MSL Smart Locker End-user Conversion & Mounting Manual Version 1.30

Introduction

MSL Smart Lockers require 110-240V outlet and wi-fi internet access.

To support many usages, MSL Smart Locker can be used with back open or with back closed. The back can be closed with a plate or with a door and a lock.

MSL Smart Lockers can be used by Consumers and Merchants depending on locker owner type.

Consumers can use MSL Smart Lockers without any monthly fee, whereas Merchants must pay a monthly fee. The monthly fee for Merchants is $19.99 for the first locker and $2.99 for each additional locker.

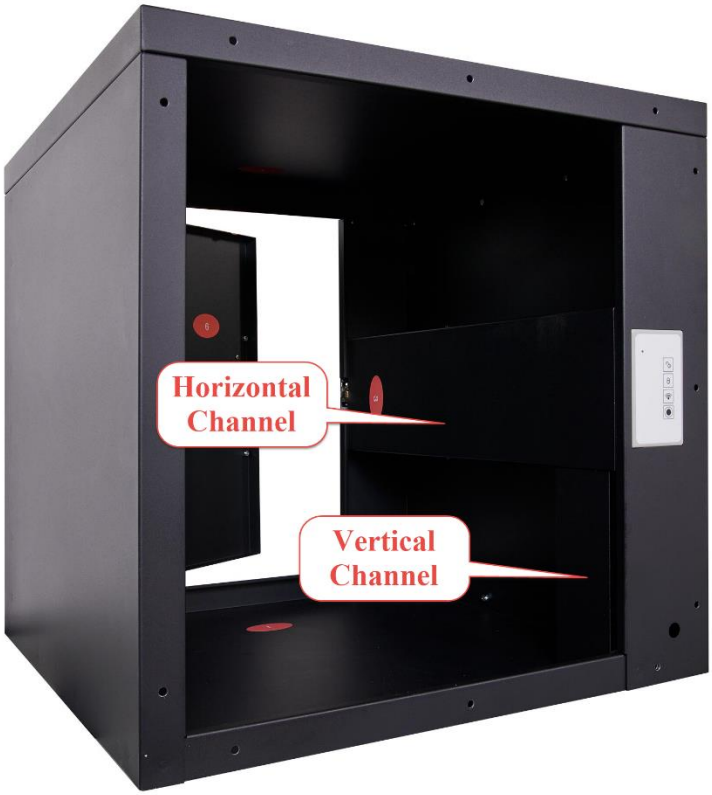
End-users receive 'MSL Smart Lockers' (Locker) in 2 types namely 'Back Open' and 'Back Closed'. With both types, the electronic lock (solenoid) would be in locked position when the solenoid is not activated, and it will be in unlocked position when the solenoid is activated. This would ensure that the locker will be in locked position even when the power goes down. Lockers also come with conversion kits that can be used to convert Lockers from one type to another. While converting the locker from one type to another type, always make sure the mechanical lock is installed properly to the front door or the back side is left open. Otherwise, the front door cannot be unlocked.

Locker with back open

Locker with back closed

Please scan the following QR Code using any mobile device to view Locker Conversion Video:

Both ‘Back Open’ and ‘Back Closed’ lockers have electronics concealed under horizontal and vertical channels as shown below:



As a Consumer locker, it can be used at homes, apartments or offices for In-Door, Porch (Door) or Curbside package deliveries and pick-ups. The packages can be any item such as online purchase, grocery, food etc.

As a Merchant locker, it can be used by merchants for In-Store, Storefront, Curbside and Drive-Thru order pick-up.

Consumer Locker

Following are examples of Consumer locker usage types for ‘Back Open’:

 Window mounted with Locker placed outside. Note: Custom window plate is required.	 Window mounted with Locker placed inside. Note: Custom window plate and back door are required.	 Wall mounted with locker placed inside. Note: Wall plate and back door is required.

Consumer Lockers with back open can be used for indoor delivery and pickup.

Following are examples of Consumer locker usage types for ‘Back Closed’:

	 Wall Mounted	 Floor Mounted Curbside

Floor Mounted

Consumer Lockers with back closed can be used for outdoor delivery and pickup.

