



THE **FAST**
AND THE
FURIOUS

ファースト アンド フェリナス

DRIIFT

CONVERSION KIT

040-00006-01

BEFORE YOU BEGIN:

DRIFT CONVERSION KIT TO BE INSTALLED BY QUALIFIED SERVICE PERSONAL ONLY.

BEFORE STARTING, UNPLUG THE AC LINE CORD TO REMOVE ALL POWER.

A SAFE, DRY AND LIGHTED WORK SPACE WILL BE REQUIRED.

DO NOT DISABLE, REMOVE OR MODIFY ANY SAFETY FUNCTIONS OR DEVICES IN THE CABINET OR THE DRIFT CONVERSION KIT.

THE CABINET AND THE NEW DRIFT CONVERSION KIT CONTAIN SENSITIVE ELECTRONIC DEVICES. PROPER ESD PRACTICES NEED TO BE FOLLOWED.

THE COMPUTER DEFAULT POWER SETTING IS 110VAC.

CRUSIN USA, CRUSIN WORLD, CRUSIN EXOTICA, AND OFFROAD CHALLENGE IS COPYRIGHT MIDWAY GAMES, LLC.
CALIFORNIA SPEED IS COPYRIGHT ATARI GAMES.
DRIFT FAST AND FURIOUS IS COPYRIGHT RAW THRILLS, INC.
FAST AND FURIOUS IS COPYRIGHT UNIVERSIAL, LLC.

RECOMMENDED TOOLS LIST:

CORDLESS DRILL

1/2" DRILLBIT

1/4" HEX-HEAD NUT DRIVER

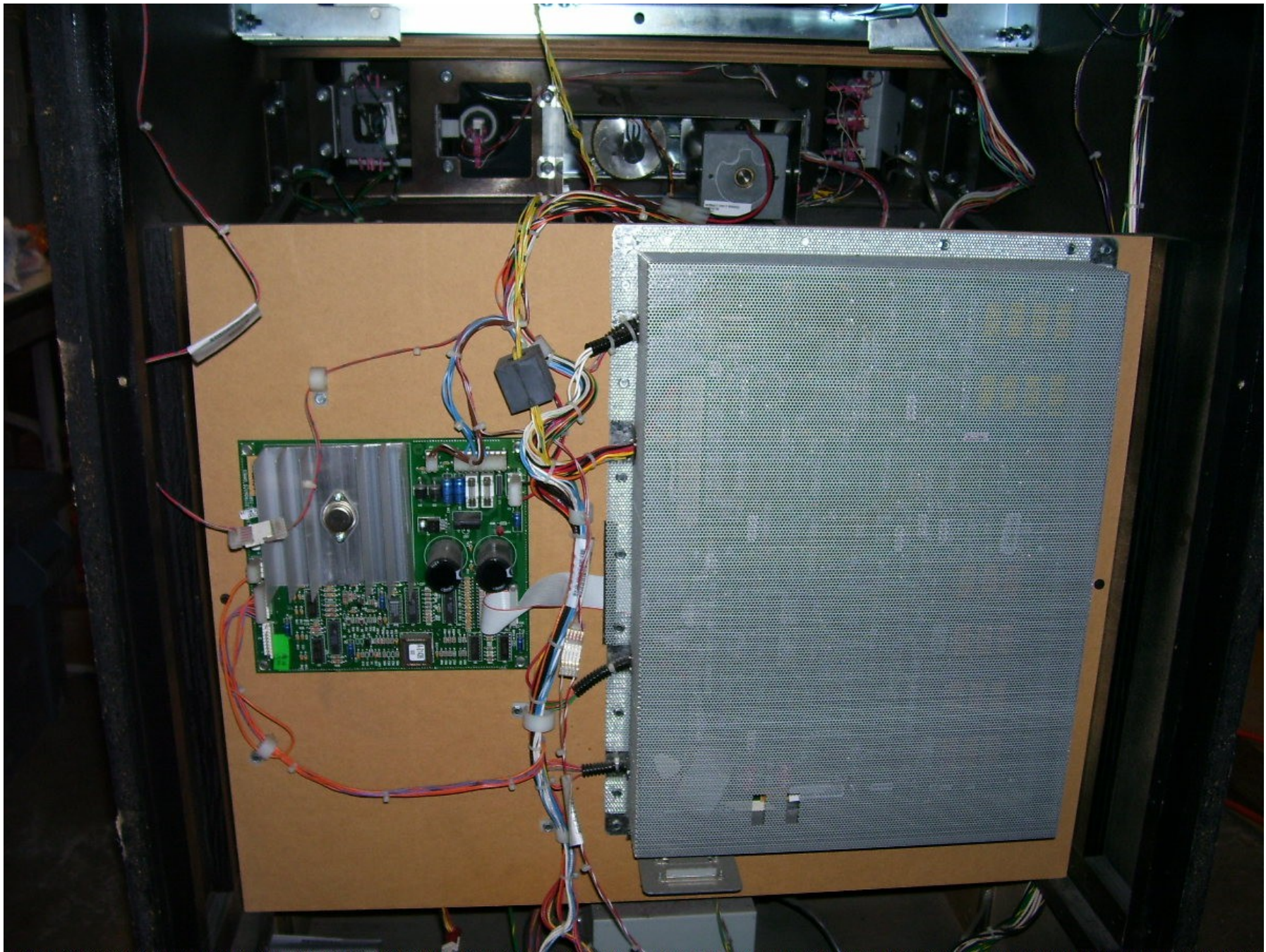
PHILIPS SCREWDRIVER

FLATBLADE SCREWDRIVER

OPTIONAL:

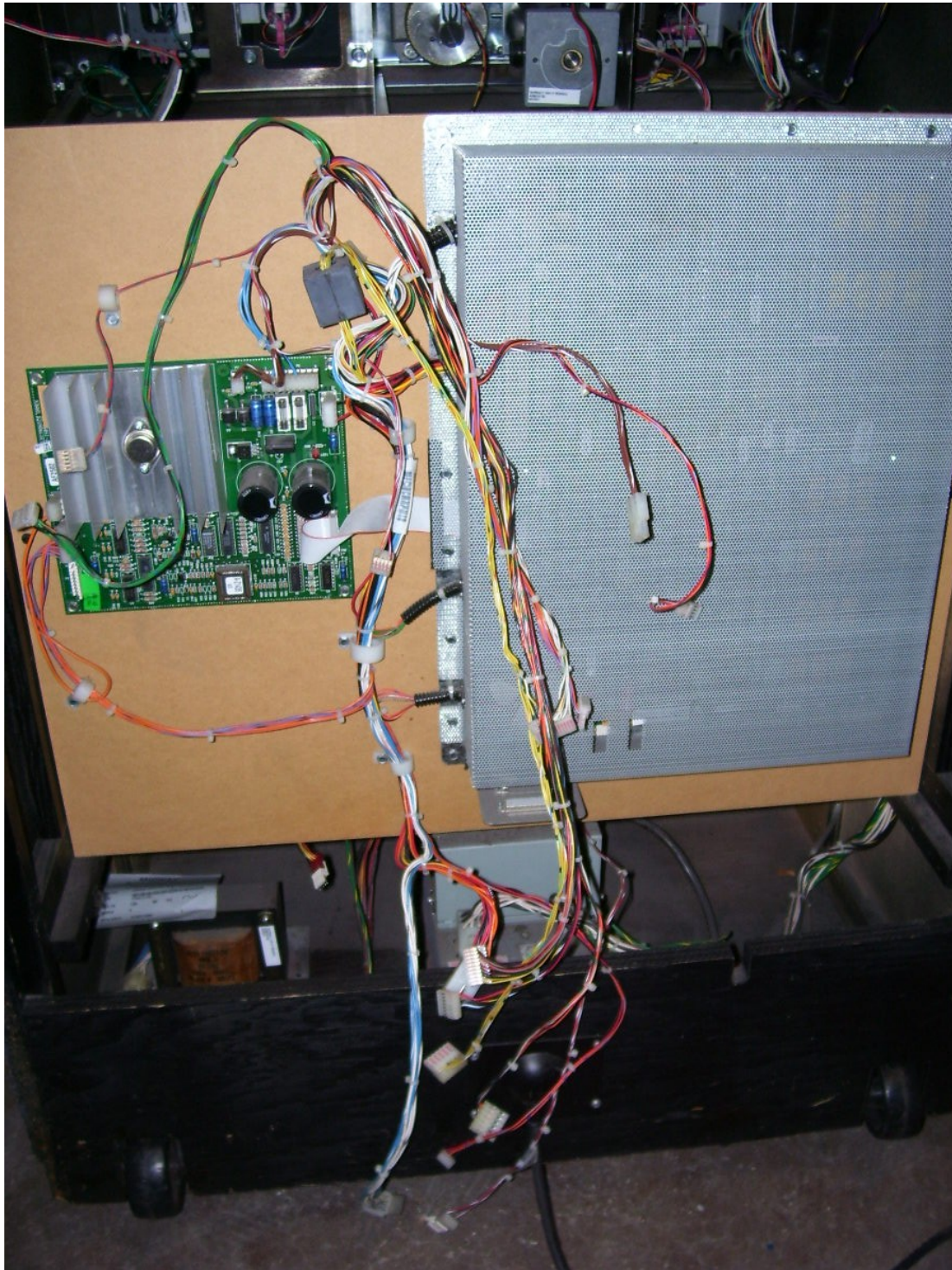
JIGSAW OR KEY-HOLE SAW

DIGITAL VOLT METER(DVM)



EXISTING GAME ELECTRONICS ASSEMBLY IS TO BE REMOVED.

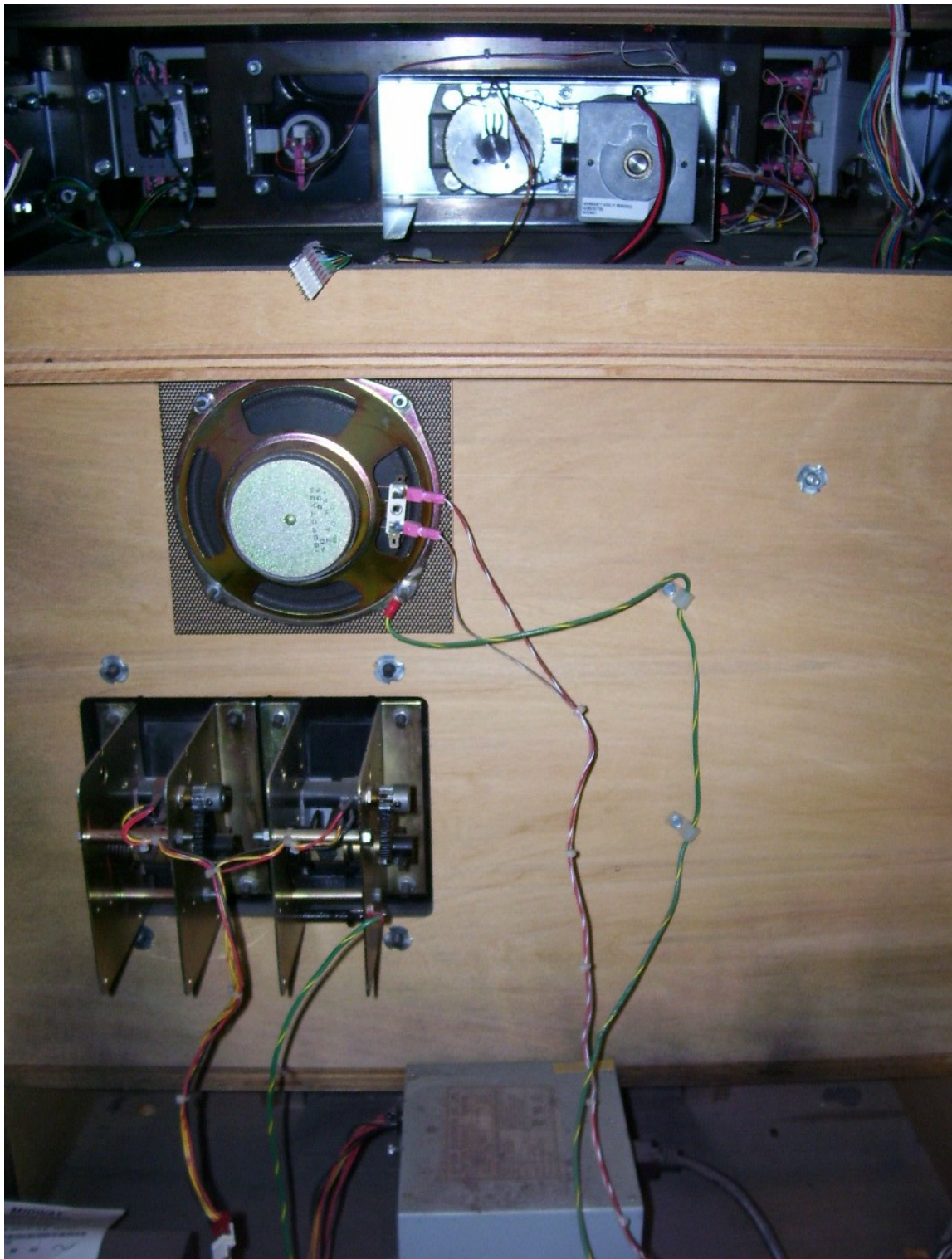
(ASSEMBLY PICTURED MAY BE DIFFERENT)



