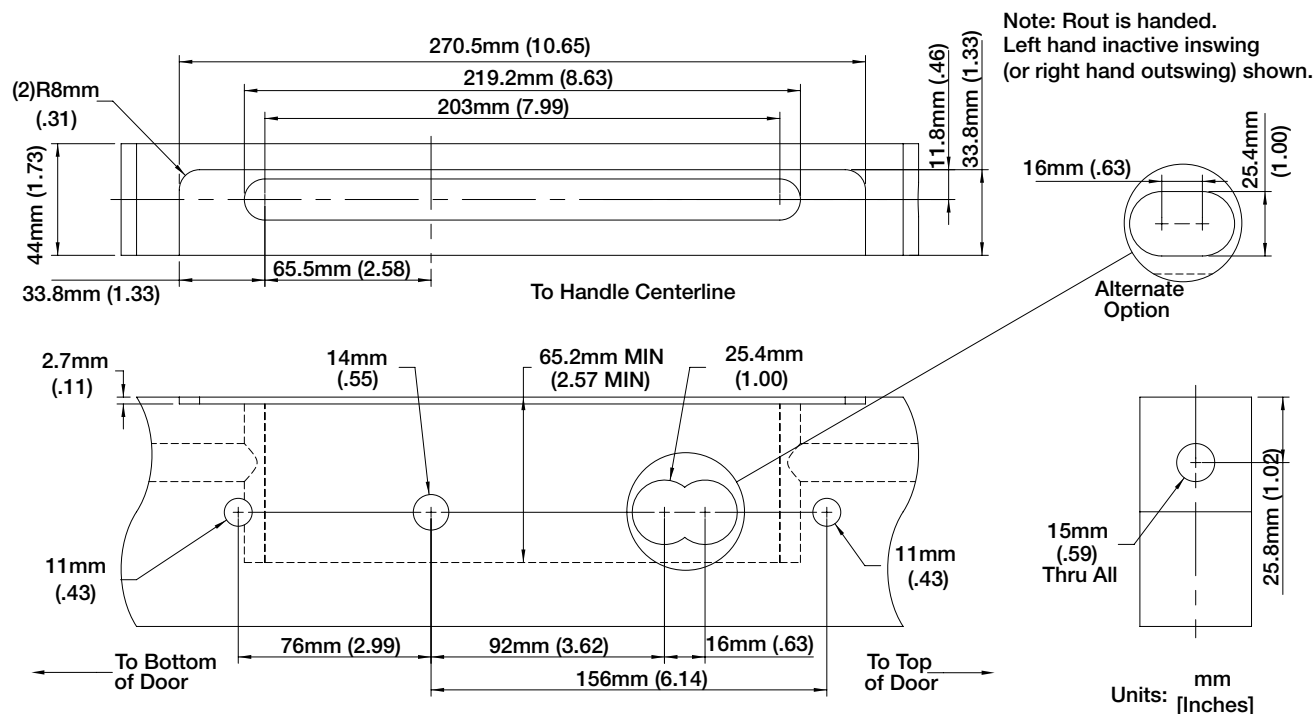
5

16mm Eurogroove Profiles

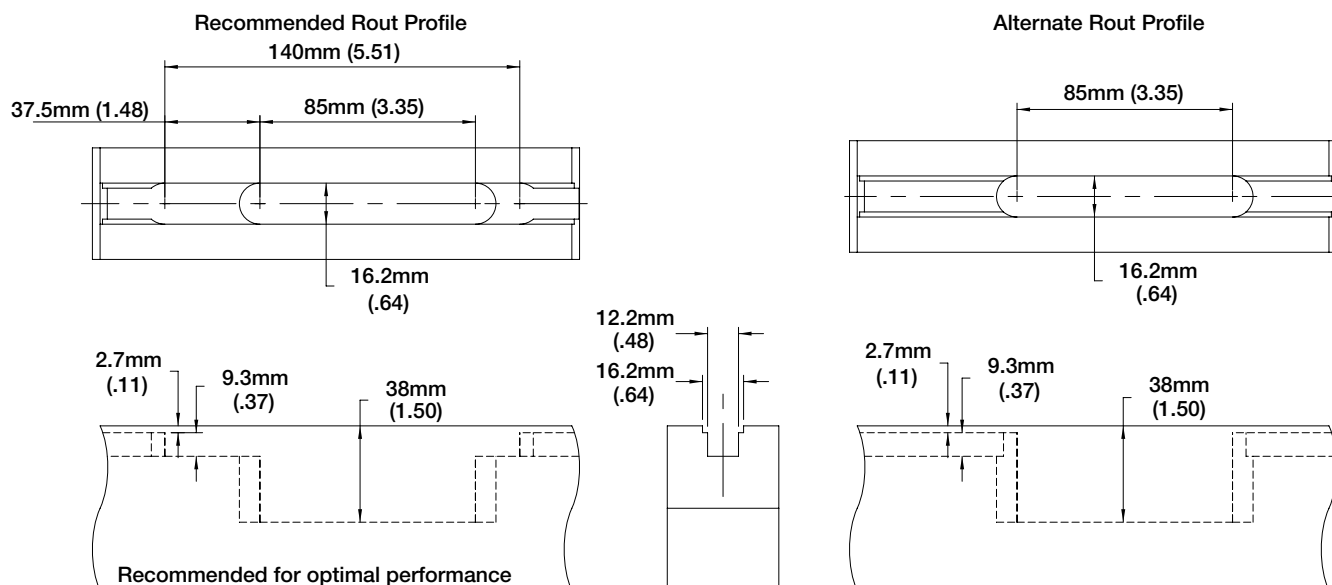
Active & Inactive Gears



Inactive Rod Lock



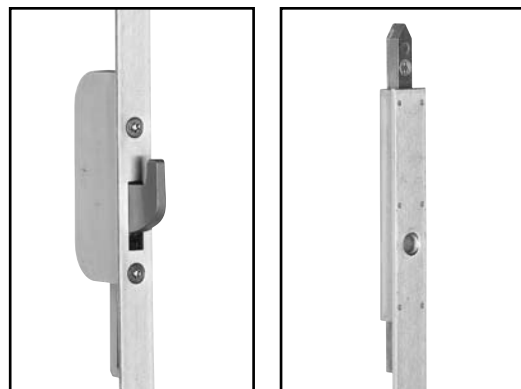
Active Swinghook



Active Swinghook / Shootbolt - 16mm Faceplate 25mm Shootbolt Throw

Active Swinghook / Shootbolt Version

The Active Swinghook / Shootbolt version offers the highest level of security through the swinghooks which extend the reach into the door frame for added protection against extreme weather conditions. The Shootbolts engage into both the head and sill of the door frame for added confidence and security. The Active Swinghook / Shootbolt version offers the maximum strength both horizontally and vertically.



For 6' 8" Door Panel Size with 914mm (36") Handle Height

Top Extension

Part Number	Description	Overall Length	Extension Length	Maximum Cutoff	Number of Screws
2666359	M 558.8 SB 16S 25 101.6	1930.4mm - 2032mm (76.00 - 80.00)	558.8mm (22.00)	101.6mm (4.00)	3

Middle Extension

Part Number	Description	Extension Length	Top Swinghook Position	Maximum Cutoff	Number of Screws
2667343	M 417.2 SW 400 16S	417.2mm (16.43)	400mm (15.75)	N/A	2

Complete system requires a gear, top extension and middle extension. See next page for gear part numbers.
Part number for gear depends on LH or RH orientation.

For 6' 10" Door Panel Size with 914mm (36") Handle Height

Top Extension

Part Number	Description	Overall Length	Extension Length	Maximum Cutoff	Number of Screws
2665583	M 457.2 SB 16S 25 101.6	2032mm - 2133.6mm (80.00 - 84.00)	457.2mm (18.00)	101.6mm (4.00)	3

Middle Extension

Part Number	Description	Extension Length	Top Swinghook Position	Maximum Cutoff	Number of Screws
2667360	M 620.4 SW 600 16S	620.4mm (24.43)	600mm (23.62)	N/A	3

Complete system requires a gear, top extension and middle extension. See next page for gear part numbers.
Part number for gear depends on LH or RH orientation.

For 7' 0" Door Panel Size with 914mm (36") Handle Height

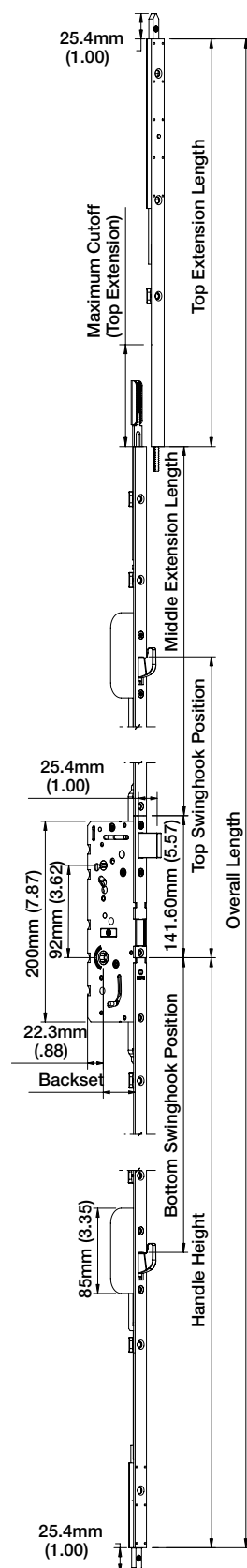
Top Extension

Part Number	Description	Overall Length	Extension Length	Maximum Cutoff	Number of Screws
2665583	M 457.2 SB 16S 25 101.6	2032mm - 2133.6mm (80.00 - 84.00)	457.2mm (18.00)	101.6mm (4.00)	3

Middle Extension

Part Number	Description	Extension Length	Top Swinghook Position	Maximum Cutoff	Number of Screws
2667360	M 620.4 SW 600 16S	620.4mm (24.43)	600mm (23.62)	N/A	3

Complete system requires a gear, top extension and middle extension. See next page for gear part numbers.
Part number for gear depends on LH or RH orientation.



Active Swinghook / Shootbolt - 16mm Faceplate 25mm Shootbolt Throw

For 8' 0" Door Panel Size with 914mm (36") Handle Height

Top Extension

Part Number	Description	Overall Length	Extension Length	Maximum Cutoff	Number of Screws
2666359	M 558.8 SB 16S 25 101.6	2336.8mm - 2438.4mm (92.00 - 96.00)	558.8mm (22.00)	101.6mm (4.00)	3

Middle Extension

Part Number	Description	Extension Length	Top Swinghook Position	Maximum Cutoff	Number of Screws
2667378	M 823.6 SW 743 16S	823.6mm (32.43)	743mm (29.25)	N/A	4

Complete system requires a gear, top extension and middle extension. See chart below for gear part numbers.
Part number for gear depends on LH or RH orientation.

For 9' 0" Door Panel Size with 914mm (36") Handle Height

Top Extension

Part Number	Description	Overall Length	Extension Length	Maximum Cutoff	Number of Screws
2666367	M 660.4 SB 16S 25 101.6	2641.6mm - 2743.2mm (104.00 - 108.00)	660.4mm (26.00)	101.6mm (4.00)	4

Middle Extension

Part Number	Description	Extension Length	Top Swinghook Position	Maximum Cutoff	Number of Screws
2671220	M/1026.8/SB	2641.6mm - 2743.2mm (104.00 - 108.00)	1026.8mm (40.43)	101.6mm (4.00)	4

Complete system requires a gear, top extension and middle extension. See chart below for gear part numbers.
Part number for gear depends on LH or RH orientation.

For 10' 0" Door Panel Size with 914mm (36") Handle Height

Top Extension

Part Number	Description	Overall Length	Extension Length	Maximum Cutoff	Number of Screws
2666367	M 660.4 SB 16S 25 101.6	2946.4mm - 3048mm (116.00 - 120.00)	660.4mm (26.00)	101.6mm (4.00)	4

Middle Extension

Part Number	Description	Extension Length	Top Swinghook Position	Maximum Cutoff	Number of Screws
2667319	M 1331.6 SW 945 16S	1331.6mm (52.43)	945mm (37.20)	N/A	6

Complete system requires a gear, top extension and middle extension. See chart below for gear part numbers.
Part number for gear depends on LH or RH orientation.

Gear

Part Number	Description	Orientation	Backset	Deadbolt Throw	Handle Height	Bottom Locking Position	Maximum Cutoff	Number of Screws
2666498	M/45/25 914 LI SWS 620 16S 25	LH	45mm (1.77)	25.4mm (1.00)	914mm (36.00)	620mm (24.41)	N/A	5
2716627	M/45/25 914 RE SWS 620 16S 25	RH	45mm (1.77)	25.4mm (1.00)	914mm (36.00)	620mm (24.41)	N/A	5

Active Swinghook Version - 16mm Faceplate

Active Swinghook Version

The Active Swinghook version offers the highest level of security through the swinghooks which extends the reach into the door frame farther than the Active Tongue version. The Active Swinghook pulls the door into the frame for added protection against extreme weather conditions.



Top Extension

For 6' 8" Door Panel Size with 914mm (36") Handle Height

Part Number	Description	Overall Length	Extension Length	Top Swinghook Position	Maximum Cutoff	Number of Screws
2663027	M 976 SW 600 16S 410	1622mm - 2032mm (63.86 - 80.00)	976mm (38.43)	600mm (23.62)	410mm (16.14)	3

For 6' 10" & 7' 0" Door Panel Size with 914mm (36") Handle Height

Part Number	Description	Overall Length	Extension Length	Top Swinghook Position	Maximum Cutoff	Number of Screws
2663035	M 1077.6 SW 743 16S 370	1763.6mm - 2133.6mm (69.43 - 84.00)	1077.6mm (42.43)	743mm (29.25)	370mm (14.57)	4

For 8' 0" Door Panel Size with 914mm (36") Handle Height

Part Number	Description	Overall Length	Extension Length	Top Swinghook Position	Maximum Cutoff	Number of Screws
2663043	M 1382.4 SW 945 16S 475	1963.4mm - 2438.4mm (77.30 - 96.00)	1382.4mm (54.43)	945mm (37.20)	475mm (18.70)	5

For 9' 0" Door Panel Size with 914mm (36") Handle Height

Part Number	Description	Overall Length	Extension Length	Top Swinghook Position	Maximum Cutoff	Number of Screws
2663051	M 1687.2 SW 1193 16S 530	2213.2mm - 2743.2mm (87.13 - 108.00)	1687.2mm (66.43)	1193mm (46.97)	530mm (20.87)	6

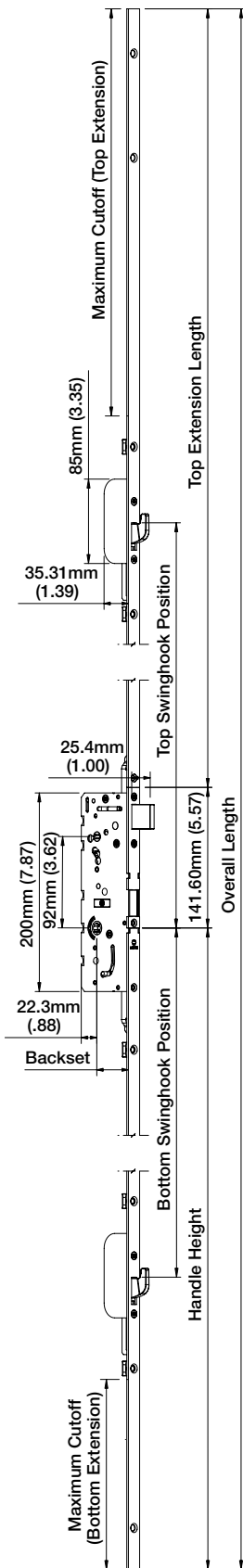
For 10' 0" Door Panel Size with 914mm (36") Handle Height

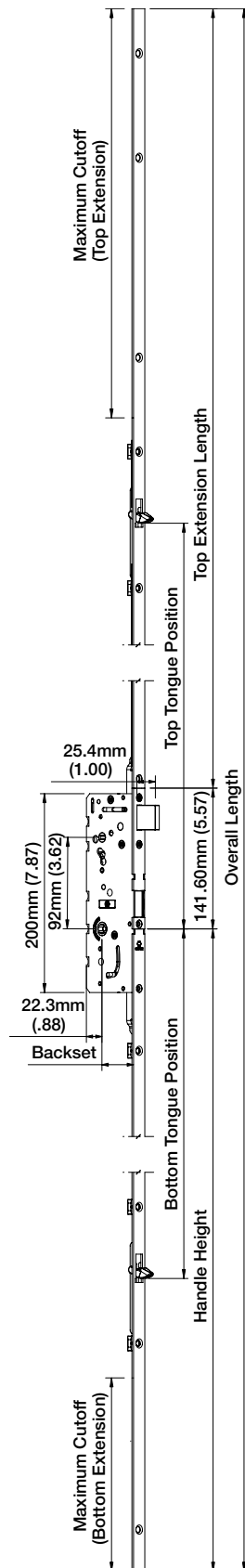
Part Number	Description	Overall Length	Extension Length	Top Swinghook Position	Maximum Cutoff	Number of Screws
2663060	M 1992 SW 1500 16S 530	2518mm - 3048mm (99.13 - 120.00)	1992mm (78.43)	1500mm (59.06)	530mm (20.87)	7

Complete system requires a gear and top extension. See chart below for gear part number.
Part number for gear depends on LH or RH orientation.

Gear

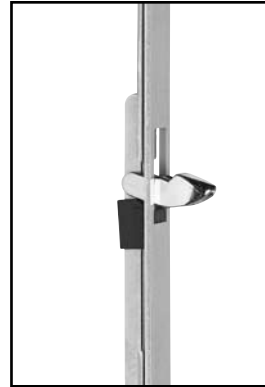
Part Number	Description	Orientation	Backset	Deadbolt Throw	Handle Height	Bottom Swinghook Position	Maximum Cutoff	Number of Screws
2664222	M/45/25 914 LI SW 620 16S	LH	45mm (1.77)	25.4mm (1.00)	914mm (36.00)	620mm (24.41)	N/A	5
2664231	M/45/25 914 LI SW 753 16S	LH	45mm (1.77)	25.4mm (1.00)	914mm (36.00)	753mm (29.65)	N/A	5
2716635	M/45/25 914 RE SW 620 16S	RH	45mm (1.77)	25.4mm (1.00)	914mm (36.00)	620mm (24.41)	N/A	5
2716643	M45/25 914 RE SW 753 16S	RH	45mm (1.77)	25.4mm (1.00)	914mm (36.00)	753mm (29.65)	N/A	5





Active Tongue Version

The Active Tongue version retracts into the edge of the door when opened, giving a smooth, clean appearance. The Active Tongue version secures the door in the closed position in two locations by pulling the door into the door frame for additional weather tightness.



Top Extension

For 6' 8" Door Panel Size with 914mm (36") Handle Height

Part Number	Description	Overall Length	Extension Length	Top Tongue Position	Maximum Cutoff	Number of Screws
2661056	M 976 TN 600 16S 385	1647mm - 2032mm (64.84 - 80.00)	976mm (38.43)	600mm (23.62)	385mm (15.16)	3

For 6' 10" & 7' 0" Door Panel Size with 914mm (36") Handle Height

Part Number	Description	Overall Length	Extension Length	Top Tongue Position	Maximum Cutoff	Number of Screws
2661064	M 1077.6 TN 743 16S 345	1788.6mm - 2133.6mm (70.42 - 84.00)	1077.6mm (42.43)	743mm (29.25)	345mm (13.58)	4

For 8' 0" Door Panel Size with 914mm (36") Handle Height

Part Number	Description	Overall Length	Extension Length	Top Tongue Position	Maximum Cutoff	Number of Screws
2661072	M 1382.4 TN 945 16S 445	1993.4mm - 2438.4mm (78.48 - 96.00)	1382.4mm (54.43)	945mm (37.20)	445mm (17.52)	5

For 9' 0" Door Panel Size with 914mm (36") Handle Height

Part Number	Description	Overall Length	Extension Length	Top Tongue Position	Maximum Cutoff	Number of Screws
2661081	M 1687.2 TN 1193 16S 505	2238.2mm - 2743.2mm (88.12 - 108.00)	1687.2mm (66.43)	1193mm (46.97)	505mm (19.88)	6

For 10' 0" Door Panel Size with 914mm (36") Handle Height

Part Number	Description	Overall Length	Extension Length	Top Tongue Position	Maximum Cutoff	Number of Screws
2661099	M 1992 TN 1500 16S 500	2548mm - 3048mm (100.31 - 120.00)	1992mm (78.43)	1500mm (59.06)	500mm (19.69)	7

Complete system requires a gear and top extension. See chart below for gear part number.
Part number for gear depends on LH or RH orientation.

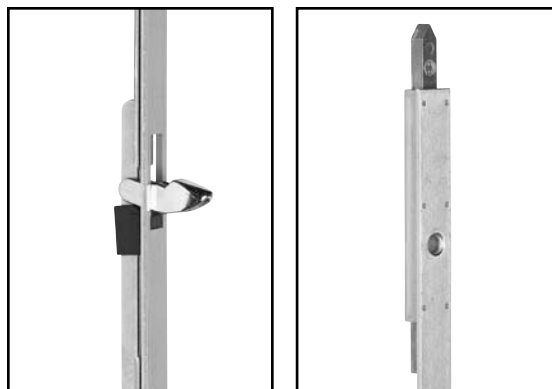
Gear

Part Number	Description	Orientation	Backset	Deadbolt Throw	Handle Height	Bottom Tongue Position	Maximum Cutoff	Number of Screws
2661101	M/45/25 914 LI TN 620 16S	LH	45mm (1.77)	25.4mm (1.00)	914mm (36.00)	620mm (24.41)	N/A	5
2661110	M/45/25 914 LI TN 753 16S	LH	45mm (1.77)	25.4mm (1.00)	914mm (36.00)	753mm (29.65)	N/A	6
2716601	M/45/25 914 RE TN 620 16S	RH	45mm (1.77)	25.4mm (1.00)	914mm (36.00)	620mm (24.41)	N/A	5
2716619	M/45/25 914 RE TN 753 16S	RH	45mm (1.77)	25.4mm (1.00)	914mm (36.00)	753mm (29.65)	N/A	6

Active Tongue / Shootbolt Version - 16mm Faceplate 25mm Shootbolt Throw

Active Tongue / Shootbolt Version

The Active Tongue / Shootbolt version engages shootbolts into both the head and sill of the door frame as well as two tongues into the frame for added confidence and security. The Active Tongue / Shootbolt version offers exceptional strength both horizontally and vertically against intense weather conditions.



