

Rush | 3D Printed Scoop Protector (TPU) v2

Installation Guide

First, thank you for buying our mod. It is cool to know that we are able to help people keep their machines in great condition!

Information:

The protector you have ordered is printed from TPU with a very high durability rating. It is designed to use a combination of the tab underneath, a small lip on the bottom, and the factory posts and scoop to keep it in place. The height of the top lip is just 0.40-0.45mm, the same as the factory protectors, but it gets as thick as 2mm as it wraps down over the edge of the wood, giving you extra protection where you need it the most. Some disassembly of the playfield is required in order to remove the factory protectors and install this much improved replacement, but don't worry, we'll walk you through it! There are some steps that are only required for Premium/LE models, and we'll call that out specifically as we go.



IMPORTANT: These instructions are for V2 of the scoop protector. V2 protectors are easy to differentiate because they have a third, right-angled tab on them. If yours doesn't have this tab, switch over to the V1 Rush Scoop Protector instructions to continue.

Tools you'll need include: P1 and P2 Philips screwdrivers, 11/32" socket wrench or nut driver, 3/8" socket wrench or nut driver, 3/8" deep socket wrench, and pliers.

Installation:

Step 1:

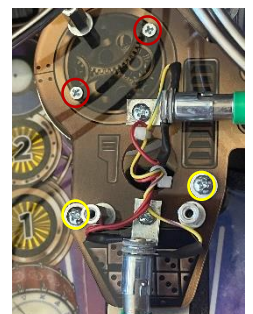
All: Remove the top plastic by removing the three screws shown in red. The nut in yellow will be a screw on your version, remove it too.

Premium/LE: Also remove the nut and washers (in yellow) holding the ball rail down, and gently pull the wire hook around and behind the post. This nut will use the 11/32" socket.



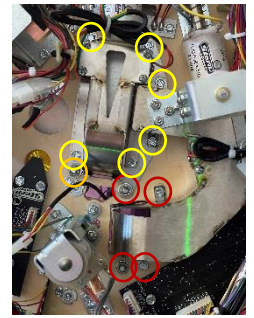
Step 2:

All: Remove the two small screws (in red) with the P1 driver that hold it to the pop bumper. Remove the two regular screws holding the plastic to the posts (in yellow). Be careful not to lose the two black spacers between the plastic and the posts. Now you can set the plastic aside and under the left rail - no need to detach the wire - and remove the rubber sleeves from all three posts. Note: some games may have shipped without the red screws. Just ignore them if so, or replace them with short pop bumper cap screws.



Step 3:

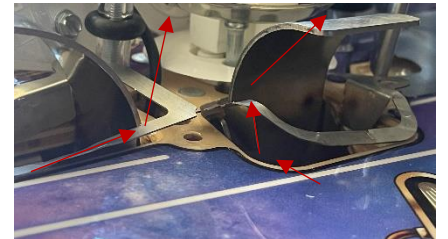
All: If you haven't already done so, remove the balls from the game and lift the playfield. Remove the screws and nuts (and washers) shown in red and orange. These nuts will use the 3/8" socket. The nut highlighted in orange is usually too close to the metal to get a socket wrench in there. Use the deep socket wrench on the post above the playfield and hold the nut with pliers to remove this one. Note that you won't have the extra plate between the mech and the playfield, that's only on the Premium/LE.



Premium/LE: You have an extra plate that needs to be loosened to remove the protector. Back out the screws shown in yellow about 1/8".

Step 4:

All: Flip the playfield back down. Remove the posts. Time to remove the old scoop protectors. Start with the front protector. Lift up the back and gently slide/wiggle it up and back until it comes free. For the lower protector, you'll need to first pry the tab under the playfield backwards to free it (this may be easier to do if you lift the playfield back up), then lift the front up until the tab is clear of the hole. Now work it gently out from under the pop bumper ring and over the. You'll absolutely have to bend the old protectors to a degree to remove them (but that's okay because they're probably already damaged and you're putting in better protectors next). If you're not comfortable with removing the upper protector from under the pop bumper ring, you can also disassemble the upper portion of the pop bumper, but that adds a ton of extra work and we've always managed to get the protector out without this. Go ahead and take a breath, you've gotten past the hard part!