UNPLUG ALL THE CABINET CABLES IN THE GAME. THIS IS THE POINT OF WHERE THE MAIN HARNESS CONNECTS TO THE CABINET CABLES WITH A Z-HEADER. LEAVE THE Z-HEADER CONNECTED TO THE CABINET CABLE.

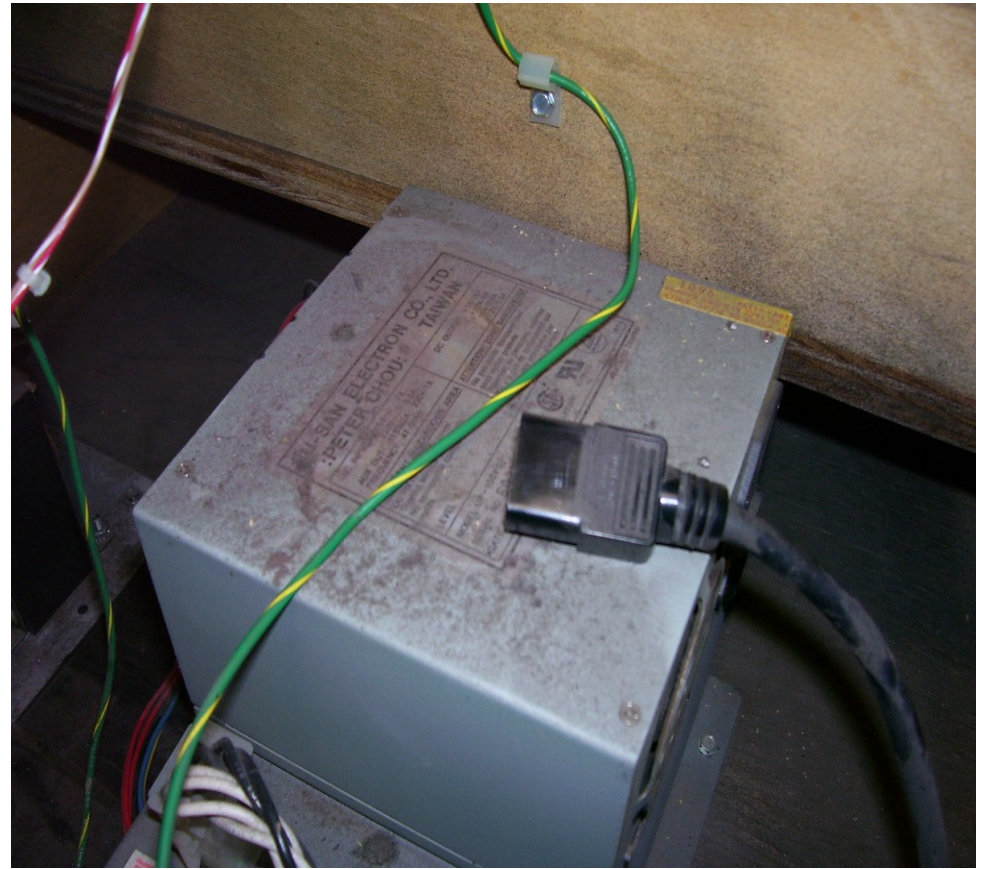
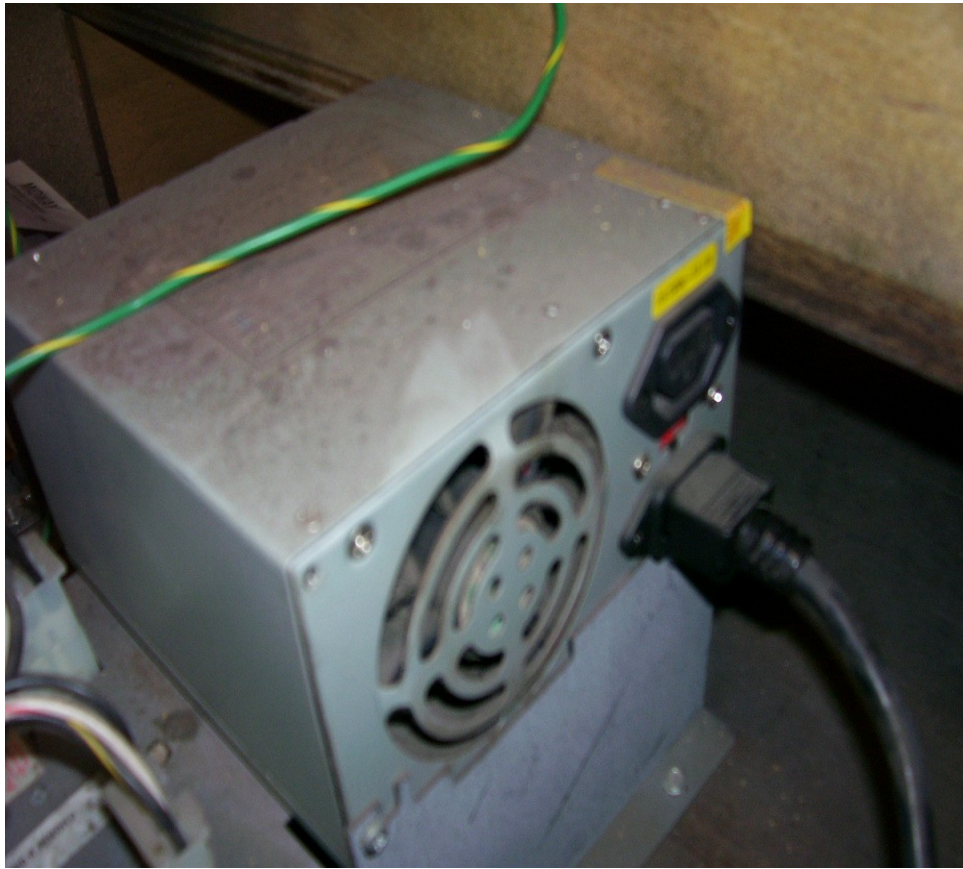
UNPLUG THE FOLLOWING CABLES:

DASH SWITCHES
DASH LAMPS
SHIFTER
KEYPAD
STEERING MECH
SPEAKERS
VIDEO
PEDAL MECHANISM
STEERING TRANSFORMER
COIN BOX
TEST SWITCH ASSEMBLY
SEAT AUDIO

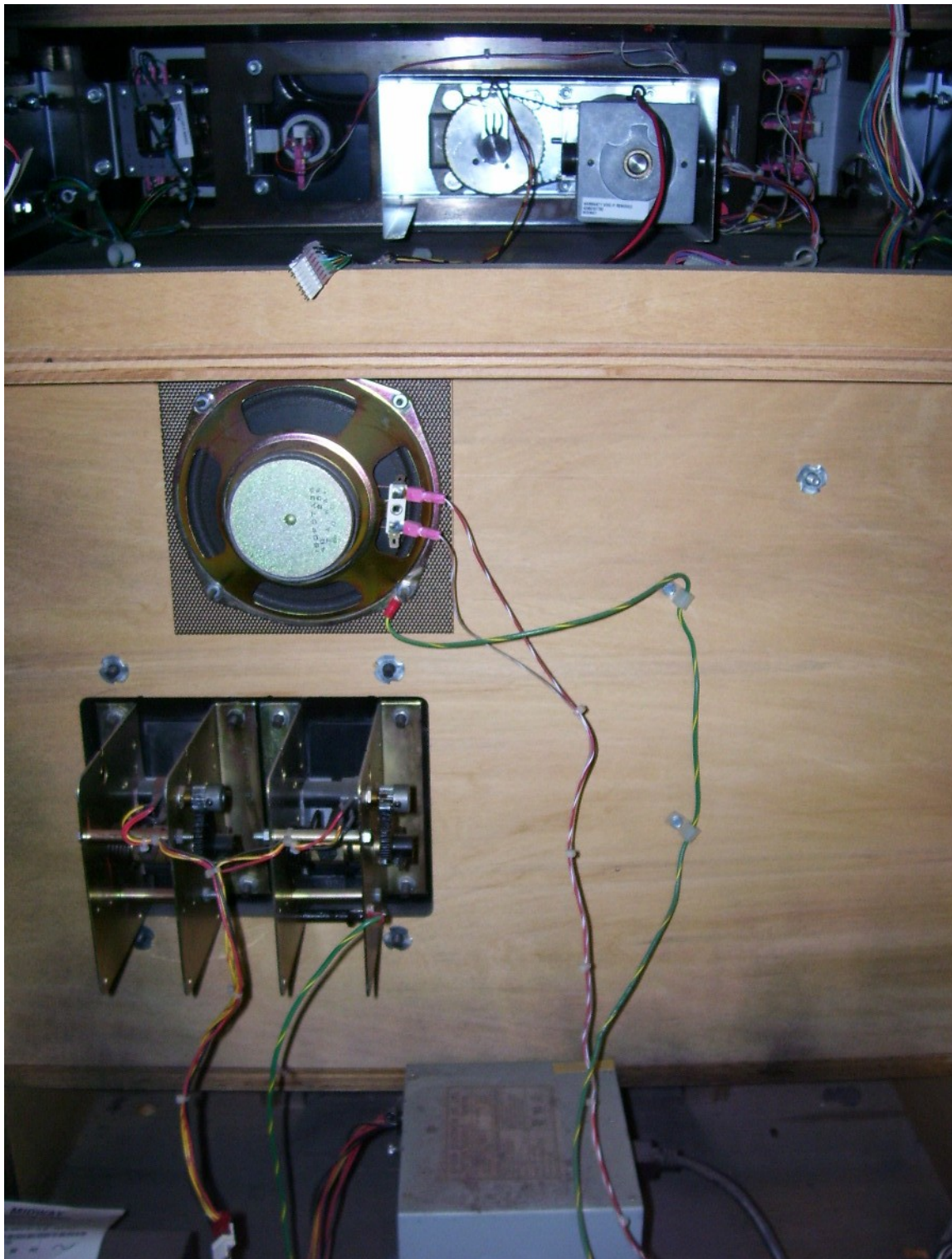


ONCE ALL THE CABINET CABLES ARE DISCONNECTED FROM THE MAIN ELECTRONICS ASSEMBLY, REMOVE THE TWO(2) SCREWS HOLDING THE MAIN ASSEMBLY IN THE CABINET. CAREFULLY REMOVE THE ASSEMBLY FROM THE CABINET.

