

INSTALLATION AND OPERATION MANUAL

Version 08/04



WARNINGS AND NOTICES

NOTICE

This game is intended to be operated for amusement purposes only. It is not to be operated in violation of any federal, state, or local laws or regulations. As the owner and/or operator of this game you are responsible for its operation in compliance with such laws and regulations. The factory settings for this game may require adjustment in order to comply with the laws and/or regulations in the jurisdiction where the game is located. It is the sole responsibility of the operator to determine what laws and/or regulations are applicable and to make any adjustments to the game before operating it for its intended purpose.

NOTICE

This manual and the information contained within is subject to change without notice.

WARNING

Use of unauthorized parts or making any unauthorized modifications will void the warranty and may result in the game operating in an unsafe or incorrect manner.

WARRANTY, REPAIR, AND RETURN POLICY

- 90-day warranty on all electronic components. All warranty periods begin on the date of purchase from Incredible Technologies, Inc.
- There is a minimum \$55.00 service charge for all non-warranty repairs or returns.
- For all servicing, return to Incredible Technologies, Inc.
- ANY non-factory repair or attempted repair voids warranty.

RETURN MERCHANDISE AUTHORIZATION

- All returned merchandise must have a Return Merchandise Authorization (RMA) number marked clearly on the outside of the package.
- You must obtain all RMA numbers from Incredible Technologies. Please have the product's Cabinet Identification Device number available when calling for an RMA number.
- Merchandise returned without an RMA number will not be accepted.
- Warranty may be void if serial number or security labels are tampered with or removed. Opening the Nighthawk Chassis system will void your warranty.
- Advance replacement hardware will be shipped to the customer address on file unless specified otherwise.
- Advance replacement hardware will be billed to the customer until Incredible Technologies, Inc. receives the returned merchandise, at which time a credit will be issued.
- All repairs and/or replacements will ship as soon as possible after receipt or request (subject to availability).

If the original purchaser discovers any physical defect in the media (disk, EPROM, tape) on which the software is distributed or in the documentation, which in the opinion of Incredible Technologies, Inc. (IT) prevents the product from being used as reasonably intended, IT will replace the media or documentation at no charge. The purchaser must return the item to be replaced, with proof of purchase, to IT within 90 days after taking delivery of the software.

IT warrants to the original purchaser that the hardware product is in good working condition for a period of 90 days from taking delivery of the product. Should this product, in IT's opinion, malfunction within the warranty period because of a defect in design, materials, or workmanship, IT will repair or replace this product without charge under the terms as follows. Replacement of either the hardware product or its component parts will be only on an exchange basis. Any replaced parts or components become the property of IT. This warranty does not apply to those products that have been damaged due to accident, abuse, improper installation, natural disaster, or unauthorized repairs or modifications.

IT excludes any and all implied warranties, including warranties of merchantability and fitness for a particular purpose, and limits the purchaser's remedy to returning the software, hardware, or documentation to IT for replacement.

IT makes no warranty or representation, either express or implied, with respect to this software, hardware, or documentation, their quality, performance, merchantability, or fitness for a particular purpose. This software, hardware, and documentation are licensed "as is." and the purchaser/licensee assumes the entire risk as to their quality and performance.

In no event will IT be liable for direct, indirect, special, incidental, or consequential damages arising out of the use or inability to use the software, hardware, or documentation, even if advised of the possibility of such damages. The warranty and remedies set forth above are exclusive and in lieu of all others, oral or written, express or implied. No person, seller, dealer, agent, or employee is authorized to make any modification or addition to this limited warranty.

Some states do not allow the exclusion of implied w arranties or liability for incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights, and you may also have other rights that vary from state to state.

- INCREDIBLE TECHNOLOGIES, INC



Congratulations!

Congratulations on purchasing Silver Strike Bowling from Incredible Technologies!

For ease of use this manual has been broken down into four main sections:

Installing Silver Strike Bowling as a Kit - Page 3.

Silver Strike Bowling as a Dedicated game - Page 17.

Operator Menus - Page 21.

Troubleshooting and Reference - Page 39.

A more complete table of contents can be found on the next page.

Silver Strike Bowling Features

- Up To 8 Players Can Play Together
 - ? Players have their own unique bowling ball and shirt color!
- Choose Male Or Female Bowlers
 - ? Each of the 8 player colors includes a male and female version!
- Series Play (3 Games Per Player)
 - ? Now, just like in a bowling league, players can play three games in a row and receive a series score!
- Unique Trackball Control Simulates Realistic Delivery and Ball Paths
 - ? Get the feel of a real bowling hook with our amazing trackball control!
- > 5 Selectable Ball Weights
 - ? Players can choose between a 12, 13, 14, 15, or 16 pound ball just like in a real alley!
- "Vegas Bowling" Mode Promotes Competition
 - ? A little friendly competition is inspired with this additional feature that's pure fun!
- Real-Time Pin Action & Ball Physics
 - ? Pins fall before your very eyes just as they would in the lanes!
- TV Quality Instant Replays
 - ? Want to see that amazing shot again? Now you can with our instant replay feature!
- Interactive Player Camera Control for Exciting 3D Effects
 - ? Changing the camera gives you a new 'view' on all the action!
- Powerful New Hardware Platform
 - ? Silver Strike Bowling leaps into the future with new hardware that ramps up the fun!
- Stunning 3D Graphics and Effects
 - ? Players of all skill levels will enjoy the realistic feel and dynamic 3D graphics.

It's tenpin bowling brought to an all new level of energy and excitement!

This game is rated SUITABLE FOR ALL AGES.

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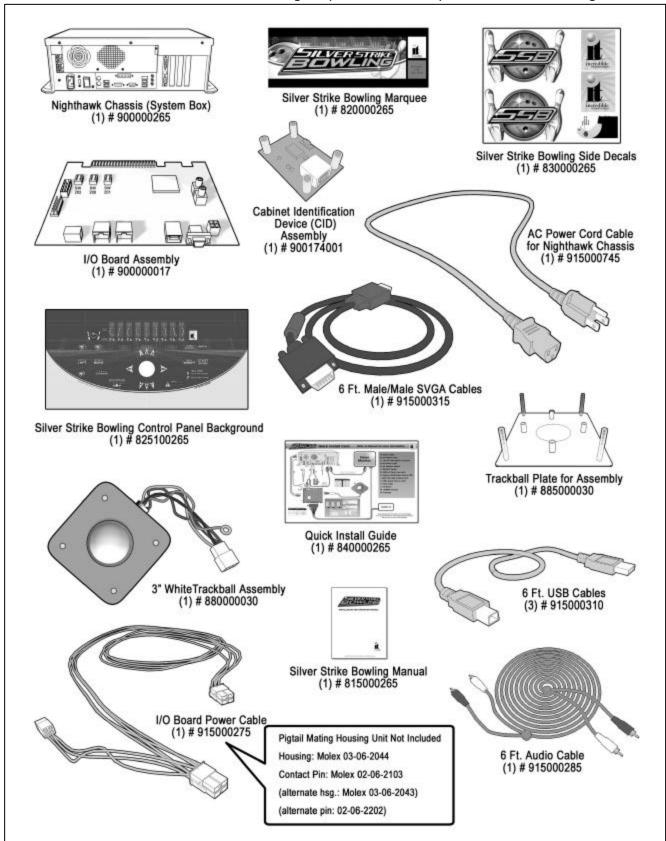
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Silver Strike Bowling Kit Installation

Kit Contents (Including Part Numbers)

Please refer to these IT part numbers when placing orders.

Included in the Silver Strike Bowling Kit (Part # 925000265) should be the following:



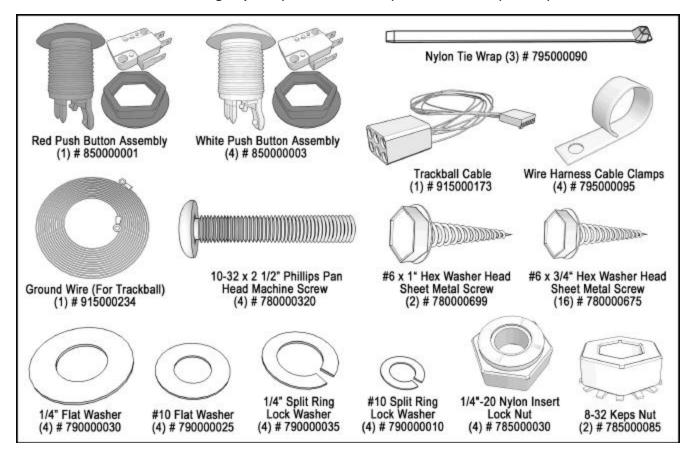
A bag of parts is included in your kit and the contents can be found on the next page.

Kit Contents (Including Part Numbers) - Continued

Please refer to these IT part numbers when placing orders.

Keep in mind most of these basic parts like screws/washers can be found at any hardware store.

Your bag of parts (Part # 900265030) should include (at least):



NOTE: PLEASE RETAIN ORIGINAL SHIPPING BOX FOR SERVICE AND REPAIR.

NOTE

This kit is designed for use in cabinets with JAMMA cable and wiring installed.

If you do not have a JAMMA harness already installed in the cabinet you have selected and are wiring the cabinet yourself, refer to the JAMMA Wiring Diagram on page 43 in this manual.

Recommended Tools

Have tl	ne following tools ready before you begin to install this kit:
	1/4" Nut Driver
	7/16" Socket or Driver
	11/32" Socket
	Phillips Head #2 Screw Driver 9/32" Drill OR 5/16" and ¾" Drill Bits
	1 1/8" Hole Saw or Drill Bit
	Small Flat Blade Screwdriver
	Jig/Sabre Saw
	Router
	Push Button Nut Socket or Large Adjustable Pliers
_ _	X-acto® Knife or other Sharp Knife/Razor Blade Wire Cutters
_	Scissors
	Tape Measure
	Putty Knife
	Decal Roller/Squeegee
	Liquid Window Cleaner & Cleaning Cloth Vacuum Cleaner
٥	Any tools needed to remove parts from your existing cabinet not listed above.
	operators notice their earnings increase with touches as simple as a fresh coat of paint and a clean cabinet.
ıı you v	vill be painting, you'll need these supplies: Air Brush or Paint Sprayer,
	Paint (and Primer)We recommend black as a cabinet color choice.
	Sandpaper
inst	tallation Preparation
BEF	DRE YOU START
Before	you install the Silver Strike Bowling kit into your cabinet there are a few things you should check first:
1.	Check to make sure your existing cabinet's monitor, speakers, AC power cord, and lights work.
	□ Replace or repair where necessary.
2.	Check to make sure all the necessary parts are included in your kit.
	☐ If any are missing/damaged please contact IT's Technical Support at 847-870-7027 x121.
3.	Check to make sure cabinet is wired with standard earth grounded A.C. plug compatible with local building codes and/or safety requirements.
	☐ If not, have a qualified electrician install one (not provided).
4.	Have all the necessary tools available to install this kit.
	Refer to the recommended tools list above to make sure you are prepared before you start.
5.	Make sure any parts of the system (lights, monitor, etc.) are not plugged in.
	□ Working with any part of the system plugged in or powered on can be dangerous.
6.	Keep in mind that it's been proven that the higher quality of work put into a kit installation results in a higher earning game.
	☐ Make sure you have plenty of space, time, and focus to put into this kit installation.

