

SPECIAL FORCES ELITE TRAINING



OWNERS AND SERVICE MANUAL INNOVATIVE CONCEPTS IN ENTERTAINMENT INC.

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OWNERS AND SERVICE MANUAL

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Chapter 1 – Safety and Warnings

BEFORE YOU BEGIN

WARNING: WHEN INSTALLING THIS GAME, A GROUNDED A.C. RECEPTACLE MUST BE USED. FAILURE TO DO SO COULD RESULT IN INJURY TO YOURSELF OR OTHERS. FAILURE TO USE A GROUNDED RECEPTACLE COULD ALSO CAUSE IMPROPER GAME OPERATION, OR DAMAGE TO THE ELECTRONICS

DO NOT DEFEAT OR REMOVE THE GROUNDING PRONG ON THE POWER CORD FOR THE SAME REASON AS GIVEN ABOVE. USING AN IMPROPERLY GROUNDED GAME COULD VOID YOUR WARRANTY.

HAVE A QUALIFIED ELECTRICIAN CHECK YOU'RE A.C. RECEPTACLE TO BE SURE THE GROUND IS FUNCTIONING PROPERLY.

HARD DRIVE - CAUTION

1. Hard drives are sensitive to electrical and physical shock – handle very carefully.
2. In both a dedicated game and kit, the hard drive is packaged in a box during shipment. Keep the original shipping box for shipping returns, if necessary.
3. Failure to use the supplied box will void the warranty.
4. DO NOT drop the hard drive.
5. DO NOT knock over the hard drive.
6. DO uninstall the hard drive from the game and place it in the supplied shipping box when moving the game. Moving or transporting the game with the hard drive installed will damage the hard drive make the game non-functional.

DO NOT REMOVE COMPONENTS

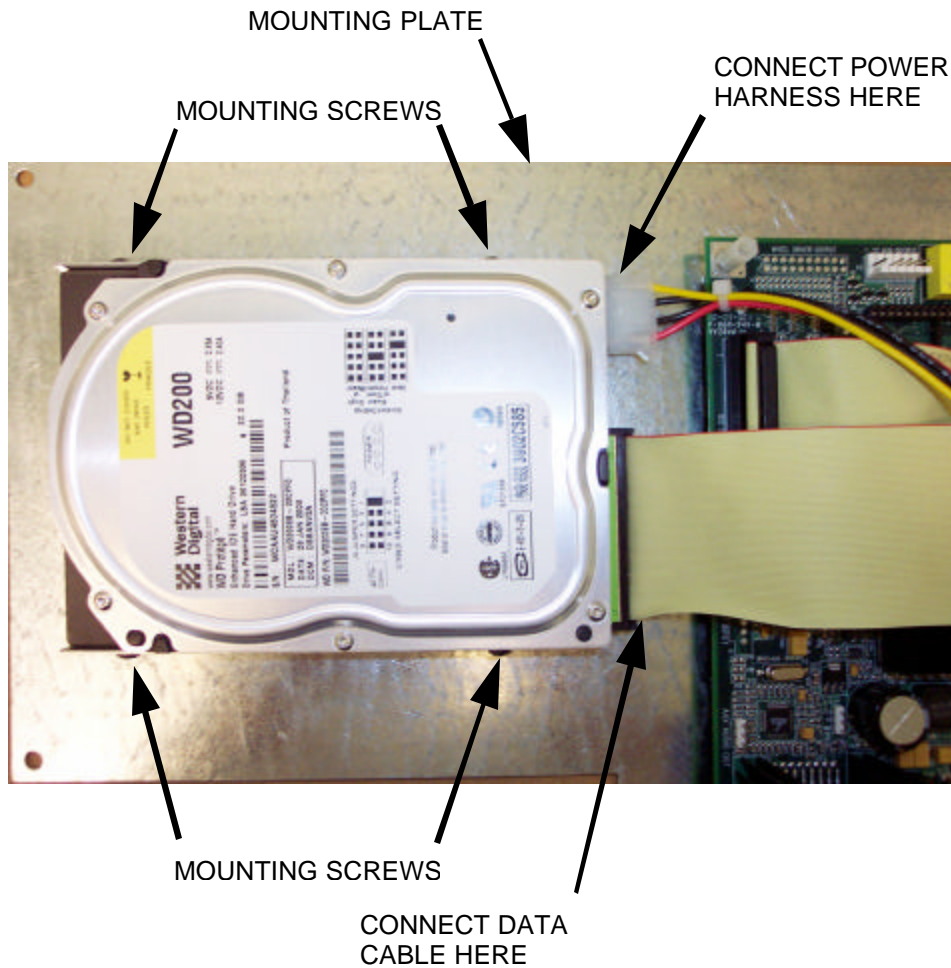
DO NOT remove any of the components on the main board (e.g. hard drive and eproms) while the game is powered on. This may cause permanent damage to the parts and the main board. Removing any main board component part while powered on will void the warranty.

Chapter 2 – Dedicated Game Installation

Hard Drive Installation

This game requires a hard drive. Hard drives are very sensitive to electrical and physical shock. Prior to turning the game on the first time, the hard drive must be installed.

1. Locate the hard drive. The hard drive is located in a box at the bottom of the cabinet. Remove the hard drive from the box and keep the box in the bottom of the cabinet.
2. Install the hard drive. Position the hard drive between the two flanges on the mounting bracket as shown in the photo below. Attach the hard drive using the four screws provided.
3. Attach the two wire harnesses to the hard drive as shown in the photo below.



Power-Up

1. Plug the game into the A.C. outlet and turn on power to the game. The switch for the game is located on a power module on the outside rear of the game.

THIS GAME IS DESIGNED TO DISSIPATE STATIC ELECTRICITY THROUGH THE GROUNDING PLANE OF THE GAME. IF THE A.C. GROUND DOES NOT WORK, THE GAME COULD DISCHARGE STATIC ELECTRICITY THROUGH THE GAME CIRCUITRY, WHICH COULD CAUSE DAMAGE.

2. Make sure the game is level after installation. It is necessary to make sure the game is level for safety concerns.
3. Place the game into its final location and use the adjusting feet to level the game.
4. Check that the A.C. voltage rating on the back of the game matches the A.C. voltage of your location.

THE POWER SUPPLY IS NOT VOLTAGE ADJUSTABLE. TO OPERATE THE GAME AT VOLTAGES OTHER THAN THOSE IT WAS DESIGNED FOR, PLEASE CONTACT OUR SERVICE DEPARTMENT FOR VOLTAGE CONVERSION INFORMATION.

System Test

The game has a startup diagnostics mode in order to test game component and switch integrity. To start the diagnostics test, hold the Start button down during power-up. This test will perform a series of diagnostic tests. During the switch test, the operator must exercise the inputs to test switch integrity. Press the Start button to skip from test to test.

Game Setup

See Chapter 4 – Game Setup and Features to learn how to customize the game for your location. The gun **MUST** be calibrated before playing the game.

Chapter 3 – Kit Installation

GETTING STARTED

Note: This kit is intended for games that meet JAMMA standards or have JAMMA harnessing.