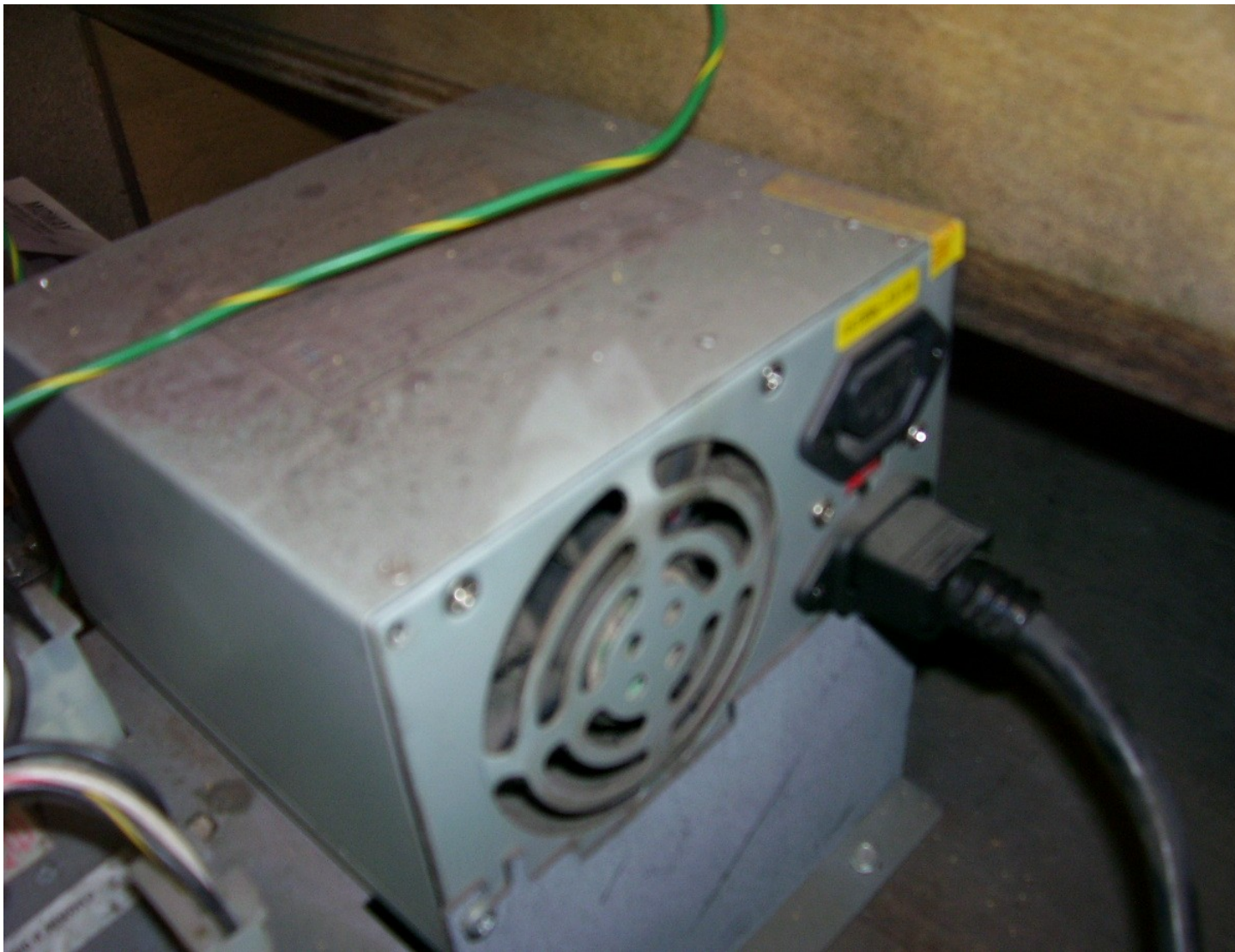
PICTURE SHOWS THE GAME CABINET WITH THE ELECTRONIC ASSEMBLY REMOVED.



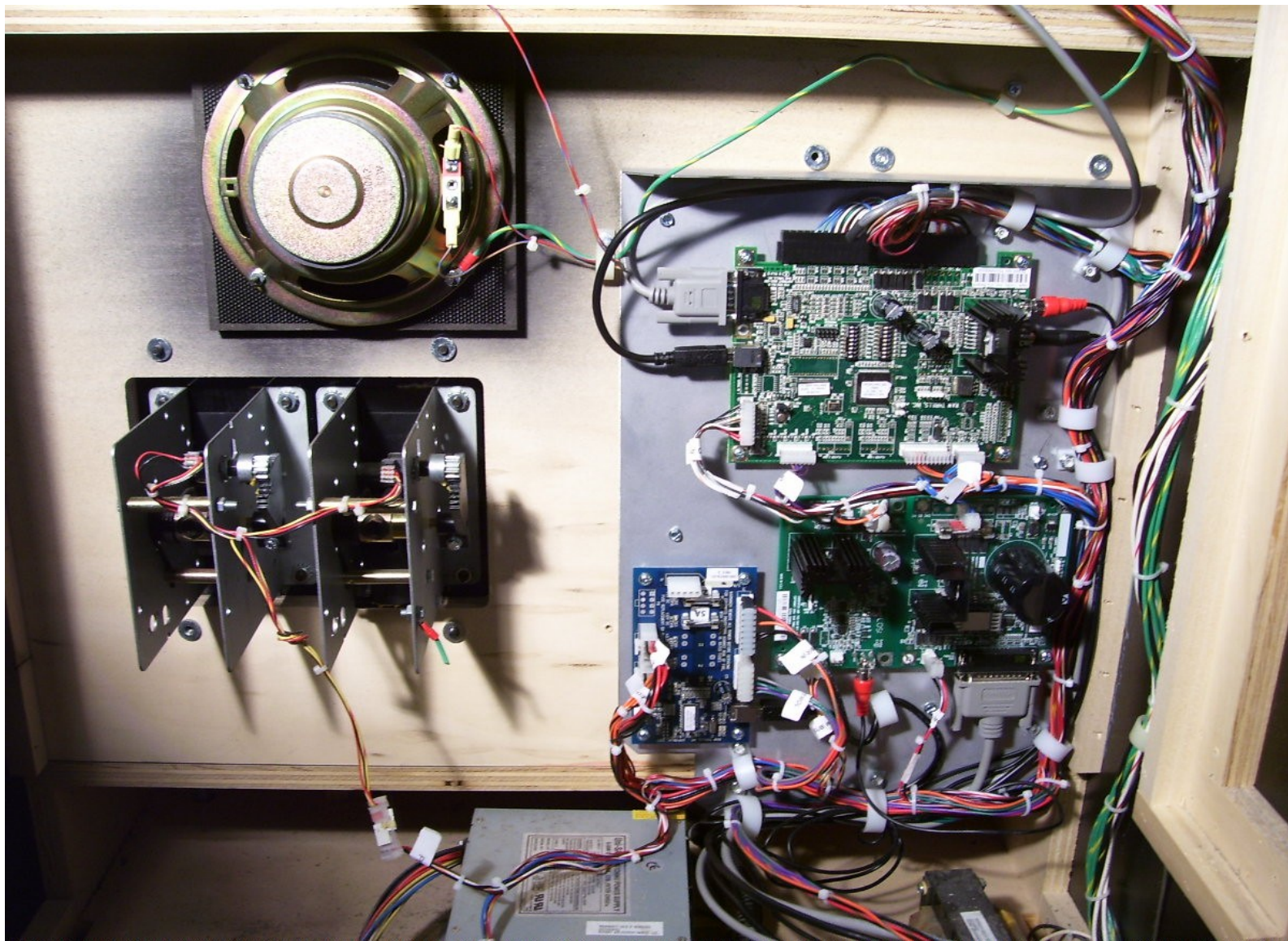
MOUNTED ON THE BOTTOM OF THE GAME IS A POWER SUPPLY THAT WILL NO LONGER BE USED. UNPLUG THE AC LINE CORD FROM THE POWER SUPPLY AND FREE IT FROM ANY CABLE CLAMPS. THIS AC POWER CORD WILL BE USED TO POWER YOUR NEW DELL COMPUTER. IF YOU ARE CONVERTING A CRUSIN' USA YOU WILL NOT HAVE THIS, FOR THE POWER SUPPLY IS MOUNTED TO THE ELECTRONIC ASSEMBLY. A CABLE IS PROVIDED THAT WILL BE USED TO POWER THE DELL COMPUTER.



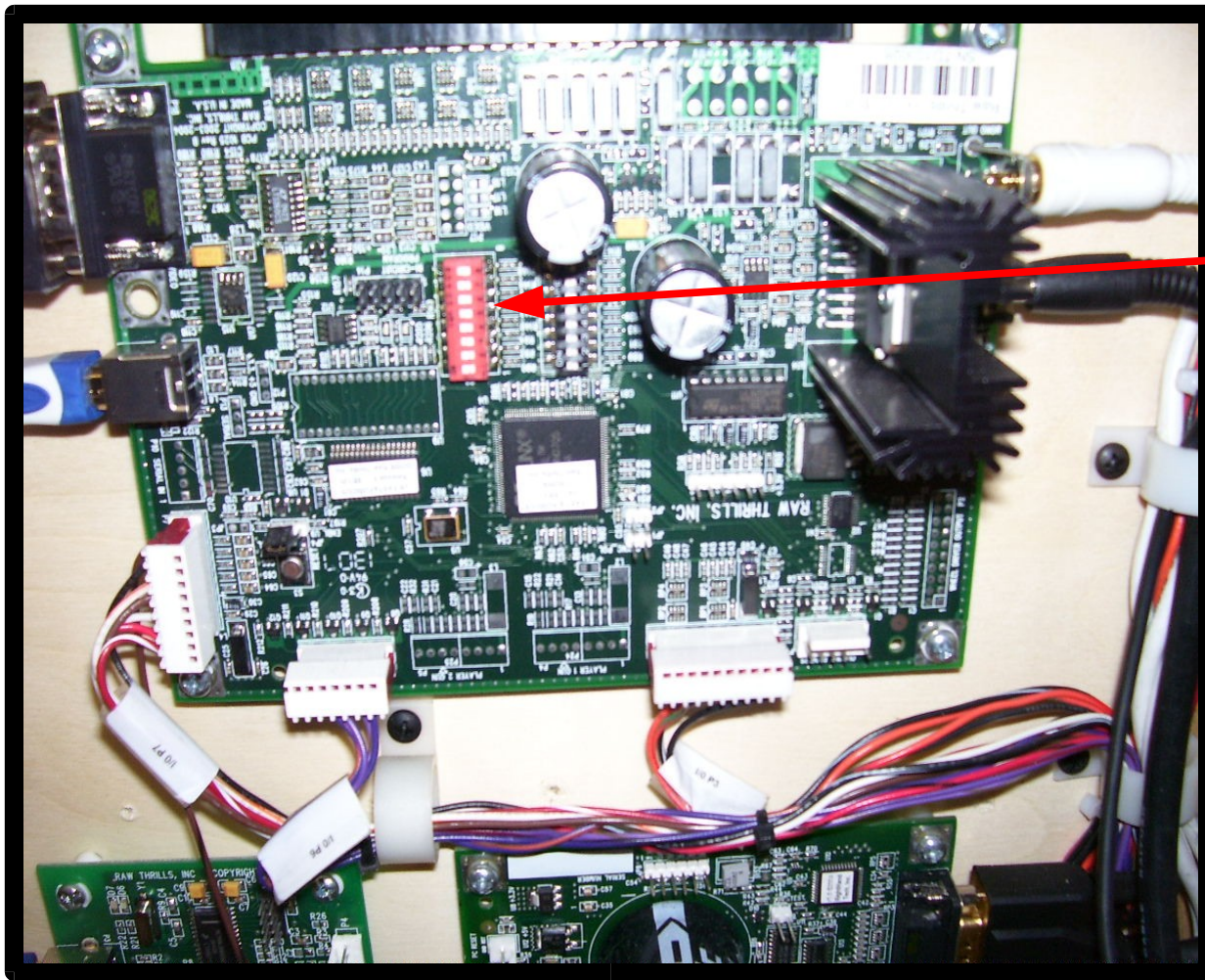
BEFORE INSTALLING THE NEW ELECTRONIC ASSEMBLY YOU MAY HAVE TO RE-LOCATE SOME CABLE CLAMPS AND CABINET CABLES.



