Teenage Mutant Ninja Turtles™

Operator's Manual

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Safety

Operation

Before operating game, read this manual. Failure to properly install and operate this game could result in malfunction or accident. Operate the game in accordance with the manual.

Transporting

The cabinet is very heavy. Because the monitor is high, the cabinet is also very top-heavy. Use appropriate care when moving or transporting cabinet. It contains fragile glass and electronic components. Avoid rough handling.

Handling Components

Many components are extremely sensitive to handling, environmental and Electrostatic Discharge (ESD) events—especially the computer. Do not handle it roughly. Before servicing, call your distributor and inquire about the PC warranty. Use proper ESD procedures when servicing. Protect components from harmful environmental conditions, such as extreme temperatures, excessive moisture or other damaging effects.

Disconnect Power

Always turn the power off and unplug the unit before servicing or making adjustments unless otherwise instructed. Installing or repairing components while power is on can damage the components and void the warranty.

Grounding

Avoid electrical shock. Do not plug in AC power until you have inspected and properly grounded the unit. Only plug into a grounded, three-wire outlet. Do not use a "cheater" plug or cut off the ground pin on the line cord.

Electrical Shocks

There is no isolation transformer in the cabinet. Disconnect AC power before servicing. However, be aware that lethal voltages can remain in the electronic components even when AC power is disconnected. Use extreme caution when servicing. Verify that there is a working ground connection. If the unit sustains water damage, cease using it immediately and unplug AC power.

Monitor

The monitor contains no user serviceable parts. Do not attempt to service the monitor.

Power Selector

Before installing game, ensure the voltage on the PC and power supply is set properly. There is a 115/230 VAC selector switch that must be set for the correct voltage for your site. The setting must match the line voltage at the installation site.

Power Cord

If the power cord is damaged or lost, replace it with an identical cord as supplied by the manufacturer or an authorized service agent.

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Surge Suppressor

It is recommended that you plug your game's power cord into a surge suppressor to help protect from power surges that may damage sensitive electronic components.

Water and Other Liquid Sources

Do not install game near sprinkler or other water jet sources. Do not use water jet to clean game. Keep minimum clearance behind game and wall for proper ventilation but also prevent access of liquid from spills and sprays from entering ventilation holes.

Connectors

When servicing machine, ensure all connectors mate properly. If connectors do not slip in easily, do not force them. Connectors are often keyed and only connect one way. Check for correct orientation.

Computer

The computer contains sensitive components, including a hard drive. Do not handle it roughly. Call your distributor before servicing its internal components. Ask about warranty information as it relates to the PC. Cycle AC power on or off with the cabinet power switch.
A dongle has been inserted into one of the USB ports. This is required for game play.
Do not remove the dongle except for troubleshooting purposes.

Tempered Glass Warning

When handling the LCD display glass cover take special care and set the glass down softly on a flat surface free of debris. The edge of the glass is sensitive to hard impact. Shattered glass from the monitor can travel long distances and cause bodily injury. Use proper procedures when handling broken materials.

Hazard to Epileptics

A small portion of the population has an epileptic condition that may cause seizures. Affected persons experience seizure while watching some television pictures or playing certain video games. People who have not had seizures may still have an undetected epileptic condition. If anyone in your family has experienced epilepsy symptoms (seizures or loss of awareness), consult your physical before using video games. While children play video games, a parent should observe. Be alert to the following symptoms: dizziness, altered vision, eye or muscle twitching, involuntary movements, loss of awareness, disorientation or convulsions. If you or your child experiences these symptoms, discontinue use immediately and consult your physician.

Manual

Keep this manual available and ready for use. If the game fails to function properly, turn off the machine and unplug the AC line cord. Contact your local distributor. Your warranty, when applicable, lasts 60 days from your purchase date. You may not reproduce this document or any of its contents without written authorization from Raw Thrills, Inc. or Play Mechanix™ Inc.

Specifications

For reasons such as performance, this product's specifications may change without notice. Federal patent, copyright and other intellectual property laws protect the content, devices and design of the game and its equipment.

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Product Specifications

Electrical Power
United States, International and Japan

Operating AC Current: 5/2.5 Amps

Voltage: 115/230 ~ VAC 50/60Hz

Inrush AC Current: 5 Amps

Temperature
50° F to 104° F

(10° C to 40° C)

Humidity
Must not exceed 95% relative humidity

Dimensions

Assembled
Height: 104.25" (2.65 meters)

Width: 54.75" (1.39 meters)

Depth: 32.50" (0.83 meters)

Fuse Replacement Guide

NOTE: FOR CONTINUED PROTECTION AGAINST FIRE AND ELECTRICAL DAMAGE, USE ONLY SPECIFIED FUSE TYPE AND VALUE.