Merchant Locker

Following are examples of Merchant locker usage types for ‘Back Open’:

Stacked Lockers Over the Counter

Wall Mounted Lockers

Food Truck

Following are examples of Merchant locker usage types for ‘Back Closed’:

Store front

Drive-thru

Locker Conversion

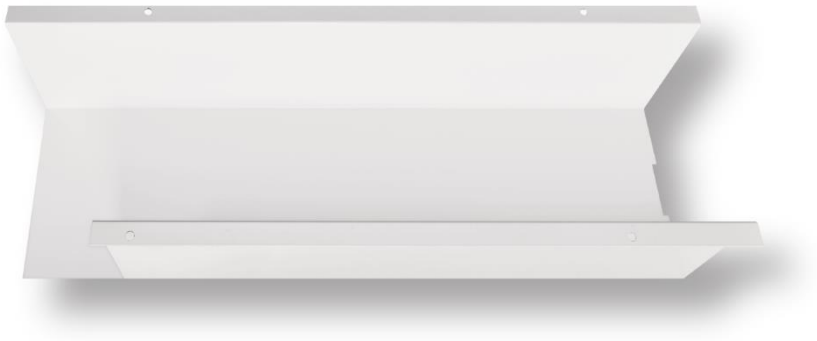
‘Back Open’ to ‘Back Closed’

Following are the parts used in converting locker with ‘Back Open’ to ‘Back Closed’.

1. Vertical Channel attached to left cover of the locker concealing the electronics

	
Vertical Channel Front Side	Vertical Channel Back Side

2. Horizontal Channel attached to left cover of the locker concealing the electronics:



3. Cover Plate attached to the vertical channel to cover the hole in the vertical channel (1).

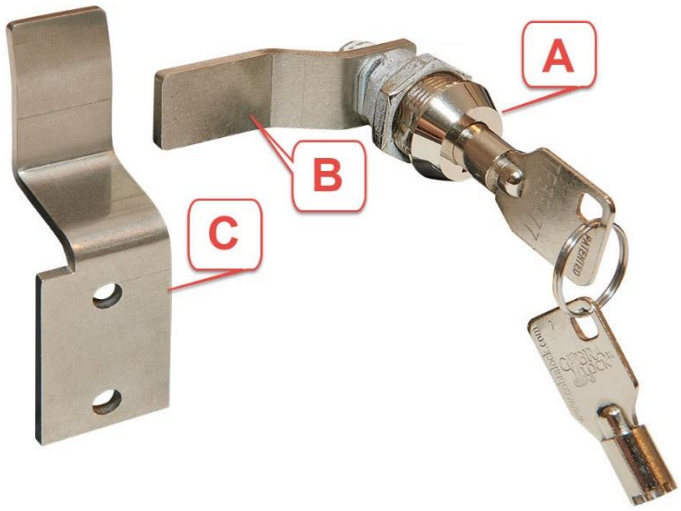
4. Keypad with 4-key attached to the back side of left cover.

5. Door handle plate without a hole attached to the front door.

6. The solenoid plunger pushing plate attached to the back side of the front door used to push the solenoid plunger and to hold the door in the locked position when solenoid plunger is not activated.

7. Door handle plate with a hole supplied with the locker

8. A mechanical lock with a key (A), a mechanical lock cam (B) and a mechanical lock supporting plate (C) supplied with the locker.



9. Back cover to close the opening in the back side supplied with the locker.

Following are the steps in converting locker with ‘Back Open’ to ‘Back Closed’.

Caution: Never close the back without installing and testing the lock (8) on the front door.

Step 1:

- Open the locker front door.
- Remove the vertical channel (1) concealing the electronics attached to the left cover. If needed remove the horizontal channel (2) concealing the electronics attached to the left cover also.
- Remove the blank cover plate (3) from the vertical channel (1) exposing the hole.
- Save the blank cover plate (3) for future use.
- Remove the keypad with 4-key (4) attached to a hole in the back side of the left cover.
- Attach the keypad with 4-key (4) to the hole in the vertical channel (1).
- Attach vertical channel (1)) to the left cover.
- Attach horizontal channel (2) to the left cover.

Step 2:

- Remove the solenoid plunger pushing plate (6) that pushes the solenoid plunger when the solenoid is not activated and attached to the back side of the front door.
- Remove door handle and door handle plate without a hole (5) attached to the front side of the front door.
- Attach the door handle and door plate with a hole (7) to the front side of the front door
- Install the mechanical lock (8-A) through the hole in the door plate (7) and through the hole in the front door.
- Attach the mechanical lock cam (8-B) to the mechanical lock (8-A).
- Attach the mechanical lock supporting plate (8-C) to the back side of the front door.

Make sure the cam (8-B) attached to the mechanical lock (8-A) would push the solenoid plunger and hold the front door in the locked position when the mechanical lock (8-A) is locked, and the solenoid is not activated.

