Aero the Acro-Bat 2 Speedrunning

Sorry for the huge file, it used to be more simple but I wanted to put all this info somewhere. Also sorry, I realize Aero's one move is called a drill not a swoop, but that's what I called it. This guide was written for the Super Nintendo version. I put a list of differences further down. There is a US and EU version of the game but they appear to be exactly the same.
If you want to use an emulator, the only ones that can run the game without constant lag is ZSNES and BizHawk with the Snes9x core, which runs better than the actual Snes9x emulator for some reason, maybe just settings. Your experience may be different than mine. I recommend using an emulator for learning level layout, enemy placement and practicing harder things like killing Ektor before he enters the trapdoor the first time.

Genesis Differences

Other than graphics and sound, the two versions are very similar. These are just the differences I've noticed from playing or watching a little.
-The camera stays centered as Aero runs, and is a little more zoomed out.
-Music pauses when you pause the game, and the screen does not go darker.
-Slide is on the same button as down swoop, so you can't hold that button before jumping, although you can press both buttons at the same time.
-You can get behind the train when the last level starts.
-If you do the glitch where you do the down swoop repeatedly into a wall to get inside it and get zipped to the top, you'll get stuck at the top, but in the Super Nintendo version you can walk along the top and come back down.
-In the Super Nintendo Version if you go out of bounds in a Dis Industries level and go to the boss room, you have to kill the boss to exit the level, whereas in the Genesis version a level exit will already be spawned in the boss room and despawn when the fight starts.
-Load/transition times between levels are a little different.
-When going into the last level, Ektor's Engine, you can't hold Start to skip the second cutscene, but you can still cutscene skip at the start of the game.
-Fade outs are blue instead of black, I just found that kind of odd.

Categories

Time starts when you press "Start" and ends on the final hit on Ektor.
The two categories we currently have are mostly the same, both are any%, but "all levels" is called that because you aren't doing any major glitches to skip an entire level. I will go over how to do those glitches further down, under "Any% Major Glitches."
In this game, you can't really do 100% if your definition of 100% includes getting all food, because of the snowboarding levels. Still, you could probably invent a new category like just killing all enemies or getting all stars, and possibly getting the bonus stages or letters. You could even collect all food but exclude the snowboarding levels. The stats screen after each level which shows your percentages for food, enemies and stars is skippable so if you want to do some collecting, I'd recommend making it a rule to let those screens fully play out.

Movement - How it Works

-There are 2 movement speed animations, walking and running, and there is a ramp up in speed during each of the two animations. You are not at max speed as soon as you start running, it takes a second.

-Due to what must be a bug, it takes longer to get to full speed when going right. Not much you can do about it.

-A swoop goes at a medium speed throughout, you can stay that speed when you come out of it and quickly gain more speed from that point by running.

-Swooping can be done as fast as the button is pressed after starting a jump/fall.

-Jumping is always the same height unless you hit or grab something, or swoop.

-Jumping or falling keeps your current horizontal speed, except if you are under a certain speed to begin with.

-Downward swoops last a little longer than upward ones which would make them worse but you usually get running on the ground quicker with them which is what you want.

-Shooting stars while jumping doesn't slow you, but at top speed you move faster than the star while going right. The star stays just barely ahead when going left.

-You can only get to max speed by running or sliding down a slide (or stuff like gears), after that you can jump and still maintain top speed. The flip animation while jumping means you're near or at max speed.

-The running animation is needed to do a slide (X button).

-Jumping from a stand still picks up speed a little faster than only running, but then you have to use time to land again to go faster. On flat ground they are close to equal.

-Sliding down a slide gets you to the same speed as max, but accelerates a little faster than just running, however most of the time when you get to a slide you are already at max speed, and slides that end in the air (except for the ice slides in Fort Redstar) bump you up a tiny bit at the end which slows you down, you should jump off before then or else do a swoop immediately after.

-There is no way to maintain a fast speed while swinging, like with the bells on the first level.

-For gears, you are automatically thrown off after one full spin from the top, get on them just before the middle of the top to spend the least time on it.