12V Power Distribution:
5A 250V SLO-BLO (x7)

Setup

Unpack Materials

1. Place the shipping crates on a flat, stable surface.
2. Cut the banding straps and remove the cardboard lids.
3. Lift off the large cardboard containers surrounding the cabinet assembly and remove any shipping cleats.
4. Remove the coin door key from the coin return slot.
5. Open the top coin door.
6. Locate the keys for the back door and the cash box door.
7. Open the cash box door and remove the cash box.
8. Check for shipping damage to the following:
   - Marquee and monitor
   - Cabinet decals
9. Check the AC line cord for visible signs of damage.
   Pay particular attention to the plug and line cord insulation.

> ***Marquee Assembly can tip forward and cause damage. Take care when removing assembly from box and when installing atop cabinet to ensure that the assembly doesn't fall forward. Tighten all screws securely.***
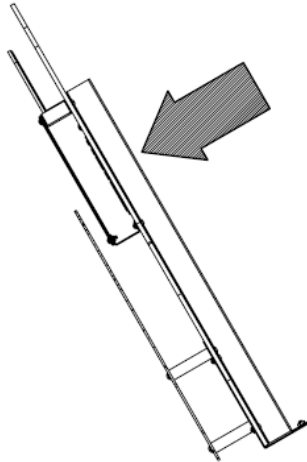
55" Cabinet Assembly

Note: 2 people are required, and ladders are recommended. Marquee assembly is **top heavy and can tip over**!

1. Place cabinet in desired floor location. Remove upper back door and carefully place such that it will not fall over or be damaged. Set up ladders next to the cabinet for marquee installation.

2. Locate the marquee assembly as well as the following hardware:

    a. (6) black tamper proof Torx machine screws, ¼ - 20 thread, 1-1/2" long

    b. (6) ¼" black split lock washers

    c. (6) ¼" black flat washers

3. Using a T-27 bit, securely mount the marquee assembly atop the cabinet as shown in the assembly setup diagram, avoiding any pinching/crushing of the wire harness which should pass through the access hole. Connect marquee harness to cabinet harness, accessible through upper door.

6 PLACES:
1/4-20 X 1-1/2" TP-TORX (TT27) BH-BLK-OX
1/4" SPLIT LOCK WASHER
1/4" FLAT WASHER (17/64" ID, 5/8" OD)
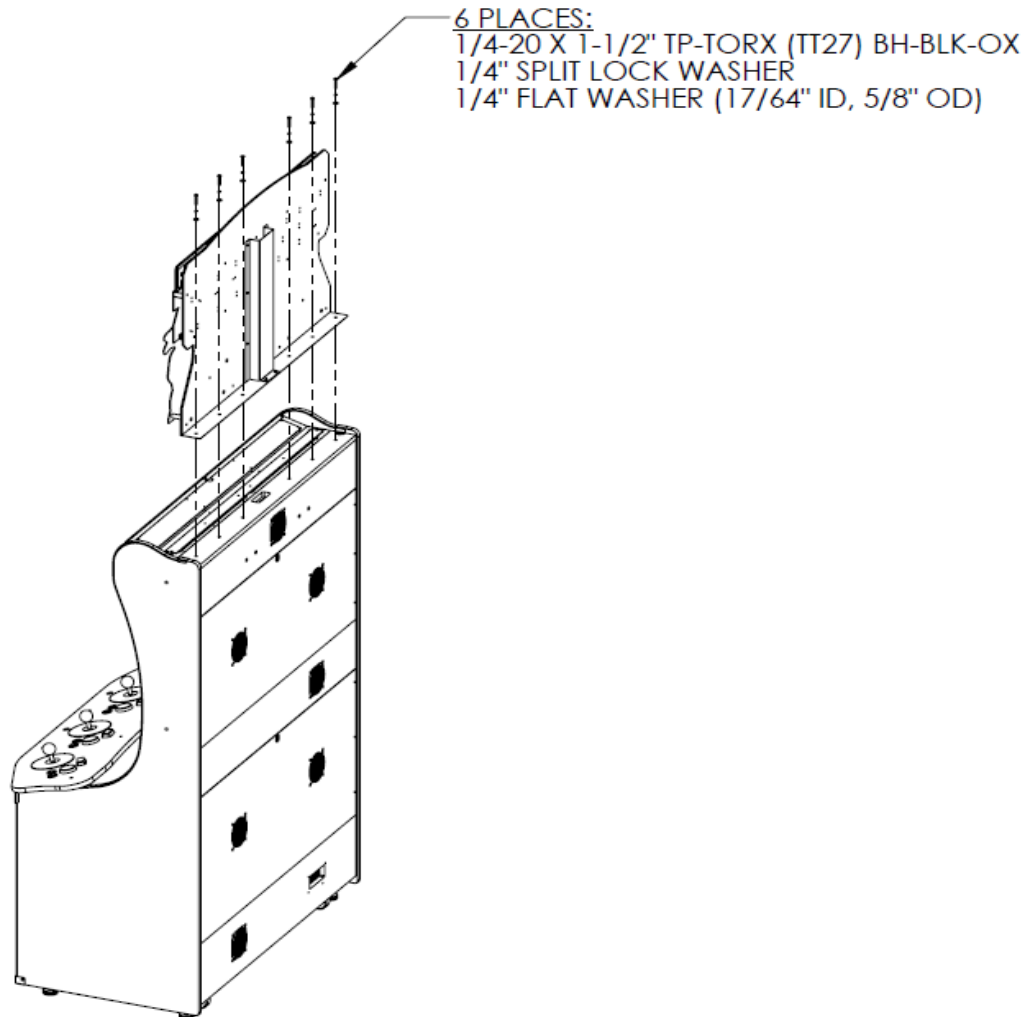
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Card Reader Installation and Setup

