

SECTION 10 51 61

BUILT-IN COMBINATION LOCKS

******* Since 1921, Master Lock Company has been providing padlocks and other security products for the construction industry. Products include built-in combination and key-operated locks for all types of lockers, combination padlocks for padlock hasp lockers, and lock management software. This product guide specification section can be used to specify the following built-in combination locks to be installed on metal, wire mesh, wood, plastic, and other types of locker:**

Combination locks for gravity/lift handle lockers: Models 1630, 1631, 1630MD, and 1631MD.

Combination locks with slam shut operation and dead bolt locking for single point latch lockers : Models 1690, 1691, 1690MD, and 18981MD.

Combination locks with slam shut operation but without dead bolt locking for single point latch lockers: Models 1652, 1653, 1652MD, and 1653MD.

Combination locks for box lockers: Models 1654, 1655, 1654MD, 1655MD, 1654BE, 1655BE, 1654MDBE, 1655MDBE.

Deadbolt combination locks without slam shut operation for all locker types: Models 1670, 1671, 1670MD, 1671MD, 1670BE, 1671BE, 1670MDBE, and 1671MDBE.

The specifier will need to select appropriate products and delete non-applicable models and options. Refer to Master Lock product literature for descriptions and available options. The guide section has been written so that most editing can be accomplished by deleting unnecessary requirements and options. Depending on project requirements, some additional information will need to be added by the specifier. Options are indicated by []. Notes to assist the specifier in selecting options and editing the specification guide are printed in bold and indicated with ***. For final editing, all brackets and notes will need to be deleted from the guide.**

PART 1 - GENERAL**1.1 SUMMARY**

******* Built-in, combination locks can be factory installed by the locker manufacturer or field installed on either existing or new lockers. Field installed locks can be part of a complete construction project, such as a new school building, or can be purchased directly by the owner and installed by the building maintenance staff. If the locks are to be factory installed, the locks can be specified separately using this guide specification or the lock requirements can be included as part of the locker specification. Edit the following paragraph to reflect project requirements. *******

A. Section includes:

1. Built-in, combination locks to be [factory installed on lockers.] [field installed on existing lockers.] [field installed on lockers specified in other sections.]

******* For both large and small projects, a system to track and manage locks, user assignments, and lock combinations is essential. Master Lock's LockerManager software is an excellent management tool. Include the following paragraph if LockerManager is specified in this section. *******

2. System for recording and managing lockers, locks, user assignments, and combinations.

B. Related sections:

******* List other specification sections dealing with work directly related to this section such as the following. *******

1. [Section 10 51 13 - Metal Lockers] [Section 10 51 16 - Wood Lockers] [Section 10 51 26 - Plastic Lockers] [Section 10 51 43 - Wire Mesh Storage Lockers]: Lockers to receive built-in combination locks.

1.2 DEFINITIONS

- A. Dead bolt lock: Type of lock that once locked, the latch or bolt cannot be retracted or moved until the lock is properly unlocked by either dialing correct combination, or turning a key, thumb turn, or other device.
- B. Slam shut operation: Slamming unlocked door shut, causes door to automatically relock and for a door with combination lock shutting scrambles the combination.

1.3 SUBMITTALS

A. Provide in accordance with Section 01 33 00 - Submittal Procedures:

1. Product data for locks.

******* Include the following paragraph if LockerManager system is being specified. *******

2. Product data for lock management system describing functions, capacities, and requirements.
3. Installation instructions.

B. Provide in accordance with Section 01 78 00 - Closeout Submittals:

1. Printed control chart and text file on disc of serial numbers and lock combinations.
2. [2] [_____] each supervisory access keys.

******* Include the following paragraph if LockerManager system is being specified. *******

3. Electronic copy of manual for lock management system.

PART 2 - PRODUCTS**2.1 ACCEPTABLE MANUFACTURERS**

- A. Master Lock Company, 137 West Forest Hill Avenue, P.O. Box 100367, Oak Creek, Wisconsin 53154; 800-308-9244; www.masterlock.com.
- B. Requests to use equivalent products of other manufacturers shall be submitted in accordance with Section 01 25 13 - Product Substitution Procedures.