GAME PACKAGE CONTENTS

- (1) Printed Circuit Board (PCB) Assembly
- (1) Hard Drive – Special Forces Programmed
- (1) Cable – IDE
- (1) Plate (Board/Drive Mounting)
- (1) Button (Large Round White)
- (1) Harness (Hard Drive Power)
- (1) Harness (Gun)
- (1) Gun
- (1) Holster Clips (Set)
- (2) Side Cabinet Decals
- (1) Button Decal
- (1) Control Panel (Left) Decal
- (1) Control Panel (Right) Decal
- (1) Control Panel (Front) Decal
- (1) Front Strip Decal
- (1) Rifle (Left) Decal
- (1) Rifle (Right) Decal
- (1) Rifle (Forward) Decal
- (1) Marquee Decal
- (1) Assorted Hardware

RECOMMENDED TOOLS & SUPPLIES

- Phillips and Square Drive Screwdrivers
- Security Hex Allen Wrench
- Socket Set, Wire Cutters and Strippers
- Pliers or Channel Locks
- Electric Drill with 3/16", 7/32", 1" and 1 1/2" Bits
- Chassis or Sheet Metal Punch
- Wood Awl
- Wood File
- Razor Knife and Sharp Blades
- Soldering Iron & 60/40 Resin Core Solder
- Assorted Fastening Hardware
- Heat Shrink Tubing (3/32", 1/8" and 3/16")
- Masking Tape or 4" Wire Ties

IF YOU DO YOUR OWN PAINTING, YOU'LL NEED THESE PAINT SUPPLIES:

- Air Brush or Paint Sprayer
- Paint Brush, Paint Roller and Pan
- Paint (and Primer)
- Sandpaper

INSTALLATION

PREPARATION

BEFORE YOU START.....

1. Check to see if all the needed parts have been included in your kit.
2. Do you have the necessary tools?
3. Do not work with any part of the system while plugged in. (lights, monitor or power supply)

THE CABINET

Power Requirements

Cabinet Selection

You can choose either a new cabinet or a used cabinet for your SPECIAL FORCES game. Reusing a cabinet is by far the most cost effective way to maximize the return of your initial investment. In either case, all you will need to provide is the cabinet with a power supply, bill acceptor and monitor. We provide the rest. The end result is a new game at a very low cost.

When selecting a cabinet, keep this in mind:

NOTE:

It is recommended that a cabinet used for similar types of games be used for your SPECIAL FORCES. Large monitors mounted at a right angle work best.

NOTE:

The monitor must be mounted perpendicular to the gun for the game to play correctly.

Cabinet Preparation

A cabinet with a 25" or larger monitor, mounted at a right angle, will produce the best game play results. The monitor must be perpendicular to the gun for the game to play correctly.

1. Remove the following from the cabinet: Main Logic Board (s), Control Panel, Monitor Plexiglas, Marquee and Cabinet Graphics.
2. Thoroughly clean out your cabinet. Remove all the old buttons, joysticks and wires from the Control Panel. **DO NOT** remove monitor and speaker wires.
3. If your cabinet does not have switches or buttons inside the cabinet, you will need to install them for volume control and access to diagnostics and testing modes.
4. Remove the old graphics and adhesive from the control panel and the side of the cabinet.
5. For a fresh look, painting is highly recommended. Spray painting gives a better finish, but if an airbrush or paint sprayer is unavailable, a roller is second best. Remember to cover all exposed surfaces not to be painted.
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.

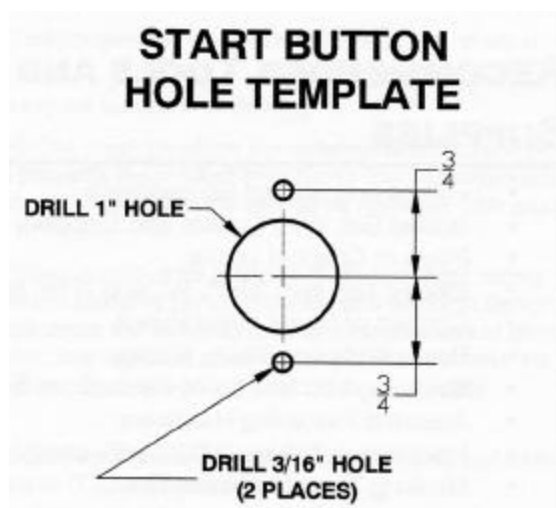
CONTROL PANEL

Compare your cabinet's control panel to the diagram below to determine how to install the graphics and controls. The Special Forces gun holster is mounted either on the front or side of the cabinet, so your control panel requires very little drilling.



Button Preparation

Special Forces comes with an illuminated Start button. When making the hole for the start button, use the control panel layout diagram as a guide to where you should drill your new hole, and mark the center of the hole with a pencil.



Locate and Mark the center of the control panel.

Position and attach the Start Button Hole Pattern Template to your control panel. Be sure that the location you have selected is free from obstructions inside the cabinet. Be sure that the template is oriented correctly.

Carefully drill and deburr the 1" center hole and the two 3/16" mounting holes.

Use a file to smooth any rough edges on the holes.

Fill any unused holes with wood, resin or a metal plate.

It is recommended that you cover your control panel with Plexiglas. Now would be a good time to cut it to fit while the dimensions and tools are at hand.

Install the control panel graphics and labels, following the instructions found in the manual. Cut away any graphics material from the button holes.

Insert the supplied button onto the large hole. Two pins on the lower edge of the button are used to lock the button into position.

Tighten the large plastic nut securely on to the plastic button housing.

Snap the micro-switch and lamp into the button housing.

Attach the button assembly switch and lamp to the main harness connectors. Refer to the manual for correct wiring.

GRAPHIC OVERLAYS

Special forces comes equipped with graphics that will accommodate a variety of existing game cabinets. Remove any old control panel graphics and make sure the panel is clean and free of dirt, grease or adhesives before installing your new graphics.

Control Panel Overlay Installation

1. Make sure the control panel is clean and free from dust, grease, metal filings and sawdust. The background overlay provided with the game is oversized to accommodate most control panel sizes. Center the background overlay on the control panel surface. Be sure to leave enough excess material above and below the control panel in order to trim it evenly.
2. Remove the protective backing from the background overlay. Center the background overlay over the control panel and place down gently, making sure to keep it square. Using your hands, press down firmly, starting from the center and smooth the background overlay outward, making sure all bubbles have been pressed out for a clean, flat surface.
3. Using a sharp razor knife, trim any excess from the background overlay. Carefully pierce through the overlay above the control panel hole that you have marked. Cut out material covering the pre-drilled holes with the razor knife. Be sure to cut and trim the background overlay cleanly and evenly.

Function Labels Overlay Installation

Line up the supplied function labels to correspond with the control panel layout on the previous page. Remove the backing and carefully press into place. Be sure they are straight. Refer to the control panel diagram for optimal placement.

It is highly recommended that you protect your control panel with a Plexiglas overlay. Cut it to fit and install now.

Insert the start button into the control panel and tighten securely. Refer to the Wiring section of this manual for correct button wiring.

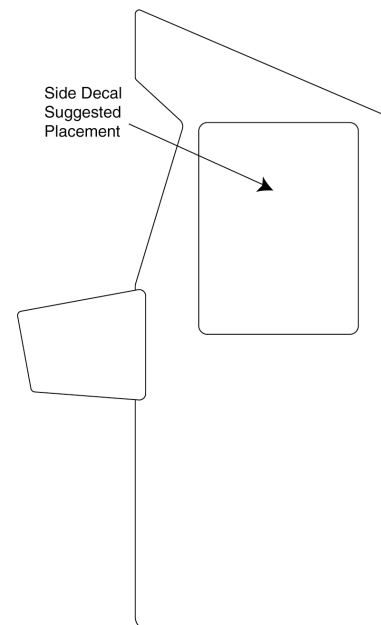
Marquee Installation

If your cabinet needs a new marquee glass, determine the correct size and cut to fit. Using the old marquee glass as a template, center the Plexiglas on your new marquee, making sure that all the printed images will be visible.

Using a razor knife, score the new marquee deeply, following the edges of the old glass. Carefully break off excess material. Be sure the light behind the marquee works and that the glass is clean on both sides. Now install the marquee graphics and glass securely.

Control Panel Overlay Installation

Carefully remove the backing from the supplied logo stickers and smooth in place on the side of your cabinet. Refer to the diagram below for optimal placement.

