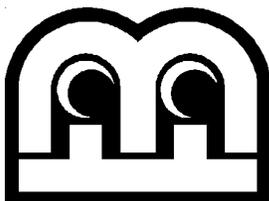




***TECHNICAL SERVICE
REFERENCE MANUAL***



Merit Industries, Inc.
2525 State Rd.
Bensalem, PA 19020-8529
(215) 639-4700; (800) 523-2760
<http://www.meritind.com>

Megatouch MAXX Technical Service Manual Contents

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Section 1

Cabinet Information

General Information- All Cabinet Styles

Dimensions/Shipping Weights

General Information - Countertop

Parts Illustrations

General Information - Upright

Parts Illustrations

MAXX Parts List

Cabinet Information Section

General Information

The Megatouch MAXX video games were available in several different cabinet styles:

Megatouch Full MAXX

Dimensions: H - 15-1/4"; W - 20"; D - 18-1/4"

Shipping dimensions: H - 26-1/2"; W - 23"; D - 21-1/4"

Shipping Weight: 95 lbs.

Megatouch Blue MAXX - MAXX Classic

Dimensions: H - 15-1/4"; W - 20"; D - 18-1/4"

Shipping dimensions: H - 26-1/2"; W - 23"; D - 21-1/4"

Shipping weight: 95 lbs.

Megatouch MAXX Select - Slim MAXX

Dimensions: H - 20"; W - 16"; D - 16-1/2"

Shipping dimensions: H - 22"; W - 20"; D - 17-1/2"

Shipping weight: 88 lbs.

Megatouch EZ MAXX - MAXX Elite

Dimensions: H - 16"; W - 17-1/2"; D - 15-1/2"

Shipping dimensions: H - 18-1/2"; W - 21"; D - 20"

Shipping weight: 75 lbs.

MAXX Upright

Dimensions: H - 54-1/4"; W - 24"; D - 26-1/2"

Shipping dimensions: H - 57-3/4"; W - 28"; D - 30"

Shipping weight: 250 lbs.

Blue MAXX Upright

Dimensions: H - 54"; W - 24"; D - 26-1/2"

No shipping dimensions or weight available

*An optional coin Mech/bill acceptor (Mars 2000) combination unit is available for all countertop models.

Megatouch Full MAXX

Dimensions: H - 15-1/4"; W - 20"; D - 18-1/4"

Shipping dimensions: H - 26-1/2"; W - 23"; D - 21-1/4"

Shipping weight: 95 lbs.

Motherboard Information

Mitsubishi

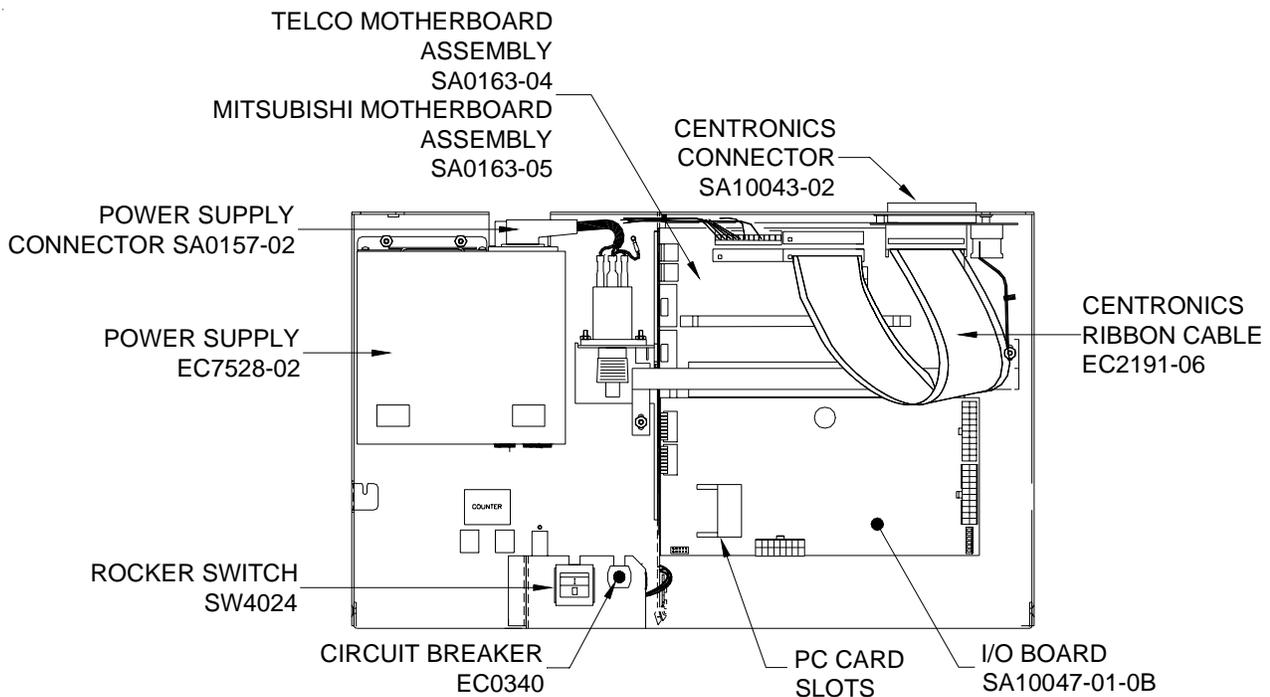
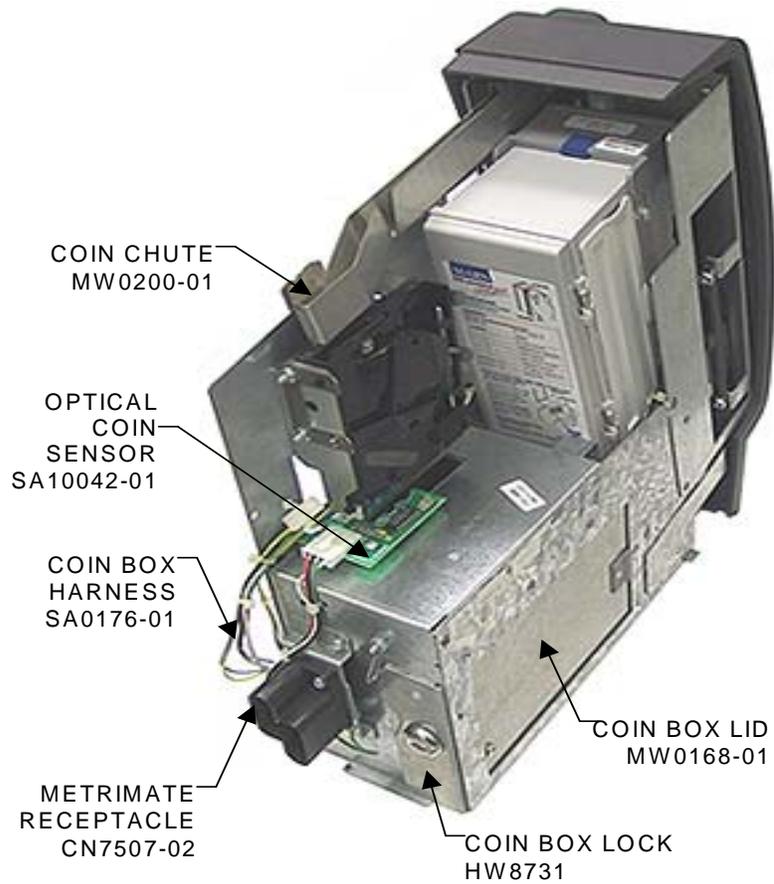
Telco

Touchscreen Type

Microtouch



Full MAXX



Full MAXX

Cabinet Information - General Information - Full MAXX

Megatouch MAXX Technical Reference Manual

Megatouch Blue MAXX - MAXX Classic

Dimensions: H - 15-1/4"; W - 20"; D - 18-1/4"

Shipping dimensions: H - 26-1/2"; W - 23"; D - 21-1/4"

Shipping weight: 95 lbs.

Motherboard Information

Mitsubishi

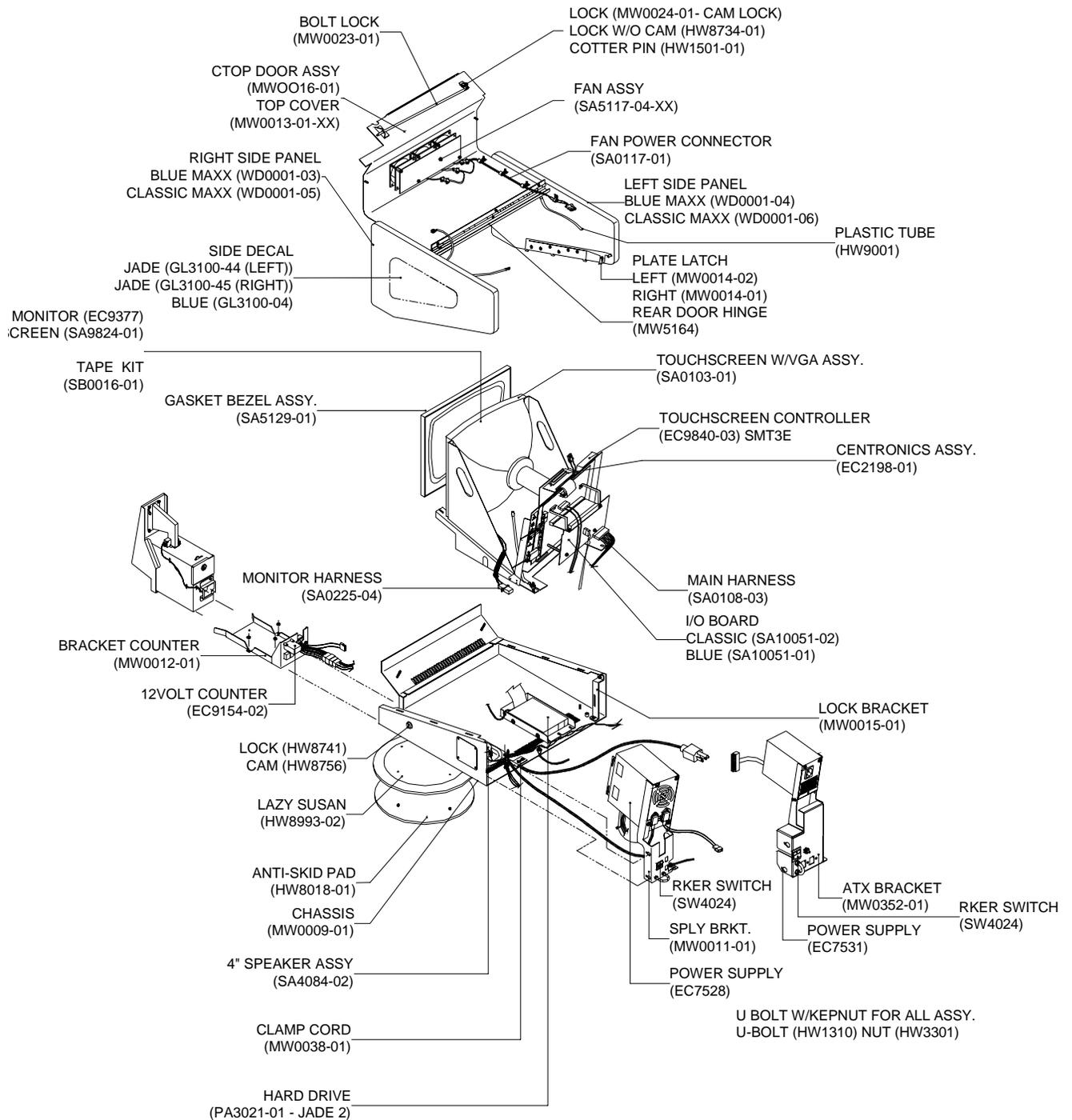
Unicorn

Telco

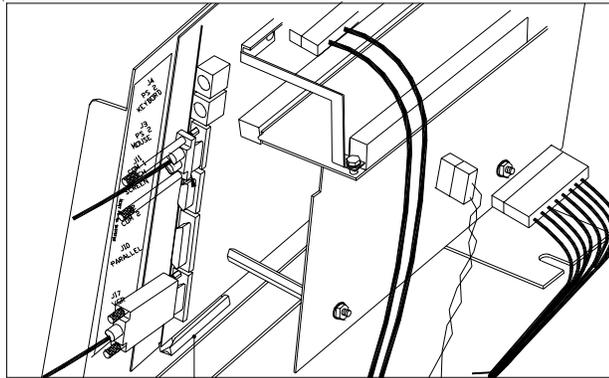
Touchscreen Type

Microtouch

ELO

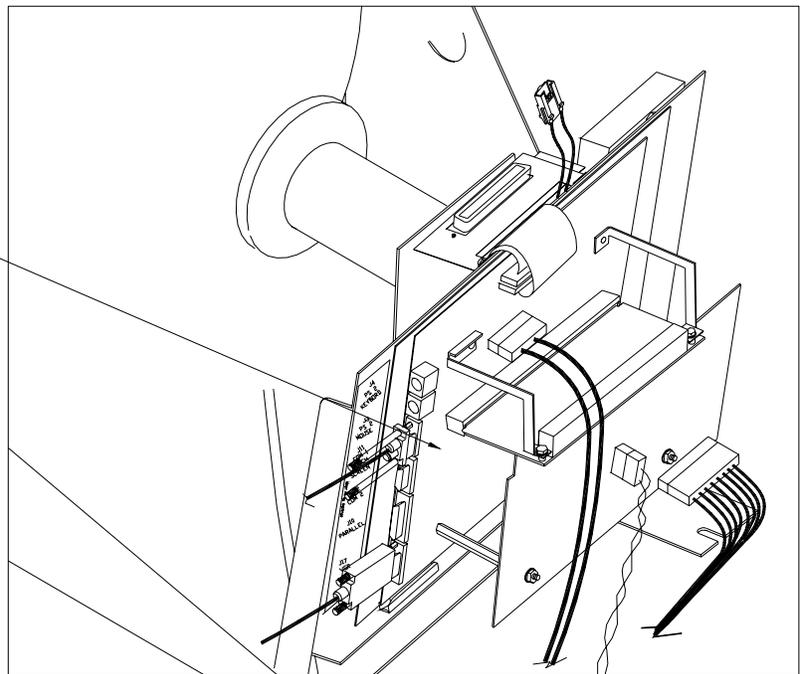


Blue MAXX - MAXX Classic Countertop

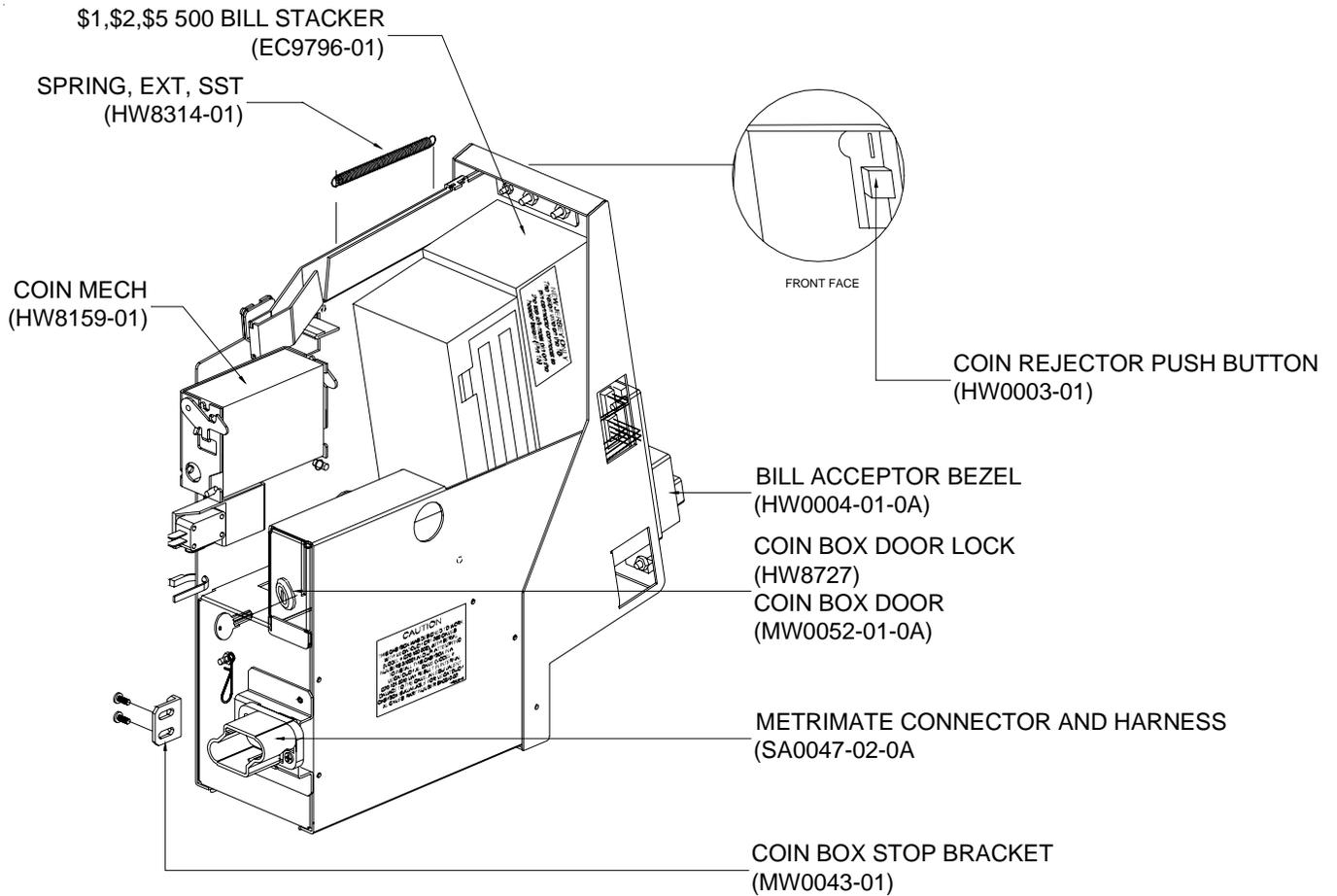


PCB GUIDES

MOTHERBOARD ASSEMBLY



Blue MAXX - MAXX Classic Countertop



Blue MAXX - MAXX Classic Countertop

Megatouch MAXX Select - Slim MAXX

Dimensions: H - 20"; W - 16"; D - 16-1/2"

Shipping dimensions: H - 22"; W - 20"; D - 17-1/2"

Shipping weight: 88 lbs.

