

# Frascio®

Italian Design | American Engineering

## M500 Series Mortise Locks

ANSI Grade 1 Heavy Duty Commercial Locks



*A valued brand of*

**FR** International

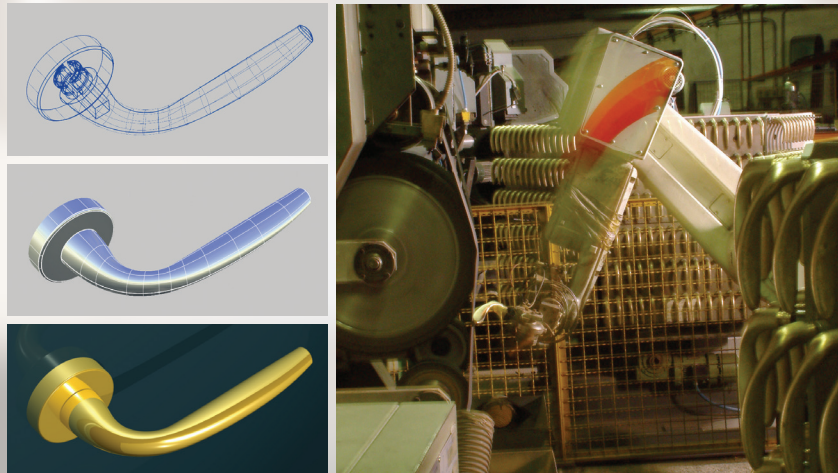
[www.FRInternational.com](http://www.FRInternational.com)



## About Us

From our earliest beginnings in 1945 as a workshop in northern Italy, Frascio has grown to become a globally recognized decorative door hardware brand specified by premier architects and designers worldwide.

We remain true to our original manufacturing philosophy: to use only the highest quality materials, to continuously research emerging designs and technology, and to uphold careful attention to production detail.



We utilize the latest CAD engineering tools to create designs and ensure reliable system operation. And, for those projects that require additional shapes and configurations, we are pleased to offer our **custom design services** and rapid prototype capability.

FR International, based in Carmel, Indiana, provides the commercial marketplace with all the advantages of a high-end decorative hardware brand combined with strong mechanical engineering and commercial hardware industry experience. Our designs are available on rugged commercial quality mechanical platforms that conform to market requirements.

**Find our full downloadable Frascio Design Catalog online at [FRInternational.com](http://FRInternational.com) or contact us for physical electronic media version.**



## Environmentally-friendly manufacturing



Frascio products are manufactured primarily from brass, zinc, stainless steel, and steel. Much of the raw material used to produce these parts comes from recycled metal. The percentage of postconsumer and post-industrial recycled content is estimated as follows:

- ♻️ The brass and zinc materials that are used to make many Frascio products typically contain 80-100% recycled material, a combination of melted scrap metal and reclaimed by-products.
- ♻️ The post-industrial recycled content of steel used to make Frascio products is approximately 30-40% (Approximately 30%-40% of the metal used to produce Frascio products is either scrap metal or other recycled material that is melted in the furnace).
- ♻️ Stainless steel that is used in Frascio products has a post-industrial recycled content of approximately 70%, and a post-consumer recycled content of approximately 8%.
- ♻️ Approximately 40% of the packaging that is used by Frascio is comprised of recycled material.

The above percentages show an average of Frascio's overall production. Actual percentages on any order will vary based on the specific products that comprise that order as well as the mill source.