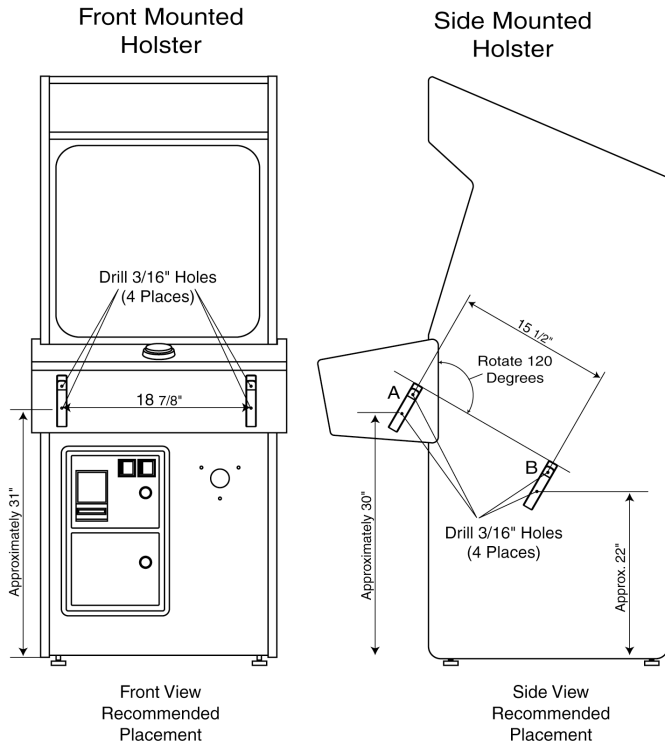


Preferred Side Graphics Layout

RIFLE HOLSTER INSTALLATION

Most SPECIAL FORCES games come equipped with a specially designed rifle. To mount the rifle to the cabinet, you need to attach a rifle holster. The rifle holster consists of two high-impact plastic brackets. These brackets can be mounted on the front of your cabinet, or on the side of your cabinet.

4. Remove the template and carefully drill and deburr the four 3/16" mounting holes.
5. Install the brackets using the supplied carriage bolts, flat washers and locking nuts. Fasten the nuts securely inside the cabinet.



1. Determine where you want to mount the holster. The holster should be mounted at a comfortable height near the control panel. Make sure the cable attached to the rifle will reach the PCB when mounted in the proposed bracket position.
2. Use the dimensions on the cabinet diagrams for optimal placement.

For **FRONT MOUNTING**, center the template on a vertical surface. Be sure the template is oriented correctly. Match the center of the template to the centerline of the cabinet. Use only the brackets on the template labeled **A and C**. The center holes on the brackets should be 18.875" apart.

For **SIDE MOUNTING**, orient and attach the template to the cabinet at a 30° angle. Be sure the template is oriented correctly. Use only the brackets on the template labeled **A and B**. The center holes on the brackets should be 15.5" apart.

3. Punch or mark the center holes for the appropriate bracket mounting holes with an awl.

GUN INSTALLATION

Insert the gun into the newly mounted holster. The attached gun cable should be hanging freely, with no loops or kinks.

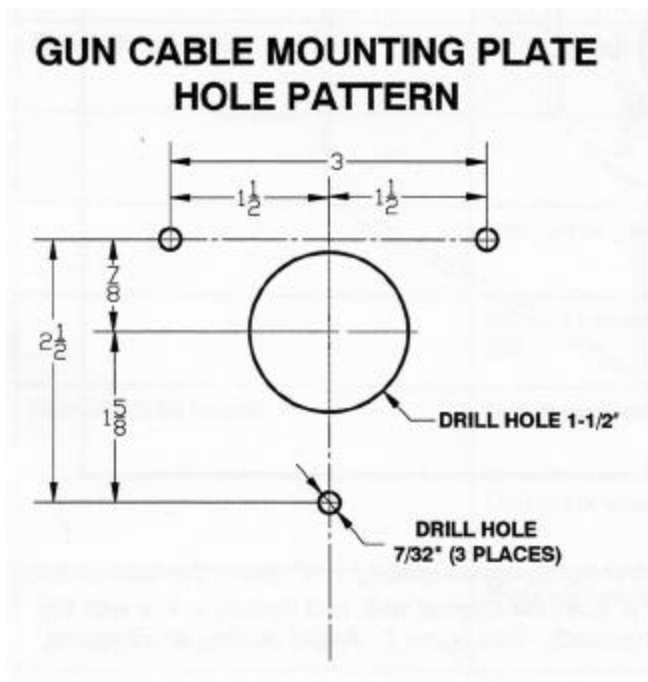
Determine the best location for the gun cable-mounting bracket. Players should be able to move the gun freely. Use the dimensions indicated on the cabinet diagrams for approximate placement. Be sure that once installed, the wires from the gun cable assembly will reach the power supply and PCB inside the cabinet.

Position and attach the Gun Mounting Template to the cabinet. Be sure that the location you have selected is free from bracing or wiring inside the cabinet.

Carefully drill and deburr the 1 1/2" center hole and the three 7/32" mounting holes.

Thread the cable connector and grounding wire through the center hole.

Mount the Gun Cable Mounting Plate using the supplied carriage bolts, flat washers and locking nuts. Make sure the bolts are firmly seated. Attach the grounding wire to any one of the carriage bolts before installing the washer and locking nut.



Once the Gun Cable Mounting Plate is mounted securely, make sure the gun can move freely in all directions.

Inside the cabinet, connect the Cable Connector to the supplied Connecting Harness. The Connecting Harness then connects to GUN 1 connector on the main PCB. See the Wiring section of this manual for more details.

WIRING AND HARDWARE ASSEMBLY

REMEMBER! DO NOT WORK WITH ANY PART OF THIS SYSTEM PLUGGED IN (Lights, Monitor or Power Supply).

NOTE:

All switch wires used in this game need to be wired to the normally open connection on the switches. Each switch requires a ground wire on the common connector and the appropriate control or switch wire on the other normally open connector of the switch.

Control Panel Assembly

1. Install the gun and Start button on the control panel by following the detailed instructions beginning on page 2.
2. If you are using Plexiglas for added protection, don't forget to place it on the panel before inserting the Start button.
3. Wire the controls using the JAMMA Harness Connection table. Connect the gun using the supplied connecting harness cable into GUN 1 on the main PCB.

Printed Circuit Board (PCB)

SPECIAL FORCES uses a hard drive to store its game data. The hard drive and PCB are mounted to a plate, which allows for easier assembly and placement. Refer to the next section for suggested mounting locations.

PCB and Hard Drive Installation

The Hard Drive is shipped in a specially padded box for maximum protection. Be sure to keep this box, in case you need to ship the hard drive. Failure to use the supplied box will VOID THE WARRANTY on the hard drive.

The PCB and the Hard Drive are both mounted to a single mounting plate, making installation and placement easier. The PCB is pre-assembled to the mounting plate.