Also, make sure the cam (8-B) attached to the mechanical lock (8-A) would not push the solenoid plunger and would not hold the front door in the locked position when the mechanical lock (8-A) is not locked.

Also, make sure that the cam (8-B) attached to the mechanical lock (8-A) would be in between the solenoid plunger and mechanical lock supporting plate (8-C) when the mechanical lock (8-A) is locked, and the solenoid is not activated.

Step 3:

Make sure the front door is not locked and if it is locked make sure that the key for the mechanical lock is not left inside the locker.

Attach the back cover (9) to the backside of the locker to close the back opening. Tighten the screws into the studs on the back cover (9).

Verify that the lock functions correctly with mechanical lock as well as electronically.

‘Back Closed’ to ‘Back Open’

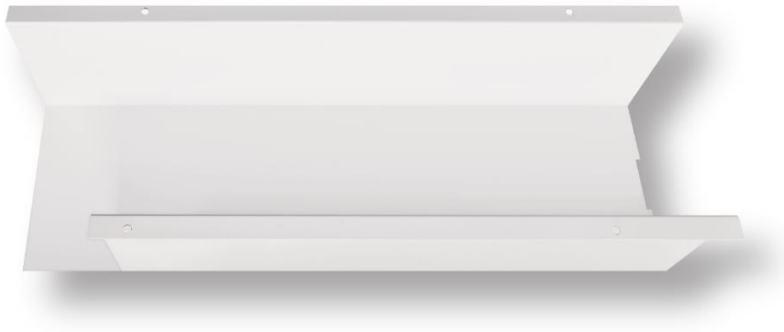
Caution: Never close the front door without mechanical lock and before opening the back cover.

Following are the parts used in converting locker with ‘Back Closed’ to ‘Back Open’.

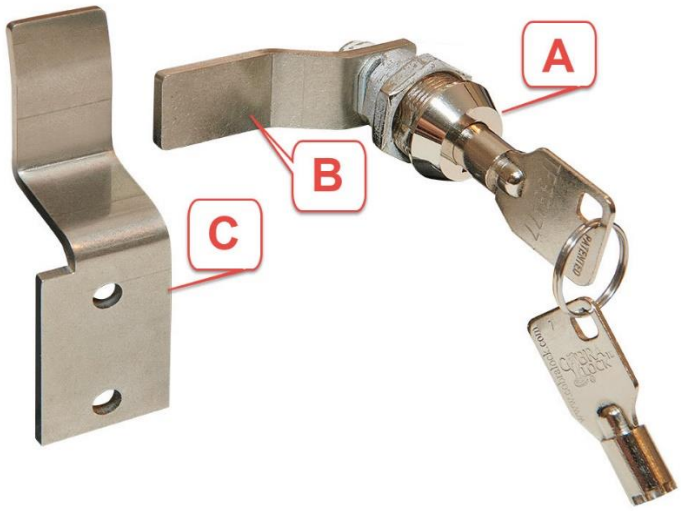
1. Vertical Channel attached to left cover of the locker concealing the electronics

	
Vertical Channel Front Side	Vertical Channel Back Side

2. Horizontal Channel attached to left cover of the locker concealing the electronics:
3. Keypad with 4-key attached to the vertical channel (1) covering the hole in the vertical channel (1).



4. A mechanical lock with a key (A), a mechanical lock cam (B) and a mechanical lock supporting plate (C) attached to the front door of the locker.



5. Door handle plate with a hole attached to the front door of the locker.

6. Back cover attached to the back side of the locker to cover the opening in the back side.

7. Door handle plate without a hole supplied to attach to the front door when mechanical lock (4) is not attached to the front door.

8. The solenoid plunger pushing plate supplied with the locker to attach to the back side of the front door to push the solenoid plunger and to hold the door in the locked position when the solenoid plunger is not activated. The solenoid plunger pushing plate will be attached to the back side of the front door when mechanical lock (4) is not attached.

9. Cover Plate supplied with the locker to cover the hole in the vertical channel (1) when keypad with 4-key is not attached to the vertical channel (1)

Following are the steps in converting locker with ‘Back Closed’ to ‘Back Open’.

