MIDWAY

TOUCHMASTER
7000

SOFTWARE UPGRADE KIT FOR ALL
2000, 3000, 4000, OR 5000 GAMES

FOR USE ON ALL MODELS OF
CLASSIC OR COUNTERTOP CABINETS

The *TOUCHMASTER 7000* Software Upgrade Kit is only intended for use in *MIDWAY* games that have been previously tested for product safety and compatibility with other equipment. Contact your authorized distributor immediately and do not install this kit if the product agency approval label on the rear panel of the cabinet is damaged or missing.

INSTALLATION INSTRUCTIONS

NOTE: Leave the Integrated Circuits in their protective packaging until they are to be installed. After the update is completed, return the removed devices to the protective package for storage.

	Part Number	Item Description	Quantity	Function
[ ]	A-5343-6XX81-1	7000 Update rev 8.X EPROM Assembly	1	(game program and CPU instructions)
[ ]	A-5343-6XX81-2	7000 Update rev 8.X EPROM Assembly	1	(game program and CPU instructions)
[ ]	A-5343-6XX81-3	7000 Update rev 8.X EPROM Assembly	1	(audio program and game sounds)
[ ]	A-5343-6XX81-4	7000 Update rev 8.X EPROM Assembly	1	(video program and graphic images)
[ ]	A-5343-6XX81-5	7000 Update rev 8.X EPROM Assembly	1	(video program and graphic images)
[ ]	A-5343-6XX81-6	7000 Update rev 8.X EPROM Assembly	1	(video program and graphic images)
[ ]	A-5343-6XX81-7	7000 Update rev 8.X EPROM Assembly	1	(video program and graphic images)
[ ]	A-5343-6XX81-8	7000 Update rev 8.X EPROM Assembly	1	(video program and graphic images)
[ ]	A-5343-6XX81-9	7000 Update rev 8.X EPROM Assembly	1	(video program and graphic images)
[ ]	A-21657-005	7000 Update rev 8.X Security Assembly	1	(security key enables game program)
[ ]	16-10875	TouchMaster 7000 Upgrade Instructions	1	(procedure for installing components)

This upgrade kit changes the operating system. All game variables will be reset to factory default values. We recommend that all custom settings be examined and recorded before installing these components.

1. Turn off game power. Leave the line cord attached. Remove the security screw (directly above the chain lug on the rear of the cabinet) to permit top cover removal. Save this screw for reinstallation.

2. Insert a key into the top cover lock (right side of cabinet). Turn the key fully clockwise and hold (the lock will re-latch if not held). Grasp the hook at the lower edge of the door and pull slightly down and back approximately 3 inches (7.5 cm.). Lift the cover up and away from the unit. Set in a safe place.

3. Insert the key into the side access door lock (left side of cabinet). Turn the key fully clockwise and hold (the lock will re-latch if not held). Grasp the hook at the lower edge of the door and pull slightly down and back as before. Tilt the top of the door to the left and remove. Set in a safe place.

4. The sockets for the memory circuits are located across the top area of the CPU Board Assembly. Sockets U40 and U41 (in the video and graphic socket group) may not have any devices installed.

5. Remove the existing EPROM Assemblies from the CPU Board. Carefully pull each IC using a chip extraction tool. A slight rocking motion helps avoid bent pins. Place the devices on a metal surface.

6. Remove the update ICs from their protective package and orient them over the empty sockets. Align the notches in the devices with the notches in the sockets and press each one firmly to seat it fully.

7. Your game may or may not already have a circuit installed in Security Key circuit socket J12 near the upper left corner of the CPU board. Remove the old key with a rocking motion while pulling it away from the center of the board. **Notches or arrows are commonly used to identify pin 1 on both key circuits and sockets**. Position the marked end of the circuit over the marked end of the socket and carefully insert the pins into the connectors. Ensure that all pins are correctly aligned, then apply firm downward pressure on the IC until it is fully seated on the board. *Do not use excess pressure.*

8. Turn on power. The game will power up and begin self-diagnostics. If no errors are found, the game will automatically enter its "attract" mode of operation. The new game logo will appear on the screen.