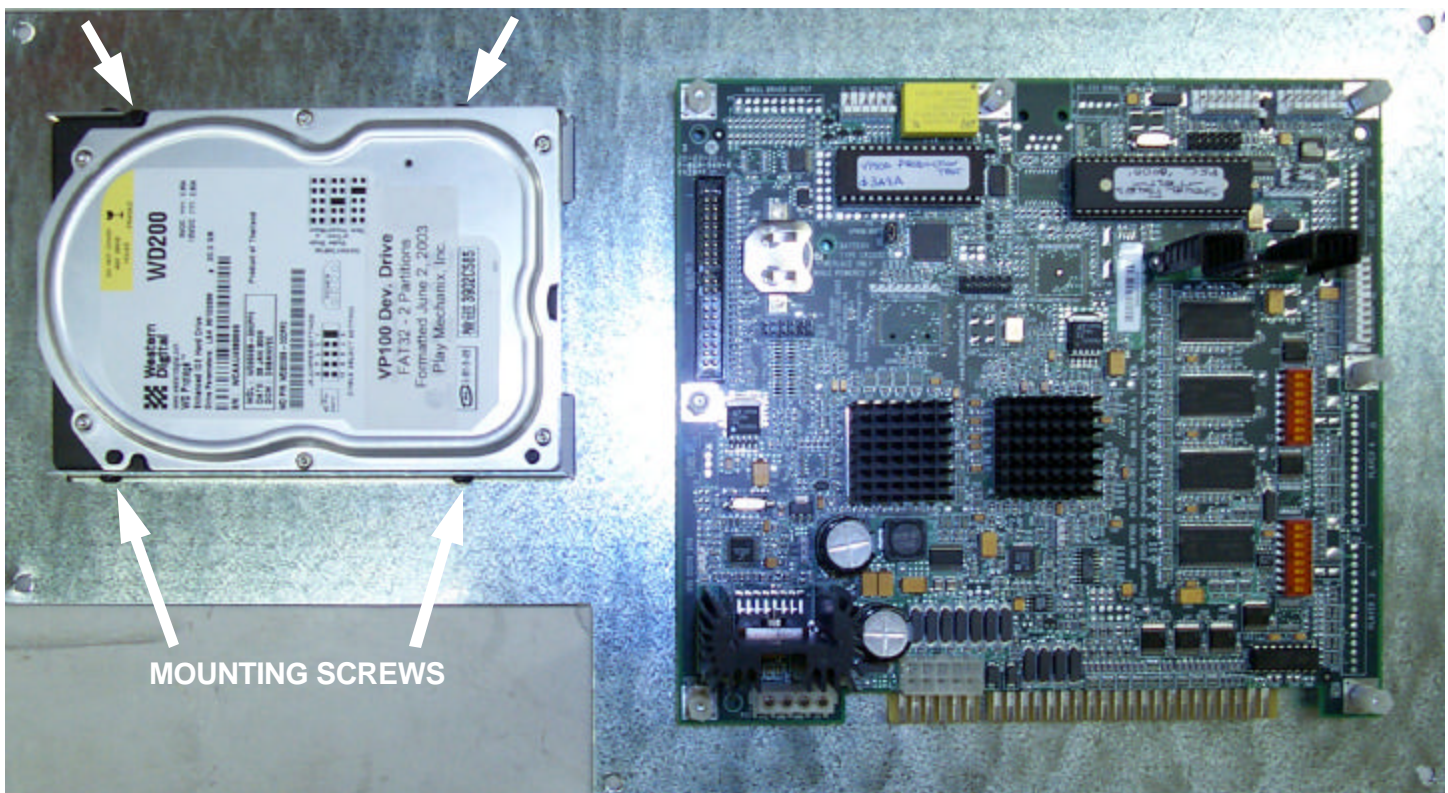
To begin installation, remove the mounting plate & PCB Assembly from the shipping container. Next remove the Hard Drive from the protective box. (Save this box - this box must be used in the event that the Hard Drive has to be returned)

Remove the four mounting screws from the Hard Drive. At this time, connecting the required harnessing is recommended. Harness installation will be easier with the Hard Drive unattached from the mounting plate. (See photos for harness connections)

Position the Hard Drive between the two flanges on the mounting plate. Attach the Hard Drive to the plate using the four screws previously removed.

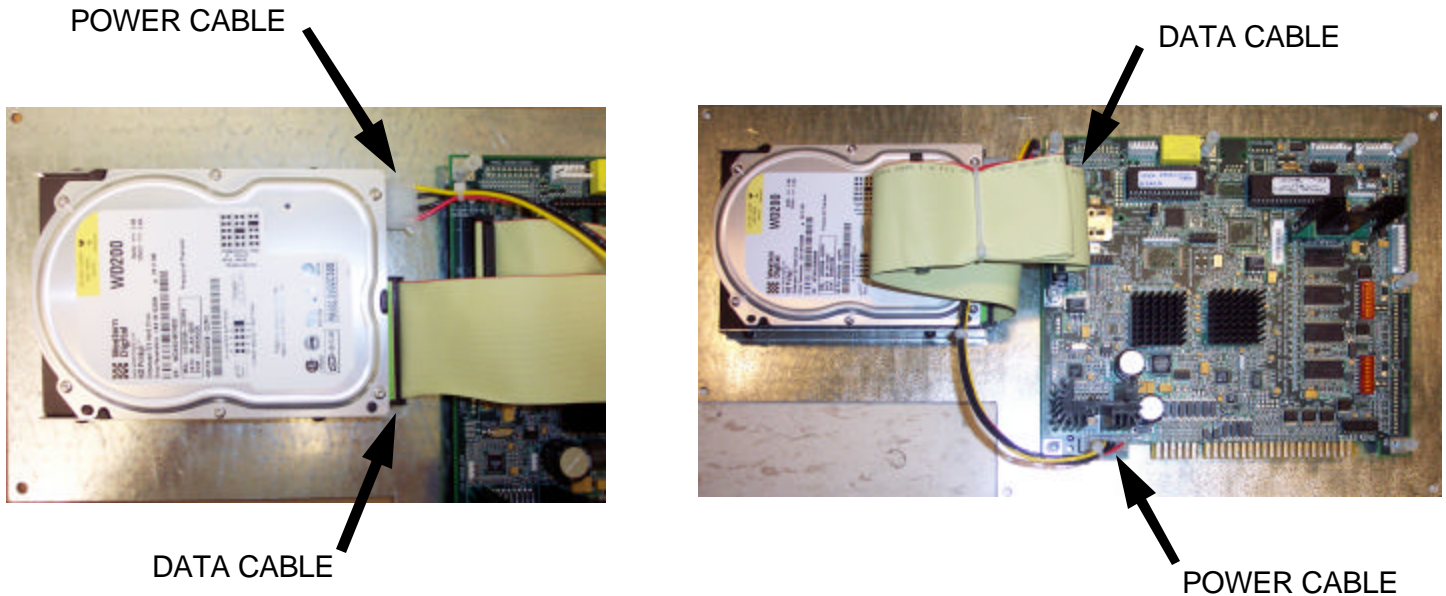
CAUTION!

Hard drives are sensitive to both physical and electrical shock. DO NOT DROP OR KNOCK OVER the hard drive. Avoid shocks and other electrical discharges. Keep the supplied padded box for shipping any returns. Failure to use the supplied shipping box will void the warranty.



Data and Power Bypass cables are supplied in this kit. The ribbon Data Cable for the hard drive is required for proper operation. The Power Bypass Cable is used to supply power to the hard drive. See the photo below for proper installation.

The supplied ribbon Data Cable is for data transmission. Connect one end of this cable to the keyed connector at J21 on the game board, and the other end into the keyed connector on the hard drive. See the photo below for proper installation.



Installation in Lower Cabinet

Choose a flat surface in the game cabinet to attach the PCB and Hard Drive mounting plate. The mounting can be mounted horizontally or vertically. Do not mount on an inclined surface. Attach the mounting plate to the cabinet using the five screws provided. Before attaching mounting plate, be sure that the location chosen will allow the wire harness from the gun assembly to reach the PCB.

Returns

In kit games, the hard drive is shipped in a special padded box. Be sure to keep this box, in case you need to ship the hard drive. Failure to use the supplied box will VOID THE WARRANTY on the hard drive.

Wire Harness

1. If you are installing SPECIAL FORCES into a cabinet with a pre-installed JAMMA harness, it may not have a wire for the test switch. You will have to add a contact to the edge connector at the proper position (position 15). Some cabinets have only one coin switch input and the coin switches are wired together. Connect the designated wires to the coin switches separately.
2. Attach the wire harness connector to the PCB. Be sure it is mounted correctly.

WARNING!

Make sure you have identified PIN 1 on the connector before powering up. Plugging the JAMMA connector in backwards will cause damage to the PCB.

3. It is best to use connectors (not supplied) whenever joining a set of harness wires to a subassembly. If you choose to solder wires together, follow this procedure:
4. Strip off about ½" of insulation from the wire.
5. Slide a piece of heat shrink tubing over the end.
6. Do not leave a lot of excess wire spooled up in your cabinet. Cut the wires to the length you need plus a few extra inches. Leave enough for proper cable dressing. Do not make it stretch across the inside of the cabinet.
7. Solder the new wire to the original wire. Use a straight in-line splice.