For 6' 8" Door Panel Size with 914mm (36") Handle Height

Top Extension

Part Number	Description	Overall Length	Extension Length	Maximum Cutoff	Number of Screws
2666359	M 558.8 SB 16S 25 101.6	1930.4mm - 2032mm (76.00 - 80.00)	558.8mm (22.00)	101.6mm (4.00)	3

Middle Extension

Part Number	Description	Extension Length	Top Tongue Position	Maximum Cutoff	Number of Screws
2666615	M 417.2 TN 400 16S	417.2mm (16.43)	400mm (15.75)	N/A	3

Complete system requires a gear, top extension and middle extension. See next page for gear part numbers.
Part number for gear depends on LH or RH orientation.

For 6' 10" Door Panel Size with 914mm (36") Handle Height

Top Extension

Part Number	Description	Overall Length	Extension Length	Maximum Cutoff	Number of Screws
2665583	M 457.2 SB 16S 25 101.6	2032mm - 2133.6mm (80.00 - 84.00)	457.2mm (18.00)	101.6mm (4.00)	3

Middle Extension

Part Number	Description	Extension Length	Top Tongue Position	Maximum Cutoff	Number of Screws
2666623	M 620.4 TN 600 16S	620.4mm (24.43)	600mm (23.62)	N/A	4

Complete system requires a gear, top extension and middle extension. See next page for gear part numbers.
Part number for gear depends on LH or RH orientation.

For 7' 0" Door Panel Size with 914mm (36") Handle Height

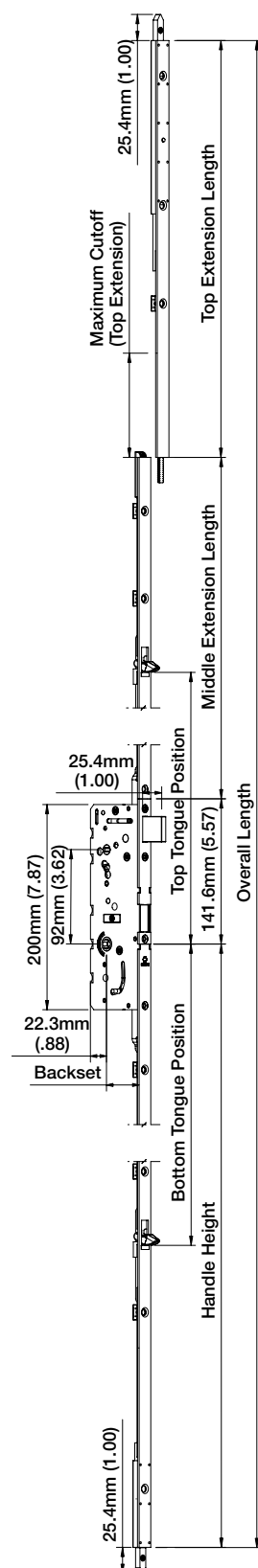
Top Extension

Part Number	Description	Overall Length	Extension Length	Maximum Cutoff	Number of Screws
2665583	M 457.2 SB 16S 25 101.6	2032mm - 2133.6mm (80.00 - 84.00)	457.2mm (18.00)	101.6mm (4.00)	3

Middle Extension

Part Number	Description	Extension Length	Top Tongue Position	Maximum Cutoff	Number of Screws
2666623	M 620.4 TN 600 16S	620.4mm (24.43)	600mm (23.62)	N/A	4

Complete system requires a gear, top extension and middle extension. See next page for gear part numbers.
Part number for gear depends on LH or RH orientation.



Active Tongue / Shootbolt Version - 16mm Faceplate 25mm Shootbolt Throw

For 8' 0" Door Panel Size with 914mm (36") Handle Height

Top Extension

Part Number	Description	Overall Length	Extension Length	Maximum Cutoff	Number of Screws
2666359	M 558.8 SB 16S 25 101.6	2336.8mm - 2438.4mm (92.00 - 96.00)	558.8mm (22.00)	101.6mm (4.00)	3

Middle Extension

Part Number	Description	Extension Length	Top Tongue Position	Maximum Cutoff	Number of Screws
266631	M 823.6 TN 743 16S	823.6mm (32.43)	743mm (29.25)	N/A	5

Complete system requires a gear, top extension and middle extension. See chart below for gear part numbers.
Part number for gear depends on LH or RH orientation.

For 9' 0" Door Panel Size with 914mm (36") Handle Height

Top Extension

Part Number	Description	Overall Length	Extension Length	Maximum Cutoff	Number of Screws
2666367	M 660.4 SB 16S 25 101.6	2641.6mm - 2743.2mm (104.00 - 108.00)	660.4mm (26.00)	101.6mm (4.00)	4

Middle Extension

Part Number	Description	Extension Length	Top Tongue Position	Maximum Cutoff	Number of Screws
2671115	M 1026.8 TN 743 16S	1026.8mm (40.43)	743mm (29.25)	N/A	6

Complete system requires a gear, top extension and middle extension. See chart below for gear part numbers.
Part number for gear depends on LH or RH orientation.

For 10' 0" Door Panel Size with 914mm (36") Handle Height

Top Extension

Part Number	Description	Overall Length	Extension Length	Maximum Cutoff	Number of Screws
2666367	M 660.4 SB 16S 25 101.6	2946.4mm - 3048mm (116.00 - 120.00)	660.4mm (26.00)	101.6mm (4.00)	4

Middle Extension

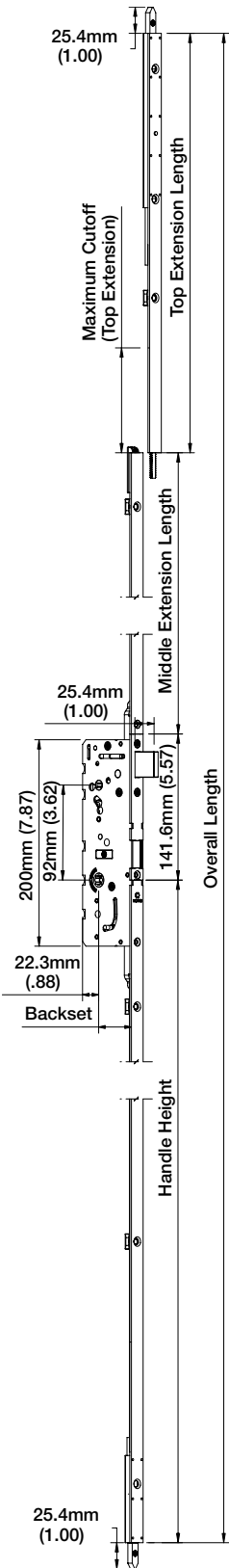
Part Number	Description	Extension Length	Top Tongue Position	Maximum Cutoff	Number of Screws
2666640	M 1331.6 TN 945 16S	1331.6mm (52.43)	945mm (37.20)	N/A	7

Complete system requires a gear, top extension and middle extension. See chart below for gear part numbers.
Part number for gear depends on LH or RH orientation.

Gear

Part Number	Description	Orientation	Backset	Deadbolt Throw	Handle Height	Bottom Tongue Position	Maximum Cutoff	Number of Screws
2666480	M/45/25 914 LI TNS 620 16S 25	LH	45mm (1.77)	25.4mm (1.00)	914mm (36.00)	620mm (24.41)	N/A	5
2716651	M/45/25 914 RE TNS 620 16S 25	RH	45mm (1.77)	25.4mm (1.00)	914mm (36.00)	620mm (24.41)	N/A	5

Active Shootbolt Version - 16mm Faceplate
25mm Shootbolt Throw



Active Shootbolt Version

The Active Shootbolt version adds vertical strength and security through locking points engaging in the head and sill of the door frame. The Active Shootbolt version provides improved vertical strength and added defense against twisting, warpage and door movement.



For 6' 8" Door Panel Size with 914mm (36") Handle Height

Top Extension

Part Number	Description	Overall Length	Extension Length	Maximum Cutoff	Number of Screws
2666359	M 558.8 SB 16S 25 101.6	1930.4mm - 2032mm (76.00 - 80.00)	558.8mm (22.00)	101.6mm (4.00)	3

Middle Extension

Part Number	Description	Extension Length	Maximum Cutoff	Number of Screws
2665495	M 417.2 16S	417.2mm (16.43)	N/A	2

Complete system requires a gear, top extension and middle extension. See next page for gear part numbers.
Part number for gear depends on LH or RH orientation.

For 6' 10" Door Panel Size with 914mm (36") Handle Height

Top Extension

Part Number	Description	Overall Length	Extension Length	Maximum Cutoff	Number of Screws
2665583	M 457.2 SB 16S 25 101.6	2032mm - 2133.6mm (80.00 - 84.00)	457.2mm (18.00)	101.6mm (4.00)	3

Middle Extension

Part Number	Description	Extension Length	Maximum Cutoff	Number of Screws
2665508	M 620.4 16S	620.4mm (24.43)	N/A	3

Complete system requires a gear, top extension and middle extension. See next page for gear part numbers.
Part number for gear depends on LH or RH orientation.

For 7' 0" Door Panel Size with 914mm (36") Handle Height

Top Extension

Part Number	Description	Overall Length	Extension Length	Maximum Cutoff	Number of Screws
2665583	M 457.2 SB 16S 25 101.6	2032mm - 2133.6mm (80.00 - 84.00)	457.2mm (18.00)	101.6mm (4.00)	3

Middle Extension

Part Number	Description	Extension Length	Maximum Cutoff	Number of Screws
2665508	M 620.4 16S	620.4mm (24.43)	N/A	3

Complete system requires a gear, top extension and middle extension. See next page for gear part numbers.
Part number for gear depends on LH or RH orientation.

Active Shootbolt Version - 16mm Faceplate 25mm Shootbolt Throw

For 8' 0" Door Panel Size with 914mm (36") Handle Height

Top Extension

Part Number	Description	Overall Length	Extension Length	Maximum Cutoff	Number of Screws
2666359	M 558.8 SB 16S 25 101.6	2336.8mm - 2438.4mm (92.00 - 96.00)	558.8mm (22.00)	101.6mm (4.00)	3

Middle Extension

Part Number	Description	Extension Length	Maximum Cutoff	Number of Screws
2665516	M 823.6 16S	823.6mm (32.43)	N/A	4

Complete system requires a gear, top extension and middle extension. See chart below for gear part numbers.
Part number for gear depends on LH or RH orientation.

For 9' 0" Door Panel Size with 914mm (36") Handle Height

Top Extension

Part Number	Description	Overall Length	Extension Length	Maximum Cutoff	Number of Screws
2666367	M 660.4 SB 16S 25 101.6	2641.6mm - 2743.2mm (104.00 - 108.00)	660.4mm (26.00)	101.6mm (4.00)	4

Middle Extension

Part Number	Description	Extension Length	Maximum Cutoff	Number of Screws
2665575	M 1026.8 16S	1026.8mm (40.43)	N/A	5

Complete system requires a gear, top extension and middle extension. See chart below for gear part numbers.
Part number for gear depends on LH or RH orientation.

For 10' 0" Door Panel Size with 914mm (36") Handle Height

Top Extension

Part Number	Description	Overall Length	Extension Length	Maximum Cutoff	Number of Screws
2666367	M 660.4 SB 16S 25 101.6	2946.4mm - 3048mm (116.00 - 120.00)	660.4mm (26.00)	101.6mm (4.00)	4

Middle Extension

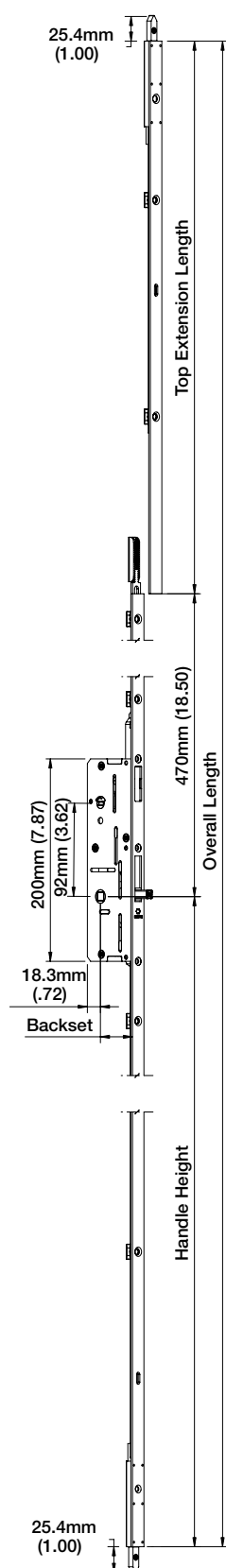
Part Number	Description	Extension Length	Maximum Cutoff	Number of Screws
2665524	M 1331.6 16S	1331.6mm (52.43)	N/A	6

Complete system requires a gear, top extension and middle extension. See chart below for gear part numbers.
Part number for gear depends on LH or RH orientation.

Gear

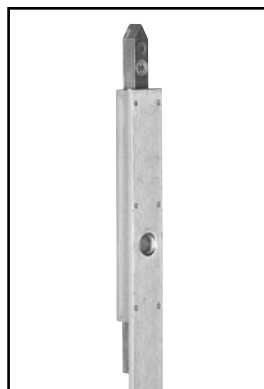
Part Number	Description	Orientation	Backset	Deadbolt Throw	Handle Height	Maximum Cutoff	Number of Screws
2664214	M/45/25 914 LI SB 16S 25	LH	45mm (1.77)	25.4mm (1.00)	914mm (36.00)	N/A	4
2717179	M/45/25 914 RE SB 16S 25	RH	45mm (1.77)	25.4mm (1.00)	914mm (36.00)	N/A	4

Inactive Shootbolt - 16mm Faceplate 25mm Shootbolt Throw



Inactive Shootbolt Version

The Inactive Shootbolt version offers security on the secondary panel through the handle-operated shootbolt throw, engaging in the head and sill of the door frame. The Inactive Shootbolt version not only adds vertical strength to the door but the added beauty of operable handles on French doors.



Top Extension

For 6' 8" Door Panel Size with 914mm (36") Handle Height

Part Number	Description	Overall Length	Extension Length	Maximum Cutoff	Number of Screws
2665241	IA 647.6 SB 16S 25	1930.4mm - 2032mm (76.00 - 80.00)	647.6mm (25.50)	101.6mm (4.00)	3

For 6' 10" & 7' 0" Door Panel Size with 914mm (36") Handle Height

Part Number	Description	Overall Length	Extension Length	Maximum Cutoff	Number of Screws
2665250	IA 749.2 SB 16S 25	2032mm - 2133.6mm (80.00 - 84.00)	749.2mm (29.50)	101.6mm (4.00)	3

For 8' 0" Door Panel Size with 914mm (36") Handle Height

Part Number	Description	Overall Length	Extension Length	Maximum Cutoff	Number of Screws
2665284	IA 1054 SB 16S 25	2336.8mm - 2438.4mm (92.00 - 96.00)	1054mm (41.50)	101.6mm (4.00)	4

For 9' 0" Door Panel Size with 914mm (36") Handle Height

Part Number	Description	Overall Length	Extension Length	Maximum Cutoff	Number of Screws
2665313	IA 1358.8 SB 16S 25	2641.6mm - 2743.2mm (104.00 - 108.00)	1358.8mm (53.50)	101.6mm (4.00)	5

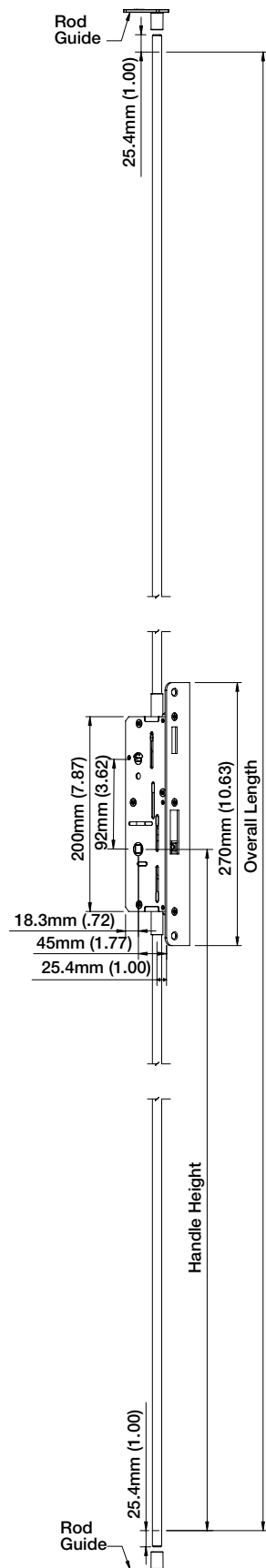
For 10' 0" Door Panel Size with 914mm (36") Handle Height

Part Number	Description	Overall Length	Extension Length	Maximum Cutoff	Number of Screws
2665348	IA 1663.6 SB 16S 25	2946.4mm - 3048mm (116.00 - 120.00)	1663.6mm (65.50)	101.6mm (4.00)	7

Complete system requires a gear and top extension. See chart below for gear part number.

Gear

Item Number	Description	Backset	Astragal Thickness	Handle Height	Maximum Cutoff	Number of Screw Holes
2665356	IA/45 914 SB 16S 25	45mm (1.77)	0	914mm (36.00)	N/A	6
2665364	IA/45 914 27.5 SB 16S 25	45mm (1.77)	15mm - 18.9mm (.59 - .74)	914mm (36.00)	N/A	6
2665372	IA/45 914 31.5 SB 16S 25	45mm (1.77)	19mm - 22.9mm (.75 - .90)	914mm (36.00)	N/A	6
2665381	IA/45 914 35.5 SB 16S 25	45mm (1.77)	23mm - 25.9mm (.91 - 1.02)	914mm (36.00)	N/A	6
2665399	IA/45 914 37.5 SB 16S 25	45mm (1.77)	26mm - 29mm (1.02 - 1.14)	914mm (36.00)	N/A	6



Inactive Rod Lock Version

The Inactive Rod Lock version can be used when there is no astragal between the door panels of a French door or used with an astragal to conceal the faceplate. The handle-operated Inactive Rod Lock secures the door at the head and sill of the door frame while allowing the active lock to engage into the inactive panel.



Top Rod / 8mm

Part Number	Description	Rod Length
2621775	SS/08/08/0355.24/B	8mm x 355.24mm (13.99)
1958667	SS/08/08/0589.6/B	8mm x 589.6mm (23.21)
8786895	SS/08/08/0599.6/B	8mm x 599.6mm (23.61)
8786899	SS/08/08/0659.6/B	8mm x 659.6mm (25.97)
1958675	SS/08/08/0671.6/B	8mm x 671.6mm (26.44)
2621783	SS/08/08/0761.64/B	8mm x 761.64mm (29.99)
1958683	SS/08/08/0772.6/B	8mm x 772.6mm (30.42)
2131881	SS/08/08/0781/B	8mm x 780.6mm (30.73)
8779359	SS/08/08/0789.5/B	8mm x 789.5mm (31.08)
2716723	SS/08/08/0861.89/B	8mm x 861.89mm (33.93)
8779363	SS/08/08/0972/B	8mm x 972mm (38.27)
2716731	SS/08/08/0993.32/B	8mm x 993.32mm (39.11)
1958691	SS/08/08/0998.6/B	8mm x 998.6mm (39.29)
8786903	SS/08/08/1014.5/B	8mm x 1014.5mm (39.94)
8779367	SS/08/08/1035.5/B	8mm x 1035.5mm (40.77)
1958704	SS/08/08/1077.6/B	8mm x 1077.6mm (42.43)
2716740	SS/08/08/1094.92/B	8mm x 1094.92mm (43.11)
8779371	SS/08/08/1137.1/B	8mm x 1137.1mm (44.77)

Top Rod / 8mm

Part Number	Description	Rod Length
8786907	SS/08/08/1188.6/B	8mm x 1188.6mm (46.79)
1958712	SS/08/08/1204.6/B	8mm x 1204.6mm (47.43)
8779375	SS/08/08/1391.1/B	8mm x 1391.1mm (54.77)
2716758	SS/08/08/1399.72/B	8mm x 1399.72mm (55.11)
1958721	SS/08/08/1433.6/B	8mm x 1433.6mm (56.44)
8779379	SS/08/08/1695.9/B	8mm x 1695.9mm (66.77)
2716766	SS/08/08/1704.52/B	8mm x 1704.52mm (67.11)
8779383	SS/08/08/2000.7/B	8mm x 2000.7mm (78.77)
2716774	SS/08/08/2009.32/B	8mm x 2009.32mm (79.11)

Top Rod / 9.5mm

Part Number	Description	Rod Length
2716660	SS/9.5/08/0861.39/B	9.5mm x 861.39mm (33.91)
2716678	SS/9.5/08/0992.82/B	9.5mm x 992.82mm (39.09)
2716686	SS/9.5/08/1094.42/B	9.5mm x 1094.4mm (43.01)
2716694	SS/9.5/08/1399.22/B	9.5mm x 1399.2mm (55.09)
2716707	SS/9.5/08/1704.02/B	9.5mm x 1704.0mm (67.09)
2716715	SS/9.5/08/2008.82/B	9.5mm x 2008.8mm (79.09)

Bottom Rod

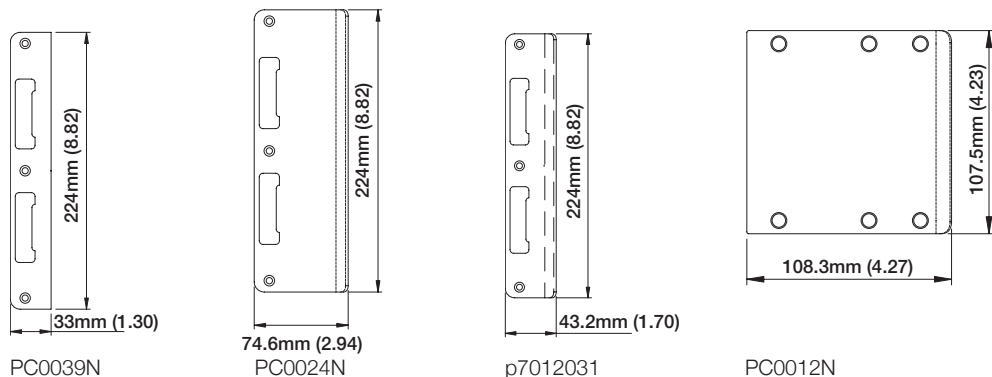
Part Number	Description	Rod Length
2716723	SS/08/08/0861.89/B	8mm x 861.89mm (33.93)
2716660	SS/9.5/08/0861.39/B	9.5mm x 861.39mm (33.91)

Handle Actuated Gear with Faceplate

Part Number	Description	Backset	Orientation	Number of Screws
2661013	IA/45 16S 25	45mm (1.77)	LH	2
2661030	IA/45 16S 25	45mm (1.77)	RH	2

See page 19 for Rod Guides.

