



Installation Manual V1.1

Sapling Anti-Ligature Front Polycarbonate Frame Solutions



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Sapling Anti-Ligature Front Polycarbonate Frame Solutions - Table of Contents

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Important Safety Instructions

DANGER



SHOCK HAZARD

- Keep the electricity to this device turned OFF until the clock installation is complete.
- Do not expose the clock movement to water, or install the clock in a location where it may be exposed to water.

- Do not install the clock outdoors. Damage to the clock if placed outdoors voids the warranty.
- Do not hang objects from the clock or clock mounting parts. The clocks are not designed to support the weight of other objects.
- The clock face and housing may be cleaned with a damp cloth or disinfectant. Test other cleaning products on a small part of the clock housing before attempting to use on the rest of the clock. Avoid bleach and chemicals known to dissolve plastics.

WARNING



FIRE HAZARD

- Always follow your national and regional electrical codes or ordinances.
- The AC power circuit for the clock must be attached to a circuit breaker that can be reset by the user.



PHYSICAL INJURY HAZARD

- If you are standing on an object while installing your clock, make sure that the object can support your weight, and will not sway or move as you stand on it.
- Take precautions to avoid injury by potential safety hazards near the point of installation including (but not limited to) heavy machinery, sharp objects, hot surfaces, or exposed cables carrying an electric current.
- Follow all mounting instructions exactly as stated in this manual. Failure to do so may result in the device falling off the point of installation.
- Packaging materials and mounting items include plastic bags and small pieces, which pose a suffocation hazard to young children.

Preparing to Install - System/Network Requirements

Sapling Anti-Ligature Front Polycarbonate Frame Solutions are offered for the Sapling Flush-Mounted (inside the wall) Digital Clocks and for the Sapling 12" (30cm) Square Analog Clocks.

This installation manual will provide instructions on how to perform the physical installation of the anti-ligature front frame accessory. Other instructions for the clock configurations and settings (other than the accessory hardware installation), are to be found in the manual of the specific clock model that is used (SBP, SAL, etc.).

The only differences between the clocks with the anti-ligature frame and the clocks without it would be:

1. The flush-mounted digital clocks using the anti-ligature accessory will not have functional front panel push buttons; however, depending on the specific clock model, there are other ways to interact with the clock.
2. The user will need to leave about 4.0" (10 cm) between the top of the clock's flush-mounted housing and the ceiling.

In addition, when using a digital clock (SBD or SBP IP-PoE), make sure to follow its manual before installation, especially if any changes are desired, such as: displaying time in 24-hour format instead of the default 12-hour format, if the clock display is preferred to be on medium or low brightness level instead of the standard high brightness level, etc.

Once the SBD wired clock has been installed with the front cover screwed and secured, there will be no access to the clock to make these changes. This statement is not relevant to the SBP IP-PoE clock since these settings can be done remotely over LAN using the clock built-in web interface allowing the user to access these settings.

Please note that all installation manuals are available on our website at:

<https://sapling-inc.com/manuals/>

Since installation instructions are different depending on if the anti-ligature frame accessory is used along with a digital clock or an analog clock, this manual will start with installation instructions for the digital clocks followed by installation instructions for the analog clocks. If your application requires installation of only analog clocks, please skip to the section of this manual titled

["Flush-Mounted \(inside the wall\) 12" \(30cm\) Square Analog Clocks with the Anti-Ligature Frame Accessory."](#)

Preparing to Install - System/Network Requirements

For securing (screwing) the front frame to the clock's housing and to the facility's wall, the installer should have a Hex bit interchangeable screwdriver (electric recommended), a size T15 Torx interchangeable hex bit, and a size T20 Torx interchangeable hex bit.

The sizes of the torx screws are listed below:

For Digital Clocks: QTY: 18 (eighteen) 1.25" #10 flat head torx screws (T20)
QTY: 4 (four) 1.0" 6-32 flat head torx screws (T15)

For Analog Clocks: QTY: 18 (eighteen) 1.25" #10 flat head torx screws (T20)
QTY: 4 (four) 5/8" #10 flat head torx screws (T20)

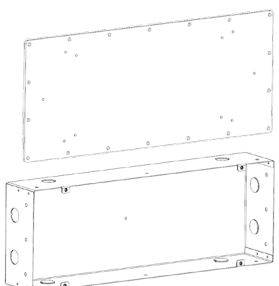



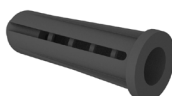
The frame kit includes 1.25" #10 flat head torx screws (T20) and wall anchors for mounting its outer rim to a facility drywall. If the user installs these frames on a surface other than drywall, the user is to provide the correct type of screws and wall anchors depending on the wall material.

In addition, the installer is to secure the clock back box inside the wall and will need to provide the needed hardware (screws), which will vary depending on the type of wall it is being installed in. The installer may also need to have a level as well as a drill and a 1/4" drill bit for installation.


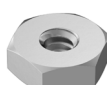

When ordering a flush-mounted digital clock along with the anti-ligature frame accessory, the order will include a part number for the clock and a part number for the front frame kit. In this configuration, the user will receive the clock digital display already attached to the front frame.

Flush-Mounted (inside the wall) Digital Clocks with the Anti-Ligature Frame Accessory:

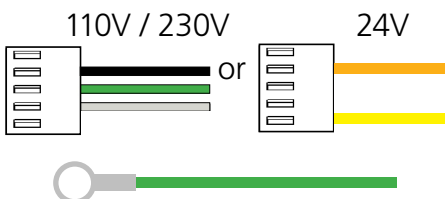
Included in the Order:

Description	Quantity	Picture
Clock display attached to the front frame	1	
Clock Metal Back Housing (to be installed inside the wall)	1	
*1.25" #10 Flat Head Torx Screws (T20)	18 (may not use all)	
1.0" 6-32 Flat Head Torx Screws (T15)	4	
Plastic Washer	4	
*Wall Anchors	18 (may not use all)	

Included with the SBD and SBP Digital Clock Wiring Kit:

#6-32x1/2 Phillips flat head black machine screw	4	
Hex nut 6-32	1	
#6 Internal-tooth lock washer	1	

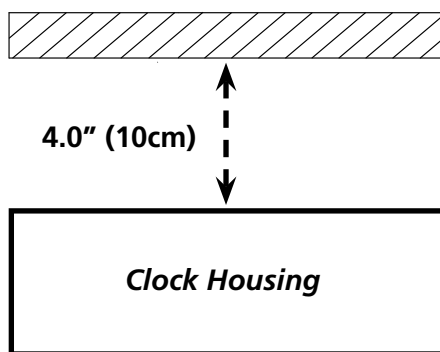
Included with only the SBD Digital Clock Wiring Kit:

Power/grounding wire harness and connector	1	
Grounding wire	1	

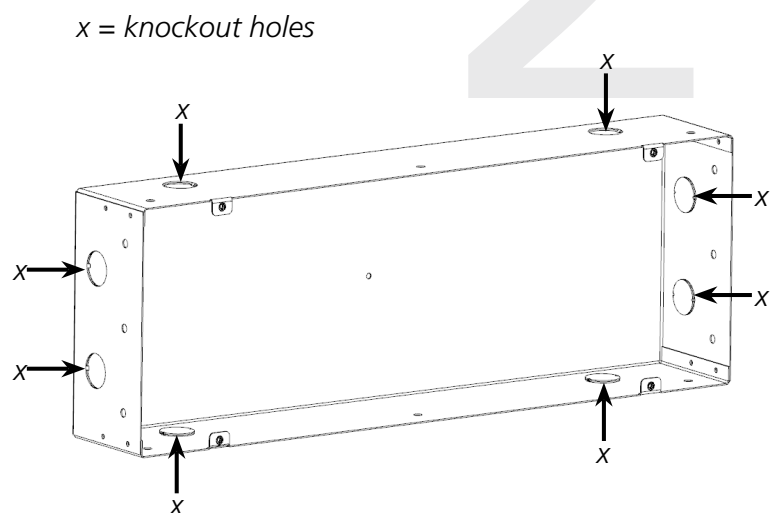
***The frame kit includes 1.25" #10 flat head torx screws (T20) and wall anchors for mounting its outer rim to a facility drywall. If the user installs these frames on a surface other than drywall, the user is to provide the correct type of screws and wall anchors depending on the wall material.**

Flush-Mounted (inside the wall) Digital Clocks with the Anti-Ligature Frame Accessory:

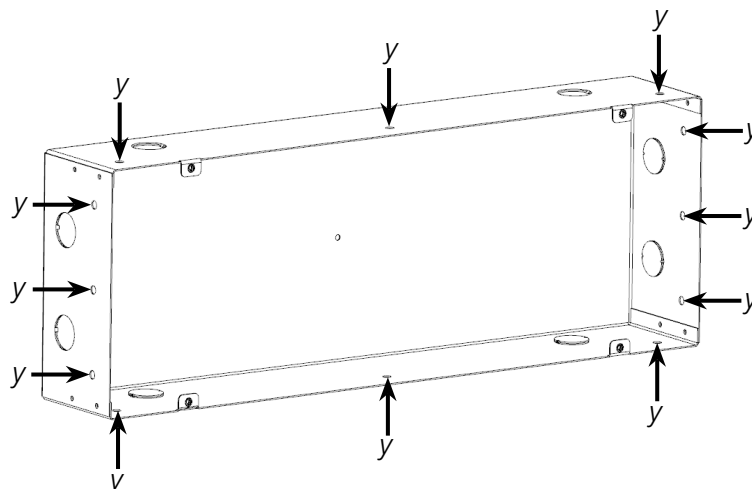
1. Cut a hole in the wall, making sure to leave about 4.0" (10 cm) between the top of the clock housing and the ceiling, as shown in the below image.



2. Plan where wiring will be run into the clock and then knockout one of the semi pre-punched knockout holes from the back metal housing as shown in the image below.



3. Once a hole in the wall is cut, place the clock housing in the wall and make sure that it is leveled with the floor and flush with the wall. You may need to make a fixture to secure the housing in between the studs in the wall, nail it to the cinderblock, or take needed actions to secure it to the wall depending on the type of wall. The housing has pre-punched holes on all sides, allowing to secure it to the wall.