The Cabinet

Cabinet Selection

You can choose either a new cabinet or a used cabinet for your Silver Strike Bowling game. Reusing a cabinet is by far the most cost-effective way to maximize the return on your initial investment. In either case, all you need to provide is the cabinet with a monitor, JAMMA harness, coin and bill acceptors, working fluorescent/marquee lights, and speakers. We provide the rest. The end result is a new game at a very low cost.

When selecting a cabinet, keep in mind that a large control panel allows you to mount the trackball farther from the monitor. This prevents players' hands from hitting the monitor glass when rolling the trackball forward, and will earn better than a smaller control panel closer to the monitor.

Preparing the Cabinet for Installation

Follow these steps to prepare your cabinet before installation:

- 1. Remove the following from the cabinet: Main Logic Board(s) (and hard drive if present), Control Panel, Monitor Viewing Glass, Marquee, and Power Supply.
- 2. Thoroughly clean out your cabinet. Remove all of the old buttons, joysticks, etc. **DO NOT** remove monitor and speaker wires or the wires that were previously hooked up to the control panel.
- 3. Remove the old graphics and adhesive from the cabinet including the control panel.
- 4. For a fresh look and best earnings painting is highly recommended. Spray painting gives a better finish, but if an air brush or paint sprayer is unavailable a roller is second best. Remember to cover all exposed surfaces not to be painted. When not installing into an old Golden Tee® dedicated cabinet, the recommended color choice is black.
- 5. Make sure to have the sides of the cabinet and the control panel as smooth and flat as possible to allow for a higher quality finish when applying the control panel background, labels, and side decals.
- 6. The "new game look" should always apply to the inside of your game as well. A few wire ties and shrink tubing on your harness, some fastening hardware on your subassemblies, and a sweep with the vacuum cleaner will help ensure that glitches do not occur.

Monitor Requirements and Clean-Up

Silver Strike Bowling has been designed to operate with SVGA (800 x 600), VGA (640 x 480), medium resolution (512 x 384) and low resolution (340 x 255) monitor systems. For best results choose a cabinet with a SVGA compatible monitor.

When operating with a SVGA or VGA monitor, Silver Strike Bowling uses the standard VGA sync timing and signals. When operating with medium resolution or low resolution monitors, Silver Strike Bowling operates with composite negative serrated sync.

NOTE: In all cases a horizontal mount raster scan monitor is required.

Silver Strike Bowling has been designed to run at multiple screen resolutions. Operating Silver Strike Bowling at the highest possible resolution will give your game the best results (and revenue). Many current games use medium-res. and VGA/SVGA monitors already. If you have a low-res. monitor, it may be possible to switch it to a higher resolution. Check your monitor's manual for availability.

CAUTION! Monitors are extremely dangerous and can result in severe injury. Make sure you follow and observe all safety precautions as outlined in your monitor's manual.

ALWAYS disconnect the power to the cabinet before working on or around the monitor.

Now is a great time to clean both sides of the monitor viewing glass and monitor screen to ensure a clear view of the game. Once you have done so reinstall the monitor viewing glass back in place.

Game Electronics

I/O Board Installation

NOTE: Before installing any electronics make sure cabinet power switch is in the OFF position and the cabinet power is unplugged from the wall.

Silver Strike Bowling comes with a specially designed I/O board that works with your cabinet's already installed JAMMA harness. The I/O board is used as a connection interface between the JAMMA and the Nighthawk Chassis. Refer to the diagram on page 9.

- 1. Mount the I/O board into the cabinet using 6 of the 6 x 3/4" Hex Washer Head Sheet Metal Screws. The existing JAMMA harness edge connector will attach to this board.
- 2. Cable connections:
 - □ JAMMA Connector. Be sure it fits tightly.
 - □ Trackball Cable to the Trackball connector. Other end will connect to the trackball.
 - Power cable to the power input connector. Use the end with the 4-pin pigtail. Other end connects to the Nighthawk Chassis.
 - USB cable to the USB port. Other end connects to the Nighthawk Chassis.
 - Audio Cables to the I/O board audio inputs. Other ends will connect to the Nighthawk Chassis.
 - □ Video cable (SVGA) in from Nighthawk Chassis. Low or medium resolution monitors only. See diagram on page 9. VGA or SVGA monitors are connected directly to the Nighthawk Chassis video output. See diagram page 45.
- 3. Coin door wiring. Note: There is no power source at the JAMMA connector. Power for coin door lights can be sourced at the Power Cable piqtail.
 - □ Wire ground and appropriate power to the coin door lights. Depends on type of bulbs in your cabinet.
 - □ Coin input switches and bill acceptor common ground wired from JAMMA ground. See pin out diagram on page 43.
 - Coin input signal wires to coin switches normally open post and bill acceptor signal out. See pin out diagram on page 43.

 Power Cable. I/O Board Pin Out
- 4. Coin meter wiring.
 - → +12 volts or + 5 volts to one lead of the coin meter.

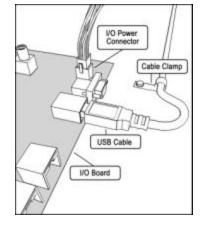
 Depending on the device specifications.
 - Coin count 1 signal wire from JAMMA to the other lead of the meter. See pin out diagram on page 43.
- 5. Dip Switch SW201 set according to the type of monitor you are using.

SW201 Vid	leo Dipsv	witch Settings		0 = OFF	1 = ON
Position 4 3 2 1	Video Mode	Resolution	Scan Rate	Monitor	Video connection
0 0 0 1	1	640 X 480	31.5 KHz	VGA	Direct from Chassis, See Diagram on Page 45
0 0 1 0	2	800 X 600	37.8 KHz	SVGA	Direct from Chassis, See Diagram on Page 45
0 1 0 0	4	340 X 255	15.75 KHz	Low Resolution	Through I/O board, See Diagram on Page 45
0 1 0 1	5	512 X 384	25 KHz	Medium Resolution	Through I/O board, See Diagram on Page 45

6. Cable Clamp. Mount near the I/O board aligned with the power connector so that you can have the USB cable pulled towards the board. This keeps the USB cable from

accidentally being jostled out of its slot. Use this clamp to keep other loose wires neat. Use wire ties where needed.

- 7. Speaker Wiring. SSB audio default setting is mono. Wire your speaker(s) to the left or right channel audio outputs on the JAMMA, Pins 10 and J or 11 and K respectively. If you want to operate SSB in stereo mode, both the left and Right Channels need to be connected. If audio out is set to stereo, you must have a speaker wired to each channel, plus to plus and minus to minus. If not wired properly you will not hear all of the sounds which may compromise game earnings.
- 8. Control panel buttons. See Finishing The Control Panel (page 13) for control panel layout, and JAMMA pin out chart (page 43).



Wire Color

Yellow

Black

Red

Black

Function

+ 12 Volts DC

Ground

+ 5 Volts DC

Ground

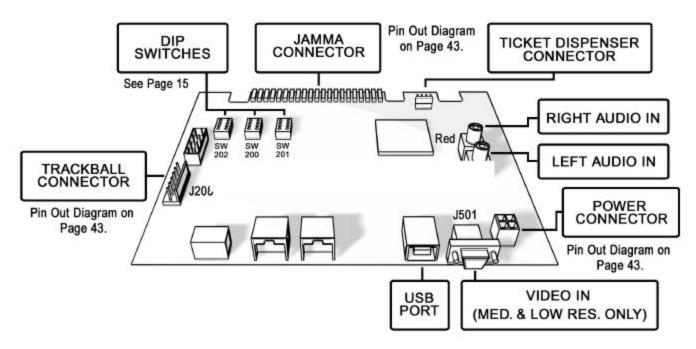
Pin Number

2

3

4

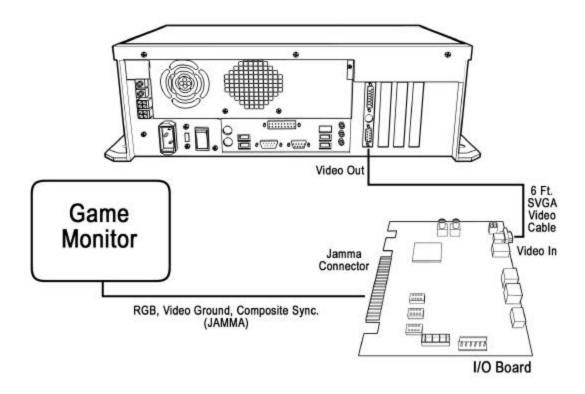
Please refer to the following diagram as well as a detailed diagram on page 45 for correct placements when connecting cables to the I/O board:



Additional Instructions For Low or Medium Resolution Monitors:

To connect to a low or medium resolution RGB monitor refer to the figure below:

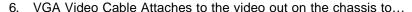
- 1. Connect one end of the 6 ft. SVGA video cable to the video out of the Nighthawk Chassis.
- 2. Connect the other end of the 6 ft. SVGA cable to the I/O board video in J501.
- 3. Connect the Red, Green, Blue video outputs, the composite sync, and video ground to the appropriate monitor inputs. To find the correct JAMMA pin outs refer to the diagram on page 43.



Nighthawk Chassis Installation

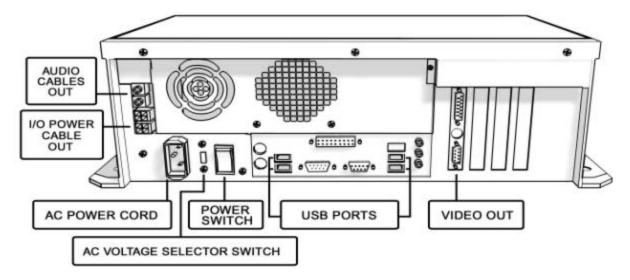
The Nighthawk Chassis houses most of the game electronics and hardware into one box that can be easily installed. **Verify that the Nighthawk Chassis Power Switch is in the "ON" position.**

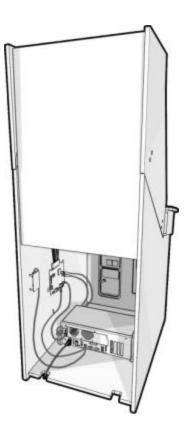
- 1. Locate the area on the floor where the chassis will be placed. Make sure there is enough clearance to plug in cables.
 - ☐ The Nighthawk Chassis measures 19" W x 7" H x 11" D.
- 2. Relocate and secure any wires to make room for the chassis.
- 3. Place the chassis so it sits flat on the floor and does not pinch wires.
- 4. Mount the chassis with 6 #6 x ¾" Hex Washer Head Sheet Metal Screws.
- 5. Cable Attachments. I/O power, Audio, USB cables. Refer to page 45.
 - I/O board power cable from the I/O board to one of the two power output connectors on the chassis.
 - Audio cables to the audio output jacks of the chassis. Match the appropriate colors.
 - □ USB cable #1 from the I/O board to any USB port on the chassis.
 - USB cable #2 for future updates. Attached to any USB port on the chassis. Route the other end near the coin door opening for easy access.
 - □ USB cable #3 Cabinet Identification Device (C.I.D.) connect to any USB port on the chassis. See C.I.D. Installation Section. (Page 11)



- I/O board video in for Low or Medium Resolution monitors.
- VGA or SVGA monitors, Directly to the VGA or SVGA monitor input.
- See Dip Switch settings on page 15 for proper set up.
- AC power cord plugs into the Chassis. Have a qualified electrician do the wiring. Verify A.C. main voltage selector switch is in the proper position. In North America the setting is 115 volts AC. In some countries this should be set at 230 VAC.
- 8. Use cable clamps, with appropriate tension, where necessary to ensure all cables stay in place during operation.
- 9. Dress all cables with additional clamps and wire tie wraps where needed.