PROPER CLEARANCE FOR THE NEW ELECTRONIC ASSEMBLY IS REQUIRED. THE POWER SUPPLY ASSEMBLY MOUNTED ON THE BOTTOM OF THE CABINET MAY NEED TO BE MOVED OVER TO THE LEFT. FOUR (4) SCREWS ATTACH THE ASSEMBLY TO THE BOTTOM OF THE CABINET. DO NOT REMOVE THE POWER SUPPLY ASSEMBLY IF IT IS USED FOR AC POWER DISTRIBUTION.



MOUNT THE NEW ELECTRONIC ASSEMBLY. ONE CAN USE THE TOP METAL BEND AS A GRIP/HANDLE. DO NOT HOLD ANY PORTION OF THE CIRCUIT BOARDS. LOCATE THE TOP OF THE METAL PLATE JUST BELOW THE T-NUTS OF THE CABINET. MAKE SURE THAT THE METAL PLATE LIES FLAT TO THE CABINET. SECURE THE ASSEMBLY WITH THE PROVIDED SCREWS. THERE IS SIX(6) HOLES 10 IN THE PLATE FOR THE SCREWS.



DIP S2 - LOCATED ON THE I/O BOARD

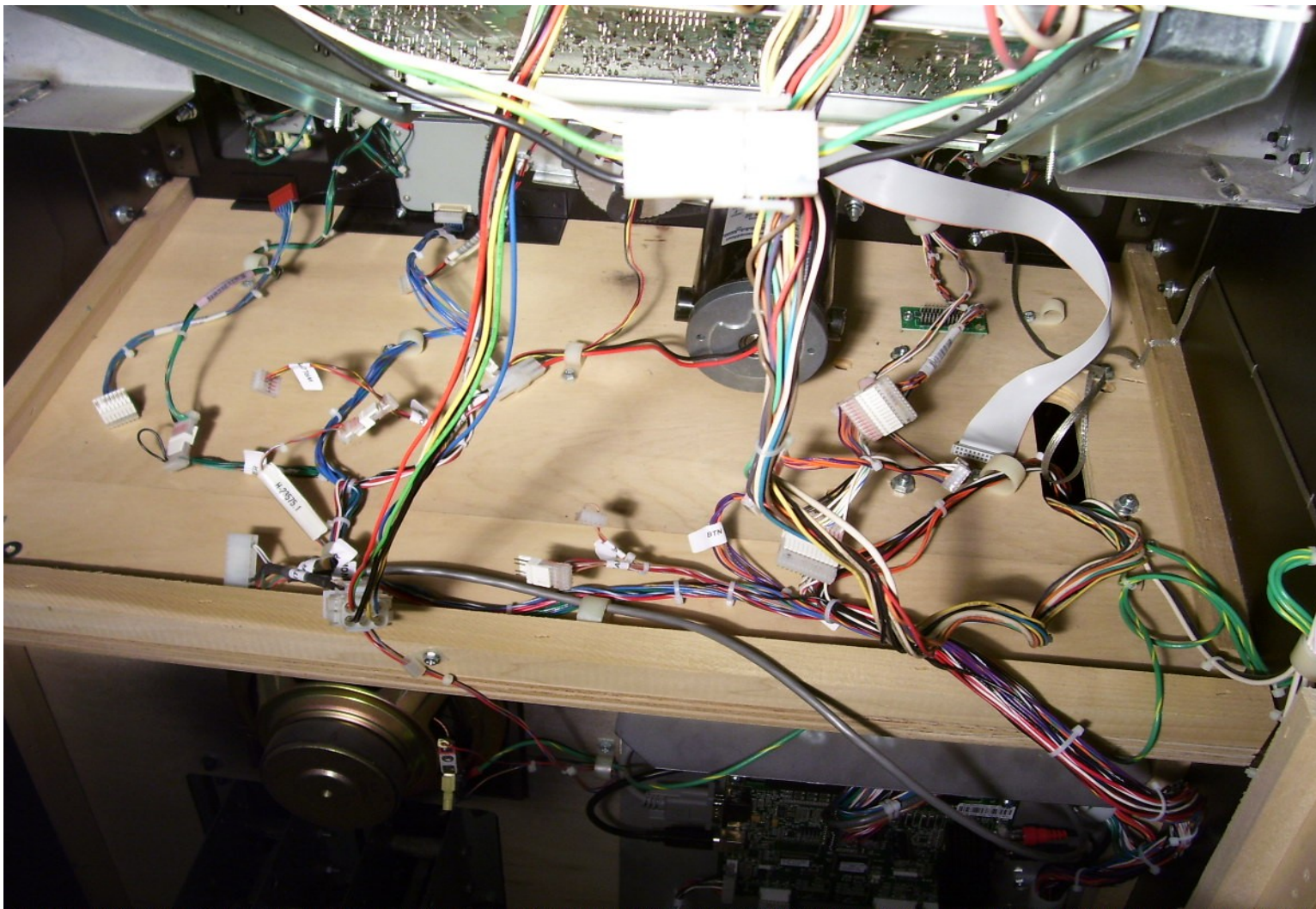
8765 4321

0000 0000	CRUSIN USA
0000 0001	CRUSIN WORLD
0000 0100	OFFROAD CHALLENGE
0000 0110	CALIFORNIA SPEED
1X00 1XXX	CRUSIN EXOTICA
1XXX XXXX	MANUAL MODE
11XX XXXX	SWITCH POLARITY REV.
1X00 XXXX	EGA MONITOR
1X01 XXXX	EGA2 MONITOR
1X10 XXXX	VGA MONITOR
1X11 XXXX	CGA MONITOR
1XXX 0XXX	NO KEYPAD
1XXX 1XXX	KEYPAD

X : DON'T CARE

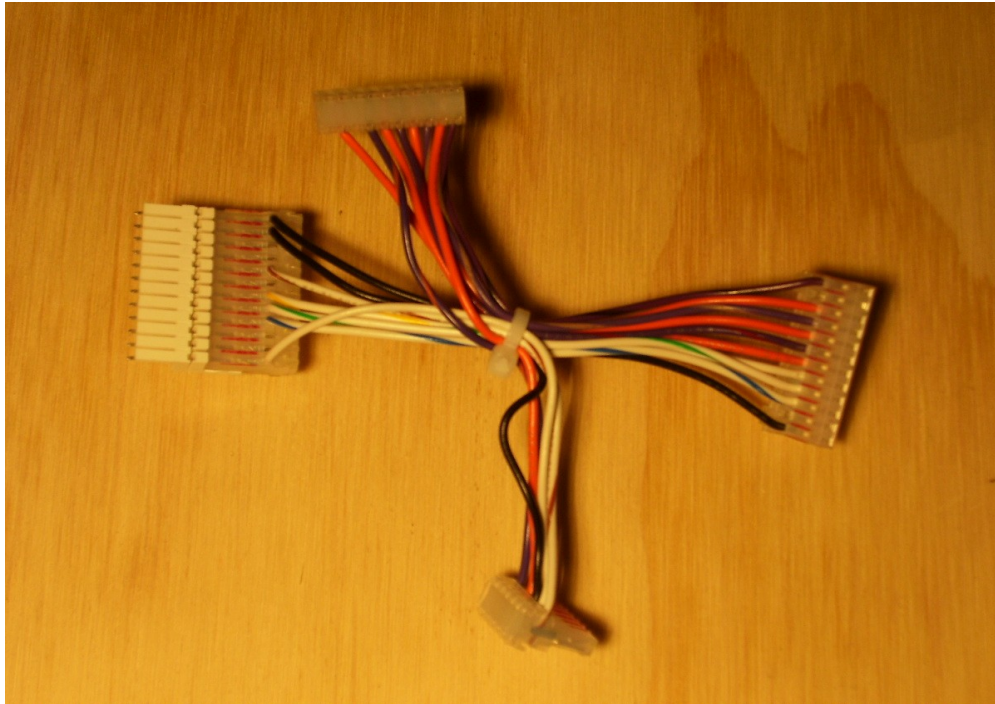
EGA2 : MAY OFFER BETTER FONT RESOLUTION, DEPENDING ON THE MONITOR.

SET DIP SWITCH BANK 2 THAT IS PRESENT ON THE I/O BOARD TO MATCH THE GAME CABINET. SOMETIMES ONE NEEDS TO USE MANUAL MODE IN ORDER TO ACCOMADATE NON-STANDARD OPTIONS THAT MAY BE PRESENT IN YOUR GAME CABINET.

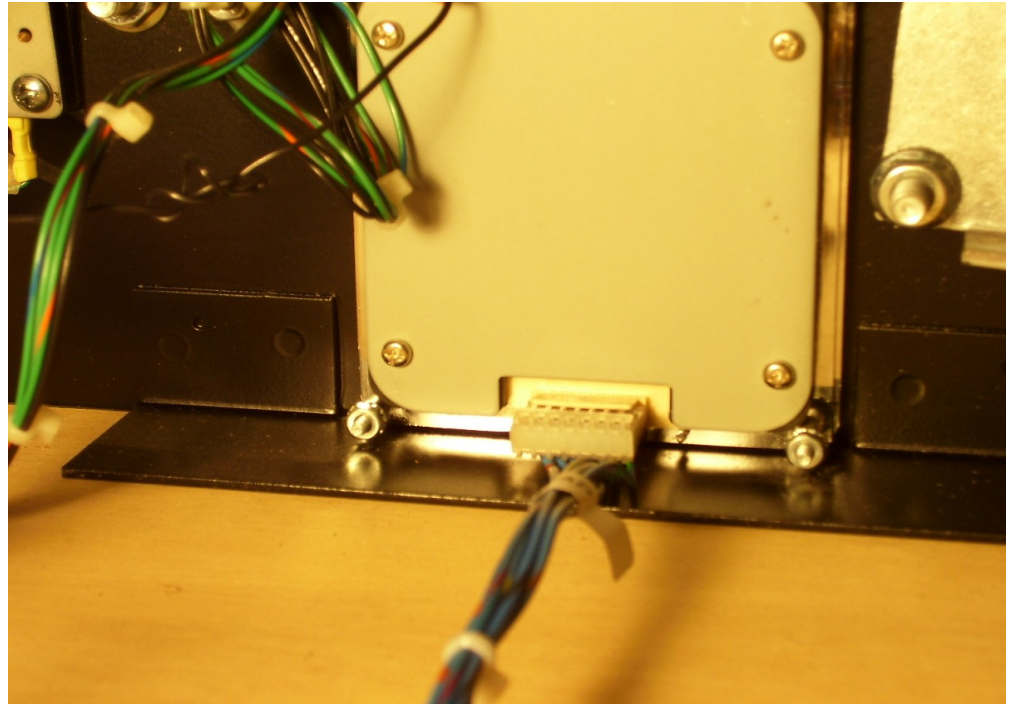


BEGIN TO CONNECT THE NEW JAMMA CABLE TO THE CABINET CABLES. LABELS ON THE NEW JAMMA CABLE WILL HELP WITH THIS PROCESS. SOME CONNECTIONS HAVE TWO POSSIBLE CONNECTORS. CHOOSE THE ONE THAT FITS YOUR APPLICATION. LEAVE THE PC CONNECTORS UN-CONNECTED AT THIS TIME.

