

Shopping of a Williams High Speed II "The Getaway"

Tools of the trade.

Light Source (In my case I used a desk lamp and spot light), This is so you can move the light about for looking into areas normally hidden from view.

Novus polish (Used Novus 2).

Quarter inch magnetic socket.

Cordless drill.

Digital Camera

Coke Cola and Smokes

Metal Polish. (I used Turtle Wax Original), I found this to work great for polishing and cleaning the Stainless Steel parts.

Buffing Machine to polish out heavy scratches.

Bench Grinder. (Used to grind off mushroomed coil rods and stoppers).

Pliers and Long Nose Pliers.

Flat Blade Screw Driver.

Philips Head Screw Driver small and large and long and short.

Glass Cleaner.

Soldering Iron.

Small Sockets.

Small Spanners.

Plenty of clean rags.

Spare Parts

#44 Light Bulbs

#89 Light Bulbs

#555 Light Bulbs

#809 Light Bulbs

2x 2 and 1/2 inch rubbers

and more

Coil Sleeves.

3x Flipper Bearings.

3x Flipper Links.

This is the sequence and procedure that I used.

Make a space near the machine so you can place parts that you remove and I recommend having a surface area larger than your playfield. I used a kitchen table.

Unplug the machine from the power point. (Although I kept mine plugged in to help test for blown lights).

Open the coin door, release the lock for the lockdown bar and remove the bar and playfield glass. Store the glass on a soft surface, we don't want a broken playfield glass.

Lift the playfield a few inches, pull it forward till it stops, then lift a few inches again and slightly pull, it will now lock into place ready for lifting up.

Lift the playfield, remove everything that is loose in the cabinet, and use a vacuume cleaner to clean the box. Lower the playfield again, but keep it resting on the area where the lockdown bar goes.



Manually operate the ball trough kicker to bring the balls out onto the playfield. Then remove the balls, if you intend replacing the balls then you can discard them.

Remove the Aprin by unscrewing the two phillip head screws on the playfield resting arms. Move the Aprin forward and it will release and lift it out. With the two screws you removed screw them back into the Aprin. Clean the Aprin and store it. (I found that if you press too hard when cleaning it the paint starts to wipe off. So after you cleaned it and if it is in good condition you might want to think about spraying a coat of clear over it.

Undo the two phillips head screws which hold the coil stopper on the Ball Trough Kicker Assembly then remove the coil. Remove the coil sleeve then remove the Split Washer that the ball kicker pivits on, remove the spring then lift out the coil rod. Now polish the rod on a buffing machine or by hand using turtle wax.

Replace the old coil sleeve with the new one and reassemble the troff kicker assembly. If the coil stop is mushroomed repair it by grinding it down on a grinder or replace it with a new one.

Undo the four hex nuts that hold the troff kicker assembly to the playfield and lift it up and push is aside and polish around that area with Novis then refit the kicker assembly.

Loosen the two nuts and bolts that hold the ball shooter kicker solinoid then access the three phillips head screws and undo the solinoid bracket and remove the solinoid ball plunger and sleeve, if the plastic end that hits the ball is mushroomed and you can't remove the sleeve then grind the mushroom off with the grinder or replace the tip. Now polish the metal coil rod and reassemble. Now remove the 2 nuts and bolts and remove the whole plunger assembly, lift it asside and polish around the assembly and also polish in the shooter lane. Now refit the plunger assembly. This assembly is adjustable, so position it with a ball in the shooter lane and tighten the nuts and bolts very tight.

Remove all the hex screws that hold the ball trough guides to the playfield and remove the guides then polish them with turtle wax, also remove the Aprin Lock Bars (one on each side). Now polish the available areas below the flippers and outside drain areas. At this time you can also polish a little further up the ball feed lane, don't forget to polish the the Ball Trough Kicker, there is a small part of it that hits the ball and needs to be cleaned too. Also polish the Ball Lane Ramp in the trough and remove all grime from the areas where the ball

travels. Now refit the Aprin Lock Bars and refit the Ball Trough Guides. Take note of the Ball Stop Gate. Test the trough with a ball to make sure you have the gate in the correct way to allow the ball to pass through the trough without going back to the trough kicker.

Remove the 2 phillip head screws that hold the Kickback Solinoid bracket and remove the plunger, spring and sleeve, polish the metal shaft, use novus on the plastic tip and replace the sleeve with a new one, while this is apart you can remove the ball saver soliniod bracket from the playfield and polish around that area. Once done you can refit the bracket and refit the coil assembly.

Remove the chrome bars from the Aprin and polish them then refit them back to the Aprin.

Now refit the Aprin using the 2 screws that you placed in the Aprin so you didn't lose them, make sure the Aprin fits into the Lock Bars, then pull the Aprin back towards the front of the machine and align the screw holes and tighten it all up.

You have now finished the ball trough and kickers under the Aprin and can now use it for lifting the playfield up and down once again.