Step 1:

- Open the front door.
- Remove the door handle with a hole from the front side of the front door.
- Remove the mechanical lock cam 4B.
- Remove the mechanical lock (4A) from the hole in the door handle plate (5) and the hole in the front door.
- Remove the door handle plate (5) with the hole from the front side of the front door
- Remove mechanical lock supporting plate (5C) from the back side of the front door.
- Attach the solenoid plunger pushing plate (8) to the back side of the front door that would push the solenoid plunger when the door is closed, and the solenoid plunger is not activated.
- Attach the door handle plate without a hole (7) to the front side of the front door.
- Attach the door handle to the front side of the front door.

Step 2:

- Remove the vertical channel (1) and if needed remove horizontal channel (2) also.
- Remove the keypad with 4-key attached to the vertical channel (1)
- Remove the screws from the studs holding the back cover (6).
- Remove the back cover (6).

Step 3:

- Remove the cover plate (9) covering the hole in the back side of the left cover of the locker.
- Attach the keypad with 4-key (3) into the opening in the back side of the left cover of the locker.
- Close the hole in the vertical channel (1) with the cover plate (9).
- Attach the vertical channel (1)
- Attach the horizontal channel (2)

Step 4:

- Make sure the solenoid plunger pushing plate (8) attached to the back side of the front door would push the solenoid plunger and hold the front door in the locked position when the door is closed and when the solenoid plunger is not activated.
- Verify that the door closes properly

Locker Mount

MSL Smart Lockers can be used as a Consumer or as a Merchant locker.

As a Consumer locker, it can be used at homes, apartments or offices for In-Door, Porch (Door) or Curbside package deliveries and pick-ups. The packages can be any item such as online purchases, grocery, food etc. For further details on Consumer locker, please refer to 'Consumer Locker' section.

As a Merchant locker, it can be used by merchants for In-Store, Storefront, Curbside and Drive-Thru order pick-up. For further details on Merchant locker, please refer to 'Merchant Locker' section.

Consumer Locker

This section is applicable only when the MSL Smart Locker is used as a Consumer locker.

‘Back Open’ Locker

Window Mount with Locker Outside:

Caution: More than 1 person will be required to mount the locker to the window. 18”, 24” and 30” lockers weigh about 55, 70 and 90 pounds, respectively. With the stored items, the locker would weigh even more. Make sure the walls and the window are strong enough to hold the weight.

No drilling of hole is required, except for the optional holes to attach the supporting backet to the wall.

Clamp with holes

Step 1:
To mount a locker to a window with the locker in the outside, a custom window plate is required. Follow the steps given below to get a custom window plate:

- Measure the window width and height. If the window has a mesh, then the mesh measurement can be considered as window measurement. The mesh can be indoor or outdoor mesh. If the mesh is indoor mesh, then add ½” to the window width and height.
- Provide the locker size and the window measurement to MySingleLink to get a custom window plate and clamps.

Step 2:

- The custom window plate will have an opening equal to the opening in the back side of the locker. The custom window plate will also have studs around the opening and near the edges. The studs around the opening will be pointing towards the locker and the studs near the edges will be pointing towards the window.

- Along with the custom window plate, up to 4 clamps with holes will also be provided.
- Attach the supporting brackets to the bottom side of the locker.

Step 3:

- Insert the studs placed around the opening in the custom window plate into the holes around the opening in the back side of the locker. Using nuts and the studs attach the custom window plate to the back side of the locker.
- From the outside, place the custom window plate and the attached locker as close as possible to the window with the studs at the edges of the custom window plate facing the window.

Step 4:

- From inside push the clamp holes into the studs at the edges of the custom window plate. Using nuts and the studs attach the clamps to the custom window plate. The frame of the window will be in between the custom window plate and the clamps.

Step 5:

- For added strength make 2 holes to attach the supporting backets to the wall below the window.

Window Mount with Locker Inside:

Caution: More than 1 person will be required to mount the locker to the window. 18", 24" and 30" lockers weigh about 55, 70 and 90 pounds, respectively. With the stored items, the locker would weigh even more. Make sure the walls and the window are strong enough to hold the weight.

No drilling of hole is required.

	 Clamp with holes

Step 1:

To mount a locker to a window with the locker in the inside, a custom window plate is required. Follow the steps given below to get a custom window plate:

- Measure the window width and height. If the window has a mesh, then the mesh measurement can be considered as window measurement. The mesh can be indoor or outdoor mesh. If the mesh is indoor mesh, then add ½" to the window width and height.
- Provide the locker size and the window measurement to MySingleLink to get a custom window plate and clamps.