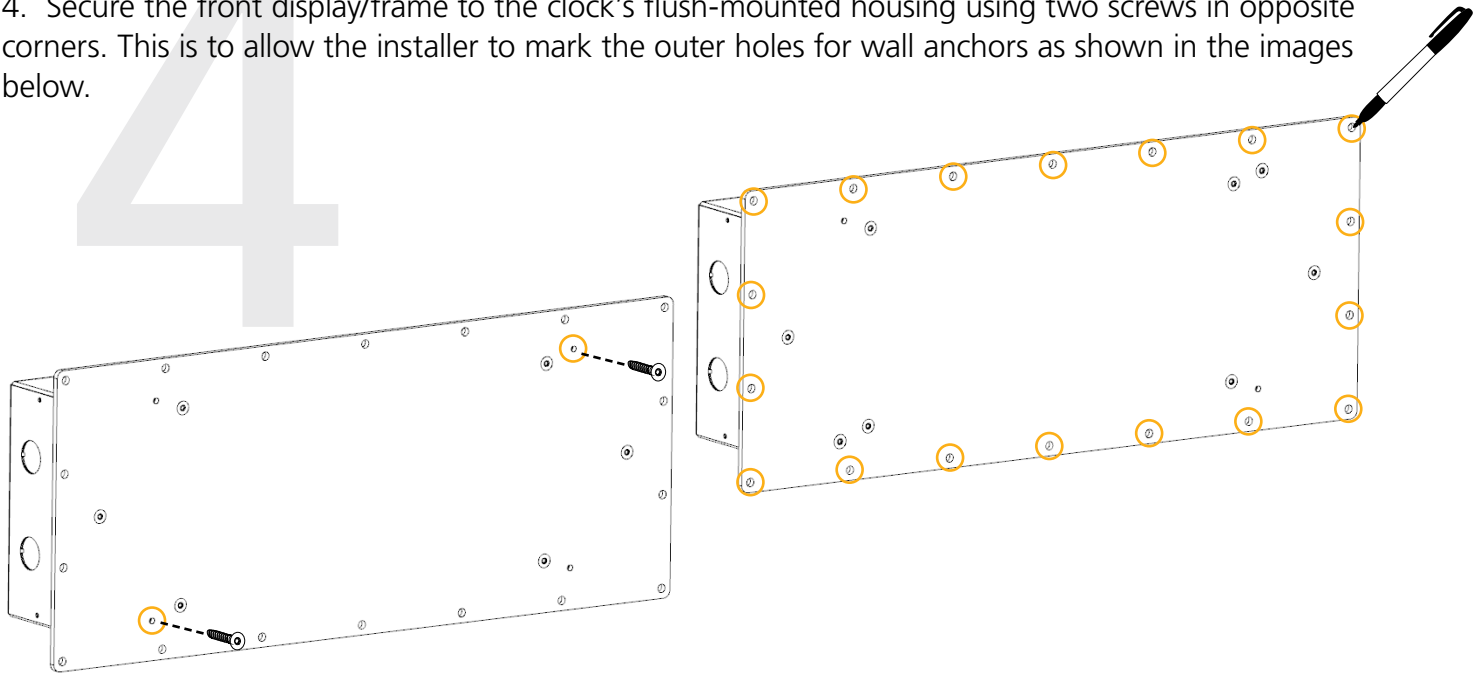


y = nailing holes for securing the housing to the wall

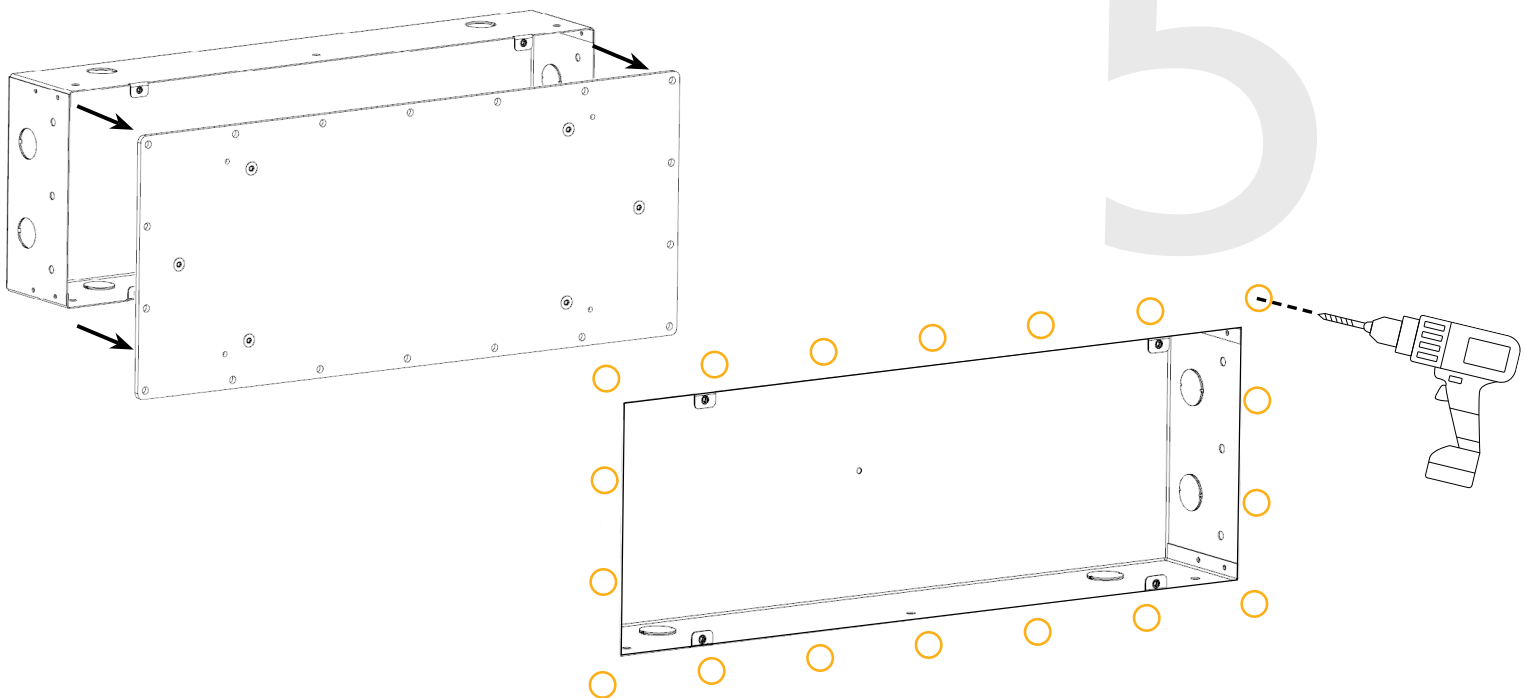
***Hardware for securing the clock housing is to be provided by the installer & the type of screw will vary depending on the type of wall.**

Flush-Mounted (inside the wall) Digital Clocks with the Anti-Ligature Frame Accessory:

4. Secure the front display/frame to the clock's flush-mounted housing using two screws in opposite corners. This is to allow the installer to mark the outer holes for wall anchors as shown in the images below.



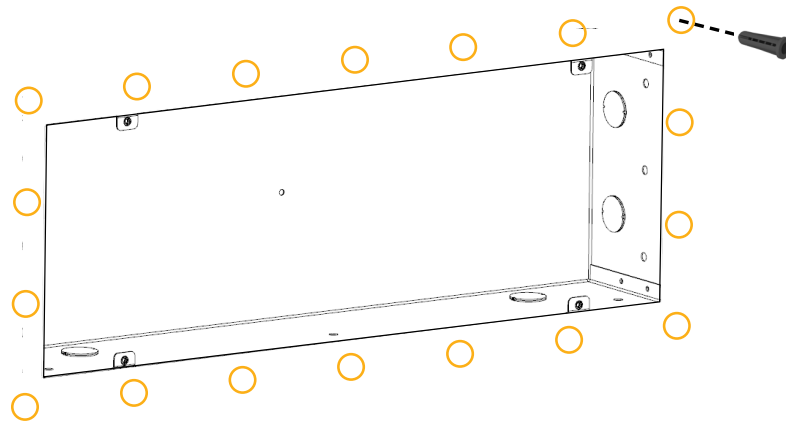
5. Once completed (all outer holes have been marked), remove the clock from the wall, unscrew the front frame and drill all needed holes in the wall that were just marked in the previous step.



****The installer should use a 1/4" drill bit for drilling the outer mounting holes.***

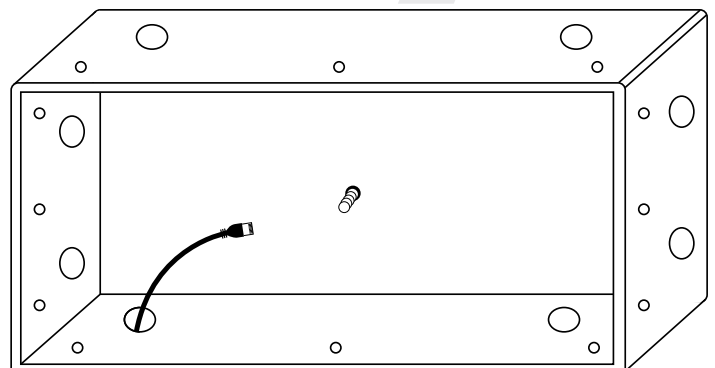
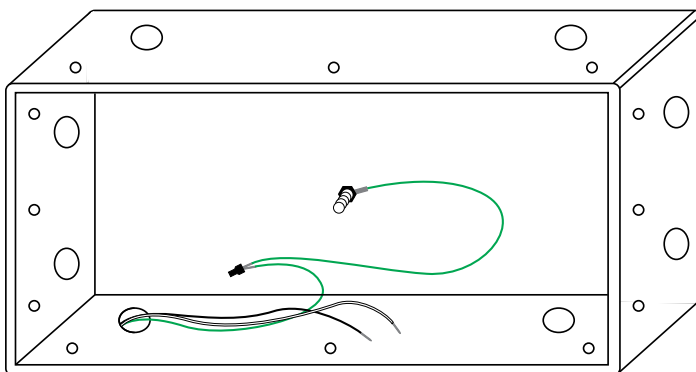
Flush-Mounted (inside the wall) Digital Clocks with the Anti-Ligature Frame Accessory:

6. Insert wall anchors into each drilled hole.



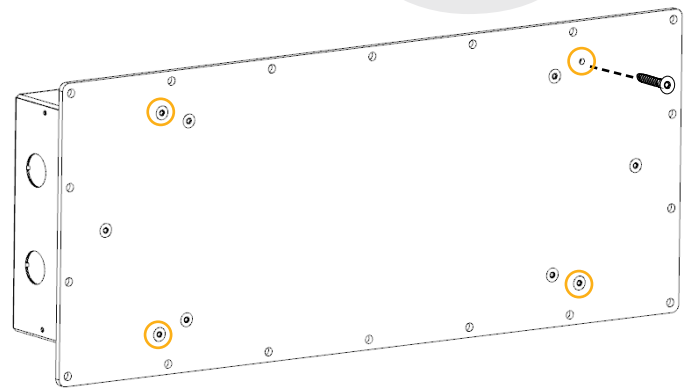
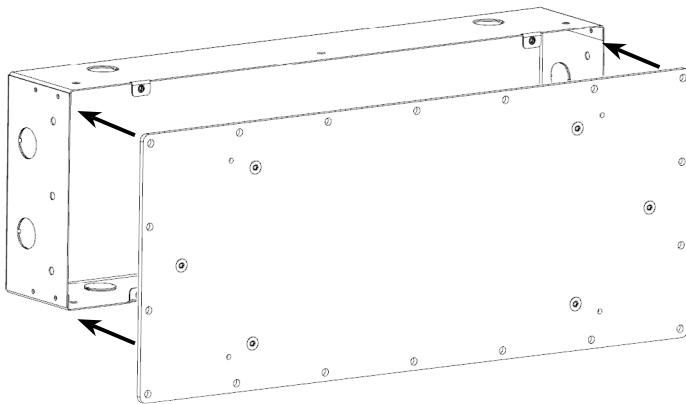
****The frame kit includes 1.25" #10 flat head torx screws (T20) and wall anchors for mounting its outer rim to a facility drywall. If the user installs these frames on a surface other than drywall, the user is to provide the correct type of screws and wall anchors depending on the wall material.***

7. Run the power/data wires from the wall into the clock back metal housing through one of the knockout holes as shown in the below image. Since the flush-mounted digital clocks are offered at different voltages and are made out of metal, depending on the local codes and regulations, you may need to ground the clock back metal housing to the facility grounding bus using the provided hex nut and internal-tooth lock washer.



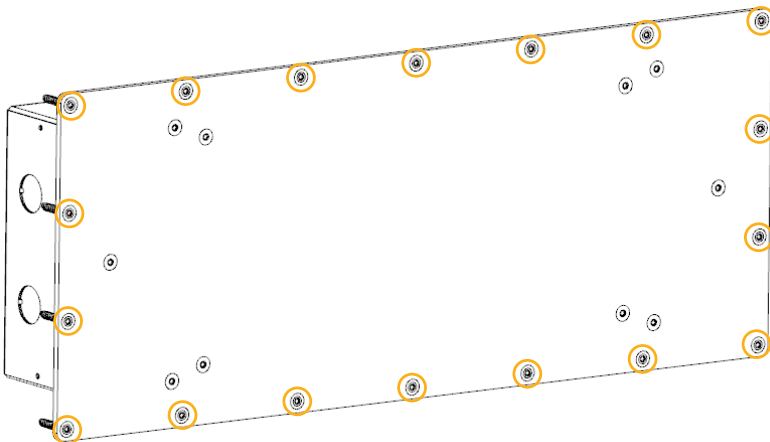
Flush-Mounted (inside the wall) Digital Clocks with the Anti-Ligature Frame Accessory:

8. Next, hold the clock front display/frame so that it is aligned with the clock back metal housing and insert and secure all of the 1" 6-32 flat head torx screws (T15) as well as the plastic washers, as shown in the images below. The washers are to be placed between the metal housing and the front display/frame.



9. After finishing the previous step, the next step is to secure the outer rim of the frame with additional torx screws to the facility's wall, as shown in the image below. The kit includes 1.25" #10 flat head torx screws (T20) and wall anchors for doing so in applications where the frame is to be installed in/on drywall. If the user installs these frames on a surface other than drywall, the user is to provide the correct type of screws and wall anchors depending on the wall material.

10. Once completed, the last step is to verify again that the clock is displaying the correct time and any interfacing accessories are still working. In addition, ensure that the clock is secure by pulling on the frame edges and prying at the corners.

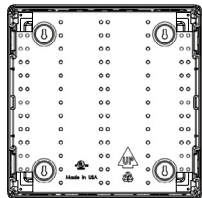
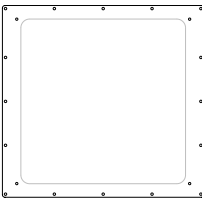


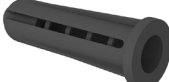


****Make sure that all outer mounting holes are utilized and filled with fasteners to ensure that the anti-ligature standards are met.***

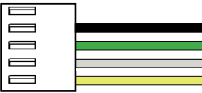

Flush-Mounted (inside the wall) 12" (30cm) Square Analog Clocks with the Anti-Ligature Frame Accessory:

When ordering a 12" (30cm) Square Analog Clock along with the anti-ligature frame accessory, the user will receive a box that will include the clock flush-mounted ABS housing along with the front polycarbonate frame and some hardware. The 12" (30cm) Square Analog Clock is to be ordered *separately*.

Included in the Order:

Description	Quantity	Picture
Clock ABS Back Box to be installed inside the wall	1	
Front Frame	1	
*1.25" #10 Flat Head Torx Screws (T20)	18 <i>(may not use all)</i>	
5/8" #10 Flat Head Torx Screws (T20)	4	
Wall Anchors	18 <i>(may not use all)</i>	

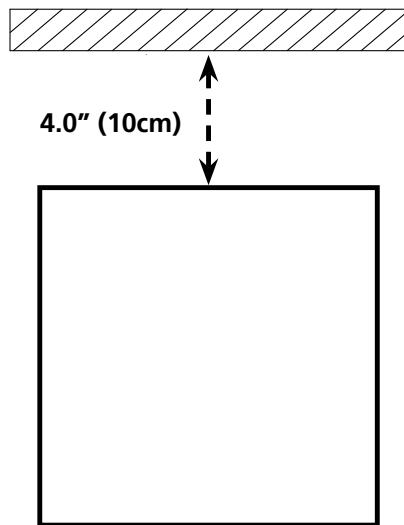
Included with only the SAM Analog Clock Wiring Kit:

Power/grounding wires and connector	1	
Additional grounding wire with connector	1 <i>(not used)</i>	

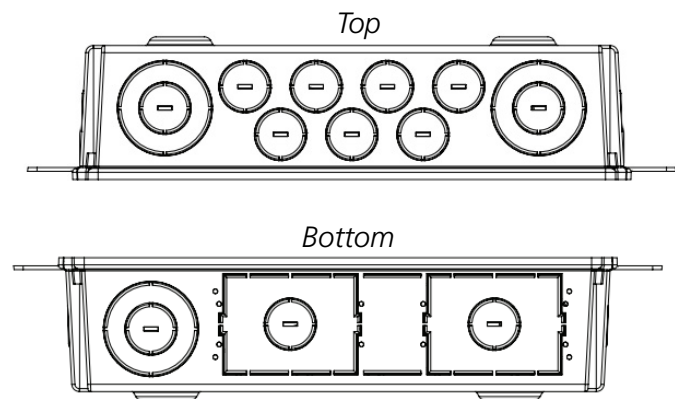
****The frame kit includes 1.25" #10 flat head torx screws (T20) and wall anchors for mounting its outer rim to a facility drywall. If the user installs these frames on a surface other than drywall, the user is to provide the correct type of screws and wall anchors depending on the wall material.***