On the left habitrail, remove the gray rubber protection cap over the micro switch (about half way up the rail, then polish it with Novus), then use a small phillips head screwdriver and remove the small phillips head screws. (Take note that there is a small metal plate under the micro switch), so hold the plate with your finger so you don't lose it, then once you have removed the swich fit the plate and the screws back to the switch put the plastic cover back on the switch and label the switch left habit rail. Leave the microswitch sit close to where it was removed.

Now remove the 3 phillip head screws holding the top sling shot plastic to the lower section of the left ball guide, the 2 screws in the RPM Guage need long nose plyers to hold the nuts that is under the bottom plastic, now polish the plastic and fit the screws back into the removed plastic, then fit the nuts to the screws and also put the 3 longer screws back into the plastic in the correct order and place the plastic in the space you have set aside for the playfield parts.(Keep track of which screws went where at all times).

Remove the Screw halfway up the left habitrail (look down between the plastics) and remove the phillip head screw, remove the Nuts and Washers From The Left Slingshot Plastic and remove the habitrail, replace the philliphead screw back into the playfield so you don't lose it and then remove the slingshot plastic. Now take note of the 3 screws that hold the posts in place at the slingshot and remove the posts and refit the washer and nut to the correct screw and fit it back to the plastic you last removed. Polish all parts you remove and put them aside. Note the top screw has the longer thred for the habitrail.

Now remove the clear plastic from the lane guide and undo the 2 small phillipshead screws from the top part of the lane guide and remove the guide, polish the guide with turtle wax, remove the light bulbs and clean or replace them, polish that area of the playfield. Before replacing the white posts give them a clean or replace them with new ones if they are damaged. Fit a new 2 1/2 inch rubber around the posts, refit the lower plastic to the slingshot.

Remove the 1 nut and 5 phillips head screws from the left lower plastic and remove it. Now replace the screws back into the holes, polish the plastic and put it asside. Remove the nut and 2 phillipshead screws from the upper plastic, remove the plastic and clean it and put it asside, replace the screws in the empty holes.

Remove the 2 small phillipshead screws from the Left Drain Guide and the larger philipshead screw, remove the guide and polish it then put it asside. Remove the white post above the guide and clean or replace it, replace the rubbers, remove the lights, clean them or replace them, clean the playfield around that area and clean the targets.

Remove the 3 screws from the U-Turn Plastic to the top left of the supercharger ramp. Clean it and put it aside, remove the Plastic to the right of the Supercharger, now remove the front of the Supercharger by undoing the 3 small philliphead screws and lay it down over the bumpers, now remove the top of the superchareger cover, unplug the wires for the front cover of the supercharger and clean it with some window cleaner. I found that novus removed the chrome so i was not happy, now put it aside.

Remove the 2 screws from the end of the Supercharger Loop, then work your way backwards around the ramp removing the next nut or screw (Pic1, Pic2, Pic3, Pic4). Undo the next screws along the loop, then the

next 2 then the next 2 again (above the u-turn), now undo the ramp entrance flap to the supercharger. Now lift the supercharger assembly and move it toward the front of the machine a little, now replace the screws you removed back into their holes.

Now use a peice of long wood (wider then the cabinet) and place it through the center of the Supercharger Loop and place the assembly behind the playfield.

Now clean under the onramp to the supercharger, also clean or replace the light bulbs.

Replace the Black Rubber Posts on the entrance to the Supercharger Loop.

Remove the Right Slingshot Plastics using the same proceedure as the left side.

Remove the clear plastic from the top of the right habitrail and then remove the screw on the playfield that holds the habitrail (Same as left side), replace the screw, label the microswitch at the top of the habit rail (top lock switch #74), now remove it, remember the small plate under the screws, put the screws and plate together with the switch and push it aside.

Remove the 5 screws on plastics under the right habit rail and the one to the inside of the playfield, lift the habit rail a little, and remove the plastic, clean the plastic and put the screws back into the holes and the screw on the post with the black rubber had a small metal bracket on it, make sure you keep that on there for the time you reinstall the plastic.

Label the 3 Ball Lock Microswitches then remove them and push them aside.

Remove the habitrail.

Remove the plastic from above and to the right of the right slingshot, the top screw has a long black rubber under it, you might have to hold the rubber tight with pliers to remove the top screw, remove the plastic and clean it, remove the black post rubber and replace it.

Remove the 3 white posts, the center one has a nut under the playfield (well mine does). This is because the post has a user settable position.

Remove the metal guide next to the white posts, one screws is above the playfield, the other is a nut under the playfield, you may have to lift the playfield to access it. Remove the guide and clean it and clean around that area of the playfield. Now clean the standup targets.

Replace the black post rubbers if you havn't done so yet.

Remove the other plastic that was under the habitrail and clean it and put it aside, then undo the lane guide (only where you can access it), this is the one above the right flipper, move the guide asside a bit, then clean around that area and clean or replace the lightbulbs, refit the guide and refit the plastic.

Undo the four screws holding the up/down ramp right turn, then undo the small screw at the very top, then use a long but small tip screwdriver and undo the lower small screw (a magnetic tip screw drive is preferable here), now lift and twist the ramp, the up/down ramp will slot out from the lever, remove it and clean it. Put the screws back into the holes they came from.

