Atronic

Great Games Great People

Atronic Cashline™
Slant Top (AST)
Installation Manual

Rev. 2.3

February 2008

Release Info:

Atronic Cashline™ Slant Top
Installation Manual

Rev. 2.3

Rel. February 2008

WARNING!
This manual is intended to provide QUALIFIED TECHNICAL PERSONNEL ONLY with the information necessary to routinely maintain, service, and repair the Atronic Cashline™ Slant Top (AST) cabinet and components. To avoid personal injury or damage to the equipment, do not perform any serviceing other than that contained in this manual.

NOTE!
This installation module includes only information relating to the installation of the slant top cabinet. For other machine or cabinet types please refer to the relevant manuals.

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Introduction
About this Manual

Cashline™ Slant Top (AST) - Installation Manual

ABOUT THIS MANUAL

Scope

This Installation Manual describes how to install an Atronic Cashline™ Slant Top (AST) gaming machine.

It describes relevant procedures to be carried out before the machine can be put into operation. Further it contains important safety instructions, technical data and cabinet drawings.

Target Audience

We address qualified technical personnel, who are involved in installation, setup and configuration of Atronic gaming machines. With this user group we assume that they are basically familiar with gaming machines and casino related terminology.

Please read this document and the contained safety notes carefully **before** you start machine installation.

Included Software Releases

The installation procedures described in this manual do not relate to a certain software version.

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ABOUT THIS MANUAL

Related Publications
More detailed information about Atronic Cashline™ Slant Top (AST) gaming machines may be found in the following publications:

Software Manuals

- Software Manual / O-Level
- Software Manual / O-Level (Multidenom)
- Software Manual / P-Level

Operation Manuals

- Cashline™ Operating Manual / O-Level
- Cashline™ Operating Manual / P-Level

Spare Parts

- Atronic Cashline™ Slant Top / Parts Catalogue

Peripherals
(Coin- and bill acceptors, hopper, printer, etc.)

- See folder "Peripherals" on the Atronic Service Manual CD.

Note: All mentioned manuals can be found on a CD-ROM titled "**Atronic Service Manual 2008**"

If this manual did not came with this CD-ROM, please ask Atronic Technical Service for a free copy of the latest revision.

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SAFETY INSTRUCTIONS

! Follow the safety precautions below to ensure safe operation.
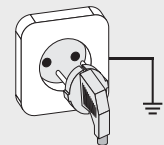
Caution! High Voltage
The power cable must be disconnected from the main power socket, before the machine is free from electrical current. The main power switch is intended for service purposes only.

Caution! Moving Parts
Make sure to disconnect the hopper, when working on it.

Precautions before operating

• The machine weighs about 100kg (220 lb). At least two persons should carry or lift it. Use a cart to transport the machine.

• Check that all connectors are seated correctly. False connections can cause irreparable damage, not covered by warranty.

• Verify voltage specifications stated on type plate, before connecting to a main power socket.
Machine must be connected to a **grounded** main power socket with correct voltage.

• Read the Service Manual carefully before operating the machine.

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SAFETY INSTRUCTIONS

Precautions during Service and Maintenance

- Only qualified service personnel should perform repairs.

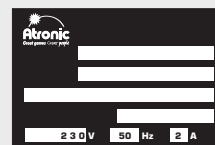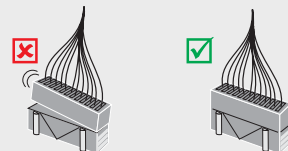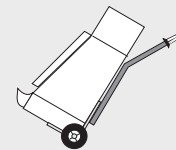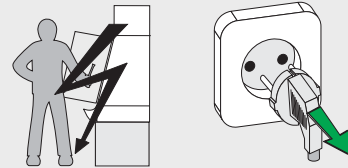- Disconnect from main power socket, before working on the machine. The power cable must be disconnected from the main power socket, before the machine is free from electrical current.

- Electronic assemblies should only be changed with the power switched off.

- Use only original Atronic parts for replacement.

- Atronic Commboard
  Danger of explosion if battery is incorrectly replaced! Check for correct polarity and replace with the same or equivalent type only!