Latch and Deadbolt Strikes



Latch and Deadbolt Strike - Flat & Non Handed

	Brass	Stainless Steel	Oil-Rubbed Brass (F79)	Satin Nickel (F42)	Antique Nickel (F44)	Rustic Umber (F8709)
PC0039N	2342194	2342311	2342346	2721186	2342320	2621821

NOTE: Rebated vinyl profile strikes are profile specific. Contact your representative for specific profiles required.

Latch and Deadbolt Strike - Extended Curved Lip & Non Handed

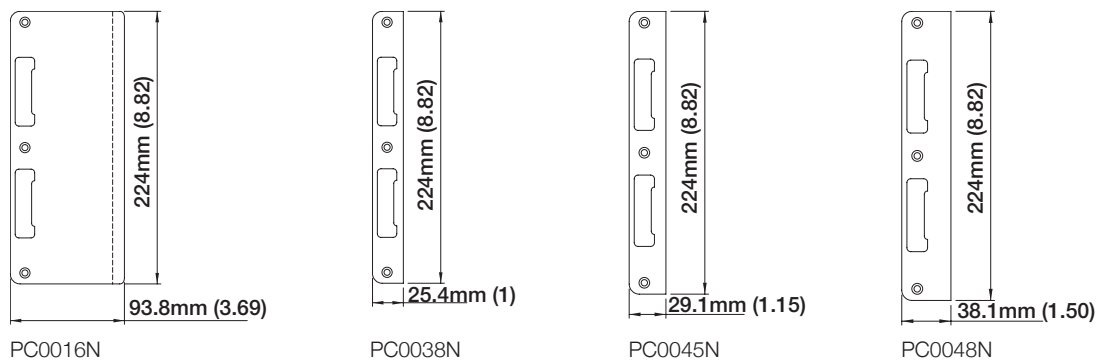
	Brass	Stainless Steel	Matte Black (F9714)	Polished Chrome (F49)	Rustic Umber (F8709)
PC0024N	2029851	8787743	2074716	2199789	2829867

Latch and Deadbolt Strike - Curved Lip & Non Handed

	Brass	Stainless Steel	Antique Brass (F73)	Polished Chrome (F49)	Oil-Rubbed Brass (F79)	Matte Black (F9714)	Antique Nickel (F44)	Rustic Umber (F8709)
p7012031	1963546	1963554	2668848	2199762	2021171	1963562	2145609	2162880

Latch and Deadbolt Strike - Extended Curved Lip & Non Handed

	Brass	Stainless Steel	Antique Brass (F73)	Brushed Chrome (F41)	Polished Chrome (F49)	Oil-Rubbed Brass (F79)	Pure White (F9010)	Matte Black (F9714)	Antique Nickel (F44)
PC0012N	1972469	1972477	1972493	1972531	1972522	1972485	1972506	1972514	2359025



Latch and Deadbolt Strike - Curved Lip & Non Handed

	Brass	Stainless Steel	Oil-Rubbed Brass (F79)
PC0016N	2019522	2019531	2019549

Latch and Deadbolt Strike - Non Handed

	Brass	Stainless Steel
PC0045N	2332261	2332287

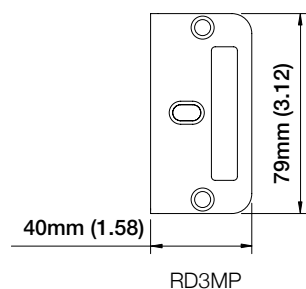
Latch and Deadbolt Strike - Non Handed

	Brass	Stainless Steel
PC0038N	2182522	2182549

Latch and Deadbolt Strike - Non Handed

	Brass	Stainless Steel
PC0048N	2358031	2358049

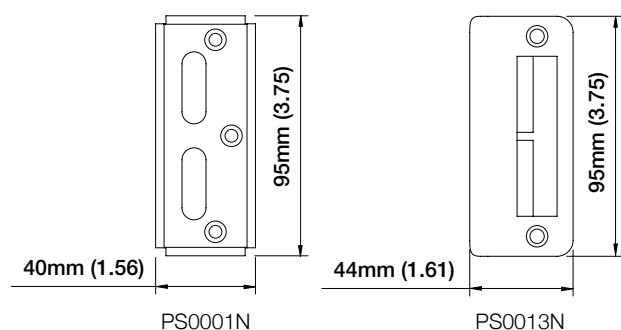
Single Door Strikes



Rod Strike - Adjustable

	Brass	Stainless Steel	Oil-Rubbed Brass (F73)
RD3MP	8783915	8752843	8783919

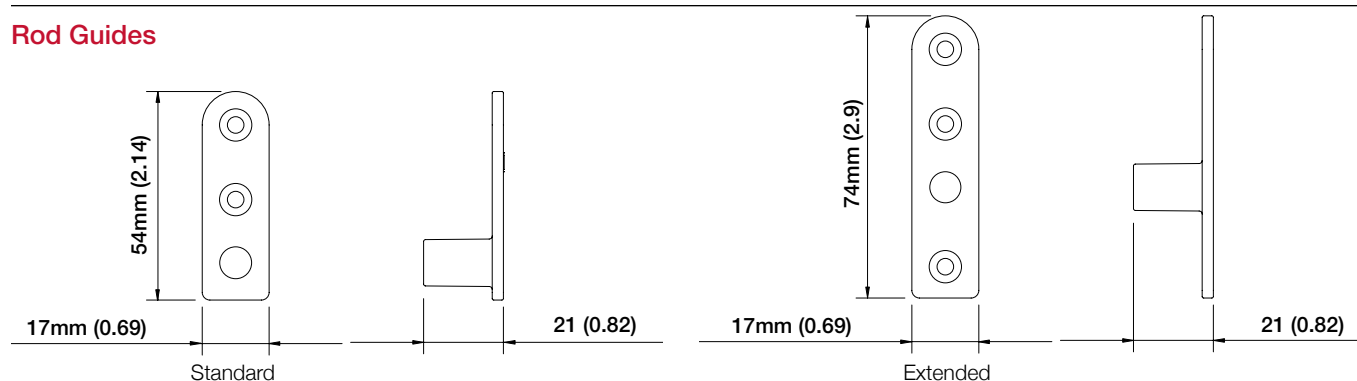
Double Door Strikes



Double Shootbolt Strike

	Brass	Stainless Steel
PS0001N	N/A	8752847
PS0013N	8789023	8789027

Rod Guides

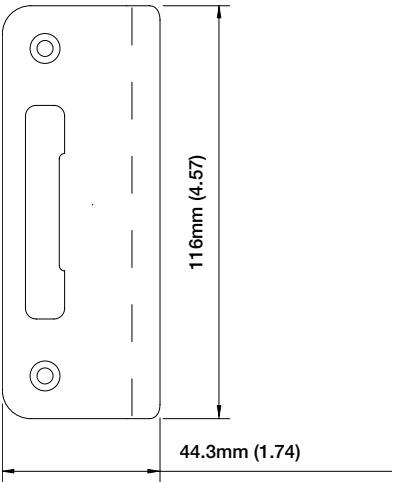


Rod Guide

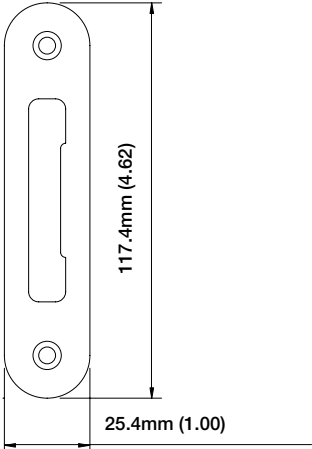
Part Number	Description	Finish
1900916	Standard 8mm	Black
1900908	Standard 9.5mm	Black
2799320	Extended 8mm	Tan
2799346	Extended 9.5mm	Black

Strikes

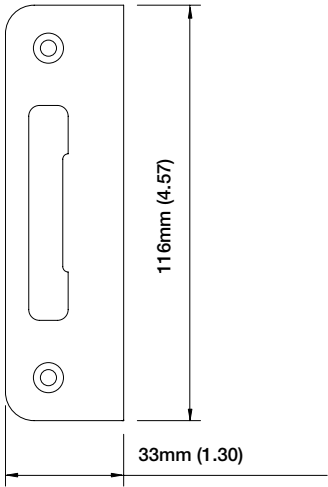
Tongue Strikes



p7012037



PT0003N



p7012035

Tongue Strike - Curved Lip

	Brass	Stainless Steel	Antique Brass (F73)	Polished Chrome (F49)	Oil-Rubbed Brass (F79)	Pure White (F9010)	Matte Black (F9714)	Antique Nickel (F44)	Rustic Umber (F8709)
p7012037	8784675	1964522	2565961	2199797	2121244	2566032	1965120	2668864	2163006

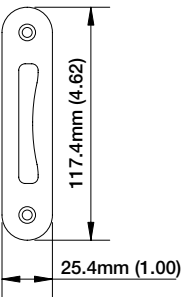
Tongue Strike - Radius Lip

	Brass	Stainless Steel	Antique Brass (F73)	Brushed Chrome (F41)	Polished Chrome (F49)	Oil-Rubbed Brass (F79)	Pure White (F9010)	White (F9016)	Matte Black (F9714)	Antique Nickel (F44)	Rustic Umber (F8709)
PT0003N	2025181	2025199	2025201	2333811	2333790	2025842	2333837	2671246	2145721	2145692	2671238

Tongue Strike - Flat

	Brass	Stainless Steel	Antique Brass (F73)	Brushed Chrome (F41)	Polished Chrome (F49)	Oil-Rubbed Brass (F79)	Pure White (F9010)	Matte Black (F9714)	Satin Nickel (F42)	Antique Nickel (F44)	Rustic Umber (F8709)
p7012035	8784699	8784707	8786551	8786559	8786555	8784703	8786571	8786575	2127486	2127460	2245597

Swing Bolt Strikes

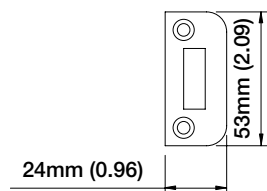


p7012009

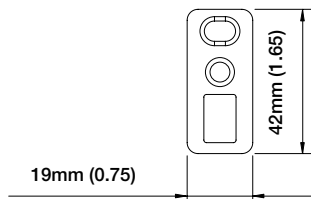
Swing Bolt Strikes - Flat

	Brass	Antique Brass (F73)	Stainless Steel	Matte Black (F9714)	Polished Chrome (F49)	Brushed Chrome (F41)	Antique Nickel (F44)	Oil-Rubbed Brass (F79)	Pure White (F9010)
p7012009	2736652	2740651	2736661	2740694	2740707	2740715	2740678	2740660	2740723

Shootbolt Strikes



PS0025N



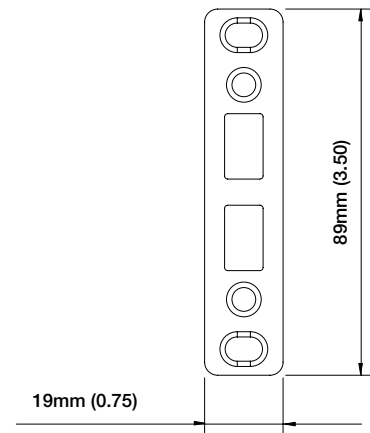
PS0027N

Shootbolt Strike - For Single Door

	Brass	Stainless Steel
PS0025N	2016559	2058724

Shootbolt Strike - For Single Door

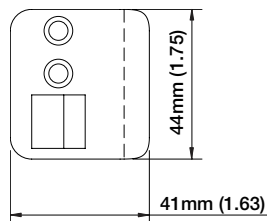
	Brass	Stainless Steel
PS0027N	2135259	2098911



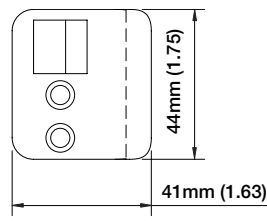
PS0028N

Shootbolt Strike - For Double Doors

	Brass	Stainless Steel
PS0028N	2135241	2098945



p7012022



p7012020

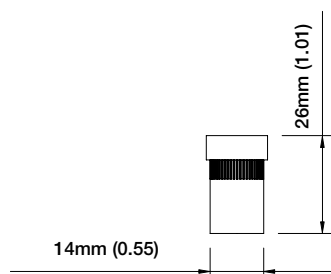
Shootbolt Strike - Left Handed for Single Door / Curved Lip

	Brass	Polished Brass (F71)	Stainless Steel	Antique Brass (F73)	Brushed Chrome (F41)	Polished Chrome (F49)	Oil-Rubbed Brass (F79)	Pure White (F9010)	Matte Black (F9714)	Satin Nickel (F42)	Antique Nickel (F44)
p7012022	8784095	2703842	8784091	2731018	2703973	2703965	2117325	2704001	2704010	2704028	2730939

Shootbolt Strike - Right Handed for Single Door / Curved Lip

	Brass	Polished Brass (F71)	Stainless Steel	Antique Brass (F73)	Brushed Chrome (F41)	Polished Chrome (F49)	Oil-Rubbed Brass (F79)	Pure White (F9010)	Matte Black (F9714)	Satin Nickel (F42)	Antique Nickel (F44)
p7012020	8784067	2701812	8783923	2703931	2701839	2701821	2117261	2703922	2702655	2703885	2703893

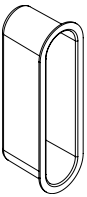
Socket Strikes



PS0023N

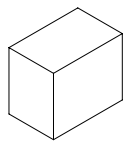
Socket Strike - 1" Throw

	Part Number	Finish
PS0023N	2024962	Brass



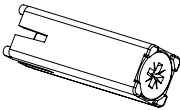
Dust Cap

	Part Number	Finish
for Latch & Deadbolt Strike or Tongue Strike	8786547	Black



Foam Eurogroove Plug

	Part Number	Finish
	1963538	Gray

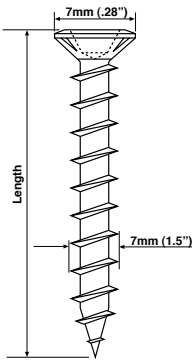


Latch Blocker

Astragal Thickness	Latch Blocker Length	Part Number
15 - 18.9mm (.59 - .74)	27.5mm	2787839
19 - 22.9mm (.75 - .90)	31.5mm	2787847
23 - 25.9mm (.91 - 1.02)	35.5mm	2787855
26 - 29mm (1.02 - 1.14)	37.5mm	2787863

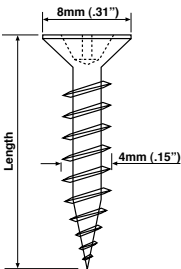
Part number includes both the Latch Blocker and Installation Screw.

Screws



Screws for Vinyl Profiles

Part Number	Description	Length	Quantity Per Box
8785667	Stainless Steel Screw - 7mm Head Size	19mm (0.75)	1000
8785671	Stainless Steel Screw - 7mm Head Size	22mm (0.87)	1000
8785675	Stainless Steel Screw - 7mm Head Size	25mm (0.98)	1000
8785679	Stainless Steel Screw - 7mm Head Size	30mm (1.18)	1000
8785683	Stainless Steel Screw - 7mm Head Size	35mm (1.38)	1000



Screws for Wood Profiles

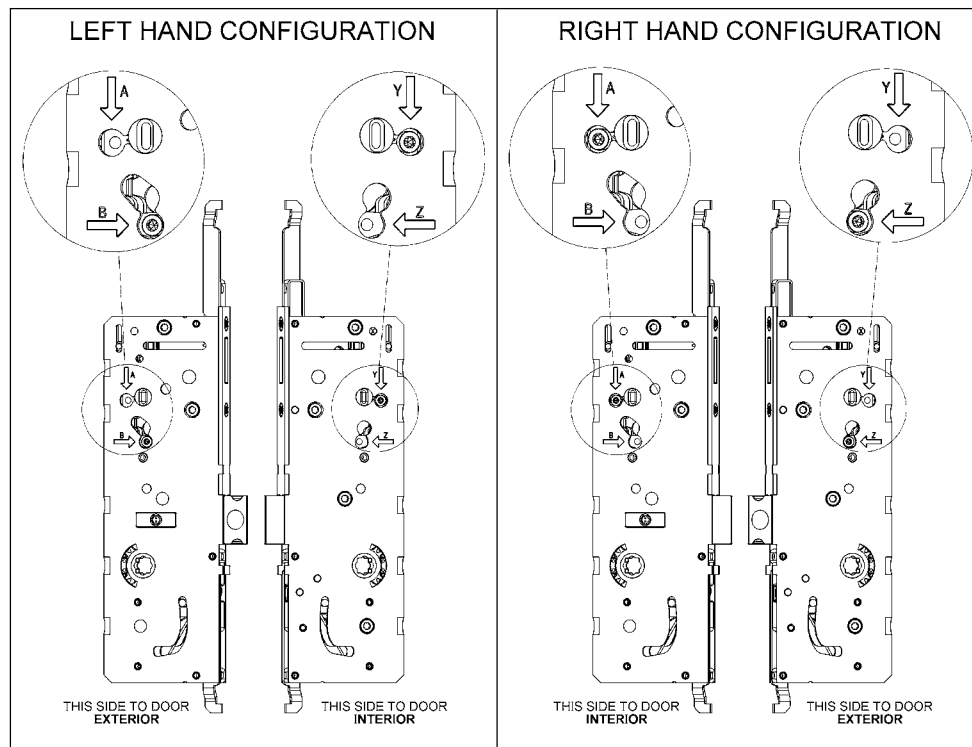
Part Number	Description	Length	Quantity Per Box
8785687	Stainless Steel Chipboard Screw - 8mm Head Size	20mm (0.79)	1000
8785691	Stainless Steel Chipboard Screw - 8mm Head Size	30mm (1.18)	1000
8785695	Stainless Steel Chipboard Screw - 8mm Head Size	35mm (1.38)	1000
8785699	Stainless Steel Chipboard Screw - 8mm Head Size	45mm (1.77)	500
8785703	Stainless Steel Chipboard Screw - 8mm Head Size	60mm (2.36)	500

Stainless steel screws must be used for installation of gear systems.

HLS™ 7 Series* Identifying & Reversing Gear Handing

IMPORTANT NOTE: Due to the Anti-Panic feature, this lock must be properly oriented to interior/exterior of door, in order for it to function properly.

Locate screw positions A, B, Y and Z on sides of lockcase. Using the graphic below, determine interior/exterior side and right/left hand by determining which two locations contain a screw.



To Reverse Handing of Gear:

IMPORTANT: USE ONLY A HAND SCREWDRIVER – NOT A POWER DRIVER

1. Locate screw positions A, B, Y and Z on sides of lockcase, and switch the locations of the screws according to the chart below.
2. To reverse latch, pull straight out and rotate 180°.

Handing Change	Remove From	Install Into
From Right Hand to Left Hand	A & Z	B & Y
From Left Hand to Right Hand	B & Y	A & Z

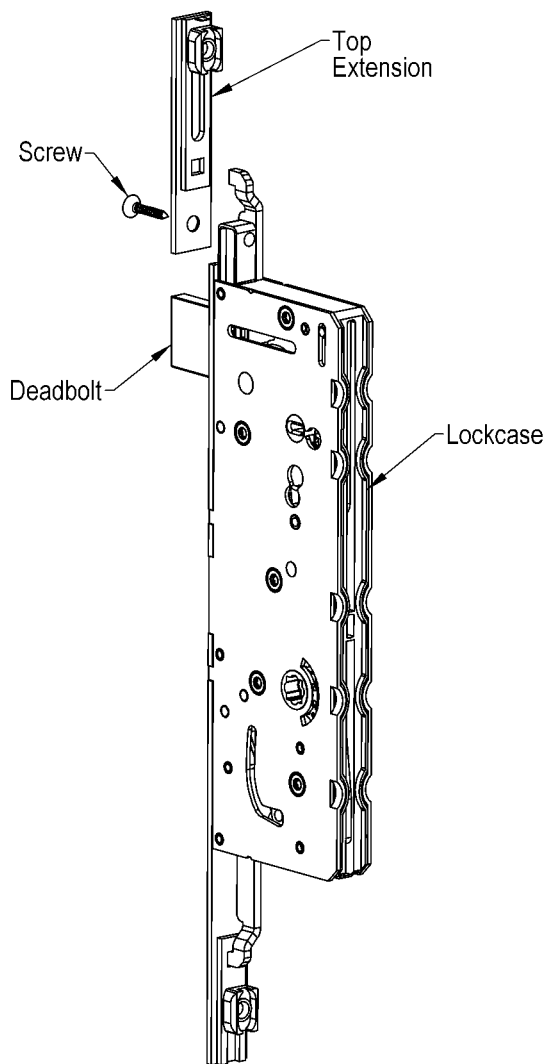
If both screws are installed in same side of lockcase, the gear will not function properly.

HLS™ 7 Series* Multipoint Locking Hardware Installation Instructions

1. Slide main gear into place aligning lockcase with pre-drilled handle holes or bottom of the door. Check to make sure the gear does not extend past the bottom of the door.
2. Slide top extension into place and fasten to door with a installation screw. Check again to make sure the gear does not extend past the bottom of the door.
3. Install backplates with mounting screws and hand tighten. See Handle Set Installation Instruction sheet on page 50.

NOTE:

Main gear and extensions should be hand tightened only.