Due to the rising popularity of aftermarket debit card systems for cashless or coinless operation of amusement machines (i.e. Embed, Intercard, Semnox), this Teenage Mutant Ninja Turtles cabinet is equipped with UCL compatible harnessing to ensure that the installation process is easier and less prone to miswiring.

You can choose to use 1 or 4 card readers in the pricing adjustments section of the test menu. It is recommended to use 4 card readers for best results and player access.

There are (4) supplied connections, each located under the control panel near the player positions. There is enough slack to accommodate mounting (4) card readers on the control panel, as shown below, or on the front panels, as each operator desires.
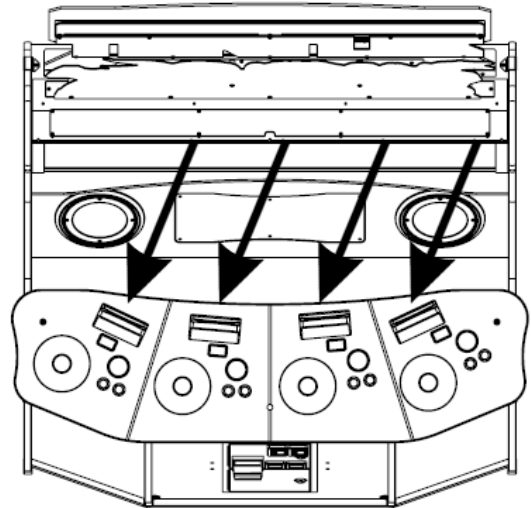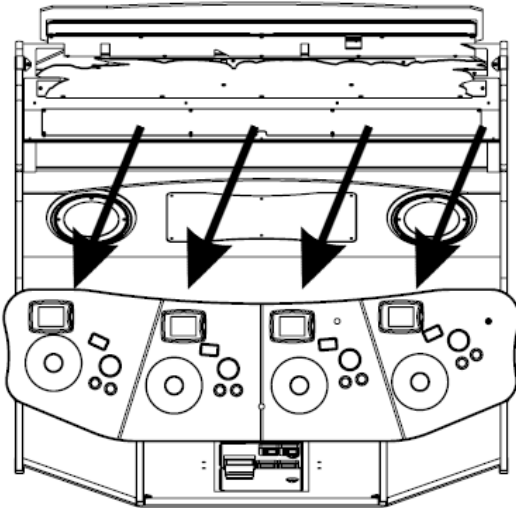
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If only (1) card reader will be used, it is recommended that the card reader be mounted to the coin door as shown below, using either the Player 2 or Player 3 UCL connector due to their proximity to coin door, although any UCL connection can be used for games equipped with only (1) card reader.
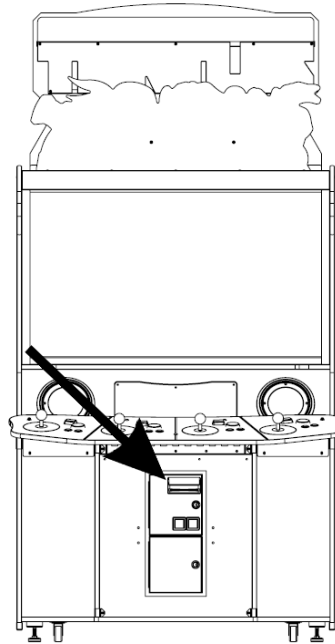
Check Electrical Settings
1. Verify the voltage in the nearest AC outlet.
2. Verify the AC outlet ground connection is present and working.