Snowboarding

You pretty much want to hold right the whole time. Jumping ramps is the same speed as normal. Going up hills slows you, jump over them as much as possible. Once you've already been slowed by the slope you should stop jumping. Some parts of the hill will be more or less steep, and you'll want to not jump as it gets less steep. Going down hills does speed you up as well (a tiny bit), and jumping can maintain that faster speed. Try to jump just before hitting those bumps that automatically make you do a jump. The ends of ice patches also have little downward ramps going into the water. In summary, your max speed and current speed changes depending on the angle of the ground you were last on. Also just by jumping you can get up to max speed a bit faster than not jumping. The spin jump (pressing/holding Y after a jump) can slow you down a little, especially if used near the start of a jump. You can hold the Y button as you approach a ramp to automatically get a big jump, and that won't be any slower, and actually spinning is optional. You can even do a

ramp jump that way while fallen down from another failed spin jump. Sometimes it is faster to quickly tap Y near the end of a jump just before going up a steep hill, because you will land a little higher on the hill. With all that said, every jump at full speed does slow you down by an extremely small amount so don't jump for no reason. Doing 4 spins in a jump earns you a life by the way, which is only possible from the ramps and I recommend doing it a few times.

Fastest Movement (Techniques)

-You can do a swoop the instant a level starts just by holding B or A (and a direction).

-If you're doing an A button swoop and are touching the ground, you can hold the buttons for a diagonal downward swoop ahead of time and you will do that without having to land first.

-The fastest way to get to top speed from a standing position or from mid-air when not already moving fast (like at stage start) is to do a downward swoop and then just run.

-Never land a fall or a jump with no momentum or very little, including on slides, because you are stopped for a short bit. You are still able to jump while getting stopped though.

-Once at full speed, avoid doing anything other than running and jumping as much as possible, and make sure you do actually get to full speed before jumping. Basically, you want to be on the ground as much as possible.

-For short platform jumps it is faster if you can just start falling off the edge and swoop up, or jump ahead of time to swoop up if you can't make it with only a jump.

-You can hold A for instant down swoops when you get in the air or hold X to slide or move camera as soon as possible.

-For falling, just letting yourself fall is fastest, downwards swoop out of a fall if you have little horizontal speed, otherwise just landing and running is faster. Sliding down ladders is the same speed as falling but it takes longer to drop off the bottom of the ladder.

-For all ladders you can jump and swoop up from just a bit under the top of them to go through the top part and skip a climbing animation. For climbing up ladders fast you can just press and hold B and repeatedly tap Up with a certain timing.

-The trampolines, gears, and trumpet/french horn looking things actually make you exceed normal max speed. Most of the time they have some way of forcing you to slow down right after one, but look for ways to keep up the speed as long as possible.

-Shooting a star is a good way to slow down from top speed so you can run under an enemy that jumps when you get close, although if you are going to do that, it doesn't matter if you end up killing or stunning them instead (you can move through stunned enemies). Shooting a star from full speed is about the same speed as swooping under an enemy, which is another option if timed right. Between these two options, it seems like their speed is slightly different going left versus right. The fastest way is if you can slow down manually, but this is tricky. You can also shoot a star as you begin/end a jump without slowing down at all, only going left. Or you can shoot while in the air and then just slow down a bit for the star to get ahead.

-Sometimes purposely getting hit is helpful either for getting through nearby hazards while you are invincible or for using the knockback to get onto a platform above the enemy.

-If you are going to die, the closer to the top of the screen you are, the faster you respawn, however you can press Start or Select to respawn instantly, and respawning makes you invincible for quite a long time. You can also do a swoop upon respawning if you hold B before or right as you press Start/Select. I talk about this a little more in "Helpful Bugs".

-On Ektor's Engine, you can very slightly speed up the level by getting the checkpoints as soon as possible and then dying, and of course press Start/Select immediately.