9. Press and release the CAL. switch pushbutton to optimize the monitor screen touch sensors (see the illustration below). Follow the screen instruction to calibrate and verify the touch screen system. Refer to the Calibration Instructions in the Section One of the Operations Manual for more detail.

10. Press and release the TEST switch pushbutton to enter the menu system. Choose the menu screens needed to check the game variables and verify machine operation (described in this same section).

11. Reinstall both of the doors. Push each door forward and up until it seats fully against the front and top of the cabinet. Ensure that doors are locked securely. Remove the keys and try the new games.

12. Allow the system to operate for a few hours before attempting any volume changes, monitor adjustments, etc. Be certain to install the security screw and tighten it after each modification is made.

COVER AND DOOR REMOVAL

CHAIN LUG

TOP COVER

POWER SWITCH

SIDE ACCESS DOOR

LOCKS

SECURITY SCREW

POWER SWITCH

LOCK

REAR DOOR

TEST SWITCH

CAL. SWITCH

CAL. SWITCH

TEST SWITCH
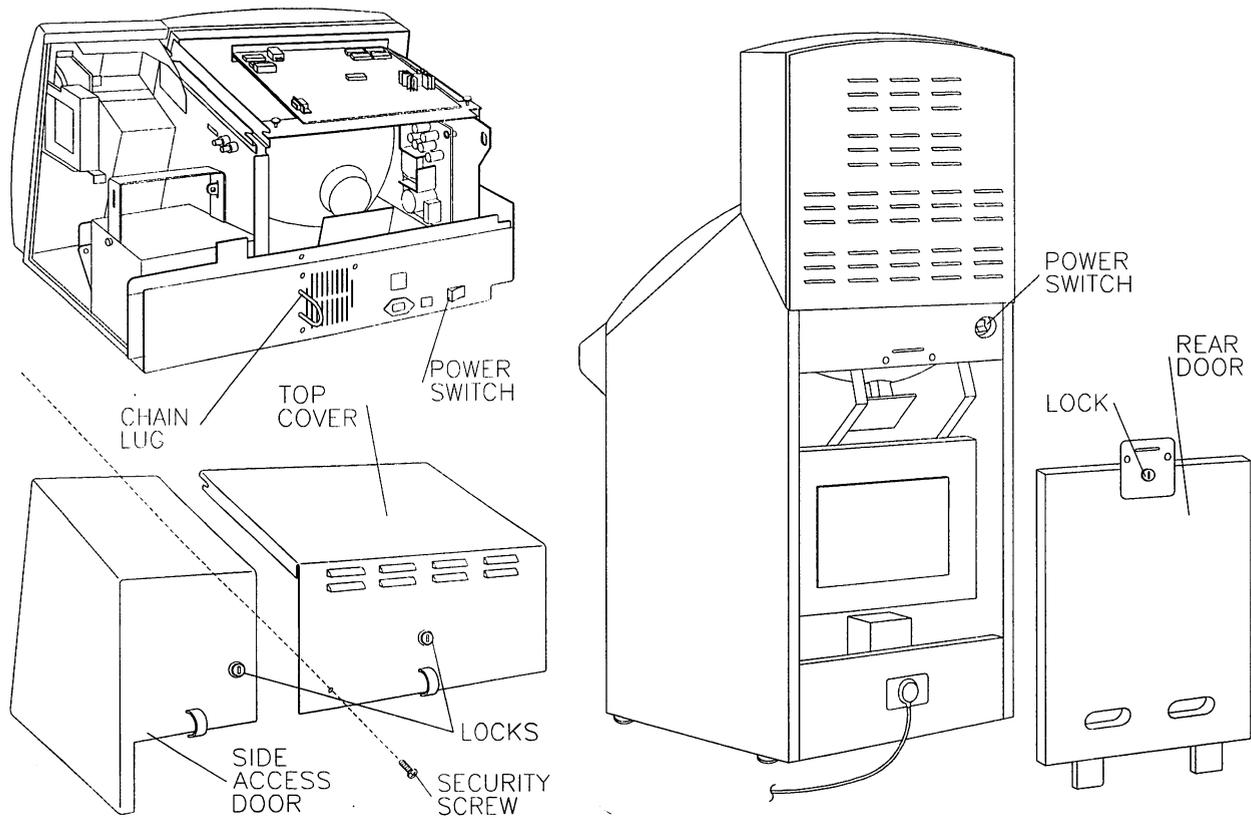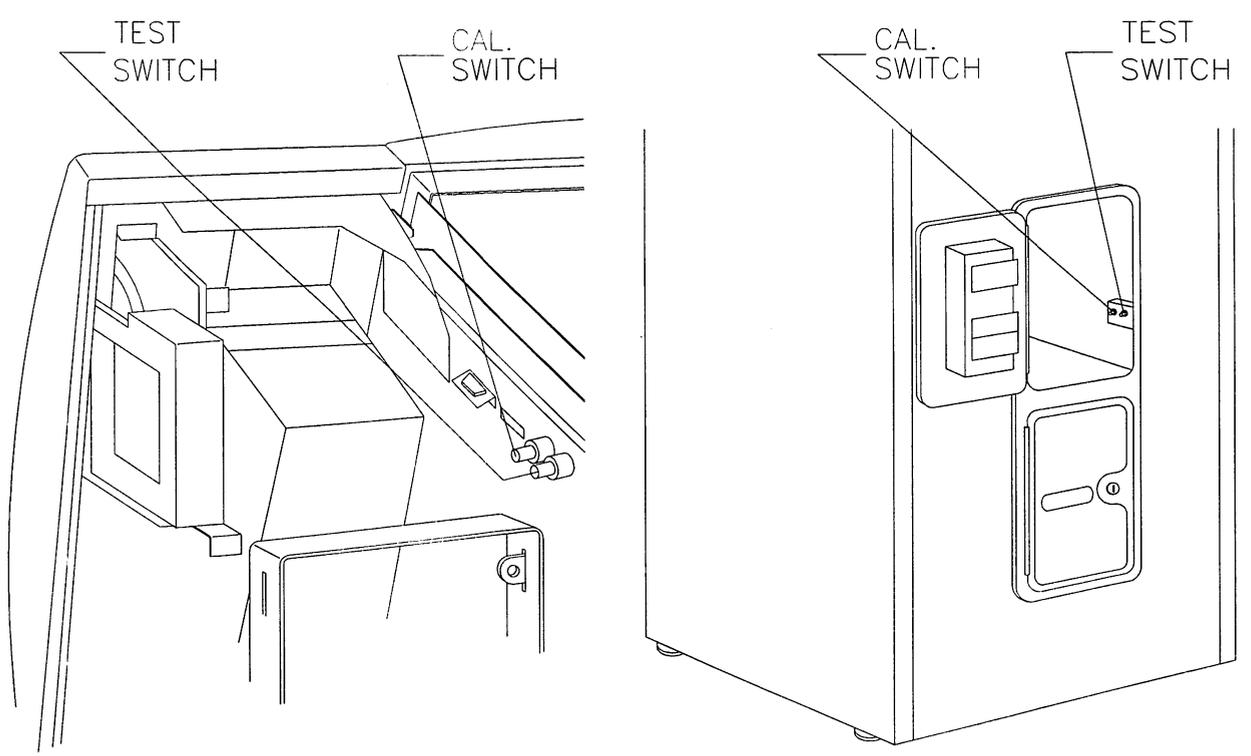
CONTROL SWITCH LOCATIONS

⚠️**CAUTION** *Discharge any static electricity build up in your body by touching the cabinet. This is to be done BEFORE touching or handling the electronic assemblies.*