Startup Game
1. Plug the line cord into an AC outlet.
2. Turn the main cabinet power switch on.
3. Verify the game and all components are operating normally. See *Basic Functional Test on Initial Power Up* in the *Diagnostics and Adjustments* section for the recommended procedure.

Diagnostics and Adjustments

The Service Button Panel has four buttons, three of which can navigate the menu system.

The control panel buttons and joysticks can also advance through test menu screens.
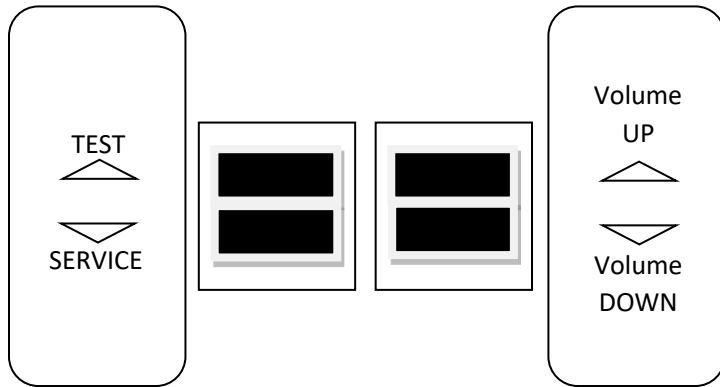
Navigating the Test Menu	
Button	**Action**
TEST/BACK (Not in Test Menu)	Enters Test Menu
TEST/BACK (In Test Menu)	Selects Highlighted Option
SERVICE (On Main Menu)	Exits Test Menu
SERVICE (Not on Main Menu)	Cancels Selection
VOLUME UP	Move Up
VOLUME DOWN	Move Down
Start Buttons	Selects Highlighted Option

An on-screen message acknowledges changes or when you exit a selection without making a change.

Basic Functional Test on Initial Power Up

See the Diagnostic Section for further information.

1. Enter the Switch Test menu and verify all switches function.
2. Enter the Sound Test menu and verify the audio works and is not distorted.
3. Enter the Coin Meter Test menu and verify the operation of the coin meter.
4. Enter the Cabinet Lamps Test menu and verify that all cabinet lights work correctly.
5. Enter the Watchdog Test menu, which reboots the game.
6. Upon a successful reboot, you are ready to adjust pricing, volume and other functions found in the Adjustments, Audits, and Diagnostics section.

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Test Menus

Main Menu

Choose from all available operator settings and menus here. You can use the test menu bracket and volume buttons to navigate. The joysticks, jump and attack buttons, and start buttons also are available to use for easier navigation through these menus.

```
MAIN MENU

DIAGNOSTICS
PRICING ADJUSTMENTS
GAME SETTINGS
SYSTEM SETTINGS
AUDITS
RESETS
VOLUME
UTILITIES
SYSTEM INFORMATION


EXIT
```
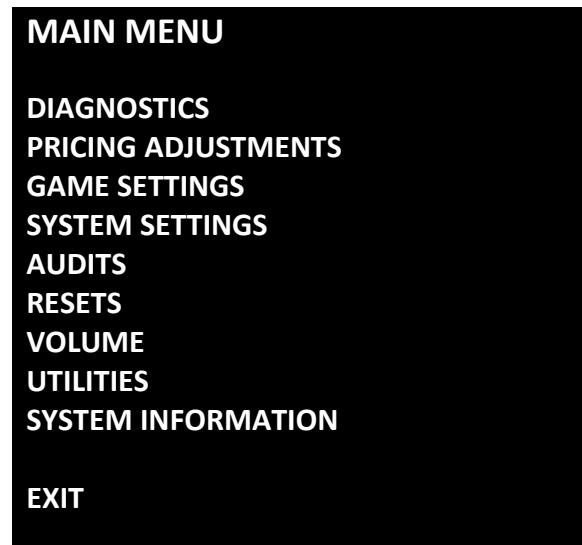
Diagnostics

