	Client: VotingWorks	Doc. No.: VWX-001-D023
	Project: Ballot Receptacle	Revision: X01
	Doc. Title: Door Assembly Instruction	Date: 10/31/2024

1.0 PURPOSE

The purpose of this document is to describe the required parts, assemblies, tools, preparation, and process to assemble the Door Assembly (VX~01-10082).

2.0 PARTS & ASSEMBLIES

2.1 Made-To-Spec (MTS)

Item Number	Description	Reference Name
VX~01-10083	ASSY, MACHINED DOOR	DOOR
VX~01-10085	ASSY E-BALLOT BIN	E-BALLOT BIN
VX~02-10103	PLATE, E-BALLOT LATCH PIN	PIN PLATE
VX~02-10095	COVER, E-BALLOT BIN	E-BALLOT COVER
VX~02-10100	BALLOT TRAP, DOOR	BALLOT TRAP
VX~01-10084	ASSY, DOOR LATCH	DOOR LATCH ASSEMBLY
VX~02-10099	LOCKING HASP, DOOR LATCH	LOCKING HASP


2.2 Off-The-Shelf (OTS)

Item Number	Description	Reference Name
VX~99-10138	PTFS, #8 x 1/2 IN, BLACK, STEEL	E-BALLOT BIN SCREWS
VX~99-10108	POP RIVET, 3/16 IN x 0.45 IN, BLACK, AL	LARGE RIVETS

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Item Number	Description	Reference Name
VX~99-10075	POP RIVET, 1/8 IN x 0.337 IN, BLACK, AL	SMALL RIVETS
VX~99-10113	PTFS, #6 x 1/2 IN, BLACK, STEEL	DOOR LATCH SCREWS
VX~99-10136	LOOP, 0.75 IN WIDE, ADHESIVE BACK, BLACK	LOOP

3.0 TOOLS

3.1 Made-To-Spec (MTS)

Item Number	Description
VWX-001-A012	ASSY, PIN PLATE DRILL FIXTURE
VWX-001-A013	ASSY, PIN PLATE DRILL GUIDE
VWX-001-A014	ASSY, E-BALLOT COVER ALIGNMENT PLATE


3.2 Off-The-Shelf (OTS)

Supplier	Part Number	Description
ZIPP	ZT1017VS	PNUEMATIC BLIND RIVET TOOL
-	-	Needle-Nose Pliers
-	-	1mm SHIM

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4.0 PREPARATION

- 1.1 PIN PLATE DRILL FIXTURE alignment (only needs to be done once): Adjust the alignment features on the DRILLING FIXTURE so that the drill guide mounts on either side are centered on the pin-plate recess in the door. Tighten tab screws securely. Adjust the side alignment screws so that the drill guide mounts on either side are the equidistant from their respective walls. Tighten tab screws securely. Loosen tower mounting screws. Place a 0.020" shim between each drill guide mount and the door. Press each drill guide mount firmly against the shim, then tighten in place.
- 1.2 E-BALLOT ALIGNMENT PLATE setup (only needs to be done once): Adjust E-BALLOT ALIGNMENT PLATE screws so that they protrude 5.5mm from the surface of the plate.
- 1.3 The blind rivet tool requires 1/8" and 3/16" tips.

5.0 ASSEMBLY PROCESS


Assemble the Door Assembly (VX~01-10082) as defined in the following steps.

Commented [JD1]: 16:20 Total Tack Time*
Need to add hook-and-loop install

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STEP 2 INSTALL E-BALLOT BIN


- 2.1 Place E-BALLOT BIN upside down on work surface.
- 2.2 Place DOOR on top of E-BALLOT BIN such that E-BALLOT BIN tube sits inside groove in DOOR. (Image shows E-BALLOT BIN face *up* to illustrate tube positioning.)