Flush-Mounted (inside the wall) 12" (30cm) Square Analog Clocks with the Anti-Ligature Frame Accessory:

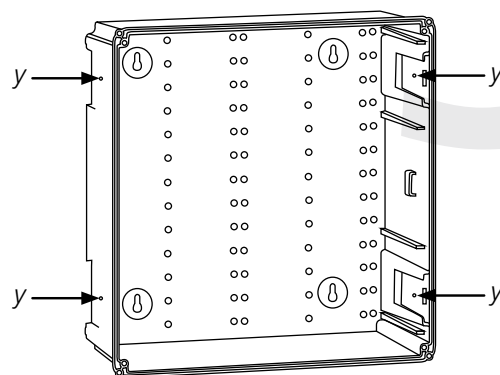
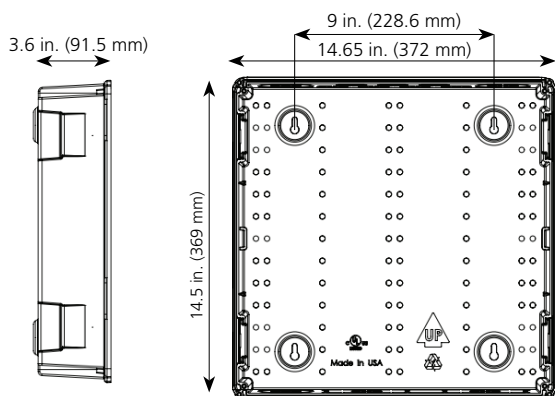
1. Cut a hole in the wall, making sure to leave about 4.0" (10 cm) between the top of the clock back box and the ceiling, as shown in the below image.



2. Once the type of wiring (if the clock is not battery powered) has been identified, run a wire to the clock designated location in the wall. The clock flush-mounted back box comes with semi pre-punched wiring holes on the top and bottom, as shown in the image below. If the clock is **not** battery powered, choose the desired knockout hole and then knockout the semi pre-punched designated wiring hole on the clock back box.



3. Once a hole in the wall is cut, place the clock back box in the wall and make sure that it is leveled with the floor and flush with the wall. You may need to make a fixture to secure the back box in between the studs in the wall, nail it to the cinderblock, or take needed actions to secure it to the wall depending on the type of wall. The back box has pre-punched holes on all sides, allowing to secure it to the wall.



y = nailing holes for securing the housing to the wall

***Hardware for securing the clock back box is to be provided by the installer & the type of screw will vary depending on the type of wall.**

Flush-Mounted (inside the wall) 12" (30cm) Square Analog Clocks with the Anti-Ligature Frame Accessory:

4. Before marking the outer holes for wall anchors, place the clock inside of the back box in order to make sure that it is properly aligned. This will give the installer the opportunity to make final adjustments if and as needed before marking the holes in the wall. Place the front frame on the back box and secure it to the back box using only two of the 5/8" #10 Flat Head Torx (T20) screws in opposite corners, as shown in image A below. Then mark the outer holes for wall anchors, as shown in image B.

Image A

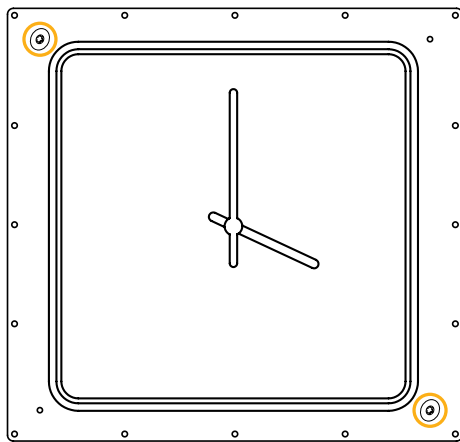
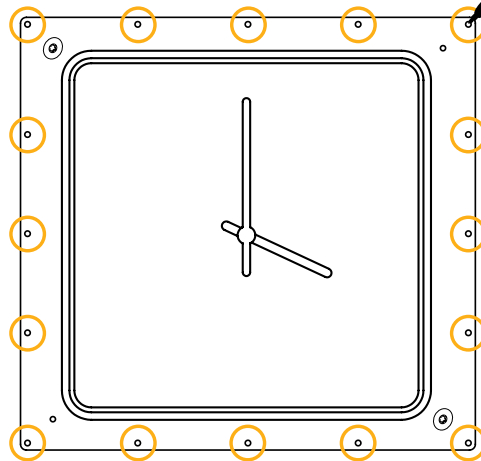
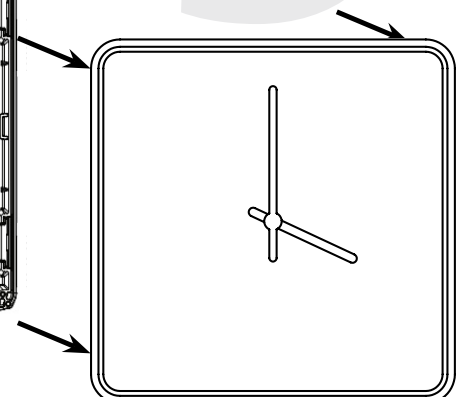
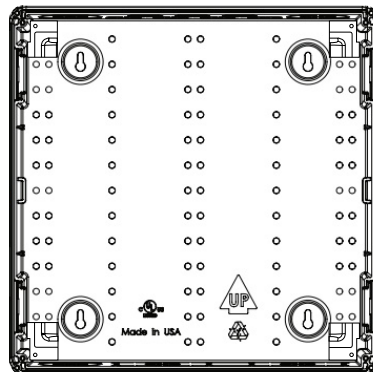
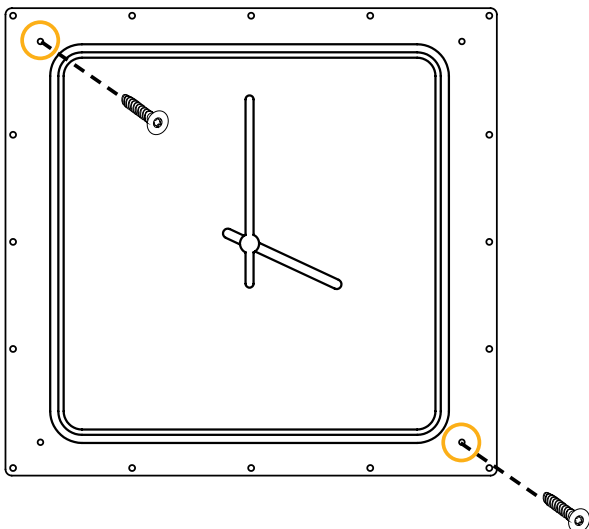