This menu allows all game functions to be verified or diagnosed. You can improve collections by periodically verifying proper game function and operation. This includes periodic Hard Drive checks to verify that software has not been corrupted or reporting an error.

```
DIAGNOSTICS

INPUT TEST
VIDEO TEST
AUDIO TEST
CABINET LIGHTS TEST
METER TEST
WATCHDOG TEST

EXIT
```
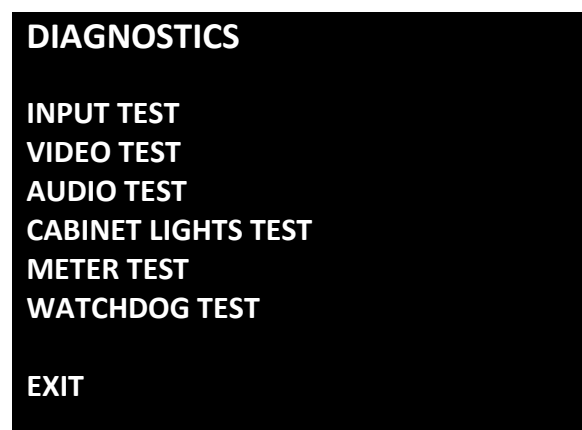
- **Input Test:** Test all the switches on the game
- **Video Test:** Checks color pattern of monitor
- **Audio Test:** Tests audio from speakers
- **Cabinet Lights Test:** Test all cabinet lighting
- **Meter Test:** Tests functionality of "hard meter"
- **Watchdog Test:** Tests functionality of watchdog (if working properly, game will reboot)

Pricing Adjustments

This allows customization of coin values, currency denominations, bill pulse, and swipe value.

Pricing Adjustments: Coins Active (Default)

```
PRICING ADJUSTMENT
(COINS)


FREE PLAY
CURRENCY INPUT
CURRENCY TYPE
COIN VALUE
COINS TO PLAY
MAX CREDITS


EXIT
```

- **Free Play:** No coins or swipes needed to play
- **Currency Input:** Choose between: Cash, Tokens, or Card Swipes
- **Currency Type:** Choose between: US Dollars, Euros, etc
- **Coin Value:** Money value of a coin
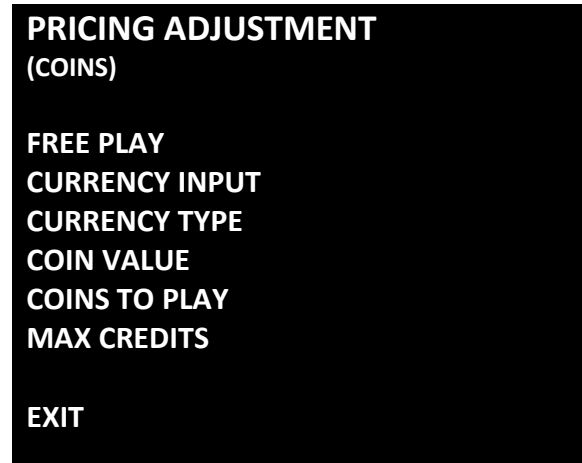- **Coins To Play:** Number of coins per credit
- **Max Credits:** Adjust the maximum number of credits

Pricing Adjustments: Swipes Active

```
PRICING ADJUSTMENT
(SWIPES)


FREE PLAY
CURRENCY INPUT
CURRENCY TYPE
SWIPE VALUE
SWIPES TO PLAY
MAX CREDITS
NUMBER OF CARD READERS


EXIT
```

- **Free Play:** No coins or swipes needed to play
- **Currency Input:** Choose between: Cash, Tokens, or Card Swipes
- **Currency Type:** Choose between: US Dollars, Euros, etc
- **Swipe Value:** Money value of a swipe
- **Swipes To Play:** Number of swipes per credit (Locked setting at 1 swipe per play)
- **Max Credits:** Adjust the maximum number of credits
- **Number Of Card Readers:** Sets 1 or 4 card readers

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Pricing Adjustments: Tokens Active

```
PRICING ADJUSTMENT
(TOKENS)

FREE PLAY
CURRENCY INPUT
CURRENCY TYPE
COIN VALUE
COINS TO PLAY
MAX CREDITS

EXIT
```

- **Free Play:** No coins or swipes needed to play

- **Currency Input:** Choose between: Cash, Tokens, or Card Swipes

- **Currency Type:** Choose between: US Dollars, Euros, etc

- **Coin Value:** Money value of a token.