Step 2:

- The custom window plate will have an opening equal to the opening in the back side of the locker. The custom window plate will also have studs around the opening and near the edges. All the studs will be pointing towards the window and the locker.
- Along with the custom window plate, up to 4 clamps with holes will also be provided.
- Along with custom window plate and clamps a door with piano hinges will also be provided.

Step 3:

- Attach the door with a mechanical lock, to the back side of the locker. Make sure the mechanical lock works.
- Drill holes in the front side of the locker corresponding to the studs around the opening in the custom window plate if holes do not already exist.

Step 4:

- From outside, place the custom window plate as close as possible to the window with all the studs around the opening in the custom window plate and at the edges of the custom window plate facing the window.

Step 5:

- From inside, insert the studs placed around the opening in the custom window plate into the holes around the opening in the front side of the locker. Using nuts and the studs attach the custom window plate to the front side of the locker.

Step 6:

- From inside push the clamp holes into the studs at the edges of the custom window plate. Using nuts and the studs attach the clamps to the custom window plate. The frame of the window will be in between the custom window plate and the clamps.

Wall Mount with Locker Inside:

Caution: Professional help will be required to mount the locker to a wall with locker inside. 18", 24" and 30" lockers weigh about 55, 70 and 90 pounds, respectively. With the stored items, the locker would weigh even more. Make sure the wall is strong enough to hold the weight.

Step 1:

To mount a locker to a wall with the locker inside, a wall plate and a locker door with a mechanical lock are required. Follow the steps given below to get a wall plate and locker door with a mechanical lock:

- Provide the locker size to MySingleLink to get a wall plate, a door with a mechanical lock and piano hinges to mount the door to the back side of the locker.

- Get an architectural drawing on how to mount the locker to a wall with locker inside from MySingleLink.

Step 2:

- Attach the hinges that are attached to the door to the back side of the locker.
- Verify that the mechanical lock works fine.

Step 3:

- Make a hole in the wall corresponding to the size of the locker.

Step 3:

- From outside, place the wall plate as close as possible to the wall with all the studs around the opening in the wall plate facing the wall.

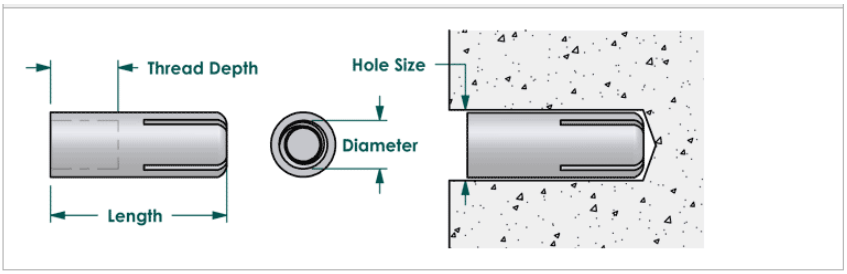
Step 4:

- From inside, insert the locker through the hole in the wall such that the holes in the front side of the locker fit into the studs in the wall plate. Using nuts attach the locker to the wall plate.

‘Back Closed’ Locker

Floor Mount:

Rubber Feet



Thread Depth: 13/16”
Length: 1-9/16”
Diameter: 3/8”
Hole Size: ½”

Drop Pin Anchor

1 1/4 in L x 1/4 in Dia

Mushroom-Head Drive Anchor

Using floor mount, lockers can be mounted in the porch, near the entrance and at the curbside. More than one person may be required for floor mount, because of the weight and size of the locker.

Following 3 options are available for floor mount:

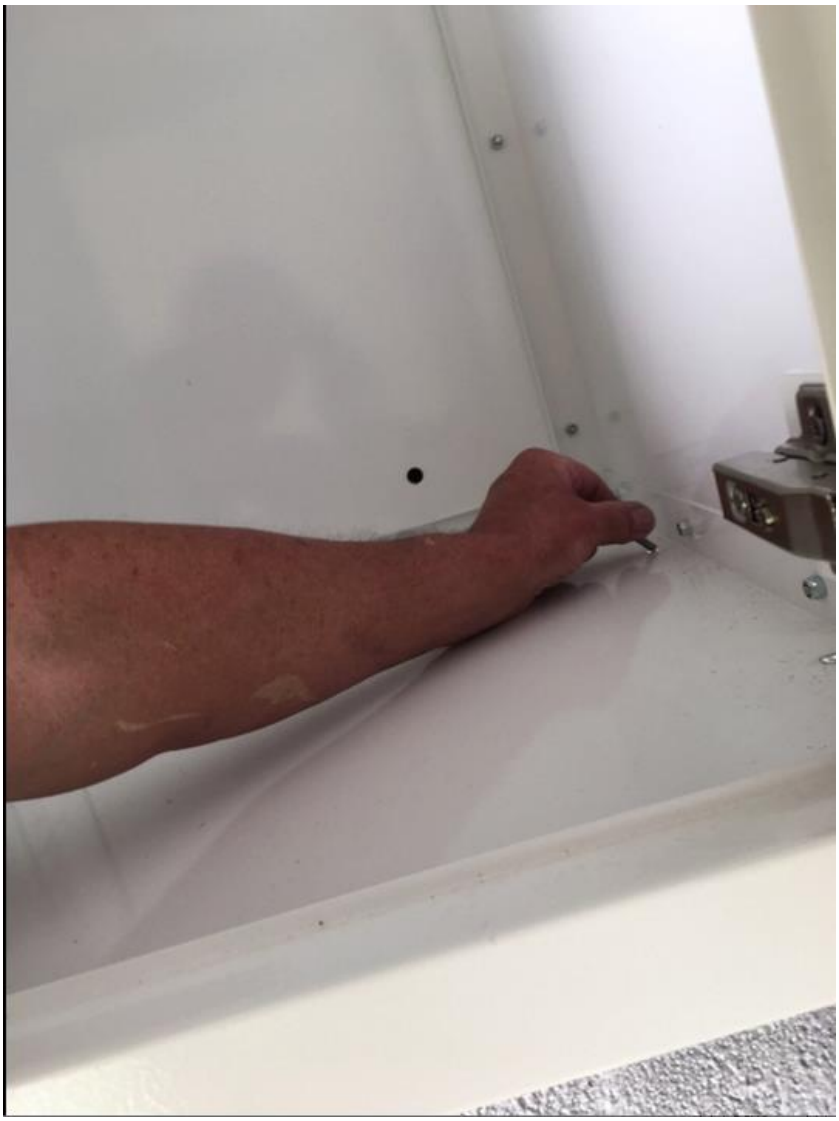
- Rubber Feet Only
- Rubber Feet + Drop Pin Anchor
- Rubber Feet + Mushroom-Head Drive Anchor

Rubber Feet Only:

No drilling any hole on the floor is required with Feet Only floor mount. The rubber feet will protect the locker from moisture from the floor. Because the locker is heavy and unwieldy in size anchoring down the locker to the floor may not be necessary. But, for any reason the locker must be anchored down to the floor, then any type of anchor like Drop Pin or Mushroom-Head Drive can be used in addition to rubber feet.

Step 1:
Place the locker on the side or in a slanting position so that the bottom cover will be accessible.

Step 2:
From inside the locker insert the bolts that were supplied with the feet into the 4 square holes on the bottom cover.



Step 3:
From outside push the feet into inserted bolts through the holes in the feet. Use the nuts supplied with the feet to keep the bolt in place.

Step 4:

Place the bottom cover of the locker on the floor. Now the locker will be resting on the feet and the feet will be resting on the floor.

Rubber Feet + Drop Pin Anchor

Four holes must be drilled on the floor but will give additional protection. The process is like floor mount with rubber feet only, except holes must be drilled and Drop Pin Anchor must be screwed in.

Step 1:
Place the locker on the floor where it needs to be attached to the floor.

Step 2:
Mark the four edges of the locker on the floor and the position of the 4 holes on the bottom cover.

Step 3:
Place the locker on the side or hold it in a slanting position so that the bottom cover will be accessible.

Step 4:
Drill holes at the marked positions as required for the drop pin anchor.

Step 5:
From inside the locker insert the bolts that were supplied with the drop pin anchor into the 4 square holes on the bottom cover.

Step 6:
From outside push the rubber feet into inserted bolts through the holes in the rubber feet.

Step 7:
Place the bottom cover of the locker on the floor at the previously marked position. Now the locker will be resting on the feet and the feet will be resting on the holes drilled in the floor.

Step 8:
From inside the locker tighten the 4 bolts so that the bolts will be completely inserted into the drop pin anchor.

Rubber Feet + Mushroom-Head Drive Anchor:

Four holes must be drilled on the floor but will give additional protection. The process is like floor mount with rubber feet only, except holes must be drilled and Mushroom-Head Drive

Anchor must be hammered in. Please refer to the images under floor mount with rubber feet only.

Step 1:
Place the locker on the floor where it needs to be attached to the floor.