Image B

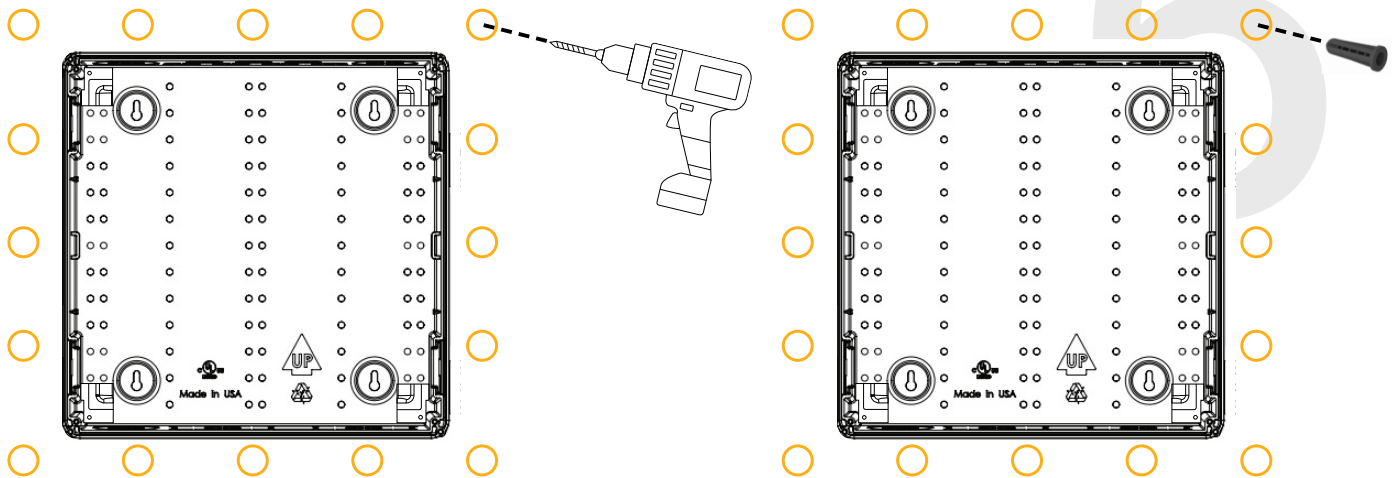


5. After the holes have been marked, remove the 2 inner screws to take off the front frame and remove the clock from the back box.



Flush-Mounted (inside the wall) 12" (30cm) Square Analog Clocks with the Anti-Ligature Frame Accessory:

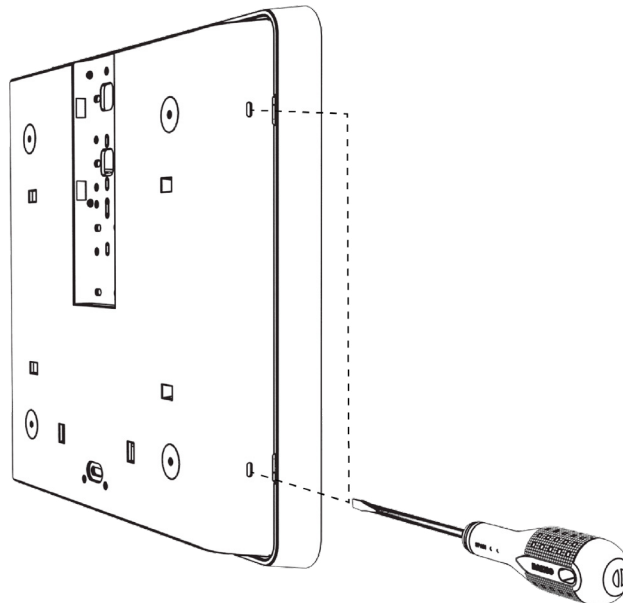
6. Drill all needed holes in the wall that were just marked previously. Then, insert wall anchors into the drilled holes.



****The installer should use a 1/4" drill bit for drilling the outer mounting holes.***

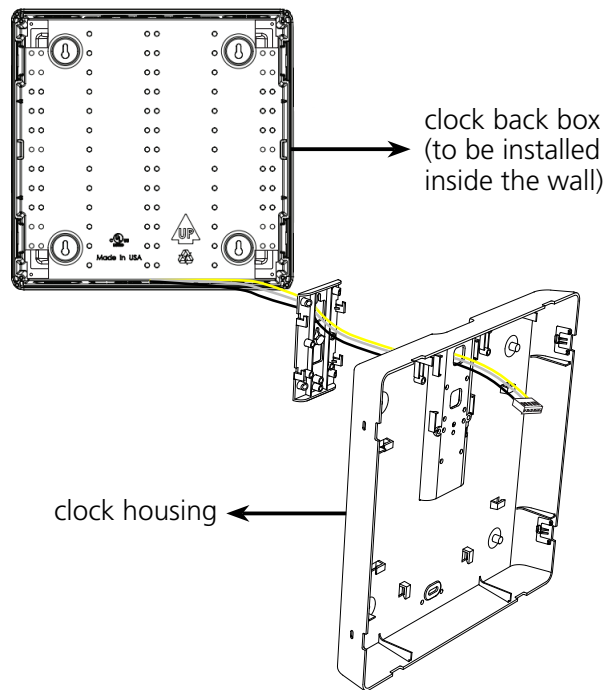
****The frame kit includes 1.25" #10 flat head torx screws (T20) and wall anchors for mounting its outer rim to a facility drywall. If the user installs these frames on a surface other than drywall, the user is to provide the correct type of screws and wall anchors depending on the wall material.***

7. Detach the housing from the back of the square clock. Do this by inserting a flat-blade screwdriver about 1/8 inch into each of the slot holes until the housing detaches. You may hear a snapping noise as the latches disengage.



Flush-Mounted (inside the wall) 12" (30cm) Square Analog Clocks with the Anti-Ligature Frame Accessory:

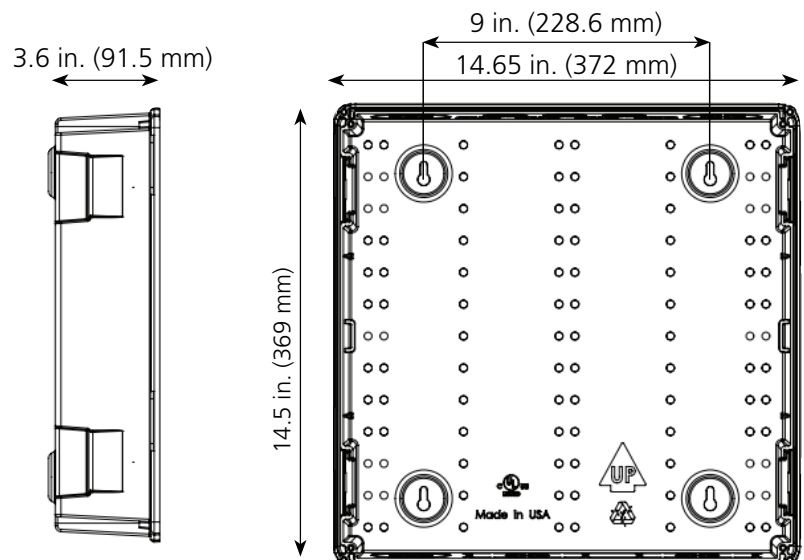
8. **(If not battery powered)** Thread the power wires (or a network cable depending on the type of clock) from your kit through the hole at the top of the clock housing followed by the mounting piece, then attach them to the wires in the clock back box.