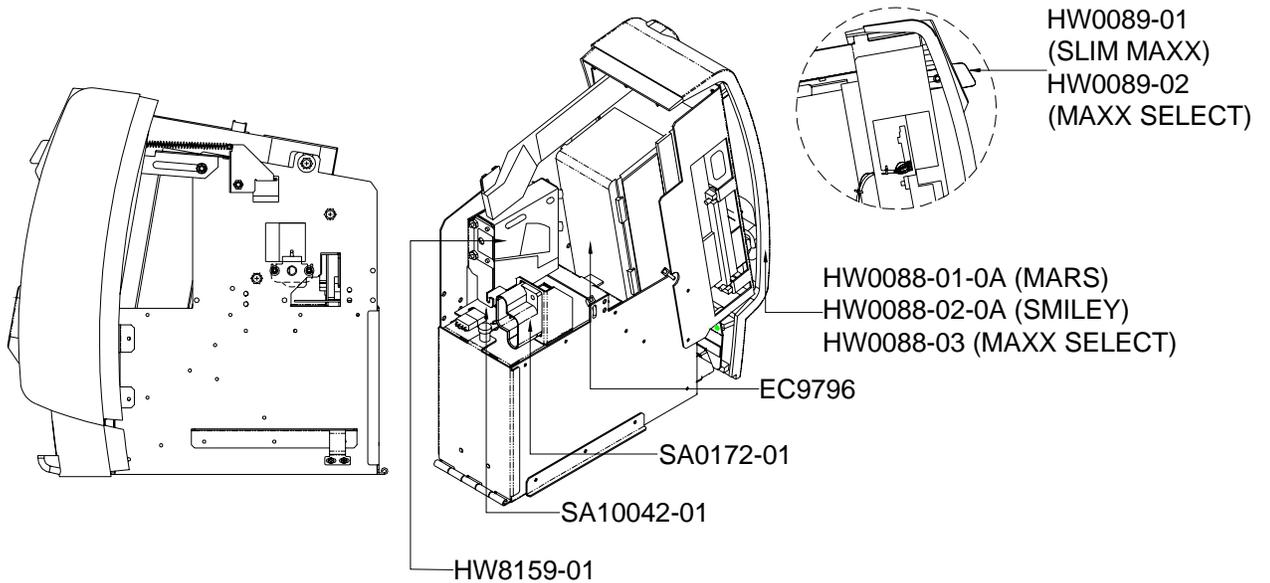
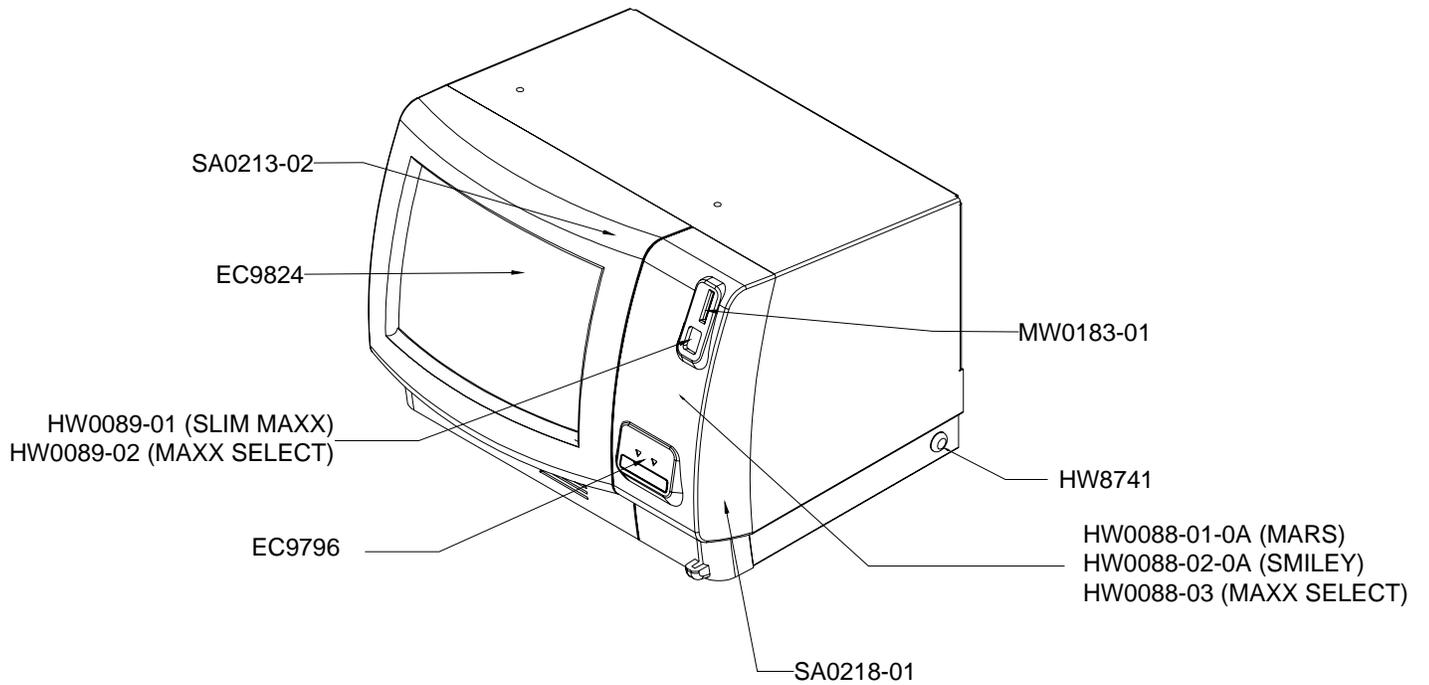
Motherboard Information

Mitsubishi

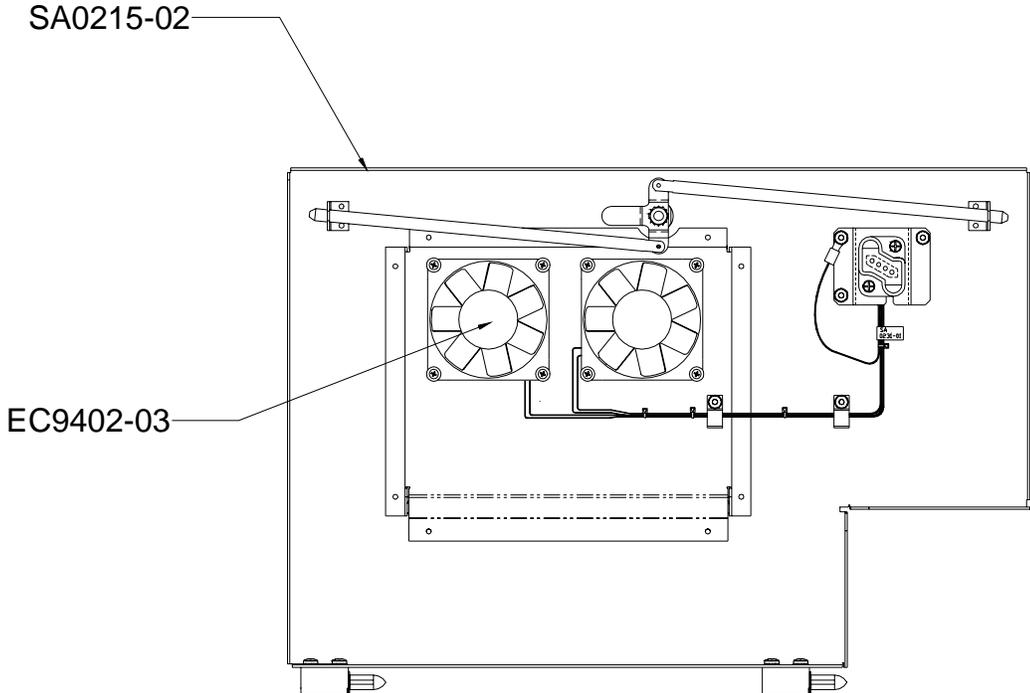
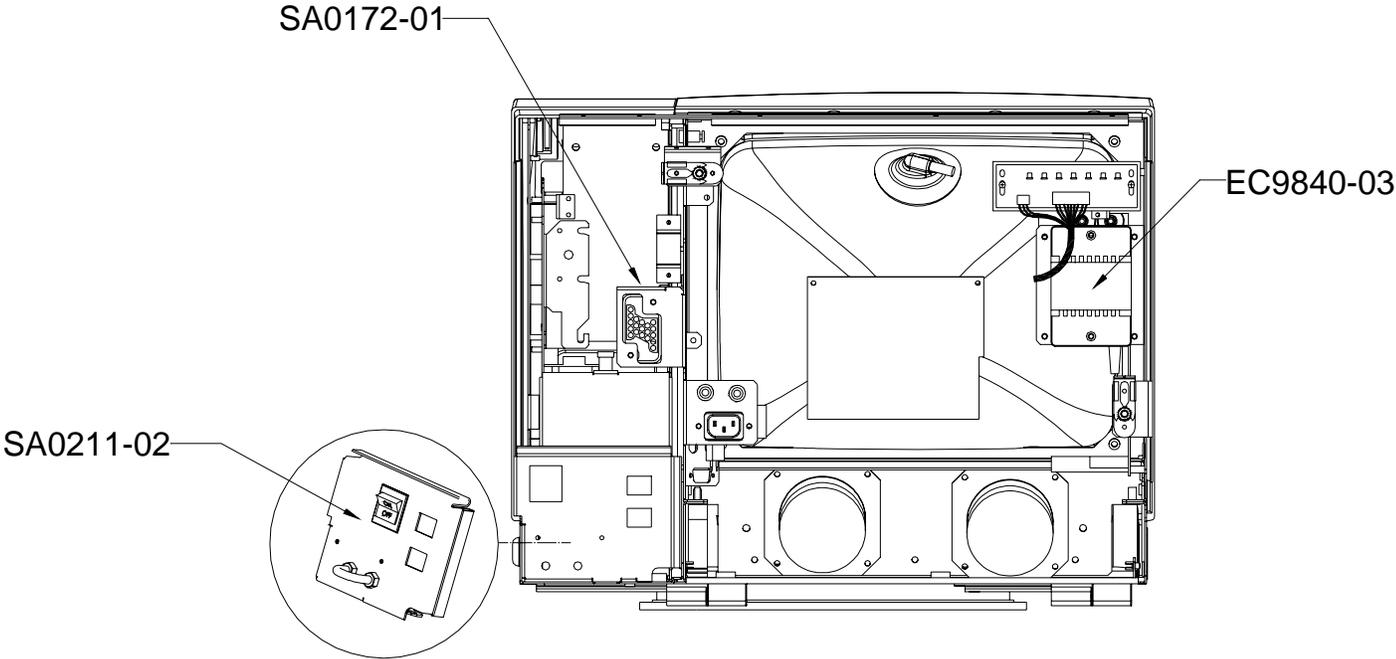
Unicorn

Touchscreen Type

Microtouch



MAXX Select - Slim MAXX Countertop



MAXX Select - Slim MAXX Countertop

Megatouch EZ MAXX - MAXX Elite

Dimensions: H - 16"; W - 17-1/2"; D - 15-1/2"

Shipping dimensions: H - 18-1/2"; W - 21"; D - 20"

Shipping weight: 75 lbs.

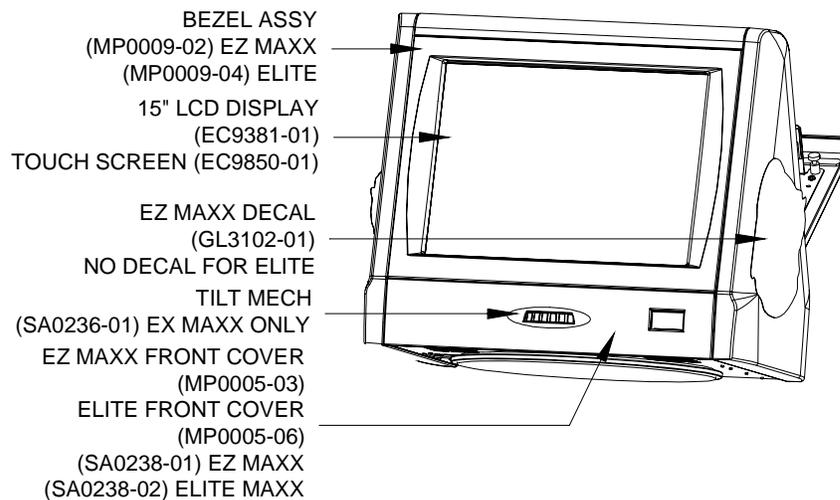
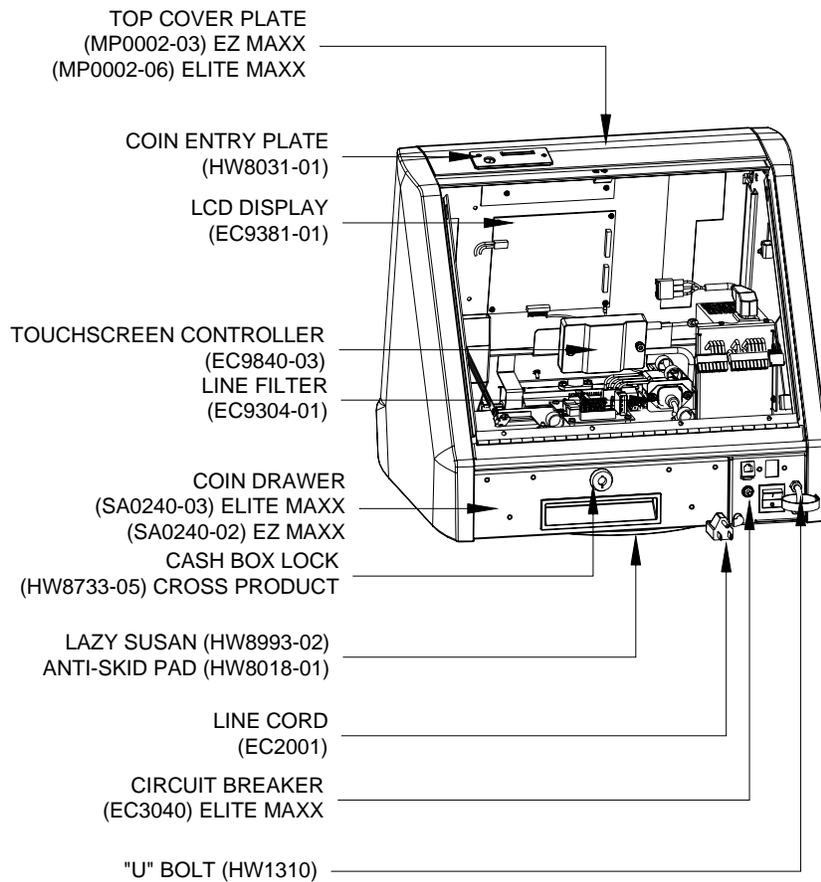
Motherboard Information