Miscellaneous

-After you have sat through all the opening credits splash screens one time, if you reset the game or game over or beat the game, you can press Start on the Sunsoft® screen to skip to the start screen, and on the screen before the Sunsoft one you can press any button to skip.
-The level select cheat can be used more than once, even after a game over or beating the game, and it carries over your current lives.
-You can skip level name text, stats screens, cutscenes and password screens by just holding down any button except L. When you just start a new game, it is faster to press/hold Start because it skips all cutscenes after the first one. Same with the two cutscenes before entering the train level.
-Getting hit resets swoops (normally only one diagonal swoop and one down swoop per jump/fall), and some enemies will reset your swoop when you swoop into them, not all.
-Ducking makes you invincible against snowballs, explosions, shrapnel and fire.
-The height that you are launched on a bed (first level only) depends on the highest point of your last jump, unless you walked onto the bed.
-The trumpet/french horn looking things in the Disco Fever levels can be entered fast by either doing the A button down swoop or just pressing Down and not Left or Right.
-Aero's idle animation moves his hitbox forward when he steps forward, and lower, and it moves backwards when Aero steps back more.
-Ducking or sliding does not actually lower Aero's hitbox any.
-The mini-bosses in Dis Industries, and presumably all other bosses, die in one hit from the fire swoop power-up.
-Teleporters can't be entered at full speed, and can carry your momentum if entered at medium or slowish speed. Be careful because you can't change directions or jump or anything for a bit after and you will come to a full stop unless you are holding Left or Right as the screen begins to fade out. You can also hold Down and B just before teleporting to do an instant swoop.
-As far as I can tell, most environmental hazards (like metronomes, cymbals and lasers) and enemies only start moving when first on screen except for the giant bells, spike balls, the fans, and the snowball shooters which are active for the whole level.
-Unlike the giant bells and fans, swinging spike balls can be jumped over. You can swoop diagonally downwards to go under the giant bells, this is very dangerous though, as the swoop probably won't make it fully across and you must be touching the ground for it to work. You can also do this for the swinging spike balls, and you can duck or slide under them. The fans remain as the most dangerous obstacle in the game.
-The small switch platforms and moving platforms in the Fort Redstar and Performer's Dungeon, and Dis Industries levels can be landed on a bit quicker by pressing B while just slightly above or below to start an upward swoop which gets immediately canceled when you touch the platform. You don't lose any horizontal speed doing this.
-Most of the chains you swing on in Dis Industries are meant to have you swing at least twice to be able to make it to the next chain, but you can do it in one swing if you jump off at the very end of a swing.

-During the straight down swoop, Aero's hurtbox or whatever gets 1 or 2 pixels thinner so you can sort of go through walls/objects but the game tries to push you back out if you move (the move itself has a big hitbox for enemies though). Also you can kind of achieve the same thing just by facing away from a wall/object and come from below (turn while jumping so you don't move).

-If you move the camera up or down (X button while standing) and don't jump after, it will stay a bit higher or lower than it normally would. Kind of the same thing for left and right.

Enemies

The same enemy type can have different AIs. For example, the robed clown - some jump, some don't, some jumping ones do it when close to you, some at random intervals, and some run when close enough to you. You just have to memorize. For enemies that jump randomly, you have to decide if you want to take a slight speed loss by swooping over them/shooting a star at them or just jump and risk getting hit. All bosses (except the Dis Industries mini-bosses) are only hittable when moving and have about 1.5 seconds of invincibility after a hit. Oftentimes you can sneak in an extra hit during one of the boss' movements if you do it perfectly. Bosses and mini-bosses always have the same pattern, though Alter Aero can teleport to different spots in phase 2. To go a little faster on the Dis Industries mini-bosses, minimize the amount they move around to target you.

Any% Major Glitches

Zips: There are two types of zips. A zip is when you get inside a wall, and then the wall pushes you back out in a different way. You normally go up when getting pushed out, but if you do an upward swoop you'll go down. The first type of zip is when you stand on a ledge and Aero is doing his edge animation. This must be a right ledge, with Aero facing right, and as much to the left as possible while still doing the animation. You then do an A button down swoop to go slightly inside the platform you were standing on, and you have to land on other ground or else you'll get pushed out. Then you jump, and press the buttons for either swooping downward or upward as well as Left at the exact same time. To make this easier you can jump, pause after letting go of the jump button, and then hold Left and the swoop buttons while you unpause. Also instead of doing a down swoop to go inside a wall to start the zip, you can jump into a right ledge from below, no swooping needed except to actually do the zip.

The second type of zip is done by walking against a wall, and pressing B, A, and Left/Right (whichever direction the wall is) at the same time. You must do this repeatedly after each swoop ends, about 30 times. If you wait too long after a swoop you get pushed back out, but you do have a decent amount of time. Better to take it slightly slower than mess up. You can also run at a wall and you'll have one frame where you can start the zip slightly more inside the wall.

There is another type of zip where you are hit by a slime enemy's projectile attack while sliding under a gap in Dis Industries 2, which interrupts your slide and zips you to the top of the wall you are in. But we count that more as a normal knockback clip, and it is allowed in the all levels category. It doesn't help much anyway.

