



Subject: New U-Scan NextGen Keylock Latch

Overview

A change was made to the Keylock Latch Assembly for the U-Scan Next Gen lower door to increase its strength and improve security. The current Catch and Pawl are made from Steel. The New Catch and Pawl are made from Stainless Steel with other design changes for additional strength and durability.

This change is included in a U-Scan SBU upgrade program.

If an existing door latch needs to be replaced (fit on fail), the kit below should be ordered.

If a part for this modified latch assembly needs to be replaced, the individual part can be ordered.

A copy of the installation instructions is included with the kit. Also attached to the bulletin for reference.

11002499F Field Kit, Front Door Lock/Guard, Stainless Steel, Next Gen

The above kit contains the following parts.

Part Number	Description
11002508	Catch, Keylock Latch, Stainless Steel, NextGen
11002509	Pawl, Keylock Latch, Stainless Steel, NextGen
11001978	Nut, Jam, 3/4-32, Illinois Lock Barrel
11002502	Washer, 3/4" ID, Internal Tooth, Spring Steel, Illinois Lock Barrel
11002503	Foot, Thermoplastic Rubber, 1.25" OD x 1.125"HT, #10-23UNC Internal Thread
11001973	Screw, 1/4-20x1", Philips, Pan Head, Steel, Zinc
11001974	Screw, #10-12x1", TEK Self-Drilling, SMS Philips, Pan Head Stainless Steel
11001975	Screw, 8-32x1/2", Philips, Flat Head, CSK 100 Deg, Stainless Steel
11001976	Nut, KEPS, 8-32, Steel, Zinc
11001972	Washer, Fender, 1/4" Screw, 1-1/4" OD x 1/16" THK, Stainless Steel
11002365	Rubber Seal, 0.593" W x2, 0.109" THK, 3M BT Adhesive, EPDM Sponge, Black
11002506	Pad, Alcohol Wipe, 70%, 1"x2-12"
D90000212	Installation Instructions

The Catch and Pawl above, also supersede a previous version made from steel instead of Stainless Steel.

Part Number	Description	Supersedes
11002508	Catch, Keylock Latch, Stainless Steel, NextGen	11001919
11002509	Pawl, Keylock Latch, Stainless Steel, NextGen	11001920

INQUIRIES TO:		DATE
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Uscan Nextgen Door Lock Change (Rev 03)

Changes Rev 03: Parts to be RoHS compliant (11001978 replaces 90001569, 11002503 replaces 90001567, 11002502 replaces 90001565), 11002508 replaces 11001920, 11002509 replaces 11001919, 11002365 (foam rubber trim) and 11002506 (alcohol wipe) added





Goal: Change lock pawl (cam) to provide more secure closure and reduce profile of front door guard

Tools Needed:

- Screwdriver, phillips #2
- Torque wrench (preset to 32 in lbf) with 11/32" open end
- Adjustable wrench (small) 7/8" minimum open end
- Electric drill/screwdriver with #2 phillips bit, (optional: 5/32" drill, if self drilling screw is not used to make hole)
- Key for front door
- #8 Nutdriver 11/32" (optional)

Hardware Needed (Kit p/n: 11002499):

- Pawl [11002509] and Catch [11002508]
- Qty 2: #8-32 x 1/2" (or up to 1") machine screw, flathead, phillips, stainless steel, 100 degree CSK (82 degree will work but door gap will be bigger) [11001975]
- Qty 2: #8-32 kep nut, stainless steel or steel + corrosion resist plating (i.e. zinc) [11001976]
- Qty 2: 1/4-20 x 1" machine screw, pan head, phillips, stainless steel or steel + plating [11001973]
- Qty 4: Fender Washer, 1 1/4" OD, ID for 1/4" screw, 1/16" thick typical, stainless steel or steel + plating [11001972]
- Qty 1: Rubber Foot 1.125" long, 1.25" OD, #10 screw (Budwig TF10-1T-TPR87-B RoHS or equivalent) [11002503 (replaces 90001567)]
- Qty 1: #10 x 1" TEK self drilling, sheet metal screw, pan head, phillips, stainless steel or steel + plating [11001974]
- Qty 1: Lock washer (toothed) for cylinder lock, (3/4" ID) [11002502 (replaces 90001565)]
- Qty 1: Nut, 3/4-32 thread, 1/4" thick, for lock barrel (if not already installed in unit) [11001978 (replaces 90001569)]
- Qty 27 inches: foam rubber trim 0.593" wide [11002365], two strips ~13.5" long
- Qty 1: alcohol wipe [11002506]
- New Lock (Illinois Lock w/ double sided key) if not already installed in unit (not in kit)

	Pawl Catch	
	Thick Nut Lock Washer for Lock (tooth side)	

NOTE: Assembly pictures may show the previous style of the Pawl and Catch part, the picture above shows the proper parts to use.