Mitsubishi

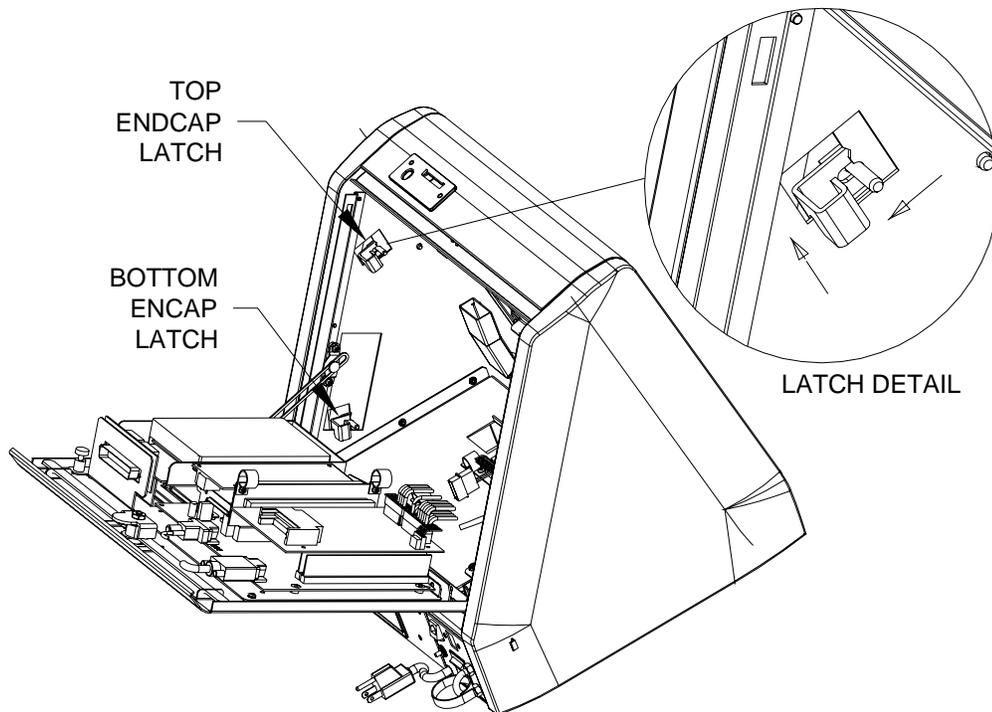
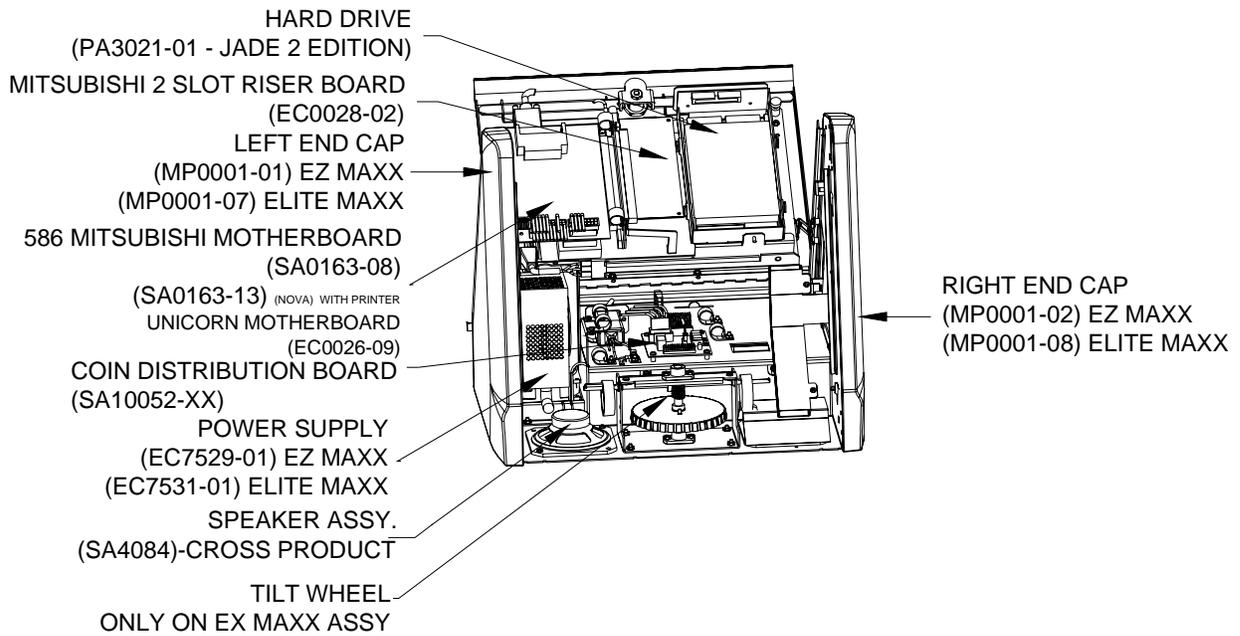
Unicorn

Touchscreen Type

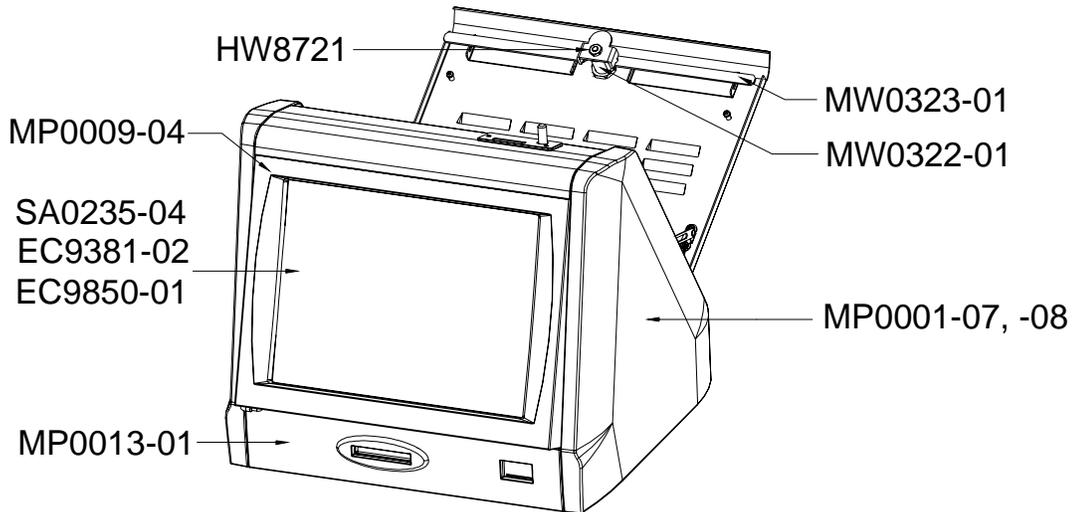
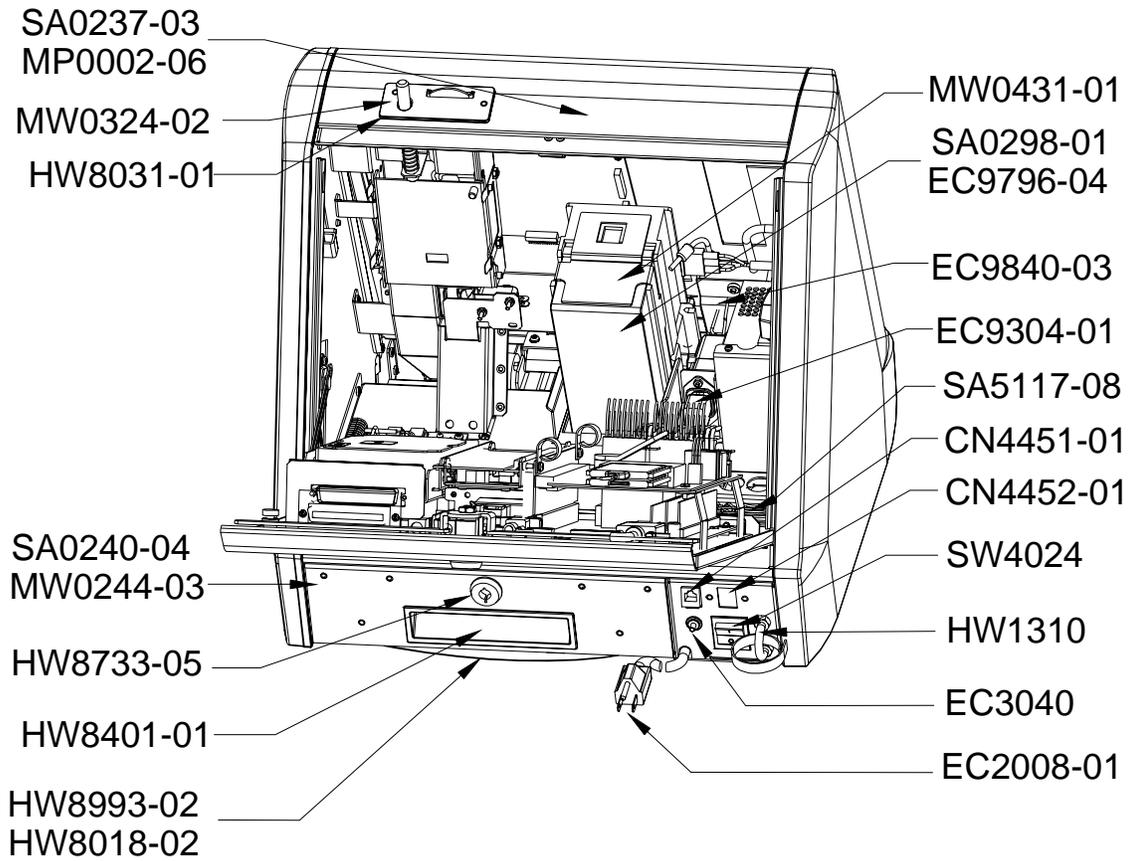
Microtouch



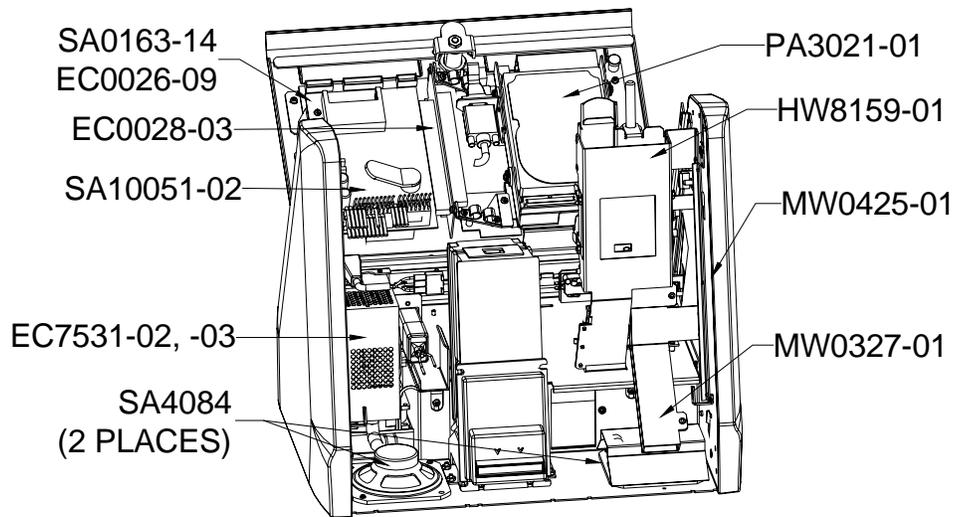
EZ MAXX - MAXX Elite Countertop



EZ MAXX - MAXX Elite Countertop



MAXX Elite with Integrated Coin/Bill Assembly



MAXX Elite with Integrated Coin/Bill Assembly

MAXX Upright

Dimensions: H - 54 -1/4"; W - 24"; D - 26-1/2"

Shipping dimensions: H - 57-3/4"; W - 28"; D - 30"

Shipping weight: 250 lbs.

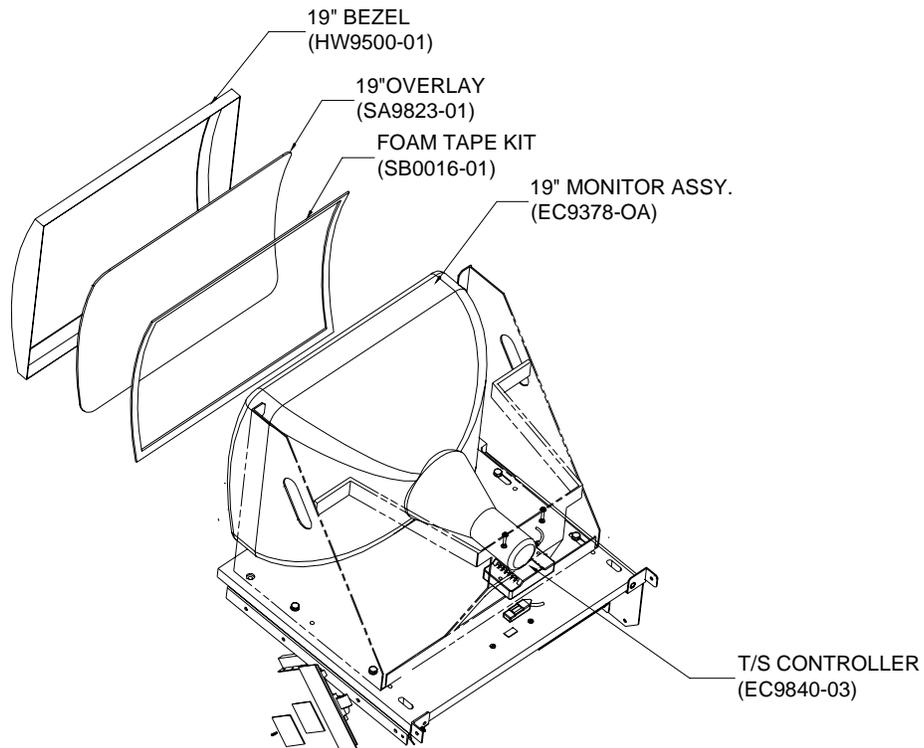
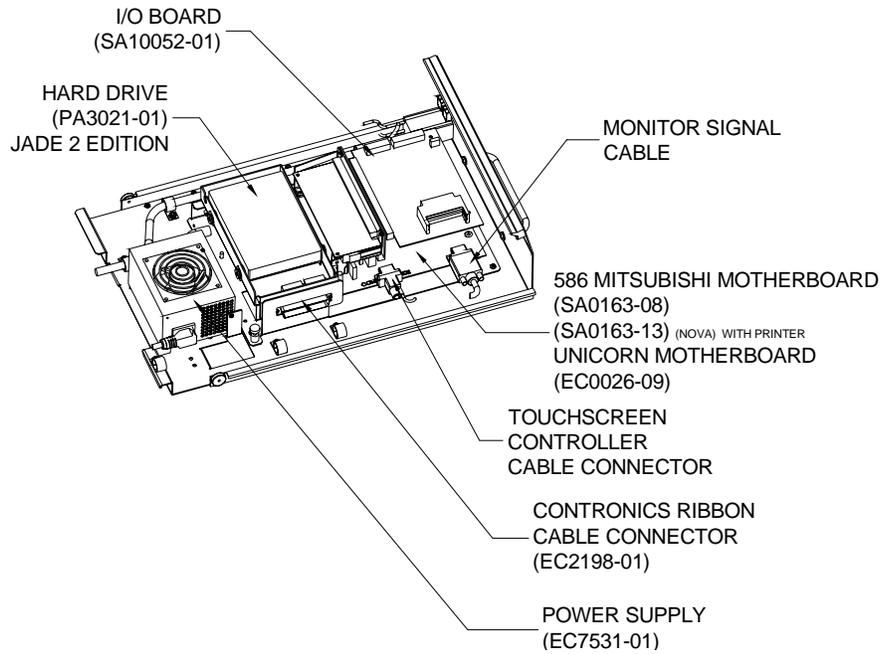
Motherboard Information