SYNC

This is the recommended approach for a Wells-Gardner monitor and should work with some others as well.

If your monitor does not have a composite SYNC input but has separate horizontal and vertical SYNC inputs, try connecting the composite SYNC signal from the PCB to the negative horizontal SYNC signal on the monitor. This should produce a satisfactory result, although some adjustment of the monitor's SYNC controls may be necessary.

Coin Doors, Test Switch & Service Button

Wire the coin doors and the test / service switch (es) as per the JAMMA Harness Connection table on page **XX**. Connect the door lamps to the +12 vdc 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.

Install a service switch (not included) somewhere convenient inside the coin door area. This switch allows you to give credits to players without affecting the game's credit audits or coin meters. Example: A player puts in a coin and gets no credit, the operator can then push the service button and a credit is given to the player without affecting the game's audits and coin meter.

Final Check

Check the game inside and out for any imperfections. Secure any loose wiring or fastening hardware.

Make sure the coin door is tight and the coin mechs are well adjusted.

NOTE:

Make sure all assemblies are firmly Attached. Anything that is not mounted securely will rattle when the game is played. This game makes use of low-frequency sounds, which can cause any loose joints to rattle.

Chapter 4 – Game Setup and Features

Player Controls

Start Button

The Start button is used to start a game once the proper number of credits has been inserted. Start button is also used to select or accept entries in the diagnostics system.

Pump Shotgun

The pump shotgun is used to shoot targets throughout the game. The default setting requires the gun to be pumped after each shot. Alternatively, the game may be setup to be played without pumping the gun.

Playing The Game

Special Forces Elite Training (SFET) is comprised of a series of “tests” and “missions” categorized by 3 separate branches: Air Force, Army and Navy. The player starts out as a private and can work up to 5 star general by passing each test and mission. At the end of each test and mission, the player is given a score. The player’s ultimate goal is to maximize points scored to achieve the high score and make it to the top of the leader board.

Branches and Levels

SFET is comprised of 3 branches: Air Force, Army and Navy. Each branch contains 4 levels: Level 1, Level 2, Level 3 and Super Soldier. Each level contains 2 tests and 1 mission with the exception of Super Soldier. The Super Soldier level contains 4 tests, each based on a test from Level 1 –3 but with the difficulty level increased. There are a total of 30 tests and 12 missions.

Tests

Each test lasts approximately 30 – 60 seconds. Each test challenges a player’s ability on a variety of different skills like speed, precision and cognitive awareness. At the start of each test, the objective and requirements to pass the test is outlined. Whenever a player passes a test, the player’s rank increases to the next level.

Missions

Each mission combines skills learned in the preceding two tests into one large event with a precise goal. Missions last 1 – 2 minutes.

Super Soldier

Levels 1 – 3 within each branch contain two tests and one mission. The Super Soldier level, level 4, within each branch consists of four tests. These 4 missions are based on tests from Level 1 –3 but with the difficulty level increased.

Expert Streak

In addition to passing a test, player’s can score a perfect score. Upon scoring perfectly in two consecutive tests, the player is awarded an Expert Streak bonus. The Expert Streak bonus increases as the number of consecutive perfect scores is achieved.

Game Setup

The game is setup at the factory with the recommended factory settings. The following outlines the important adjustments an operator may adjust during initial game setup. For more detailed instructions on setting these adjustments, see Chapter 3.

Coins

Set the number of credits required to start and continue the game. Also set the number of credits for each coin inserted in each coin mechanism and the DBV. These settings are adjusted in the COINAGE ADJUSTMENTS menu.

Gun Calibration

Whenever installing the game in a new location, the game must be re-calibrated.

Pump To Reload

The Pump To Reload factory setting is set to 'ON'. This requires that players pump the shotgun to reload after each shot. If set 'OFF', players are not required to pump the shotgun at all.

Violence Setting

Set the number of credits required to start and continue the game. Also set the number of credits for each coin inserted in each coin mechanism and the DBV. These settings are adjusted in the COINAGE ADJUSTMENTS menu.

Difficulty Setting

Set the number of credits required to start and continue the game. Also set the number of credits for each coin inserted in each coin mechanism and the DBV. These settings are adjusted in the COINAGE ADJUSTMENTS menu.

Game Volume

The game has two volume settings. One sets the volume of the game during game play. The other sets the volume of the game while in the attract mode.

Control Switches

The control switches are inside the front coin door.

Volume Up

Press the volume up button to increase the volume in the game and the attract mode. Pressing this button when playing the game will increase the game volume. Pressing this button when the game is in the attract mode will increase the attract mode volume.

Volume Down

Press the volume down button to decrease the volume in the game and the attract mode. Pressing this button when playing the game will decrease the game volume. Pressing this button when the game is in the attract mode will decrease the attract mode volume.

Diagnostics Button

Press this button to go into the diagnostics MAIN MENU.

Chapter 5 – Diagnostic, Adjustment and Audit Menu System

Menu System

The game's menu system is a series of on screen menus that allow the operator to setup and adjust the settings. Each menu item leads to another menu, a list of data or provides the ability to modify the adjustment.

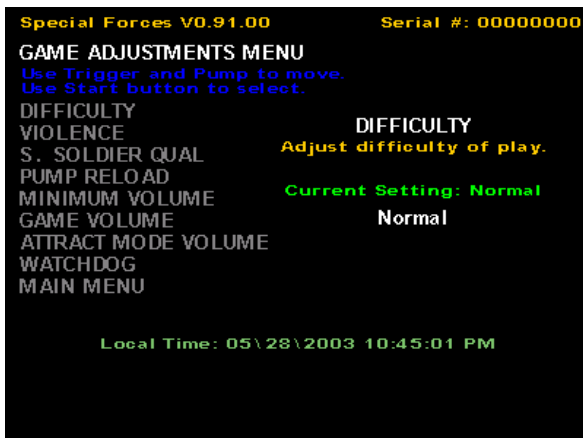
Starting The Menu System

Press the Diagnostics control switch inside the coin door to access the on screen menu system.

Navigating The Menu

Use the following to navigate the menu system:

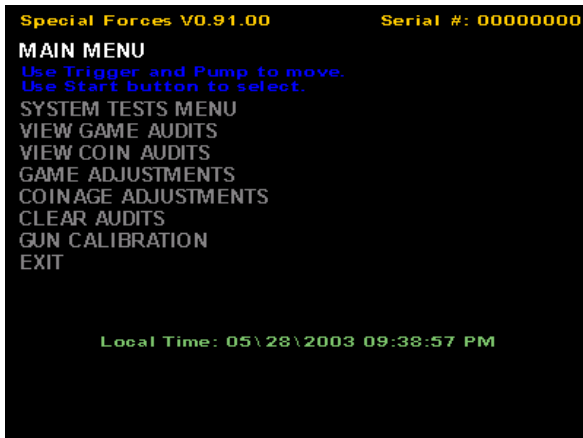
- Shotgun trigger to move the cursor down the menu or to decrease a selectable value
- Shotgun pump to move the cursor up the menu or to increase a selectable value
- Use the Start button to select an item. On selectable menu items, press the Start button to activate the adjustable. Once activated, use the left most and right most control pads to change the settings. Once an item has been changed, press the Start button to save the desired setting.



In this example, DIFFICULTY was selected. Use the shotgun trigger to decrease and the shotgun pump to increase this setting. Press the START button to save the desired setting.