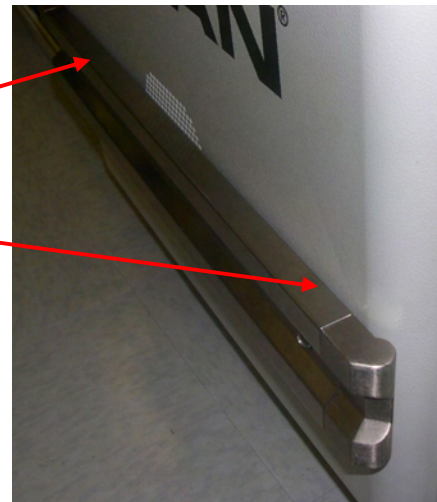
Changing the black plastic spacers on the door guard

1. Unscrew the 2 screws and nuts holding on the guard
2. Remove the 2 plastic spacers and replace them with 2 fender washers at each screw location
3. Use the shorter $\frac{1}{4}$ -20 x 1" screws with the existing nuts to secure the guard to the door

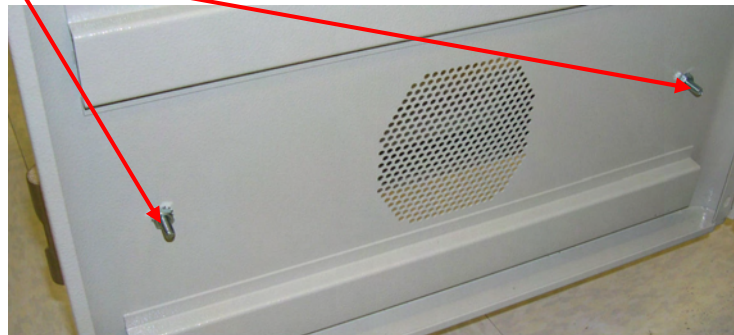


Door Guard

Short Spacers



Shorter Screws



Applicable Systems

If the system has a shelf as shown on the right, then this lock latch upgrade cannot be used. It will not fit properly.



The lock latch upgrade can be used if the system has a DeLaRue dispenser as shown on the right. If the system has the tubular lock then it will need to be replaced by the double-sided key lock.

For this system, the rubber foot does not need to be installed



The lock latch upgrade can be used if the system uses the F53 dispenser as shown on the right.

The rubber foot needs to be installed in this system



Attention

This instruction set assumes that the **Uscan NextGen Front Door Adjustment (D900000213)** modification has been made.

This modification changed the screw and nuts on the door hinge to longer screws with toothed washer and nylock nut.

If these are not installed, then on step 2 of the instructions below replace the existing hardware with this hardware (#8-32 x 1/2" screw, ITL washer, #8-32 nylock nut)

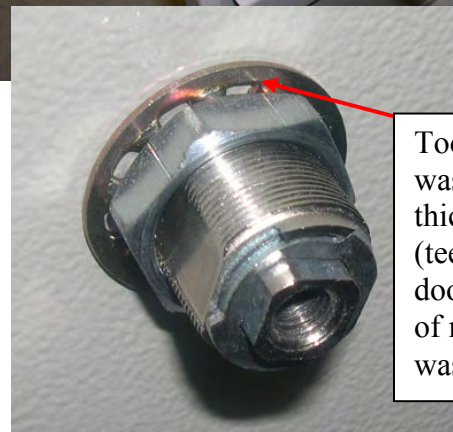
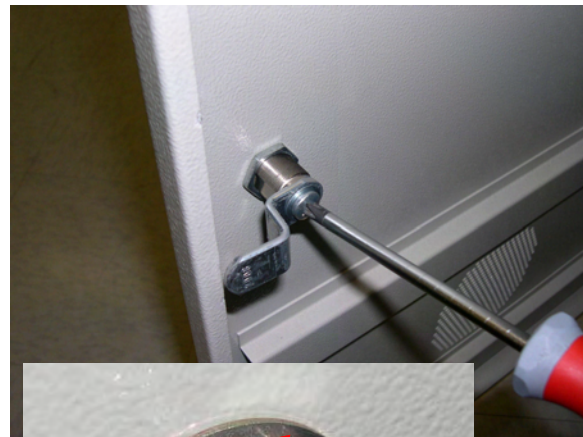
Changing the lock pawl (cam)