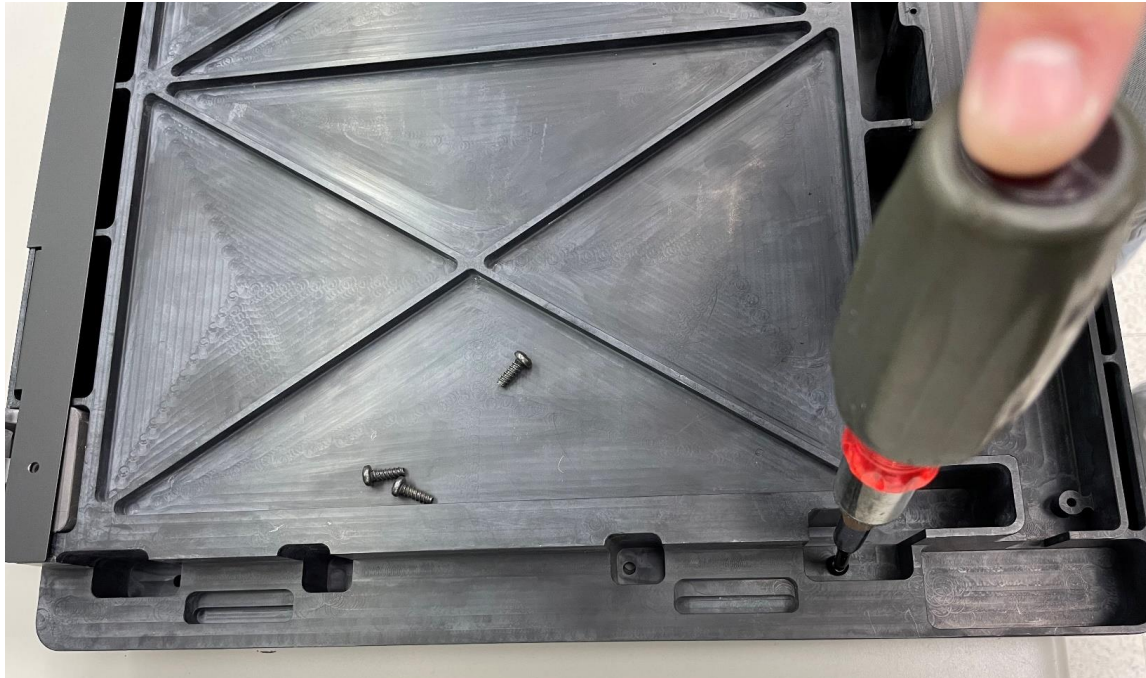
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2.3 Secure E-BALLOT BIN to DOOR using E-BALLOT BIN SCREWS.



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STEP 3 DRILL PIN PLATE HOLES


- 3.1 Place DOOR assembly on work surface with E-BALLOT BIN facing up.
- 3.2 Open the E-BALLOT BIN all the way.
- 3.3 Place PIN PLATE DRILL FIXTURE on top of the DOOR assembly, ensuring that all three PIN PLATE DRILL FIXTURE alignment features contact DOOR.

NOTE: Ensure PIN PLATE DRILL FIXTURE is properly aligned as described in 4.0 Preparation.

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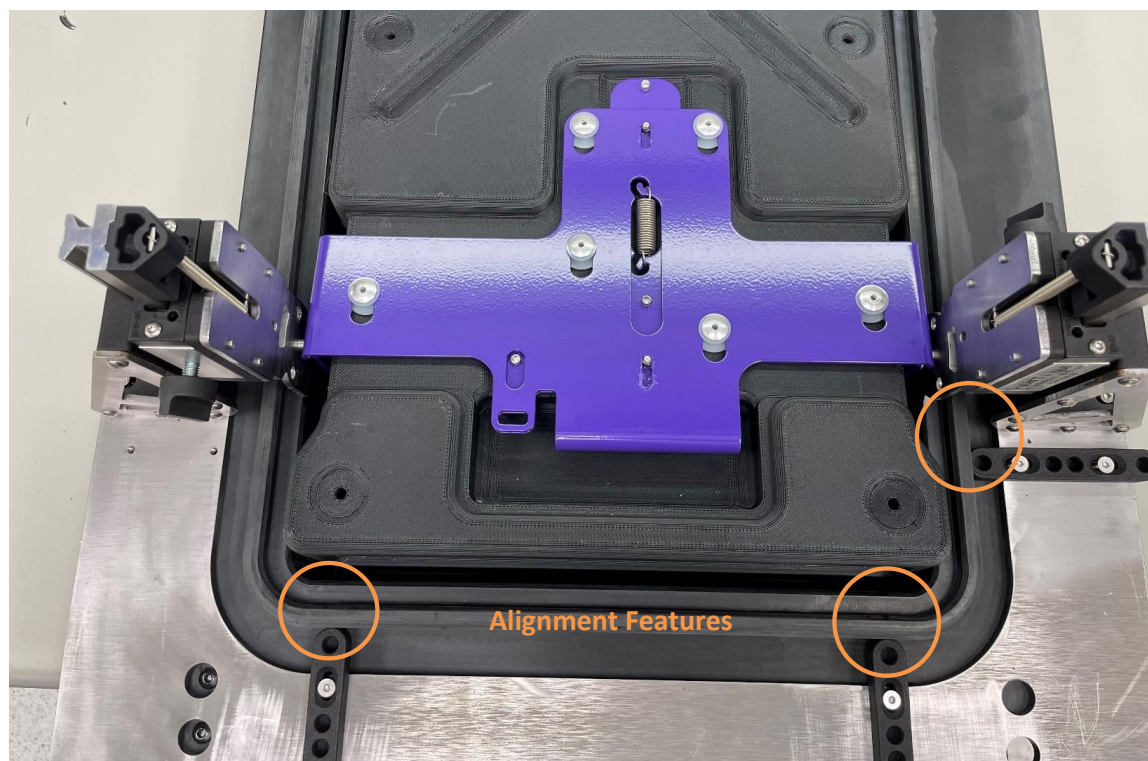
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3.4 Clamp PIN PLATE DRILL FIXTURE in place.