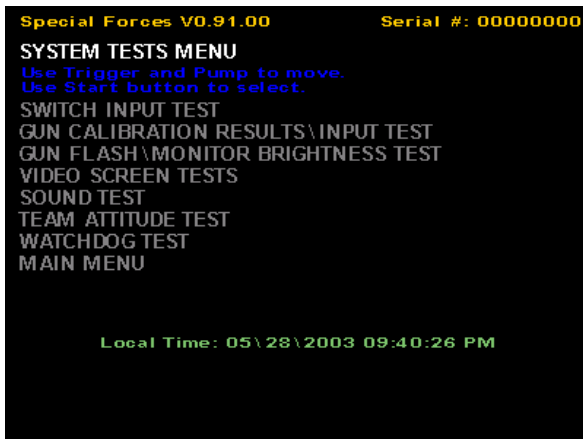
1.0 Main Menu

All system tests, audits and game adjustments are accessible from the MAIN MENU.



1.1 System Test Menu

Select SYSTEMS TEST at the MAIN MENU.



Switch Input Test - Select SWITCH INPUT TEST to manually test all of the switch inputs. When in this screen, activate the start button, test button, volume up, volume down, coin 1, coin 2, coin 3, coin 4, shotgun trigger and shotgun pump to determine if the game recognizes input from each.

Gun Calibration Results\Input Test - Select XXXXXXXXXX.

Gun Flash\Monitor Brightness Test - Select XXXXXXXXXX

Video Screen Tests - Select VIDEO SCREEN TESTS to test the following: Screen Color, Screen Size, Red Color, Green Color, Blue Color, and White Color.

Sound Test - Select SOUND TEST to test various game sounds and songs.

Team Attitude Test - Select TEAM ATTITUDE TEST to determine the attitude of the development team.

Watchdog Test - The watchdog automatically restarts the game in the event it locks up. Select WATCHDOG TEST to determine if the watchdog is functioning properly.

1.2 View Game Audits

Select VIEW GAME AUDITS at the MAIN MENU to view import audit data about the game. Use the Shotgun trigger and pump to navigate through the page navigation items at the bottom of each page. All of these game audits will be reset to zero each time RESET AUDITS or RESTORE FACTORY SETTINGS is performed.

Page 1

Special Forces V0.91.00		Serial #: 00000000
GAME AUDITS Cleared: 05\28\2003 07:31:03 PM		
Up Time H:M:S		2:02:08
Number of Levels Played		2
Total Game Time H:M:S		0:06:16
Avg Time Per Play H:M:S		0:03:08
Avg Time Per Level H:M:S		0:03:08
Avg Levels Played Per Game		2.0
Continues Offered		1
Continues Taken		0
Avg Continues		0.0
NEXT PAGE		
EXIT AUDITS		
Local Time: 05\28\2003 09:46:54 PM		

Up Time H:M:S - Total up time. Reported in Hours, Minutes and Seconds.

Number of Levels Played – Total number of levels played. A level is a set of 2 tests and 1 mission.

Total Game Time H:M:S – Total time. Reported in Hours, Minutes and Seconds.

Avg Time Per Play H:M:S – Average amount of game time per game played. Reported in Hours, Minutes and Seconds.

Avg Time Per Level H:M:S – Average amount of game time per level. Reported in Hours, Minutes and Seconds.

Average Levels Played – Average number of levels played per game.

Continues Offered – Number of Continues offered to players.

Continues Taken – Number of Continues taken.

Average Continues– Average number of Continues offered.

Page 2

Special Forces V0.91.00		Serial #: 00000000
GAME AUDITS Cleared: 05\28\2003 07:31:03 PM		
1 Player Games		2
2 Player Games		0
3 Player Games		0
4 Player Games		0
Player Starts		2
Game Overs		1
Game Finishes		0
NEXT PAGE		
PREVIOUS PAGE		
EXIT AUDITS		
Local Time: 05\28\2003 09:47:57 PM		

1 Player Games – Number of 1-player games started.

2 Player Games – Number of 2-player games started.

3 Player Games – Number of 3-player games started.

4 Player Games – Number of 4-player games started.

Player Starts – Number of total games started.

Game Overs – Number of games ended before reaching the end of the branch (Army, Air Force, Navy).

Game Finishes – Number of games completed to the end of a branch (Army, Air Force, Navy).

Page 3

```
Special Forces V0.91.00      Serial #: 00000000
GAME AUDITS      Cleared: 05\28\2003 07:31:03 PM
Army Selected      2
Army Finished      0
Air Force Selected 0
Air Force Finished 0
Navy Selected      0
Navy Finished      0

      NEXT PAGE
      PREVIOUS PAGE
      EXIT AUDITS
Local Time: 05\28\2003 09:48:16 PM
```

Army Selected – Number of times the Army branch was selected.

Army Finished – Number of times the Army branch was finished.

Air Force Selected – Number of times the Air Force branch was selected.

Air Force Finished – Number of times the Air Force branch was finished.

Navy Selected – Number of times the Navy branch was selected.

Navy Finished – Number of times the Navy branch was finished.

Page 4

```
Special Forces V0.91.00      Serial #: 00000000
GAME AUDITS      Cleared: 05\28\2003 07:31:03 PM
Army Level 1 Played 2
Army Level 2 Played 0
Army Level 3 Played 0
Army Super Soldier Played 0
Air Force Level 1 Played 0
Air Force Level 2 Played 0
Air Force Level 3 Played 0
Air Force Super Soldier Played 0

      NEXT PAGE
      PREVIOUS PAGE
      EXIT AUDITS
Local Time: 05\28\2003 09:48:35 PM
```

Army Level 1 Played – Number of times Army Level 1 was played.

Army Level 2 Played – Number of times Army Level 2 was played.

Army Level 3 Played – Number of times Army Level 3 was played.

Army Super Soldier Level Played – Number of times Army Super Soldier level was played.

Note: Repeat same information for the Air Force branch.

Page 5

```
Special Forces V0.91.00      Serial #: 00000000
GAME AUDITS      Cleared: 05\28\2003 07:31:03 PM
Navy Level 1 Played      0
Navy Level 2 Played      0
Navy Level 3 Played      0
Navy Super Soldier Played 0

      NEXT PAGE
      PREVIOUS PAGE
      EXIT AUDITS
      Local Time: 05\28\2003 09:48:51 PM
```

Navy Level 1 Played – Number of times Navy Level 1 was played.

Navy Level 2 Played – Number of times Navy Level 2 was played.

Navy Level 3 Played – Number of times Navy Level 3 was played.

Navy Super Soldier Level Played – Number of times Navy Super Soldier level was played.

Page 6

```
Special Forces V0.91.00      Serial #: 00000000
GAME AUDITS      Cleared: 05\28\2003 07:31:03 PM
Army 1    Tries: 3 Passes: 0 0.0
Army 2    Tries: 0 Passes: 0 0.0
Army 3    Tries: 0 Passes: 0 0.0
Army SS   Tries: 0 Passes: 0 0.0
Air Force 1 Tries: 0 Passes: 0 0.0
Air Force 2 Tries: 0 Passes: 0 0.0
Air Force 3 Tries: 0 Passes: 0 0.0
Air Force SS Tries: 0 Passes: 0 0.0

      NEXT PAGE
      PREVIOUS PAGE
      EXIT AUDITS
      Local Time: 05\28\2003 09:49:08 PM
```

Page 7

```
Special Forces V0.91.00      Serial #: 00000000
GAME AUDITS      Cleared: 05\28\2003 07:31:03 PM
Navy 1    Tries: 0 Passes: 0 0.0
Navy 2    Tries: 0 Passes: 0 0.0
Navy 3    Tries: 0 Passes: 0 0.0
Navy SS   Tries: 0 Passes: 0 0.0

      NEXT PAGE
      PREVIOUS PAGE
      EXIT AUDITS
      Local Time: 05\28\2003 09:49:28 PM
```



Watchdogs – Number of times the game has watch dogged (reset on its own).

Factory Reset – Date of the last Factory Reset.

Adjustments Reset – Date of the last Game Adjustment Reset.

Audits Cleared – Date of last Audits Cleared.