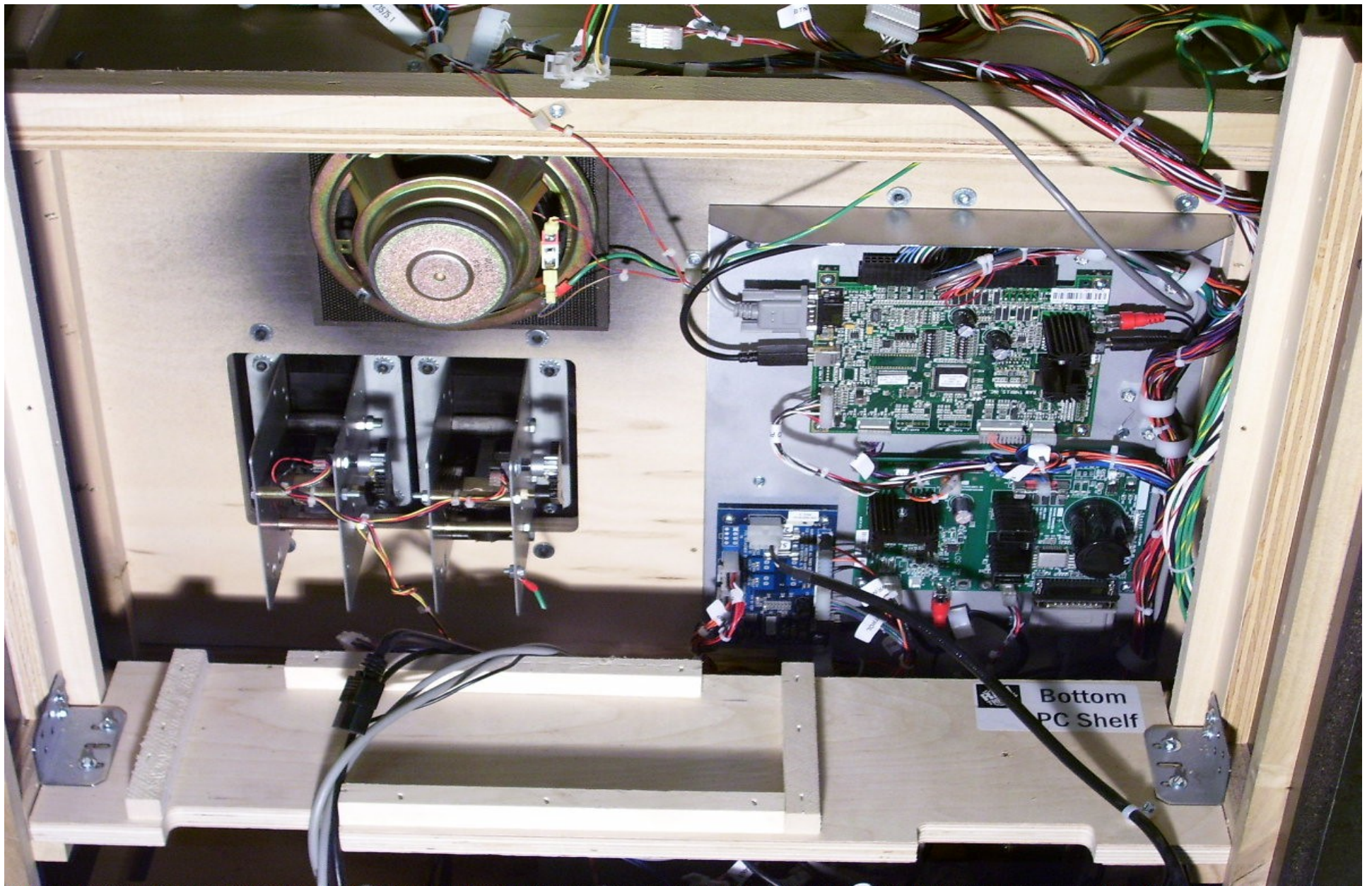
EXOTICA LAMP/SWITCH ADAPTER



KEYPAD

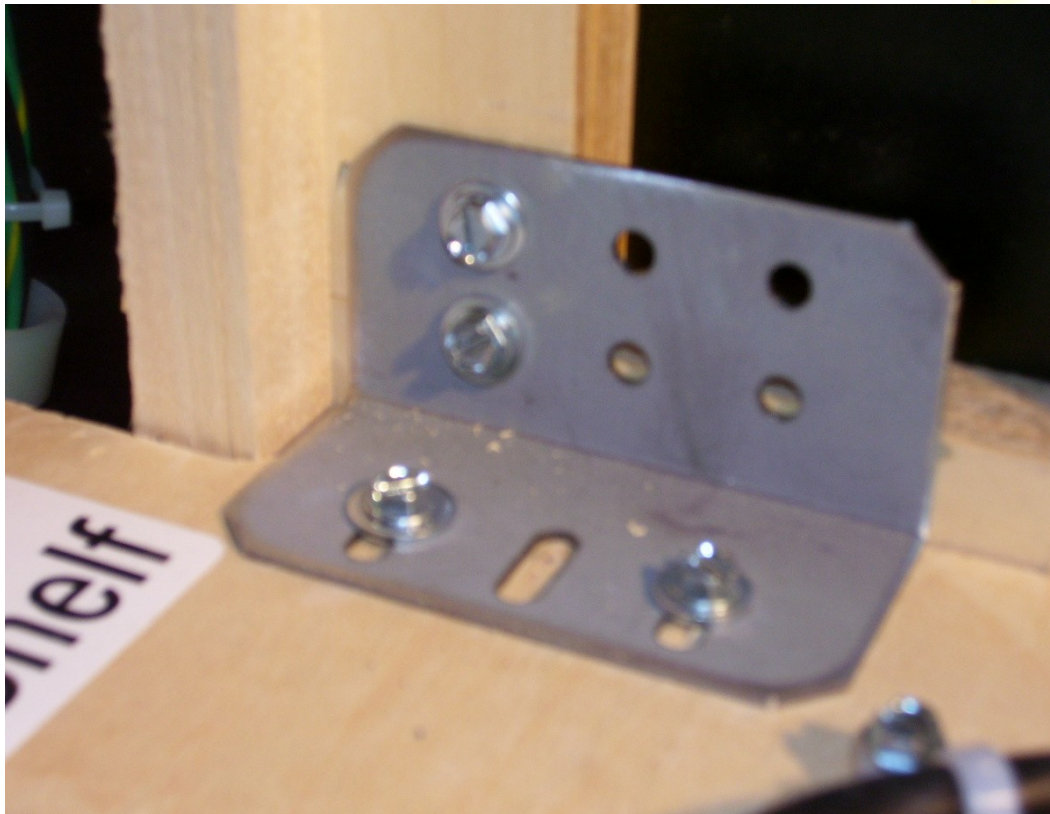


THERE IS A SHORT ADAPTER CABLE THAT IS PRESENT ON THE LAMP AND SWITCH PORTION OF THE HARNESS. THIS ADAPTER IS FOR CRUSIN EXOTICA ONLY. OTHERWISE THE ADAPTER CAN BE REMOVED. IF A KEYPAD IS PRESENT, CONNECT THE NEW JAMMA HARNESS KEYPAD CONNECTOR DIRECTLY TO THE KEYPAD.



THE BOTTOM PC SHELF CAN BE INSTALLED. THIS PIECE WILL SIT ON THE WOOD CLEATS THAT THE OLD ELECTRONIC GAME ASSEMBLY SAT ON. METAL BRACKETS ARE PRE-INSTALLED ON THE WOOD PLATE. PLACE THE WOOD PIECE IN THE CABINET AND SECURE THE METAL BRACKETS TO THE CABINET.

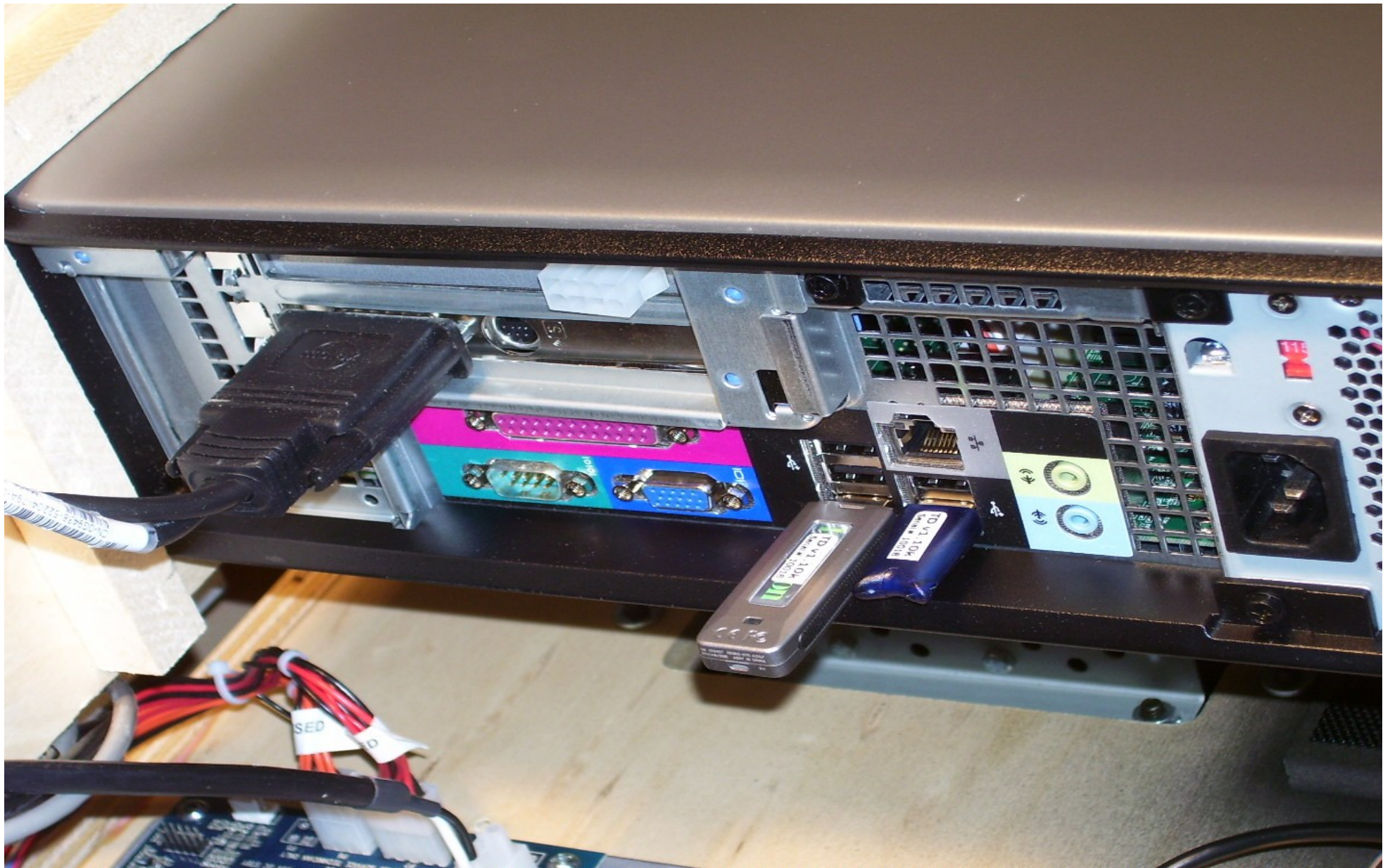
IN SOME CASES THE BRACKET WILL GET ATTACHED TO THE SIDE OF THE CABINET...