Refer to the diagrams on this page as well as a detailed diagram on page 45 for correct placements of Nighthawk Chassis, C.I.D., and cables from the Chassis to I/O board to peripherals:

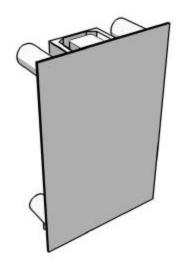




Cabinet Identification Device Installation

The Cabinet Identification Device or C.I.D. is an innovative and important component. This device permanently identifies your cabinet as Silver Strike Bowling. It should remain even if another component such as the I/O board or chassis is replaced. The C.I.D. has a unique number to individualize the cabinet and is referred to as the Cabinet Identification Number.

- 1. Attach the C.I.D. to the inside side of the cabinet using the 2 - #6 X 1" Hex Washer Head Sheet Metal Screws. Mount so the port is facing up and the electronics faces the wall.
- 2. Attach the USB cable from the Nighthawk Chassis.
 - Place the included Cabinet Identification Number on the back of the cabinet for future reference. Refer to this number to track your equipment and whenver you are calling in for service.
 - > The Cabinet Identification Number is displayed in the operator menus in the lower right hand corner. It is displayed as Game ID. It is also displayed on the last line of the initial boot-up screen.



Mount so the port is facing up and the electronics face the wall.

Ticket Dispenser

Silver Strike Bowling supports Entropy 2000 Ticket Dispenser Continuous Type (TD963CR) and Deltronic Labs DL-1275 Continuous Type ticket dispensers. If you wish to connect a ticket dispenser to this game, you will have to make a cable with the proper connectors. These ticket dispensers mates with a Molex connector #03-09-1041 or #03-09-1042. The I/O board ticket connector J201 mates with a Molex connector #22-01-2047 or #22-01-3047. Simply connect pins 1 through 4 on one end directly to pins 1 through 4 on the other end. Consult with your ticket dispenser's manual to verify installation procedures. (See the Ticket Dispener section in the Operator Menus starting on page 36.)

Control Panel

Trackball and Button Preparation

Mounting the trackball and buttons correctly and securely is very important for the profitability and safety of your new game. This kit is designed for use in cabinets with 3/4" thick wood control panels where proper routing of the control panel is used to create a safe playing experience. If you do not have a 3/4" thick wood control panel, please replace your control panel or choose a cabinet with a 3/4" thick wood control panel installed. Keep in mind that if your current control panel has many old holes in it from previous buttons, joysticks, etc. that it may be easier to start with a new solid control panel. This will give your game a better look and feel and help it to earn better.

NOTE: If the cabinet already has a trackball plate installed, discard and replace with the new trackball plate. The metal trackball mounting plate and trackball mounting procedure have been designed to remove all bolts from the playing surface. Routing the wood control panel is required so the metal mounting plate is flush with the panel surface. An uneven playing surface or exposed edges will affect game play and could impact your earnings.

TIP: Trackball and button templates can be found at the back of this manual. They include:

- Trackball Template to install the trackball plate and make the appropriate routing (page 49).
- Trackball Orientation Diagram to orient your trackball correctly when installing (page 51).
- Button Set Templates to position and install control panel buttons (page 53).

Trackball Preparation

Install the metal trackball plate by following these steps:

- 1. Cut out the template (see template-page 49) with a pair of scissors along the noted line. Tape this template to the top of the control panel as far away from the monitor as possible, making sure that the trackball will clear the cabinet beneath it. **NOTE:** Installing the trackball as far away from the monitor as possible will prevent players' hands from hitting the monitor glass when rolling the trackball forward.
- 2. Using a sharp object, mark the eight points shown on the template on the control panel. Using a pencil, trace the outside of the template. Remove the template.
- 3. Drill Holes 1-4 with a 9/32" or 5/16" drill bit.
- 4. Drill Holes 5-8 with a 3/4" drill bit.
- 5. Route the crosshatched region to a depth of about .075" (about the thickness of a nickel).
- 6. Using a sabre saw cut out the center portion by cutting between holes 5-8.
- 7. Once you have cleaned up the routed area, install the trackball plate into the control panel using the ¼" Flat Washers and ¼-20 Nylon Hex Nuts. Be sure the mounting plate is flush with the top of the control panel.

NOTE: At this time you are only installing the trackball plate, do not install the trackball yet.

Button Preparation

The following are the steps you should take to prepare your control panel for the installation of the button assemblies:

- 1. Cut out the template(s) (see template-page 53).
- 2. Cut along the dotted line to separate the templates.
- 3. Using a tape measure, measure the specified distances from the center of the trackball hole in the trackball plate and make a mark for both the left and right button reference points.
- 4. Lay each template over the appropriate reference marking point. Mark the centers of the remaining holes using a sharp object.
- 5. Drill a 1 1/8" hole at each marked point.

NOTE: Do NOT install the trackball or buttons until the control panel graphics have been applied.

Control Panel Overlay Installation

Silver Strike Bowling comes with an oversized control panel overlay that will accommodate a variety of existing game cabinets, but works best on Golden Tee Fore®, NFL® Blitz™ and EA Sports™ PGA Tour® Golf cabinets. Follow these instructions to correctly install the control panel overlay on one of these cabinets:

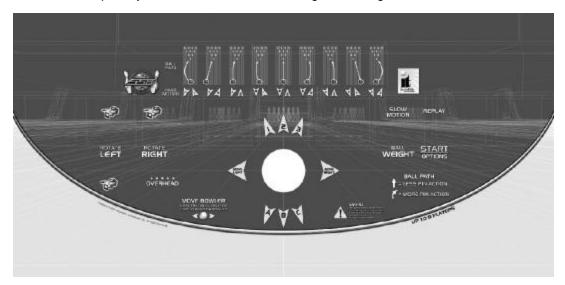
- 1. Make sure that the newly drilled control panel has a smooth, clean surface. Sand where necessary to make sure the graphics are installed on an even surface.
- 2. Clean the control panel to make sure it is free from dust, grease, metal filings, etc. Make sure that all residues (adhesive, overlay material, etc.) from the previous control panel graphics are removed. This will ensure a clean, easy, and beautiful application of the control panel graphics.
- 3. **It is very important that the trackball and control panel graphics be mounted perfectly straight.** Find the center of your trackball template and lightly draw vertical and horizontal guidelines on the control panel, marking out your centering lines.
- 4. Remove a small section of the protective backing from the overlay. Carefully center the overlay over the control panel by lining up the die-cut hole with the trackball template. Be sure the graphic is positioned perfectly straight. Line up your pencil guidelines with the lines incorporated into the art. Once in position, gently press down on the section with exposed adhesive, affixing the overlay into place. Once affixed, the overlay cannot be removed.

Control Panel Overlay Installation - Continued

5. While holding down the overlay over the attached area, very carefully turn over one side and remove the exposed backing. Gently lay down the exposed overlay from the center outward, smoothing with your hands or a roller as you go. **Be sure the overlay remains straight and square.** Repeat the process with the other side of the overlay, so the entire surface is affixed to the control panel. Make sure all bubbles have been pressed out for a clean, flat surface.

TIP: Liquid window cleaner can be sprayed onto the control panel before placing the overlay onto the control panel. The window cleaner will allow the overlay to be positioned with less risk of damage to the overlay or adhesive. Once in position, use a decal roller or squeegee to force any excess cleaner out. Be sure to add additional time for the adhesive to cure.

- 6. Using an X-acto knife (or other sharp instrument) carefully cut around the edges of your control panel, trimming any excess material.
- 7. Find the center of each hole you've drilled out for the buttons and use the knife to poke a hole into the overlay. Make a vertical and horizontal line (like a plus sign) from the center of the hole to the edges. You should be able to place your button in later with no edges showing.



CAUTION: If you choose to install a Plexiglas® cover over your control panel (not recommended), to ensure the safety of your players and the quality of your game make sure that all surfaces, edges and bolts that a player may come in contact with are smooth, safe and secure.

Finishing The Control Panel

- 1. Reattach the control panel to your cabinet adjusting any hinges or chains where necessary. Make sure not to pinch or crimp any wires while re-attaching the control panel.
- 2. Install the trackball to the trackball plate. The trackball must be oriented correctly in order to function properly. Refer to the diagram located on page 51 for correct orientation. You will need the following parts in order to install the trackball correctly to the plate: 4 -10/32 x 2½" Phillips Head Machine Screws, 4 #10 Flat Washers and 4 #10 Split Lock Washers NOTE: Do not over-tighten the trackball. It will warp and cause the trackball to not operate correctly.
 - **IMPORTANT!** Be sure to install your trackball securely, and maintain it regularly. Loose, worn, or incorrectly mounted trackballs can result in decreased earnings and possible injury to players.
- 3. Secure the trackball ground wire to the trackball plate at the 8-32 stud on one end with an 8-32 KEPS nut and the other end to the cabinet ground stud (usually located near the AC power cord inlet) using an 8-32 KEPS nut.
- 4. Install the buttons in the holes located on your control panel. Make sure you use the red button assembly where the hole and decal for the Start button is placed.
- 5. Attach the micro switches to your newly installed buttons and connect the wires up to the correct pins on the JAMMA harness.
 - NOTE: The post on the switch labeled COM should connect to the ground wire and the post labeled NO should connect to the signal wire. See the JAMMA pin out chart on page 43.

Finishing The Kit

Side Decals and Marquee

Included with your Silver Strike Bowling kit is a set of decals to place on the side of your cabinet and a brand new marquee. This will help identify your new game as Silver Strike Bowling. By placing and installing these correctly it can help give players instant recognition, even from a distance.

Side Decal Installation

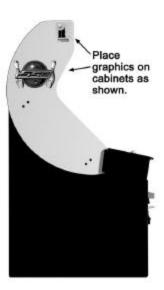
The following are the instructions on placing your side decals correctly on to the cabinet:

1. Locate the place where the side decals will be viewed best on your cabinet. Refer to the diagram included on the decal sheet and to the right of these instructions for optimal placement.

NOTE: Make sure to have the sides of the cabinet as smooth and flat as possible, removing all previous residue from prior decals, to allow for a higher quality finish.