GAME PROGRAM AND
CPU INSTRUCTIONS

SECURITY
KEY

NOTE: SECURITY KEY NOT
REQUIRED IN SOME MODELS

BATTERY
MEMORY
MODULE

U52

U51   J12

AUDIO PROGRAM
AND GAME SOUNDS

U62

CPU BOARD
ASSEMBLY

VIDEO IMAGES
AND GRAPHICS

U37
U36
U40

U39
U38
U41

ALIGN NOTCHES   U8
IN THIS DIRECTION
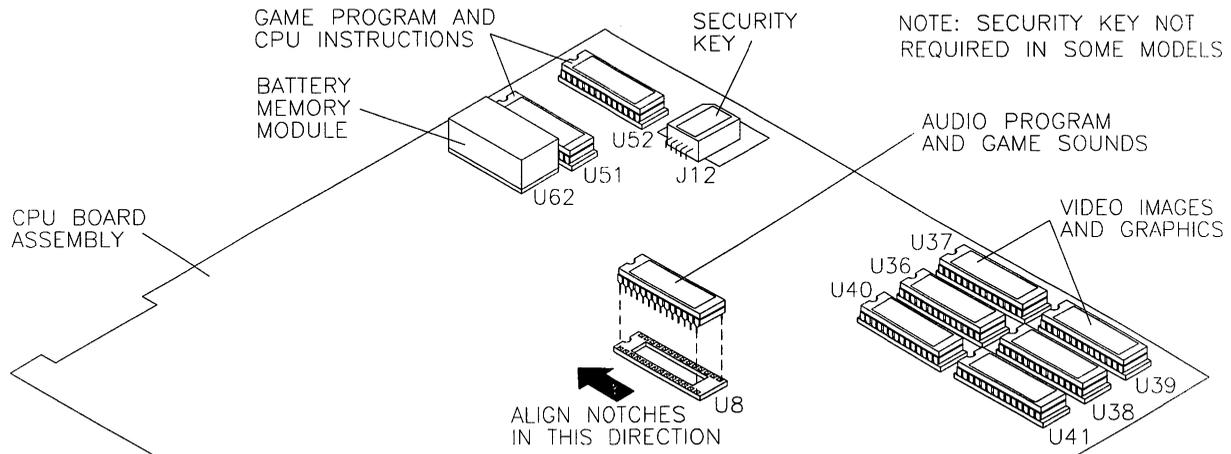
ORIENTATION OF FIELD REPLACEABLE ELECTRONIC COMPONENTS

CORRECT OPENING SCREEN FOR UPGRADE

NOTE: TouchMaster™ 7000 is shipped from the factory with a selection of adult games, which may include adult language, adult themes and nudity. These games have been turned off in order to prevent viewing by minors. These games may be turned on from the menus or the TouchKey location adjustments (only if enabled), but should only be done where the TouchMaster is not accessible by minors.

CALIBRATE

This series of steps allows the operator to calibrate the Touch Screen Controller and correct its accuracy.

○   Dot for controller calibration. This sets the ability to correctly recognize a touch.

☐   Box for controller verification. This optimizes the Touch Screen linearity.