Mitsubishi

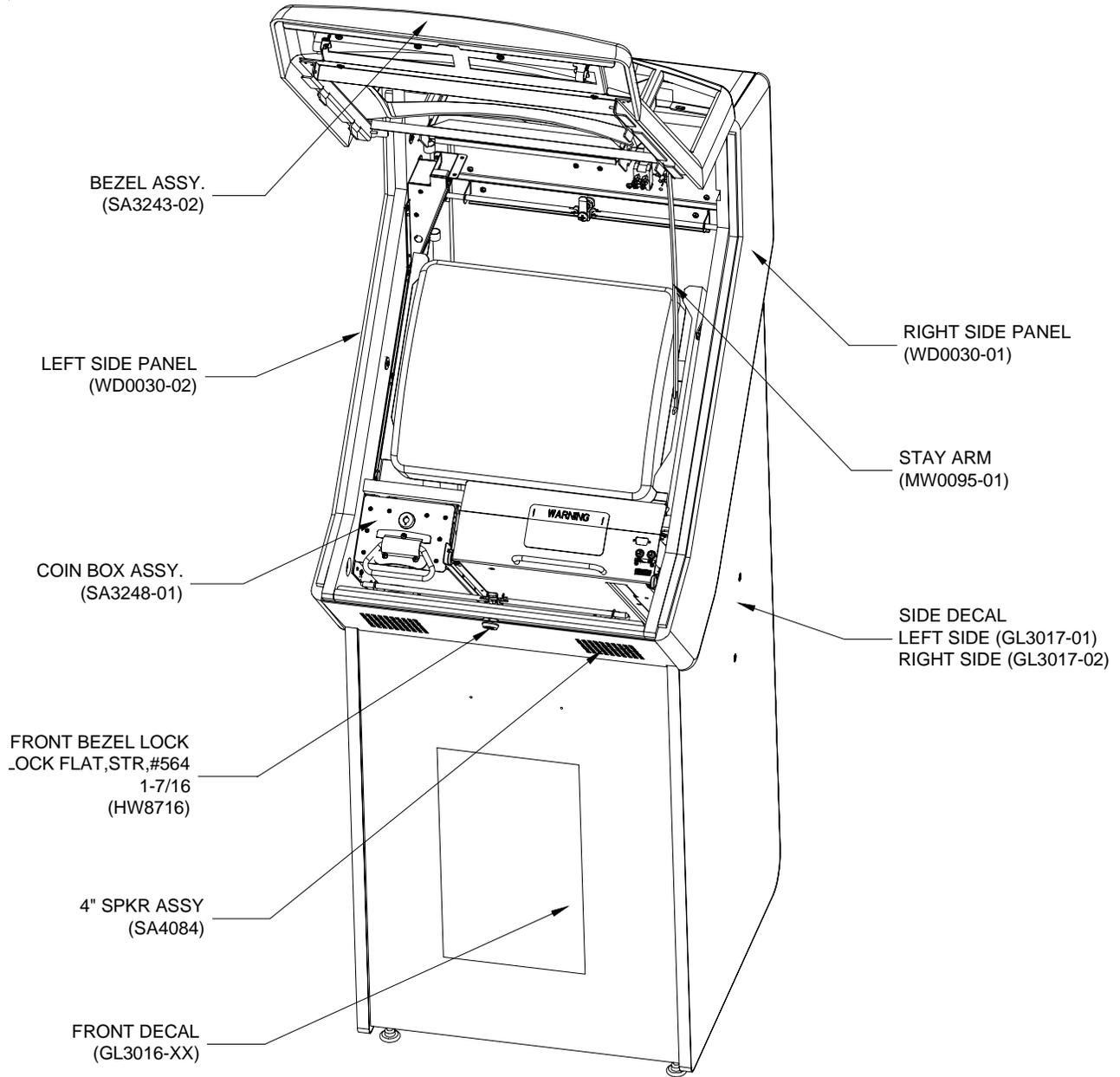
Unicorn

Touchscreen Type

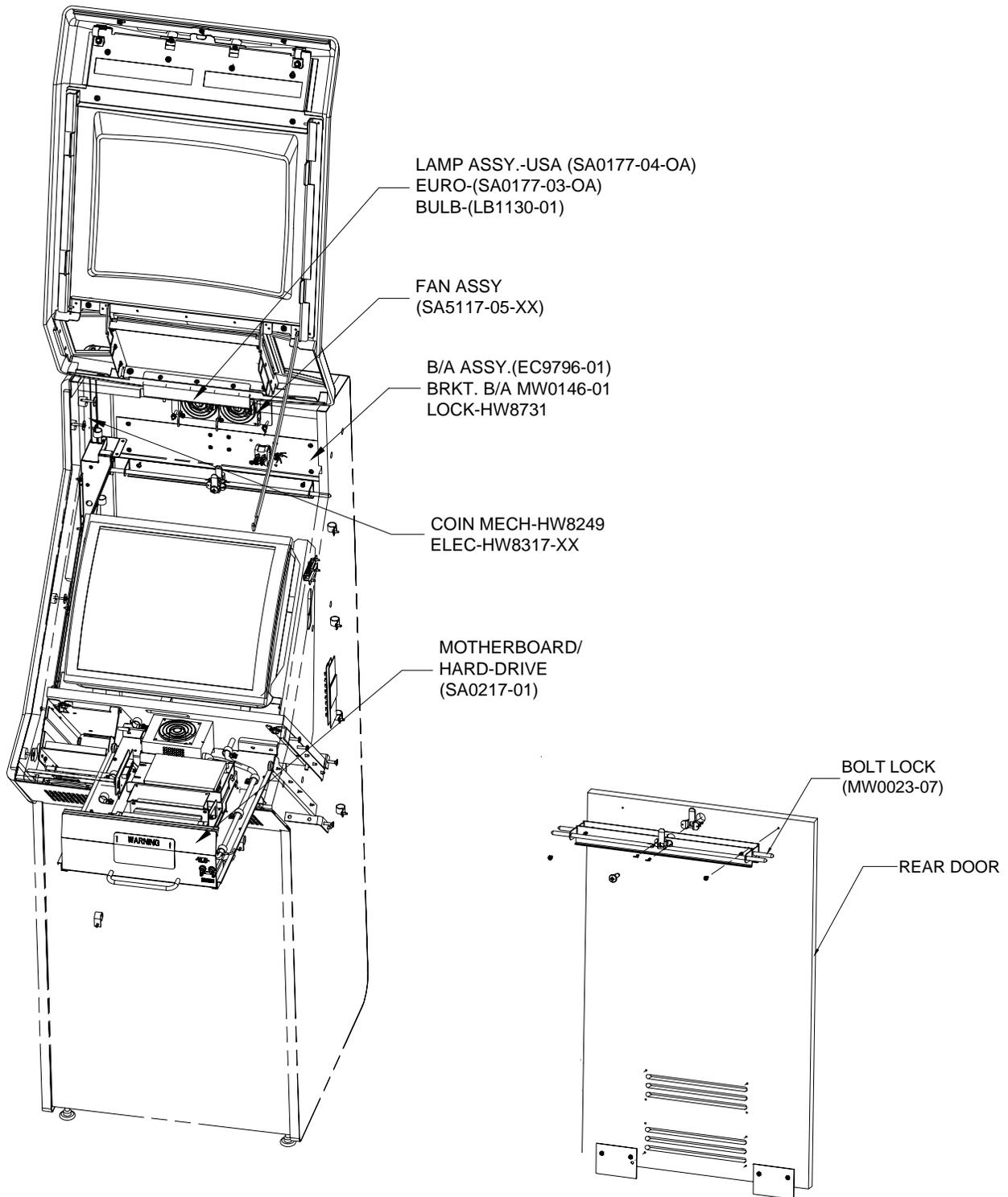
Microtouch



MAXX Upright



MAXX Upright



MAXX Upright

Blue MAXX Upright

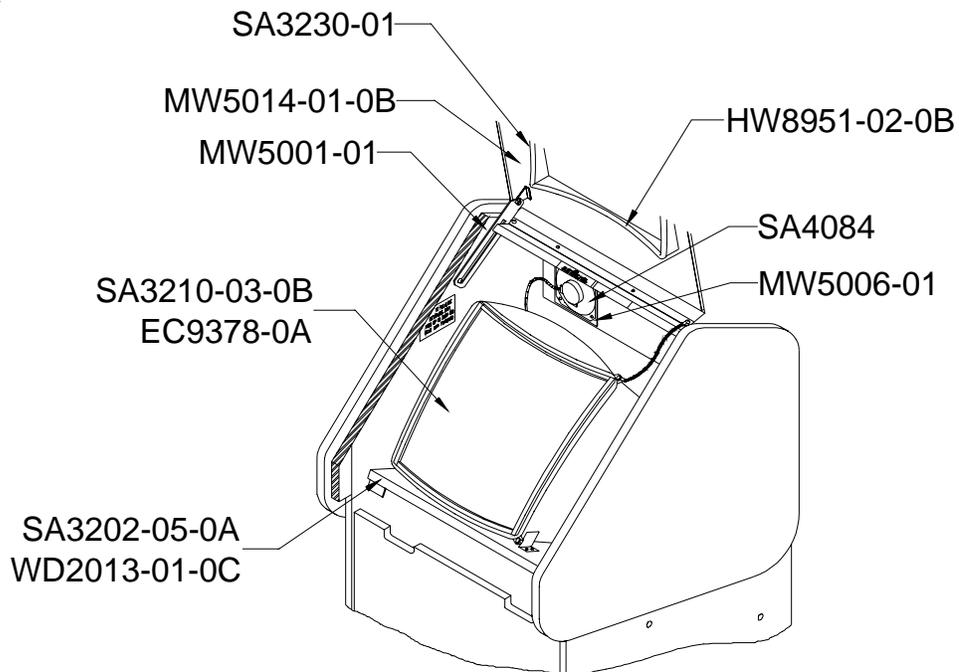
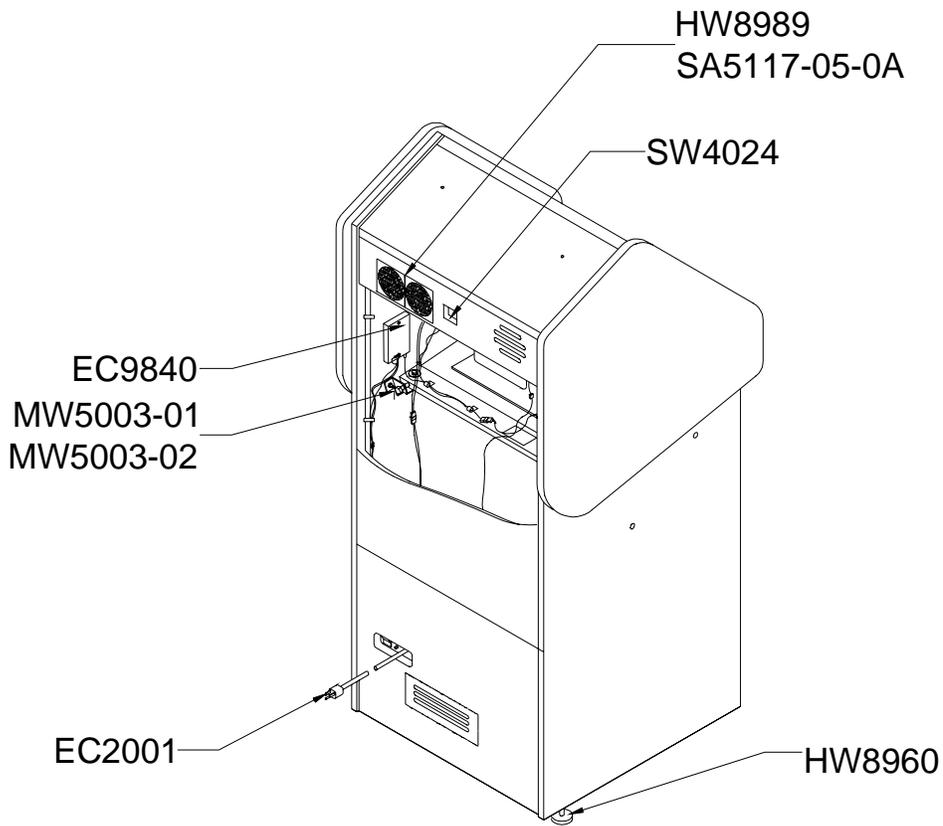
Dimensions: H - 54"; W - 24"; D - 26-1/2"
No shipping dimensions or weight available