3.5 Close the E-BALLOT BIN



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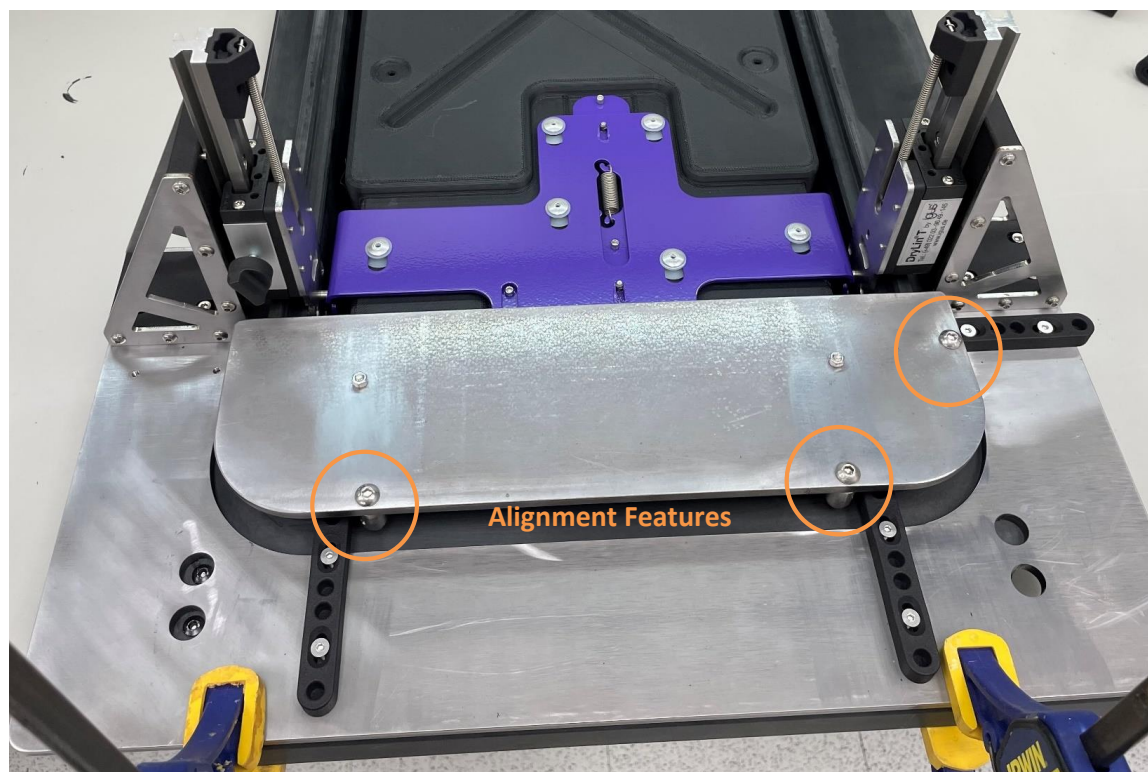
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- 3.6 Install E-BALLOT ALIGNMENT PLATE on top of E-BALLOT BIN, ensuring that all three E-BALLOT ALIGNMENT PLATE alignment features contact DOOR.

NOTE: Ensure E-BALLOT ALIGNMENT PLATE is properly calibrated as described in ...