[For lock on RIGHT SIDE, see page 8 for LEFT SIDE]

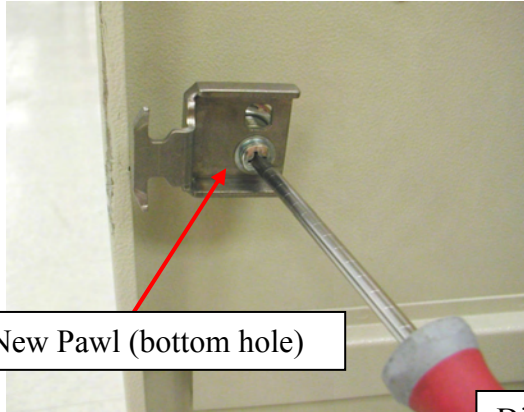
1. Unlock and open the door
2. Align the edge of the door to the edge of the cabinet by loosening the screws holding the hinge, sliding the door to make the alignment, and retightening the screws using the torque wrench and screwdriver
3. Using a Philips screwdriver, loosen the screw to remove the existing pawl
4. Install the toothed lock washer for the lock, install it on the lock barrel facing the washer teeth into the door, snug the nut by hand where the flat side faces the washer, if the nut is the thin nut, replace it with the thick nut (lock washer not shown in all pictures) (toothside test: push the washer against the painted surface and turn it, if it doesn't turn that is the toothed side)
5. Place the new pawl part on the lock using the bottom mounting hole on the pawl and secure with the screw
6. Using a wrench, securely tighten the nut on the lock to remove any play (do not over tighten, as key may become difficult to remove)
7. The lock assembly will rotate slightly in the direction of the wrench, do not correct this
8. The pawl should be at a slight angle above horizontal (it must not be horizontal or below horizontal or the key may not be removable)



Pawl



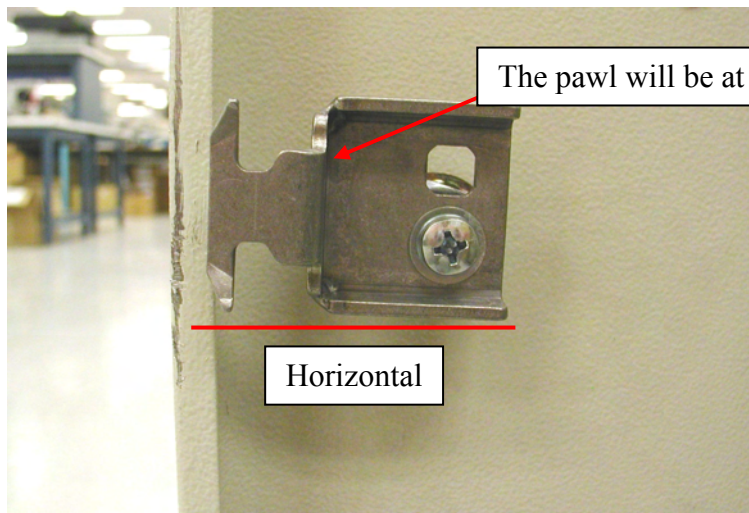
Toothed washer and thick nut (teeth against door, flat side of nut against washer)



New Pawl (bottom hole)