- Please refer to the Atronic Service Manual CD for further instructions on service and maintenance.
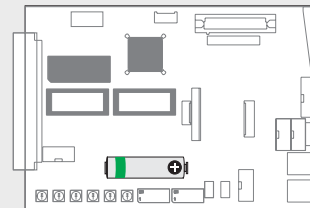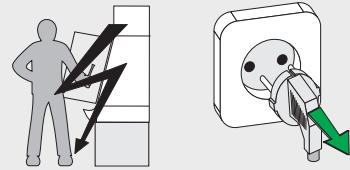
Additional Information

The X-rays, which develop in this machine, are sufficiently shielded through the Cathode-ray tube's own shielding. Max 24-24,5kV, Beam current max 630mA. This corresponds with Paragraph 5 of the German X-ray Orders from 1987.

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MACHINE COMPONENTS

Hardmeters

Audit Key
Jackpot Key

Bill Door Lock

Upper Main Door

Coin Bowl

Coin Validator

Top Box w.
- Toplight
- Top Box Lock

Bill Door

Button Board

Monitor

Bill Door Switch

Bill Validator Unit w.
- Bill Head
- Stacker

Power Switch
Lower Main Door

Main Door Lock

Main Door Switch

Logic Box w.
- Comm Board
- Sound Board
- Graphic Board
- Master Board
- Backplane

Power Supply

Drop Drawer Switch

Hopper Board

Power Board

Drop Drawer

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LOCKS, KEYS AND SWITCHES

- Top Box Lock
- Bill Door Lock
- Jackpot Key
- Audit Key
- Main Door Lock
- Drop Drawer Lock

- Bill Door Switch
- Bill Acceptor Housing Locks
- Power Switch
- Logic Door Switch
- Logic Door Lock
- Main Door Switch
- Service Switch
- Reset Switch
- Drop Drawer Switch

Top Box Lock
Opens the top box.

Bill Door Lock
Unlocking the bill door to remove validator and stacker without unlocking the main door.

Audit Key
This key activates the Audit Menu and illuminates hardmeters. It also clears status and error messages.

Jackpot Key
Jackpot events and hand pay administration are controlled by this key. It also controls remote credit function (if applicable).

Main Door Lock
Unlocks the upper and lower main door.

Drop Drawer Lock
Unlocks the drop drawer.

Stacker Lock (not shown)
Opens the stacker to access bills.

Bill Acceptor Housing Locks
Allows to remove the bill stacker from the validator enclosure.

Main Door Switch
Registers all main door openings.

Power Switch
Switches power supply on/off.

Logic Door Lock and Switch
Unlock the logic door lock to get access to the boards. The (optional) logic door switch detects logiv box openings.

Service Switch (green)
Pressing the service switch activates the Service Menu.

Reset Switch (red)
Used for resetting the machine and clearing the machines memory.

Drop Drawer Switch
Registers all drop drawer openings.

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DIMENSIONS
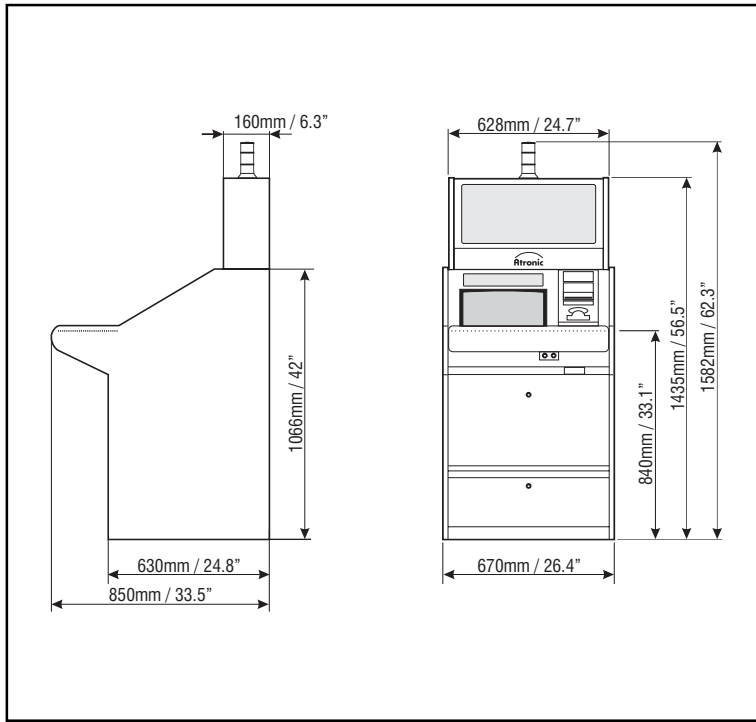
Cabinet "AST Cashline"