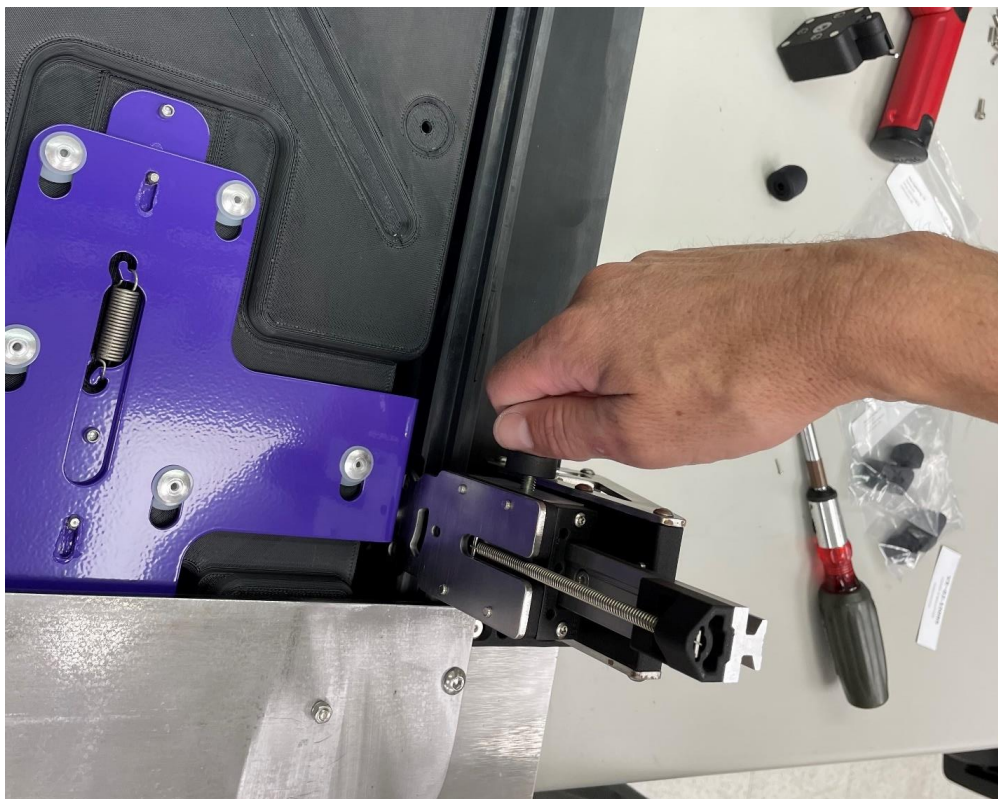
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- 3.7 While ensuring that E-BALLOT ALIGNMENT PLATE is fully seated against the DOOR, lock the PIN PLATE DRILL FIXTURE slides in place by tightening the thumb screws.



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3.8 Remove E-BALLOT ALIGNMENT PLATE and open E-BALLOT BIN



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- 3.9 Install PIN PLATE DRILL GUIDE onto one side of E-BALLOT DRILL FIXTURE. Ensure that spring alignment pin snaps into place.



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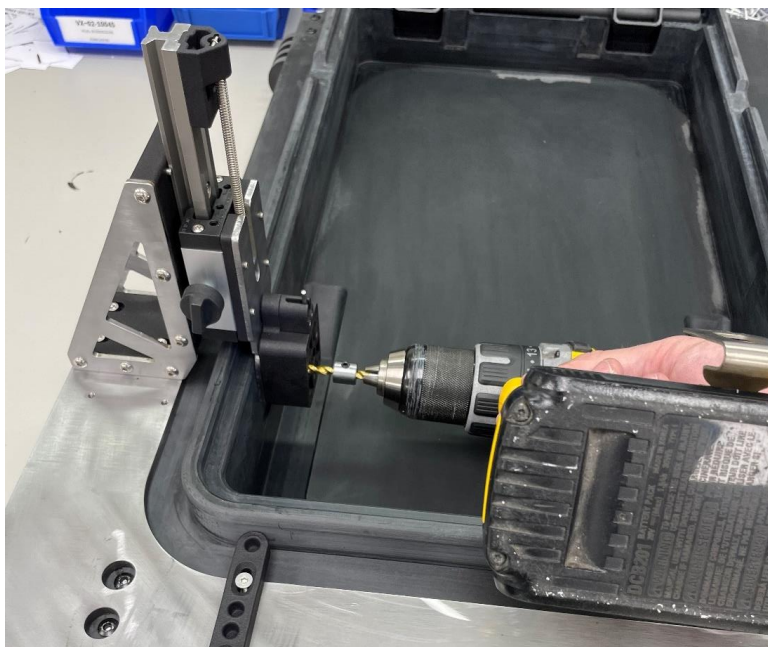
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3.10 Using #11 DRILL BIT, drill out each hole in E-BALLOT DRILL GUIDE.

