

# PSL Series Stepper Driven Computerized Slot Machine

Owner's Operation Manual

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# **Chapter 1**

## **Overview And Installation**

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## 1.0 INTRODUCTION

The Takasago PSL Series Computerized Slot Machine is a quality gaming device that combines state-of-the-art engineering, rugged hardware components, aesthetic design, and extensive customization features. The result is slot machine with high player appeal that fits the individual requirements of your establishment. The overall design of the Takasago PSL Series Computerized Slot Machine incorporates the suggestions of slot managers and casino owners the world over; it is simple to program, requires little maintenance, and can be configured inexpensively to fulfill your changing needs.

The following is a list of the features incorporated in the Takasago PSL Series Computerized Slot Machine.

- Z-80 microprocessor control of all game and electronic functions.
- Individual reel control by computer grade stepper motors.
- Infrared and magnetic system and switch sensors.
- Mechanical components kept to a minimum for reliability and reduced machine maintenance.
- Optional front button array for credit configured machines.
- Modular design of reel assembly, hopper, power supply and PC boards for quick removal/replacement and inexpensive upgrades.
- Firmware and electronic design suited for stand-alone or linked progressive configuration.
- Cabinet design available in "Low Boy", "High Boy", or "Chop Top" models.
- Extensive DIP Switch options, including...
  - Max-pay/Partial-pay selection.
  - Dedicated credit play configuration.
  - Eight separate Progressive Jackpot signals.
  - Player-select credit or cash play.
  - Auto reel spin on maximum bet or manual reel spin.
- Programmable coin limits for Max-pay, Partial-pay, and Jackpot anywhere from 0 to 9999.
- Denomination changes contingent only on hopper type, DIP switch, and front door glass.
- Interfaces with Bally's®S.D.S.™ or other popular on-line data collection systems.
- Conversion from 3-reel to 4-reel (or vice versa) as easy as installation of reel assembly, appropriate glass, and controlling EPROM firmware.
- Eye-catching, alpha-numeric Dot Matrix display panel scrolls customized messages programmable up to 250 characters.

- All programming, test, and error messages clearly shown on Dot Matrix panel. In addition, "universal" numeric error indicator is shown on WINNER PAID LED display.
- Rugged exterior hardware of gleaming, easy-to-clean chrome. Cabinet formica in teak or walnut resists stains, marring, and scratches.
- Colorful display and front door glass is clearly legible, showing complete pay table and game play directions.
- Player updated on amount won, amount wagered last game, amount wagered present game, and credit remaining on separate red and green LED panels.
- Pleasant yet unobtrusive electronic tones when coin wagers accepted, buttons pressed, reels spinning, win registered, and win collection from hopper.

These exclusive features are the product of Takasago's experience in the gaming field and our commitment to excellence. The Takasago PSL Series Computerized Slot Machine will give you years of profitable service at a minimum cost, a winning combination backed by integrity and quality workmanship.

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## 1.1 INSTALLATION

Proper operation of the Takasago PSL Series Computerized Slot Machine (hereafter referred to as the PSL Slot Machine) is contingent on correct installation. The following section outlines proper installation. Check-boxes are provided to insure that the procedures are done in the correct sequence and that no installation steps are skipped.

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### 1.1.1 SITE SELECTION

**NOTE:** The small boxes provided are for your use as check-off indicators as you complete each step.

1. The PSL Slot Machine is exclusively an indoors gaming device; under no circumstances should the machine ever be placed outdoors.

2. Do not choose an installation site exposed to direct sunlight, high/low temperature extremes, excessive humidity, heavy atmospheric and surface dust or strong background vibration. The temperature range for the PSL Slot Machine is from 50o F to 95o F.

3. Do not choose an installation site where the PSL Slot Machine will be forced to share electrical outlets with heavy load devices such as refrigeration or air conditioning units. The voltage/current draw of these devices upon startup can cause the PSL Slot Machine to enter a low-voltage power cycle as if an electrical "brown out" has occurred. Ideally, your PSL Slot Machine should use a dedicated voltage outlet with surge protection, though these precautions are not mandatory.
4. Do not choose an installation site that in any way blocks emergency exits or fire fighting equipment (i.e., fire hose cabinet, fire extinguisher, etc.) This is not only unsafe to your patrons but in violation of most local, state, and federal regulations.
5. Choose an installation site that is capable of supporting the PSL Slot Machine's weight and that is level. A fairly level location assures proper coin handling by the hopper and smooth routing of coins through the coin acceptor mechanisms.