Weight: approx 100 Kg / 220 lbs.
Height: 1582 mm / 62.3"
Width: 670 mm / 26.4"
Depth: 850 mm / 33.5"

Cabinet "AST Cashline"
with Topper

Weight: approx 104 Kg / 227 lbs.
Height: 2011 mm / 79.2"
Width: 670 mm / 26.4"
Depth: 850 mm / 33.5"

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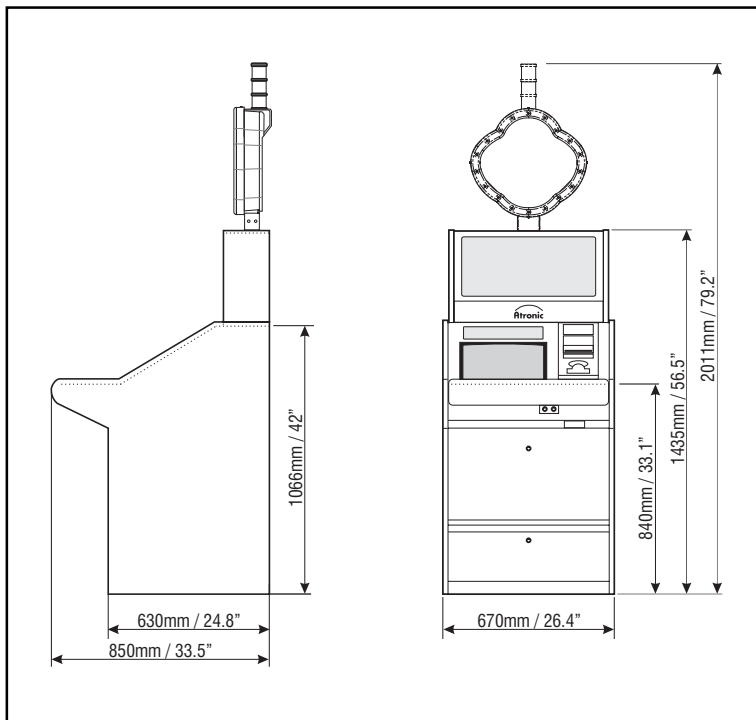## TECHNICAL DATA

Electrical Specifications

Required Voltage:	220V-240V, 2.0A, 50Hz	Primary Voltage
	100V-120V, 4.0A, 60Hz	

Power Consumption
Idle mode:	approx. 185W	
	1.60A / 115V, 0.8A / 230V	
Payout mode:	approx. 200W	
	1.75A / 115V, 0.9A / 230V	

Power Supply
Secondary Voltage:	+ 24V / 4A	Secondary Voltage
	+ 12V / 4A	
	- 12V / 0.3A	
	+ 5V / 10A	

Fuses
Power Supply:	F 5A / 250V	Primary Fuses
Monitor:	T 3A / 250V	
Power Board:	T 2A / 250V	
Backplane F1: + 5V	T 5A / 250V	Secondary Fuses
Backplane F2: + 12V	T 5A / 250V	
Backplane F3: - 12V	T 0.315A / 250V	
Backplane F4: + 24V	T 3.15A / 250V	

Lamps
Fluorescent Lamps:	15W, 17" / 438 mm
	8W, 11" / 285 mm
Button Lamps, small	14V / 1W
Button Lamps, large	14V / 2W

Environmental Specifications
Operating Temperature:	32°F / 0°C - 113°F / 45°C	Suggested Limits
Operating Humidity:	0% to 85%	
Combustible Weight:	< 33 lbs. / 15 Kg	

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MACHINE INSTALLATION - OVERVIEW

This section should only be carried out by **Qualified Technical Service Personnel**.

Review the list below and perform as needed. Explanations are located on the following pages and in additional manuals.

☐ Inspect the machines for transport damage. Any transport damage should be noted and witnessed by the freight forwarder. The manufacturer accepts no responsibility for transport damage.

☐ Check machines for the correct paytable, glasses, hardware configuration and that the software EPROMs are correctly installed on the PCBs.

☐ Install the toplight.

☐ Replace shipping locks with casino specific locks.

☐ Install and connect online/accounting system.

☐ Prepare coin comparator and hopper.

☐ Check that all internal and external connections are seated correctly.

☐ Apply power to the machine.