Boardin Skip: This glitch is initiated before starting the run. All you have to do is get to the Dis Industries 2 demo video and press a button to skip it. You can skip all the other demo videos too, just don't let it get to the Dis Industries 2 one a second time without skipping. Then start the run, and when you get to Boardin Zone 1 and 2, just hold Right and B to pretty much instantly finish those levels. You can also skip Boardin Zone 3 in mostly the same way, but you must tap Y before you touch the ground.

Helpful Bugs

-Standing in spikes while right against a wall, facing the wall, will push you through the ground if it is thin enough when taking damage. You can't be moving or ducking at all as you get hit. This only works against right walls because spikes don't go fully up against any left walls.

-Getting hit by an enemy/spikes while against a thin ceiling can push you through it, seems like bigger enemies work better, but it's finicky. It can also depend on your speed. you can make use of this in the speedrun by running into the first bomb enemy in Dis Industries 3.

-Getting on slides from the bottom at max speed makes you slide up them super fast, you can then clip through the thin slides just by jumping. Sliding upwards may not be a bug but it's weird anyway. Also you can sometimes go right through the slide when first jumping on.

-Other than slides, sometimes you can go through thin slanted ground and even flat ground just by jumping through, you just have to search for that sweet spot (particularly in Fort Redstar). You can easily go through ceilings from below at spots that you are supposed to break from above with the down swoop.

-If you are holding the X button while standing still in front of a giant bell, fan or spike ball, they will not kill you. This isn't too useful since it is hard to stop moving, the fastest way to stop is either to let go of the D-pad and shoot a star or two, or to simply turn around and stop. You can also shoot a star and then turn around but it's still not fast. You stop moving for 1 frame after you shoot a star before resuming the previous speed, but I think the only use for that is entering teleporters and those trumpets.

-Normally, standing at the edge of a platform will put Aero into an animation where it looks like he's barely staying on, during which you cannot move the camera with X or shoot stars. But if you shoot a star as you are approaching the edge and are stopped on the very edge, you will not be put in that animation. You can also do this by having a slide end on an edge.

-While snowboarding, you can clip through the biggest hills a little bit if you jump into them at just the right spot while going full speed, doing this keeps your speed up.

-Hitting an enemy with an upward/downward swoop from very close makes your knockback go straight up and high, similar to the knockback of the straight down swoop, for most enemies this is only possible to do from their left side without getting hit.

-Knockback from taking a hit usually makes you unable to move for half a second, but sometimes you can right away. Seems like it depends on what hits you, how fast you are moving, and where on your hitbox you get hit.

-You can buffer inputs after dying and before respawning at a checkpoint by holding buttons before the screen fades out or before you press Start/Select. This will cause you to start moving before you normally would, but then you can't stop moving for a second or two. You will still die if you run into a giant bell/fan/spike ball, and in the short time you aren't

supposed to be moving you actually can take damage, because the screen is fading in and you aren't blinking yet.

-The laser shooters in Dis Industries don't hurt you while in the charging up animation (about to shoot). You need to be running pretty much at max speed to get past them.

-In the Ektor fight you can hit him while he is above you and off-screen by swooping left, not right. In the Alter Aero fight you can get those homing exploding balls to just hover beside you, but it is much easier when they are on your left. These things and others may be because Aero's hitbox is not centered and is larger on the right side. Enemy hitboxes are sometimes weird as well.

-There is a funny glitch with ladders where you can climb the air below them, and can climb through ground too. To do this, all you have to do is grab onto a ladder from the very bottom, which you must do on the initial grab. Unfortunately, due to the fact that you can't go through slides, trampolines or spikes this bug loses all usefulness it might have had.

-On the third Bell Castle level if you get the double swoop power-up and then get the flying power-up before double swoop expires, and then land on ground before flying expires, you will now have infinite double swoop. This stays if you die, but you don't keep it after that level or if you gameover. You can also get infinite fire swoop on Dis Industries 3 by getting the flying power-up first, then flying down instead of up like you're supposed to, and getting the fire power-up, and then touching the ground within 5 seconds which is just barely possible.

-Certain enemies can seemingly randomly just not spawn (probably sprite limit), I have not yet seen this be very beneficial, and this has the potential to be harmful if you wanted to use that enemy. The place I see this most often is in Bell Castle 3, the first balloon enemy.