Motherboard Information

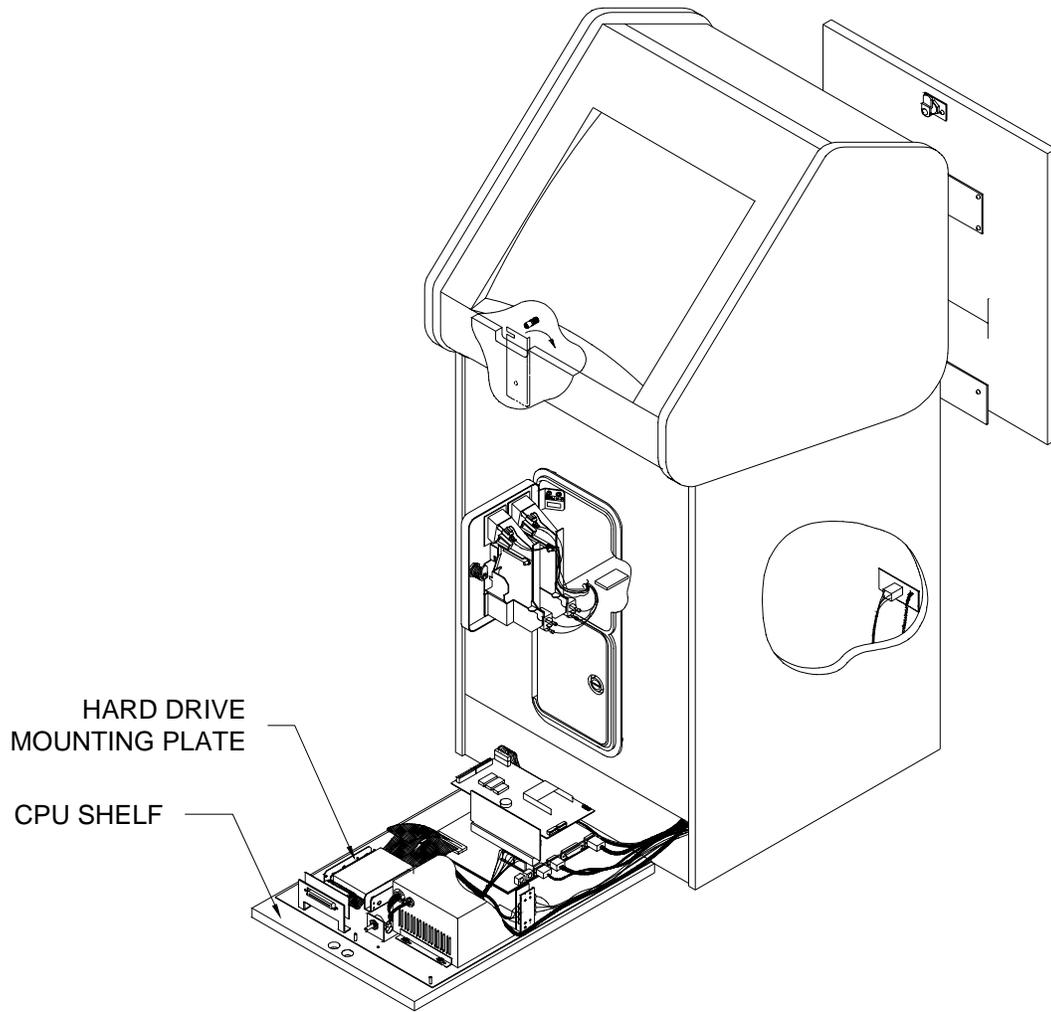
Mitsubishi

Touchscreen Type

Microtouch



Blue MAXX Upright



Blue MAXX Upright

Megatouch MAXX Parts List

Item	Description
CN4451-01	RJ45 CPLR,8POSN,R/A,PNL MTG
CN4452-02	RJ-11,SPLTR,M/F,4 CNDCT
CN4452-03	RJ-11 CPLR,6POSN,R/A,PNL MTG (FOR MODEM)
CN7501	METRIMATE PIN, FEMALE 20-24 AWG
CN7507-02	METRIMATE RECEPT, 19 PIN
CN7508	METRIMATE PLUG, 12 PIN
CN7508-02	METRIMATE PLUG, 19 PIN
EC0003-05	CD-ROM PLAYER, IDE, 4X
EC0005-01	RAM SIMM, 4 MEG, 72 PIN
EC0007-01	TERMINAL BLOCK, 4 POSITION
EC0012-04	UNIV PCMCIA DATA/FAX MDM (MODEM--TOURNAMAXX)
EC0013-01	PCA,RISER BD.TELCO
EC0016-01	RAM,SIMM, 16 MEG, 72 PIN FP
EC0016-02	RAM,SIMM, 16 MEG, 72 PIN EDO
EC0026-01	MITSUBISHI MOTHERBOARD W/SIMMS AND CPU
EC0026-03	586 W/AUD MITSUBISHI MOTHERBOARD
EC0027-01	DIMM,SDRAM,32MB
EC0028-01	MITSUBISHI RISER
EC0028-02	MITSUBISHI TWO-SLOT RISER BOARD
EC0074-03	50' RJ-11 PHONE CABLE
EC2001	CORD,PWR,USA
EC2002	CONT EUR PWR CD, DTCH IEC CONN
EC2004	UK PWR CD W/DTCH IEC CONN
EC2008-01	POWER CORD
EC2008-02	POWER CORD, 240 VAC
EC2008-03	POWER CORD, 230 VAC, UK
EC2008-04	POWER CORD, 230 VAC, SWZ
EC2008-05	POWER CORD, 230VAC, ASL
EC2008-06	POWER CORD, 2320 VAC, ITA
EC2179-01	CENTRONIC IDE-PWR RBN CBL
EC2187-01	RIBBON CABLE, 9 COND, 31"L
EC2187-01-0A	31", 9 COND RIBN CABLE
EC2187-02-0A	RIBBON CABLE, 9 COND, 31" LONG
EC2187-03	RIBBON CABLE, SHIELDED, 9 COND, 9 INCH
EC2187-07-0A	CABLE, RIBBON, 9COND, 10"L COMM CABL
EC2191-01	RIBBON CABLE, 2X20 PIN, IDE, 20"L
EC2191-05	RBN. CA. 2X20 PIN, IDE, 24"L
EC2191-06	CABLE, RIBBON, 2X20 PIN, IDE, 7"L
EC2191-08	CBL, RBN, 2X20 PIN, IDE, 9"L (TO THE MOTHERBOARD)
EC2191-09	CBL, RBN, 2X20 PIN, IDE, 12"L (TO THE CENTRONICS BRD)
EC2193-01	CBL, RBN, 2X5 PIN, 14"L, COMM DX
EC2198-01	CENTRONIC RCPT-IDE-PWR RBN CABLE
EC3039	CIRCUIT BREAKER 1 AMP PNL MTG
EC3040	CIRCUIT BREAKER 2AMP PANEL MTG
EC6056-01	FL. LAMP ASSY, 15" 230 VAC/50 HZ W/22" CABLE
EC7014	BALLAST, 230 VAC, 50HZ
EC7528-02	POWER SUPPLY, SW, PS/2-PC

Megatouch MAXX Parts List continued

Item	Description
EC7529-01	PWR SPLY, OPEN FR, 100W+12, + 5
EC7531-01	PWR SPLY, 145W +/- 12, +5, +3.3 (Mini Globe or ATX)
EC9154	COUNTER, 12V FROG EYE MOUNTING
EC9154-02	COUNTER, 12V, FROG EYE MOUNTING
EC9304-01	FLTR, LINE, 250VAC@6AMP, IEC
EC9360-XX	VGA CRT, 13" (INDICATE TYPE)
EC9361-XX	VGA 13" MONITOR CHASSIS BD (INDICATE TYPE)
(NOT ALL CHASSIS AND CRT TYPES ARE AVAILABLE / PRICES MAY VARY.)	
EC9377	MONITOR, VGA, 13" (W/CHASSIS BOARD & FRAME)
EC9377-07	CRT, 13"VGA, R/A CHAS MTG
EC9378-0A	MONITOR, 19" VGA (OBSOLETE--SELL EC9378-05)
EC9378-05	MONITOR, 19" VGA
EC9381-01	DSPL, LCD, 15" XGA (NO DISCOUNT)
EC9401-01	FAN,CPU 486 MOUNT,12VDC
EC9402-03	FAN 3",12V, 42.5 CFM
EC9410	FAN, TUBAXIAL, 3", 110V
EC9790-01	\$1/2/5, 500 STKR, AE2631D5E, MARS
EC9796-01	B / A \$1 / 2 / 5 WITH 500 STACKER
EC9796-06	MARS B/A, AE2000, \$1/2/5, 7000 STKR
EC9824-02	ELO T/S ASSY 13"
EC9828	WIRE HARN EXTENSION, MARS
EC9840	TOUCHSCREEN CONTROLLER, SMT3
EC9840-02	ELO TOUCHSCREEN CONTROLLER
EC9840-03	TOUCHSCREEN CONTROLLER, SMT3, W/26"L CAB
EC9850-01	OVRLY, TS, 15", W/12" CAB, W/7"ESD
GL2401-20	SAPPHIRE MARQUEE, UPRIGHT, XL
GL2402-02-0A	MAXX MARQUEE, UPRIGHT, XL2
GL2411-03	PLEXI, CLEAR, 19" CABARET SIGN
GL2411-05	PLEXI, CLR, 12.315X8.32, UR, XL2
GL2411-06	PLEXI, CLR, 12.315X8.32X.177, XL2
GL2431-15	SAPPHIRE MARQUEE, XL5
GL3016-02	FT DCL, LWR, BLU & YEL, UR, XL2
GL3017-01	L SIDE DCL, BLU & YEL, UR, XL2
GL3017-02	R SIDE DCL, BLU & YEL, UR, XL2
GL3100-01	DECAL, SIDE PANEL, XL, CTOP
GL3100-03	MAXX DECAL, COUNTER TOP
GL3100-04	DECAL, SIDE PANEL,BLUE MAXX, CTOP
GL3100-05	MAXX DCL, XL3, CTOP
GL3100-40	SAPPHIRE, RIGHT DECAL, CTOP, XL
GL3100-41	SAPPHIRE, LEFT DECAL, CTOP, XL
GL3100-42	SAPPHIRE DECAL, SLIM MAXX
GL3101-01	DECAL, FRONT, XL, CTOP
GL3102-01	ELITE MAXX DECAL
HW0003-01	BUTTON, B / A & CNBX, XL CTOP
HW0004-01-0A	BEZEL, B/A + CNBX, CTOP
HW0020-01	PCB GUIDE, 2.5", SNPN SHLW CHAN
HW0020-02	PCB GUIDE, 3", SNPN SHLW CHAN

Megatouch MAXX Parts List continued

Item	Description
HW0028-01	DISCONTINUED - USE PART # WD0030-01
HW0028-02	DISCONTINUED - USE PART # WD0030-02
HW0031-01-0A	BEZEL TRIM, REAR, UR, XL2
HW0034-01	SPACER RING, LAZY SUSAN
HW0041-01	1"WX.06T MAG TAPE, HD,W/PSA (TAPE FOR SIGN HOLDER)
HW0088-01-0A	BEZEL, MARS, XL2
HW0088-02-0A	BEZEL, SMILEY
HW0088-03	BZL,BLK,MARS,XL3
HW0089-01-0A	BUTTON, REJECT, MARS
HW0089-02	CLASSIC MAXX REJECTOR BUTTON
HW0091-01	AIR FILTER W/GUARD, 3.13 SQ, PLASTIC (ON BACK LID)
HW0092-01	BEZEL, MONITOR
HW0092-01-0A	BEZEL, MONITOR, CTOP, XL2
HW0092-02	BZL,BLK,MON, XL3 (MONITOR BEZEL)
HW0093-01-0A	COVER PLATE, SMILEY, B/A
HW1310	BOLT, "U", 1/4-20X1-1/4"
HW1501-01	COTTER PIN, M2 DIA X 14MM L
HW3301	U BOLT NUT 1/4-20 KEPNUT
HW6366	MOUNTING POST, KNURLED
HW8018-01	ANTI-SKID PAD, 11.5"DIA, RA65 RBR (REPL BY HW8018-02)
HW8018-02	AS PAD,11.5D,W/6.0 C/O (ANTI SKID PAD WITH HOLE)
HW8031-01	GSKT, COIN ENT, CTOP, XL4
HW8031-01	COIN ENTRY PLATE
HW8159-01	\$.25 M/CREJ, IMONEX 950
HW8159-04	\$1 CAN M/CREJ, IMONEX 950
HW8171-01	PCB GUIDE, 8", SNAP-ON, DEEP CHANNEL
HW8196-01	BACK CHAN ASSY, W / O LKOT COIL
HW8197-01	COIN ACCEPTOR S7
HW8249	FR/PLATE, SINGLE, M, .25, ROLL DOWN
HW8249-04	M/CREJ,SGL,FRPL,ROLL DOWN \$1.CAN
HW8279-0A	FRONT PLATE SINGLE W/COIN MECH, ADJUSTABLE
HW8284	FRONT PLATE W/COIN MECH 10, 20, 50, 1 £ UK
HW8285	FRONT PLATE SINGLE, ELEC. W/O COIN MECH
HW8286	ELEC. COIN MECH, 1, 2, & 5 DM (GERMAN)
HW8286-09	ELEC. COIN MECH CAN, .25/\$1/\$2 330 E/CREJ
HW8286-XX	ELEC. COIN MECH. (INDICATE COUNTRY)
HW8314-01	SPRING, EXT, SST, .24D X3.50L
HW8317-XX	PROGRAMMABLE TD330 E/CREJ (ELEC MECH)
PLEASE INDICATE COUNTRY WHEN PLACING ORDERS. PRICES MAY VARY.	
HW8319-XX	ELECTRONIC MECH (INTL U/R MAXX)
PLEASE INDICATE COUNTRY WHEN PLACING ORDERS. PRICES MAY VARY.	
HW8358-01	GASKET, NPRN, CLOSED CELL, .187DIA (ON BACK LID)
HW8401-01	FLUSH HANDLE, POCKET PULL
HW8711	ANCHOR PLATE FOR CAM LOCK
HW8713	LOCK, FLAT,STR, 564, 1-7/16 KYRM
HW8713-02	564 LOCK, KYRM, W/O CAM, 1 3/8"L (use HW8716)
HW8716	LOCK,FLAT,STR,#564, 1-7/16" (FRONT BEZEL LOCK)

Megatouch MAXX Parts List continued

Item	Description
HW8721	564 LOCK W/JAM NUT, 7/8" (FOR SERVICE/BACK DOOR)
HW8727	LOCK, FLAT, STR, DIFF, 1-1/8 (CD DR/COIN BX)
HW8731	LOCK, FLAT, 90', DIFF, 7/8" (COIN BOX LOCK)
HW8733-03	LOCK, HIGH SECURITY, DIFF, 5/8 (SIDE LOCK)
HW8733-05	LK, HSCRTY, KD, 7/8, CAPKY(CASH BX DOOR & SIDE CAR LOCK)
HW8734-01	LOCK, W/O CAM, 564, 5/8"L (REAR DOOR)
HW8741	LOCK, CIRC, BNT, DIFF, 1/2"
HW8756	CAM, BENT, 1/8" OFFSET
HW8911-01	PIN, SPRING, STL, .094 0D X .50L
HW8951-01	BEZEL, MONITOR, URTS, 19" CABARET
HW8951-02-0B	BEZEL, MONITOR, 19" URTS
HW8953	BEZEL, 13' T/S
HW8960	LEG LEVELER, 2", 3/8-16THD
HW8979	SLIDE LATCH
HW8989	FAN GUARD, 2.8"
HW8993-02	LAZY SUSAN, 12" DIA, 15 DEG. STOPS
HW9001	TUBING, PLASTIC
HW9461-03	SIGN HOLDER, PETG, 4 X 12, CTOP
HW9500-01-0A	BEZEL, MONITOR, UR, XL2
KUV-107-001	COIN/BILL ACCEPTOR KIT, XL CTOP
LB1030-01	BULB, 9", 6 WATT, CW
LB2100	LAMP, FL, 15W, F15T8CW
MP0001-01	L SIDE CVR, GRN, CTOP, XL
MP0001-02	R SIDE CVR, GRN, CTOP, XL4
MP0001-07	L SIDE CVR,BLU,XL4
MP0001-08	R SIDE CVR,BLU,XL4
MP0002-03	TOP CVR, 15", SIL, COIN ENT, XL4
MP0002-06	TOP CVR, 15", BLU, COIN ENT, XL4
MP0003-02	TOP CVR, 4.50", SIL, CTOP, XL4
MP0005-03	FR CVR, GRY, COIN RTN, XL4
MP0005-06	FR CVR,BLU,CN RTN,XL4
MP0006-02	SPCR, SIDECAR, SIL, CTOP, XL4
MP0009-02	BEZEL, 15" LCD, SIL, CTOP, XL4
MP0009-04	BEZEL, 15" LCD, GRY, XL4
MP0011-01	BRG SEAT,DSPL PVT,CTOP,XL4
MW0009-01	CHASSIS,CTOP,XL
MW0009-01-0C	CHASSIS, CTOP, XL
MW0009-02	CHASSIS, CTOP, MAXX
MW0010-01-0G	FRAME, DISPLAY, CTOP, XL
MW0011-01	POWER SUPPLY BRACKET
MW0011-01-0B	BARCKET, PWR SUPPLY, CTOP, XL
MW0012-01-0A	PRINTER INTERFACE BRACKET
MW0012-01-0C	BRACKET, CONN/COUNTER, CTOP XL
MW0013-01-0C	TOP, CTOP, XL
MW0014-01-0B	PLATE, (RIGHT) LATCH, CTOP, XL
MW0014-02-0B	PLATE, (LEFT) LATCH, CTOP, XL
MW0015-01	BRACKET, LOCK, CTOP XL

Megatouch MAXX Parts List continued

Item	Description
MW0016-01-0C	DOOR, CTOP, XL
MW0017-01	COIN BOX, CTOP, XL
MW0020-01-0B	COIN CHUTE ENTRY, LEFT XL CTOP
MW0021-01	COIN CHUTE ENTRY, RIGHT XL CTOP
MW0023-01	BOLT, LOCK, CTOP, XL
MW0023-04	BOLT, LOCK, 7.99"L,UR, XL2
MW0023-06	BOLT, LOCK, CTOP, XL3 (CAM FOR HW8734-01)
MW0023-07	REAR DOOR BOLT LOCK, 8.69L, UR
MW0024-01	CAM, LOCK (REAR DOOR)
MW0028-01	PLATE, POWER ENTRY
MW0037-01-0A	CAM, LOCK, .75 X 2.0
MW0038-01	CORD CLAMP, XL
MW0039-01-0C	DOOR, CD-ROM ACCESS, XL, CTOP
MW0043-01	COIN BOX STOP BRACKET
MW0044-01	DOOR LOCK LATE, UR
MW0051-01	LINKAGR, COIN RETURN XL CTOP
MW0052-01-0A	DOOR, B / A & COIN W/BOX XL CTOP
MW0057-01	COVER, FAN PROTECTOR
MW0061-02	COVER, FAN PROTECTOR, UR, XL2
MW0063-01	PLATE, MOUNTING, PC POWER, XL
MW0063-01-0K	PLATE, MTG, PC/PWR, XL
MW0095-01	STAY ARM, UR, XL2
MW0097-01-0A	TAMPER PROOF BEZEL BRKT, UR, XL2
MW0098-01-0A	STAY ARM HAT BRKT, UR, XL2
MW0100-01	COIN BOX CHUTE
MW0101-01	SPACER, COIN BOX BRACKET, UPPER
MW0118-01-0B	BRKT, SMILEY, UR, XL2
MW0119-03	BRKT, M/CREJ, ROLL DN, UR, XL2
MW0124-01-0B	HINGE, UR, XL2
MW0129-01	CVR PLT, B/A OPNG, UR, XL2
MW0138-01-0B	BRACE, 2 POINT LOCK, UR, XL2
MW0146-01	BRKT, MARS B/A, UR/, XL2
MW0157-01	SWITCH, PANEL,XL3 (FOR COUPLERS)
MW0158-01	LOCK BAR, CTOP, XL3
MW0159-02	CAM W/DBL D C/O, LOCK, CTOP, XL3
MW0161-01	B/A SECURITY BAR,CTOP,XL3
MW0163-01	BRACKET, RISER/586 SPRT, CTOP
MW0168-01	LID, COIN BOX
MW0171-01	CAM, LID, COIN BOX, 5/8, CTOP (CAM FOR COIN BOX LOCK)
MW0171-03	CAM, .83, NCH, CNBX LID CTOP XL2
MW0173-01	ELECTRONICS BOX, CTO
MW0174-01	LID, ELECTRONICS BOX, LOWER, CTOP
MW0175-XX	LID, CTOP (-01: GREEN; -02: BURGUNDY)
MW0177-01	BRACKET, SPRT, TELCO PENTIUM
MW0179-01	CAM, LOCK, COIN BOX, CTOP (CAM FOR SIDE LOCK)
MW0181-01	CHASSIS, CTOP
MW0190-01	LID, ELECTRONICS BOX, CTO