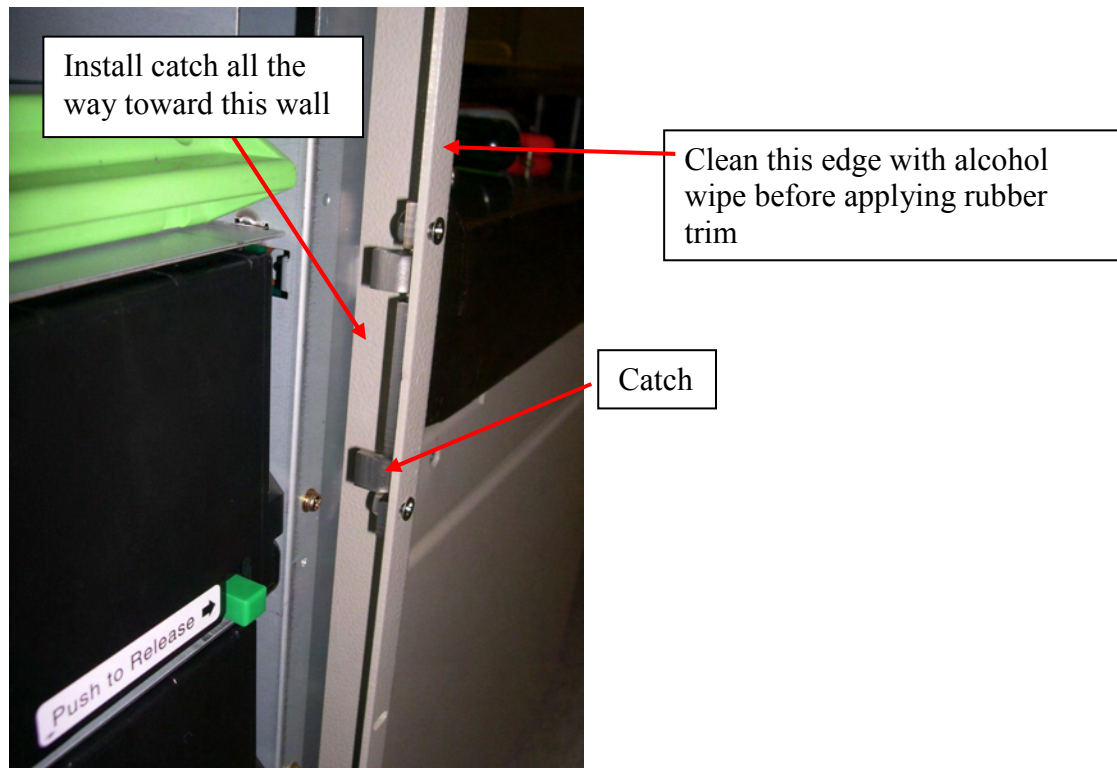
Direction to tighten nut, should remove play from lock when key is turned
(Do not over-tighten)



The pawl will be at a slight angle

Horizontal

9. Attach the catch part to the inside of the door frame using the #8-32 screws and nuts, it should be mounted so the two tabs face toward the door, and the catch should be mounted as close to the side wall as possible, only snug up the screws, if necessary slide the shelf out of the unit to provide better access to the door frame
10. Close the door and try the lock by locking it and removing the key, then insert the key and open the lock, the lock mechanism should work smoothly. There will be a gap between the door and frame. This is taken up by the rubber trim to be added later.



11. If the lock doesn't latch well, then loosen the screws of the catch and slide it left or right to get the catch to work better, by default putting the catch against the inside wall should work correctly
12. Once the locking mechanism appears to work correctly, tighten the screws securing the catch nuts with the torque wrench
13. Now the rubber trim can be applied to the door. This trim is applied to the vertical part of the robot and must be cleaned with the alcohol wipe for best adhesion. It may be best to place the trim in the door gap without exposing the adhesive backing and open and close the door while locking it to ensure everything is aligned. It may be necessary to push the door in slightly (to compress the foam) while locking and unlocking the door. This is normal.

14. The foam is supplied in a ~13.5" length that is 2x wide. A seam is in the middle, so tear the two pieces apart to get the 27" length of material.
15. After cleaning the frame with the alcohol wipe, remove the protective backing to expose the adhesive side of the foam, then press it on the door frame like shown below. Full cure is 72 hours.
16. To smoothly lock and unlock the door, push in the door slightly while turning the key