* Patent Pending

HLS™ 7 Series* System Terminology

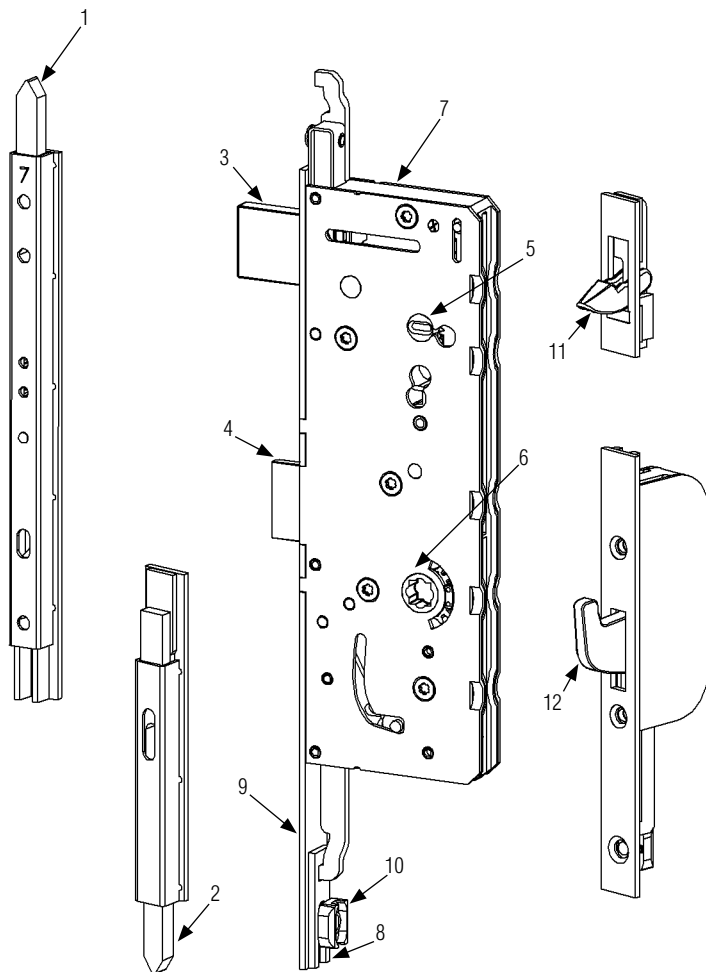
1. Trim Maintenance:

Use water and a soft cloth to clean. Do not use brass cleaner as it will remove the protective coating.

2. **Note:** All options are shown for the sake of terminology. The gear system you have will NOT contain all the components as shown in the diagram below.

Terminology:

1. Top Shootbolt
2. Bottom Shootbolt
3. Deadbolt
4. Latch
5. Cylinder Tail Piece Hole
6. Handle Hole
7. Lockcase
8. Drive Rail
9. Faceplate
10. Screw Support
11. Tongue
12. Swinghook



HLS™ 7 Series* Inactive Gear Latch Blocker Instructions

The Latch Blocker is a design feature of the HLS™ 7 Series* multipoint gear system which enables the operational timing/sequencing between the active and inactive gears. The function of the Latch Blocker is to prevent the latch of the active system from engaging into the strike until the inactive system is activated. Once the inactive system is activated, the Latch Blocker moves out of the way enabling the latch to engage into the strike. The multipoint can then be activated.

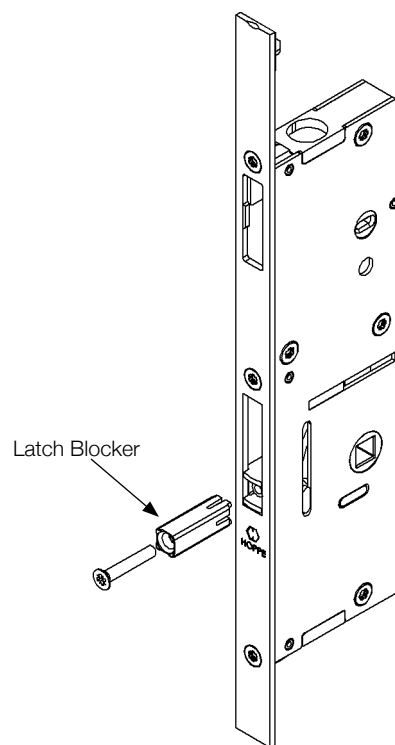
Astragal Thickness	Latch Blocker Length	Part Number
15 - 18.9mm (.59 - .74)	27.5mm	2787839
19 - 22.9mm (.75 - .90)	31.5mm	2787847
23 - 25.9mm (.91 - 1.02)	35.5mm	2787855
26 - 29mm (1.02 - 1.14)	37.5mm	2787863

Part number includes both the Latch Blocker and Installation Screw.

For an inactive gear system featuring the Latch Blocker, the Latch Blocker is adjustable to provide increased length. Make this adjustment when the Latch Blocker is not providing adequate functionality. The Latch Blocker is factory installed in a recessed position. To increase the length, follow these steps:

1. Remove the Phillips head screw.
2. Rotate the Latch Blocker 90° in either direction after extracting it from the gear.
3. Re-insert the Latch Blocker.
4. Re-install the Phillips head screws. Do not over-tighten the screw.

The length adjustment is approx. 1/16". If further length is required, select the next Latch Blocker length.



* Patent Pending

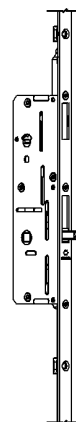
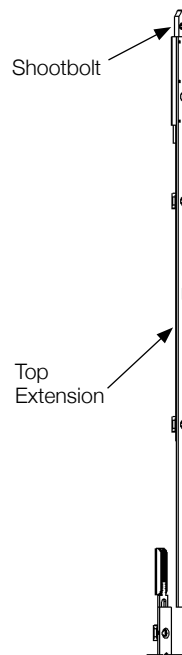
HLS™ 7 Series* Inactive Assembly Instructions

We recommend assembly of the inactive gear in the activated (locked) position. To be consistent in the operation and assembly, you should assemble the gear operator as follows:

Install main gear body assembly into stile using either method:

- a. If using a jig to center the gear on the handle hole, slide into place and screw down.
 - b. If aligning the gear from the bottom, match the bottom of the gear to the bottom of the door and put a few screws in place.
1. Operate and extend the shootbolt mechanism with the handle.
 2. Pull and/or push shootbolt out and place top extension into Eurogroove so the serrations on the extension connect to the gear serrations.
 3. Finish screwing the inactive system onto the stile. Be sure you install screws only in the holes that will not be filled when the astragal is applied.
 4. Operate the thumbturn and handle set to retract and extend the shootbolts. The shootbolt mechanisms should operate freely.
 5. The inactive gear is a two-handed operation. Turn and hold the thumbturn while depressing the handle to retract the shootbolts. Lift the handle to extend the shootbolts. The shootbolt mechanism should operate freely.

Note: There is an allowance of up to 1/8" (3mm) between the gear and extension as long as the driverail and faceplate relationship is kept intact.

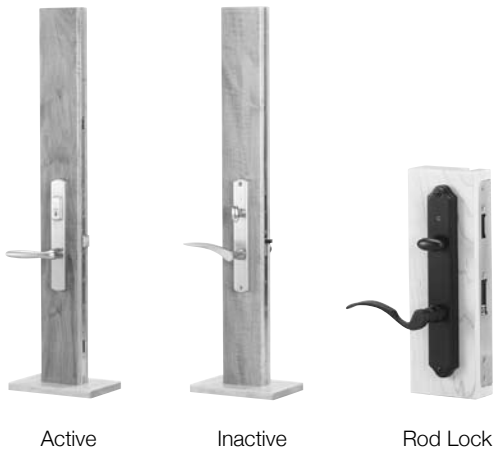


* Patent Pending

Sales Gear Sample

Part Number	Backset	Locking Type
2836565	45mm	Active / Multi-Function
2836557	45mm	In-Active
2836573	45mm	Rod-Lock

Multi-function version shown includes tongue, shootbolt and swinghook functions.
Active and Inactive include gear, mount and sales case.



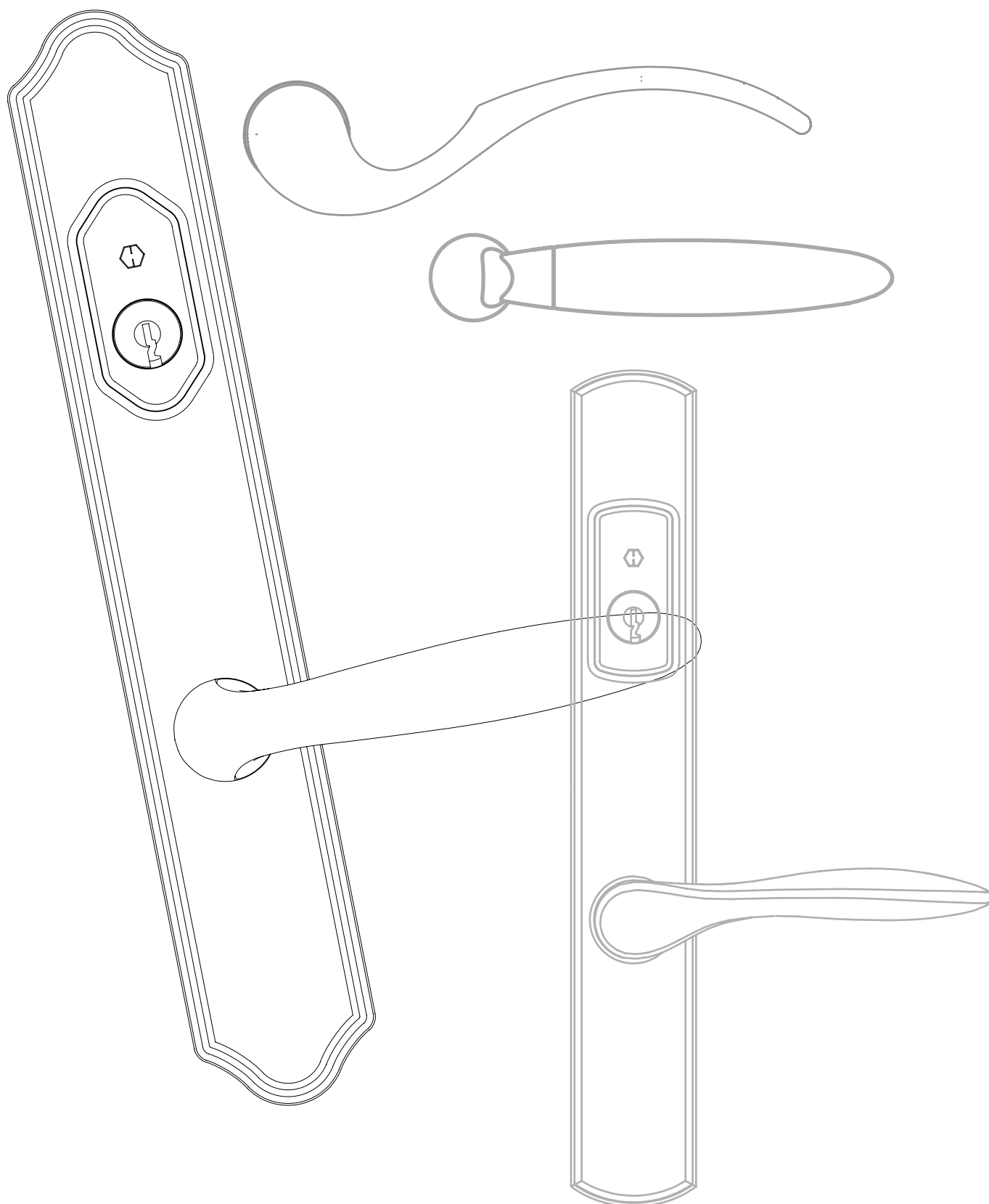
Black Sales Case

Part Number	Description
2824783	Telescoping Handle & Wheeled 38 x 9 x 10

Handle set is specified by customer.

For more details on obtaining sales tools above,
contact your local representative.





HOPPE's Proprietary Quick-Fit Connection™*

HOPPE has recently developed a patent pending proprietary Quick-Fit Connection™* handle mounting system which is featured on the HLS™ 7 Series* multipoint locking system. This new Quick-Fit Connection™* allows for the handle to be pushed onto the spindle eliminating set screws for easy installation. To remove the handle from the spindle, just insert the chamfered end of the Quick-Fit Connection™* Release tool into the side of the handle set, push in and rotate towards the lever and the handle easily releases from the spindle.

Handle Set References

An **active door set** is the handle set used on the primary functioning door. The set will always have a cylinder on the outside backplate and a thumbturn on the interior backplate.

An **inactive door set** is the handle set used on the inactive panel. This set will have only a thumb turn on the interior backplate.

A **pair fixed dummy** is a handle set which is usually "fixed" in place by a fixing nut. They serve only as pull handles and do not operate.

An **active or inactive interior** backplate contains a thumb turn for activating the deadbolt.

An **active exterior** backplate contains a cylinder hole.

An **inactive exterior** backplate contains no cylinder hole.

RH is the standard abbreviation for right handed. See handing chart below.

LH is the standard abbreviation for left handed. See handing chart below

Non-Handed means that the handle can be used for either a right or left handed door.

Resista® - The HOPPE Surface Guarantee

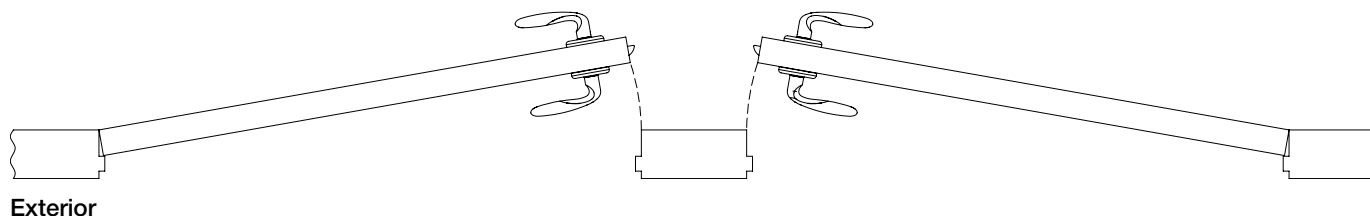
HOPPE's Resista® program of finishes is available on selected solid brass handle sets and protects against tarnishing, peeling and cracking. All Resista® finishes are indicated by an "R" after the handle color code and are covered by our Resista® Finish Limited Lifetime Warranty which is explained on page 57.

It is important to remember to use water and a soft cloth to clean brass. Do not use brass cleaner, detergents or chemical cleansers as they may remove the protective coating.

Resista®

Limited Lifetime Finish Warranty

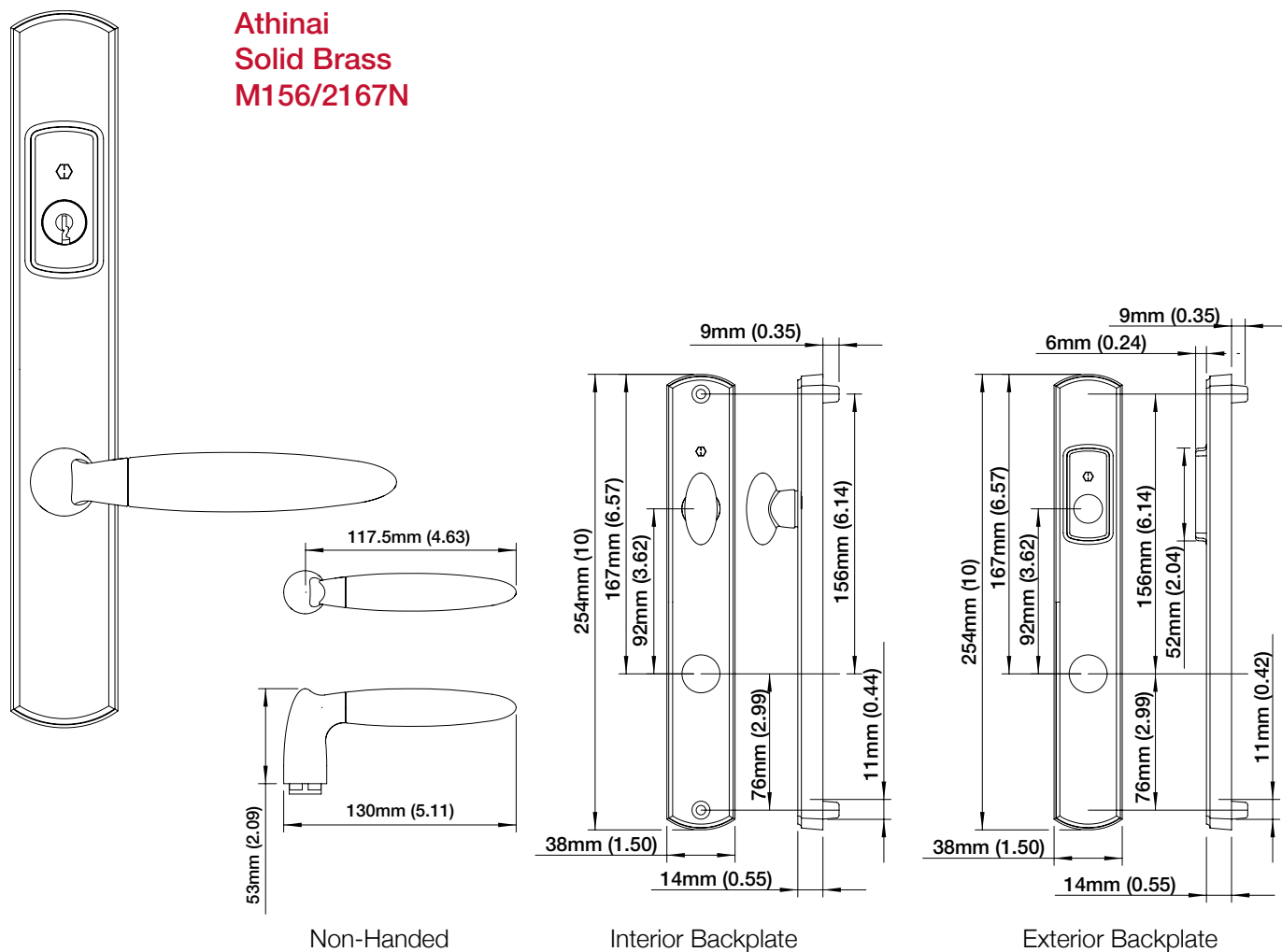
Handing



Door handing is always determined from the exterior. When hinges are on the left, the door is LH; when hinges are on the right, door is RH. Inswing or outswing does not determine handing.

* Patent Pending

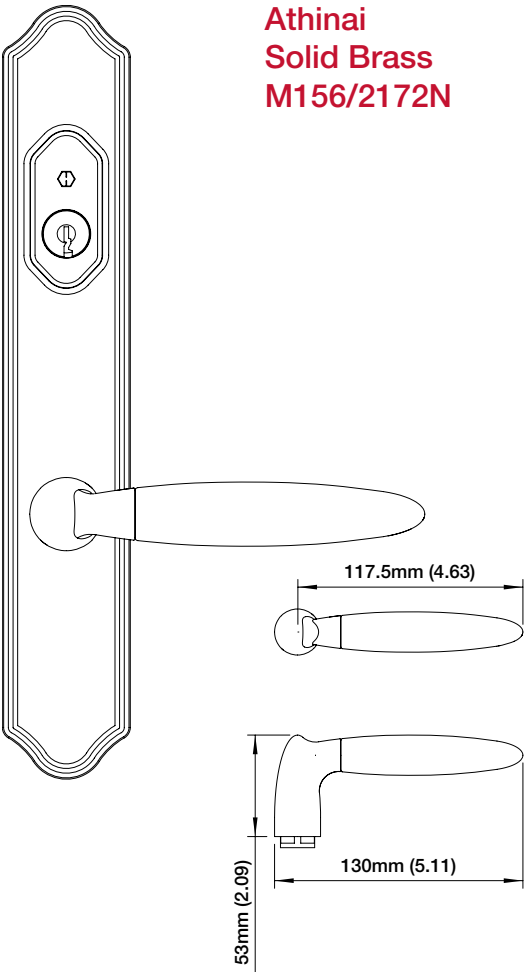
**Athinai
Solid Brass
M156/2167N**



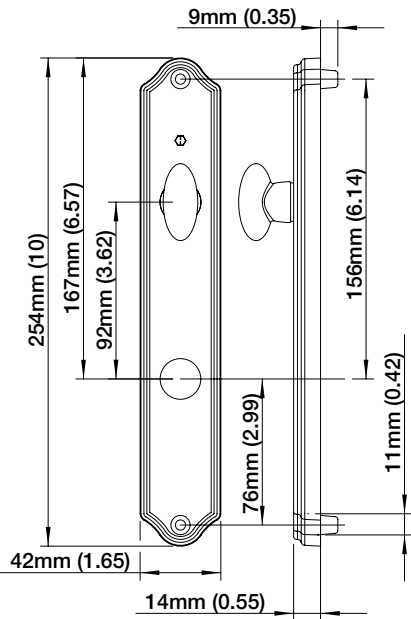
Description	Door Thickness	Resista Brass / Brushed Brass (F77-R/F72-R)	Polished Chrome / Brushed Stainless Steel (F49-R/F69-R)
Active Door Set M156/2167NZS/KM	45mm (1.75)	2746931	2746965
Inactive Door Set M156/2167NZS/M	45mm (1.75)	2751625	2751617
Pair Fixed Dummy M156/2167NZS	45mm (1.75)	2753268	2753250

Active Door Sets have a cylinder on the outside backplate and a thumbturn on the interior backplate.
Inactive Door Sets have only the thumbturn on the interior plate.
Pair Fixed Dummy Sets do not operate.