Step 2:
Mark the four edges of the locker on the floor and the position of the 4 holes of the bottom cover.

Step 3:
Place the locker on the side so that the bottom cover will be accessible.

Step 4:
Drill holes at the marked positions as required for the mushroom-head drive anchor.

Step 5:
From inside the locker insert the bolts that were supplied with the mushroom-head drive anchor into the 4 square holes on the bottom cover.

Step 6:
From outside push the rubber feet into inserted bolts through the holes in the rubber feet.

Step 7:
Place the bottom cover of the locker on the floor at the previously marked position. Now the locker will be resting on the feet and the feet will be resting on the holes drilled in the floor.

Step 8:
From inside the locker hammer down the 4 bolts so that the bolts will be completely inserted into the mushroom-head drive anchor.

Wall Mount with Locker Outside:

Using wall mount, lockers can be mounted to any wall. More than one person may be required for floor mount, because of the weight and size of the locker.

Caution: 18", 24" and 30" lockers weigh about 55, 70 and 90 pounds, respectively. With the stored items, the locker would weigh even more. Make sure the wall is strong enough to hold the weight.

Drop pin or mushroom-head drive anchors can be used to mount the locker to the wall.

Six holes must be drilled on the wall.

Step 1:
Mark and drill 4 holes in the wall that correspond to the 4 holes in the back cover or the locker large enough to accommodate drop pin or mushroom-head drive anchors depending on the type of anchor used.

Step 2:
Place the locker upside down near the wall. Attach the supporting bracket to the bottom cover of the locker using the bolts and nuts provided with the supporting bracket.

Step 3:
Place the locker against the wall upside up and the 4 drilled holes are accessible through the 4 holes in the back cover of the locker.

Step 4:
Insert and tighten the bolt supplied with drop pin anchor or insert and hammer in the bolt supplied with mushroom-head drive anchor depending on the type of anchor used.

Step 5:
For additional security drive screws into the wall thru the holes in the supporting bracket.

Power Source:

The Locker comes with a power plug that can be connected to any 110-240V outlet. Depending on the type of mount the power plug can be drawn out of the Locker through one of three knockouts in the Locker. Knockouts are partially stamped openings in boxes. Once removed, a knockout allows electrical wires to be run in and out of the box.

The knockout in the bottom cover of the locker is at the left side far away from the front side. This knockout will always be available unless the Locker is placed on the floor.

The knockout on the back side of the left cover is at the bottom and will be available when the back opening is not closed.

The knockout on the back plate is in the middle in between top and bottom and is closer to the left cover. This knockout will be available only when the back opening is covered with the back plate.

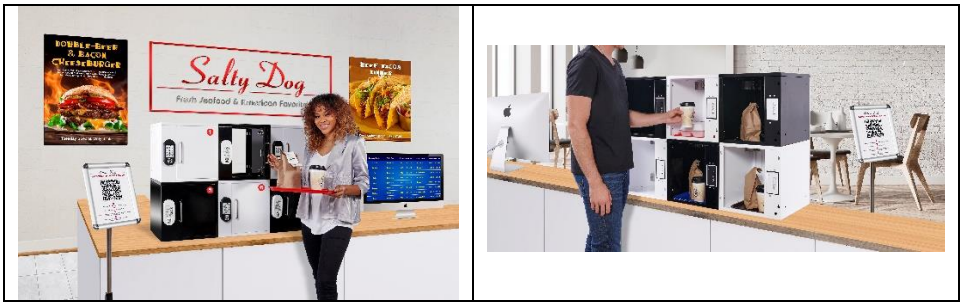
After inserting the power plug thru the knockout, the hole can be closed with a cover like closing an opening on a desk after inserting power plug.

Merchant Locker

This section is applicable only when the MSL Smart Locker is used as a Merchant locker.

‘Back Open’ Locker

Counter Mount:



Stacked Lockers Over the Counter

Food Truck

Caution: More than 1 person may be required to mount the locker over the counter. 18”, 24” and 30” lockers weigh about 55, 70 and 90 pounds, respectively. With the stored items, the locker may weigh even more. Make sure the counter is strong enough to hold the total weight of lockers to be placed on the counter.

There are 4 holes on top, right, bottom, and left sides of the locker which can be used to attach the lockers together side by side and one over the other.

Step 1:

- To protect the counter, attach the rubber feet as shown below to the 4 holes in the bottom plate of each locker to be placed directly on the counter.