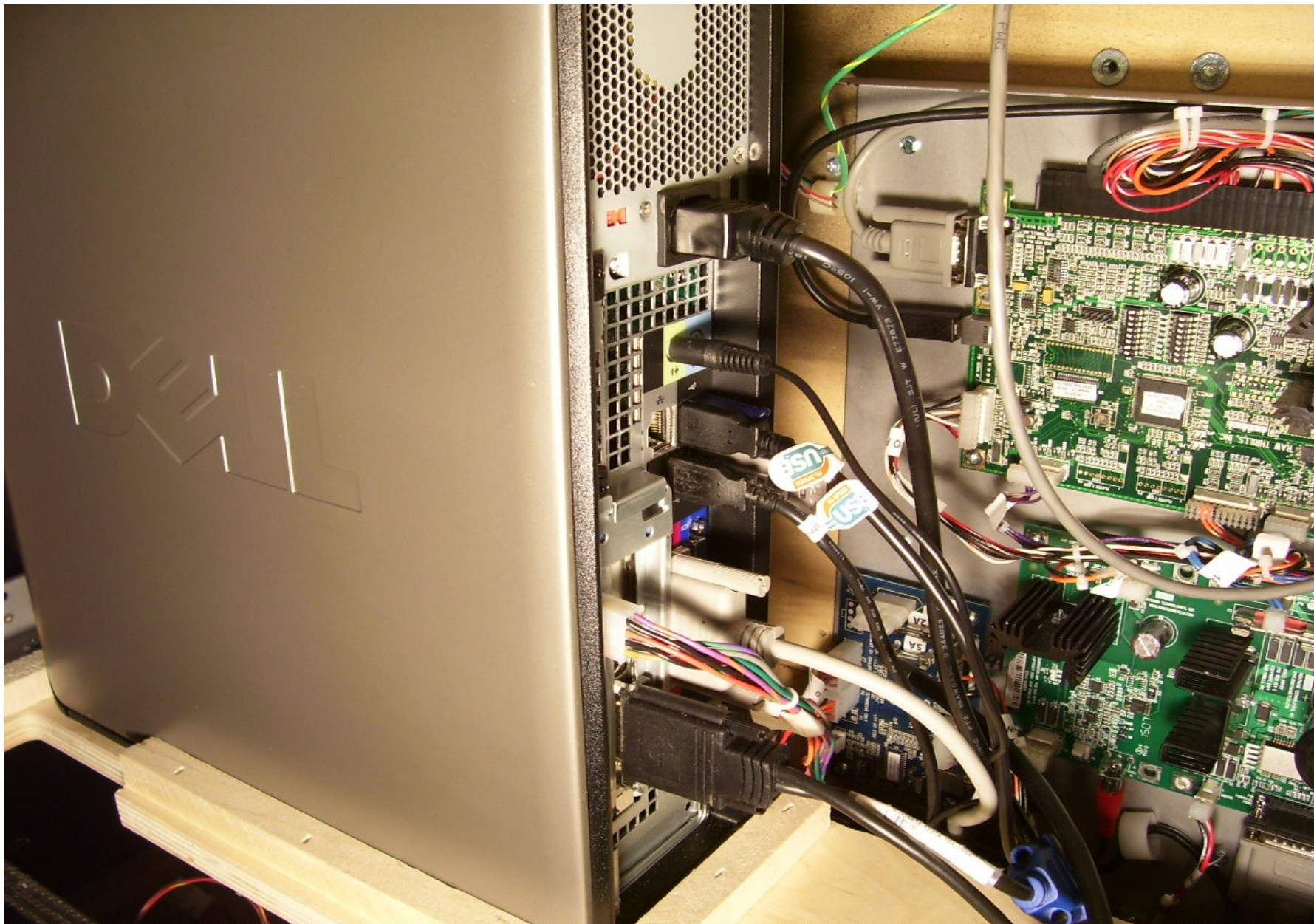
OTHER TIMES IT IS ATTACHED TO A WOOD CLEAT. THE METAL BRACKET HAS SIX(6) HOLES FOR INCREASED MOUNTING FLEXIBILITY.



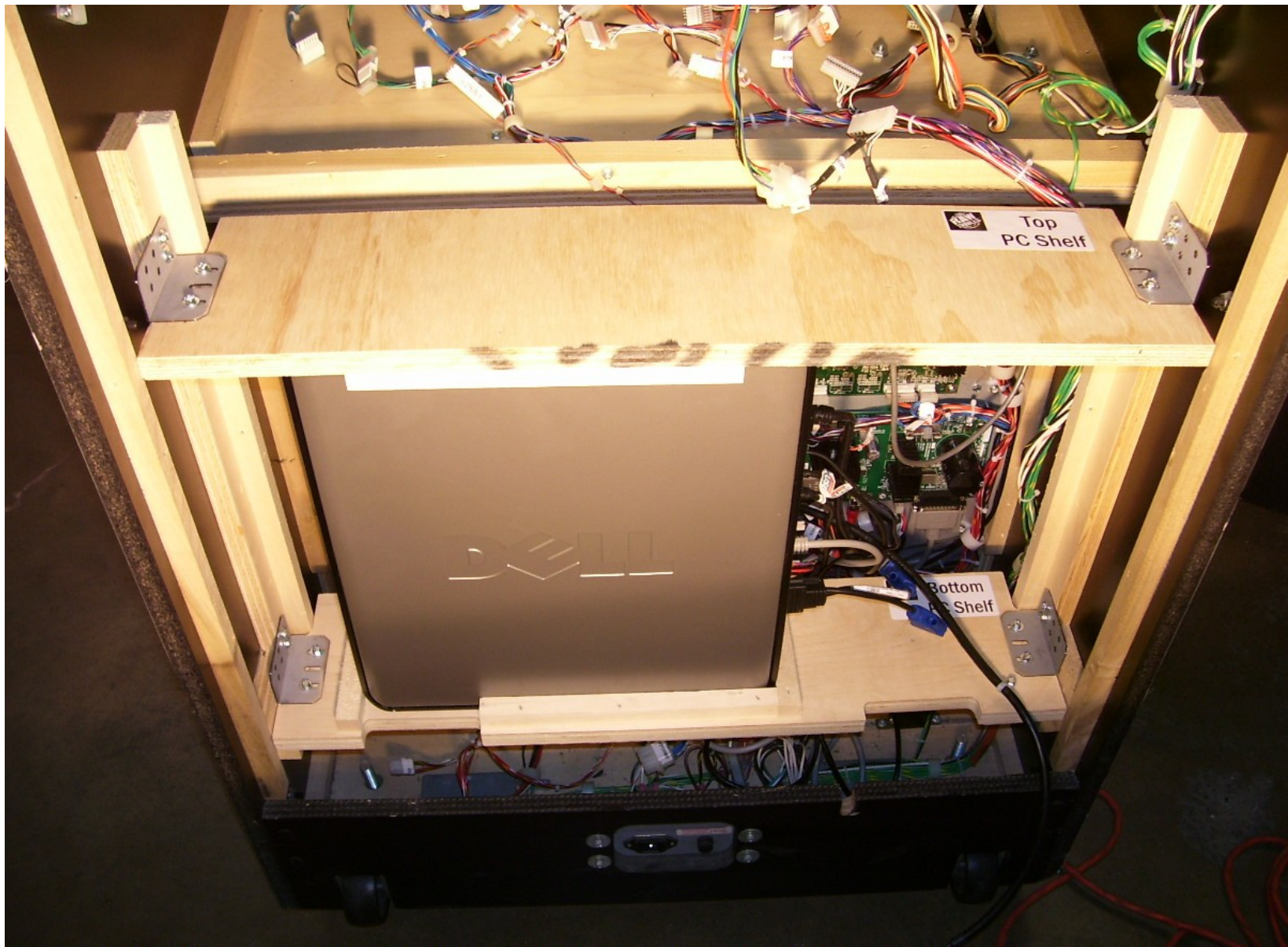
PLACE THE DELL PC ON THE BOTTOM SHELF. THE COMPUTER SHOULD BE PLACED IN THE CLEATS ON THE LOWER WOOD MOUNTING PLATE. NOTICE THE POSITION OF THE DELL LOGO ON THE SIDE OF THE COMPUTER. ENSURE THAT THE COMPUTER IS SITTING LEVEL.



INTO THE USB PORTS, CONNECT THE USB FLASH-DRIVE
AND THE USB SECURITY DONGLE.



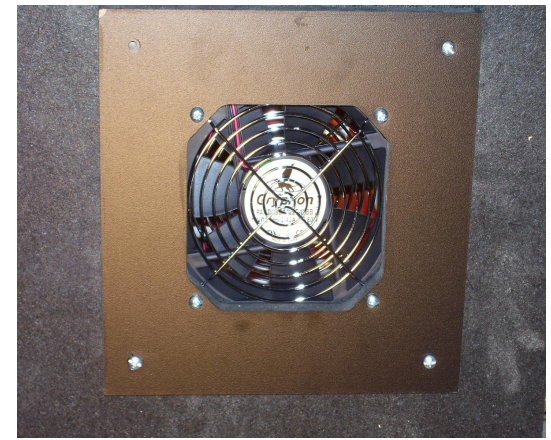
CONNECT THE CABLES TO THE PC. VERIFY THE INPUT VOLTAGE SETTING SWITCH OF THE PC. THE DEFAULT IS 110VAC.



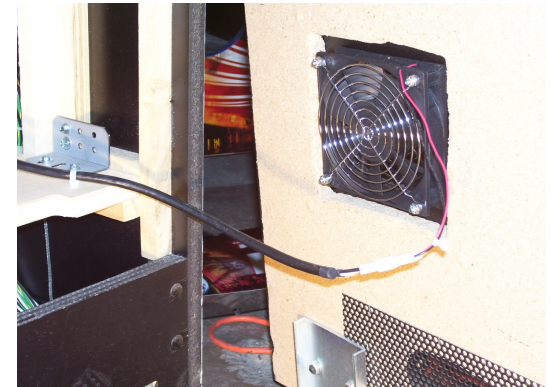
PLACE THE TOP PC SHELF ATOP THE COMPUTER AND SECURE THE METAL BRACKETS TO THE CABINET. THE WOOD CLEATS OF THE TOP PC SHELF SHOULD BE IN A DOWN POSITION SO AS THEY HOLD THE COMPUTER SECURELY IN PLACE.