TIP: Liquid window cleaner can be sprayed onto the sides of the cabinet before placing the decals. The window cleaner will allow the decal to be removed and re-installed without damaging the decal or adhesive. The decal roller or squeegee forces the cleaner out, leaving just the adhesive.

- 2. Remove the first of the new cabinet side decals from the backing.
- 3. Center the first decal on the location selected for your cabinet.
- 4. Using your hands (or a decal roller/squeegee), press down firmly starting from the center and smooth the side decal outward. Make sure all bubbles have been pressed out for a clean, flat surface.
- 5. Repeat for each of the remaining side decals.



Marquee Installation

The following are the instructions for placing the new marquee in your cabinet:

- 1. Using the old marquee glass as a template, center the glass on top of your new marquee. Make sure that all the printed images are visible.
- 2. Using an X-acto® knife or other sharp blade, score the new marquee deeply by following the edges of the old glass as a guide.

CAUTION: Do not cut on table or counter top. Use a cutting board or a disposable surface.

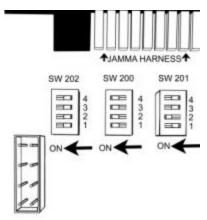
- 3. Carefully break off any excess material you have cut off.
- 4. Be sure the light behind the marquee works.
- 5. Clean the glass on both sides to give players a clear view of the new marquee.
- 6. Install the marquee graphics and glass securely.



Dip Switch Settings

SW202 Dip Switch Settings		0 = OFF 1 = ON
Positions	Function	
4 3 2 1		
0 0 0 0	Default	
1 0 0 0	Enter Operator Mode Menus	i

SW200 Dip Switch Settings 0 = OFF 1 = ON		
	Function	
4 3 2 1		
1 1 1 1	Default - Switch Is Not Used	k



SW201 Video Dipswitch Settings		/201 Video Dipswitch Settings 0 = OFF 1 = ON		1 = ON	
Position 4 3 2 1	Video Mode	Resolution	Scan Rate	Monitor	Video connection
0 0 0 1	1	640 X 480	31.5 KHz	VGA	Direct from Chassis, See Diagram on Page 45
0 0 1 0	2	800 X 600	37.8 KHz	SVGA	Direct from Chassis, See Diagram on Page 45
0 1 0 0	4	340 X 255	15.75 KHz	Low Resolution	Through I/O board, See Diagram on Page 45
0 1 0 1	5	512 X 384	25 KHz	Medium Resolution	Through I/O board, See Diagram on Page 45

Coin Doors, Test Switch, and Volume Control Panel

Wire the coin doors as per the JAMMA Harness Connection table on page 43. Connect the door lamps to the appropriate (+12Vdc or +5Vdc) supply. Some games have separate power supply outputs for the lamps. Install a test switch somewhere convenient inside the coin door area. This switch allows you to enter adjustables, run diagnostics, and see or clear audits. Make it readily accessible through the coin door. Wire it to the Test wire on the JAMMA Harness. Silver Strike Bowling has the ability to adjust volume at any time during a game. Install two push button switches (not included) inside the coin door for easy access. Connect the switches to the JAMMA harness. Refer to the JAMMA Harness Connection table on page 43.

Initial Power-Up

There are several steps you should take when powering up your Silver Strike Bowling for the first time. This is a quick checklist for you to follow when doing your first initial power-up:

- Plug in the game and turn it ON; be sure the game powers up correctly into the attract mode.
- Adjust volume levels to desired settings.
- Adjust monitor settings for best picture.

NOTE:

Sound and Video Tests are available through the System Tests Menu. They are beneficial when making any adjustments. (See System Tests Menu on page 26). Proper monitor and sound adjustment is very important.

- Try all money slots. Drop quarters or tokens through to check the coin mechs and insert a bill into the bill acceptor. Make sure the game is adding credits.
 - **NOTE:** Silver Strike Bowling supports most bill acceptors. Installing a bill acceptor is highly recommended and will increase your earnings. Refer to your bill acceptor's manual for installation specifications. The bill acceptor can be wired to coin door 3 on the JAMMA.
- □ Test all of the player input controls. You can use the PLAYER CONTROL TESTS in the SYSTEM TESTS MENU.
- Upon initial power-up the game is set to factory default settings. These settings affect game elements such as number of credits per coin, difficulty settings, etc. The OPERATOR MENUS section (see page 21) will describe how to alter these settings for your location.

Congratulations! You have finished installing Silver Strike Bowling!

Silver Strike Bowling Dedicated Version

Dedicated Cabinets

Dedicated Contents

- (1) Silver Strike Bowling Dedicated Cabinet
- (1) Silver Strike Bowling Manual
- (1) Monitor Manual
- (1) 4 Leg Levelers
- (1) Security Bar

If any parts to your dedicated cabinet are missing/damaged please contact IT's Technical Support at 847-870-7027 x121.

The Cabinet

NOTE: Diagrams for the Nighthawk Chassis and the dedicated I/O Board can be found on page 44.

Volume and Test Switches

Your cabinet comes equipped with a bank of buttons mounted inside the coin door. The Test button will enter you into the Operator Mode Menus where audits, adjustables, and system tests can be accessed. Refer to the Operator Menus section (page 21) of this manual for more information.

There are also two volume control buttons mounted inside the coin door. Press the button on the left to decrease volume, and press the button on the right to increase volume. You can also adjust volume in the Operator Menus (see page 25).



Monitor

Your Silver Strike Bowling cabinet comes equipped with a digital monitor set to SVGA. Silver Strike Bowling dedicated cabinets support high-res. monitors, offering superb graphics and brilliant colors.

Silver Strike Bowling supports low-res, mid-res., VGA and SVGA monitors. Make sure the I/O Board and monitor are set properly for best game play results.

Security Bar

Silver Strike Bowling comes with a heavy -duty security bar, to help you protect your cash box. Use a strong padlock (not included) to lock the security bar in place. The security bar should be found installed on the front of your cabinet.



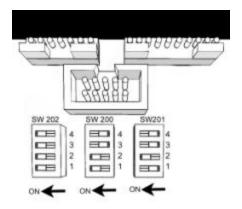
Ticket Dispenser

Silver Strike Bowling supports Entropy 2000 Ticket Dispenser Continuous Type (TD963CR) and Deltronic Labs DL-1275 Continuous Type ticket dispensers. If you wish to connect a ticket dispenser to this game, you will have to make a cable with the proper connectors. These ticket dispensers mates with a Molex connector #03-09-1041 or #03-09-1042. The I/O board ticket connector J201 mates with a Molex connector #22-01-2047 or #22-01-3047. Simply connect pins 1 through 4 on one end directly to pins 1 through 4 on the other end. Consult with your ticket dispenser's manual to verify installation procedures. (See the Ticket Dispener section in the Operator Menus starting on page 36.)

Dip Switch Settings

SW202 Dip Switch Settings		0 = OFF 1 = ON
Positions	Function	
4 3 2 1		
0 0 0 0	Default	
1 0 0 0	Enter Operator Mode Me	nus

SW200 Di	0 = OFF 1 = ON		
Position	osition Function		
4 3 2 1			
1 1 1 1	Default - Switch Is Not Use	d	



SW201 Video Dipswitch Settings		0 = OFF	1 = ON		
Position 4 3 2 1	Video Mode	Resolution	Scan Rate	Monitor	Video connection
0 0 0 1	1	640 X 480	31.5 KHz	VGA	Direct from Chassis, See Diagram on Page 45
0 0 1 0	2	800 X 600	37.8 KHz	SVGA	Direct from Chassis, See Diagram on Page 45
0 1 0 0	4	340 X 255	15.75 KHz	Low Resolution	Through I/O board, See Diagram on Page 45
0 1 0 1	5	512 X 384	25 KHz	Medium Resolution	Through I/O board, See Diagram on Page 45

Initial Power-Up

There are several steps you should take when powering up your Silver Strike Bowling for the first time. This is a quick checklist for you to follow when doing your first initial power-up:

- Plug in the game and turn it ON; be sure the game powers up correctly into the attract mode.
- □ Adjust volume levels to desired settings.
- Adjust monitor settings for best picture.

NOTE:

Sound and Video Tests are available through the System Tests Menu. They are beneficial when making any adjustments. (See System Tests Menu on page 26). Proper monitor and sound adjustment is very important.

- Try all money slots. Drop quarters or tokens through to check the coin mechs and insert a bill into the bill acceptor. Make sure the game is adding credits.
- ☐ Test all of the player input controls. You can use the PLAYER CONTROL TESTS in the SYSTEM TESTS MENU.
- □ Upon initial power-up the game is set to factory default settings. These settings affect game elements such as number of credits per coin, difficulty settings, etc. The OPERATOR MENUS section (see page 21) will describe how to alter these settings for your location.

Congratulations! Your Silver Strike Bowling is ready for play!

Silver Strike Bowling Operator Menus

Navigating The Menus

Selecting a Menu

A menu option can be selected at any time by rolling the trackball up or down or by pressing the Rotate Left or Rotate Right buttons.

Choosing a Menu/Option

A menu option can be chosen at any time by pressing the Start Button.

Changing a Value

A value can be changed at any time by rolling the trackball left or right.

Operator Mode Menus

The following is a listing of all the menus located in Silver Strike Bowling and their options:

Main Menu

Collections

This will reset all audits in the Game Audits menu to zero except for Lifetime Money Total.

*NOTE: This will take you to Money Audits first.

General Settings

This area allows you to adjust operator adjustables, perform system tests, and reset your game back to factory settings.

Silver Strike Settings

This area allows you to adjust settings specific to Silver Strike Bowling including the player cost schedule, game features, and game audits.

ITNet® Settings

ITNet[®] is unavailable for this version of Silver Strike Bowling.

Fxit

This will exit you back into the game's attract mode.

Value Reset (Collections and Audits Reset)

This will reset all audits in the Game Audits menu to zero except for Lifetime Money Total.

No

This will <u>not</u> perform the reset and take you back to the previous menu.

Yes

This will perform the reset and take you back to the previous menu.



General Settings

Operator Adjustables

This area allows you to adjust options like volume, attract mode sounds, skill level, and money slot settings.

System Tests

This area allows you to perform diagnostics including video adjustments, input tests, and sound tests.

Back

This will take you back to the Main Menu.



Operator Adjustables

General Adjustments

This area allows you to adjust options like coin message, skill level, and money modes.

Money Slot Adjustments

This area allows you to adjust the settings of your various money slots on your cabinet.

Sound Adjustments

This area allows you to adjust the various sound settings including attract mode sounds, game volume, and stereo setup.

Reset To Factory Settings

This option allows you to reset all the settings found in the Operator Adjustables section to factory defaults.

Back

This will take you back to the General Settings menu.

This will take you back to the General Settings menu. to Move to Change Press Start to Choose General Adjustments Money Slot Adjustments Sound Adjustments Reset to Factory Settings Back (USA) Silver Strike Bowling 100.19 Game ID 17-000005

Operator Adjustables

General Adjustments

Coin Message

If set to Insert \$ it will ask the player to insert money. If set to Swipe Card it will ask them to swipe their card to start. If set to Insert Tokens it will ask the player to insert tokens. The default is set to Insert \$.