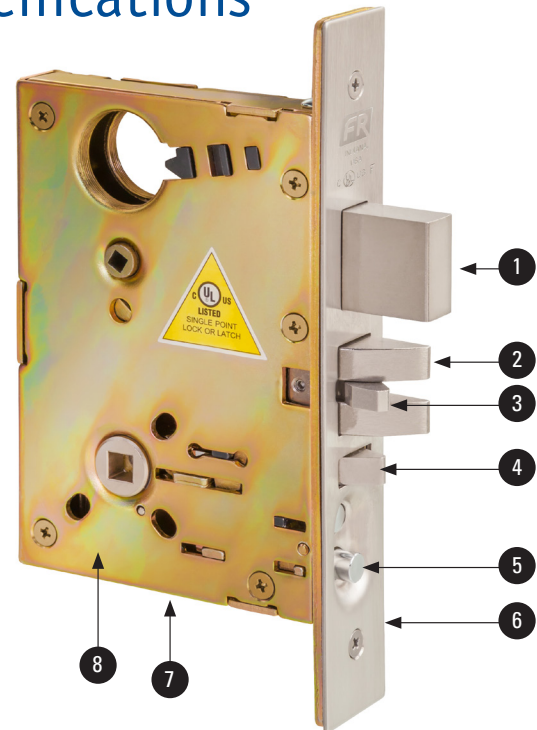
When no longer needed, Frascio brass, stainless, and zinc parts are 100% recyclable to support sustainable design practices.

Frascio is committed to responsible business and manufacturing practices that help conserve resources and protect our environment.



# M500 Series Features and Specifications

- 1 Deadbolt**  
1" (25mm) throw stainless steel deadbolt provides rugged security
- 2 Latchbolt**  
Full 3/4" (19mm) throw standard
- 3 Anti-Friction Tongue**  
Reduces wear and tear and ensures smooth engagement with strike
- 4 Deadlocking Auxiliary Latch**  
Non-handed deadlocking bar prevents latch tampering by blocking latch retraction when depressed
- 5 Stop Buttons**  
For flexible entrance function configuration
- 6 Armor Front**  
Adjustable for door bevel. Available in brass and stainless steel material
- 7 Backset Options**  
2-3/4" (70mm) standard, also available in 2-1/2" (63.5mm) for narrow backset applications, available in certain functions
- 8 Steel Components**  
Steel case and internal parts corrosion protected for longevity and smooth operation



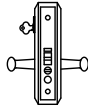
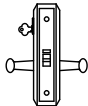
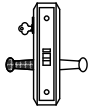
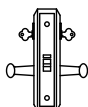
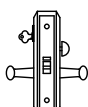
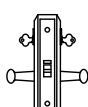
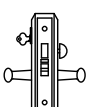
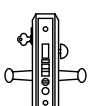
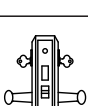
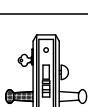
Specifications	
Applications	For commercial buildings where the finest mortise locks are required
Certifications	ANSI A156.13 Series 1000, Grade 1 operational. UL Listed for 3-Hour fire rating
Case Size	4-5/16" x 6" x 1" (110 mm x 152 mm x 25 mm)
Armor Front	1-1/4" x 8" x 7/32" (32 mm x 203 mm x 5 mm)
Backset	2-3/4" (70 mm) and 2-1/2" (63.5 mm)
Door Preparation	Conforms to ANSI A115.1
Door Range	1-3/8" (35mm) to 2-1/2" (64 mm) steel door, 1-3/4" (45mm) to 2-1/2" (64mm) wood door
Beveled Doors	Self-adjusting case
Case Handing	Field reversible without removing cover
Strike	Curved lip non-handed. Custom lip lengths at 1/8" (3 mm) increments available
Spindles	Breakable to prevent the lock case from unlocking or being damaged

Finish Code (Reference BHMA)	
605	Polished Brass
606	Satin Brass
606M	Matte Satin Brass
609	Antique Brass
609M	Antique Brass – Matte
613	Oil-Rubbed Bronze
618	Polished Nickel
619	Satin Nickel
620	Antique Nickel
620M	Antique Nickel – Matte
622	Matte Black
IXBLK	PVD Black
625	Polished Chrome
626	Brushed Satin Chrome
629	Polished Stainless Steel
630	Brushed Satin Stainless Steel
695	Bronze Powder Coated
IXATC	Anthraccite PVD Charcoal
IXB	InoxBrass PVD Bright Brass
IXS	InoxSatin PVD Satin Brass
IXSLN	InoxSatin London Night
IXC	InoxChrome PVD Stainless
AM	Anti-Microbial Coating

Cover photo features M520 Entrance Function with Frascio 900 Stella/SM decorative trim in 625/630 finish.