- **Coins To Play:** Number of tokens per credit

- **Max Credits:** Adjust the maximum number of credits
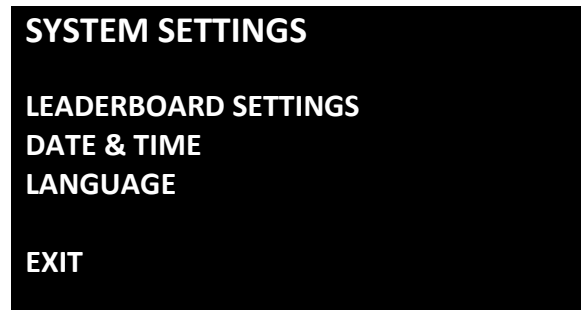
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Game Settings

This menu allows for customization of game settings.

```
GAME SETTINGS

TARGET CYCLE TIME
ATTRACT MUSIC FREQUENCY
E-TICKET REDEMPTION MODE



EXIT
```
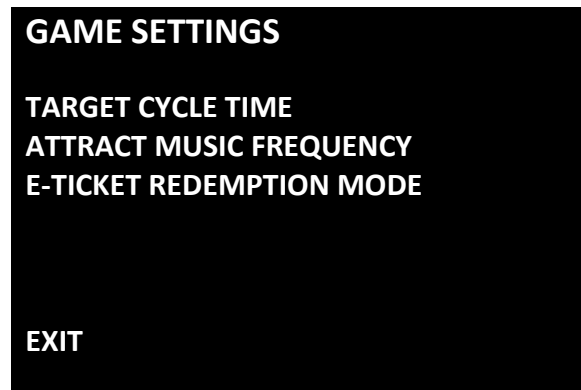
- **Target Cycle Time**: Set your targeted cycle time. Game defaults to 120 seconds which is the recommended setting. (Cycle time is the time it takes from the beginning of a player's credit to the end of the player's credit.)

- **Attract Music Frequency**: Set how frequently the attract music plays (Always, Never, Occasionally).

- **E-Ticket Redemption Mode:** *Four (4) card readers required.* Converts points in game into tickets (default 2000 points per 1 ticket). There is a separate ticket bonus for beating bosses in the game (default 10 bonus tickets for player who defeats boss. Optional "Fixed Ticket Mode": Set a specific ticket payout for every game played.

System Settings

This menu allows for customizations of various system settings.

```
SYSTEM SETTINGS

LEADERBOARD SETTINGS
DATE & TIME
LANGUAGE

EXIT
```

- **Leaderboard Settings**: Allows you to turn high score leaderboards on and off. ON is the default and recommended setting.
- **Date & Time**: Set date & time.
- **Language:** Set game language (default: English).

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Audits

Audit screens help assess game performance, find intermittent problems, decide whether to adjust game difficulty and free game award and help maximize game earnings.

```
AUDITS

SYSTEM AUDITS
COIN AUDITS
GAME AUDITS



EXIT
```

- **System Audits**: Logged information including boots, resets, game times, and more
- **Coin Audits**: Tracks income related information, coin slot usage, dollar bill usage, and more
- **Game Audits**: Tracks the gameplay habits of your customers. Average scores, bonuses, and more.

Resets Menu

Resets menu allows for resetting of various settings and adjusments.

```
RESETS MENU

RESET CREDITS
RESET PRICING ADJUSTMENTS
RESET GAME ADJUSTMENTS
RESET LEADERBOARDS
RESET GAME AUDITS
RESET SYSTEM AUDITS
RESET COIN AUDITS
RESET ALL AUDITS
FACTORY RESTORE

EXIT
```

- **Reset Credits**: Reset credits to zero (0)
- **Reset Pricing Adjustments**: Resets pricing to default settings
- **Reset Game Adjustments**: Resets game adjustments to default settings
- **Reset Leaderboards**: Resets leaderboards to default settings
- **Reset Game Audits**: Clears the game audits log file
- **Reset System Audits**: Clears the system audits log file
- **Reset Coin Audits**: Clears the coin audits log file
- **Reset All Audits**: Clears the all audits log files
- **Factory Restore**: Resets system to original factory settings and defaults

Volume

```
VOLUME

GAME VOLUME              17/30
ATTRACT VOLUME            7/30
CREDIT VOLUME            17/30
MINIMUM VOLUME          17/30


EXIT
```

- **Game Volume**: Adjusts the volume level during gameplay
- **Attract Volume**: Adjusts the volume during the attract mode sequences
- **Credit Volume**: Adjusts the volume level of the credit chime only (Independent setting of game and attract volume)
- **Minimum Volume**: Adjusts the minimum floor the volume can be lowered

Utilities Menu

Allows for copying and viewing of audits and system/error logs.

```
UTILITIES MENU

COPY AUDITS, LOGS, & SCORES TO USB
VIEW MESSAGE LOG
VIEW ERROR LOG




EXIT
```

- **Copy Audits, Logs, & Scores to USB**: Allows you to download your audits to an easy to read text file (.TXT) on a USB flash drive
- **View Message Log**: Allows you to view the audits without having to save them to USB
- **View Error Log**: Allows you to view the error log without having to save it to USB

System Information

This screen allows you to see various information about the software and hardware.