Skill Level

This option adjusts from 1 (Easy) to 3 (Hard). **The default** is set to 2 - Normal.

Game Mode

This lets you toggle between money/free play. The default is set to Money Play.

Reset Values

This resets all values to their default value located on this page.

Back

This will take you back to the Operator Adjustables menu.



Value Reset (General Adjustments)

This will reset Coin Message, Skill Level, & Game Mode to their default value.

No

This will <u>not</u> perform the reset and take you back to the previous menu.

Yes

This will perform the reset and take you back to the previous menu.



Money Slot Adjustments

Money Slot 1

This adjusts how much one pulse equals for Money Slot 1. **The default is set to \$0.25.**

Money Slot 2

This adjusts how much one pulse equals for Money Slot 2. The default is set to \$0.25.

Money Slot 3

This adjusts how much one pulse equals for Money Slot 3. The default is set to \$0.25.

Reset Values

This resets all values to their default value located on this page.

Back

This will take you back to the Operator Adjustables menu.



Value Reset (Money Slot Adjustments)

This will reset all Money Slots to their default value.

No

This will <u>not</u> perform the reset and take you back to the previous menu.

Yes

This will perform the reset and take you back to the previous menu.



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Sound Adjustments

In Game Volume

This option lets you adjust the In Game volume from OFF to 100%. The default is set to 18%.

Attract Volume

This option lets you adjust the Attract Volume from OFF to 100%. The default is set to 18%.

Attract Mode Sounds

This adjusts how often sounds are played in the attract mode: Never, Rarely (every 10th time), Sometimes (every 5th time), Often (every other time), and Always. The default is set to On - Sometimes.

Stereo/Mono

This option is where you select stereo or mono setup. The default is set to Mono.

Reset Values

This resets all values to their default value located on this page.

Back

This will take you back to the Operator Adjustables menu.

Value Reset (Sound Adjustments)

This will reset the In Game Volume, Attract Volume, Attract Mode Sounds, & Stereo/Mono settings to their default value.

No

This will not perform the reset and take you back to the previous menu.

Yes

This will perform the reset and take you back to the previous menu.



Value Reset (Reset to Factory Settings)

This will reset all the settings found in the Operator Adjustables section to their factory default value.

No

This will not perform the reset and take you back to the previous menu.

Yes

This will perform the reset and take you back to the previous menu.



Sound Adjustments

Press Start to Choose

Default Value

This will take you back to the Operator Adjustables menu.

← → to Change

Current: Value

Reset Values

Back

to Move

System Tests

Video Tests

This area has tests that will help you to adjust your game's color, contrast, and screen size.

Sound Tests

This area has tests that will help you adjust your game's audio setup by playing a stored sound, a streaming sound, and testing the speaker(s).

Player Control Tests

This option allows you to test all inputs including trackball, buttons, and money slots.

Mechanical Meter Test

This test makes the hard meter adjust by one to make sure it is functioning properly.

Hardware Tests

This area includes a series of diagnostic screens and tests to help you make sure your game is functioning correctly.

Back

This will take you back to the General Settings menu.

Video Tests

Color Adjustments

This area will take you to a series of tests to adjust your monitor's RGB settings to have each color display properly.

Contrast Adjustments

This area will take you to a series of tests to adjust your monitor's brightness/contrast so the game displays properly.

Screen Size Adjustment

Use this screen to align your monitor so that all the circles appear as circles and the boundary line appears on the edge of each side of the screen.

Back

This will take you back to the System Tests menu.

Color Adjustments

Color Grid Adjustment

Adjust your monitor to have each colored box display properly.

Red Screen

Adjust your monitor to have red display properly.

Green Screen

Adjust your monitor to have green display properly.

Blue Screen

Adjust your monitor to have blue display properly.

Back

This will take you back to the Video Tests menu.







Contrast Adjustments

White Screen

Adjust your monitor to have white display properly.

50% White Screen

Adjust your monitor to have 50% white display properly.

25% White Screen

Adjust your monitor to have 25% white display properly.

Black Screen

Adjust your monitor to have black display properly.

Contrast Screen

This option is a test you can use to adjust your monitor's contrast and brightness settings to have the boxes displayed properly. *Note: May not work on older or often used monitors.*



If you have a monitor that's old or has been used often you may not be able to adjust the contrast and/or brightness levels accordingly. In this case adjust the monitor for best performance while getting close to the recommended settings.

Back

This will take you back to the Video Tests menu.

Sound Tests

Stored Sound

This will play a stored sound so you can make sure your audio setup is functioning properly.

Streaming Sound

This will play a streaming sound so you can make sure your audio setup is functioning properly.

Speaker Test

This test will say MONO if you have your game set to Mono or LEFT and RIGHT if you have it set to stereo so you can make sure your audio setup is functioning properly.

Back

This will take you back to the System Tests menu.

This will take you back to the System Tests menu. to Move to Change Press Start to Choose Stored Sound Streaming Sound Speaker Test Back (USA) Silver Strike Bowling 100.29 Game ID 17-000005

Sound Tests

Mechanical Meter

Click Meter

This test makes the hard meter adjust by one to make sure it is functioning properly.

Back

This will take you back to the System Tests menu.



Hardware Tests

Hardware/Software

This area has options to view your system and USB info.

Check Hard Drive

This test checks the integrity of your hard drive's data. *Note: This test can take several minutes.*

Check Cooling

This test helps you make sure your game is functioning at the proper temperature and all fans are working.

Check Card Reader

Card functionality is not available for this version of Silver Strike Bowling.

Back

This will take you back to the System Tests menu.

Hardware/Software

System Info

This is a list of your game's current basic system info.

USB Info

This is a list of your game's current USB devices.

Version Info

This is a list of your game's software version.

Back

This will take you back to the Hardware Tests menu.





System Info

This is a list of your game's current basic system info.

Back

The Back button takes you back to the previous menu.



USB Info

This is a list of your game's current USB devices.

Back

The Back button takes you back to the previous menu.



Version Info

This is a list of your game's software version.

Back

The Back button takes you back to the previous menu.



Check Hard Drive

Begin Test

This will initiate the test to check the integrity of your hard drive's data. *Note: This can take several minutes.*

If this test succeeds you will see the message: **Status:** Hard Drive Functioning Properly. If this test fails, you will see the message: Hard Drive Error (#)

- Please call IT Technical Support if you receive a failure message.

Back

This will take you back to the Hardware Tests menu.



Check Cooling

This checks that your game is functioning at the proper temperature and all fans are working.

Back

The Back button takes you back to the Hardware Tests menu.



Silver Strike Settings

Player Cost Schedule

This option allows you to adjust the amount of money it costs a player to play various game types.

Game Audits

This area allows you to view your money audits, game purchase audits, and reset your collections and audits.

Game Options

This area allows you to adjust options specific to Silver Strike Bowling including Vegas mode.

Game Event Info

This menu contains various player performance totals including spare and strike percentages to help you adjust your game to your local players.

Reset Leaderboards

This option will reset your game's High Game leaderboard and 3 Game Series leaderboard in the attract mode.

Ticket Dispenser

This menu contains various options to set your game's ticket dispenser settings and clear any tickets owed.

Back

This will take you back to the Main Menu.



Player Cost Schedule

3 Frames

This option lets you adjust how much it costs a player to play a three frame game and buy an additional 3 frames after that. **RECOMMENDED:** 3 Frames = $\frac{1}{2}$ cost of Single Play. The default is set to \$0.50.

Single Play

This option lets you adjust how much it costs a player to play a single game. *WARNING:* Single Play should cost less than Series Play. The default is set to \$1.00.

Series Play

This option lets you adjust how much it costs a player to play a series, which is three full games in a row. WARNING: Series Play should cost more than Single Play. The default is set to \$2.50.

Reset Values

This resets all values to their default value located on this page.

Back

This will take you back to the Silver Strike Settings menu.

This will take you back to the Silver Strike Settings menu. to Move ← ⇒ to Change Press Start to Choose Current Value Default Value \$ 0.50 5 0.50 3 Frames Single Play \$ 1.00 5 LOO Series Play \$ 250 \$ 2.50 Reset Values Back (USA) Silver Strike Bowling 1.00.19 Game ID 17-000005

Player Cost Schedule

Value Reset (Player Cost Schedule)

This will reset the cost of 3 Frames, Single Play & Series Play to their default value.

No

This will <u>not</u> perform the reset and take you back to the previous menu.

Yes

This will perform the reset and take you back to the previous menu.



Game Audits

Money Audits

This menu contains various audit totals including the amount of money entered in to the various money slots, money available, and lifetime money counts.

Game Purchase Audits

This menu contains totals including the number of three frame games, Single vs Series games, and Classic vs. Vegas games.

Ticket Dispenser Audits

This menu will allow you to view the total amount of tickets given out and the payout percentage.

Collection & Audits Reset

This will reset all audits in the Game Audits menu to zero except for Lifetime Money Total.

Back

This will take you back to the Silver Strike Settings menu.

This will take you back to the Silver Strike Settings menu. 1 to Move to Change Press Start to Choose Money Audits Game Purchase Audits Ticket Dispenser Audits Collection & Audit Reset Back (USA) Silver Strike Bowling 101.00 Game ID 17-0000005

Money Audits

Collection & Audits Reset

This will reset all audits in the Game Audits menu to zero except for Lifetime Money Total.

Back

This will take you back to the previous menu.



Value Reset (Collections and Audits Reset)

This will reset all audits in the Game Audits menu to zero except for Lifetime Money Total.

No

This will <u>not</u> perform the reset and take you back to the previous menu.

Yes

This will perform the reset and take you back to the previous menu.



Game Purchase Audits

Collection & Audits Reset

This will reset all audits in the Game Audits menu to zero except for Lifetime Money Total.

Back

This will take you back to the Game Audits menu.



Value Reset (Collections and Audits Reset)

This will reset all audits in the Game Audits menu to zero except for Lifetime Money Total.

No

This will <u>not</u> perform the reset and take you back to the previous menu.

Yes

This will perform the reset and take you back to the previous menu.



Ticket Dispenser Audits

Collection & Audits Reset

This will reset all audits in the Game Audits menu to zero except for Lifetime Money Total.

Back

This will take you back to the Game Audits menu.



Value Reset (Collections and Audits Reset)

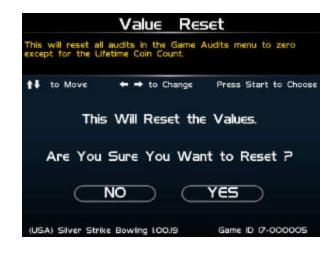
This will reset all audits in the Game Audits menu to zero except for Lifetime Money Total.

No

This will <u>not</u> perform the reset and take you back to the previous menu.

Yes

This will perform the reset and take you back to the previous menu.



Value Reset (Collections and Audits Reset)

--Located off the main Game Audits menu. Same as the above Collections and Audits Reset menus.