### 1.1.2 CABINET PREPARATION

If you are installing the PSL Slot Machine in a casino floor situation, you will more than likely be using a support cabinet. The support cabinet serves three purposes: (1) it provides a flat, level surface upon which the machine can operate; (2) it brings the vertical height of the machine into the area of player comfort (i.e., handle placement and ease of viewing reels, etc.); (3) it provides an area for the coin drop to which coins are diverted when the hopper reaches maximum capacity.

Takasago manufactured support cabinets are available from your distributor that are configured for the PSL Slot Machine with the drop, power cord, and bolt holes already drilled. If you are using a Takasago cabinet, skip to paragraph 1.1.3 and continue with the installation steps there. If, however, you are using another manufacturer's support cabinet, preparation is necessary in order to accommodate the PSL Slot Machine. Use the steps below to modify the support cabinet you plan to use.

1. You will need the following tools and material:
  - Electric drill motor.
  - 7/16 drill bit.
  - Drill-mounted hole cutters, 3" o.d. (8 cm.) and 2"

- o.d. (5 cm.) in size.
- Punch or sharp object to mark drilling spots on cabinet.
- Hammer.
- Five or six inch length of 3" (8 cm.) o.d. P.V.C. tubing to serve as a coin drop chute.
- Small nails or wood tacks to secure drop chute to matching drop hole in cabinet.
- Eye protection (i.e., goggles).
- Cabinet template provided in this manual.

All preparation should be done in the shop prior to placing the cabinet at the installation site for joining with the PSL Slot Machine.

2. Remove the supplied template from the manual and orient it as instructed on top of the cabinet to be modified. Tape the corners to secure the template so as to avoid moving it while marking holes.

3. With the hammer and punch, mark the centers of the bolt holes, power cord hole, and drop hole where you will be drilling as indicated by the template.

4. Remove the template from the cabinet.

5. Attach the 7/16 drill bit to your electric drill motor and drill the securing bolt holes in the cabinet first. Take care while drilling that the bit angle is perpendicular to the cabinet surface so that the resulting bolt holes are straight.

6. Attach the larger of the two hole-cutters to your drill. Cut the drop hole into the cabinet where marked. Again, make sure the hole is straight and not angled.

7. Take the length of P.V.C. tubing and slip it into the hole you just cut. Slide it down until the top lip of the tube is just below the surface of the cabinet (about a 1/16 of an inch). The tube should be snug within the hole.

Secure the tube with your nails into the wood of the cabinet, placing the nails about 1/4 inch from the top of the tube on the inside. (If the hammer is too big effectively use on the inside of the tube, try pounding the nails in with some other dense metal tool, such as a ratchet extender.)

8. Attach the smaller of the two hole-cutters to your drill. Cut the power supply cord hole into the cabinet where marked.

9. Open the front door of the cabinet and clean out the sawdust resulting from your carpentry.

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### 1.1.3 ELECTRICAL CONSIDERATIONS

1. Your PSL Slot Machine was shipped from the factory with an operating voltage matching the power supply at your establishment. Check the power outlet you plan to use to make sure it does, in fact, match the voltage/current requirements of the machine.
2. Never connect the unit to a electrical outlet that is not grounded to earth ground. Doing so could increase the possibility of injury due to electrical shock and cause operational problems within the machine.
3. Your power outlet should be within a reasonably short distance from the PSL Slot Machine. Also, the outlet should be situated in such a way that the power cord cannot be tripped over or accidentally unplugged by patrons. It is advised to have a power outlet that is totally out of view and inaccessible to all but service personnel.
4. Takasago manufactured support/drop cabinets are pre-drilled to accommodate routing of the power supply cord through the back or sides. If you are using another manufacturer's support/drop cabinet, you may have to use a drill-mounted hole cutter to cut a hole for the power cord to best suit the orientation of the PSL Slot Machine in relation to your chosen power supply outlet. Do this modification prior to machine placement if necessary.