Step 2:

- Place the lockers with the bottom feet over the counter next to each other horizontally. Use screws and nuts to attach the lockers using the holes on the right and left plate of the locker. Note: For added security the screws holding the rubber feet can also be drilled into the counter.

Step 3:

- Place one locker at a time over any of the locker already placed. Attach the lockers to each other using screws, nuts, and the holes on the top, right, bottom, and left plates of the locker.

Wall Mount:

Wall Mounted Lockers

Professional help will be required to drill the holes in the wall.

Induvial Locker:

Step 1:

- Make a hole in the wall to match the size of the locker excluding the frame size.

Step 2:

- Drill holes int the wall to match the holes in the frame of the back side of the locker.

Step 3:

- Use screws to attach the locker to the wall using the holes in the frame of the back side of the locker and the drilled holes.

Clustered Lockers:

A cluster is several lockers joined together.

Step 1:

- Join the required number of lockers in a cluster using the holes in top, right, bottom, and left plates of the locker.
- The depth of the cluster cannot be more than one locker deep.
- Drill a hole in the locker big enough to the cluster and build a frame in the wall around the hole
- Attach the cluster to the wall. Make sure the wall frame around the hole is strong enough to hold the lockers.

‘Back Closed’ Locker

Store Front:

Professional help will be required to mount the lockers to the store front.

Store front

Step 1:

A store front plate and a locker door with a mechanical lock are required. Follow the steps given below to mount the locker to store front:

- Get a store front plate and a door for the back side of the locker from MySingleLink. Provide the locker size to MySingleLink.
- Get an architectural drawing on how to mount the locker to store front.

Step 2:

- Attach the hinges that are attached to the door to the back side of the locker.
- Verify that the mechanical lock works fine.

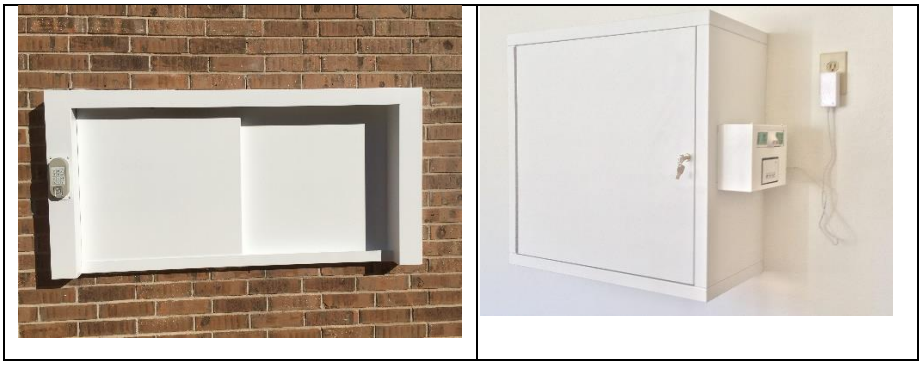
Step 3:
- Build a frame at the store front to match the size of the store front plate.

Step 4:
- From outside, place the store front plate as close as possible to the store front frame with all the studs around the opening in the store front plate facing the store front.

Step 5:
- From inside, insert the locker through the hole in the store front frame such that the holes in the front side of the locker fit into the studs in the store front plate. Using nuts attach the locker to the store front plate.

Drive-Thru

- Professional help will be required to mount the lockers to drive-thru wall following the procedure given in the architectural drawing on how to mount the locker to drive-thru wall.



Drive-thru

Step 1:

A drive-thru locker frame, drive-thru sliding door driving unit and a locker door with a mechanical lock are required. Follow the steps given below to mount the locker to store front:
- Get a drive-thru locker frame, drive-thru sliding door driving unit and a locker door with a mechanical lock from MySingleLink. Provide the locker size to MySingleLink.
- Get an architectural drawing on how to mount the locker to drive-thru wall.

Step 2:
- Attach the hinges that are attached to the door to the back side of the locker.
- Verify that the mechanical lock works fine.

Step 3:

- Attach the drive-thru sliding door driving unit on the outside of the locker. A power source would be required for the drive-thru sliding door driving unit.

Step 4:

- Drill a hole in the drive-thru wall to the size of the locker.

Step 4:

- From outside, place the drive-thru locker frame as close as possible to the drive-thru wall with all the studs around the opening in the drive-thru locker frame facing the drive-thru wall.

Step 5:

- From inside, insert the locker through the hole in the drive-thru wall such that the holes in the front side of the locker fit into the studs in the drive-thru locker frame. Using nuts attach the locker to the store front plate.