

FRInternational™

M500 Series Mortise Locks

ANSI Grade 1 Heavy Duty Commercial Locks



FRInternational.com



About Us

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.

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.



Featuring Frascio lever designs

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.

Find our full downloadable Frascio Design Catalog online at FRInternational.com or contact us for physical electronic media version.



Environmentally-friendly manufacturing



FR International (FRI) 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 FRI 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 FRI 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 FRI 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 FRI is comprised of recycled material.

The above percentages show an average of FR International'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.

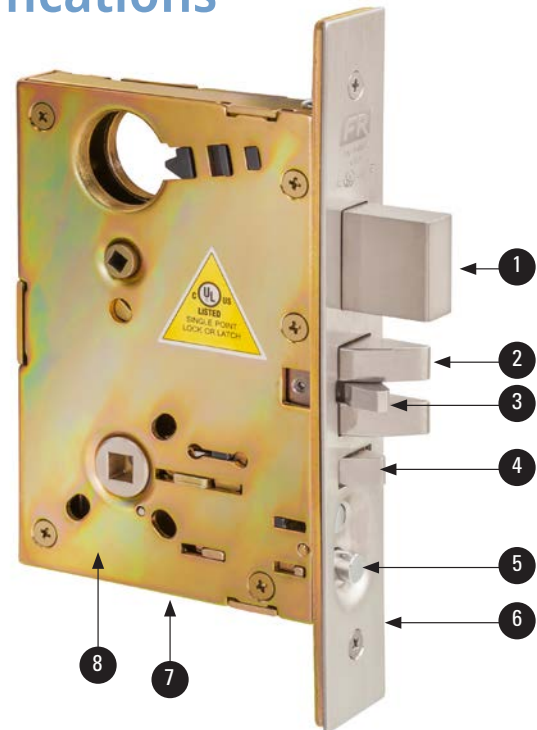
When no longer needed, FRI brass, stainless, and zinc parts are 100% recyclable to support sustainable design practices.

FR International 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**
2-3/4" (70mm) standard
- 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)
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
625	Polished Chrome
626	Brushed Satin Chrome
629	Polished Stainless Steel
630	Brushed Satin Stainless Steel
IXATC	Anthracite PVD Charcoal
IXBB	Brushed Bronze PVD
IXBLK	Black PVD
IXBSB	Brushed Satin Black PVD
IXC	InoxChrome PVD Stainless
IXCPN	Champagne PVD
IXPCPN	Polished Champagne PVD
IXSLN	InoxSatin London Night

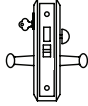
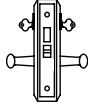
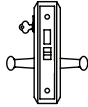
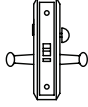
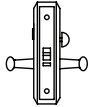
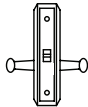
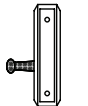
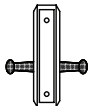
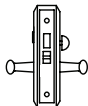
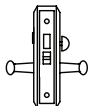
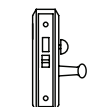
Cover photo features M520 Entrance Function with Frascio 900 Stella/SM decorative trim in 625/630 finish.

M500 Series Function Chart

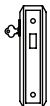



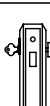

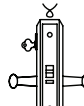
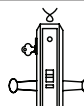
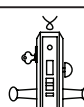
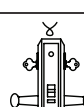
Function Code Number	Illustration Outside ◀ ▶ Inside	Function/Description	ANSI Number
Keyed Functions Without Deadbolt			
M504		Office and Inner Entry Lock Latchbolt retracted by lever from either side unless outside is made inoperative by key outside or by pushing button on edge of door. When outside 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		Classroom Lock 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		Storeroom Lock Latchbolt retracted by key outside or by lever inside. Outside lever always inoperative. Auxiliary latch deadlocks latchbolt when door is closed.	F07
M509		Apartment Entrance Lock* 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
M555		Store Lock* Latchbolt retracted by key from either side. Lever on both sides always inoperative. Auxiliary latch deadlocks latch when door is closed.	F30
M556		Office Lock with Unlocking 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		Classroom Security Lock* 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.	
Keyed Functions With Deadbolt			
M521		Bedroom/Dormitory Lock Latchbolt retracted by lever from either side. Deadbolt extended or retracted by key outside or turnknob inside.	F21
M520 (Standard)		Entrance Lock 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		Store/Utility Room Lock* Latchbolt retracted by lever from either side. Deadbolt thrown or retracted by key from either side.	F14
M515		Storeroom Lock with Deadbolt 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. 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
Keyed Functions With Deadbolt (continued)			
M513		Corridor Lock 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		Classroom Security Lock with Deadbolt* 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		Privacy with Occupied Indicator, Cylinder, and Deadbolt 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.	
Non-Keyed Functions Without Deadbolt			
M522		Bath/Bedroom Privacy Lock Latchbolt retracted by lever from either side unless outside is locked by inside thumbturn. Turning inside lever or closing door unlocks outside lever. To unlock from outside, insert emergency turn (furnished) in access hole and rotate.	F22
M523		Privacy with Coin Turn Outside Latchbolt retracted by lever from either side unless outside is locked by inside thumbturn. Turning inside lever or closing door unlocks outside lever. To unlock from outside, use coin turn or grommet trim (GRT).	
M501		Passage Latch Latchbolt retracted by lever from either side at all times.	F01
M524		Single Dummy Fixed lever on one side.	
M525		Full Dummy Fixed lever on both sides.	
Non-Keyed Functions With Deadbolt			
M519		Privacy with Deadbolt 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		Privacy with Deadbolt and Coin Turn Outside 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		Communicating Passage with Blank Prep Outside 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.	