Game Options

Vegas Bowling

This option lets you turn the Vegas bowling feature On or Off. **The default is set to On.**

Delay Timeout

Based on this time setting, ranging from OFF to 2 minutes, the player receives a warning to take their turn. **The default is set to 0:25 seconds.** Note: The timeout on the first frame is always 2 minutes.

Ball Timeout

This option lets you choose how many balls, if any, the game will allow the player to miss before exiting them out of the game. Note: This only works if your Delay Timeout is not set to Off. **The default is set to 4 Balls.**

Reset Values

This resets all values to their default value located on this page.

Back

This will take you back to the Silver Strike Settings menu.



Value Reset (Game Options)

This will reset Vegas Bowling, Delay Timeout, & Ball Timeout to their default value.

Nο

This will <u>not</u> perform the reset and take you back to the previous menu.

Yes

This will perform the reset and take you back to the previous menu.



Game Event Info

Reset Game Events

This will reset all values shown on this page to zero.

Back

This will take you back to the Silver Strike Settings menu.



Value Reset (Game Event Info)

This will reset Game Event Info values to zero.

No

This will <u>not</u> perform the reset and take you back to the previous menu.

Yes

This will perform the reset and take you back to the previous menu.



Value Reset (Reset Leaderboards)

This will clear the High Game leaderboard & 3 Game Series leaderboard.

Nο

This will <u>not</u> perform the reset and take you back to the previous menu.

Yes

This will perform the reset and take you back to the previous menu.



Ticket Dispenser

Dispenser Settings

This menu allows you to adjust whether your ticket dispenser is On/Off, how many tickets are dispensed per completed game, and the monetary value of a ticket.

Ticket Settings

This menu allows you to adjust how many tickets are dispensed for various game options including strikes, spares, and various "hands" in Vegas bowling.

Clear Tickets Owed

This menu will allow you to see how many tickets were not dispensed and owed to players and let you clear them.

Back

This will take you back to the Silver Strike Settings menu.

Ticket Dispenser This will take you back to the Silver Strike Settings menu. 1 to Move to Change Press Start to Choose Dispenser Settings Ticket Settings Clear Tickets Owed Back (USA) Silver Strike Bowling 101.00 Game ID 17-000005

Dispenser Settings

Ticket Dispenser

This option allows you to adjust ticket dispenser functionality to On or Off.

Tickets per Game Completed

This option allows you to adjust how many tickets will be dispensed to the player for completing one game.

Value of One Ticket

This option allows you to adjust the monetary value of one ticket.

Test Dispense One Ticket

This option will have the ticket dispenser send one ticket through for test.

Reset Values

This option will reset all values located on this page to their default values.

Back

This will take you back to the Ticket Dispenser menu.



Value Reset (Dispenser Settings)

This will reset all Dispenser Settings to their default values.

No

This will <u>not</u> perform the reset and take you back to the previous menu.

Yes

This will perform the reset and take you back to the previous menu.



Ticket Settings

Ticket(s) per _ Strike(s)

This adjusts the number of tickets that are dispensed per certain number of strikes by rolling the trackball left or right.

Ticket(s) per _ Spare(s)

This adjusts the number of tickets that are dispensed per certain number of spares by rolling the trackball left or right.

Ticket(s) per Royal Flush

This option lets you adjust how many tickets are dispensed for a Royal Flush in Vegas Bowling.

Ticket(s) per Straight Flush

This option lets you adjust how many tickets are dispensed for a Straight Flush in Vegas Bowling.

Ticket(s) per 4 of a Kind

This option lets you adjust how many tickets are dispensed for a 4 of a Kind in Vegas Bowling.

Ticket(s) per Full House

This option lets you adjust how many tickets are dispensed for a Full House in Vegas Bowling.

Ticket(s) per Flush

This option lets you adjust how many tickets are dispensed for a Flush in Vegas Bowling.

Ticket(s) per Straight

This option lets you adjust how many tickets are dispensed for a Straight in Vegas Bowling.

Ticket(s) per 3 of a Kind

This option lets you adjust how many tickets are dispensed for a 3 of a Kind in Vegas Bowling.

Reset Values

This option will reset all values located on this page to their default values.

Back

This will take you back to the Ticket Dispenser menu.



Value Reset (Ticket Settings)

This will reset all Ticket Settings to their default values.

No

This will <u>not</u> perform the reset and take you back to the previous menu.

Yes

This will perform the reset and take you back to the previous menu.



Clear Tickets Owed

Clear Tickets

This will reset the number of tickets owed to players to zero.

Back

This will take you back to the Ticket Dispenser menu.



Value Reset (Clear Tickets Owed)

This will clear the tickets owed.

No

This will <u>not</u> perform the reset and take you back to the previous menu.

Yes

This will perform the reset and take you back to the previous menu.



Silver Strike Bowling Troubleshooting And Reference

APPENDIX A

Troubleshooting Index

Video Problems Symptom	Probable Cause	Solution
No picture	I/O Board Dip Switch settings are wrong.	Adjust Dip Switch settings to match the resolution of the monitor you are using. Refer to Dip Switch Settings on page 15.
	Incorrect video connection configuration.	Be sure the video connections are correct according to the type of monitor you are using. Refer to cable connection diagram - page 45.
	Monitor does not have a proper A.C. voltage input.	Verify A.C. power to the Nighthawk Chassis. Verify monitor is working on a known good system.
	Monitor is defective.	Repair or replace.
	Defective I/O board. Applies only to systems utilizing video scaling on the I/O board. For Low and Medium Resolution monitors.	Repair or replace.
	Check for Flash Code 1 on lighted diode D102 of the I/O board.	Plug in the USB connection to the I/O board to the USB. Video should appear if scaling is used.
	Nighthawk Chassis is defective	Go to Nighthawk Chassis troubleshooting section.
No picture but game sounds are heard	Incorrect video connection configuration.	Verify video is connected to the system correctly. Refer to cable connection diagram - page 45.
	Since you hear game sounds the system is working.	Review no picture troubleshooting section above.
Scrambled Picture	I/O board Dip Switch settings are set wrong.	Adjust Dip Switch settings to match the resolution of the monitor you are using. Refer to Dip Switch Settings on page 15.
	Misadjusted monitor. Analog monitor mid. and low resolution. Most digital monitors sync automatically.	Adjust the horizontal and vertical sync on the monitor. Refer to the monitor manual.
	Incorrect video connection configuration.	Be sure the video connections are correct according to the type of monitor you are using. Refer to cable connection diagram - page 45.
Entire picture is not seen on the screen or it does not fill the entire screen	Misadjusted monitor.	Adjust the monitor width and height. Use video screen adjustment in system tests. Refer to the monitor manual.
Missing or washed out colors	Bad Video connections	Verify continuity from the monitor to the video out on the I/O board. Red, Green, Blue video signal. <i>Mid. and Low resolution monitors only.</i>
	Contrast and brightness on the monitor needs to be adjusted.	Refer to the monitor manual to make adjustments.
	Defective Monitor.	Verify by connecting a known good monitor to the system.

Symptom	Probable Cause	Solution
No Sound	Audio Cable between the I/O board	Verify audio cables are connected.
	and the Nighthawk Chassis are not	See diagram on page 45.
	connected.	
	Speakers are not connected	Verify continuity from the I/O board
	properly.	speaker output pins to the speakers
		Refer to pin out diagram - page 43.
	Volume is set to the lowest level.	Adjust the volume to an audible level.
	Attract mode sounds may be set to	Choose one of the 5 Attract Mode
	all off. You will have sounds when	sound options in Sound
	playing the game.	Adjustments.
	Defective Nighthawk Chassis.	Be certain all other possibilities are
		explored before replacing the
		Nighthawk Chassis.
Distorted or scratchy game sounds	Bad speaker.	Replace blown speaker.
Dictoriou or coratory game counted	Loose speaker or grill cover is	Verify all components are installed
	causing vibration.	properly and securely.
	Loose/defective audio cables from	Check the audio cable connections
	the Nighthawk Chassis to the I/O	Replace cable.
	board.	replace casio.
	Defective I/O board.	Verify on a known working system.
	Delective I/O board.	Replace if necessary.
0	1	replace ii ficocoodiy.
Control Problems		
Symptom	Probable Cause	Solution
Button does not work.	Switches Common post is not	Verify continuity to digital/power
	connected to digital ground.	supply ground.
	Signal wire is not connected to the	Verify continuity from the I/O board
	Normally Open post of the switch.	to the Normally Open post of the
		switch.
5	Switch is defective.	Replace defective switch.
Button always indicates closed in	Signal wire is connected to the	Connect signal wire to the Normally
the player control test. Pressing it	Normally Closed post of the switch.	Open post of the switch.
will show it is not depressed.		
Button always indicates closed in	Defective I/O board.	Test on a known good system.
player control test even with the		Replace if necessary.
switch disconnected entirely.		
Trackball is not functioning in any	Trackball is not connected to the	Verify the trackball is connected to
direction.	I/O board properly.	J208 labeled trackball on the I/O
		board.
	Defective trackball Interconnect	Verify continuity on the trackball
	cable.	Interconnect cable.
	Trackball is defective.	Replace trackball.
	I/O board is defective	Replace I/O board. Try it on a
		known good system.
Trackball does not work in a	Trackball cable is defective.	Verify continuity on the trackball
certain direction.		cable. Repair or replace if needed.
	Trackball is defective.	Repair or replace the trackball. Try
		on a known working system.
	I/O board is defective.	Repair or replace the I/O board. Try
		it on a known working system.
Trackball works intermittently.	Inside of the trackball is dirty.	Clean the inside of the trackball.
•	Rollers are worn.	Replace the rollers and bearings.
	Trackball is over-tightened.	Do not over-tighten the trackball.
		Tighten just enough to flatten the
		lock washers.