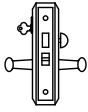
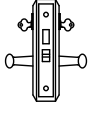
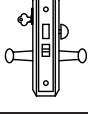
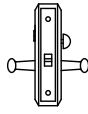
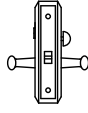
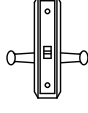
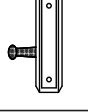
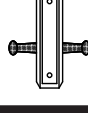
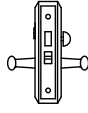
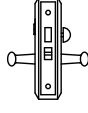
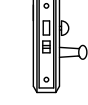
# M500 Series Function Chart

Function Code Number	Illustration Outside ◀   ▶ Inside	Function/Description	ANSI Number
<b>Keyed Functions Without Deadbolt</b>			
M504		<b>Office and Inner Entry Lock</b> Latchbolt retracted by lever from either side unless outside is made inoperative by key outside or by pushing button on edge of door. When outside is locked, latchbolt is retracted by key outside or by lever inside. Outside lever remains locked until other button on edge of door is pushed or unlocked by key. Auxiliary latch deadlocks latchbolt when door is closed.	F04
M505		<b>Classroom Lock</b> Latchbolt retracted by lever from either side unless outside is locked by key. Unlocked from outside by key. Inside lever always free for immediate exit. Auxiliary latch deadlocks latchbolt when door is closed.	F05
M507		<b>Storeroom Lock</b> Latchbolt retracted by key outside or by lever inside. Outside lever always inoperative. Auxiliary latch deadlocks latchbolt when door is closed.	F07
M509		<b>Apartment Entrance Lock*</b> Latchbolt retracted by lever from either side unless outside is locked by key from inside. When locked, latchbolt retracted by key outside or lever inside. Auxiliary latch deadlocks latchbolt when door is closed.	F09
M556		<b>Office Lock with Unlocking</b> Latchbolt retracted by lever from either side unless outside is made rigid by key outside or turnknob inside. Outside lever unlocked by key outside or turnknob. Rotating inside lever simultaneously retracts latchbolt and unlocks outside lever. Auxiliary latch deadlocks latchbolt when door is closed. Inside lever always unlocked.	
M571		<b>Classroom Security Lock*</b> Latchbolt retracted by lever from either side unless outside is locked by key from either side. When in locked state, latchbolt retracted by key outside or lever inside. Auxiliary latch deadlocks latchbolt when door is closed. Inside lever always unlocked.	
<b>Keyed Functions With Deadbolt</b>			
M521		<b>Bedroom/Dormitory Lock</b> Latchbolt retracted by lever from either side. Deadbolt extended or retracted by key outside or turnknob inside.	F21
M520 (Standard)		<b>Entrance Lock</b> Latchbolt retracted by lever from either side unless outside is locked by pushing button on edge of door. Deadbolt thrown or retracted by 90 rotation of thumbturn. When locked, key outside or lever inside retracts deadbolt and latchbolt simultaneously. Outside lever remains locked until other button on edge of door is pushed. Throwing deadbolt automatically locks outside lever. Auxiliary latch deadlocks latchbolt when door is closed.	F20
M514		<b>Store/Utility Room Lock*</b> Latchbolt retracted by lever from either side. Deadbolt thrown or retracted by key from either side.	F14
M515		<b>Storeroom Lock with Deadbolt</b> Latchbolt retracted by outside key or inside lever. Outside lever always fixed. Deadbolt operated by outside key or inside thumbturn. Operating inside lever retracts both deadbolt and latchbolt simultaneously. Auxiliary latch deadlocks latchbolt when door is closed. Inside lever always free for egress.	

**\*Caution:** Double cylinder locks on residences and any door in any structure which is used for egress are a life safety hazard in times of emergency and their use is not recommended. Installation should be in accordance with existing codes only.