CALIBRATE TOUCH SCREEN
TOUCH WHITE DOT IN:
LOWER LEFT CORNER

○

○

CALIBRATE TOUCH SCREEN
TOUCH WHITE DOT IN:
UPPER RIGHT CORNER

TYPICAL CALIBRATION SCREENS

CALIBRATION TEST
PRESS EACH RED BOX

CYCLE POWER AND RECALIBRATE
IN CASE OF TROUBLE

CALIBRATION TEST
PRESS EACH RED BOX

CYCLE POWER AND RECALIBRATE
IN CASE OF TROUBLE
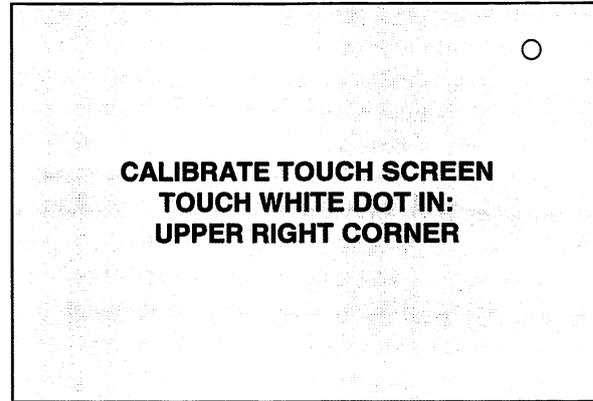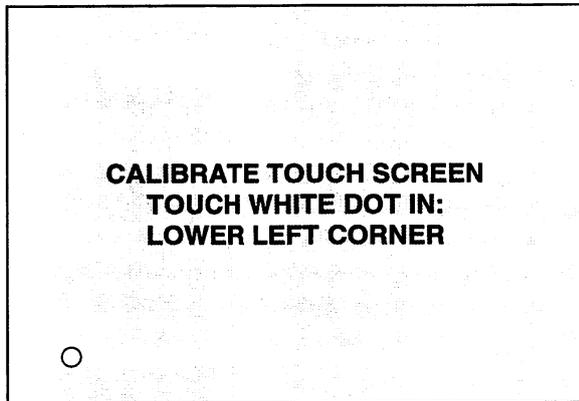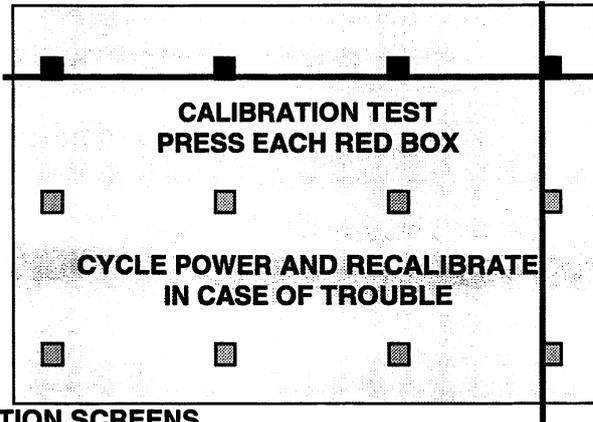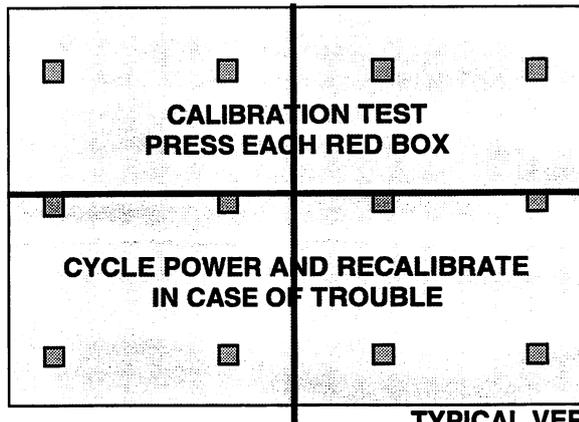
TYPICAL VERIFICATION SCREENS

The Touch Screen Controller in the TouchMaster™ senses your finger position based on its capacitance. The Touch Screen uses a very weak uniform electrical field. Touching the screen it disturbs the field. The controller tracks this and translates it into a location. The game electronics uses this information as a command. This entire process occurs in a fraction of a second, allowing the game to respond rapidly.

When the TouchMaster is moved from one location to another, the amount of capacitance changes. This causes the controller to shift its tracking coordinates and may generate errors in some screen areas. The Calibration routine allows the controller to adjust its tracking to match the touch point.

Calibration screens require the user to touch one specific location as indicated by a single dot. Touch the dot and hold this position until coarse tracking adjustments are completed (about two seconds). The TouchMaster will automatically advance to the next screen and emit a short burst of sound. Repeat this procedure for each screen with a single dot. The Calibration Test screen (see next page) tracks finger position over the entire screen, allowing the entire playing surface to be checked for accurate calibration.

Verification screens require the user to touch several locations as indicated by several boxes. Touch each box and hold this position until fine tracking adjustments are completed (about one second). The TouchMaster will display one vertical and one horizontal line on the screen. The lines should intersect over the box when the finger is removed. Repeat this procedure for each box on the screen.

CALIBRATION TEST
This test verifies touch tracking for the entire active screen area and detects any calibration errors.