Since the 12" (30cm) square analog clocks are offered at different powering options depending on the clock model purchased, wiring going into the clock back box may vary depending on the clock voltage input (either 24VAC/VDC, 110VAC, or 230VAC). Some models are offered with a PoE powering option or by using batteries. Consult with the clock specific installation manual instructions in regard to any wires that may need to be threaded into the clock back box.

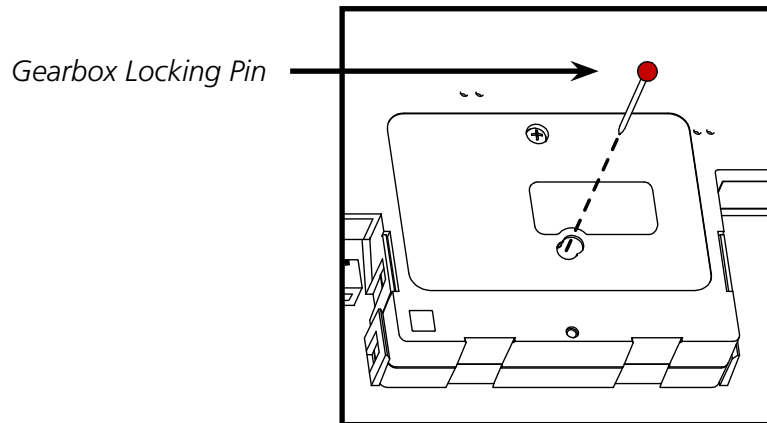
Please also note that all installation manuals are available on our website at:

<https://sapling-inc.com/manuals/>

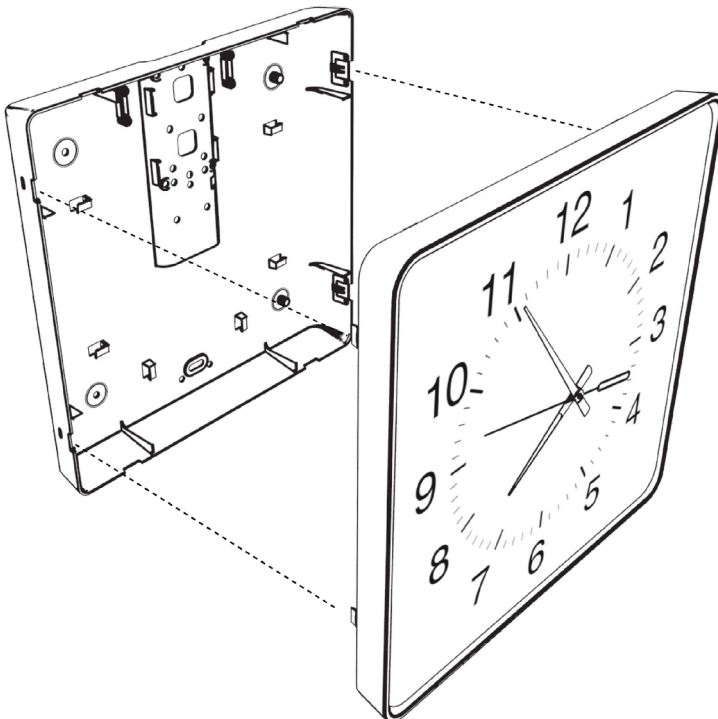


Flush-Mounted (inside the wall) 12" (30cm) Square Analog Clocks with the Anti-Ligature Frame Accessory:

9. It is very important to make sure that the clock gearbox locking pin is removed in order to allow the clock hands to move. This is to make sure that the clock is working properly before placing it into its flush-mounted housing. Then, plug in the wire harness or insert batteries.

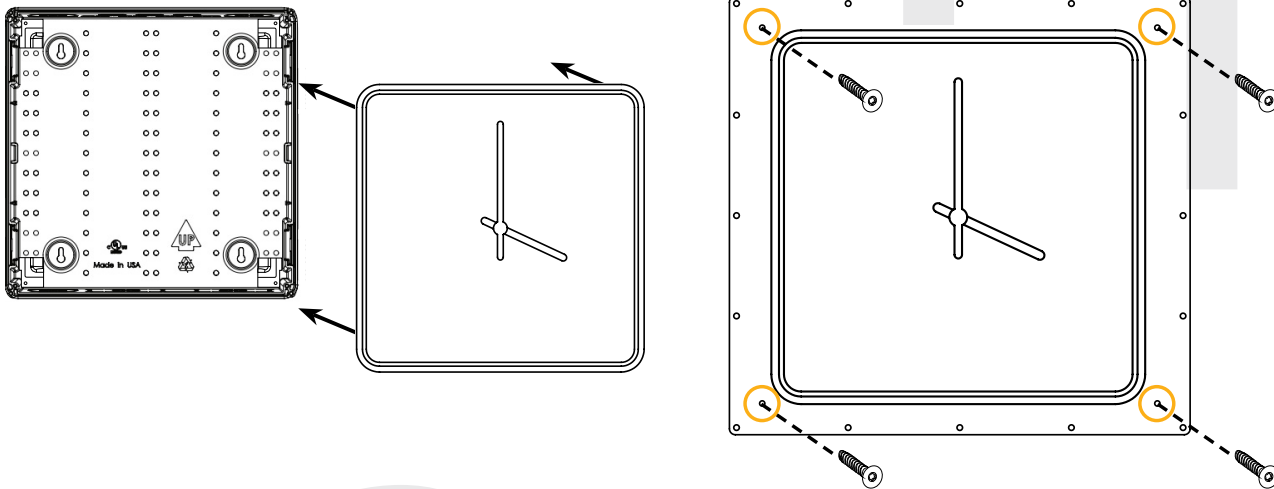


10. Slide the clock back into the housing. You should hear a snapping noise as the latches reengage.



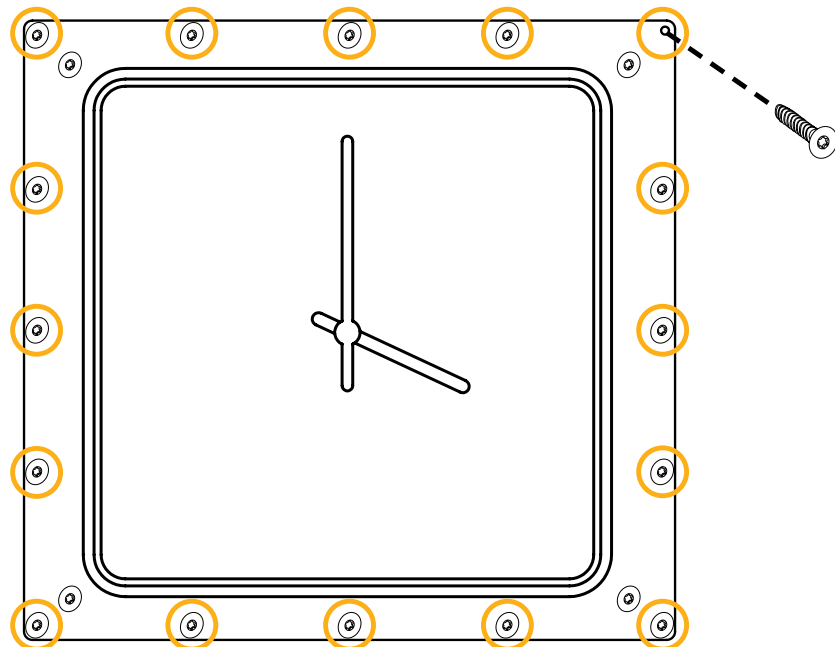
Flush-Mounted (inside the wall) 12" (30cm) Square Analog Clocks with the Anti-Ligature Frame Accessory:

11. Insert the clock back into the back box and secure the front frame using the previously removed 5/8" #10 Flat Head Torx Screws (T20) as shown in the images below.



12. Place the clock assembly in the wall and screw the 1.25" #10 Flat Head Torx Screws (T20) through the front frame and into the wall anchors. If the user installs these frames on a surface other than drywall, the user is to provide the correct type of screws and wall anchors depending on the wall material.

****Make sure that all outer mounting holes are utilized and filled with fasteners to ensure that the anti-ligature standards are met.***

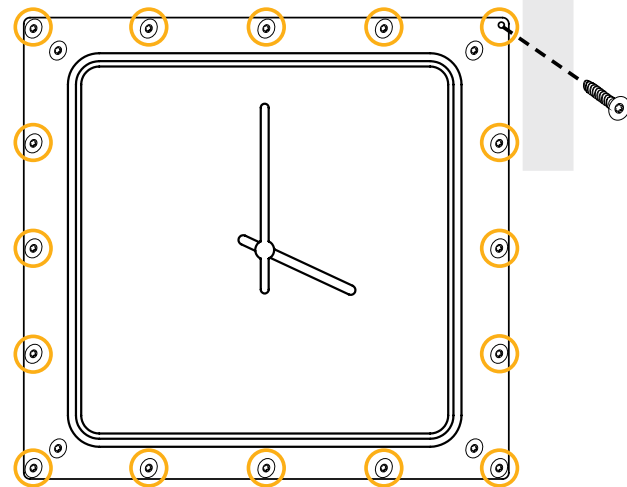


13. Ensure that the clock is secure by pulling on the frame edges and prying at the corners.

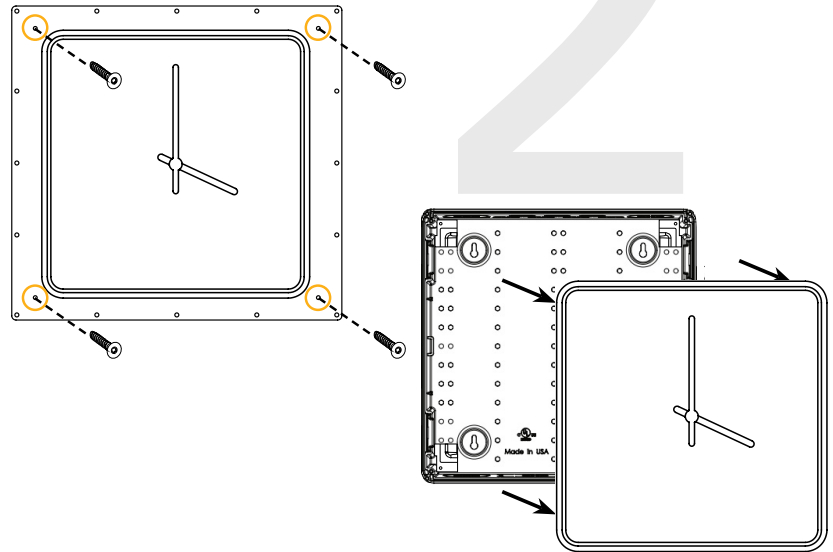
Replacing Batteries for Battery Operated Clocks

In order to replace the batteries in a battery operated analog clock, follow the below steps:

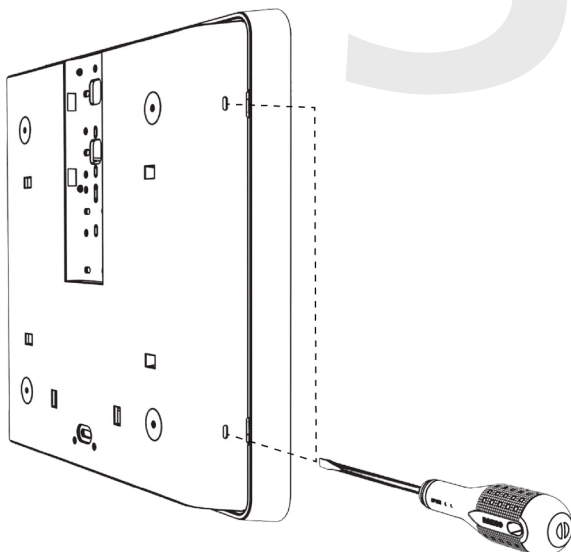
1. Remove the 1.25" #10 Flat Head Torx Screws (T20) from the outer holes of the frame.



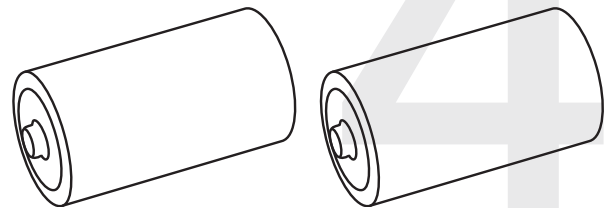
2. Remove the 4 inner 5/8" #10 Flat Head Torx Screws (T20) in order to remove the frame and clock from the back box.



3. Detach the housing from the back of the square clock. Do this by inserting a flat-blade screwdriver about 1/8 inch into each of the slot holes until the housing detaches. You may hear a snapping noise as the latches disengage.



4. Remove the batteries and replace them with new batteries.



5. Continue with steps 10 - 13 of the previous section in this manual titled **"Flush-Mounted (inside the wall) 12" (30cm) Square Analog Clocks with the Anti-Ligature Frame Accessory."**

Warranty

Sapling Limited Warranty and Disclaimer

The Sapling Company, Inc. warrants only that at the time of delivery and for a period of 24 calendar months after delivery or the period stated in this invoice, if different, the Goods shall be free of defects in workmanship and materials, PROVIDED that this warranty shall not apply:

To damage caused by Buyer's or any third party's act, default or misuse of the Goods or by failure to follow any instructions supplied with the Goods.

Where the Goods have been used in connection with or incorporated into equipment or materials the specification of which has not been approved in writing by The Sapling Company, Inc.;

To Goods which are altered, modified or repaired in any place other than a Sapling Company, Inc. factory or by persons not expressly authorized or approved in writing by The Sapling Company, Inc.

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