-If you are holding the X button while standing in the spikes on the Fort Redstar levels or the electricity in between the balls on the Dis Industries levels you won't get hurt, and for the spikes you can jump out before getting hurt. Pretty useless since you can't move.

-On beds you can do a super jump by holding A as soon as you touch the bed, this makes you do the down swoop right away and the bed cancels the animation and you go super high for some reason. You can do the same thing with a down B swoop if you manage to do it the frame you would start to be bounced.

-It is possible to land on a trampoline and then do a normal jump right away without getting bounced if you get lucky and land on one of the pixel perfect spots. Not sure if this is a bug but you can also jump off the things on the sides of the trampolines if you are quick enough.

-In Dis Industries 2, if you get hit by a slime's attack while sliding under a pillar you will get moved to the top of it. This could screw you over in a run but you'll be fine as long as you know when to jump over the slime.

-In any Performer's Dungeon level, for most walls including those vertical holes that are opened up by the switches, if you are standing on the right edge of a wall and then do a down swoop into it, you will be able to stand in the wall. Then, you can jump and do a down-left swoop to instantly be moved to the top, or do an up-left swoop for the bottom. Be careful though because sometimes you move to the top just by turning around without jumping.

-Getting hit by the top of a spike ball at the top of the map in Performer's Dungeon 3 can make you die off-screen and respawn a lot faster than normal.

-At the start of Disco Fever 3 and near the end of Disco Fever 1 and 2, at the bottom of the stage where you normally die by touching it, there are some parts along the bottom where

you land on invisible ground and have half a second to jump again before dying. You can't be moving as you are landing. This is completely pointless besides saving yourself.

-At the end of each of the Disco Fever levels, if you stand right beside the button to activate the piano keys, then move the camera with X and immediately step on the button, you can get the camera to lock in a different position than usual. Serves no purpose.

-You can get the end credits to glitch out sometimes. It seems kind of random, but probably caused by something throughout the level.

Harmful Bugs

-If you are ever able to touch the very left side of the screen (no walls) like at the end of the Disco Fever levels, going to the side at moderate speed and quickly turning around makes you walk in place. This can happen in all boss stages (including the Dis Industries mini-bosses) which is where it is a real problem. This also happens with the right side but to a lesser degree, you don't get fully stuck or stay there for too long.

-If you very slowly walk up to or jump into the right end of a set of piano keys (at the end of Disco Fever) you will be unable to walk over the ledge and continue moving in place. This also has a chance of happening even when running at full speed, best to just jump over the keys.

-If you hold A while on top of a cannon and jump, you will immediately do the swoop and then go into an infinite falling animation. From there you have to move left/right or swoop off.

-With the moving platforms in Fort Redstar 3 you can go through the floating piece of ground you are supposed to jump over by walking into it while on the edge of the moving platform (in front), however the game tries to push you back out and it is kind of random, plus it's slow.

-The balloon enemies in Fort Redstar are capable of going through thin ground, those blue bat enemies can go through ground and walls while swooping at you.

-If you move the camera around with the X button, when moving it as low as it can go, often times the camera goes 1 pixel row lower than normal and you are unable to bring it back up unless you let go of the D-pad or the X button.

-On the snowboarding levels, if you jump while on water and are going at some exact speed (I think), you will be made to jump backwards. I haven't had it happen much so don't worry about it.

-There is one softlock you can get fairly easily, but is not normally a problem. In Disco Fever 3, towards the end of the level, there is a trumpet thing with ground connected to the top of it. If you do a down swoop at the exact right position in between the trumpet and ground, you will fall in between.

-There are a variety of visual glitches other than the ending credits, such as the checkpoint looking messed up when you touch it for a couple frames, or sometimes when the checkpoint first enters camera view. I've also randomly had a power-up icon (the one that appears next to the timer) totally glitch out and become a red blob after being collected. Sometimes multiple objects get messed up looking for one level.

-One time I got bounced in the wrong direction by a trampoline, that was on the Fort Redstar bonus level though.

-If you keep running/jumping at the right side of the screen during the 1st Dis Industries mini-boss (and maybe others) you will take damage for no apparent reason. This glitch was caused by the emulator ZSNES, pretty sure. It is inconsistent.

Level Select Cheat

Play these songs: 10, 15, 06, 08, then start game. Pause and press Down + A + L + R any time. Invincibility frames will carry over between levels (not really useful).
For Genesis the songs are 08, 04, 19, 71, and the buttons are Down + A + C.