+   Intersecting lines indicate screen location coordinates from the Touch Screen Controller.
EXIT   Reverts to the Sub Menu screen. Touch RETURN again to go to the Main Menu.
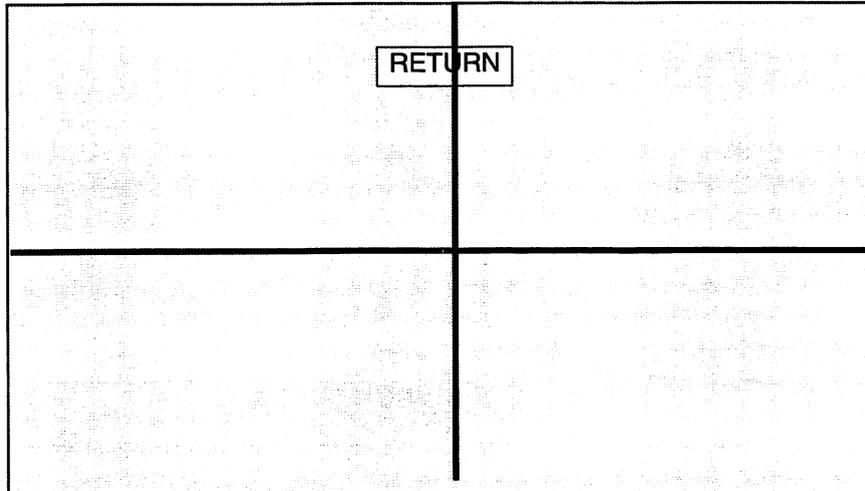
TYPICAL CALIBRATION TEST SCREEN

The accuracy of the Touch Screen Controller may be checked without going through a new calibration procedure. This test will quickly detect any non-linear or unresponsive areas of the Touch Screen.

When the Touch Screen Controller is calibrated for the first time, the tracking data is stored in a section of the TouchMaster™memory. Each time the screen is touched this information is recalled. This data must be changed if the game has been serviced or relocated. The test does not change the data stored in memory. The only way to replace the existing data with new information is to go through each of the calibration steps. Use Calibration Test on a regular basis to determine if a new calibration is necessary.

Perform the touch test in the following manner: Press the TEST button to display the Menu System. Choose DIAGNOSTICS to get to the Sub Menu, then choose CALIBRATE TEST to go to the test screen (a typical test screen is illustrated). The vertical and horizontal lines should be centered on the screen.

Touch any location on the screen and hold. The intersecting lines will move to the touch location. Touch another location. The lines will move to the new screen area. For each additional touch point, the lines must cross under the fingertip. Check several locations, especially those along the outer perimeter of the screen. If <u>any</u> intersection is visible beside the finger after the lines stop moving, calibration is necessary.

As the intersecting lines are moved, a group of numbers will appear in the upper left corner of the screen. These numbers indicate that data is being received from the Touch Screen Controller and interpreted by the CPU Board to determine the location of the touch. These values can be useful references during the testing, troubleshooting and repair procedures associated with the Touch Screen.

Touch EXIT to end the test and go back to the DIAGNOSTICS screen. Choose CALIBRATE and complete each step if any errors were detected by this test. When the CALIBRATE TEST results are satisfactory, select RETURN to go to the main menu and EXIT to restart the game.

NOTE: ALWAYS RE-CALIBRATE AND TEST THE UNIT AFTER MOVING THE TOUCHMASTER™.

TOUCHKEY LOCATION ADJUSTMENT SYSTEM

The TouchKey™ location adjustment feature enables individuals to change certain game characteristics without using a key to remove the cabinet side access door. A Personal Identification Number (PIN) is entered into the TouchKey access screen to permit local changes. This allows attendants or other designated employees to vary loudness, insert new messages, reset scores, etc., without having keys for the cabinet. The PIN can be altered as often as needed to prevent unauthorized changes to games.

TOUCHKEY PROGRAMMING *Use these steps to activate the TOUCHKEY system for future operation:*

1. Press and release the TEST switch pushbutton to enter the menu system. Touch the LOCATION SETUP box to begin the process. Select LOCATION NAME to identify the game environment.