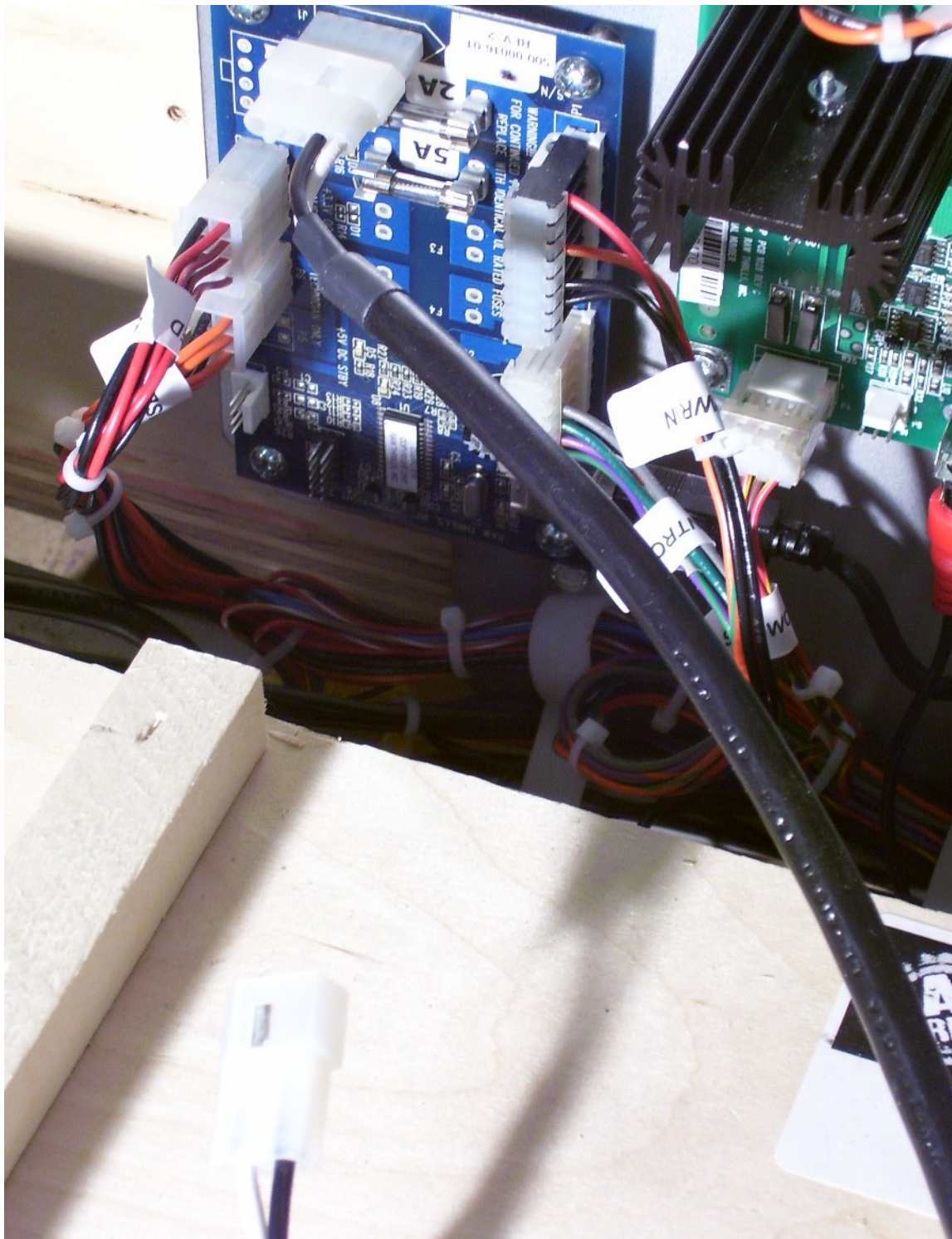
OUTSIDE VIEW



INSIDE VIEW



USING THE FAN TEMPLATE, CUT A HOLE IN THE BACK DOOR OF THE CABINET. THE FAN ASSEMBLY IS MOUNTED TO THE DOOR FROM THE OUTSIDE. FOLLOW THE DIRECTIONS ON THE TEMPLATE TO PROPERLY LOCATE WHERE THE HOLE SHOULD BE CUT. FOR LONG, RELIABLE OPERATION OF THE GAME IT IS IMPORTANT THAT THE FAN IS INSTALLED.



THE CONNECTOR FOR THE FAN PLUGS INTO THE 5-PIN CONNECTOR THAT IS PRESENT ON THE FUSE BOARD. VERIFY THAT IT IS CONNECTED.



DON'T FORGET THE ARTWORK!

ONCE THE KIT IS INSTALLED, CONNECT THE EXTERNAL AC LINE CORD TO THE CABINET AND TURN-ON THE POWER. AT THIS TIME THE GAME WILL GO THROUGH IT'S FIRST-BOOT PROCESS. THIS MAY HAVE ALREADY OCCURED AT THE FACTORY. THE FIRST-BOOT TAKES ABOUT 20 MINUTES. BECAUSE OF THE DEFAULT VIDEO MODE OF COMPUTER YOU WILL NOT BE ABLE TO READ THE INFORMATION ON THE SCREEN. ONCE THE GAME APPLICATION STARTS, THE VIDEO MODE WILL BE ADJUSTED. REMEMBER THE VIDEO MODE IS DETERMINED ACCORDING TO THE DIP 2 SWITCH CONFIGURATION. DIP 2 SWITCH IS LOCATED ON THE I/O BOARD.

WARNING: ONCE A FLASH DRIVE HAS BEEN BOOTED ON A COMPUTER, THE FLASH DRIVE CANNOT BE MOVED TO ANOTHER MACHINE. THE GAME WILL NOT FUNCTION PROPERLY. IF YOU NEED TO MOVE THE DRIVE OR FEEL THAT THE DRIVE IS CORRUPT, ONE CAN REFORMAT THE FLASH DRIVE BY USING THE RESTORE CD THAT IS PROVIDED.

IT IS RECOMMENDED THAT ONCE THE GAME IS RUNNING ONE SHOULD ENTER THE TEST MENU AND VERIFY THE GAME IS FUNCTIONAL. THIS WOULD INCLUDE TESTING THE SWITCHES, LAMPS, KEYPAD, SHIFTER, AND THE AUDIO. CALIBRATION OF THE GAME IS ALSO RECOMMENDED AT THIS TIME.

WARNING: CHECK AND MAKE SURE THAT THE FAN MOUNTED ON THE BACKDOOR IS WORKING.

ATTENTION!: THE DRIFT KIT HAS TWO(2) FUSES PRESENT ON THE FUSE/WATCHDOG BOARD. THERE IS ALSO A FUSE ON THE STEERING MOTOR CONTROLLER. FOR CONTINUED PROTECTION REPLACE A FUSE WITH A IDENTICAL UL RATED FUSE.

BIOS SETTINGS FOR THE PC ARE SET AT THE FACTORY.

-System

+Boot Sequence

1. CD/DVD/CD-RW Drive
2. USB-ZIP
3. USB-Device
4. Hard Drive
5. USB-FDD
6. USB-CDROM
7. Non-Integrated NIC
8. Diskette Drive

+ HDD Boot Sequence
[don't care]

-Drives

+Diskette Drive: USB
+Drive 0: SATA-0: ON
+Drive 1: SATA-1: ON
+SMART Reporting: OFF

-Onboard Devices

+Integrated NIC : ON
+Integrated Audio : ON
+USB Controller : ON
+Rear Triple USB : ON
+Real Dual USB : ON
+Front USB : ON
+LPT Port Mode : EPP
+LPT Port Address : 378h
+Serial Port #1 : COM1

-Video

+Primary Video : Onboard/Card
+Video Memory Size : 16MB

-Performance

+HDD Acoustic Mode : Bypass

-Security

+Admin Password: None
+System Password : None
+Drive 0 Password : None
+Drive 1 Password : None
+Password Changes : Unlocked
+Chassis Intrusion : OFF
+TPM Security: OFF
+No Execute: OFF

-Power Management

+AC Recovery: ON
+Auto Power On: OFF
+Low Power Mode: OFF
+Remote Wake Up: OFF
+Cool and Quiet: OFF
+Suspend mode: S3

-Maintenance

+ASF Mode: OFF
+Fast Boot: On

-POST Behavior

+Numlock Key: On
+Post Hotkeys : Setup & Boot Menu
+Keyboard Errors: Do Not Report

Troubleshooting:

WARNING. Remove all power and disconnect AC line cord before servicing! Service performed by qualified service technician only. With power on do not connect or disconnect cables or connectors, damage will occur. Hazardous voltages are present even with the game off and unplugged from AC voltage. Use extreme caution.

Game Fails To Power-up

The game will be in this failure mode when either the main AC power has failed, been disconnected, or the computer has failed to turn-on. The computer provides +5VDC and +12VDC for the system. Turning on of the computer is controlled by the FUSE/WD board, p/n 500-00016-01.

1. Verify the cabinet main power switch is on.
2. Verify the AC line cord is plugged into a functional AC outlet.
3. Verify the AC outlet is the correct voltage for the game.
4. Verify the computer is set to the correct voltage. There is a voltage switch on the PC that needs to be set correctly. If this switch is set incorrectly and the game has been powered, damage to the computer may have occurred.
5. Verify the main AC power fuse for the cabinet. If a fused failed, examine the game for a fault condition and repair the condition before replacing the fuse. For continued protection, replace the fuse with identical UL rated fuse.
6. Verify the fuses on the FUSE / WD board, p/n 500-00016-01. These fuses protect the +5VDC and +12VDC power rails. If a fused failed, examine for a fault condition and repair the condition before replacing the fuse. For continued protection, replace the fuse with identical UL rated fuse.
7. Look for cable connectors that are loose or not connected.

“NO VIDEO” Message On The Video Monitor

This message is present when the video monitor is powered but the video monitor has no valid video signal.

1. Verify the PC is functioning.
2. Look for cable connectors that are loose or not connected. Check that the VGA cable is connected into the VGA connector labeled '1' at the PC.

No Video On The Video Monitor

This failure is when either the game is not powered, the monitor is not powered, the monitor is not correctly adjusted or the video monitor has failed.

1. Verify the game has powered-up.
2. Verify the cable connectors, paying close attention to the power and video signal cables of the video monitor.
3. Verify the video monitor has AC power.
4. Verify the contrast and brightness settings of the monitor. Make sure they are not set too low.

Game Has No Sound

If the game is running and there is no sound.

1. Verify that the audio levels are set to acceptable levels. This can be done through the Diagnostic Menu System.
2. Verify the cable connections. Ensure that the audio cable from the computer is connected to the I/O board.
3. Verify the speaker cable is connected.
4. Verify the fuses on the FUSE / WD board, p/n 500-00016-01. These fuses protect the +5v and +12v. If a fused failed, examine for a fault condition and repair the condition before replacing the fuse. Replace fuse with identical UL rated fuse.
5. Verify the I/O board has power.

Monitor Displays 'CONNECT I/O'

If the computer is unable to communicate with the I/O board, the 'Connect I/O' message will be displayed in the video display.

1. Verify that the I/O board has power. Check the fuses on the FUSE / WD board, p/n 500-00016-01.
2. Verify the cable connections. Verify the USB cable that connects the I/O board to the computer is securely attached.
3. Power-cycle the game.

Monitor Displays 'INSERT DONGLE'

This message indicates that the computer is unable to communicate with the security dongle that is located on the back of the computer.

1. Verify that the security dongle is attached to a USB port of the computer.

Game Play is Slow, Freezes, or Resets

Numerous items can cause game play to exhibit freezing or slow play. Typical failure modes include excessive heat, corrupt drive, or failing hardware.

1. Verify that the security dongle is attached to a USB port of the computer.
2. Verify cable connections. Verify the USB cable that connects the I/O board to the computer is securely attached.
3. Verify that the game is not running excessively hot. Verify that the cooling fan on the back door is running and not obstructed. The back of the cabinet must be at least one foot away from a wall.
4. Verify that the computer is not running excessively hot. Verify that the computers cooling fans are running.
5. Verify the drive. This can be done via the Operators Menu. The drive can be re-imaged, by inserting the CD that was included.
6. Verify that the games +5VDC +12VDC power rails are within +/- 5% tolerance.

Distorted Video On The Video Monitor

Video resolution of the computer is not compatible with the monitor.