Megatouch MAXX Parts List continued

Item	Description
MW0191-01	BRACKET, POWER SUPPLY, CTOP
MW0192-01	BRACKET, CABLE CLAMP, CTO
MW0193-01	BRACKET, COIN BOX, UPPER
MW0194-01-0A	BRACKET, COIN BOX STOP
MW0200-01	COIN CHUTE, ENTRY, CTOP
MW0201-01	BRACKET, LEFT, HARD DRIVE SHOCK MTG, CTOP
MW0201-02	BRACKET, RIGHT, HARD DRIVE SHOCK MTG, CTOP
MW0203-01	BRACKET, RISER CLAMP, TELCO PENTIUM
MW0206-01	MAIN CHASIS, CTOP, XL3
MW0209-01	BONNET,GRN,CTOP,XL3 (METAL TOP NO DECAL)
MW0209-02	BONNET,BURG,CTOP,XL3 (METAL TOP NO DECAL)
MW0209-03	BONNET,BLK,CTOP,XL3 (METAL TOP NO DECAL)
MW0210-01	BACK, ACCS, PL, CTOP, XL3
MW0210-02	BACK, ACCS, PL, CTOP, XL3 (BACK DOOR)
MW0211-01	MTHBD, SHELF, CTOP, XL3
MW0220-01	3PT BOP CAM, CTOP, XL3
MW0221-01	ANGLE,SCTY REINF, UR, XL5
MW0226-01	BRKT, L, I/O/RISER BD, XL
MW0228-01	BRKT, R, I/O/RISER BD, XL
MW0237-01	CHAS, MAIN, CTOP, XL4
MW0238-02	DOOR, REAR, GRY, CTOP, XL4
MW0241-01	BRKT, TOP, MAIN, CTOP, XL4
MW0242-01	BRKT, SIDE PNL, L, CTOP, XL4
MW0242-02	BRKT, SIDE PNL, R, CTOP, XL4
MW0243-01	DRAWER, CNBX, CTOP, XL4
MW0244-02	DRAWER, FACE, GRY, CTOP, XL4
MW0244-03	DRAWER, FACE, BLU, CTOP, XL4
MW0245-01	DRAWER CVR, CTOP, XL4
MW0246-01	LATCH CLIP, UPR, CTOP, XL4
MW0246-02	LATCH CLIP, LWR, CTOP, XL4
MW0248-01	BRKT, LWR BEZEL, CTOP, XL4
MW0253-01	LOCK BAR, CNBX DOOR, CTOP, XL4
MW0254-01	CAM LOCK, CNBX DOOR, CTOP, XL4
MW0260-01	LCH, S/PNL, UPR-L, CTOP, XL4
MW0260-02	LCH, S/PNL, LWR-L, CTOP, XL4
MW0260-03	LCH, S/PNL, UPR-R, CTOP, XL4
MW0260-04	LCH, S/PNL, LWR-R, CTOP, XL4
MW0268-01	COIN CHUTE, UR, XL5
MW0269-01	LOWER COIN CHUTE, UR, XL5
MW0281-05	BRKT, PWR ENT, BLU, ATX, XL4
MW0283-01	FAN GUARD, CTOP, XL3
MW0292-01	CNBXSCTY CLIP, CTOP, XL3
MW0296-01	3PT LOCK BAR HLD, UR, XL5
MW0297-01	HANDLE/SWITCH PLT, UR, XL5
MW0298-01	BRACE/MARQUEE BRKT, UR, XL5
MW0301-01	COINBOX, UR, XL5
MW0321-01	PLATE, SIDE LATCH, CTOP, XL4

Megatouch MAXX Parts List continued

Item	Description
MW0322-01	CAM, 3 PT, REAR DR, CTOP, XL4
MW0323-01	LOCK BAR, REAR DR, CTOP, XL4
MW0324-02	PLATE, COIN ENT, TLT, CTOP, XL4
MW0327-01	CHUTE, COIN RTN, CTOP, XL4
MW0334-01	CHAS, S/CAR, 4.5", CTOP, XL4
MW0335-03	FR PL, S/CAR, LTGRY, MARS B/A, XL4
MW0336-01	DR, REAR, S/CAR, GRY, CTOP, XL4
MW0337-01	CAM, S/CAR, CTOP, XL4
MW0338-01	LOCK BAR, S/CAR, CTOP, XL4
MW0339-01	CUP, COIN RTN, TLT, CTOP, XL4
MW0343-01	FLAP, COIN RTN CUP, CTOP, XL4
MW0346-01	CHASSIS, MAIN, ATX, CTOP, XL4
MW0351-02	DOOR, REAR, BLU, ATX, XL4
MW0352-01	BRKT, ATX, ENET, CTOP, XL
MW0388-01	BRKT, UNIV, ETR I/O RISER
MW1670-01	SPEAKER MTG BKT, 19" CABARET
MW1671-01	BRHT, GLASS, UPPER, 19" CABARET
MW1672-01	CONTROL PANNEL, 19" CABARET
MW1674-01-0B	MONITOR SUPPORT, LEFT, 19" CABARET
MW1674-02-0B	MONITOR SUPPORT, RIGHT, 19" CABARET
MW2013-01	DUCK BILL CAM, UR, XL5
MW5001-01	STAY LID, URTS, 19"
MW5003-01	BRACKET, CRT ADJUST, LEFT
MW5003-02	BRACKET, CRT ADJUST, RIGHT
MW5006-01	COVER, PERFORATED, SPEAKER, 4"
MW5008-01	BRACKET, CRT LEFT, 19" URTS
MW5008-02	BRACKET, CRT RIGHT, 19" URTS
MW5014-01-0B	BEZEL/HINGE ASSY, 19" URTS
MW5153-01	DOOR, COIN BOX, CTOP
MW5164-01	HINGE, REAR DOOR CTTS
PA3021-01	MAXX JADE 2 HARD DRIVE ASSEMBLY V15
PM0240-02	OWNER'S MANUAL, XL3
PM8928-14	SIGN, MEGATOUGH XL, CTOP XL6000
PM8928-15	SIGN, BLUE MAXX
PM8928-47	RUBY SIGN
PM8928-53	RUBY 2 COUNTERTOP SIGN
SA0013-02	WIRE HARN, MARS B/A, MODIFIED XL
SA0014-01	HARN, E/M/CREJ, 19" CABARET
SA0014-03	WIRE HARN, E OR M/CREJ, 19" CAB, XL
SA0047-02	COIN BOX HARNESS ASSY
SA0047-02-0A	COIN BOX HARNESS ASSY
SA0058-01	HARNESS, POWER SWITCH, URTB/URTS/CAB, XL
SA0063-01	HARNESS, POWER, DUAL FANS, URTS
SA0067-01	HARNESS, VOLUME POT, URTS/CAB, 260
SA0077-01	HARNESS, MAIN, XL
SA0096-03	PWR ENTRY W/O COMM, UR, XL2
SA0101-01	ASSY, MOTHERBOARD, DE-AMER

Megatouch MAXX Parts List continued

Item	Description
SA0101-02	ASSY, MOTHERBOARD XL, TELCO
SA0101-03	ASSY, MOTHERBOARD, TELCO
SA0102-01	HARNESS, COIN BOX, MGATCH XL, CTOP
SA0102-02	PRINTER INTEREFACE
SA0102-03	HARNESS, COIN BOX, MGATCH XL, CTOP
SA0103-01	TOUCHSCREEN/VGA DISPLAY ASSEMBLY, 13
SA0105-01	COVER ASSY, CTOP, XL
SA0105-02	COVER ASSY, CTOP, BLUE MAXX
SA0105-03	SIL&BLK CVR, CLASSIC MAXX
SA0106-01	POWR ENTRY ASSY, CTOP XL, 120V (OLD)
SA0106-09	PWR ENT,ATX,BLU MAXX (NEW)
SA0106-11	DOM,W/COMM CPLRS,ATX,PWR ENT
SA0107-01	COIN BOX ASSY. COMPLETE W/MECH \$0.25 USA
SA0107-XX	COIN BOX ASSY. COMPLETE W/ELEC MECH
SA0108-01	HARNESS, MAIN, CTOP, XL
SA0108-03	HARN, MAIN, CTOP, BLUE MAXX
SA0111-01-0A	HARNESS, DISPLAY, AC, CTOP
SA0112-01	ASSY, MOTHERBOARD & I/O, XL (DE-AMER)
SA0112-02	ASSY, MOTHER BOARD & I/O, XL (DE-AMER)
SA0112-03	ASSY, MOTHER BOARD & I/O, XL (TELCO)
SA0117-01	CABLE, POWER EXTENSION, FAN
SA0118-01	CABLE, POWER EXTENSION, CD ROM
SA0118-02	CABLE, POWER EXTENSION,MAXX
SA0118-03	CBL, PWR EXT, PCA/HDD, XL3
SA0119-01	DOOR ASSY, CD-ROM ACCESS, XL, CTOP
SA0139-01	ELO TS/VGA DSPLY ASSY 13"
SA0157-02	R/A IEC W/LFL, CTOP
SA0163-04	586 BOARD AND I/O ASSEMBLY (TELCO) (OBS)
SA0163-05	MINITAB 586 BD & I/O, XL2
SA0163-07	MINITAB 586 & I/O, BLUE MAXX
SA0163-08	M586 W/PCMCIA CTOP
SA0163-13	M586,PCMCIA, W/O PTR
SA0163-14	UNCRN,PCMCIA,W/O PTR
SA0164-01	HARNESS, MAIN, CTOP, XL2
SA0165-01	ASSEMBLY, SWITCH/COUNTER, CTOP
SA0168-XX	ASSEMBLY, LID, CTOP
SA0169-01	.25/\$1/\$2/\$5 CNBX, XL2 (FULL MAXX)
SA0169-02	.25 & B/A-RDY CNBX, XL2 (FULL MAXX)
SA0172-01	CNBX HARN, MARS, XL2
SA0173-01	TWIN SPEAKER ASSEMBLY, CTOP
SA0175-01	HARNESS, DC FAN, CTOP
SA0176-01	HARNESS, COIN BOX, SMILEY, CTOP
SA0177-03-0A	F-LMP FXTR, 220V/50HZ, 6 WATT
SA0177-04-0A	F-LMP FXTR, 117V/60HZ,6WATTS
SA0178-01	HARN, MAIN,UR,XL2
SA0181-02	HARN, COIN MECH, UR, XL5
SA0182-01	TOUCHSCREEN CTRL BD ASSY, SMT3

Megatouch MAXX Parts List continued

Item	Description
SA0184-01	HARN, MARS B/A, UR, XL2
SA0185-02	HARN, SMLY B/A, UR, XL2
SA0201-01	CENTRONICS MTG BRKT ASSY,XL
SA0209-01	HARN MAIN, CTOP, XL3
SA0209-02	HARN MAIN, CTOP, XL3
SA0210-01	HARN/SPEAKER ASSY, CTOP, XL3
SA0211-01	PWR ENT W/COMM CPLRS, XL3, CTOP
SA0212-01	MINI PWR SPLY ASSY, CTOP, XL3
SA0213-01	BEZEL ASSY, CTOP, XL3
SA0213-02	BZL ASSY, BLK
SA0214-01	CHAS ASSY, CTOP, XL3
SA0215-01	DOOR ASSY, CTOP, XL3
SA0215-02	DOOR ASSY, CTOP, XL3
SA0216-01	BONNET ASSY, BLK, CTOP, XL3
SA0216-02	BONNET ASSY, GRN, CTOP, XL4
SA0217-01	PCB/HDD SHELF ASSY, XL3
SA0217-02	PCB/HDD SHELF ATX PWR, XL4 (UNICORN)
SA0217-04	PCB/HDD SHELF ASSY, XL3
SA0218-01	.25/1/2/5 B/A CNBX, CTOP, XL3 (SLIM MAXX)
SA0218-02	.25 & B/A-RDY CNBX, CTOP, XL3 (SLIM MAXX)
SA0218-19	.25/1/2/5 B/A,BLK, XL3 (SELECT MAXX)
SA0218-20	COIN BILL ACCEPTOR READY - SELECT
SA0219-01	MONITOR ASSY, CTOP, XL3
SA0225-04	HARN, AC, ATX, BLUE MAXX
SA0231-01	DUAL FAN ASSY, CTOP, XL3
SA0231-02	DUAL FAN ASSY, CTOP, XL3
SA0232-02	MINI PWR SPLYCHASSIS, CTOP, XL3
SA0235-01	DSPL W/BZL, 15", SIL, CTOP, XL4
SA0235-03	DSPL W/BZL, 15", GRY, CTOP, XL4
SA0236-01	TILT MECH, CTOP, XL4
SA0237-01	TOP CVR, SIL, CTOP, XL4
SA0237-03	TOP CVR, BLU, CTOP, XL4
SA0238-01	BOTTOM FRONT CVR, SIL, CTOP, XL4
SA0238-02	BOTTOM FRONT CVR, BLU, CTOP, XL4
SA0240-02	CNDWR, GRY, CTOP, XL4
SA0240-03	CNDWR, BLU, CTOP, XL4
SA0241-01	SIDE CVR, L, CTOP, XL4
SA0241-02	SIDE CVR, R, CTOP, XL4
SA0241-03	SIDE CVR,BLU, L, CTOP, XL4
SA0241-04	SIDE CVR,BLU, R, CTOP, XL4
SA0242-02	PWR ENT, GRY, CTOP, XL4
SA0242-05	PWR ENT, BLU,MDM CPLRS, XL4
SA0250-02	PWR SELF, GRY, CTOP, XL4
SA0250-04	PWR SELF, BLU, CTOP, XL4
SA0255-02	E/CREJ BRKT ASSY, CTOP, XL4
SA0255-03	M/CREJ BRKT ASSY, CTOP, XL4
SA0257-01	HARN, MCREJ, CTOP, XL4

Megatouch MAXX Parts List continued

Item	Description
SA0257-03	HARN, MCREJ, CTOP,5", XL4
SA0258-01	S/CAR W/MARS B/A, SIL/GRY, XL4
SA0258-03	S/CAR W/MARS B/A, BLU, XL4
SA0279-01	FAN,CTOP,XL4,GLOBETEK
SA0282-01	SPARKLE PWR SPLY & Y HARN ASSY
SA10023-01-0G	PCA, I/O BOARD, XL VID, CTOP
SA10025-01-0A	PCA, CRT-502, DE-AMER, RISER BOARD
SA10028-01-0C	PCA, RS-485 COMM, SYSTEM
SA10042-01	PCA, OPTICAL COIN SENSOR
SA10043-02-0A	PCA, CENTRONICS CONN BOARD, SOCKET
SA10046-01	PCA, ESD FILTER BOARD
SA10047-01-0A	PCA,I/O BOARD, CTOP (obsolete)
SA10047-01-0B	PC IN/OUT BRD, XL2, VID CTOP
SA10051-01	I/O BOARD, XL2 VID, PRINTER
SA10051-02	I/O BOARD,XL2 VID,W/O PRINTER (NO KEY)
SA10052-01	PCA, COIN DISTRIBUTION BD, XL4
SA10052-02	PCA, CN DISTR,EXP, XL4
SA3014-03	EPROM, 8MEG XL, BOOT (U12- R4)
SA3202-05-0A	SHELF ASSY, TS/CRT (VGA)
SA3209-01	BRACKET ASSY, METER/TEST SWITCH
SA3210-03-0B	TS/CRT (VGA) ASSY, COLOR, 19"
SA3213-10-0A	COIN DR, \$0.25, \$ 1& 5, (VFM 2) , XL
SA3220-12-0A	COIN DOOR ASSY, \$.25/.25 XL
SA3230-01	BEZEL ASSY, 19" URTS
SA3243-02	BEZEL ASSY, UR, XL5
SA3244-01	MONITOR SHELF ASSY, UR, XL2
SA3246-01	DOM SHELF, M586 PC/PWR, UR, XL2
SA3246-02	DOM SHELF, M586 PC/PWR, UR, XL2
SA3248-01	CNBX ASSY, UR, XL5
SA3266-03-0B	CRT ASSY, 19" CABARET, XL, COMPLETE W/ SHELF
SA3283-02	ASSY URTS 19" CABARET 230 VAC
SA4037-02	12V CNTR W/CONN ASSY
SA4084	4" SPEAKER ASSY W/2 PIN CONN
SA4084-02	SPEAKER ASSY, 4", W/6-PIN CONN
SA4084-03	SPEAKER ASSY, 4", W/6-PIN CONN
SA5117-04-0A	FNASY,3",12V,2 PIN CONN,W/O GD
SA5117-05-0A	FAN ASSY, 3", 12VDC, 2 PIN, W/GUARD
SA5117-08	FNASY,3",12V,M&F CONN, W/GUARD
SA5129-01	GASKET/BEZEL ASSY
SA5161-01	HARNESS, COIN BOX, MECHANICAL, CTOP, XL
SA7297-10	SIGN HOLDER, MEGA XL (XL6000 & SIGN ASSY)
SA7297-13	SIGN HLDR,MAG
SA9823-01	OVRLY,19"TS, W/TERMN
SA9824-01	OVRLY, 13" TS, W/TERMN
SA9824-02	OVRLY, 13" TS, W/260 ADPTR (FOR GAMES W/CRT260 BRDS)
SB0010-01-0A	COM, POWER CABLE
SB0016-01	13"/19" TAPE KIT