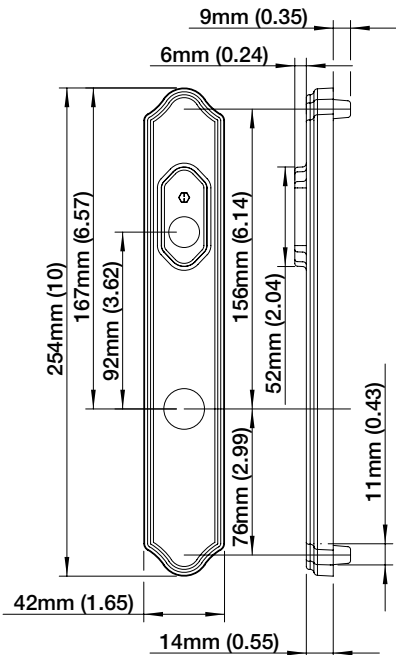
Athina
Solid Brass
M156/2172N



Non-Handed



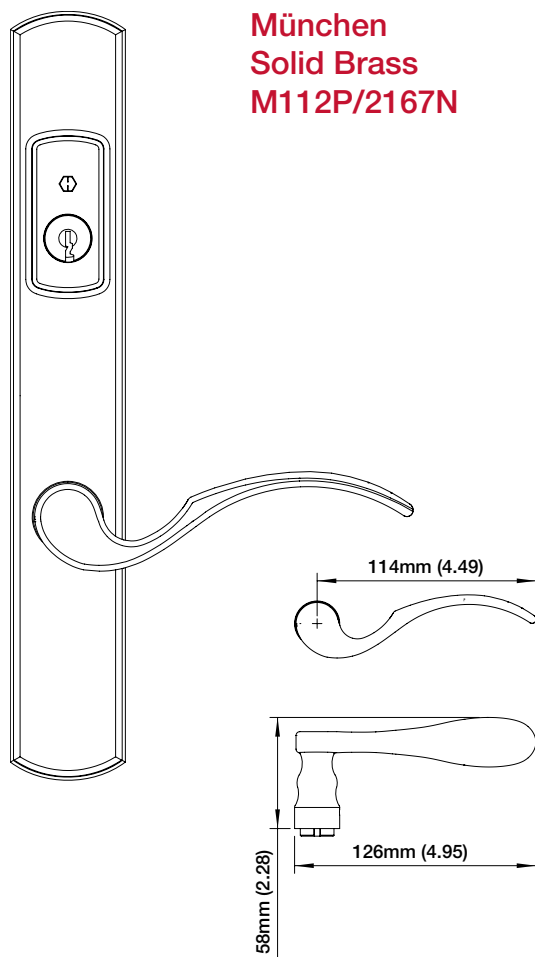
Interior Backplate



Exterior Backplate

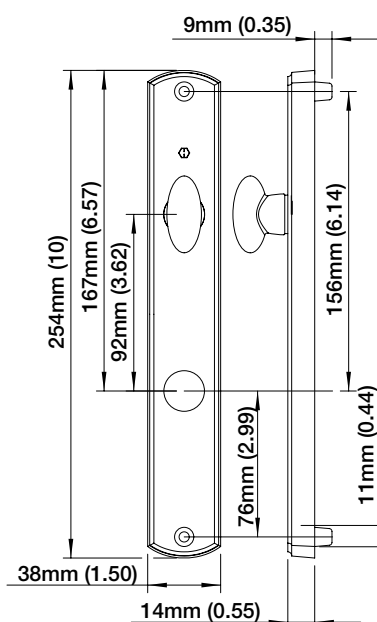
Description	Door Thickness	Resista Brass / Brushed Brass (F77-R/F72-R)	Polished Chrome / Brushed Stainless Steel (F49-R/F69-R)
Active Door Set M156/2172NZS/KM	45mm (1.75)	2746981	2747001
Inactive Door Set M156/2172NZS/M	45mm (1.75)	2751668	2751650
Pair Fixed Dummy M156/2172NZS	45mm (1.75)	2753305	2753292

Active Door Sets have a cylinder on the outside backplate and a thumbturn on the interior backplate.
Inactive Door Sets have only the thumbturn on the interior plate.
Pair Fixed Dummy Sets do not operate.

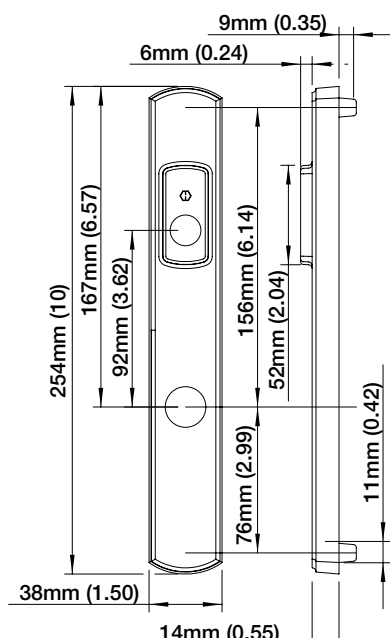


München
Solid Brass
M112P/2167N

Right Hand Shown



Interior Backplate



Exterior Backplate

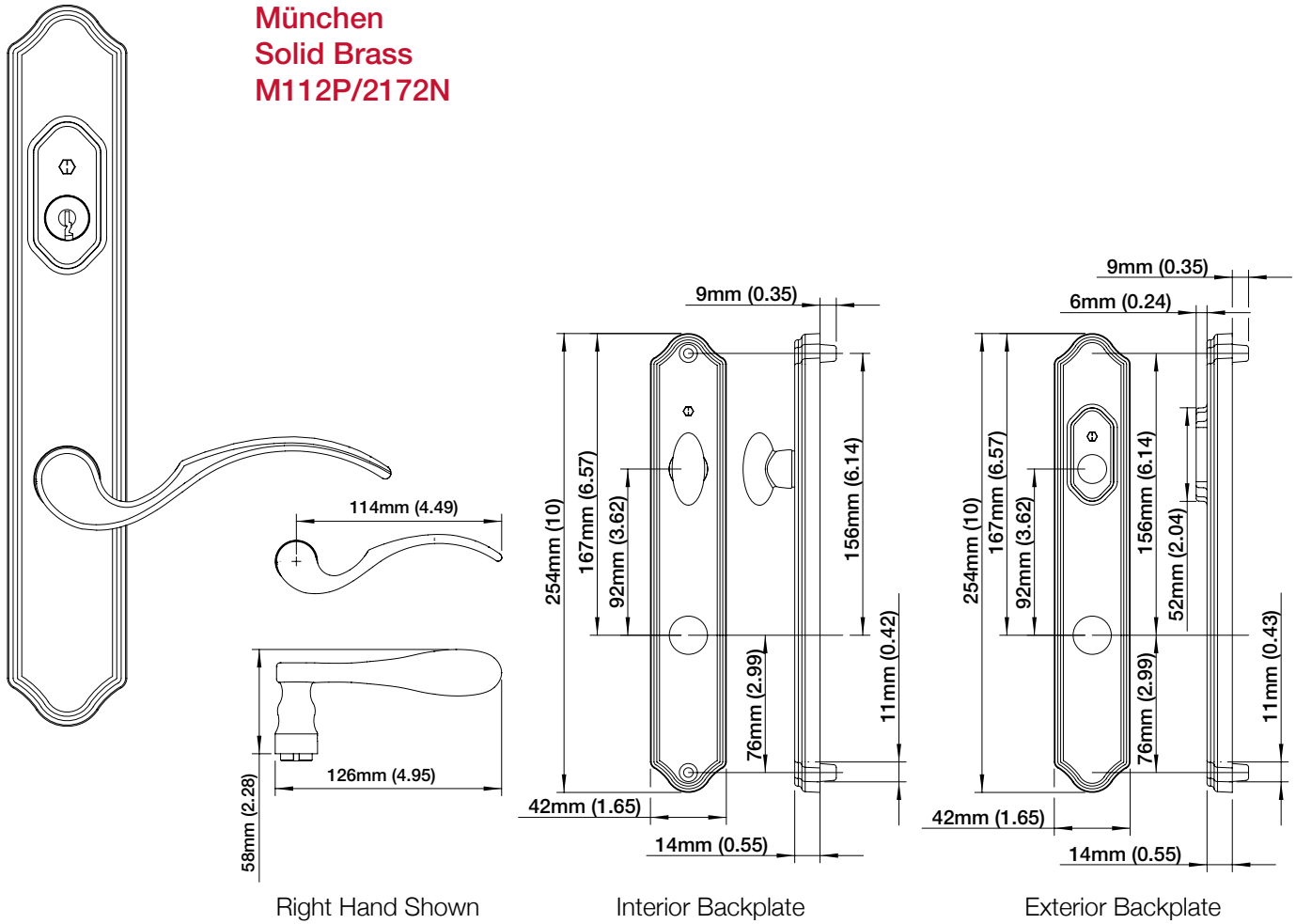
Description	Door Thickness	Resista Brass (F77-R)	Antique Brass (F73)	Brushed Chrome (F41-R)	Polished Chrome (F49-R)	Oil-Rubbed Brass (F79)	Pure White (F9010)	Matte Black (F9714)	Satin Nickel (F42-R)	Antique Nickel (F44-R)	Rustic Umber (F8709)
Active Door Set M112P/2167NZS/KM	45mm (1.75)	2740627	2740635	2744062	2744071	2744089	2744100	2744118	2744126	2744134	2744151
Inactive Door Set M112P/2167NZS/M	45mm (1.75)	2749197	2749200	2749218	2749234	2749226	2749242	2749251	2749269	2749277	2749285
Pair Fixed Dummy M112P/2167NZS	45mm (1.75)	2751684	2751692	2751705	2751721	2751713	2751730	2751748	2751756	2751764	2751772

Active Door Sets have a cylinder on the outside backplate and a thumbturn on the interior backplate.

Inactive Door Sets have only the thumbturn on the interior plate.

Pair Fixed Dummy Sets do not operate.

München
Solid Brass
M112P/2172N



Right Hand Shown

Interior Backplate

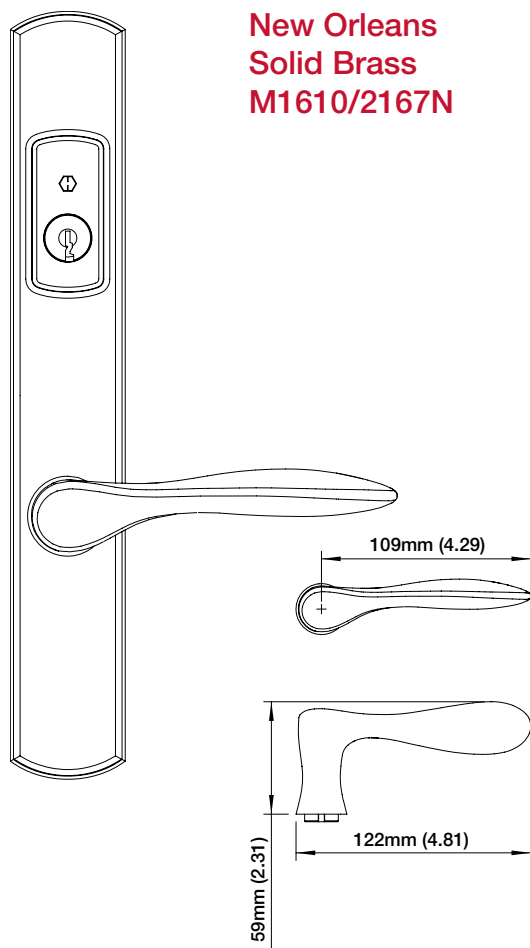
Exterior Backplate

Description	Door Thickness	Resista Brass (F77-R)	Antique Brass (F73)	Brushed Chrome (F41-R)	Polished Chrome (F49-R)	Oil-Rubbed Brass (F79)	Pure White (F9010)	Matte Black (F9714)	Satin Nickel (F42-R)	Antique Nickel (F44-R)	Rustic Umber (F8709)
Active Door Set M112P/2172NZS/KM	45mm (1.75)	2745735	2745778	2745807	2745823	2745831	2745840	2745903	2745911	2745920	2745938
Inactive Door Set M112P/2172NZS/M	45mm (1.75)	2749816	2749824	2749832	2749859	2749841	2749867	2749875	2749883	2749891	2749904
Pair Fixed Dummy M112P/2172NZS	45mm (1.75)	2752409	2752417	2752425	2752441	2752433	2752450	2752468	2752476	2752484	2752505

Active Door Sets have a cylinder on the outside backplate and a thumbturn on the interior backplate.

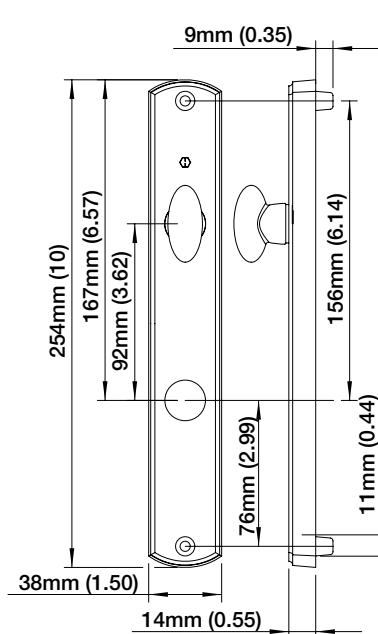
Inactive Door Sets have only the thumbturn on the interior plate.

Pair Fixed Dummy Sets do not operate.

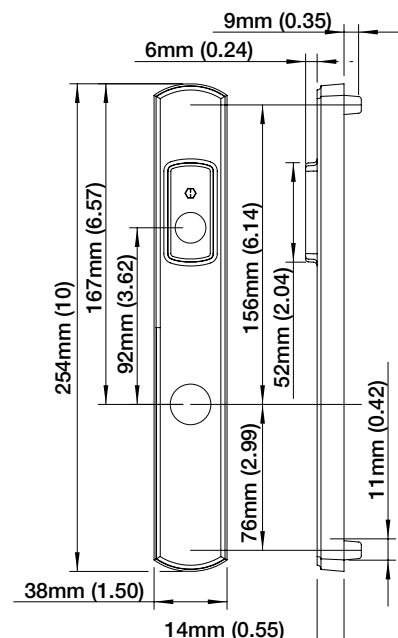


New Orleans
Solid Brass
M1610/2167N

Right Hand Shown



Interior Backplate



Exterior Backplate

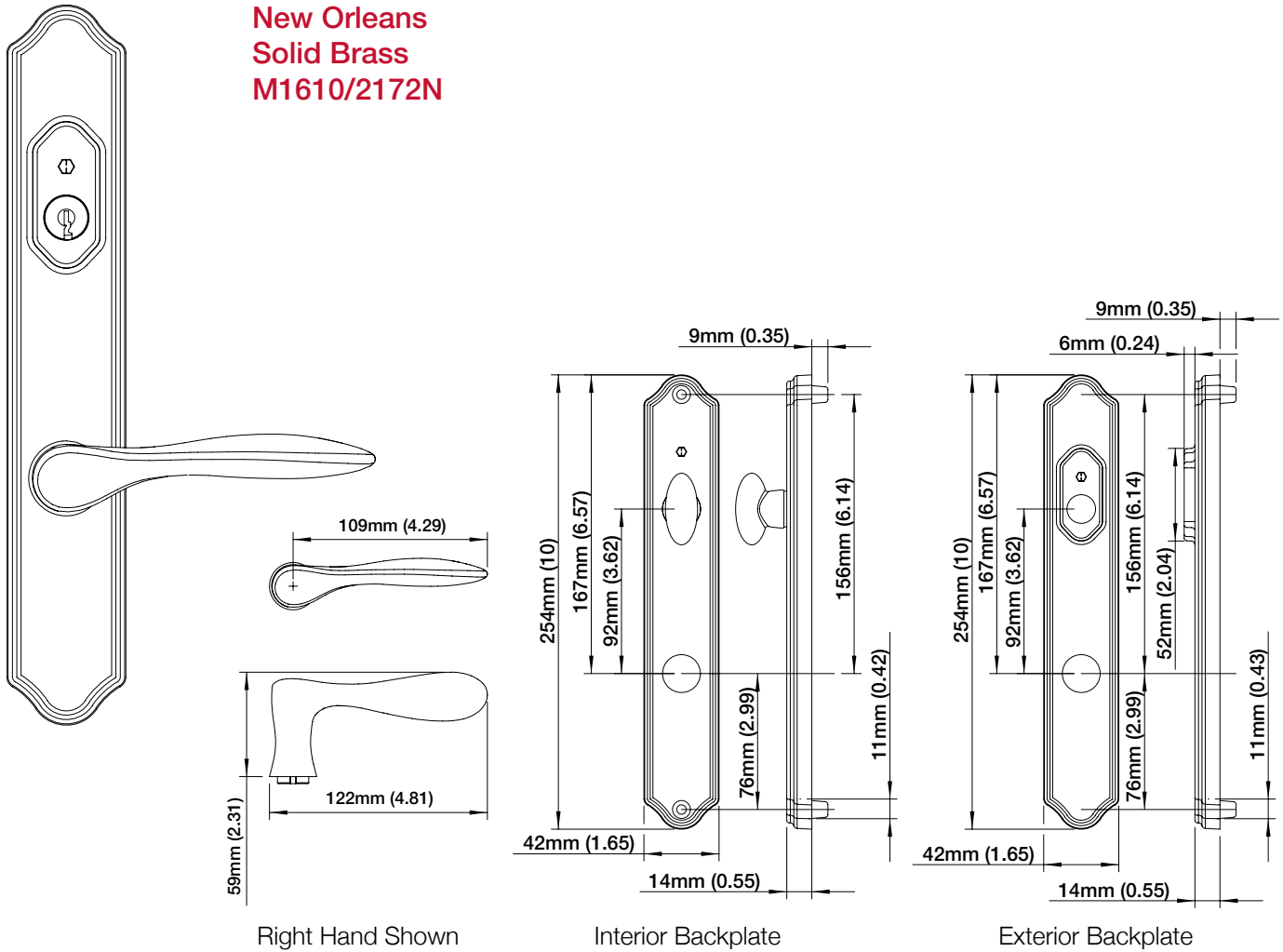
Description	Door Thickness	Resista Brass (F77-R)	Antique Brass (F73)	Brushed Chrome (F41-R)	Polished Chrome (F49-R)	Oil-Rubbed Brass (F79)	Pure White (F9010)	Matte Black (F9714)	Satin Nickel (F42-R)	Antique Nickel (F44-R)	Rustic Umber (F8709)
Active Door Set M1610/2167NZS/KM	45mm (1.75)	2747044	2747036	2747052	2750171	2750201	2750227	2750243	2747061	2750251	2750260
Inactive Door Set M1610/2167NZS/M	45mm (1.75)	2749710	2749728	2749736	2749752	2749744	2749761	2749779	2749787	2749795	2749808
Pair Fixed Dummy M1610/2167NZS	45mm (1.75)	2752222	2752231	2752273	2752329	2752290	2752345	2752353	2752370	2752388	2752396

Active Door Sets have a cylinder on the outside backplate and a thumbturn on the interior backplate.

Inactive Door Sets have only the thumbturn on the interior plate.

Pair Fixed Dummy Sets do not operate.

**New Orleans
Solid Brass
M1610/2172N**

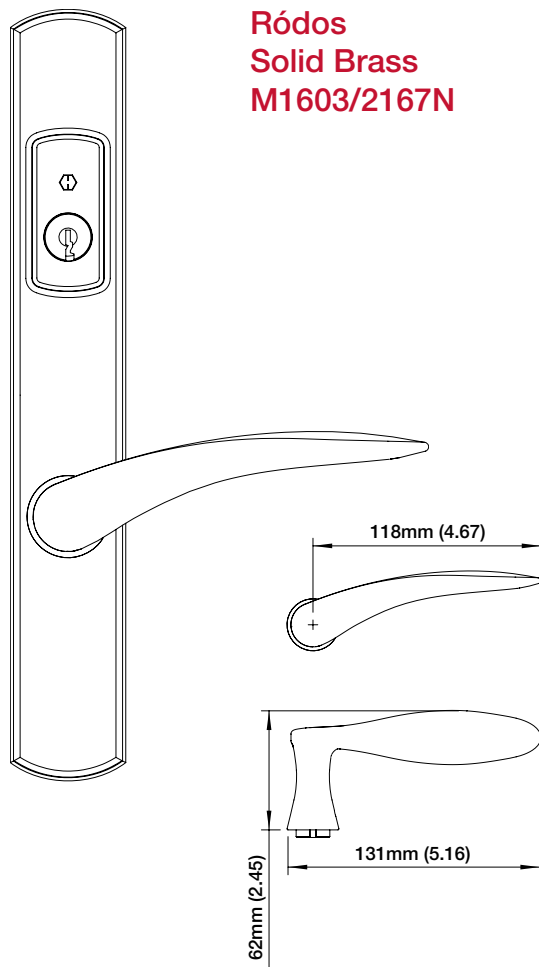


Description	Door Thickness	Resista Brass (F77-R)	Antique Brass (F73)	Brushed Chrome (F41-R)	Polished Chrome (F49-R)	Oil-Rubbed Brass (F79)	Pure White (F9010)	Matte Black (F9714)	Satin Nickel (F42-R)	Antique Nickel (F44-R)	Rustic Umber (F8709)
Active Door Set M1610/2172NZS/KM	45mm (1.75)	2746607	2746615	2746640	2746658	2746666	2746674	2746682	2746691	2746703	2746711
Inactive Door Set M1610/2172NZ/M	45mm (1.75)	2751300	2751318	2751326	2751342	2751334	2751351	2751369	2751377	2751385	2751393
Pair Fixed Dummy M1610/2172NZS	45mm (1.75)	2752716	2752724	2752732	2752767	2752741	2752759	2752775	2752783	2752791	2752804

Active Door Sets have a cylinder on the outside backplate and a thumbturn on the interior backplate.

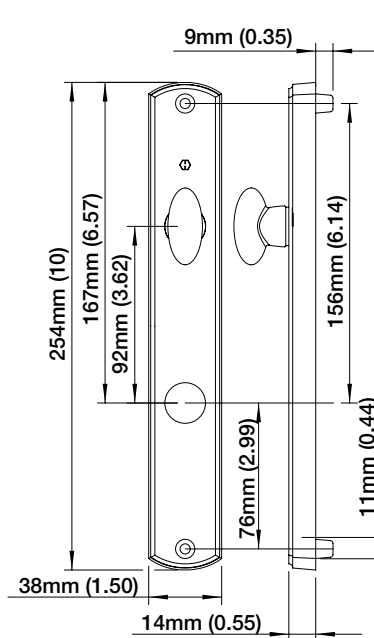
Inactive Door Sets have only the thumbturn on the interior plate.

Pair Fixed Dummy Sets do not operate.