1. Adjust the video output signal of the computer by setting DIP SWITCH2, located on the I/O board.

FLASH DRIVE RECOVERY:

- 1.To access the computer, remove the 'TOP PC SHELF'.
 - 2.Open the DVD tray by pressing the button on the DVD drive.
 - 3.Insert the recovery disk into the tray.
 - 4.Close the DVD tray by pressing the button on the DVD drive.
 - 5.Turn-off the game via the main AC switch..
 - 6.Turn-on the game via the main AC switch. The disk recovery process begins automatically.
Recovery may take 30 to 40 minutes.
 - 7.Look for a message at the bottom of the screen. When the recovery is over, the message prompts you to remove your disk. Open the DVD tray by pressing the DVD drive button. Remove the recovery disk. Store it safely.
 - 8.Turn-off the game via the main AC switch.
 - 9.Turn-on the game via the main AC switch.
- CAUTION. During the following process, don't interrupt power or reset the game!
- 10.The game will do a first-boot initialization procedure. This will take a few minutes.
 - 11.Enter the system diagnostic menu and calibrate the game.

JAMMA I/O BOARD CONNECTION CHART

COMPONENT SIDE			SOLDER SIDE			
FUNCTION	WIRE COLOR	PIN		PIN	WIRE COLOR	FUNCTION
GROUND	BLK	1		A	BLK	GROUND
		2		B		
5 VOLTS	RED	3		C		
		4		D		
		5		E		
12 VOLTS	ORANGE	6		F		
		7		H		
COIN METER	BROWN YELLOW	8		J		
		9		K		
SPEAKER (+)	RED GREY	10		L	BROWN GRAY	SPEAKER (-)
SPEAKER (+)	RED WHITE	11		M	BROWN WHITE	SPEAKER (-)
RGB RED	YELLOW RED	12		N	YELLOW GREEN	RGB GREEN
RGB BLUE	YELLOW BLUE	13		P	YELLOW WHITE	RGB SYNCH
RGB GROUND	YELLOW BLACK	14		R	WHITE GRAY	SERVICE
TEST	BLACK BLUE	15		S		
COIN 1	BLACK BROWN	16		T	BLACK RED	COIN 2
START	WHITE	17		U		
VIEW1	WHITE BLACK	18		V	GREEN BLACK	2nd GEAR
VIEW2	WHITE BROWN	19		W	GREEN BROWN	3rd GEAR
VIEW3	WHITE RED	20		X	GREEN RED	4th GEAR
TUNES	WHITE ORANGE	21		Y	GREEN ORANGE	5th GEAR
KEYPAD COL 0	BLUE YELLOW	22		Z		
KEYPAD COL 1	BLUE GREEN	23		a		

I/O BOARD CONNECTORS

P1 - I/O BOARD

FUNCTION	WIRE COLOR	PIN
		1
KEY		2
KEYPAD ROW 0	BLUE BLACK	3
KEYPAD ROW 1	BLUE BROWN	4
KEYPAD ROW 2	BLUE ORG	5
KEYPAD ROW 3	BLUE RED	6

P3 - I/O BOARD

FUNCTION	WIRE COLOR	PIN
GROUND	BLACK	1
		2
		3
		4
KEY		5
		6
DBV SIGNAL	WHITE BLACK	7
VOLUME DOWN	ORANGE RED	8
VOLUME UP	ORANGE GREEN	9
		10
		11

P6- I/O BOARD

FUNCTION	WIRE COLOR	PIN
		1
VIEW3 LAMP	VIOLET BLACK	2
VIEW2 LAMP	VIOLET BROWN	3
KEY		4
VIEW1 LAMP	VIOLET RED	5
START LAMP	VIOLET ORANGE	6

P7- I/O BOARD

FUNCTION	WIRE COLOR	PIN
5 VOLTS	RED WHITE	1
5 VOLTS	RED BLACK	2
KEY		3
STEERING POT.	WHITE	4
		5
BRAKE	BROWN	6

SUBWOOFER AMP/WHEEL DRIVER BOARD CONNECTION CHART

MOTOR OUT

FUNCTION	WIRE COLOR	PIN
MOTOR(+) VOLTAGE	RED WHITE	1
MOTOR(-) VOLTAGE	BLACK WHITE	2

POWER IN

FUNCTION	WIRE COLOR	PIN
12 VOLTS	ORANGE	1
GROUND	BLACK	2
		3

WOOFER OUT

FUNCTION	WIRE COLOR	PIN
SUBWOOFER(+)	RED YELLOW	1
SUBWOOFER(-)	BROWN YELLOW	2

18VAC INPUT

FUNCTION	WIRE COLOR	PIN
18 VOLTS AC	BLUE BLACK	1
18 VOLTS AC	BLUE	2

USB WATCHDOG/FUSE PCB CONNECTION CHART

P2

FUNCTION	WIRE COLOR	PIN
5 VOLT INPUT	RED WHITE	1
		2
		3
12VOLT INPUT	ORANGE WHITE	4
		5
		6
GROUND	BLACK	7
GROUND	BLACK	8

P3

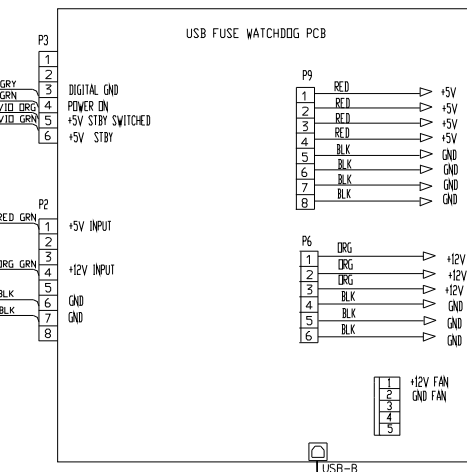
FUNCTION	WIRE COLOR	PIN
		1
		2
DIGITAL GROUND	GREY	3
POWER ON	GREEN	4
5 VOLT STDBY SWITCHED	VIOLET ORANGE	5
5 VOLT STDBY	VIOLET GREEN	6

P6

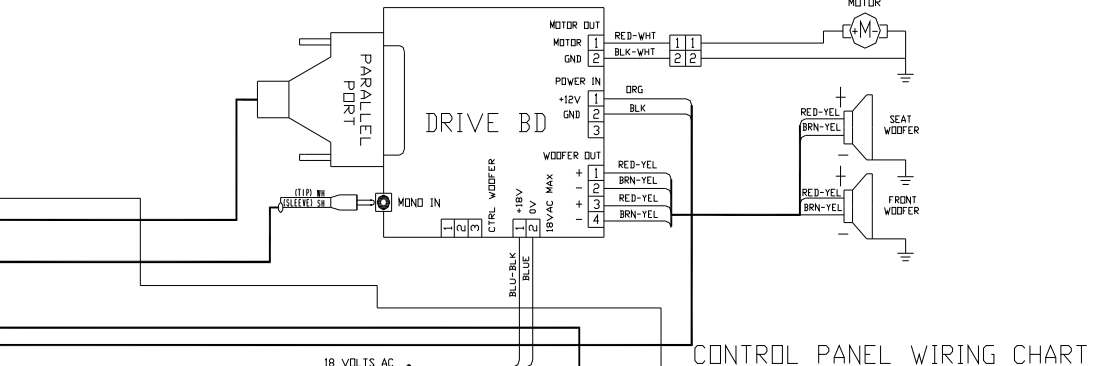
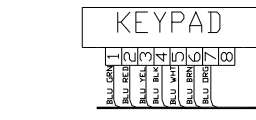
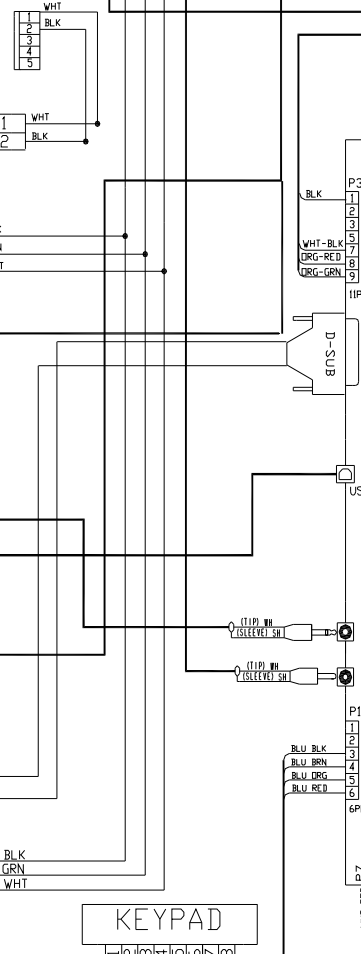
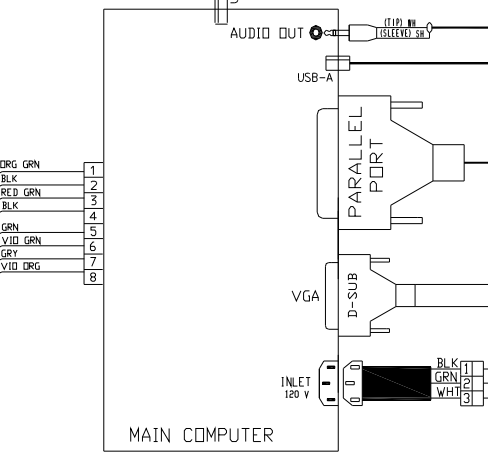
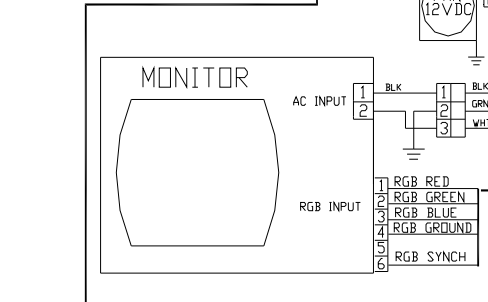
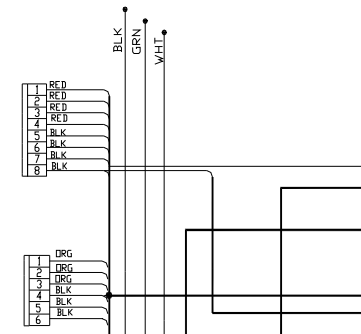
FUNCTION	WIRE COLOR	PIN
12 VOLTS FUSED	ORANGE	1
12 VOLTS FUSED	ORANGE	2
12 VOLTS FUSED	ORANGE	3
GROUND	BLACK	4

P9

FUNCTION	WIRE COLOR	PIN
5 VOLTS FUSED	RED	1
5 VOLTS FUSED	RED	2
5 VOLTS FUSED	RED	3
5 VOLTS FUSED	RED	4



CABINET 120 VOLTS ~ AC



CONTROL PANEL WIRING CHART

JAMMA	WORLD	USA	EXOTICA	FUNCTION
VID-RED	VID-RED	VID-BRN	VID-BLK	VIEW 1 LAMP
VID-BRN	VID-BRN	VID-RED	VID-BRN	VIEW 2 LAMP
VID-BLK	VID-BLK	VID-DRG	VID-RED	VIEW 3 LAMP
VID-DRG	VID-DRG	VID-BLK	VID-DRG	START LAMP
				TUNES LAMP
WHT-BLK	WHITE-YEL	WHT-BLU	WHT-BLU	VIEW 1 SW
WHT-BRN	WHT-GRN	WHT-GRN	WHT-GRN	VIEW 2 SW
WHT-RED	WHT-BLU	WHT-YEL	WHT-YEL	VIEW 3 SW
WHT	WHT	WHT-RED	WHT	START SW
WHT-DRG	WHT-BRN	WHT-BRN	WHT-BRN	TUNES SW
BLACK	BLACK	BLACK	BLACK	GROUND