Megatouch MAXX Parts List continued

Item	Description
SB0359-02	RUBY2 CD UPGRADE
SB6058-01	FL LAMP ASSY, 120VAC/60HZ, 15W
SC3998-01	CPU,486 DX266
SW3005	PB SWITCH, MOMENTARY (SETUP/CALIBRATE)
SW4024	ROCKER SW, DPST, 250V, PANEL MTG
WD0001-01-0B	SIDE PANEL, RIGHT, CTOP XL
WD0001-02-0B	SIDE PANEL, LEFT, CTOP XL
WD0001-03-0B	SIDE PANEL, RIGHT, BLUE MAXX
WD0001-04-0B	SIDE PANEL, LEFT, CTOP BLUE MAXX
WD0001-05	SIDE PNL, R, STNLS&BLK
WD0001-06	SIDE PNL,L, STNLS&BLK
WD0013-01-0B	SHELF, CRT, UR, XL2
WD0024-01	CABINET, UR, XL5
WD0030-01	SIDE PNL,R,UR,XL5
WD0030-02	SIDE PNL,L,UR,XL5
WD2012-01-0B	CABINET, 19" URTS, BLK, REAR ACCESS
WD2013-01-0C	SHELF, CRT MTG, 19" URTS
WD2017-01-0B	CABINET, 19" URTS, BLK, FRONT ACCESS
WD2018-01	SHELF, 19" VIDEO, UNIVERSAL
WD5060-01	WOOD CABINET, URTS, 19" CABARET
WD5061-01-0B	SHELF, MONITOR, 19" CABARET

Section 2

Hard Drive

Information

Hard Drive Numbers

Program Numbers

Part Numbers

Security Key Numbers

MAXX Hard Drive Program Numbers, Part Numbers, and Compatible Security Keys

JADE 2 EDITION		
Program # PG3002 V15.00	Part # PA3018-01	Security Key # SA3079-01
JADE EDITION		
Program # PG3002 (V14.00)	Part # PA3018-01	Security Key # SA3079-01
SAPPHIRE 2 EDITION		
Program # PG3002 (V13.00, V13.01, V13.02, V13.10)	Part # PA3017-01	Security Key # SA3065-01
SAPPHIRE EDITION		
Program # PG3002 (V12.00, V12.01, V12.02, V12.03, V12.10, V12.11)	Part # PA3016-01	Security Key # SA3065-01
RUBY 2 EDITION		
Program # PG3002 (V11.00, V11.01, V11.02, V11.05)	Part # PA3014-01	Security Key # SA3056-01
RUBY EDITION		
Program # PG3002 (V10.00, V10.02, V10.03, V10.06, V10.07, V10.08, V10.09, V10.10)	Part # PA3013-01	Security Key # SA3056-01
EMERALD 2 EDITION		
Program # PG3002 (V9.00, V9.01)	Part # PA3012-01	Security Key # SA3048-01
EMERALD EDITION		
Program # PG3002 (V8.00, V8.01, V8.02, V8.03, V8.04, V8.05, V8.06)	Part # PA3010-02	Security Key # SA3048-01
DIAMOND 2 EDITION		
Program # PG3002 V7.03 (V7.00, V7.01, V7.02 V7.03)	Part # PA3008-01	Security Key # SA3042-01
CHAMPIONSHIP DIAMOND 2 EDITION		
Program # PG3002 V7.03 (V7.00, V7.01, V7.02 V7.03)	Part # PA3008-01	Security Key # SA3043-01
DIAMOND EDITION		
Program # PG3002 (V6.01, V6.00, V6.03)	Part # PA3002-06	Security Key # SA3042-01
CHAMPIONSHIP DIAMOND EDITION		
Program # PG3002 (V6.01, V6.00, V6.03)	Part # PA3002-06	Security Key # SA3043-01

All security key program numbers are USA standard.
Hard drive program versions are the latest versions, previous versions in parentheses.

MAXX Hard Drive Program Numbers, Part Numbers, and Compatible Security Keys (cont'd)

MAXX 2K PLUS		
Program # PG3002 (V5.00, V5.01)	Part # PA3002-05	Security Key # SA3035-01
CHAMPIONSHIP MAXX 2K PLUS		
Program # PG3002 (V5.00, V5.01)	Part # PA3002-05	Security Key # SA3036-07
MAXX 2K		
Program # PG3002 (V4.00, V4.01)	Part # PA3002-04	Security Key # SA3035-01
CHAMPIONSHIP MAXX 2K		
Program # PG3002 (V4.00, V4.01)	Part # PA3002-04	Security Key # SA3036-07
MAXX		
Program # PG3002 (R01, R02, V3.01, V3.05, V3.06, V3.07)	Part # PA3002-03	Security Key # SA3031-01 Security Key # SA3022-01

All security key program numbers are USA standard.
Hard drive program versions are the latest versions, previous versions in parentheses.

Section 3

Troubleshooting

Information

Touchscreens

Troubleshooting

Touchscreen Calibration

Motherboard Handling Precautions

Motherboard Diagrams

Access/Removal of Major Assemblies

Motherboard

Hard drive

Monitor

Touchscreen

Troubleshooting Guide

CMOS Setup

Mars 2000 Bill Acceptor

DIP Switch Settings

Troubleshooting Your Touchscreen

MICROTOUCH:

Features:

- SMT-3 Controller in white box
- Green LED on controller lit at half brightness, full brightness when screen is touched
- Overlay functions on capacitance.
- Touchscreen cable is on right side of CRT.

Troubleshooting:

- LED Flashing from 1 to 5 times - detected error or possible defective controller
- LED not lit - Check +12 vdc. The SMT-3 controller may also be defective.

See Figure 1 for the touchscreen overlay connector schematic.

ELO GRAPHICS:

Features:

- Controller in a silver box
- Overlay functions on Sound Acoustic Waves (SAW) - sound waves are reflected across the screen
- The green LED is solid when the screen is touched and flashes when the screen is not touched.
- Touchscreen cable is on left side of CRT

Troubleshooting:

- If check for dirt in the ridges around the edge of the screen overlay.
- If the screen is not responding properly or the LED is solid even when the screen is not touched:
 - Check the screen for objects that may be attached.
 - Make sure the bezel is dry and not stuck to the screen.
 - Check for dirt in the grooves etched around the outside edge of the screen.
 - The controller may be defective.

CALIBRATION:

- 1 - Press the **Calibrate** button.
- 2 - Touch the dot that appears in the corner for 2 seconds.
- 3 - Touch the dot that appears in the opposite corner for 2 seconds.
- 4 - Touch the dot that appears in the center of the screen for 2 seconds.

The cursor should follow your finger wherever you touch the screen.

NOTE: Earlier versions of XL and MAXX software will have a two-point calibration.

CALIBRATION or LOCKUP PROBLEMS:

- If the calibration is off over the whole area of the screen:
 - Recalibrate the screen.
 - Switch the touchscreen controller with one from another game if possible--a defective controller can produce this problem.

Troubleshooting Your Touchscreen (cont'd)

- If these solutions do not correct the problem, replace the touchscreen.
- If the calibration is off in one area, check for scratches or nicks on the screen. If you detect scratches or nicks, replace the touchscreen.
- If the screen loses calibration entirely, check the ground pin on the line cord.
- If the touchscreen locks up or does not respond to touch:
 - If the graphics are moving on the screen and the green LED is lit, switch the controller with a working one to see if the controller is the problem. If the controller is not the problem, there is a communication error between the motherboard and controller. Do a CMOS configuration and if this doesn't fix the problem, the motherboard may need to be replaced.
 - If the graphics are moving on the screen and the green LED is not lit, contact Merit Technical Support at (800) 445-9353
- Microwave ovens and neon lights can and will interfere with the calibration of the touchscreen and should not be within 6 feet (or 2 meters) of the game.
- Improper grounding will affect the operation of the touchscreen.
- If you are experiencing problems with double-touching (e.g. two cards are taken away after only one touch to the screen), make sure the A/C plug and wall outlets are properly grounded.
- The touchscreen cable should not be positioned under or on top of the yoke of the monitor.
- The touchscreen controller cable should not be positioned near the flyback transformer.

NOTE: If the cable was incorrectly installed, the cable will be on the right side of the tube and the touchscreen response will be out of sync by 180 degrees.

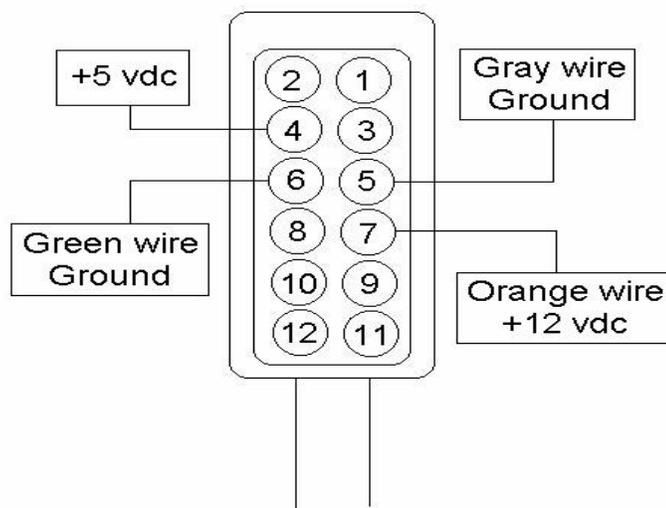


FIGURE 1 - MICROTOUCH TOUCHSCREEN OVERLAY CONNECTOR SCHEMATIC

Touchscreen Calibration

NOTE: The machine must be in the idle mode or game select mode to calibrate the touchscreen.

1. Locate and press the **CALIBRATE** button on the game.
2. With your index finger, touch the center of the first circle that appears on the screen. Once touched and released, a second circle will appear on the screen.

NOTE: YOU MUST HOLD YOUR FINGER ON THE CIRCLE FOR APPROXIMATELY 2 SECONDS FOR THE CALIBRATION TO BE RECOGNIZED.

3. With your index finger, touch the center of the second circle that appears on the screen.
4. Once the second circle is touched and released, a crosshair will appear on the screen. To test the calibration of the screen, touch the crosshair with your finger and slowly drag your finger around the screen. The crosshair should follow your movement. Touch the **EXIT** button.

ATTENTION:

OBSERVE PRECAUTIONS FOR HANDLING ELECTROSTATIC DEVICES

Motherboard Handling Precautions

NOTE: Before handling any boards, observe the following procedures:

- Remove any static charge from your body before handling the boards.
- Use a ground strap when handling the boards.
- When plugging in connectors to the board, make sure the connector is inserted straight onto the header and that the connector covers all header pins.
- Do not connect any peripheral device to the board if the power is still connected to the peripheral or if power is already applied to the board.
- Prevent electro-static discharge by storing the boards in the anti-static bags in which they are shipped.