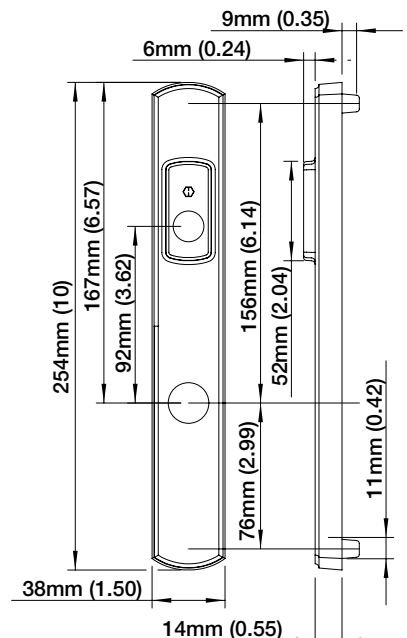


Ródos
Solid Brass
M1603/2167N

Right Hand Shown



Interior Backplate



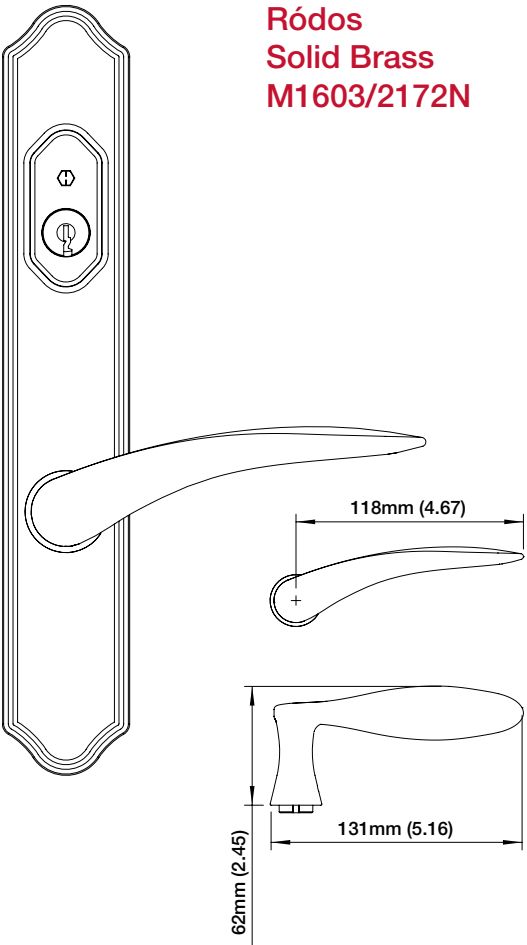
Exterior Backplate

Description	Door Thickness	Resista Brass (F77-R)	Antique Brass (F73)	Brushed Chrome (F41-R)	Polished Chrome (F49-R)	Oil-Rubbed Brass (F79)	Pure White (F9010)	Matte Black (F9714)	Satin Nickel (F42-R)	Antique Nickel (F44-R)	Rustic Umber (F8709)
Active Door Set M1603/2167NZS/KM	45mm (1.75)	2745305	2745313	2745321	2745655	2745663	2745671	2745680	2745698	2745719	2745727
Inactive Door Set M1603/2167NZS/M	45mm (1.75)	2749613	2749621	2749630	2749656	2749648	2749664	2749672	2749681	2749699	2749701
Pair Fixed Dummy M1603/2167NZS	45mm (1.75)	2752126	2752134	2752142	2752169	2752151	2752177	2752185	2752193	2752206	2752214

Active Door Sets have a cylinder on the outside backplate and a thumbturn on the interior backplate.

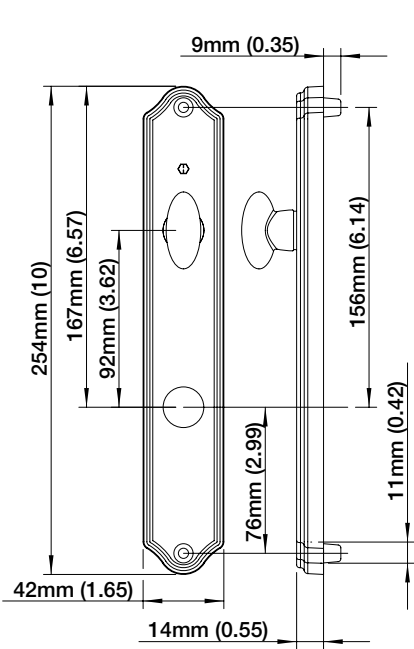
Inactive Door Sets have only the thumbturn on the interior plate.

Pair Fixed Dummy Sets do not operate.

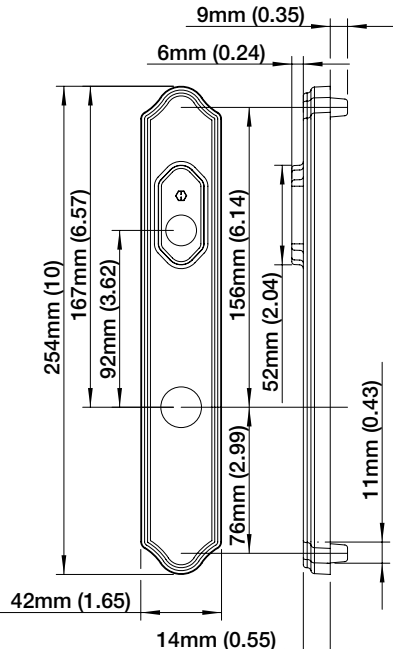


Ródos
Solid Brass
M1603/2172N

Right Hand Shown



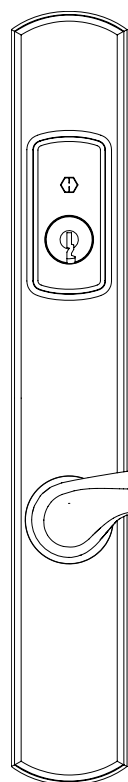
Interior Backplate



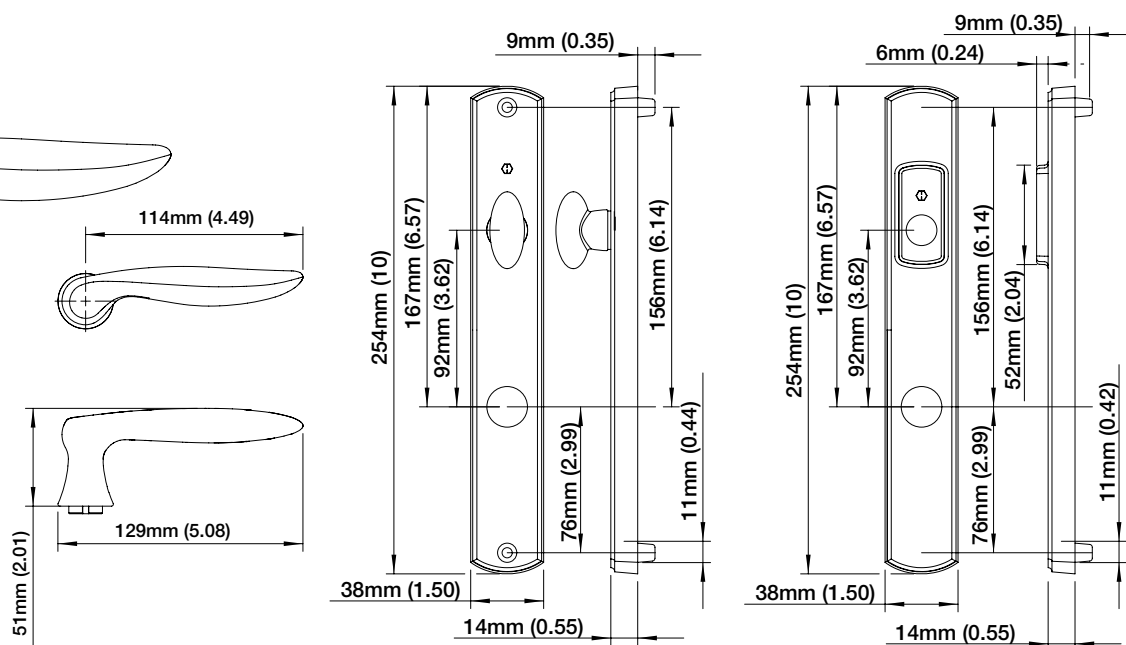
Exterior Backplate

Description	Door Thickness	Resista Brass (F77-R)	Antique Brass (F73)	Brushed Chrome (F41-R)	Polished Chrome (F49-R)	Oil-Rubbed Brass (F79)	Pure White (F9010)	Matte Black (F9714)	Satin Nickel (F42-R)	Antique Nickel (F44-R)	Rustic Umber (F8709)
Active Door Set M1603/2172NZS/KM	45mm (1.75)	2746041	2746050	2746068	2746076	2746084	2746092	2746551	2746560	2746586	2746594
Inactive Door Set M1603/2172MZS/M	45mm (1.75)	2751027	2751086	2751115	2751140	2751123	2751158	2751166	2751174	2751182	2751191
Pair Fixed Dummy M1603/2172NZS	45mm (1.75)	2752610	2752628	2752636	2752652	2752644	2752661	2752679	2752687	2752695	2752708

Active Door Sets have a cylinder on the outside backplate and a thumbturn on the interior backplate.
Inactive Door Sets have only the thumbturn on the interior plate.
Pair Fixed Dummy Sets do not operate.



Toronto
Solid Brass
M1020/2167N



Right Hand Shown

Interior Backplate

Exterior Backplate

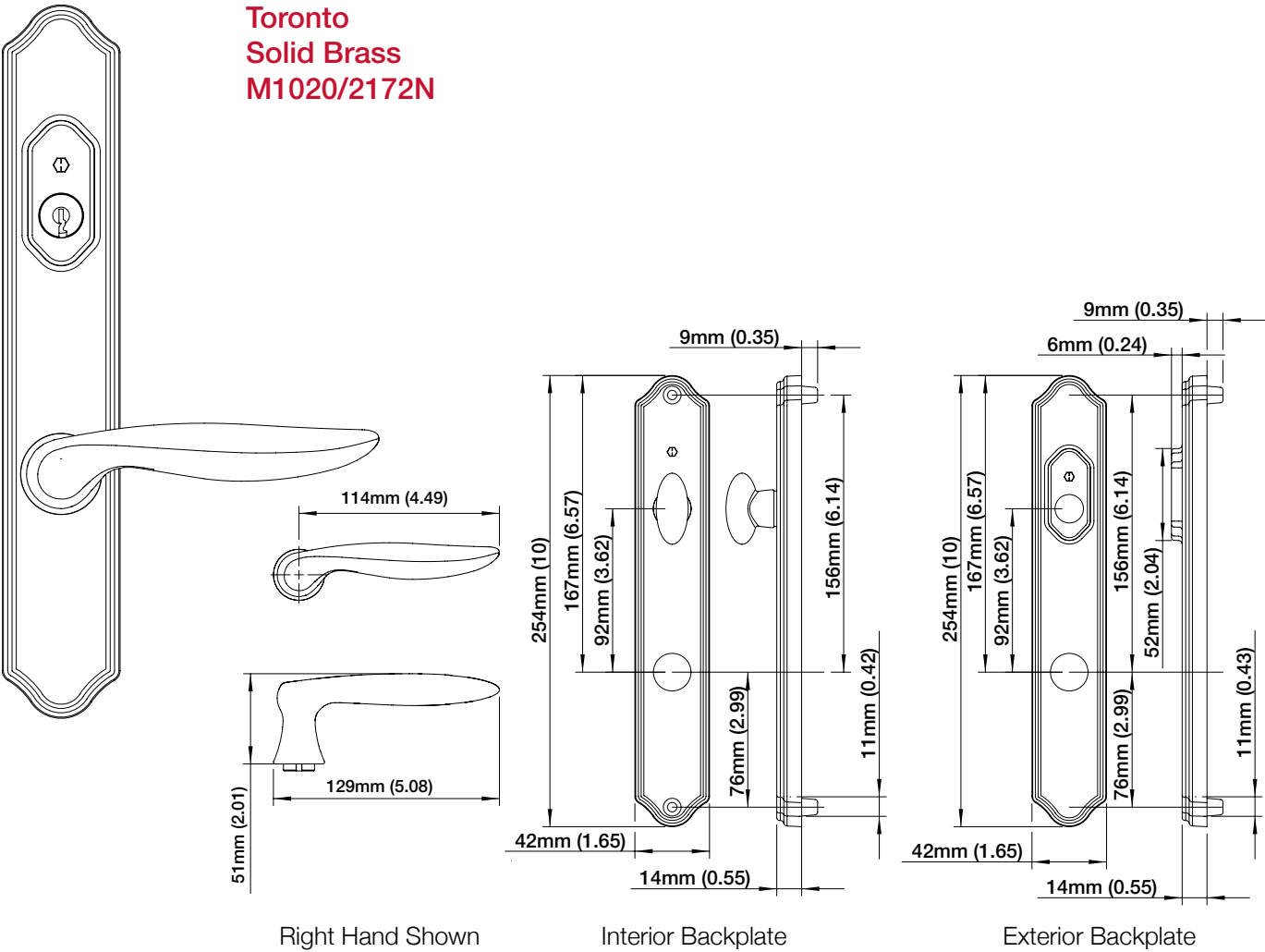
Description	Door Thickness	Resista Brass (F77-R)	Antique Brass (F73)	Brushed Chrome (F41-R)	Polished Chrome (F49-R)	Oil-Rubbed Brass (F79)	Pure White (F9010)	Matte Black (F9714)	Satin Nickel (F42-R)	Antique Nickel (F44-R)	Rustic Umber (F8709)
Active Door Set M1020/2167NZS/KM	45mm (1.75)	2744169	2744177	2744185	2744193	2744206	2744214	2744222	2745276	2745284	2745292
Inactive Door Set M1020/2167NZS/M	45mm (1.75)	2749293	2749314	2749322	2749357	2749349	2749365	2749402	2749445	2749488	2749525
Pair Fixed Dummy M1020/2167NZS	45mm (1.75)	2751781	2751799	2751801	2751828	2751810	2751836	2751844	2751852	2751861	2751879

Active Door Sets have a cylinder on the outside backplate and a thumbturn on the interior backplate.

Inactive Door Sets have only the thumbturn on the interior plate.

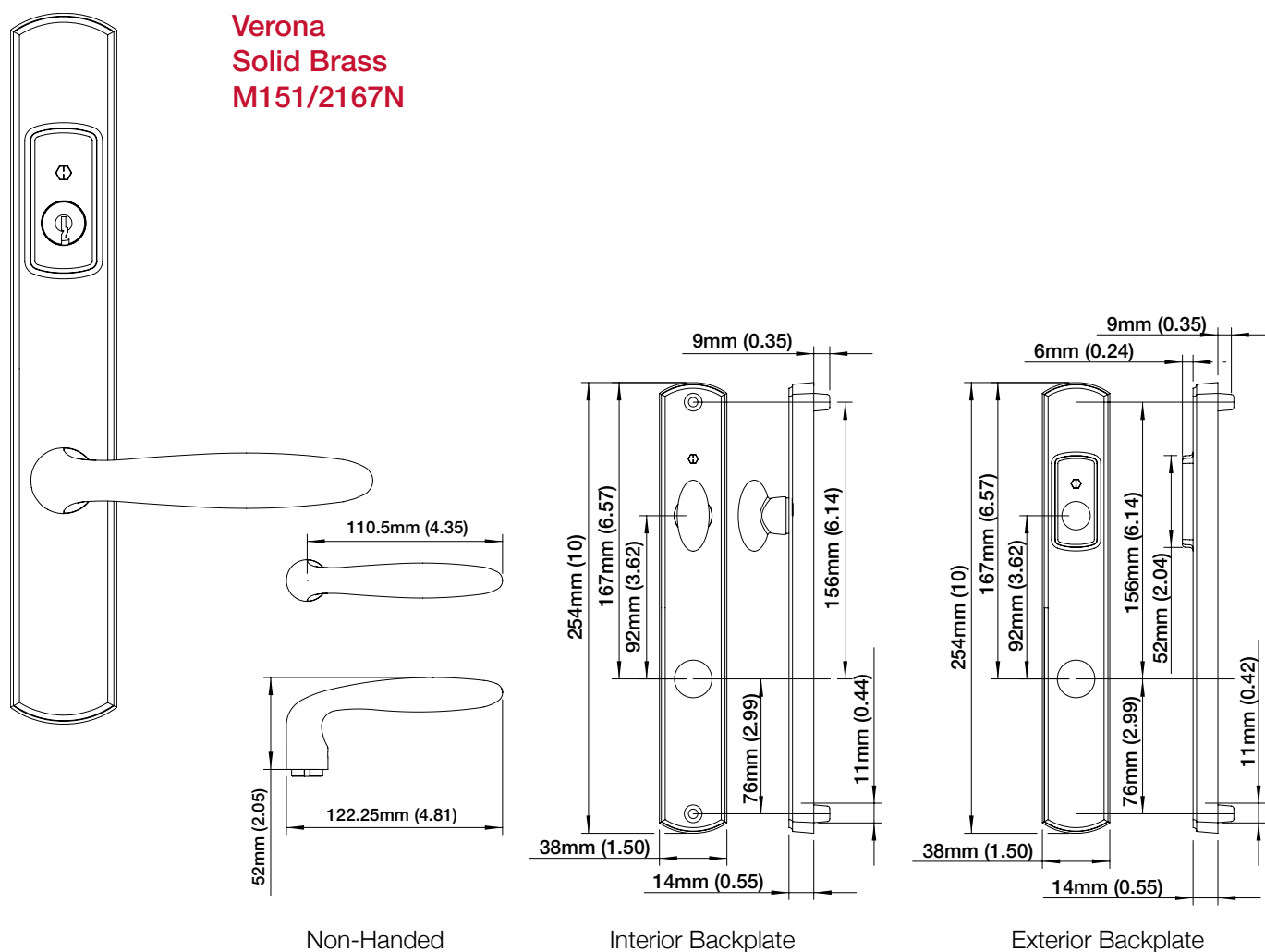
Pair Fixed Dummy Sets do not operate.

Toronto
Solid Brass
M1020/2172N



Description	Door Thickness	Resista Brass (F77-R)	Antique Brass (F73)	Brushed Chrome (F41-R)	Polished Chrome (F49-R)	Oil-Rubbed Brass (F79)	Pure White (F9010)	Matte Black (F9714)	Satin Nickel (F42-R)	Antique Nickel (F44-R)	Rustic Umber (F8709)
Active Door Set M1020/2172NZS/KM	45mm (1.75)	2745946	2745954	2745962	2745971	2745989	2745997	2746009	2746017	2746025	2746033
Inactive Door Set M1020/2172NZS/M	45mm (1.75)	2750631	2750649	2750657	2750673	2750665	2750681	2750690	2750702	2750711	2750729
Pair Fixed Dummy M1020/2172NZS	45mm (1.75)	2752513	2752521	2752530	2752556	2752548	2752564	2752572	2752581	2752599	2752601

Active Door Sets have a cylinder on the outside backplate and a thumbturn on the interior backplate.
Inactive Door Sets have only the thumbturn on the interior plate.
Pair Fixed Dummy Sets do not operate.



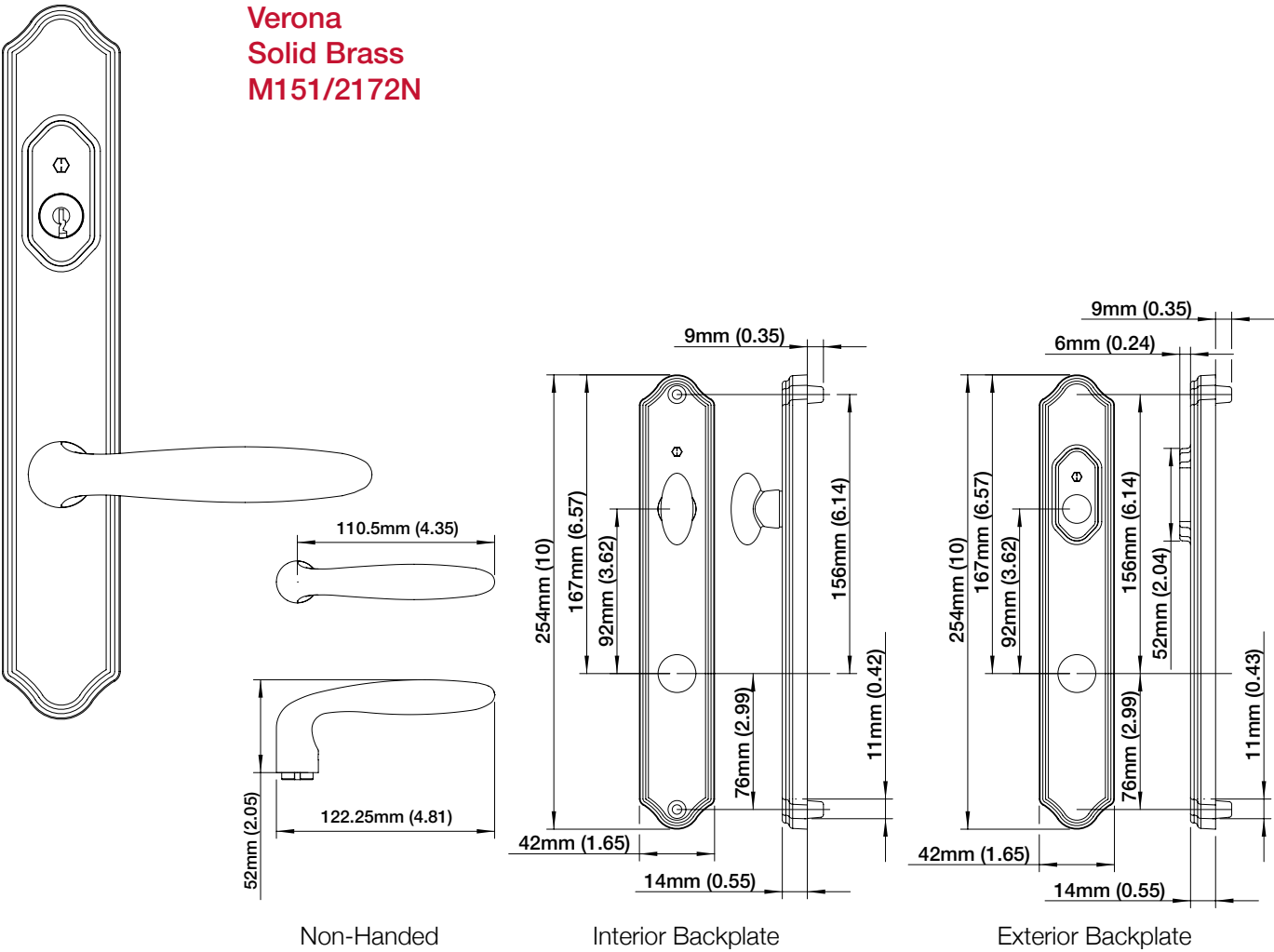
Description	Door Thickness	Resista Brass (F77-R)	Antique Brass (F73)	Brushed Chrome (F41-R)	Polished Chrome (F49-R)	Oil-Rubbed Brass (F79)	Pure White (F9010)	Matte Black (F9714)	Satin Nickel (F42-R)	Antique Nickel (F44-R)	Rustic Umber (F8709)
Active Door Set M151/2167NZS/KM	45mm (1.75)	2746720	2746738	2746746	2746754	2746762	2746771	2746789	2746797	2746800	2746818
Inactive Door Set M151/2167NZS/M	45mm (1.75)	2751406	2751414	2751422	2751449	2751431	2751457	2751465	2751473	2751481	2751490
Pair Fixed Dummy M151/2167NZS	45mm (1.75)	2752812	2752821	2752839	2752855	2752847	2752863	2752871	2752880	2752898	2752901

Active Door Sets have a cylinder on the outside backplate and a thumbturn on the interior backplate.