NOTE: Ensure that DRILL BIT STOP is properly installed onto #11 DRILL BIT as described in ...




3.11 Remove DRILL GUIDE by lifting the spring alignment pin and rotating counter-clockwise.

3.12 Repeat steps 2.9 through 2.11 for the opposite side of PIN PLATE DRILL FIXTURE.

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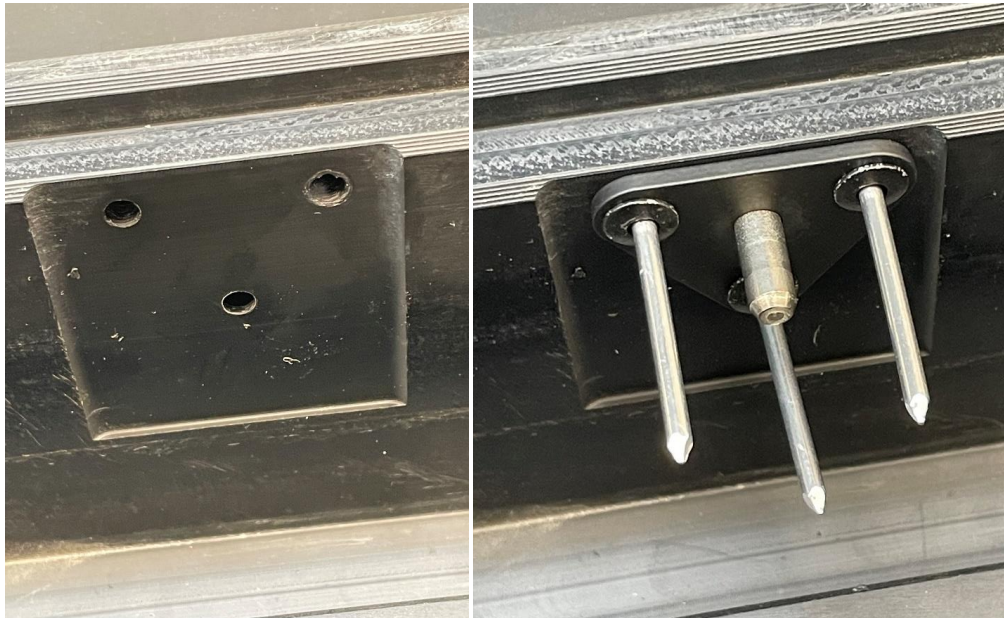
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STEP 4 INSTALL PIN PLATES


4.1 Install both PIN PLATES onto DOOR using 3 LARGE RIVETS to secure each PIN PLATE in place.



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4.2 Cinch LARGE RIVETS using RIVET GUN.