☐ Load paper into the printer.

☐ Execute basic machine setup (Initial Setup)

☐ Configure game.

☐ Test bill and coin handling.

Note:
Depending on machine configuration and/or jurisdictional requirements, additional tasks may have to be carried out before the machine can be put into operation (e.g. acceptance inspection, logicbox sealing, etc.).

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MACHINE INSTALLATION

Following pages contain a description of machine fitting and commissioning. We recommend to follow all *cross-references* to get the necessary information.

Precautions

⚠️ **Caution! High Voltage**
The power cable must be disconnected from the main power socket, before the machine is free from electrical current. The power switch is intended for service purposes only.

Install Toplight

- Open top box.

- Run the toplight harness through the opening on top.

- Fix the toplight with four screws.

- Connect the toplight Molex connector.

Replace shipping locks

Atronic machines are equipped with shipping locks for easy commisioning. These locks have to be replaced by casino specific locks to provide appropriate security.
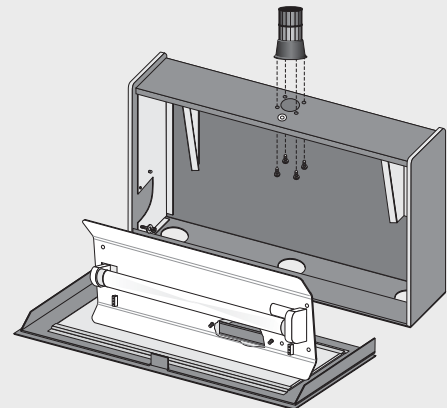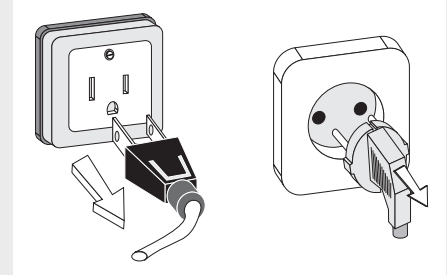
MACHINE INSTALLATION

Prepare Coin Comparitor CC16/MC16

- Slide reference coin holder rightwards, remove the (plastic) transport token and replace it with an appropriate reference coin or casino token.
- Fine tune the coin comparitor (if necessary) later when machine setup is completed.

Quick guide for fine tuning:
- Turn potentiometer fully clockwise (all coins are rejected).
- Then turn potentiometer anti-clockwise until proper coins are accepted and falsified coins are rejected.
- Test acceptance with at least 10 coins and re-adjust, if necessary.

*-> See manuals Peripherals / Coin Acceptors for details.*

Prepare Hopper

The hopper high level switch detects the filling level of the hopper by the weight of the coins. When the switch is activated, further accepted coins are separated to the drop box. The switching threshold can be altered with an adjustment screw.

- Fill the hopper with that amount of coins/tokens at which you want the switch to be activated.
- Adjust the switching threshold with the adjustment screw that operates the high level switch.

-> See manuals Peripherals / Hopper for details.

Proximity Sensor

High Level Switch

Check cable and connectors

Check that all connectors are seated correctly, prior to first power up. False connections can cause irreparable damage, not covered by warranty.

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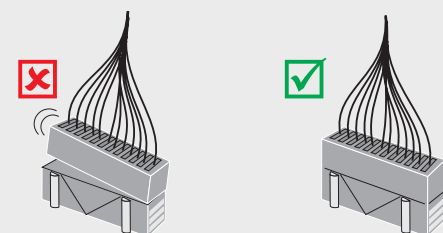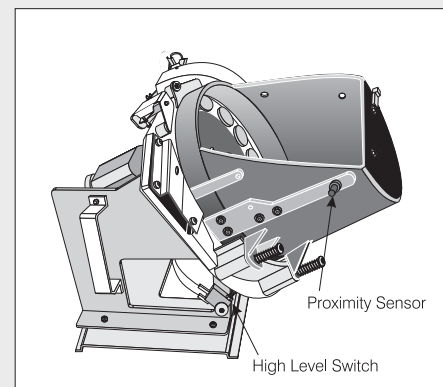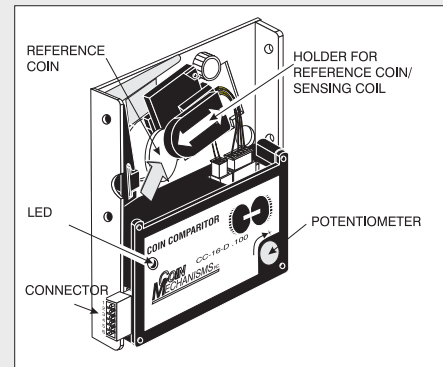
MACHINE INSTALLATION

Check DIP-Switch settings

DIP switch settings are pre-set during production as specified in the order. It might be necessary to change DIP settings to meet all casino requirements. Use the DIP switch tables within manual "Software" to check or alter DIP settings of masterboard and commboard (optional).