2. Enter letters one at a time to spell out the establishment, city, country or other location identification. Use arrow boxes, DELETE, or SPACE to edit the information. Press RETURN to save this name and return to the LOCATION SETUP menu screen. *NOTE: Omit this step if a name is not required.*

3. The MACHINE NUMBER screen is used to assign a game ID number. Touch the MACHINE NUMBER box from the LOCATION SETUP menu screen to enter the game number. Enter a unique number to distinguish this particular machine from others, especially if they have the same Location Name. Press RETURN to save this number and go back to the LOCATION SETUP menu screen. *NOTE: Omit this step if only one game is in use at each separate location. Machine Numbers can be entered later.*

4. The TOUCHKEY screen is used to select features for attendant access. Select TOUCH KEY SETUP from the LOCATION SETUP menu screen to enter the access code number and turn on features. Press the TOUCH KEY ENABLE box to begin, then touch any combination of keys to set the PIN code (enter more keys as required to edit). The feature boxes to permit or block changes for TouchKey access. Press RETURN to save this information and go back to the LOCATION SETUP menu screen. Press RETURN again to go back to main menu, then EXIT to the game. *NOTE: You may DISABLE or ENABLE this access at any time without losing the PIN code or feature selections on this screen.*

5. Test the TOUCHKEY system before releasing a game for use. From the main Attraction screen menu, touch the MIDWAY symbol at the bottom of the screen. *The TOUCHKEY access screen appears only if the system is enabled.* Touch the keys in the proper sequence to enter the chosen PIN code, then turn off or on features as desired. EXIT to the game and verify these changes.

```
+--------------------------------------------------+
|                  SYSTEM SETUP                    |
|                VER: X.XX  XX-XX-XX               |
|                                                  |
|  +-----------+   +-----------+   +-----------+   |
|  | GAME-COIN |   | DISPLAY   |   | HIGH      |   |
|  | SETUP     |   | AUDITS    |   | SCORES    |   |
|  +-----------+   +-----------+   +-----------+   |
|                                                  |
|  +-----------+   +-----------+   +-----------+   |
|  | OPERATOR  |   | LOCATION  |   | DIAGNOSTIC|   |