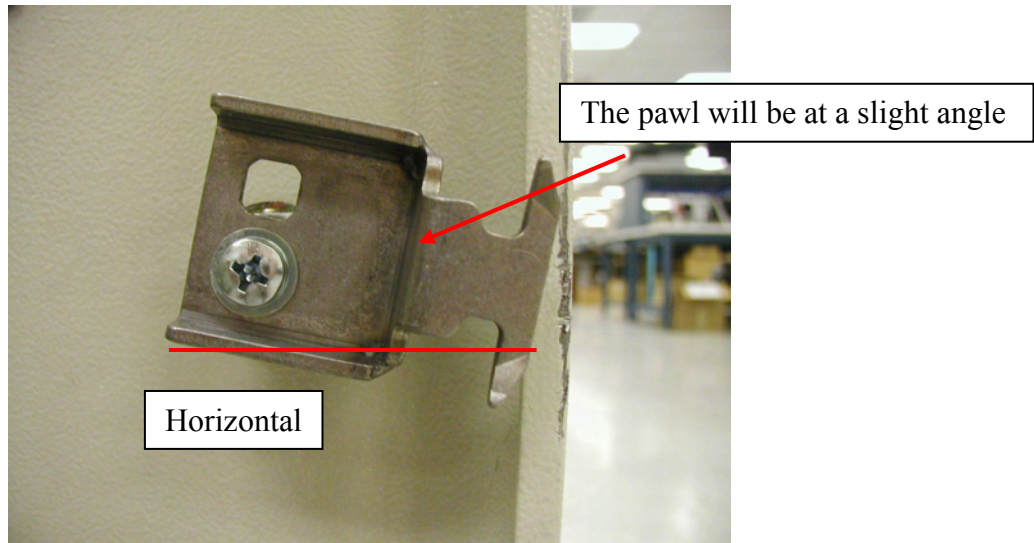


Foam applied over the door frame to fill in the gap between the door and frame

**Changing the lock pawl (cam)
[When lock is on LEFT SIDE]**

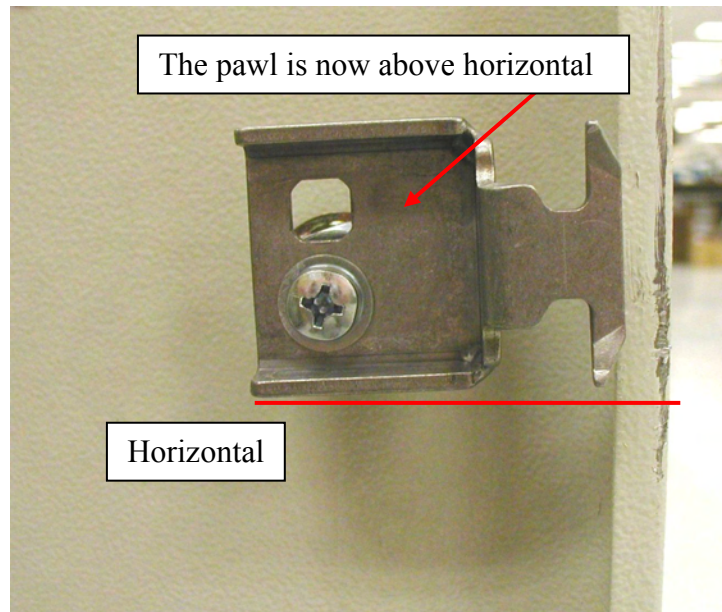
All instructions are same as for Right Side except:

7) After tightening the nut on the lock barrel the pawl will be positioned as shown



8) Using the wrench, rotate the lock barrel by gripping it on the two flat sides, turn until the lock does not move anymore
Perform the rest of the steps under the RIGHT SIDE section





Installing the Rubber Foot

This is necessary for units with the F53 dispenser and UPS on the sliding shelf. It insures that the shelf is pushed into the locked position when the door is closed. Otherwise, the shelf could come forward and interfere with the lock pawl.

1. Using the power drill/screwdriver, drive the self drilling screw into the bottom bracket on the inside of the door, do not drive the screw too far or it may hit the front of the door, stop once the hole is made (If a self drilling screw is not used, use a 5/32" drill to make the hole) [The hole should be vertically centered on the bracket and spaced ~2 inches from either stud (i.e. centered under the fan vents)]
2. Once the hole is made, remove the screw, Then use the same screw to install the rubber foot
3. Check that when the sliding shelf is not pushed back all the way, closing the front door should cause the foot to push the shelf into the locked position