******* Master Lock built-in, combination locks can be factory or field installed on lockers manufactured by numerous manufacturers. Refer to Master Lock product literature for charts listing appropriate locks for various manufacturer's lockers. Select required lock from the following articles and delete articles for nonapplicable models. If locks are being specified as part of the locker specification, these articles can be inserted into the locker specification section. *******

2.2 COMBINATION LOCKS FOR LIFT HANDLE LOCKERS

******* These four models of built-in combination locks are provided for lift handle lockers:**

Model 1630: Right-handed with plastic dial.

Model 1631: Left-handed with plastic dial.

Model 1630MD: Right-handed with metal dial.

Model 1631MD: Left-handed with metal dial.

Edit the following to reflect required model. *****

- A. Type: Built-in, combination lock with steel body and [durable plastic] [metal] dial for mounting in gravity lift handle lockers; Model [1630] [1631] [1630MD] [1631MD] as manufactured by Master Lock Company.
- B. Mounting: Concealed in [right-] [left-] handed locker door.
- C. Operation: Vertical travel locking bolt engages lift handle locker mechanism. Locks automatically on door closure.
- D. Combination: 3 digit dial type. Provide 5 preset combinations to be selected by pressing button. Locks shall have random combination change pattern with no sequentially adjacent locks having same pattern.
- E. Provide 5 pin tumbler lock cylinder for supervisory access.

2.3 COMBINATION LOCKS WITH SLAM SHUT OPERATION AND DEAD BOLT LOCKING FOR SINGLE POINT LATCH LOCKERS

******* Four models of built-in combination locks with wrap around dead bolt latch and slam shut operation are provided for single point latch lockers. This type of lock utilizes slam shut operation combined with a rotating latch that wraps around the latch plate making the lock more difficult to force open. Deadbolt locking provides a high level of security since the latch cannot be moved once the lock is locked. The robust design of Series 1690 Combination Lock accommodates locker misalignments resulting in simple, efficient installation with minimal adjustments.**

Model 1690: Right-handed with plastic dial.

Model 1691: Left-handed with plastic dial.

Model 1690MD: Right-handed with metal dial.

Model 1691MD: Left-handed with metal dial.

Edit the following to reflect required model. *****

- A. Type: Built-in, enhanced security, combination, slam shut operation, deadbolt wrap around latch lock for single point latch lockers fabricated to accommodate the wrap around latch; Model [1690] [1691] [1690MD] [1691MD] as manufactured by Master Lock Company.
- B. Mounting: Concealed in [right-] [left-] handed locker door.
- C. Construction: Cast zinc body.

******* Series 1690 Locks are available with either plastic or metal dials. The latter deter vandalism. *******

- D. Dial: [Durable plastic] [Metal] dial.
- E. Operation: Rotational operating deadbolt latch that locks by wrapping around a stationary latch plate or post. Slamming door shut, causes door to automatically relock and scrambles the combination. Once locked, the latch cannot be moved until the lock is properly unlocked by either dialing correct combination or using supervisory override key.
- F. Combination: 3 digit dial type. Provide 5 preset combinations to be selected by pressing button. Locks shall have random combination change pattern with no sequentially adjacent locks having same pattern.
- G. Provide 5 pin tumbler lock cylinder for supervisory access.

******* Locker doors which are 11/16 to 3/4 inch thick require an extension set. Include the following paragraph if extension is required. *******

- H. Extension set: Provide for locker doors 11/16 to 3/4 inch thick.

2.4 COMBINATION LOCKS WITH SLAM SHUT OPERATION AND WITHOUT DEAD BOLT LOCKING FOR SINGLE POINT LATCH LOCKERS******* These four models of built-in combination locks with slam shut operation and without dead bolt locking are provided for single point latch lockers:**

Model 1652: Right-handed with plastic dial.

Model 1653: Left-handed with plastic dial.

Model 1652MD: Right-handed with metal dial.

Model 1652MD: Left-handed with metal dial.