Symptom	ms Probable Cause	Solution
No video and no green lights on	No A.C. power to the Nighthawk	Verify A.C. voltage is connected to
the I/O board. Fans are not heard	Chassis.	the Nighthawk Chassis.
on the Nighthawk Chassis.	Power switch on the Nighthawk	Flip the Nighthawk Chassis power
	Chassis is off.	switch to on.
	Main cabinet power switch is off.	Be certain the main cabinet switch is
	-	set to on.
	Defective Nighthawk Chassis.	Be certain all other possibilities are
		explored before replacing the
N	50	Nighthawk Chassis.
No video and no green lights on	DC power cord not connected from	Connect the DC power cord from the
the I/O board. Fans are heard on	Nighthawk Chassis to I/O board. Defective I/O board.	Nighthawk Chassis to the I/O board.
the Nighthawk Chassis.	Defective I/O board.	Try it on a known good system. Verify by disconnecting all cables
		from the I/O board except the DC
		power and USB cable to the
		Nighthawk Chassis. No green lights
		replace the I/O board.
Error Messages		·
Symptom	Probable Cause	Solution
Most on screen error messages	Multiple	Follow the onscreen instructions.
explain themselves.		Many times turning the game off for
•		ten seconds and then turning it back
		on will solve the error.
Flash code 6 on I/O board Diode	CID is not connected or is	Check the USB cable connection.
D102	defective	Swap with a known good cable. Call
		I.T. Service for further assistance.
Please turn game off, then connect	CID is not connected	Connect CID to the Nighthawk
Cabinet Identification Device (CID)		Chassis via USB cable.
then turn game back on.	CID cable is defective	Try or swap with a known good USE cable.
	If LED is not flashing - Call I.T.	I.T. service will instruct you what to
	Service	do.
Flash code 1 on I/O board diode	This indicates to USB connection	Connect USB Cable.
D102	fail from Chassis to I/O board.	
Please turn game off, Then	USB cable is not connected	Connect the USB cable.
connect USB I/O board and then	USB cable is Defective	Try with a known good USB cable.
turn game back on.	I/O board has no power	Verify power to the I/O board.
	connection.	
	I/O board is defective	Swap with a known good I/O board.
		Possibly bad. Cal I.T. service.
Miscellaneous Problems		
Symptom	Probable Cause	Solution
Unable to exit Operator Menus.	Dipswitch SW202 position 4 is in	Set position 4 of SW202 to off.
	the on position.	Press start to exit.
	Test switch wired from the I/O	Verify satellite test switch is not
NI (III (III (III (III (III (III (III (board is closed.	closed.
No fluorescent light	No 120 volts A.C. power going to	Verify A.C. voltage to the light
	the light fixture.	fixture.
	Defective starter	Replace fluorescent light.
	Defective starter Defective ballast.	Replace the starter. Replace the ballast.
Coin Motor is not working	Defective Coin Meter	Replace the ballast. Replace with a known good one.
Coin Meter is not working	Not wired properly	Connect one lead to +5 or +12 volts
	Not when properly	depending on device. The other lead
		to count 1 on the JAMMA connector

JAMMA, Trackball, and I/O Power Connection

JAMMA Harness Connection

SOLDER SIDE			
WIRE COLOR	FUNCTION		
Black	*	Α	
Black	*	В	
Red	*	С	
Red	*	D	
		E	
Orange	*	F	
KEY		Н	
	Count 2	J	
		K	
Yellow - Green	Left Speaker (-)	L	
White-Green	Right Speaker (-)	М	
Green-Black	Video Green	Ν	
White	Video Sync	Р	
		R	
		S	
Green-Blue	Coin 2	Т	
		U	
		V	
		W	
		Х	
		Υ	
		Z	
		Α	
Orange-Yellow	Volume Down	В	
		С	
		D	
Black	GND	E	
Black	GND	F	

	PARTS SIDE		
	FUNCTION	WIRE COLOR	
1	*	Black	
2	*	Black	
3	*	Red	
4	*	Red	
5			
6	*	Orange	
7	KEY		
8	Coin Counter	Red-Green	
9			
10	Left Speaker (+)	Yellow - Red	
11	Right Speaker (+)	White-Red	
12	Video Red	Red-Black	
13	Video Blue	Blue-Black	
14	Video GND	White-Black	
15	Test	Blue	
16	Coin1	Red-Blue	
17	Start 1	Red-White	
18			
19			
20	Player 1 – Ball Weight	Purple-White	
21	Player 1 – Overhead	Violet-White	
22	Player 1 – Left	Brown-White	
23	Player 1 – Right	Yellow - White	
24	Volume Up	Orange-White	
25	Coin 3 (Bill)	Gray-White	
26			
27	GND	Black	
28	GND	Black	

*NOTE: Power is NOT routed through the JAMMA connector.

Trackball Harness Connection

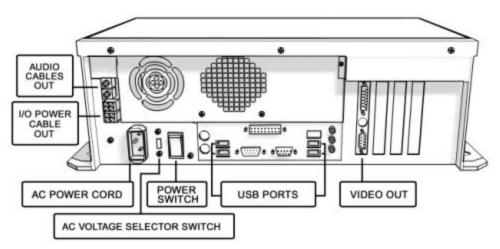
I/O Board Connector	Trackball Connector
PIN WIRE #6 - Black	PIN WIRE #1 – Black
PIN WIRE #1 - Red	PIN WIRE #2 – Red
PIN WIRE #2 - Yellow	PIN WIRE #3 – Yellow
PIN WIRE #3 - Green	PIN WIRE #4 - Green
PIN WIRE #5 - Blue	PIN WIRE #5 – Blue
PIN WIRE #4 - Purple	PIN WIRE #6 – Purple

I/O Power Cable Pin Out Diagram

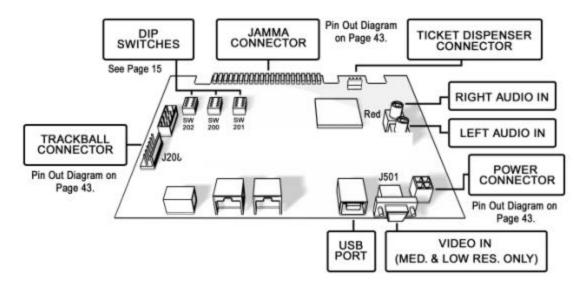
Pin Number	Wire Color	Function
1	Yellow	+ 12 Volts DC
2	Black	Ground
3	Red	+ 5 Volts DC
4	Black	Ground

Nighthawk Chassis and I/O Board Diagrams

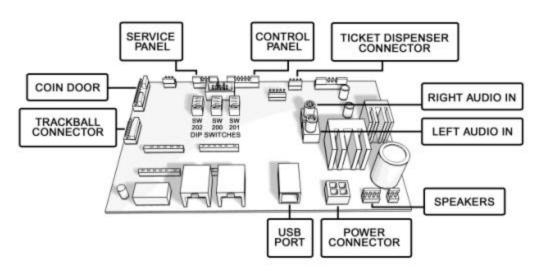
Nighthawk Chassis Diagram



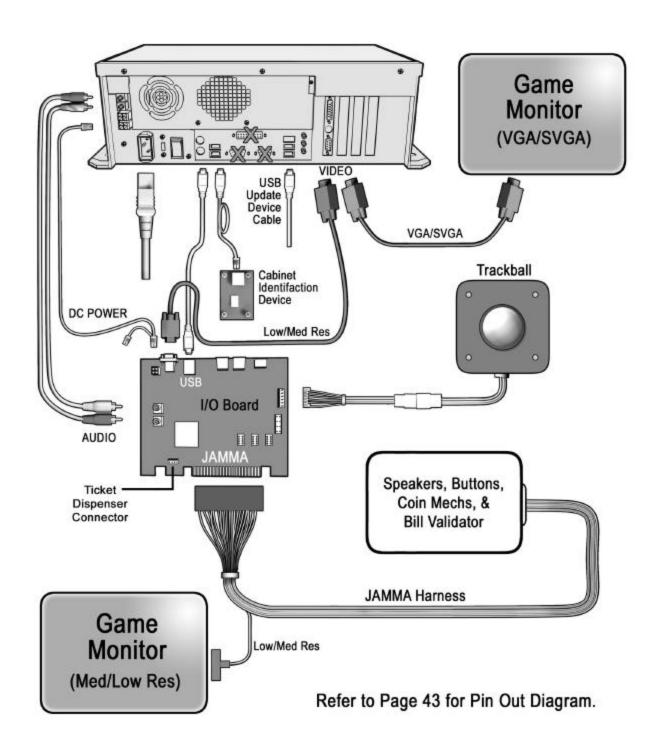
Kit I/O Board Diagram



Dedicated I/O Board Diagram

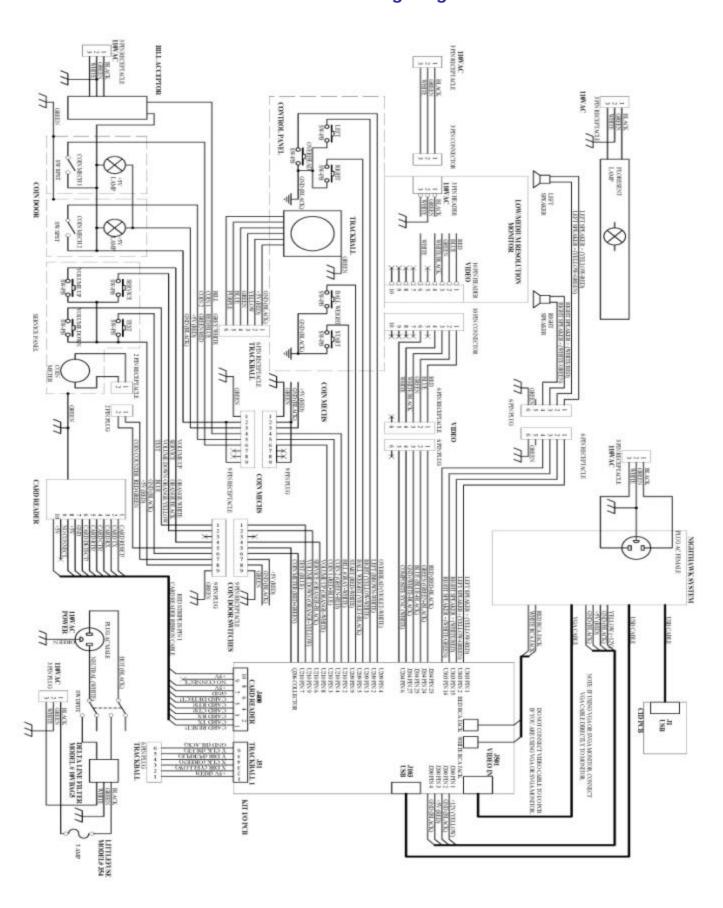


Detailed Cable Connection Diagram



All other marks are the properties of their respective owners. All rights reserved.

SSB Cabinet Wiring Diagram



APPENDIX C

Game Icon Descriptions

Cooling Icon

The cooling icon (pictured right) will appear in the game's attract mode to warn you that a fan is not operating at minimum recommended standards. If the fans do not perate at suggested levels it may cause your game to overheat and fail. Call Incredible Technologies Technical Support at 847-870-7027 x121 for assistance.

NOTE: Opening the Nighthawk Chassis system will void your warranty!



Tickets Owed Icon

The tickets owed icon (pictured right) will appear in the game's attract mode to warn you that the ticket dispenser is not dispensing tickets. It then tells you how many tickets are owed to players.



Trackball and Button Templates

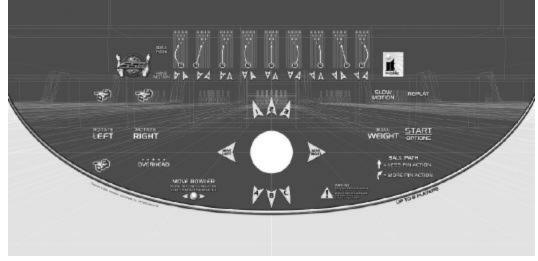
Trackball Template and Orientation Diagram

Included in this appendix are two templates for you to use when preparing your control panel for trackball installation into the control panel. The first is an installation template you can copy and use right on your control panel to make the necessary routing and holes required to install the trackball plate. Included on this "actual size" template are instructions for use of the template. The second is a diagram that shows the proper orientation when installing the trackball to the trackball plate. The orientation of the trackball is very important for correct wiring and game play. These templates can be found on page 49 and 51.