Inactive Door Sets have only the thumbturn on the interior plate.

Pair Fixed Dummy Sets do not operate.

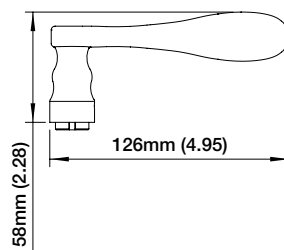
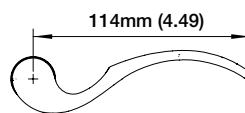
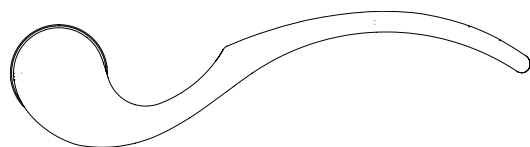
Verona
Solid Brass
M151/2172N



Description	Door Thickness	Resista Brass (F77-R)	Antique Brass (F73)	Brushed Chrome (F41-R)	Polished Chrome (F49-R)	Oil-Rubbed Brass (F79)	Pure White (F9010)	Matte Black (F9714)	Satin Nickel (F42-R)	Antique Nickel (F44-R)	Rustic Umber (F8709)
Active Door Set M151/2172NZS/KM	45mm (1.75)	2746826	2746834	2746842	2746851	2746869	2746877	2746885	2746893	2746906	2746922
Inactive Door Set M151/2172NZS/M	45mm (1.75)	2751502	2751511	2751529	2751545	2751537	2751553	2751561	2751570	2751588	2751596
Pair Fixed Dummy M151/2172NZS	45mm (1.75)	2752919	2752927	2752935	2752951	2752943	2752960	2752978	2752986	2752994	2753006

Active Door Sets have a cylinder on the outside backplate and a thumbturn on the interior backplate.
Inactive Door Sets have only the thumbturn on the interior plate.
Pair Fixed Dummy Sets do not operate.

München
Solid Brass
M112P

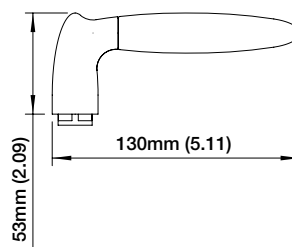
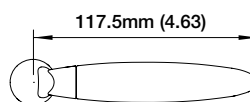


Right Hand Shown

Description	Resista Brass (F77-R)	Antique Brass (F73)	Brushed Chrome (F41-R)	Polished Chrome (F49-R)	Oil-Rubbed Brass (F79)	Pure White (F9010)	Matte Black (F9714)	Satin Nickel (F42-R)	Antique Nickel (F44-R)	Rustic Umber (F8709)
RH Handle	2789527	2789519	2789471	2789501	2789535	2789543	2789551	2789480	2789498	2790843
LH Handle	2789439	2789421	2789383	2789412	2789447	2789455	2789463	2789391	2789404	2790835

All handles include HOPPE's Quick-Fit Connection™* and Handle Release Tool.

Athinaï
Solid Brass
M156



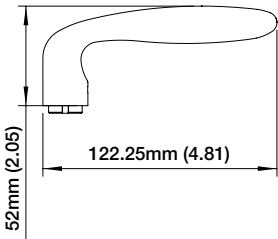
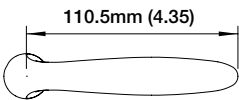
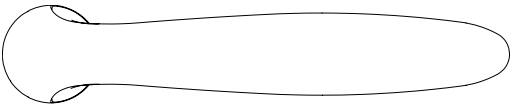
Non-Handed

Description	Resista Brass / Brushed Brass (F77-R/F72-R)	Polished Chrome / Brushed Stainless Steel (F49-R/F69-R)
Non-Handed	2790827	2789367

All handles include HOPPE's Quick-Fit Connection™* and Handle Release Tool.

Handle Components

Verona
Solid Brass
M151

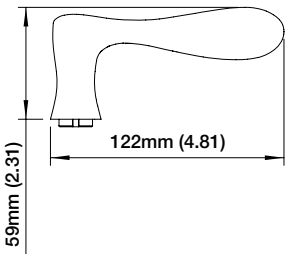
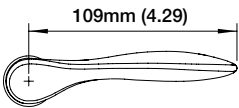
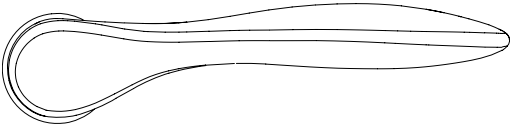


Non-Handed

Description	Resista Brass (F77-R)	Antique Brass (F73)	Brushed Chrome (F41-R)	Polished Chrome (F49-R)	Oil-Rubbed Brass (F79)	Pure White (F9010)	Matte Black (F9714)	Satin Nickel (F42-R)	Antique Nickel (F44-R)	Rustic Umber (F8709)
Non-Handed	2789973	2789965	2789922	2789957	2789981	2790000	2790018	2789931	2789949	2789990

All handles include HOPPE's Quick-Fit Connection™* and Handle Release Tool.

New Orleans
Solid Brass
M1610

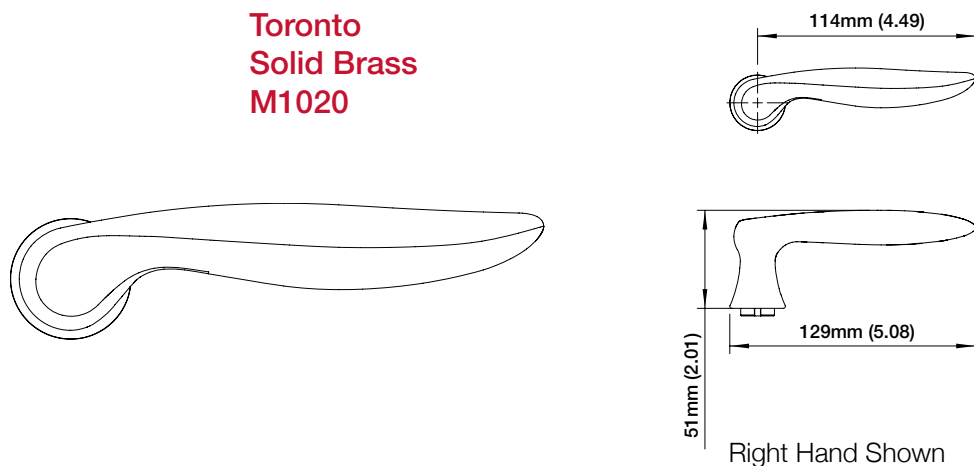


Right Hand Shown

Description	Resista Brass (F77-R)	Antique Brass (F73)	Brushed Chrome (F41-R)	Polished Chrome (F49-R)	Oil-Rubbed Brass (F79)	Pure White (F9010)	Matte Black (F9714)	Satin Nickel (F42-R)	Antique Nickel (F44-R)	Rustic Umber (F8709)
RH Handle	2790131	2790940	2790106	2790122	2790149	2790931	2790165	2790114	2790923	2790157
LH Handle	2790069	2790915	2790026	2790051	2790077	2790907	2790093	2790042	2790894	2790085

All handles include HOPPE's Quick-Fit Connection™* and Handle Release Tool.

Toronto
Solid Brass
M1020



Description	Resista Brass (F77-R)	Antique Brass (F73)	Brushed Chrome (F41-R)	Polished Chrome (F49-R)	Oil-Rubbed Brass (F79)	Pure White (F9010)	Matte Black (F9714)	Satin Nickel (F42-R)	Antique Nickel (F44-R)	Rustic Umber (F8709)
RH Handle	2789877	2789869	2789826	2789851	2789885	2789906	2789914	2789834	2789842	2789893
LH Handle	2789771	2789762	2789720	2789754	2789789	2789800	2789818	2789738	2789746	2789797

All handles include HOPPE's Quick-Fit Connection™* and Handle Release Tool.

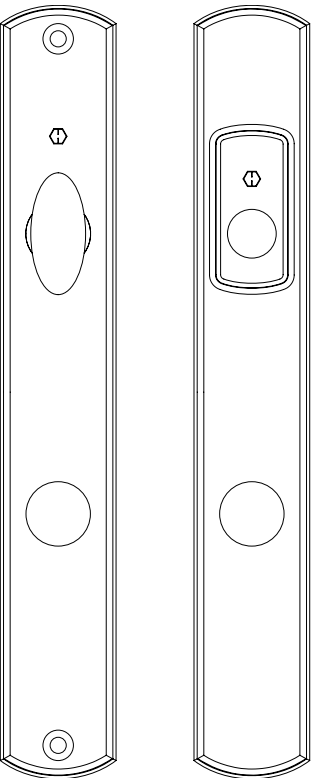
Ródos
Solid Brass
M1603



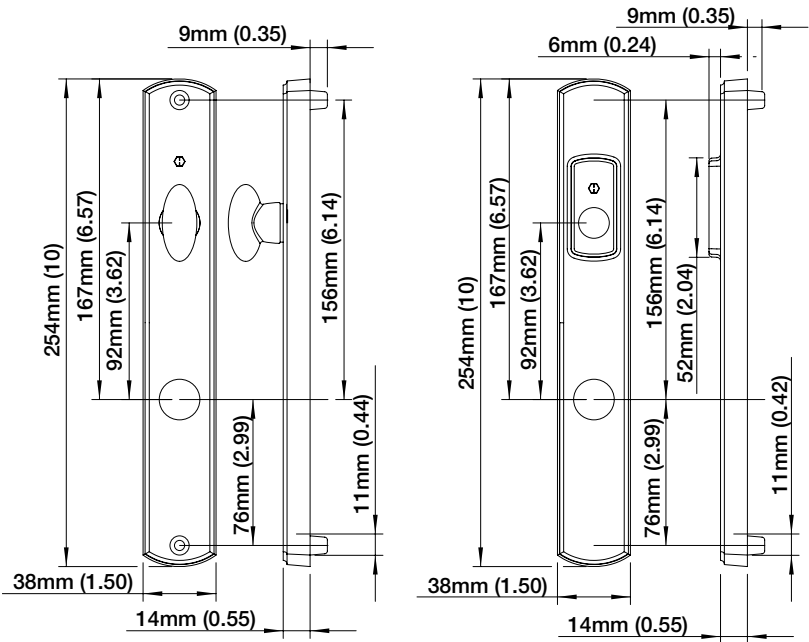
Description	Resista Brass (F77-R)	Antique Brass (F73)	Brushed Chrome (F41-R)	Polished Chrome (F49-R)	Oil-Rubbed Brass (F79)	Pure White (F9010)	Matte Black (F9714)	Satin Nickel (F42-R)	Antique Nickel (F44-R)	Rustic Umber (F8709)
RH Handle	2789682	2789674	2789640	2789666	2789691	2790886	2789711	2789658	2790878	2789703
LH Handle	2789607	2789594	2789560	2789586	2789615	2790860	2789631	2789578	2790851	2789623

All handles include HOPPE's Quick-Fit Connection™* and Handle Release Tool.

Backplate Components



Backplate Solid Brass M2167N

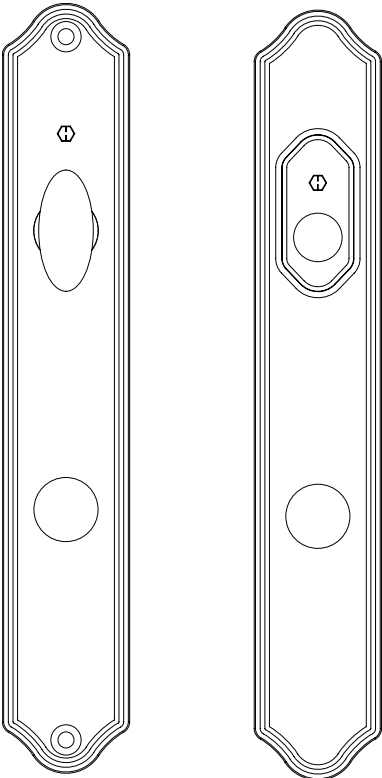


Interior Backplate

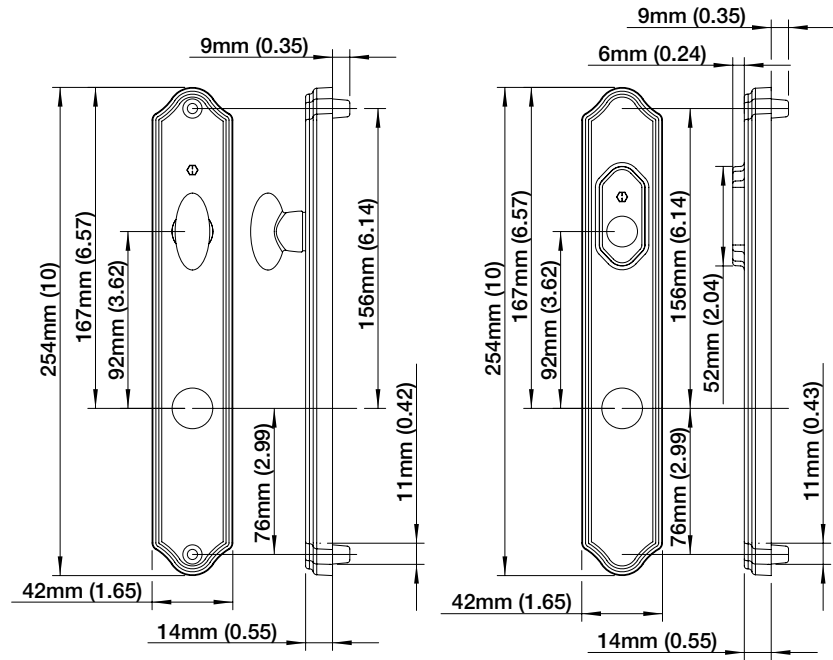
Exterior Backplate

Description	Resista Brass (F77-R)	Antique Brass (F73)	Brushed Chrome (F41-R)	Polished Chrome (F49-R)	Oil-Rubbed Brass (F79)	Pure White (F9010)	Matte Black (F9714)	Satin Nickel (F42-R)	Antique Nickel (F44-R)	Rustic Umber (F8709)
Active or Inactive Interior - with thumbturn	2744265	2744257	2743625	2744249	2744273	2744290	2744302	2744142	2744231	2744281
Active Exterior - with thumbturn	2791678	2791694	2791707	2791715	2791723	2791731	2791740	2791758	2791766	2791774
Inactive Exterior - no thumbturn	2792275	2792283	2792291	2792304	2792312	2792321	2792339	2792347	2792355	2792363

All interior backplates include gasket, bushing, mounting screws and thumbturn for 45mm (1.75) door thickness.
All exterior backplates include gasket and bushing.



Backplate
Solid Brass
M2172N

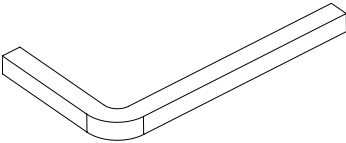


Interior Backplate

Exterior Backplate

Description	Resista Brass (F77-R)	Antique Brass (F73)	Brushed Chrome (F41-R)	Polished Chrome (F49-R)	Oil-Rubbed Brass (F79)	Pure White (F9010)	Matte Black (F9714)	Satin Nickel (F42-R)	Antique Nickel (F44-R)	Rustic Umber (F8709)
Active or Inactive Interior - with thumbturn	2744361	2744353	2744311	2744345	2744370	2744396	2744409	2744329	2744337	2744388
Active Exterior - with thumbturn	2791782	2791791	2791803	2791811	2791820	2791838	2791854	2791862	2791871	2791889
Inactive Exterior - no thumbturn	2792371	2792380	2792398	2792401	2792419	2792427	2792435	2792443	2792451	2792460

All interior backplates include gasket, bushing, mounting screws and thumbturn for 45mm (1.75) door thickness.
All exterior backplates include gasket and bushing.



Construction Handle

	Part Number
Steel C-Handle 8mm	2426890

Use during construction to operate latch.
May be used with construction backplate.
A construction handle is included in each new handle set.



Screws for Construction Plate

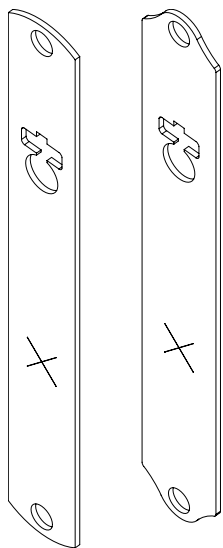
	Part Number
2 Per Plate	2591511

Sold seperately from backplate.

Construction Backplate

Door Thickness	Part Number
45mm (1.77)	2760791

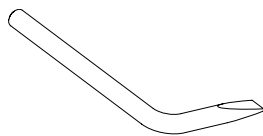
Exterior backplate to use during construction phase to cover door prep holes.
Prevents operation of the latch and locking mechanism from the outside.



M2167N M2172N

Backplate Gaskets

Description	Part Number
M2167N Backplate	2737559
M2172N Backplate	2737567



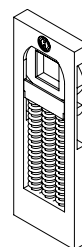
Quick-Fit Connection™ Handle Tool

Description	Part Number
For Removal of Handle	7190528



Cylinder Screws

Description	Part Number
2 Per Cylinder	2753946



Spring Cartridge

Description	Part Number
1 Per Backplate	2702170

Backplate Bushings

	Resista Brass (F77-R)	Antique Brass (F73)	Brushed Chrome (F41)	Polished Chrome (F49)	Oil-Rubbed Brass (F79)	Pure Shite (F9010)	Matte Black (F9714)	Satin Nickel (F42)	Antique Nickel (F44)	Rustic Umber (F8709)
	387340	387340	1975598	1975598	1975619	387340	1975619	1975580	1975619	387340

Parts Pack for Active Handle Set - 2 Each C-Washers, Spring Cartridges, Cylinder Screws & Handle Spindles 1 Each Handle Release Tool and Black Plastic Insert

Description	Part Number
45mm (1.77)	2753954

Parts Pack for Inactive Handle Set - 2 Each C-Washers, Spring Cartridges & Handle Spindles 1 Each Handle Release Tool, Black Plastic Insert and 76mm Tailpiece to Insert in Plastic Insert

Description	Part Number
45mm (1.77)	2753920

Parts Pack for Handle Set - 2 Backplate Screws

	Resista Brass (F77-R)	Antique Brass (F73)	Brushed Chrome (F41-R)	Polished Chrome (F49-R)	Oil-Rubbed Brass (F79)	Pure White (F9010)	Matte Black (F9714)	Satin Nickel (F42-R)	Antique Nickel (F44-R)	Rustic Umber (F8709)
60mm Screws M5x60	2699880	2781744	2725291	2781761	2781779	2781787	2781795	2725291	2781808	2781779

All items are included in handle sets.

HLS™ 7 Series* Active Panel Trim Installation Instructions

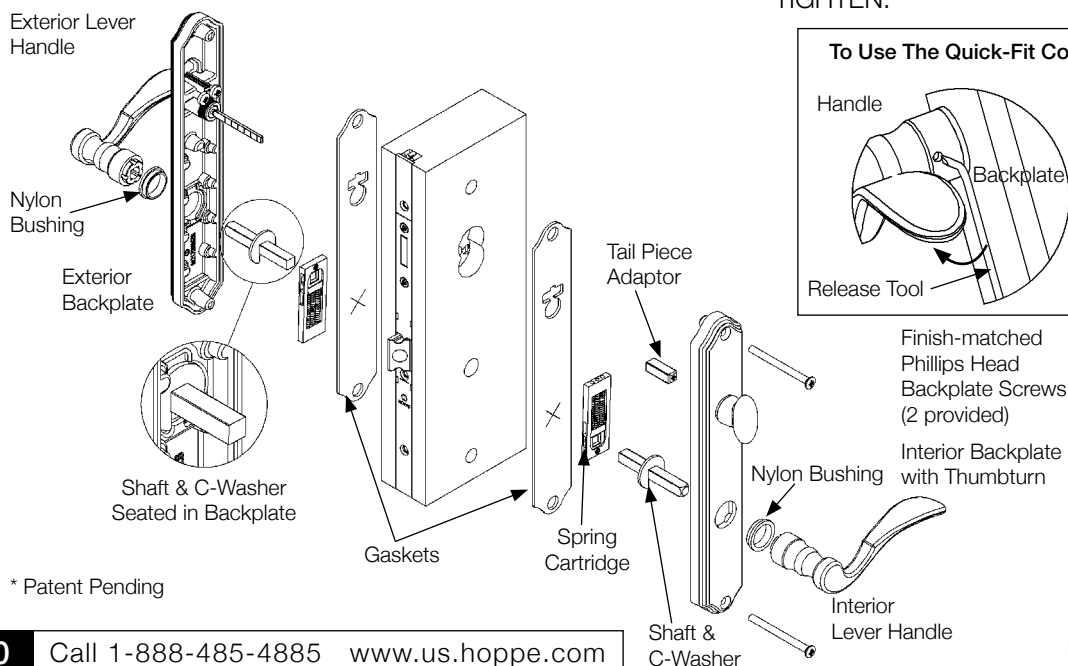
A Phillips screwdriver is required.

A Quick-Fit Connection™* release tool (for removing handles if necessary), and a construction handle are provided in the hardware package.

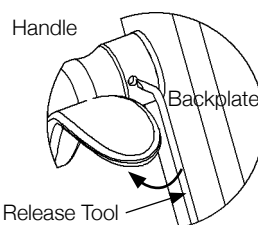
Use only water and a soft cloth to clean trim. Do not use brass cleaner or solvent-based cleaning agent, as it will remove the protective coating.

Note: Handles and backplates vary by style but the application is the same.