Edit the following to reflect required model. *****

- A. Type: Built-in, high security, combination lock with slam shut operation and extra long locking bolt without dead bolt locking for mounting in single point latch lockers; Model [1652] [1653] [1652MD] [1653MD] as manufactured by Master Lock Company.
- B. Mounting: Concealed in [right-] [left-] handed locker door.
- C. Construction: Steel body.
- D. Dial: [Durable plastic] [Metal] dial with textured lip for non-slip, one-handed, grip-and-pull operation.
- E. Operation: Horizontal operating spring bolt. Locks automatically on door closure.
- F. Combination: 3 digit dial type. Provide 5 preset combinations to be selected by pressing button. Locks shall have random combination change pattern with no sequentially adjacent locks having same pattern.
- G. Provide 5 pin tumbler lock cylinder for supervisory access.

2.5 COMBINATION LOCKS FOR BOX LOCKERS

******* Eight models of built-in combination locks are provided for multi-tier and box lockers with pull or friction latch handles:**

Model 1654: Right-handed with plastic dial.

Model 1655: Left-handed with plastic dial.

Model 1654MD: Right-handed with metal dial.

Model 1655MD: Left-handed with metal dial.

Model 1654BE: Right-handed with plastic dial and brass escutcheon plate.

Model 1655BE: Left-handed with plastic dial and brass escutcheon plate.

Model 1654MDBE: Right-handed with metal dial and brass escutcheon plate.

Model 1655MDBE: Left-handed with metal dial and brass escutcheon plate.

Edit the following to reflect required model. *****

- A. Type: Built-in, combination lock with steel body for mounting in multiple-tier and box lockers with pull or friction latch handles; Model [1654] [1655] [1654MD] [1655MD] [1654BE] [1655BE] [1654MDBE] [1655MDBE] as manufactured by Master Lock Company.
- B. Mounting: Concealed in [right-] [left-] handed locker door.

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******* For wood lockers, an optional brass escutcheon plate is available. *******

- C. Dial: [Durable plastic] [Metal] dial with textured lip for non-slip, one-handed, grip-and-pull operation. [Provide dial with brass escutcheon plate.]
- D. Operation: Horizontal operating spring bolt which retracts flush with locker body. Locks automatically on door closure.
- E. Combination: 3 digit dial type. Provide 5 preset combinations to be selected by pressing button. Locks shall have random combination change pattern with no sequentially adjacent locks having same pattern.
- F. Provide 5 pin tumbler lock cylinder for supervisory access.

******* Locker doors which are 11/16 to 3/4 inch thick require an extension set. Include the following paragraph if extension is required. *******

- G. Extension set: Provide for locker doors 11/16 to 3/4 inch thick.

2.6 HIGH SECURITY COMBINATION DEADBOLT LOCKS WITHOUT SLAM SHUT OPERATION

******* Eight models of built-in combination deadbolt locks are provided for all locker styles including lift handle, turn handle, single point latch, and box lockers. Deadbolt locking provides the highest level of security and is ideal for open mesh and ventilated lockers with access to back of lock.**

Model 1670: Right-handed with plastic dial.

Model 1671: Left-handed with plastic dial.

Model 1670MD: Right-handed with metal dial.

Model 1671MD: Left-handed with metal dial.

Model 1670BE: Right-handed with plastic dial and brass escutcheon plate.

Model 1671BE: Left-handed with plastic dial and brass escutcheon plate.

Model 1670MDBE: Right-handed with metal dial and brass escutcheon plate.

Model 1671MDBE: Left-handed with metal dial and brass escutcheon plate.

Edit the following to reflect required model. *****

- A. Type: Built-in, high security, combination, horizontal deadbolt lock with steel body for mounting in lift handle, turn handle, single point latch, box, and open mesh style lockers; Model [1670] [1671] [1670MD] [1671MD] [1670BE] [1671BE] [1670MDBE] [1671MDBE] as manufactured by Master Lock Company.
- B. Mounting: Concealed in [right-] [left-] handed locker door.