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### 1.1.4 MACHINE PLACEMENT AND CONNECTION INSPECTION

Once the requirements in paragraphs 1.1.1 through 1.1.3 have been met, you can place the PSL Slot Machine at its installation site.

1. Transport the support/drop cabinet and the PSL Slot Machine to the installation site. Place the support/drop cabinet first, oriented in the exact configuration you want for the PSL Slot Machine. Make sure the cabinet door is to the front.

**NOTE:** If multiple machines and cabinets are being installed, bolt the cabinets together prior to placing the PSL Slot Machines on top of them. This assures a solid, level base for the machines.

- 2. Lift the PSL Slot Machine onto the cabinet, lining up the base of the machine to the holes in the top of the cabinet for the power cord, drop chute, and bolts.  

**NOTE:** To decrease the weight of the PSL Slot Machine and facilitate lifting, remove the hopper and coin tray. Open the game front door and lift the coin tray out. Unplug the connector to the hopper (at the front of the unit), slide the hopper out and place it aside. Close and lock the front game door and lift the PSL Slot Machine on to its cabinet.
- 3. Having aligned the PSL Slot Machine to holes in the cabinet, open the game front door and insert the 7/16~3" securing bolts into the appropriate holes. Open the cabinet front door and secure the washers and nuts to the bolts with a box end wrench.
- 4. If you have not already done so, remove the hopper and coin tray from the PSL Slot Machine. The PSL Slot Machine is shipped with the power cord exiting the rear of the machine, held in a horizontal position by a metal brace. If the machine is being installed without a drop cabinet, leave the brace in place so the cord is routed in such a way that the machine itself will not damage the cord. If, however, the PSL Slot Machine is being installed on top of drop cabinet, remove the brace so that the cord can be fed into the opening on top of the drop cabinet. Feed the plug end through the power cord hole into the drop cabinet. Next, feed the cord through the exit hole in the back or side of the drop cabinet and to the chosen power outlet. **DO NOT** plug the PSL Slot Machine's power supply cord in yet.
- 5. Check to determine that ventilation outlets on the upper right-hand side of the cabinet are not blocked.
- 6. If your unit is equipped with an electronic Coin Comparitor, install a sample coin/token as directed on the unit with which the machine will be played.
- 7. Restore the hopper and coin tray to the machine. You should now check all connectors, lamps, and fuses inside the machine to verify that they are secure prior to supplying power and turning the unit on.
- 8. Begin with seating the main PC board (assist tabs located in the PC lock-box just below the control/meter panel). Push with firm pressure towards the

back of the machine.

9. Check all the PC connectors, beginning with the main PC, then the sub-PC (located behind the reel assembly) and the message board PC (top of the game front door). All these connectors have lock tabs that should be in place.
10. Verify all the game indicator lamps in the game front door are secure. These are black plugs arrayed around the door glass in receptacles on the PC boards. Twist in a clockwise direction to verify the lamps are securely seated.
11. Check the button connectors on the game front door. Again, locking tabs should be secure on all the button connectors.
12. Now, begin checking the wire harness connectors inside the PSL Slot Machine. Begin with the four main power/communication connectors on the left-hand side of the control/meter panel. All harness connectors have locking tabs that should be securely snapped in place. Next, check the connectors on top of the reel assembly. Finally, check the connectors located in a support bracket just to the left of the reel assembly.
13. Lastly, check the fuses on the control panel. There are three; a 4 amp, a 5 amp, and a 6 amp. (A fourth, unlabeled fuse receptacle is also present on the panel that is unused.) One at a time, twist the each knob counterclockwise to remove, verify that a fuse is in place and that it is the correct ampere rating. Reinsert the fuse and secure again by twisting the receptacle knob clockwise until it clicks into place.
14. After verifying connectors, lamps, and fuses, make sure the power switch on the control panel is in the OFF position. Plug the PSL Slot Machine's power cord into the power outlet, then move the power switch to the ON position. The PSL Slot Machine should come to "life" with lamps and fans coming on.