M500 Series Function Chart (continued)

Function Code Number	Illustration Outside ◀ ▶ Inside	Function/Description	ANSI Number
Keyed and Non-Keyed Function Deadlocks			
M518		Cylinder Lock Deadbolt operated by key from one side. No trim on opposing side.	F18
M517		Cylinder and Thumbturn Lock Deadbolt operated by key outside or thumbturn inside.	F17
M516		Double Cylinder Lock* Deadbolt operated by key from either side.	F16
M528		Bath/Bedroom Privacy Lock Latchbolt retracted by lever from either side unless outside is locked by thumbturn. Turning inside lever or closing door unlocks outside lever. To unlock from outside use key to rotate cylinder.	
M529		Classroom Deadlock Deadbolt extended or retracted by key from outside. Inside thumbturn cylinder retracts deadbolt but can not extend it.	F29
M530		Privacy Deadlock Deadbolt operated by coin release outside or thumbturn inside.	
Electrified Functions			
M507EU		Electrically Unlocked (Fail Secure) 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		Electrically Locked (Fail Safe) 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		Electrically Unlocked (Fail Secure) Outside lever and deadbolt unlocked by 12 or 24 VDC (Specified). Deadbolt actuation by key or thumbturn from inside. Operating inside lever simultaneously retracts latchbolt and deadbolt. Inside lever is always unlocked.	
M587EU		Double Cylinder Electrically Unlocked (Fail Secure)* Both levers unlocked by 12 or 24 VDC (Specified). Latchbolt retracted by either key. Auxiliary latch deadlocks Latchbolt when door is closed.	

***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.

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.



110 Apollo



146 Star



200 Easy



220 Alpha



230 Beta



270 Metro



280 Straight



290 Kube



300 Laguna



309 Venere



400 Soft



401 Soft Plus



500 Ibis



620 Tuke



630 Eidos



640 Kuma



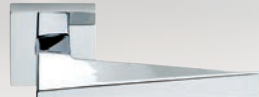
650 Kalé



700 Flow



710 Aria



720 Sweep



744 Sigma



745 Modulo L



900 Stella



903 Trevi



930 Aton



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



5150 Gamma



5200 Loft



5219 Misano



5550 Laura



5700 Loredana



5702 Stefano



5750 Adina



5800 Antonella



5804 Maretto



5820 Forino



5850 Christina



5855 Sophia



6118 Lorenzo



6202 Decora

View more lever designs in our product catalog at www.FRIInternational.com



6208 Esago



6210 Base



6215 Valenza



6218 Simpla



6237 Amara



6280 Vienna



6447 Savio



6491 Rosa



6587 Tacta



6592 Cutlass



6594 Modulo B



6612 Marco



6711 Pier



6716 Arno



6773 Cielo



6774 Scala



6891 Marino



6947 Sutton



6929 Tivoli



6967 Larissa

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")

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



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



SMCT
Small Contemporary Rose
58 mm (2-1/4")



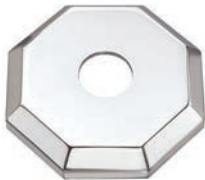
SMG
Small Deco Rose
52 mm (2")



SMQ
Small Square Rose
54 mm (2")



SMQR
Small Radiused Square Rose
54 mm (2")



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



SMQC
Small Square Chamfered Rose
54 mm (2")



SMQE
Small Rectangular Rose
65 mm (2-1/2") x
102 mm (4")

Turnknob Design Options



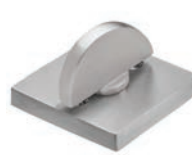
M61 Round
Smooth Rose



M61-T Round
Traditional Rose



M61-O Round
Octagonal Rose



M61-Q Round
Square Rose



RM61-Q
Rectangular Square Rose



A51 Oval



H41
Accessibility



R71
Accessibility



R71-Q
Accessibility Square Rose

* CF Concealed Fastener option available on round roses

Emergency Release/Indicator Options



EMT



EMTI
with color indicator window



EMTI-VO
with VAC/OCC indicator window



EMT-Q



EMTI-Q
with color indicator window



EMTI-Q-VO
with VAC/OCC indicator window



GVRO
occupancy indicator



GVRO-Q
Square occupancy indicator

Plate Options



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



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



13010
Arlington
203 x 64 mm
(8 x 2-1/2")



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



14010
Essex
203 x 64 mm
(8 x 2-1/2")



Custom plate options also available.

18020
Messina
239 x 54 mm
(9-3/8 x 2-1/8")

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
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		
		Round Square
Emergency Release		EMT EMT-Q
Emergency Release with Indicator Window		EMTI EMTI-Q
Emergency Release with VAC/OCC indicator window		EMTI-VO EMTI-Q-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

FR International, LLC
1011 3rd Avenue S.W.
Carmel, Indiana USA 46032
Tel: (317) 663-0030
Fax: (317) 663-0029
Toll Free: 1-800-238-9711
FRInternational.com



MTS0426



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.