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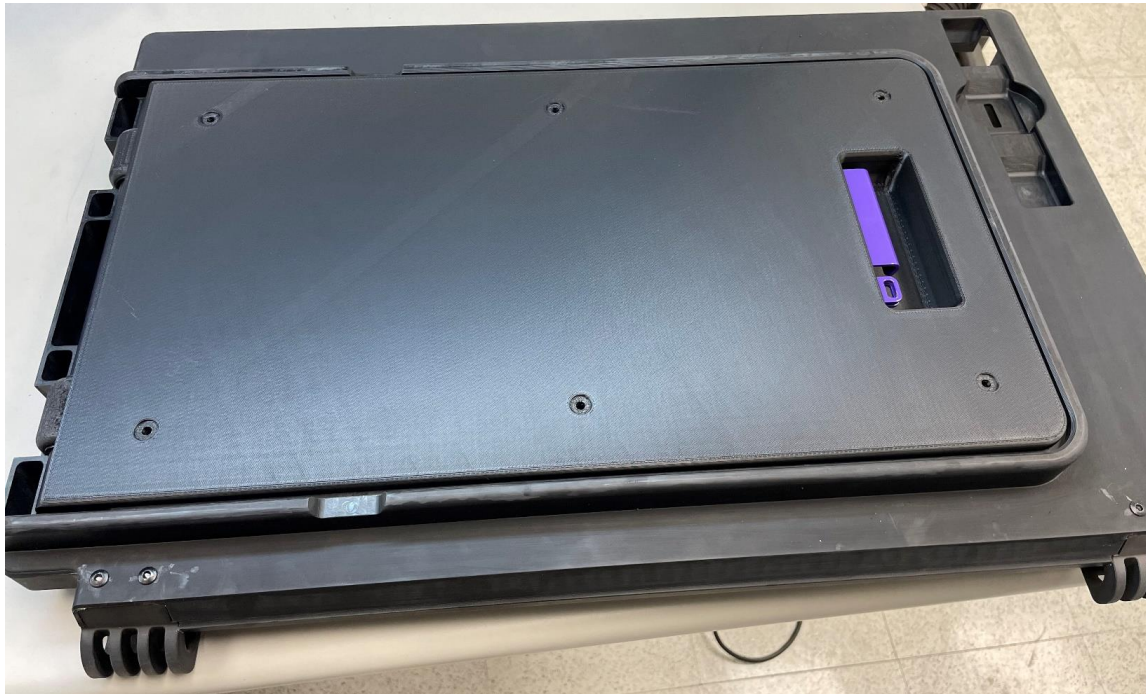
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STEP 5 INSTALL E-BALLOT COVER


5.1 Place E-BALLOT COVER on top of E-BALLOT BIN.



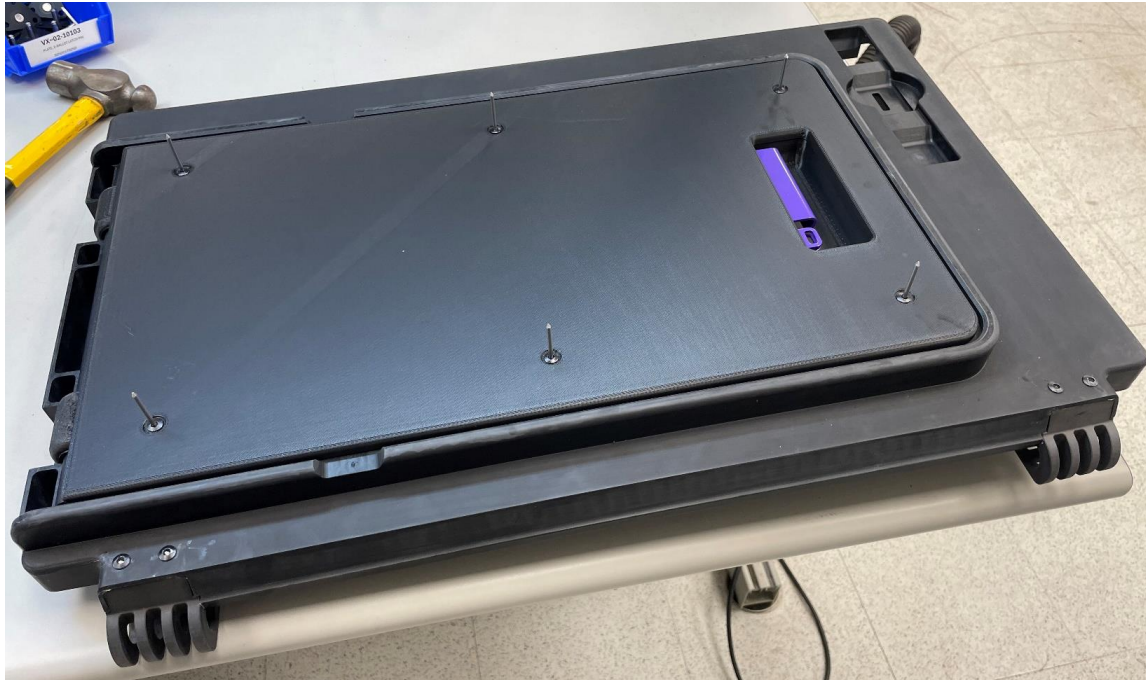
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5.2 Install 6 LARGE RIVETS into holes in E-BALLOT COVER



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5.3 Cinch LARGE RIVETS with RIVET GUN



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STEP 6 INSTALL BALLOT TRAP


- 6.1 Place DOOR on work surface with E-BALLOT BIN facing down.
- 6.2 Place BALLOT TRAP on top of DOOR, with holes lined up.