1. Remove any construction trim that was previously installed.
2. Make sure locking system is fully **unlocked** before proceeding with trim installation. To be certain, insert construction handle into the interior handle hub and push handle down until latch retracts. Next, allow latch to return, and remove construction handle. All locking mechanisms will now be in unlocked position and trim may be installed.
3. Insert black tail piece adaptor into base of thumbturn.
4. Secure cylinder to exterior backplate with (2) 14mm (9/16") screws provided. It is important to be sure cylinder is evenly positioned, and screws are not over-tightened.
5. Press nylon handle bushings (2 provided) into backplates.
6. **IMPORTANT: Handle portion of shaft is identified with a chamfered end and a notch in each side edge.** Slide C-washer into groove in shaft, and pass handle portion of shaft through underside of backplate. Be certain that C-washer properly seats into backplate as shown below.
7. While holding C-washer in place, push handle onto shaft until handle stops at backplate. Properly orient direction of handle for right hand or left hand, and slide spring cartridge onto shaft until cartridge rests into backplate. For left hand handles, spring cartridge should be positioned with springs below shaft. For right hand handles, spring cartridge should be positioned with springs above shaft. Turn backplate over, and place end of shaft against a solid surface. Push handle firmly onto shaft to completely secure handle to backplate.
8. Apply gasket to underside of each backplate.
9. Apply exterior trim to door stile while aligning shaft and cylinder tail piece into gear. Cylinder tail piece slot in gear should be in the vertical position – if not, repeat step 2 before installing trim.
10. While holding exterior trim in place, apply interior trim in the same manner, and joining cylinder tail piece to appropriate slot of black adaptor in thumbturn. Both tail piece and thumbturn should be in the vertical position as shown below.
11. Fasten backplates with 2 screws provided. Tighten screws with Phillips screwdriver. **DO NOT OVER-TIGHTEN.**



To Use The Quick-Fit Connection™ Release Tool:



1. Place chamfered end of tool into hole on the side of the handle neck.
2. Push tool in, and rotate towards the lever part of the handle.
3. Pull handle off the spindle and backplate.

Vertical Tail Piece & Horizontal Knob



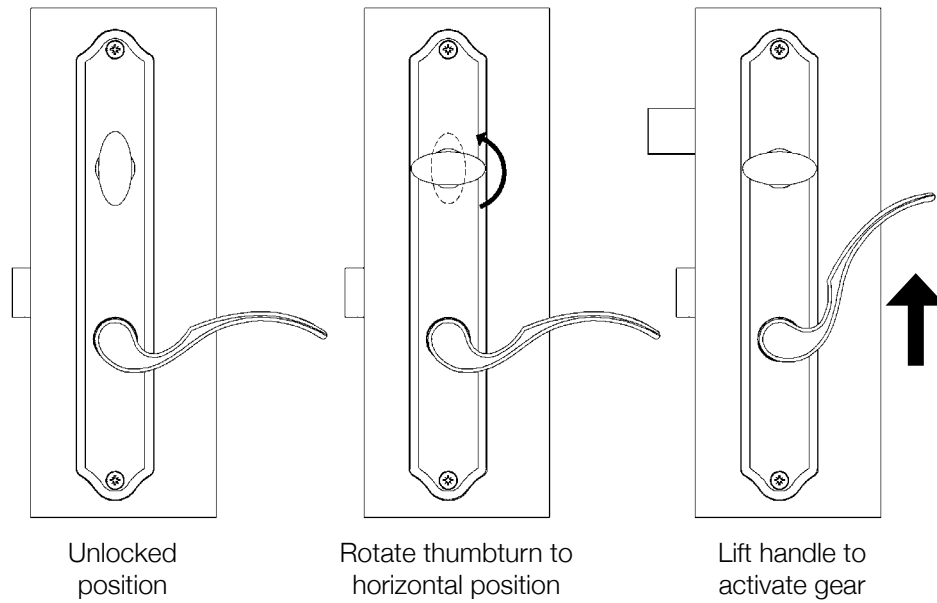
Vertical Tail Piece & Vertical Knob

(Example - Step # 10)

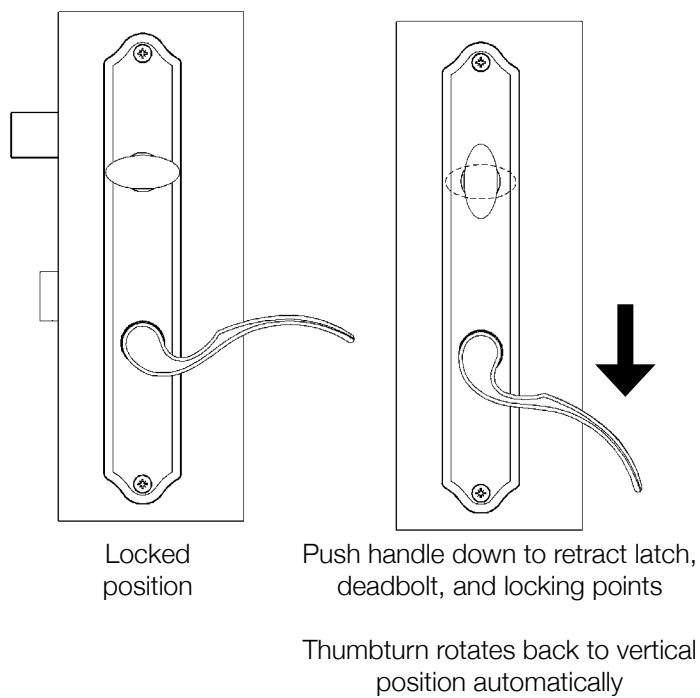
Proper Orientation of Cylinder Tail Piece to Thumbturn

HLS™ 7 Series* Active Panel Operation Instructions

Active Gear Operating Sequence



Simultaneous Retraction



* Patent Pending

HLS™ 7 Series* Inactive Panel Handle Set Installation Instructions

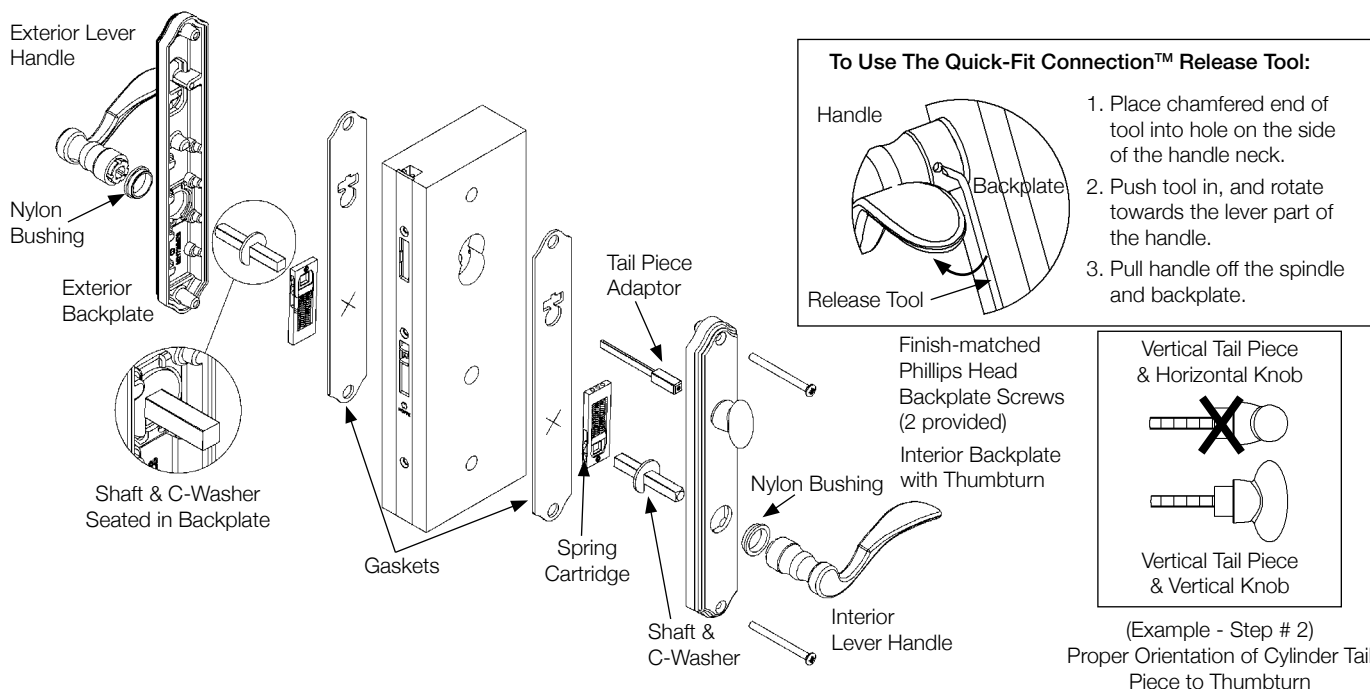
A Phillips screwdriver is required.

A Quick-Fit Connection™ release tool (for removing handles if necessary), and a construction handle are provided in the hardware package.

Use only water and a soft cloth to clean trim. Do not use brass cleaner or solvent-based cleaning agent, as it will remove the protective coating.

Note: Handles and backplates vary by style but the application is the same.

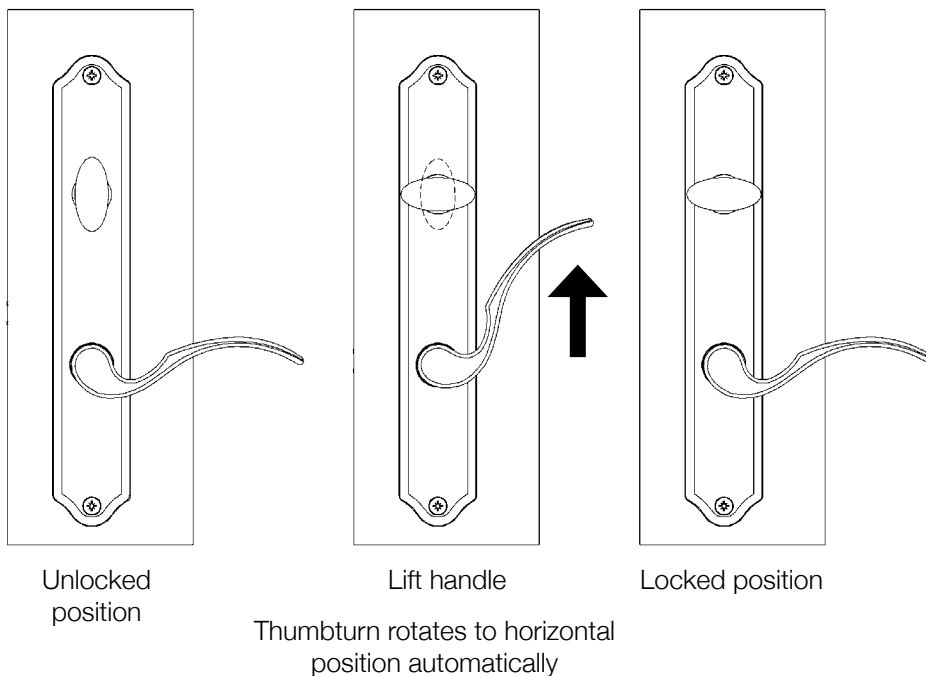
1. Remove any construction trim that was previously installed.
2. Insert tail piece with adaptor into base of thumbturn. Be sure tail piece matches the same horizontal/vertical direction of the thumbturn when inserted. See illustration below.
3. Press nylon handle bushings (2 provided) into backplates.
4. **IMPORTANT: Handle portion of shaft is identified with a chamfered end and a notch in each side edge.** Slide C-washer into groove in shaft, and pass handle portion of shaft through underside of backplate. Be certain that C-washer properly seats into backplate as shown below.
5. While holding C-washing in place, push handle onto shaft until handle stops at backplate. Properly orient direction of handle for right hand or left hand, and slide spring cartridge onto shaft until cartridge rests into backplate. For left hand handles, spring cartridge should be positioned with springs below shaft. For right hand handles, spring cartridge should be positioned with springs above shaft. Turn backplate over, and place end of shaft against a solid surface. Push handle firmly onto shaft to completely secure handle to backplate.
6. Apply gasket to underside of each backplate.
7. Apply exterior trim to door stile while aligning shaft into gear.
8. While holding exterior trim in place, apply interior trim in the same manner, also inserting tail piece through slot in gear.
9. Fasten backplates with 2 screws provided. Tighten screws with Phillips screwdriver. **DO NOT OVER-TIGHTEN.**



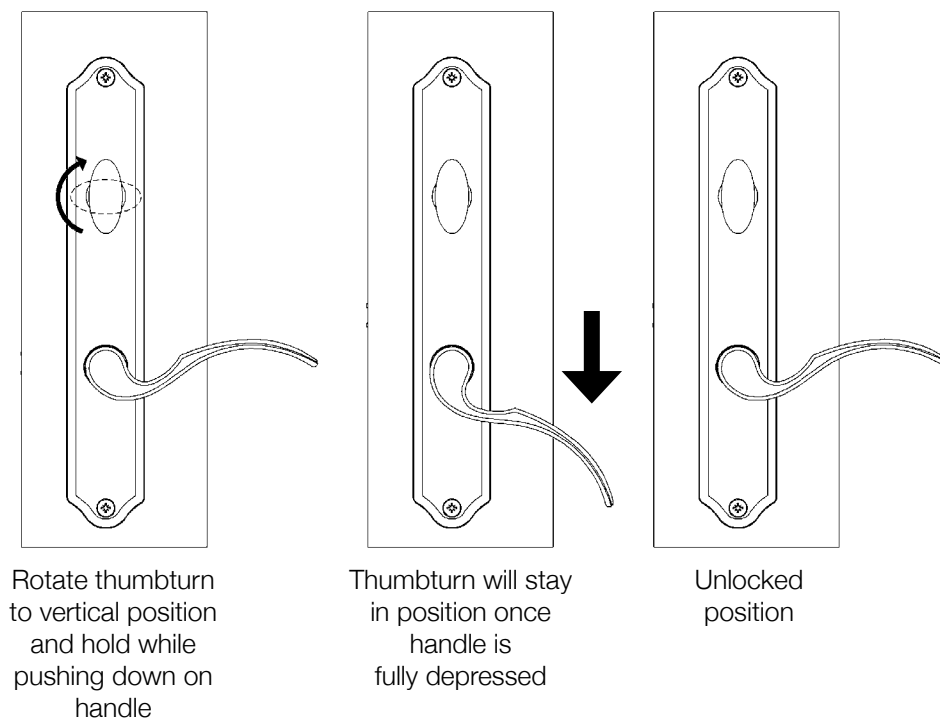
* Patent Pending

HLS™ 7 Series* Inactive Panel Operation Instructions

Inactive Gear Operating Sequence



Retraction of Inactive Gear



* Patent Pending



Handle Display Board

Description
Display boards are available in any handle series



Color Finish Ring

Description	Part Number
10 Finishes F77-R, F73, F41-R, F49-R, F42-R, F44-R, F9010, F9714, F79, F8709	2216729

For more details on obtaining sales tools above, contact your local representative.

Active Door Set

Handle set used on the active panel. This set will always include a cylinder.

Active Panel

When a door is referred to as “active” it means it is the primary functioning door usually in a pair of French doors. This will be the door that opens first.

Astragal

Decorative center section of wood or other material that is attached to the inactive panel and serves as a jamb.

Backplate

Decorative plate which mounts to the face of the door with holes to accept the handle and cylinder, or thumb turn.

Backplate Screw

Screws that attach one backplate to the other. The screws enter through screw holes on the interior plate, travel through the door and attach directly to the exterior plate. Available in a variety of lengths to accommodate different door thicknesses.

Backset

Distance from the surface of the lock faceplate to the center of the handle hole. This distance establishes where the handle will be mounted to the face of the door.

Cylinder

The device used to lock a multipoint system and is activated with a key or thumbturn.

Cylinder Screws

Screws used to hold the cylinder in place after it is mounted into the exterior backplate.

Deadbolt

The center locking point on the door which is engaged with the other locking points when the handle is lifted.

Driverail

The vertical moving mechanism of multipoint hardware behind the faceplate. The driverail carries the motion from the gear to the multipoints to activate them. This can be achieved through a single part or through multiple parts hooked together such as extensions and corner drives. The driverail is hidden by the faceplate.

Engage

A term used to describe the activating of the multipoint hardware. When the multipoints have been activated into position, the system is said to be engaged.

Eurogroove

Routed groove in the edge of the door, usually centered, but may be offset to one side in which the drive rail and faceplate of the multipoint hardware are mounted.

Extension

Sections of operating drive rail that can be attached to the gear to reach the needed height of a door.

Faceplate

Flat piece of metal that covers the drive rail and multipoints along the entire length of the door sitting flush with the edge.

Fixed Dummy

Handle set is usually “fixed” in place. Handles serve only as pull handles and do not operate. Usually used on inactive panels where a mortise flush bolt has been used. These sets have no cylinder holes in either backplate.

Frame

The outer casing of a door which mounts directly into the rough opening of a wall.

Gear

Main functioning body of multipoint hardware containing hub for handle operation and deadbolt (on active gear).

Handle Height

The distance from the bottom of the door panel to the center of the handle hole.

Handle Set

Kit which includes handles, backplates and screws and may also include a cylinder.

Inactive Door Set

Handle set used on the inactive panel. This set will have a thumbturn on the inside and will not have a cylinder or cylinder hole on the outside.

Inactive Hardware

Hardware used on the inactive panel, no latch or deadbolt.

Inactive Panel

When a door is referred to as “inactive” it means it is the secondary functioning door in a pair of French doors. This door can only be opened after the “active” panel has been opened.

Jamb

See frame.

Latch

The catch for the door.

Lockcase

The main body of the multipoint gear.

Machine Screw

Screw that is used with a tapped hole.

Mortise

Edge pocket for lockcase or additional locking points.

Mortise Lock

Any hardware containing a gearbox that requires pocket routing in the edge of a door in order to be mounted or installed.

Multipoint Hardware

Any hardware that has multiple locking points which simultaneously lock into place through the action of a continuous travel drive rail activated by a handle.

Profile

A UPVC or aluminum extrusion used in door manufacturing. The shape/style of each extrusion differs between each extruder and therefore requires different hardware—particularly hinges and strike plates.

Rod Lock

A gearbox that uses a solid metal rod to secure a door when there is not an astragal between the door panels. The rods extend until engaged into the head and sill of the frame.

Roller

Small cylindrical cam locking point that is connected to the drive rail and secures inside a strike plate by an upward and downward movement along the surface of the faceplate.

Screw Support

A support on the backside of the gear for the screws which helps prevent flexing or bending of the gear once installed in the edge of the door.

Shootbolt

Arrow shaped locking point that retracts into the eurogroove until engaged, at which point it extends out and locks into strike plates in the head and sill of the frame.

Sill

Bottom portion of an opening that rests on the foundation and supports the frame structure.

Spindle

Metal shafts used to mount the handles to the door. Available in different lengths to accommodate a variety of door thicknesses.

Stile

Upright or vertical piece of the framework of a wood flush door.

Strike Plates

Plates that the locking points (roller, tongue, swinghook, deadbolt or latch) lock into. Different strike plates are required for different versions of locking points and profile designs.

Swinghook

Hook shaped locking point that retracts into the faceplate until engaged when it extends the reach into the jamb.

Threshold

The horizontal bottom portion of the door frame, also called the sill.

Throw

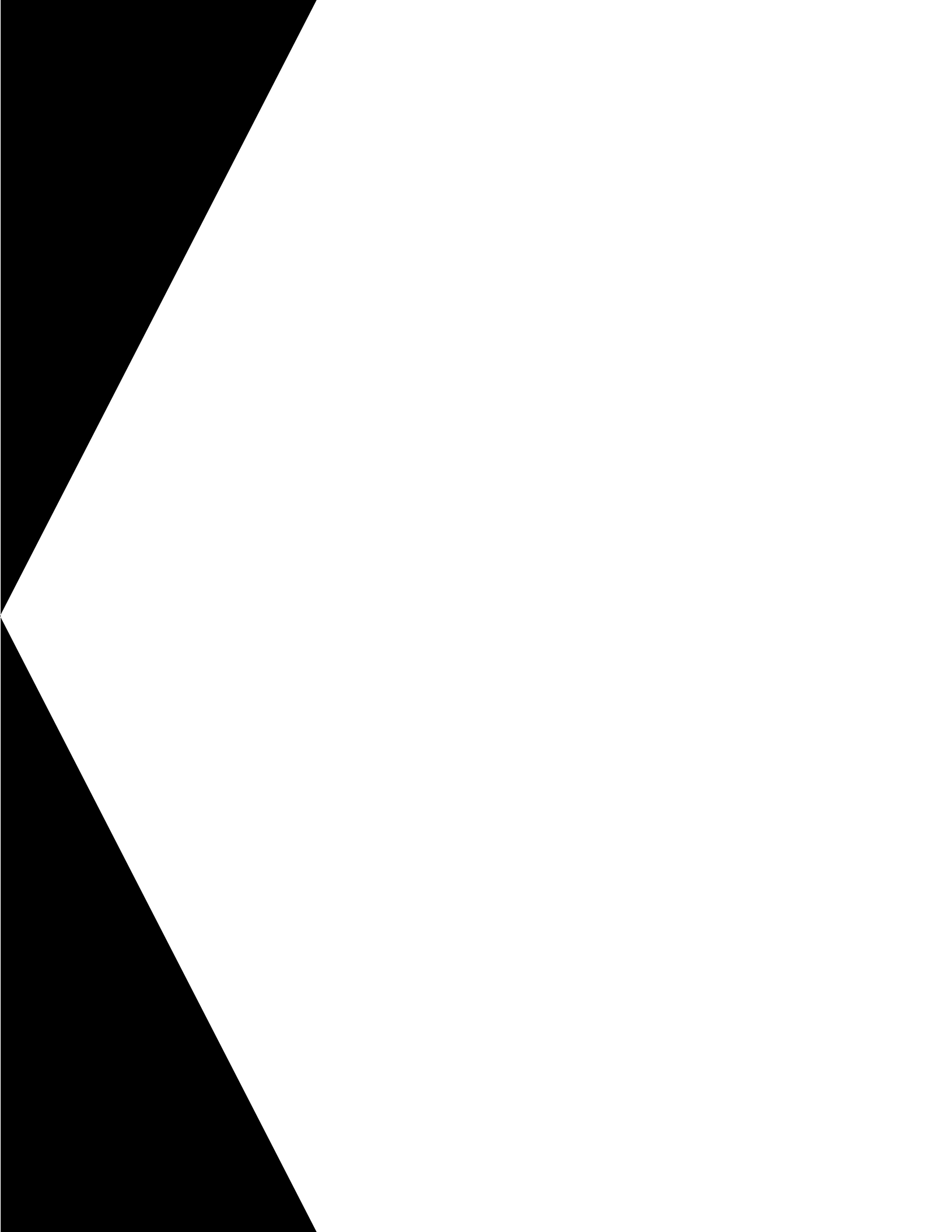
Distance a locking point travels from surface of faceplate to point of full extension.

Tongue

Triangular shaped locking point that retracts flush inside the faceplate until engaged, at which point it extends out to lock into a strike plate.

Wood Screw

Screw with a tapered shaft that drills its own hole into the wood.





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