|  | MESSAGE   |   | SETUP     |   +-----------+   |
|  +-----------+   +-----------+                   |
|                    VOLUME                        |
|                 +----+ +----+                    |
|                 |    | | +  |                    |
|  +-----------+  |    | +----+                    |
|  | FREE      |  |    | +----+   +-----------+   |
|  | CREDIT    |  |    | | -  |   |   EXIT    |   |
|  +-----------+  +----+ +----+   +-----------+   |
+--------------------------------------------------+
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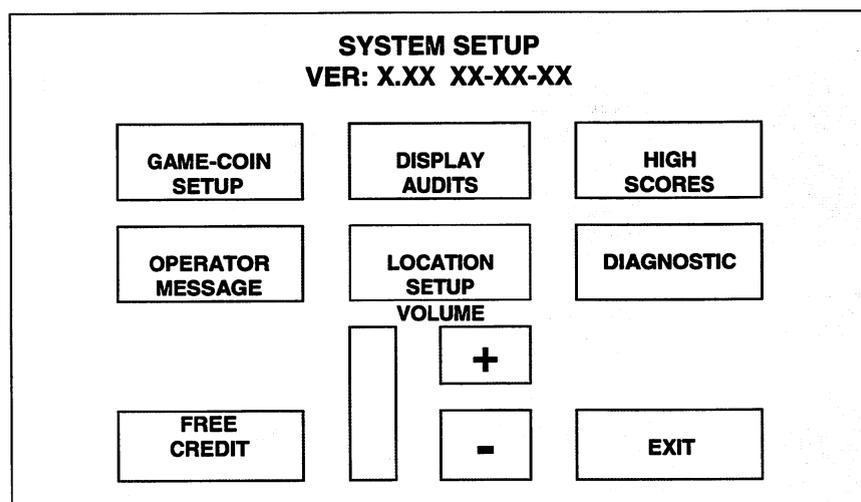
TYPICAL SYSTEM SETUP SCREEN

TOUCHKEY USE Location adjustments can be turned over to designated employees using this procedure:

1. Explain the conditions and policies governing when changes are to be made (i.e., lower volume levels after a certain time of day, periods of free or reduced cost play, messages advertising tournaments, etc.). Describe any situations when certain game scores might need to be cleared or reset.

2. Give the chosen individuals the PIN code and instruct them to memorize it. Tell them how often the code will be changed, and who to contact if their code is no longer functional. Show that the code will not function if the key system is disabled, but the game will continue to operate and play normally.

3. Demonstrate the location adjustments. Press the MIDWAY symbol on the Attraction screen menu. Touch the necessary keys to enter the PIN code. Explain effects of each feature and show examples of how each is used. Return to the game and show individuals the actual changes that have occurred.

TOUCH KEY™

YOU'RE IN COMMAND!

1   6
2   5
3   4

INSERT COINS

MAIN MENU
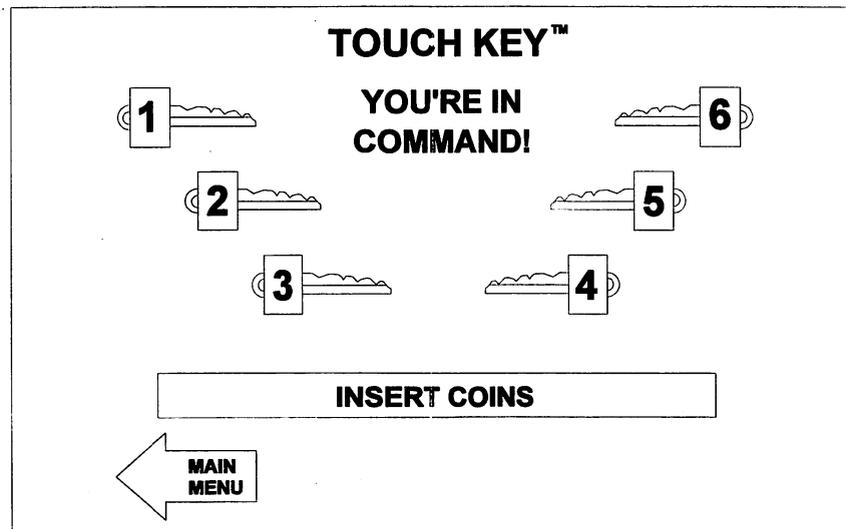
TYPICAL TOUCHKEY ENTRY SCREEN

4. Demonstrate the touch screen operation. Describe incorrect tracking and what happens if the screen is out of calibration. Show how to calibrate the touch screen, and how to test the calibration tracking.

5. Have employees enter codes and make changes to verify that they understand the TouchKey system. *You are responsible for enforcing all local, state, and federal regulations concerning this game.*

TOUCHKEY SYSTEM SETUP
LOCATION ADJUSTMENT

| MESSAGE SETUP | HIGH SCORES | LOCATION NAME |
| CALIBRATE | EROTIC | CALIBRATE TEST |

VOLUME

+

−   EXIT
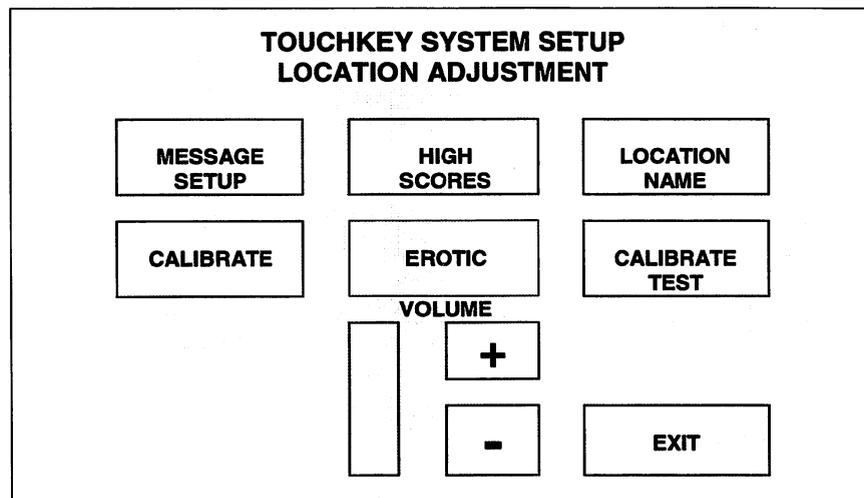
TYPICAL TOUCHKEY SYSTEM SETUP SCREEN