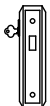




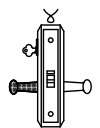
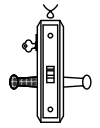
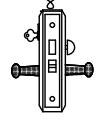


## M500 Series Function Chart (continued)

Function Code Number	Illustration Outside ◀   ▶ Inside	Function/Description	ANSI Number
<b>Keyed Functions With Deadbolt (continued)</b>			
M513		<b>Corridor Lock</b> Latchbolt retracted by lever from either side. Deadbolt thrown or retracted by key outside or inside thumbturn. Throwing deadbolt locks outside lever. Turning inside lever simultaneously retracts deadbolt and latchbolt and unlocks outside lever.	F13
M557		<b>Classroom Security Lock with Deadbolt</b> Latchbolt retracted by lever from either side. Deadbolt extended or retracted by key from either side. Extending deadbolt locks outside lever. Rotating inside lever simultaneously retracts deadbolt and latchbolt, and unlocks outside lever. Inside lever is always unlocked.	
M527		<b>Privacy with Occupied Indicator, Cylinder, and Deadbolt</b> Latchbolt retracted by lever from either side. Deadbolt extended or retracted by inside turnknob or cylinder outside. Extending deadbolt locks outside lever and displays locked red indicator. Rotating inside lever simultaneously retracts deadbolt and latchbolt and unlocks outside lever.	
<b>Non-Keyed Functions Without Deadbolt</b>			
M522		<b>Bath/Bedroom Privacy Lock</b> Latchbolt retracted by lever from either side unless outside is locked by inside thumbturn. Turning inside lever unlocks outside lever. To unlock from outside, insert emergency turn (furnished) in access hole and rotate.	F22
M523		<b>Privacy with Coin Turn Outside</b> Latchbolt operated by lever from either side unless outside is locked by turnknob inside or outside coin turn. Operating inside lever, closing door, or rotating turnknob unlocks outside lever.	
M501		<b>Passage Latch</b> Latchbolt retracted by lever from either side at all times.	F01
M524		<b>Single Dummy</b> Fixed lever on one side.	
M525		<b>Full Dummy</b> Fixed lever on both sides.	
<b>Non-Keyed Functions With Deadbolt</b>			
M519		<b>Privacy with Deadbolt</b> Latchbolt retracted by lever from either side. Deadbolt extended or retracted by turnknob inside. Extending deadbolt locks outside lever. Rotating inside lever simultaneously retracts deadbolt and latchbolt and unlocks outside lever. To unlock from outside, insert emergency key into outside privacy hole and rotate.	F19
M526		<b>Privacy with Deadbolt and Coin Turn Outside</b> Latchbolt retracted by lever from either side. Deadbolt extended or retracted by inside turnknob or outside coin turn. Extending deadbolt locks outside lever. Rotating inside lever simultaneously retracts deadbolt and latchbolt and unlocks outside lever.	
M573		<b>Communication Passage with Blank Prep Outside</b> No prepped holes or trim on outside of door. Latchbolt retracted by inside lever. Deadbolt thrown or retracted by turnknob inside. Turning inside lever simultaneously retracts deadbolt and latchbolt.	

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M500 Series Function Chart (continued)

Function Code Number	Illustration Outside ◀   ▶ Inside	Function/Description	ANSI Number
<b>Keyed and Non-Keyed Function Deadlocks</b>			
M518		<b>Cylinder Lock</b> Deadbolt operated by key from one side. No trim on opposing side.	F18
M517		<b>Cylinder and Thumbturn Lock</b> Deadbolt operated by key outside or thumbturn inside.	F17
M516		<b>Double Cylinder Lock*</b> Deadbolt operated by key from either side.	F16
M529		<b>Classroom Deadlock</b> Deadbolt extended or retracted by key from outside. Inside thumbturn cylinder retracts deadbolt but can not extend it.	F29
M536		<b>Privacy Deadlock</b> Deadbolt operated by coin release outside or thumbturn inside.	
<b>Electrified Functions</b>			
M507EU		<b>Electrically Unlocked (Fail Secure)</b> Outside lever unlocked by either 12 or 24 VDC (Specified) Latchbolt retracted by key outside or lever inside. Auxiliary latch deadlocks latchbolt when door is closed. Inside lever is always unlocked.	
M507EL		<b>Electrically Locked (Fail Safe)</b> Outside lever continuously locked by either 12 or 24 VDC (Specified) Latchbolt retracted by key outside or lever inside. Switch or power failure allows outside lever to retract latchbolt. Auxiliary latch deadlocks latchbolt when door is closed. Inside lever is always unlocked.	
M513EU		<b>Outside Lever Continuously Locked</b> Outside lever unlocked by 12 or 24 VDC. Deadbolt operated by key outside or thumbturn inside. Inside lever is always unlocked. Operating inside lever simultaneously retracts deadbolt and latchbolt.	
M587EL		<b>Double Storeroom Security Lock (Fail Safe)</b> Both levers continuously locked by 12V or 24V DC. Latchbolt retracted by either key. Auxiliary latch deadlocks latchbolt when door is closed. Switch or power failure unlocks both levers and allows lever to retract latchbolt.	
M587EU		<b>Double Storeroom Security Lock (Fail Secure)</b> Both levers continuously unlocked by 12V or 24V DC. Latchbolt retracted by either key. Auxiliary latch deadlocks latchbolt when door is closed. Switch or power failure locks both levers.	