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6.3 Install 5 SMALL RIVETS into holes BALLOT TRAP, starting with the center hole and working outwards.



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6.4 Using the same pattern, cinch SMALL RIVETS with RIVET GUN



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STEP 7 INSTALL DOOR LATCH

- 7.1 Place DOOR on work surface with E-BALLOT BIN facing down.
- 7.2 Install DOOR LATCH ASSEMBLY by toeing-in the handle through the slot at the top of DOOR.



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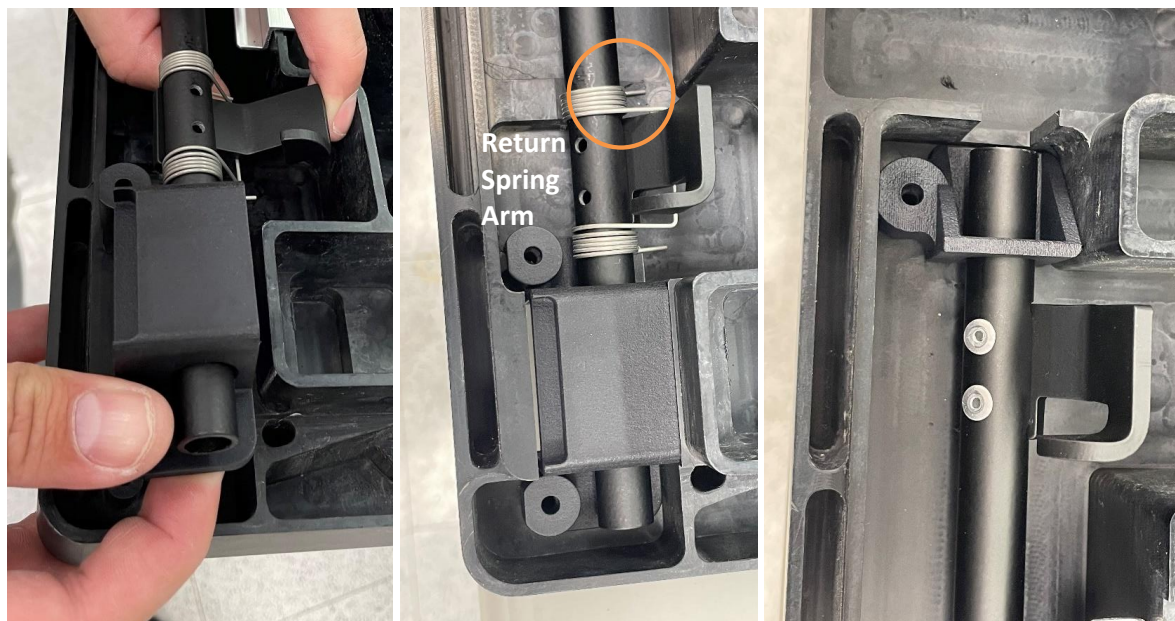
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- 7.3 Rotate bearing and mount from the DOOR LATCH ASSEMBLY approximately 120° and press them onto the bosses in DOOR.


NOTE: Ensure that return spring arm sits properly on ramp in DOOR.



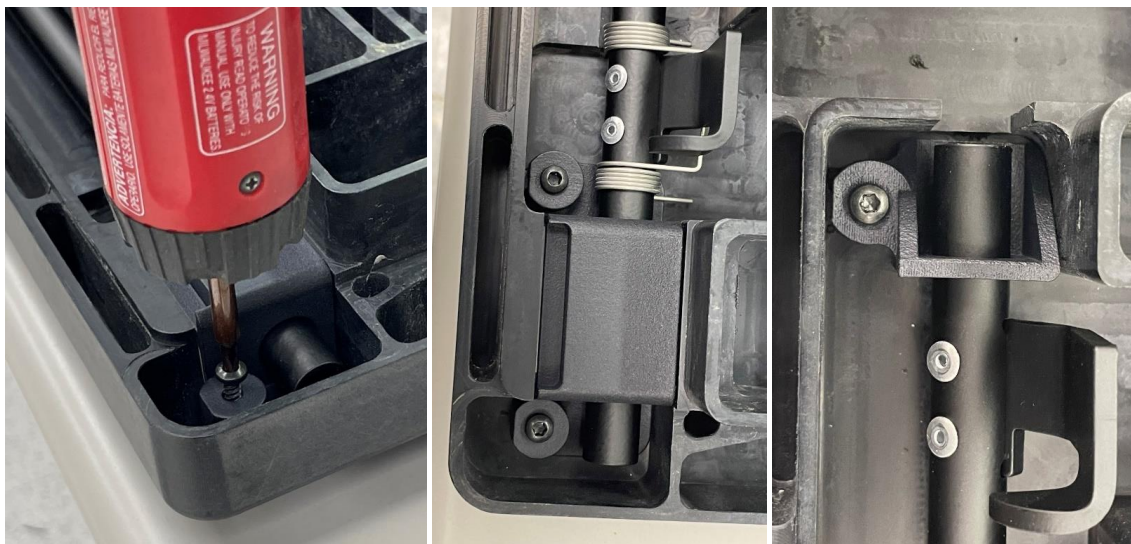
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7.4 Install 3 LATCH SCREWS to secure DOOR LATCH ASSEMBLY in place.