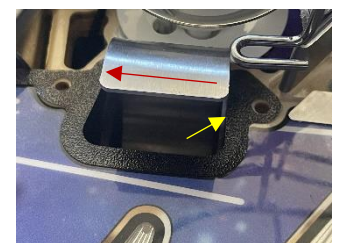
Premium/LE: Once your protectors are removed, go back to the yellow highlighted screws you loosened in the previous step and tighten them back down. The new protector will sit under the plate.

Step 5:

All: Loop a 12-24 inch piece of string or thin wire through the hole in the third tab, as shown. This will be used to pull the tab through to the underside of the playfield. Feed the wire/string through the thin groove on the right rear side of the front scoop just below the playfield wood (yellow arrow) and pull it through to the back. Don't try to pull the tab through just yet.



Install your new TPU protector by sliding the rear protector into the scoop hole. The tab should be positioned under the wood (or plate), not folded up and trapped in the scoop hole, so make sure you can feel that tab resting comfortably underneath. Still on the upper scoop, you'll notice that the very upper wing of the protector is fighting for position with the metal side of the scoop (yellow arrow). You want to get the TPU protector BETWEEN that metal and the wood, and that's why we removed those two extra screws a few steps back to allow it to be moved slightly. Pull the scoop protector gently towards the trough (red arrow), just enough to let the protector slide in between. Adjust the position of the tab up or down until the top lip sits cleanly against the wood and the hole for the



post aligns with the hole in the protector, then slowly relax your pull and let the scoop metal pinch the rubber against the wood, holding it in place.

Now for the front scoop protector, get it roughly in position, as shown below. The tab with the wire/string through it should be down in the scoop hole. From the under side of the playfield, gently pull the wire to work the tab through the slot. It may help to have hands on both sides of the playfield, one pulling the wire, one working to help the tab through the slot. Once it's through, remove the wire. Finish situating the protector into the front scoop by sliding it into position and ensuring that the front tab is sitting cleanly under the playfield.



Step 6:

All: Finalize the installation by reversing the disassembly procedure. Reinstall the posts and adjust until it fits properly and fills in the outlines. Reinstall the nuts and screws below the playfield, making sure to secure the tab with one of the screws, as shown. Be very careful when tightening the nuts. DO NOT overtighten them or they'll crush the rubber and cause it to lift up, just get them nice and snug. Also do not allow the posts to twist as you tighten, or they'll twist and warp the rubber. To help with this, we're now including PETG washers you can slide on to the bottom of the metal posts so that they sit between the metal washer and the protectors. These will not only help to ensure the protector stays flat, but also will limit twisting against the rubber. You can use the 3/8" deep socket wrench to hold the posts steady from above as you tighten from below. Don't worry too much if you warp the rubber a little bit, it'll mostly be around the posts where it won't affect the ball, but often this can be addressed with a little reverse twist of the tightened post.



Now reinstall the rubber on the posts and reattach the bottom plastic (don't forget to put those spacers back in and be careful when you tighten down the small pop bumper screws, it's easy to overtighten them and pull them right through the plastic). Finally, reinstall the top plastic and the extra post screw.

Premium/LE: Restore the wire form to the upper post and secure it with the washers and 11/32" nut.

Final tip:

Literally EVERYTHING on this playfield is as sharp as a knife! During installation and removal be very careful not to slice yourself. There are also a LOT of washers involved here, so be careful not to lose these when you remove parts, and to put them back in the right places.

Contact:

If anything goes wrong feel free to reach out to support@ninjacamp.com or @aniraf on Pinside. I will respond as quickly as possible.