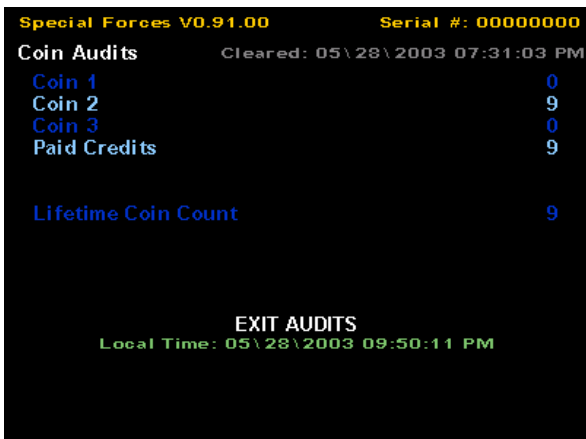
Coins Cleared – Date of last Coins Cleared.

Credits Cleared – Date of last Credits Cleared.

High Score Reset – Date of last High Score Reset.

1.3 View Coin Audits

Select VIEW COIN AUDITS at the MAIN MENU to view coin data about the game.



Coin 1 – Number of coins inserted in coin mechanism 1.

Coin 2 – Number of coins inserted in coin mechanism 2.

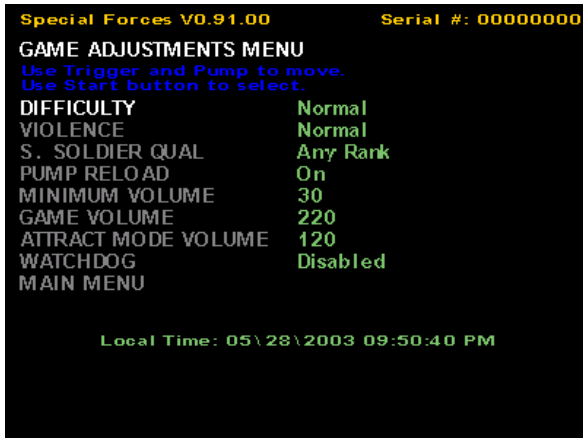
Coin 3 – Number of coins inserted in coin mechanism 3.

Paid Credits – Number of paid credits.

Lifetime Coin Count – Number of coins inserted in all coin devices since the game has been installed. This counter may not be reset.

1.4 Game Adjustments

Select GAME ADJUSTMENTS at the MAIN MENU. Modify these game adjustments to change the way the game functions.



Difficulty – Set the difficulty level of the game. Set to 'Normal' to xxxx. Set to 'Easy' to xxx

Violence – Set the violence level of the game. Set to 'Normal' to xxxx. Set to 'Low' to xxx

Super Soldier Qualification – This setting determines whether a player must earn the right to play Super Soldier. If set to ANY RANK, all players may play the Super Soldier level. If set to 9th XXX, only players that achieve the 9th rank can play Super Soldier.

Pump Reload – This setting determines whether players are required to pump the shotgun to reload after each shot. If set to ON, a player must pump the shotgun after each shot to reload the gun. If set to OFF, the player never must pump the shotgun to reload. In the OFF setting, the gun reloads on its own after each shot.

Minimum Volume – Minimum volume setting for the game. Set from 0 – 255. The higher the setting the higher the volume.

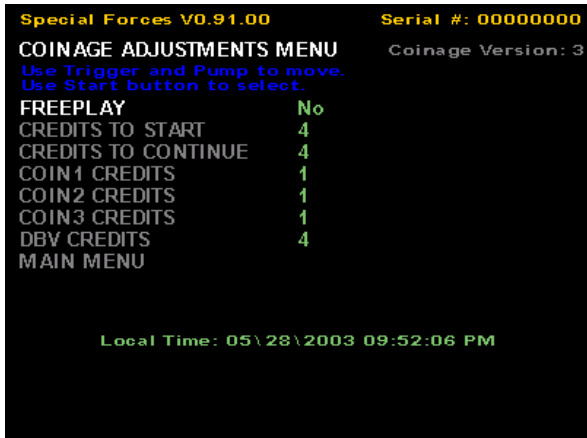
Game Volume – Volume setting for the game. Set from 0 – 255. The higher the setting the higher the volume.

Attract Mode Volume – Volume setting for the attract mode. Set from 0 – 255. The higher the setting the higher the volume.

Watchdog – Determines if the watchdog is enabled or disabled. When 'Enabled', the game will automatically restart if the game crashes. If 'Disabled', the game will not restart if the game crashes.

1.5 Coinage Adjustments

Select COINAGE ADJUSTMENTS at the MAIN MENU. Modify these coinage adjustments to change the price of the game.



Free Play – If set to ‘Yes’ the game is set on free play and no coins or credits will be required to play.

Credits to Start – Set the number of credits required to start a game. Set from 1 – 20.

Coin 1 Credits – Set the number of credits received when a coin or token is inserted in coin mechanism 1. Set from 1 – 20.

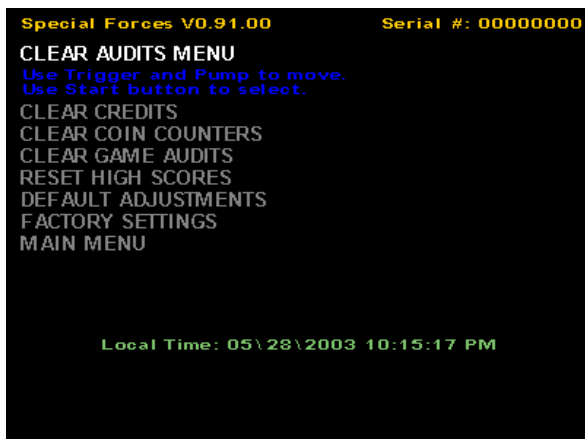
Coin 2 Credits – Set the number of credits received when a coin or token is inserted in coin mechanism 2. Set from 1 – 20.

Coin 3 Credits – Set the number of credits received when a coin or token is inserted in coin mechanism 3. Set from 1 – 20.

DBV Credits – Set the number of credits received when a bill is inserted in the DBV. Set from 1 – 50.

1.6 Clear Audits

Select CLEAR AUDITS at the MAIN MENU. Modify these ticket adjustments to change the number of tickets dispensed by the game.



Clear Credits – This will clear the credits currently in the game.

Clear Coin Counters – This will clear all of the coin counters in the game.

Clear Game Audits – This will clear all the game audits.

Reset High Scores – This will reset the high score tables.

Default Adjustments – This will reset the game using all of the default adjustments. Default Adjustments are as follows:

Game Adjustments:

Difficulty	Normal
Violence	Normal
S. Soldier Qual	Any Rank
Pump Reload	On
Minimum Volume	30
Game Volume	220
Attract Volume	120
Watchdog	Enabled

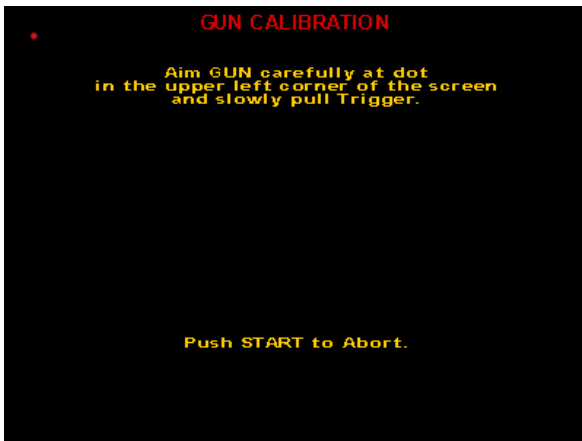
Coin Adjustments:

Freeplay	No
Credits to Start	4
Credits to Continue	4
Coin 1	1
Coin 2	1
Coin 3	1
DBV	4

Factory Settings – This will reset the game using all of the default settings above and clear credits, game audits, coin audits and reset high scores. It will NOT reset the Lifetime Coin Counter.