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# Levers

Choose from hundreds of high-end decorative lever designs engineered using the highest quality materials and crafted with careful attention to detail.

Many more designs are available in our product catalog at [www.FRIInternational.com](http://www.FRIInternational.com).



110 Apollo



146 Star



200 Easy



220 Alpha



230 Beta



260 Cosmos



270 Metro



280 Straight



290 Kube



300 Laguna



400 Soft



401 Soft Plus



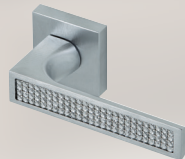
500 Ibis



610 Pinax



620 Tuke



621 Queen



630 Eidos



639 Theta



640 Kuma



650 Kalé



660 Inlay



700 Flow



710 Aria



720 Sweep



745 Modulo L



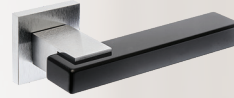
785 Bambu



900 Stella



903 Trevi



925 Join



937 Corina



939 Allegra



1023 Ursa



1200 Bump



1210 Filoo



1220 Anatra



1500 Edge



1520 Leaf



1540 Chill



1550 Chill+



1580 Rise



2250 Halley



5000 Alessia



5013 Urbano



5019 Band



5100 Lucia



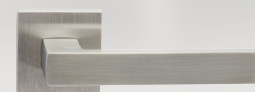
5130 Delta



5150 Gamma



5200 Loft



5219 Misano



5300 Omega



5350 Raffaella



5550 Laura



5700 Loredana



5702 Stefano



View more lever designs in our product catalog at [www.FRIInternational.com](http://www.FRIInternational.com)



5750 Adina



5800 Antonella



5804 Maretto



5820 Forino



5850 Christina



5855 Sophia



6118 Lorenzo



6202 Decora



6208 Esago



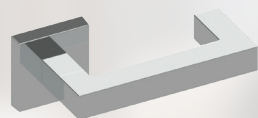
6210 Base



6215 Valenza



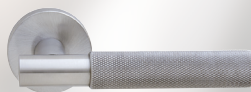
6218 Simpla



6220 Kappa



6280 Vienna



6587 Tacta



6592 Cutlass



6594 Modulo B



6612 Marco



6774 Scala



6716 Arno

## Commercial Trim Options

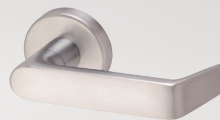
In addition to a full range of decorative trim available from FR International, the following Commercial Trim Options are offered in standard rose and plate mounting, suitable for commercial/institutional applications.



PSR



LSR



DSR



FSR

## Rose Options



**SM**  
Small Rose  
52 mm (2")



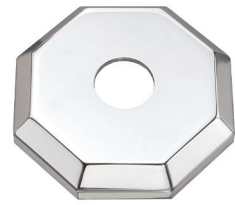
**SMT**  
Small Traditional Rose  
58 mm (2-1/4")