-> See manual "Software" for details

Apply power

- Verify voltage specifications stated on type plate, before connecting to a main power socket.

- Connect main cable to a **grounded** main power socket, that is capable to deliver the specified current rating.
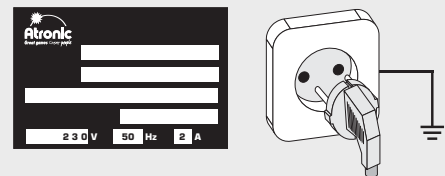
Switch on the machine

- Press the power switch to switch on the machine. The LED's on the masterboard (they indicate correct voltages) should all be lit.
- To operate the machine while main door is open, pull the main door switch to set it to closed position.
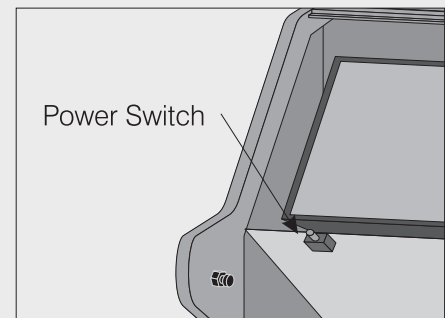
Execute basic machine setup (if needed)

If any changes to the factory pre-set basic machine setup are needed, further procedures are necessary.

- Init Setup (requires RAM-Reset)

- Selectable Paytable Configuration (requires Config Key EPROM)

- PC-Setup (requires external configuration software)

-> See manual "Software" for details

Power Switch

MACHINE INSTALLATION

Configure game

Configure game settings, which are accessible during normal operation. To access the **Service Menu** open the main door and press the Service button at front of the logic box.

Service Menu has following options:

• Set Clock

Service Menu / Menu Setup has following options:

• Toplight
• Hopper Payout Limit
• Change Language.
• Double Up Setup
• Bills Enabled
• Animation Mode/Sound
• Win Presentation
• Jackpot Music (Volume)
• System Lockup Options
• Voucher Redemption
• Sound Menu (Volume)
• Set Celebration Limit
• Change Token Window
• Denomination Window
• Residual Handling With Card

-> See manual "Operating" for details.

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TESTS

Test bill and coin handling

Open the main door and press the **Service** button at front of the logic box. The Service Menu is displayed. Then select **Selftest**.

- Test coin handling.
  -> / Optoboard Test

- Test coin diverter.
  -> / Coin Diverter Check

- Test bill acceptor
  -> / Bill Acceptor Diagnostics

Go back to the Service Menu main page and select **Hopper Out**.

- Test hopper payout and switching times
  -> / Hopper Out/

  Run HOPPER SWITCH TEST by pressing the left lit button for 4 sec. Hopper will perform a coin out until it is empty or the teset Button is pressed. The switching period values (in msec) are displayed. If any of the values is below 12 msec the Hopper count switch has to be re-adjusted. See manual Peripherals/Hopper for details.

-> *See manual "Operating" for details.*

Note:
Make sure to have stacker lock keys and the cashbox keys at your hands, when performing a "Validator Test **with** *Stacking".*

TECHNICAL SUPPORT TELEPHONE NUMBERS

Atronic offers and provides technical support 24 hours a day, 7 days a week. If technical assistance is required during normal business hours, please contact your local technical services representative at one of the numbers below. If technical assistance is required outside of normal business hours, please contact one of the Atronic Technical Hotline numbers below.

Technical Support Locations:

Atronic Germany (International Headquarter)	(+49) 5741 273 720
Atronic Peru	(+51) 161 832 00
Atronic United Kingdom	(+44) 1727 855 966
Atronic Russia	(+7) 495 7377 299

Atronic Technical Hotline numbers:

For technical assistance in Europe,
South Africa, Asia, Central and South America
outside of normal business hours: (+49) 5741 273 777

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