1.7 Gun Calibration

Select GUN CALIBRATION at the MAIN MENU.



Gun Calibration – This will calibrate the gun.

Chapter 6 – Troubleshooting

CAUTION

This game uses complex electronic components that are very sensitive to static electricity. Observe precautions below before handling these electronics. Failure to do so may void the warranty and damage electronic assemblies.

- Before servicing electronics, turn off AC power to the game. Wait for capacitors to discharge.
- DO NOT remove any of the components on the main board (e.g. hard drive and eproms) while the game is powered on. This may cause permanent damage to the parts and the main board.
- Before touching or handling electronic assemblies, discharge static electricity on your body. To discharge this static, begin by connecting the line cord to a grounded outlet. Don't turn on the game. Next, touch the safety ground stud of the power supply chassis.
- Store electronic assemblies in an anti-static area. Use anti-static bags to store or transport the game circuit boards.
- Don't remove or connect electronic assemblies when cabinet power is on. Otherwise, you'll damage electronic assemblies and void the game's warranty.
- After you complete maintenance or service, replace ground wires, shields, safety covers and install and tighten ground and mounting screw.
- Video game monitors generate and store potentially high voltages. Avoid touching any part of the monitor until power has been off for some time. A picture tube can maintain a hazardous charge for up to several days. Only qualified technicians should service monitors.

Game Is Non-Functional

1.	Verify that the game power switch is turned on.
2.	Verify the line cord connector is firmly and correctly seated into the power entry module of AC power chassis.
3.	Verify that correct AC line voltage is present at the outlet
4.	Verify that the JAMMA wire harness connector is firmly and properly seated to the mating JAMMA PCB edge connector. DO NOT remove or install JAMMA connector when power is turned on. Doing so will damage the CPU assembly and void the warranty.
5.	Verify that the DC power supply voltages at the game CPU assembly are set as follows. The following voltages should be set when the game CPU assembly is connected and the game is powered on.
6.	Verify that the non-JAMMA connectors are attached at the proper location and are firmly seated.
7.	Verify that the game DIP switches are set properly.
8.	Inspect CPU board under low-light conditions. LED's glow if processor circuits receive voltage. These indications prove presence of some DC from power supply. Still, voltages or signals may not be present.

Monitor Is Non-Functional

1.	Verify that the cabinet AC line voltage cable is firmly and properly connected to mating AC connector on monitor.
2.	Verify that the cabinet video signal cable connector is firmly and properly connected to the mating video signal input connector of the monitor.
3.	Verify that the monitor remote adjustment board is properly installed and connected to the monitor chassis.
4.	Verify monitor is operating properly by replacing with know good unit.
5.	Verify that brightness and contrast are set above their minimum levels.
6.	Verify that the game is using a low-res monitor.

Sound Is Non-Functional

1.	Verify the cabinet wiring is correct. Ensure that the speakers are properly connected to the audio wires from the JAMMA connector.
2.	Verify that the power is providing: +5V: +4.9V - +5.1V +12V: +11.5V - +12.5V
3.	Verify that the above listed voltages are present at the correct JAMMA connector pins.
4.	Verify that the game volume has been turned up.

Game Controls Are Non-Functional

1.	Verify that each individual switch is working by doing the SWITCH INPUT TEST under the SYSTEM TESTS MENU.
2.	Verify that each individual signal wire for each switch is connected.

Marquee Lamp Is Non-Functional

1.	Verify that the fluorescent lamp is properly inserted into the lamp holders.
2.	Verify that the lamp pins are making good contact with the mating pins of the lamp holders.
3.	Verify that the fluorescent lamp ballast is correct for the local AC line voltage and frequency.

Chapter 7 – Parts

MECHANICAL PARTS

CK5001	Coin Door
HR1019	Leveler Foot
HR2005	Button – Large Round White
SP3001	Holster Cup
SP3003	Gun
SP3027	Cover Glass

ELECTRICAL PARTS

8449	Ballast
8312	Bulb PL-L
AR2007	Speaker (6 X 9)
MON29C	Monitor – 29”
SP2034X	Main PCB
WA2010	Power Supply

GRAPHICS & DECALS

SP7001	Decal – Cabinet – Left
SP7002	Decal – Cabinet – Right
SP7005	Decal – Button
SP7011	Decal – Control Panel – Left
SP7012	Decal – Control Panel – Right
SP7013	Decal – Control Panel – Front
SP7014	Decal – Front Strip
SP7015	Decal – Rifle – Left
SP7016	Decal – Rifle – Right
SP7018	Decal – Rifle – Forward
SP7027	Decal – Marquee

Chapter 8 - Warranty

I.C.E warrants all components in the **SPECIAL FORCES ELITE TRAINING** game to be free of defects in materials and workmanship for a period of 90 days from the date of purchase. Furthermore, all MAIN P.C. BOARDS are warranted for 180 days.

This warranty does not cover items damaged due to normal wear and tear, subjected to abuse, improperly assembled by the end user, modified, repaired, or operated in a fashion other than that described in the service manual.

If your **SPECIAL FORCES ELITE TRAINING** game fails to conform to the above-mentioned warranty, I.C.E.'s sole responsibility shall be at its discretion to repair or replace any defective component with a new or remanufactured component of equal to or greater O.E.M. specification.

I.C.E. will assume no liability whatsoever, for costs associated with labor to replace defective parts, or travel time associated therein.

I.C.E.'s obligation will be to ship free of charge, replacement parts by U.P.S. Ground, U.S. mail, or other comparable shipping means. Any express mail or overnight shipping expense is at the cost of the purchaser.

- Products will be covered under warranty only when:
- The serial number of the game with the defective parts is given.
- The serial number of the defective part, if applicable, is given.
- Defective parts are returned to I.C.E., shipping pre-paid, in a timely fashion, if requested by I.C.E.
- A copy of the sales receipt is available as proof of purchase upon request of I.C.E.

I.C.E. distributors are independent, privately owned and operated. In their judgment, they may sell parts or accessories other than those manufactured by I.C.E. We cannot be responsible for the quality, suitability, or safety of any non-I.C.E. part, or any modification, including labor, which is performed by such a distributor.

Chapter 8 – Warranty Continued

ICE Inc warrants that all of its products will be free from defects in material and workmanship.

When placing a warranty request, please be prepared to provide the following information:

- Serial Number of Game or Bill of Sale
- Machine Type
- A Detailed Description of the Equipment Fault Symptoms

ICE product, including Cromptons, Sam's Billiards, Uniana and Bell Fruit is warranted as follows:

- 180 days on the Main PCB and Computers
- 90 days on all other components (i.e. DBV's, Ticket Dispensers, etc)
- 30 days on repaired items
- 3 years on all Crane Harnessing
- 9 Months on Printers

ICE Inc shall not be obligated to furnish a warranty request under the following conditions:

- Equipment has been subjected to unwarranted stress through abuse or neglect
- Equipment has been damaged as a result of arbitrary repair/modification attempts
- Equipment that has failed through normal wear and tear

ICE Inc will assume no liability whatsoever for costs associated with labor to replace defective parts or travel time associated therein.

All defective warranty covered components will be replaced with new or factory refurbished components equal to OEM specifications. ICE Inc will cover all UPS ground, or comparable shipping means, freight costs during the warranty period. Expedited shipments are available for an additional charge.

Defective parts are returned to ICE Inc, at the customer's expense, in a timely fashion.

ICE distributors are independent, privately owned and operated. In their judgment, they may sell parts and/or accessories other than those manufactured by ICE Inc. We cannot be responsible for the quality, suitability or safety of any non-ICE part, modification (including labor) that is performed by such a distributor.

I.C.E. Parts/Service Dept.
Innovative Concepts in Entertainment
10123 Main St.
Clarence, NY 14031
Phone #: (716) - 759 – 0360
Fax #: (716) – 759 – 0884