**SMQ**  
Small Square Rose  
54 mm (2")



**SMQR**  
Small Radiused  
Square Rose  
54 mm (2")



**SMO**  
Small Octagonal Rose  
60 mm (2-5/16")

**SM-58**  
Small Retrofit Rose  
58 mm (2-1/4")

## Turnknob Design Options



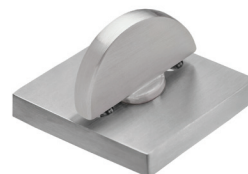
**M61 Round**  
Smooth Rose



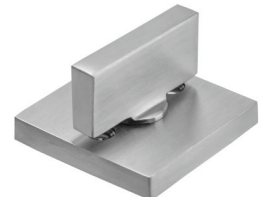
**M61-T Round**  
Traditional Rose



**M61-O Round**  
Octagonal Rose



**M61-Q Round**  
Square Rose



**RM61-Q Rectangular**  
Square Rose



**H41 Accessibility**



**A51 Oval**



**R71 Accessibility**



**C81 Round**

## Emergency Release/Indicator Options



**EMT**



**EMTI**  
with color indicator  
window



**SQR**



**EMTI-VO**  
with VAC/OCC indicator  
window



**GVRO**  
occupancy  
indicator

## Plate Options



**11010**  
Fairfax  
248 x 58 mm  
(9-3/4 x 2-1/4")



**12010**  
Pallas  
248 x 58 mm  
(9-3/4 x 2-1/4")



**18010**  
Riviera  
239 x 45 mm  
(9-3/8 x 1-3/4")



Custom plate  
options also  
available.

## M500 Series Option Designations

Optional Roses/Escutcheon Plates	Code
Small Rose (Default Rose)	SM
Small Traditional Rose	SMT
Small Square Rose	SMQ
Small Square Radiused Rose	SMQR
Fairfax Plate	11010
Pallas Plate	12010
Riviera Plate	18010
Optional Thumbturns	Code
Round Smooth Rose (Default Thumbturn)	M61
Round Smooth Rose, Concealed Fasteners	M61-CF
Round Traditional Rose	M61-T
Square Rose Thumbturn	M61-Q
Square Rose, Rectangular Thumbturn	RM61-Q
Octagonal Rose	M61-O
Round Rose Small Thumbturn	C81
H41 Large ADA Thumbturn	H41
Oval Thumbturn	A51
R71 ADA Thumbturn	R71
Emergency Release/Indicator Options	Code
*Available as an option on the following functions: M523, M526	
Emergency Release	EMT
Emergency Release with Indicator Window	EMTI
Square Rose Type	SQR
Emergency Release with VAC/OCC indicator window	EMTI-VO
Occupied Indicator	Code
*Occupied Indicator available as an option on the following functions: M513, M520, M521, M556	
GVRO Indicator	GVRO
GVRO-Q Square Indicator	GVRO-Q
GVRO-E (Escutcheon Indicator for Fairfax, Pallas, Riviera plates)	GVRO-E
Misc Options	Code
Tactile Option for Lever Trim	T
CPACP (cover plate for M573)	CPACP
Request to Exit	RX
Latchbolt Monitor	LX

All locks are sold Less Cylinder (L/C). Order required cylinders on a separate line item. Cylinder Options are available upon request.

## Ordering Example

745 Modulo L lever on a small rose, in polished brass, privacy lock function with deadbolt and coin turn outside with ADA thumbturn and emergency release with indicator window options

Lever	Rose/Esc	Function	Finish	Handing	Option	Option
745	SM	M526	605	RHR	R71	EMTI



# Pair M500 Mortise Series locks with Frascio T700 Series tubular latchsets to achieve design continuity throughout your project.

## BOTH M500 LOCKS AND T700 LATCHSETS OFFER:

- ▶ The same wide variety of fully interchangeable lever designs and rose options from our world-renowned studio
- ▶ Contemporary style that flows seamlessly throughout any project.
- ▶ Fast, easy installation
- ▶ Concealed trim fasteners
- ▶ Full interchangeability of rose design options.
- ▶ Field-reversible handing
- ▶ Matching levers available for electronic access control trim and exit device adaptation
- ▶ Matching accessories available include door stops, sliding door locks and trim, door pulls, and more

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[www.FRInternational.com](http://www.FRInternational.com)



## Design updates have never been easier

When it's time to update or redesign, our exclusive modular product platform is designed to make it easy to update to new trim styles or finishes. Simply remove the lever and rose trim and replace them with a new style without the need to remove or replace the mechanical operating system.

This environmentally-friendly system is easy and saves you time and money.