- Serial Number
- Software Revision
- Build Date
- Cabinet Type
- Game Template

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Choosing the Right Pricing Adjustments for Your Location

Card Swipe Locations
- Make Sure Your Game is Set to *Swipes Mode*:
  1. Hold the Test Button for 2 seconds to enter the Test Menu.
  2. Select "Pricing Adjustments" from the menu.
  3. Select "Currency Input" from the menu.
  4. Select "Swipes to Play" from the menu.
  5. Set "Swipe Value" to the currency equivalent of your swipe, or the payout will be incorrect. **THIS SETTING IS EXTREMELY IMPORTANT**! (Example: If the card swipe is worth $1.50 in your card system, set the swipe value to $1.50 as well).

Coin Locations
- Make Sure Your *Pricing* & *Coin Value* are Correct:
  1. Hold the Test Button for 2 seconds to enter the Test Menu.
  2. Select "Pricing Adjustments" from the menu.
  3. Select "Coins to Play" and set the desired amount of coins per game of Teenage Mutant Ninja Turtles.
  4. After setting the coins per play, set "Coin Value" to the currency equivalent of your coin, or the payout will be incorrect. **THIS SETTING IS EXTREMELY IMPORTANT**! (Example: If your coin is worth $0.25, set "Coin Value" to $0.25 as well).

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PC Hardware

Your Teenage Mutant Ninja Turtles™ uses a HP Elitedesk 705 G3 MT computer with a GeForce GTX 1050 graphics card.
Listed below are the recommended BIOS settings for the computer.

NOTE 1
The computer shipped with the correct BIOS settings. Making changes to the BIOS different from the settings listed below may adversely affect the game's functionality.

NOTE 2
In the event your video card needs to be replaced, any brand of GeForce GTX 1050 will work.

(HP Elitedesk 705 G3 MT)

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HP Elitedesk 705 G3 MT BIOS

To Access BIOS Settings:

With the computer powered off, plug a USB keyboard into an open USB slot. Hold the 'F10' key and turn the computer on. Continue holding the F10 key until the BIOS Setup screen appears.

Note: All settings not listed should remain their default values.

Advanced
- Boot Options
    - After Power Loss .... [POWER ON]
    - UEFI Boot Order: .... [DISABLE]
    - Legacy Boot Order (defaults):
        - USB
        - SATA CD
        - STAT0
        - NETWORK BOOT
- Built-in Device Options
    - Integrated Video: .... [DISABLE]

Note: **After exiting BIOS settings screen, power cycle the cabinet by using the cabinet's main power switch.**

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PC Hard Drive Recovery

Symptoms requiring PC hard drive recovery include

- File Test reports bad or missing files.
- Game fails to finish loading during startup.
- After resetting the AC power, an error is reported.
- Erratic Game or Attract Mode.
- The following screen:

WARNING!

CRC File Missing! Reinstall Software!

File Damaged! Reinstall Software!

File Missing! Reinstall Software!

The only way to repair corrupt files is to reinstall the software as described below:

COMPUTER

The computer contains sensitive components. Do not handle roughly. Call your distributor before servicing its internal components. Ask about warranty information as it relates to the PC.

Do **not** use the PC on/off switch. Turn AC power on or off with the cabinet power switch.

Steps to Re-install the software:
(NO DVD Restoration. USB Thumb Drive is used on the *HP Elitedesk 705 G3 MT*)

1. With game and PC on, verify that the RIO board has power. If not, see Troubleshooting.
2. Open the coin door.
3. Insert the recovery USB thumb drive (included in your game) into the USB port on the Test button bracket inside the coin door.
4. Turn cabinet power switch to OFF. Wait 30 seconds.
5. Turn cabinet power switch to ON.
6. Select the *Teenage Mutant Ninja Turtles* restore version from the menu and follow on screen instructions.
7. If recovery does not begin, check to ensure USB Drive is inserted correctly and is not damaged.
8. Initial software loading may take several minutes. Check progress periodically.
   Do not interrupt power or reset the game during recovery.
9. When software has been loaded, a message indicates that restore is complete. When instructed to remove USB Drive, wait 15 seconds to remove the drive from the PC.
10. Turn cabinet power switch off and then turn the cabinet on again. Your game will now be restored.