Button Template and Orientation

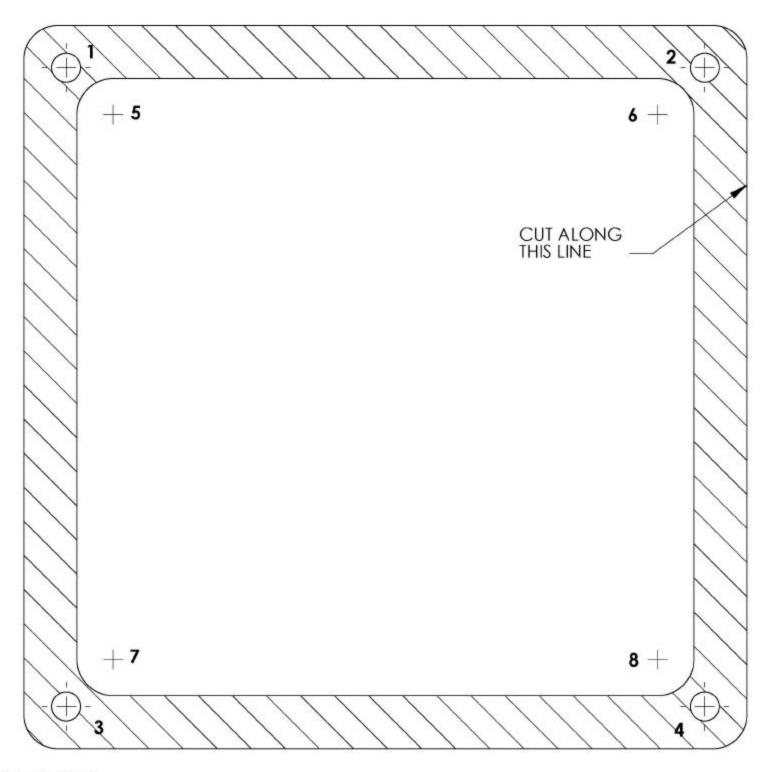
Included in this appendix are two templates you can use to help space and orient the two sets of buttons on your control panel. This will allow you to properly drill the holes for the buttons into your control panel and keep them spaced at proper distances from the trackball. These templates can be found on page 53.

For guidance on the layout please refer to the diagram below:



TRACKBALL MOUNTING TEMPLATE

TOOLS REQUIRED: DRILL, 9/32" OR 5/16" & 3/4" DRILL BITS, SABRE SAW, SCISSORS, & ROUTER



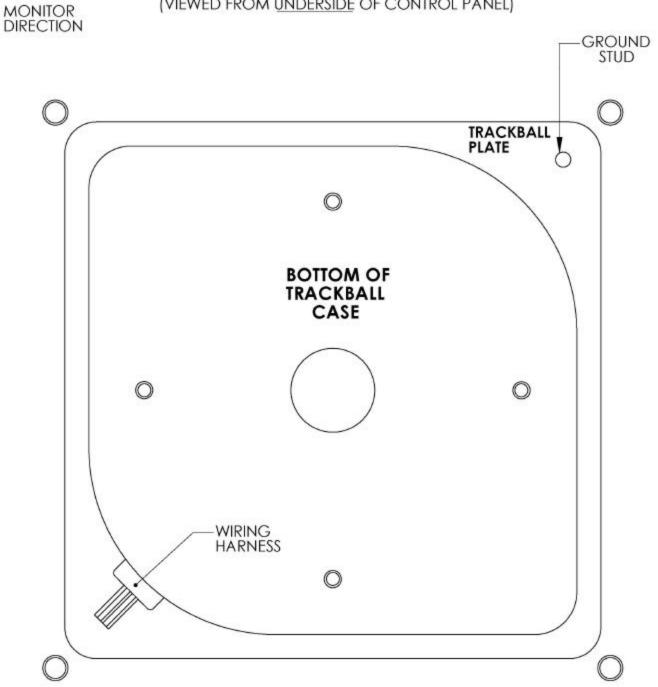
INSTRUCTIONS:

- 1) CUT THE TEMPLATE OUT WITH A PAIR OF SCISSORS ALONG THE NOTED LINE. TAPE THIS TEMPLATE TO THE TOP OF THE CONTROL PANEL AS FAR AWAY FROM THE MONITOR AS POSSIBLE, MAKING SURE THAT THE TRACKBALL WILL CLEAR THE CABINET BENEATH IT.
- 2) USING A SHARP OBJECT, MARK THE (8) POINTS SHOWN HERE ON THE CONTROL PANEL. USING A PENCIL, TRACE THE OUTSIDE OF THE TEMPLATE. REMOVE THE TEMPLATE.
- DRILL HOLES 1-4 WITH THE 9/32" OR 5/16" DRILL BIT.
 DRILL HOLES 5-8 WITH THE 3/4" DRILL BIT.
- 5) ROUTE THE CROSSHATCHED REGION TO A DEPTH OF ABOUT .075" (ABOUT THE THICKNESS OF A NICKEL).



TRACKBALL ORIENTATION DIAGRAM

(VIEWED FROM UNDERSIDE OF CONTROL PANEL)

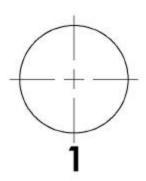


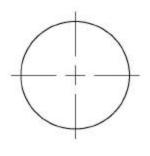
INSTALLATION NOTES:

1) THE WIRING HARNESS SHOULD POINT AWAY FROM THE MONITOR AND TO THE LEFT.
2) GROUND PIN SHOULD BE TOWARD THE MONITOR AND ON THE RIGHT SIDE.

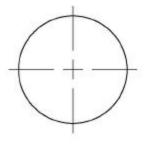
RIGHT BUTTON DRILL TEMPLATE

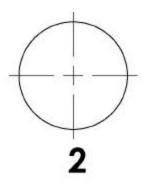
THE CENTER OF BUTTON #1 SHOULD BE LOCATED 2.75" ABOVE, AND 8" TO THE RIGHT OF THE CENTER OF THE TRACKBALL



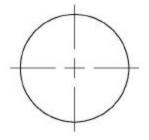


LEFT BUTTON DRILL TEMPLATE





THE CENTER OF BUTTON #2 SHOULD BE LOCATED 2.75" ABOVE, AND 9" TO THE LEFT OF THE CENTER OF THE TRACKBALL.



Replacement Part Numbers

Please refer to these IT part numbers when placing orders.

Silver Strike Bowling Dedicated (Part # 925000265D) and Silver Strike Bowling Kit (Part# 925000265):

Quantity	Part Description	Part Number	Dedicated/Kit
1	Silver Strike Bowling Cabinet	960000265	Dedicated Only
1	Nighthawk Chassis (System Box)	900000265	Both
1	Silver Strike Bowling Marquee	820000265	Both
1	Silver Strike Bowling Set of Side Decals	830000265	Both
1	Silver Strike Bowling Control Panel Background	825100265	Kit Only
1	IT Logo Card	840000000	Dedicated Only
1	Screened Control Panel	845000265	Dedicated Only
1	Adhesive Square (For Control Panel)	840000845	Dedicated Only
1	3" White Trackball Assembly	880000030	Both
1	Trackball Plate for Trackball Assembly	885000030	Both
1	Cabinet Identification Device (C.I.D.) Assembly	900174001	Both
1	Kit I/O Board Assembly	90000017	Kit Only
1	Dedicated I/O Board Assembly	900900017	Dedicated Only
1	I/O Board Power Cable	915000275	Both
1	6 Ft. Audio Cable	915000285	Both
1	6 Ft. Male/Male SVGA Cable	915000315	Kit Only
1	3 Ft. Male/Male SVGA Cable	915000085	Dedicated Only
3	6 Ft. USB Cables	915000310	Both
1	AC Power Cord	915000745	Both
1	Bag of Parts for Assembly	900265030	Kit Only
1	Silver Strike Bowling Manual	815000265	Both
1	Quick Install Guide	840000265	Kit Only
1	Monitor Safety Glass	999000150	Dedicated Only
1	Monitor Bezel	999000027	Dedicated Only
1	Security Bar Kit	795000187	Dedicated Only
1	Blue Side Wing - Left	999000045L	Dedicated Only
1	Blue Side Wing - Right	999000045R	Dedicated Only
1	Plexiglas® For IT Logo Card	C301-512-000	Dedicated Only
1	Speaker Grille	C301-025-OPA	Dedicated Only
2	Speakers	A056-015-000	Dedicated Only
2	Monitor Mounting Bracket	C301-100-1PA	Dedicated Only
4	Leg Leveler Plate	999000110	Dedicated Only
4	Leg Leveler With Stop Nut	999000120	Dedicated Only
1	Scruff Strip For Cabinet	C301-511-000	Dedicated Only
1	Bracket, Shelf Trim With Foam For Cabinet	999000090	Dedicated Only
2	Marquee Retainer	999000040	Dedicated Only
1	Control Panel Cable	C304-060-000	Dedicated Only
1	Coin Door Cable	C304-061-000	Dedicated Only
1	Speaker Cable	C304-062-000	Dedicated Only
1	Speaker Panel Cable (Stereo)	C304-063-000	Dedicated Only

For the following parts please call the vendor listed:

Quantity	Part Description	Part Number	Vendor
1	Mars DBA (1/5 w/500 bill stacker)	AE2451-D-5E	MARS
1	Door Assembly	40-0038-39	HAPP
1	NeoTec Monitor	NT-500DXB7P	NeoTec
1	NeoTec Chassis Board Assembly	B700DX002	NeoTec
1	Wells Monitor	WGM2792-UOTS09B	Wells
1	Wells Chassis Board Assembly	SO7B2792-S09B	Wells
1	Fluorescent Fixture (Includes Ballast And Starter)	ST115X40	HAPP
1	Bulb	F15T8CW	HAPP

Contact Information

IT Sales and Service

To purchase additional Silver Strike Bowling games or any of IT's other fine products please visit IT's website at www.itsgames.com and click on PRODUCTS!

General Numbers

Technical Support, Warranty, & Repair: Parts, Customer Service, & Operator Services:

Incredible Technologies, Inc.
847-870-7027 x 121

Incredible Technologies, Inc.
847-870-7027 x 118

IT Mailing Address:

Incredible Technologies, Inc. 3333 North Kennicott Avenue Arlington Heights, IL 60004-0129

IT Fax Number

847-870-0120

IT Vendor Information

Wells-Gardner: Mars Technical Service:

Phone: 800-336-6630 Phone: 800-345-8172

Fax: 773-252-8299

NeoTec Happ Controls:

Phone: 909-626-9889 Phone: 800-BUY-HAPP Fax: 909-626-0990 (800-289 -4277)

In our replacement part numbers section is a list of parts you can get from these vendors including the vendor's part numbers.



Incredible Technologies, Inc.

3333 N. Kennicott Ave. Arlington Heights, IL 60004 Phone (847) 870-7027 Fax (847) 870-0120 www.itsgames.com