Unplug the cable to the green/orange/red light stand and undo the screw infront of it and lift it off, clean it and put it asside. Replace the rubber under the screw and put the screw back in.

Undo the 2 screws to the ball lock right plastic. Remove and clean the plastic, replace the rubbers on the small red posts which are on the plastic or clean them.

Remove the 3 nuts holding the ball lock left plastic, remove the plastic and clean it, replace the 3 nuts.

Remove the 5 screws holding the metal guides around the ball lock area, the start of the guide has a nut under the playfield, if you wish you can remove it, but I left it there and just moved the guide aside, remove the lights, clean or replace them, polish around the ball lock area and also the ball lock hole.

Undo the screws holding the [other metal frames](#) and remove the frames and polish around the area and polish the frames, remove all visible bulbs and clean around them too and replace them if they need changing, polish the targets, replace the rubbers, and refit the metal frames, then refit the ball lock guides, then replace the plastic.

Remove the bumper caps, clean or replace them but don't fit them just yet, clean the bumper skirts, clean or replace the bulbs, then remove the lower [bumper/target metal cover](#), clean behind it, replace or clean the bulb, then replace the rubbers and place the metal cover back on.

Remove the [plastic to the left of the top left bumper](#), clean or replace the light bulbs, remove the right guide and polish around that area, install new rubbers, refit the guide, refit the clean plastic.

Refit all bumper caps.

The [plastic to the left](#) of the section you reassembled needs to be removed, so remove the screw to the lower section of the plastic, and the nut to the upper section of the plastic, remove the plastic and then remove the clear plastic from that piece, clean both and put them back together, remove the guide and polish it, clean or replace the bulbs, clean the white post, fit new rubbers to it, clean around that area, and reassemble the whole lot.

Look over the whole machine and make sure you have polished everything, if you have missed something then try to get it done, because we should have finished everything that needs cleaning.

Polish all green/orange/red standup targets.

Remove and polish the [Supercharger/Redline Mania Display Board](#).

Now it's time to start putting the machine back together.

Refit the [up/down ramp assembly](#), the small screw on the lower part of the ramp guide that screws into the back wood is tricky, use the magnetic tip screw driver or put some stick stuff (blu-tac) onto the screwdriver tip and be patient with it.

Refit the green/orange/red traffic light.

Refit the left side second from the top plastic (with pic of a rain deer)

Refit the top white post at the left target bank (1,2,3)

Refit the lower white post at the left target back (1,2,3)

Refit the metal guide on the left ball drain.

Refit the left lower plastic.

Refit the 3 white posts on the right sling, install a new rubber and fit the first plastic.

Refit the 3 white posts to the lower area of the right 3 bank white targets (1,2,3), (The post with the nut under the playfield has 3 positions, find the one that suits you), and fit the plastic (buckle up its the law).

Refit the right flipper lane guide and clear plastic and refit the right sling upper plastic

Place the right habitrail back into position and refit the ball lock switches, then remove the numbers you fitted to them, slip the plastic under the habit rail, then screw the plastic down, make sure the ball lock switches are adjusted close to the old position, refit the top lock switch (#74) and put the gray cover on it, put the white plastic wire tie back on the ball lock wires, fit the washer and nut to the top of the slingshot post where the habitrail fits and tighten it, put the screw in the middle habitrail leg into the playfield.

Refit the clear plastic to the right habitrail.

Refit the Supercharger Loop and put the plastics back on, starting with the top cover of the Supercharger, then the right plastic then the left plastic. On this machine the plastics went over the Supercharger Cover.

Refit the Supercharger/Redline Mania Display Board.

Refit the left habitrail and microswitch, refit the screw in the middle of the habitrail onto the playfield, and refit the left slingshot plastics with the left flipper guide and clear plastic, and tighten it all down.

Now, double check everything, including nuts and bolts and screws.

Clean the beaon light.

Polish the legs with the Turtle Wax.

Polish the cabinet.

Polish the backglass

Polish the speaker panel.

Polish the playfield glass.

Install 3 new balls.

If your flippers need rebuilding then do this.

Undo the 2 small phillip head screws that hold the coil in place, slide the coil out, replace the sleeve (sometimes they get stuck, so have something the same size as a sleeve incase you need to put it out with something), undo the nut that holes the flipper in, remove the flipper bat and metal shaft, undo the 3 phillip head screws (some machines have nuts behind the flipper assembly frame) remove and replace the flipper bearing, polish the coil rod and grind off any mushroom shape or replace the rod, test the rod and link for excess play, if it is bad then replace the link, one part of the link has a small metal split shaft that goes through the rod, you will have to push/knock this out with something, inspect the coil stopper, if it is mushroomed then you will have to remove the flipper assembly frame and grind the mushroom off or replace the frame or stopper, inspect the small rubber sleeve on the arm that presses the switch closed, if it is damaged then replace it, now put it back together.

PS:

1. Do one flipper at a time.
2. Some flipper links need drilling since some are a universale design.

Now [Email Me](#) and tell me how you went.

And play a game for me.

[Here](#) is what the machine looks like after the job was finished.

One more thing added is a [page with all the pics](#).

[Back to the Main Page](#)