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Troubleshooting

Warning: Review safety chapter before making any adjustments to game.

Problem	Possible Cause	Solution
Game will not power up.	Game not plugged in.	Plug game into AC outlet.
	Game not turned on.	Turn on main power switch.
	Game fuse is blown.	Check and replace fuse. See Specification section for fuse values.
	No power to receptacle.	Test AC outlet and plug game into powered outlet.
	PC BIOS set incorrectly.	See BIOS Settings section.
	Flash Drive Installer is left connected to PC.	Disconnect Flash Drive Installer and power cycle the game.
	Advertising USB flash drive left connected to PC.	Remove USB flash drive and power cycle the game.
Buttons or joysticks do not work.	Faulty micro switch.	Replace the micro switch on the button and re-test. Verify that the wires are connected to the correct spades on the micro switch.
	Faulty wiring.	Disconnect the cabinet from AC power. Verify that all wires are firmly connected to each button and the PCB. Verify that no wires are frayed or improperly shorting to ground. Verify that wires are connected to the correct spades on the micro switches.
	Faulty PCB.	Ensure all connections to PCB are secure. Replace PCB if faulty.

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Problem	Possible Cause	Solution
Neither buttons nor audio work.	PCB connected to faulty USB port (boot message may indicate not detected).	To test a USB port, turn off the game, disconnect the device from the port, and then connect the game dongle to the port. Reboot the game. A No Dongle message indicates the port is bad. If the game starts, the port is working. After the test, reconnect all devices to the correct USB ports and reboot.
No sound or bad sound.	Bad connection.	Check connection to speakers.
	Volume set too low.	Use VOL UP button on Test panel to raise volume.
	Faulty wiring.	Verify all wires are firmly connected to the speakers, PCB, and green computer audio port. Verify that each wire is connected to the correct port and no wires are frayed or improperly shorting to ground.
	Blown speakers.	Remove the grill and inspect each speaker for visible damage. Run the Sound Test from System Tests in the Operator Menu to verify each speaker is working.
	Faulty PCB.	To verify audio is working at the computer, connect stereo headphones to the green computer audio port.
Constant low audio hum.	Faulty power supply.	Check external DC supply and the PC supply.
	Open ground.	Check all ground wires in cabinet. Ensure AC wall outlet is properly grounded

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Problem	Possible Cause	Solution
Game does not load.	PC hard drive failure.	Recover hard drive. See Flash Installer Document or contact your distributor for the latest software revision.
PC Drive test reports "bad" or "missing" files.		
Game fails to finish loading.		
After resetting, game still reports an error.		
Erratic game mode or attract mode.		
WARNING! **Data files Corrupted.** **(Game Operation May Become Unstable.)** **Use "Test" Switch to Enter Test Mode and Run "File Test."**		
Game Resets.	Bad file.	Run Flash Installer.
Coin meter does not click during test.	Faulty meter.	Replace coin meter.
	Blown fuse(s) on PCB.	Replace 12vdc 5A fuse(s) on PCB.
	No pulse to meter.	Check wiring from meter to PCB board.
Dongle Not Present.	Dongle missing or disconnected.	Find dongle cable and reseat in USB port.
	Faulty USB port.	Insert dongle cable in different USB port.
Improper number of credits given when coins or bills are inserted.	Incorrect setting in Pricing Adjustments.	Adjust pricing settings.
	Faulty wiring.	Disconnect cabinet from AC power. Verify wires are firmly connected to coin mech and bill validator and ground wires are properly connected. Verify no wires are frayed or shorting to ground.
	Faulty coin mech.	Verify coin mech is not jammed. Ensure coin mech is properly aligned and latched to coin door.

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Problem	Possible Cause	Solution
No Video	PC not turned on.	Turn PC power switch on. Ensure IEC cable tightly plugged in. Trace cable back to source to ensure continuity.
	Video cable not secure.	Check and secure DVI connector to LED controller card. Check and secure DVI or HDMI connector to PC.
Connect RIO Board or RIO Board Missing.	USB cable disconnected.	Check USB connection from PC to RIO board.

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Technical Support

For an authorized distributor near you, check the Raw Thrills website at www.rawthrills.com

Raw Thrills Technical Support Hotline
Phone: 1-800-753-2513
FAX: 1-201-438-5019
Email: rtsupport@betson.com

Electrical and Mechanical Illustrations

Teenage Mutant Ninja Turtles™