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******* For wood lockers, an optional brass escutcheon plate is available. *******

- C. Dial: [Durable plastic] [Metal] dial. [Provide dial with brass escutcheon plate.]
- D. Operation: Horizontal operating deadbolt which engages latch mechanism. Dial must be turned to relock door.
- E. Combination: 3 digit dial type. Provide 5 preset combinations to be selected by pressing button. Locks shall have random combination change pattern with no sequentially adjacent locks having same pattern.
- F. Provide 5 pin tumbler lock cylinder for supervisory access.

******* Locker doors which are 11/16 to 3/4 inch thick require an extension set. Include the following paragraph if extension is required. *******

- G. Extension set: Provide for locker doors 11/16 to 3/4 inch thick.

2.7 LOCKER MANAGEMENT SYSTEM

******* School and other facility owners must maintain some form of locker and lock management. Often these have been printed paper documents which are time consuming to update and keep current. Lock Master Company supplies locks with an accompanying printed control chart and a text file on disc of serial numbers and lock combinations. In addition, Master Lock's LockerManager software is an excellent management tool for tracking and managing locks, user assignments, and lock combinations. Include and edit this article to specify LockerManager as part of the built-in, combination lock package. *******

- A. Provide computerized lock and locker management system consisting of licensed operating software, quick start guide, and user manual; LockerManager as developed and published by Lock Master Company.
- B. Software: Once purchased, software is permanently activated.
- C. Support: Each license purchased shall include 1 year "Support Subscription" which is web based and offers resources to help user achieve most from LockerManager System. Support Subscription shall include questions and answers, webinars, training videos, update downloads, and E-mail based technical support.
- D. System shall be password protected and run on desktop personal computer (PC) and handheld computers.

E. System functions:

1. System shall have capacity to register and track the following with search, retrieve, and edit capabilities.
 - a. Locker numbers and locations.
 - b. Locker assignments for both individuals and groups.
 - c. Lock combinations.
 - d. Portable combination padlocks.
 - e. Locker repairs.
 - f. Other user defined data such as schedules, emergency contact information, and fees.
2. Automatically assign lockers and randomize assignments to improve traffic flow.
3. Automatically assign lock combinations.
4. Maintain complete, searchable data files.
5. System shall be capable of expansion.

F. System requirements:

1. Windows 98, 98SE, ME, NT 2000, XP, or Vista.
2. 50 MB hard drive space.
3. Designed for SGA resolution at 1024 X 768 or higher.
4. Pentium III Class PC (5000 MHz or higher) recommended.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Locks shall be installed in accordance with lock manufacturer's instructions.

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******* Series 1652 and Series 1690 each require a unique strike plate and provision of built-in combination locks must be coordinated with fabrication of lockers in order to ensure compatibility and proper operation. *******

- B. Coordinate provision of built-in combination locks with fabrication of lockers to ensure proper, compatible strike plate is accurately installed on lockers.

******* Include the following paragraph if locks are to be factory installed on lockers prior to delivery to site. *******

- C. Factory install built-in combination locks on lockers as part of [Section 10 51 13 - Metal Lockers] [Section 10 51 16 - Wood Lockers] [Section 10 51 26 - Plastic Lockers] [Section 10 51 43 - Wire Mesh Storage Lockers] [Section [_____] - [_____]].

******* Include the following paragraph if locks are to be field installed in either existing or new lockers. *******

- D. Field install built-in combination locks in [existing lockers.] [new lockers specified in [Section 10 51 13 - Metal Lockers] [Section 10 51 16 - Wood Lockers] [Section 10 51 26 - Plastic Lockers] [Section 10 51 43 - Wire Mesh Storage Lockers] [Section [_____] - [_____]].]
- E. After installation operate each lock to ensure proper operation. Correct deficiencies and adjust for smooth operation. Verify combination and locker number are as scheduled and recorded in lock management data. Verify functional operation.
- F. Demonstrate to Owner's representative:
1. Use of preset lock combinations, supervisory access, and other maintenance activities.

******* Include the following paragraph if LockerManager system is being specified. *******

2. Locker management system: Cover data input, search, retrieve, edit, assignment, and other system functions.

END OF SECTION