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STEP 8 INSTALL LOCKING HASP

- 8.1 Place DOOR on work surface with E-BALLOT BIN facing down.
- 8.2 Install LOCKING HASP through the slot at the top of DOOR
- 8.3 Use 2 LATCH SCREWS to fix LOCKING HASP in place. DO NOT tighten LATCH SCREWS at this point.



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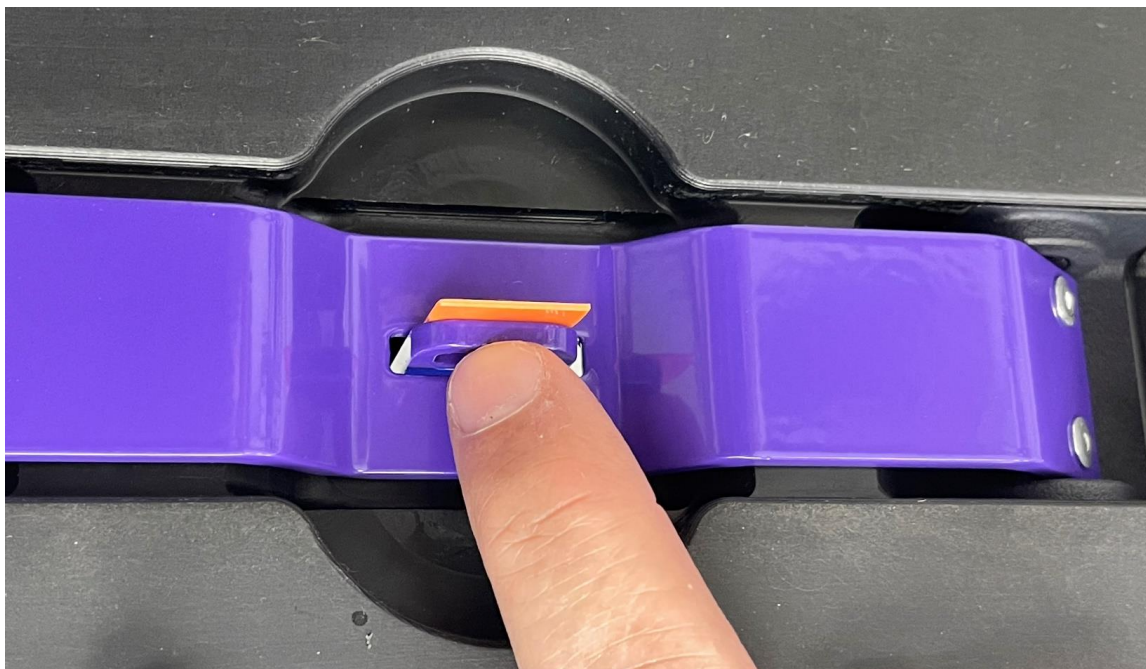
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8.4 Stand DOOR upside down on end.


8.5 Place 1mm SHIM between handle and LOCKING HASP, gently pushing up on LOCKING hasp so that it contacts handle.



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8.6 Tighten LATCH SCREWS to fix LOCKING HASP in place. Remove 1mm SHIM.



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STEP 9 INSTALL LOOP


9.1 Cut to length and apply LOOP to the DOOR for the full length just inboard of hinges.



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REVISION HISTORY AND APPROVALS

If this document is a released alpha-revision, a record of the approvers and specifics of the approval process associated with each released version of this document is contained in the CR# listed in the table, and available for review on NOVO's online CR system.

Rev	Description	CR#	Date	Submitted By
X01	Initial Draft	N/A		