Motherboard Diagrams

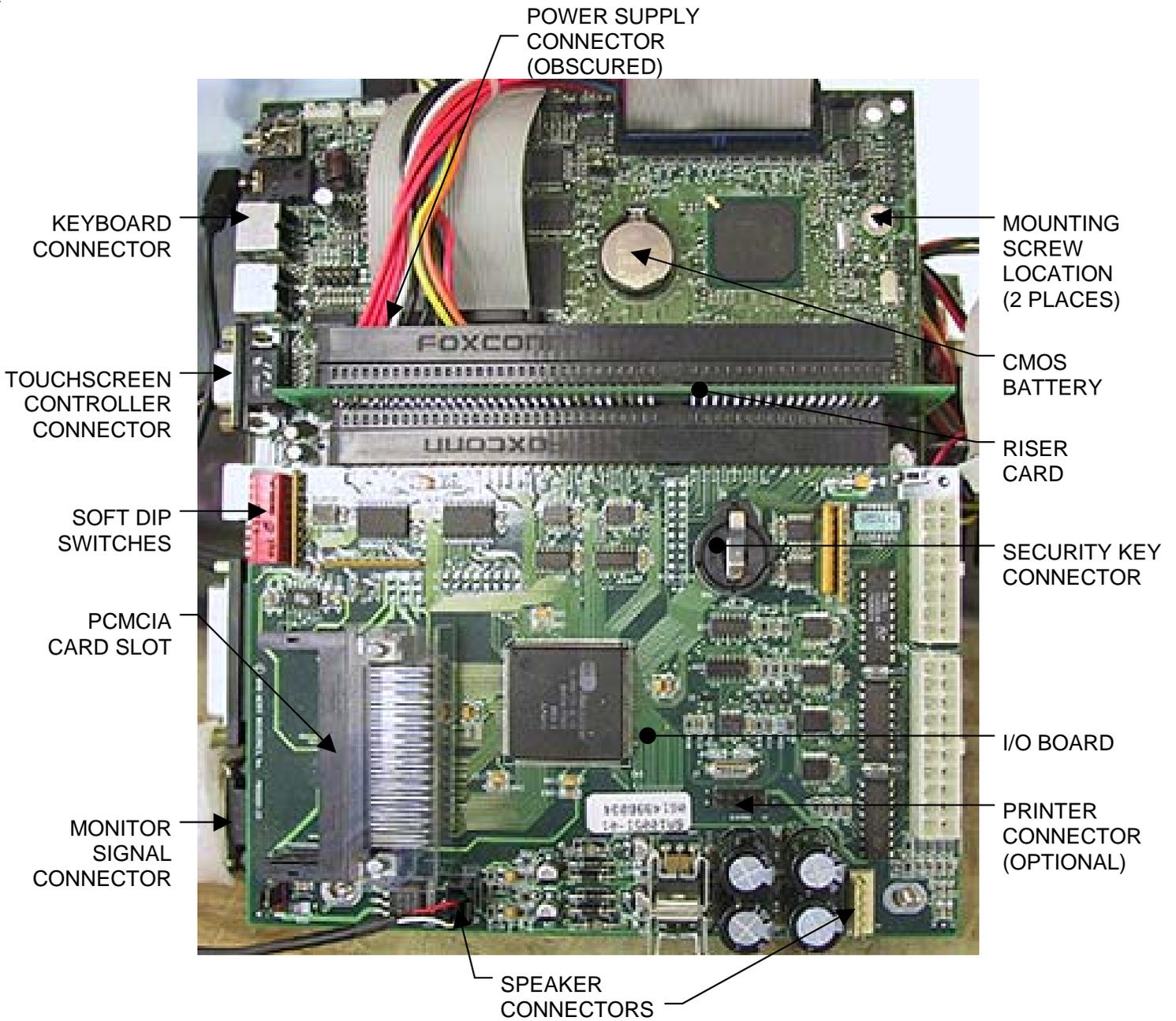


FIGURE 1 - ITOX/MITSUBISHI MOTHERBOARD

Motherboard Diagrams

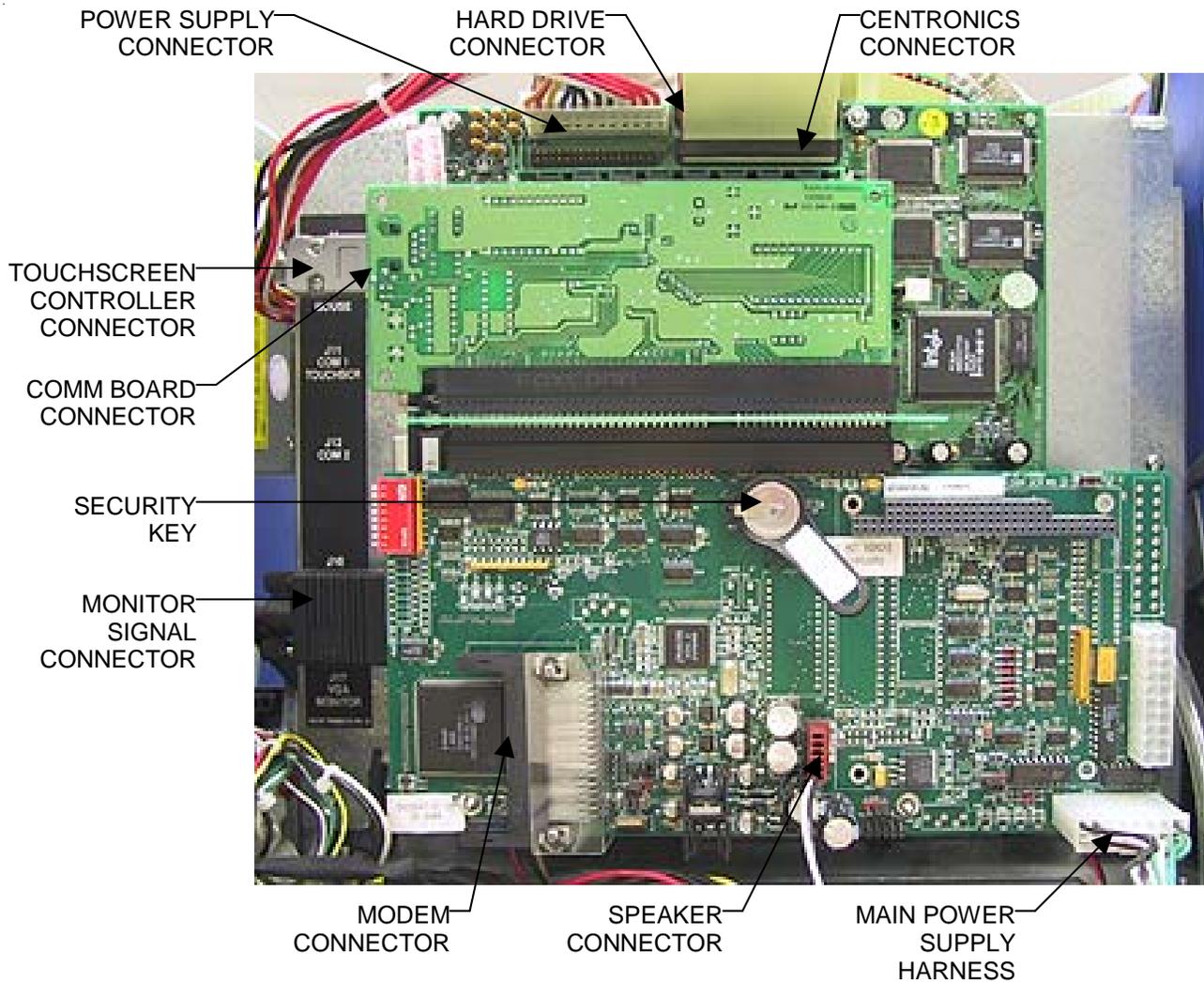


FIGURE 2 - TELCO MOTHERBOARD

Motherboard Diagrams

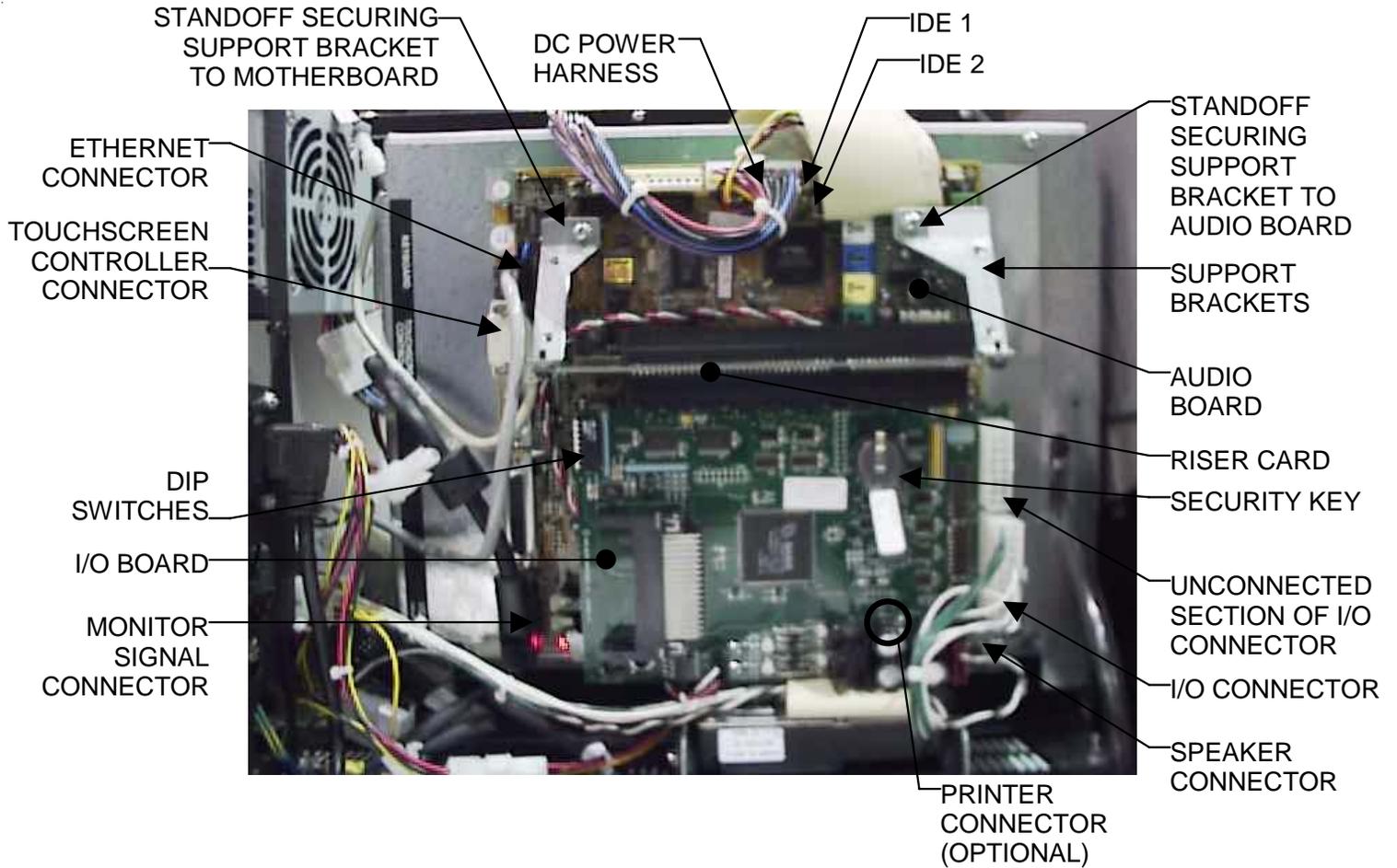


FIGURE 3 - UNICORN MOTHERBOARD

ATTENTION:

OBSERVE PRECAUTIONS FOR HANDLING ELECTROSTATIC DEVICES

Removal/Installation of Major Assemblies - Full MAXX

Motherboard Removal

1. Turn off and unplug the game.
2. Unlock and remove the lid.
3. Unscrew the 2 thumbnuts and remove the electronics box access panel at the rear of the game. You will need to unplug the 2 fan power connectors in order to completely remove the panel. Also remove the black plate along the bottom of the game. See Figure 1.
4. Use the *Motherboard Diagrams* section to determine the board type in your game, then disconnect all connections to the board. NOTE: Be sure to read the Motherboard Handling Precautions before handling the board.
5. Remove the 4 nuts on the monitor side of the electronics box and remove the motherboard. Insert the board into an anti-static bag for storage.

Motherboard Installation

1. Place the new motherboard in the game and secure it with the 4 nuts.
2. Reconnect all connections to the motherboard.
3. Replace the back plate along the bottom of the game, then reconnect the 2 fan power connectors and replace the electronics box access panel. Secure the panel with the 2 thumbnuts. See Figure 1.
4. Replace and lock the lid.
5. Plug in and turn on the game.

Hard Drive Removal

1. Turn off and unplug the game.
2. Unlock and remove the lid.
3. Unscrew the 2 thumbnuts and remove the electronics box access panel at the rear of the game. You will need to unplug the 2 fan power connectors in order to completely remove the panel. Also remove the black plate along the bottom of the game. See Figure 1.
4. Remove the 6 screws (3 per side, see Figure 2) fastening the electronics box to the game chassis, then slide the box towards you and disconnect all necessary harnesses until you can completely remove the box and access the hard drive. Remember which harnesses were disconnected.
5. Loosen the 4 screws (2 on each side) fastening the 2 hard drive mounting brackets to the electronics box until you're able to slide the brackets away from the box. See Figure 3.
6. Remove the 4 screws and shoulder washers securing the hard drive to the mounting brackets and remove the drive. Also remove the 2 screws (1 per side) fastening the cable clamp to the drive. See Figure 3.
7. Unplug the 4-pin power connector and the ribbon cable from the hard drive. See Figure 3.

Troubleshooting Information - Removal/Installation of Major Assemblies - Full MAXX

ATTENTION:

OBSERVE PRECAUTIONS FOR HANDLING ELECTROSTATIC DEVICES

Removal/Installation of Major Assemblies - Full MAXX (cont'd)

Hard Drive Installation

1. Plug the power connector and ribbon cable into the new hard drive.
2. Fasten the cable clamp to the hard drive with the 2 screws (1 per side), then secure the hard drive to the mounting brackets with the 4 screws and shoulder washers. See Figure 3.
3. Attach the hard drive assembly to the electronics box by tightening the 4 screws that fasten the hard drive brackets to the box.
4. Place the electronics box in the game and reconnect all harnesses disconnected in step 4 above, then fasten the electronics box with the 6 screws (3 per side, see Figure 2).
5. Replace the back plate along the bottom of the game, then reconnect the 2 fan power connectors and replace the electronics box access panel. Secure the panel with the 2 thumbnuts. See Figure 1.
6. Replace and lock the lid.
7. Plug in and turn on the game.

Monitor Removal

1. Turn off and unplug the game.
2. Unlock and remove the coin mech from the game.
3. Unlock and remove the lid.
4. Unscrew the 2 thumbnuts and remove the electronics box access panel at the rear of the game. You will need to unplug the 2 fan power connectors in order to completely remove the panel. Also remove the black plate along the bottom of the game. See Figure 1.
5. Remove the 6 screws (3 per side, see Figure 2) fastening the electronics box to the game chassis, then slide the box towards you and disconnect all necessary harnesses until you can completely remove the box and access the monitor. Remember which harnesses were disconnected.
6. Disconnect the monitor power connection (black and white wires running from the monitor board to the right angle connector plugged into the power supply).
7. Disconnect the monitor signal cable from the motherboard.
8. Remove the two nuts and washers securing the touchscreen controller to the game and remove the controller from the mounting screws. Then disconnect the touchscreen controller cable from the back of the controller and disconnect the Molex connector (orange and gray wires) running from the touchscreen controller cable to the main power harness.
9. Remove the 2 nuts securing the monitor assembly to the cabinet base on the cash box side.
10. Loosen (do not remove) the 2 nuts securing the monitor assembly to the cabinet base on the side opposite the cash box.
11. Slide the monitor assembly back and lift it off the mounting studs until you're able to remove it from the game.

Troubleshooting Information - Removal/Installation of Major Assemblies - Full MAXX

ATTENTION:

OBSERVE PRECAUTIONS FOR HANDLING ELECTROSTATIC DEVICES

Removal/Installation of Major Assemblies - Full MAXX (cont'd)

Monitor Installation

1. Place the new monitor assembly on the mounting studs in the game.
2. Tighten the 2 nuts to secure the monitor assembly to the cabinet base on the opposite side of the cash box.
3. Replace the 2 nuts to secure the monitor assembly to the cabinet base on the cash box side.
4. Route the new touchscreen controller cable under the picture tube and away from the flyback transformer. Then reconnect the cable in the back of the controller and secure the controller on the mounting screws in the game with the existing hardware. Also connect the Molex connector (orange and gray wires) to the main power harness.
5. Reconnect the monitor signal cable to the motherboard.
6. Reconnect the monitor power connector.
7. Place the electronics box in the game and reconnect all harnesses disconnected in step 5 above, then fasten the electronics box with the 6 screws (3 per side, see Figure 2).
8. Replace the back plate along the bottom of the game, then reconnect the 2 fan power connectors and replace the electronics box access panel. Secure the panel with the 2 thumbnuts. See Figure 1.
9. Replace and lock the lid.
10. Replace and lock the coin mech.
11. Plug in and turn on the game.

Touchscreen Removal

1. Turn off and unplug the game.
2. Unlock and remove the coin mech from the game.
3. Unlock and remove the lid.
4. Unscrew the 2 thumbnuts and remove the electronics box access panel at the rear of the game. You will need to unplug the 2 fan power connectors in order to completely remove the panel. Also remove the black plate along the bottom of the game. See Figure 1.
5. Remove the 6 screws (3 per side, see Figure 2) fastening the electronics box to the game chassis, then slide the box towards you and disconnect all necessary harnesses until you can completely remove the box and access the hard drive. Remember which harnesses were disconnected.
6. Disconnect the monitor power connection (black and white wires running from the monitor board to the right angle connector plugged into the power supply).
7. Disconnect the monitor signal cable from the motherboard.
8. Remove the two nuts and washers securing the touchscreen controller to the game and remove the controller from the mounting screws. Then disconnect the touchscreen controller cable from the back of the controller and disconnect the Molex connector (orange and gray wires) running from the touchscreen controller cable to the main power harness.

Troubleshooting Information - Removal/Installation of Major Assemblies - Full MAXX

ATTENTION:

OBSERVE PRECAUTIONS FOR HANDLING ELECTROSTATIC DEVICES

Removal/Installation of Major Assemblies - Full MAXX (cont'd)

9. Remove the 2 nuts securing the monitor assembly to the cabinet base on the cash box side.
10. Loosen (do not remove) the 2 nuts securing the monitor assembly to the cabinet base on the side opposite the cash box.
11. Slide the monitor assembly back and lift it off the mounting studs until you're able to remove it from the game.
12. Remove the black poly tape from around the edges of the old touchscreen. Remember how the tape was placed in order to tape the new touchscreen.
13. Use dental floss to carefully cut the foam tape holding the touchscreen to the picture tube until you are able to completely remove the touchscreen.
14. Remove any remaining adhesive residue with denatured alcohol, then wipe the surface of the picture tube with the supplied alcohol wipe.

Touchscreen Installation

1. Clean the reverse side of the replacement touchscreen with the supplied alcohol wipe.
2. If there is no tape already on the screen, cut pieces of the supplied 1/2" double-sided foam tape long enough to cover each edge of the screen without overlapping. After the tape is in place on the screen, peel off the backing.
3. Replace the new touchscreen over the picture tube (with the cable on the right if you are facing the game), making sure the screen is properly and evenly aligned over the picture tube. Then clean the front of the screen with the supplied alcohol wipe.
4. Remembering the manner in which the tape was placed around the touchscreen you removed, place and cut a length of the supplied black poly tape evenly over an entire edge of the touchscreen and repeat until all 4 edges are covered.
5. Place and cut a longer length of black poly tape around all 4 edges of the screen.
6. Place the monitor assembly on the mounting studs in the game.
7. Tighten the 2 nuts to secure the monitor assembly to the cabinet base on the opposite side of the cash box.
8. Replace the 2 nuts to secure the monitor assembly to the cabinet base on the cash box side.
9. Route the new touchscreen controller cable under the picture tube and away from the flyback transformer. Then reconnect the cable in the back of the controller and secure the controller on the mounting screws in the game with the existing hardware. Also connect the Molex connector (orange and gray wires) to the main power harness.
10. Reconnect the monitor signal cable to the motherboard.
11. Reconnect the monitor power connector.
12. Place the electronics box in the game and reconnect all harnesses disconnected in step 5 above, then fasten the electronics box with the 6 screws (3 per side, see Figure 2).
13. Replace the back plate along the bottom of the game, then reconnect the 2 fan power connectors and replace the electronics box access panel. Secure the panel with the 2 thumbnuts. See Figure 1.

Troubleshooting Information - Removal/Installation of Major Assemblies - Full MAXX

ATTENTION:

OBSERVE PRECAUTIONS FOR HANDLING ELECTROSTATIC DEVICES

**Removal/Installation of Major Assemblies -
Full MAXX (cont'd)**

14. Replace and lock the lid.
15. Replace and lock the coin mech.
16. Plug in and turn on the game.

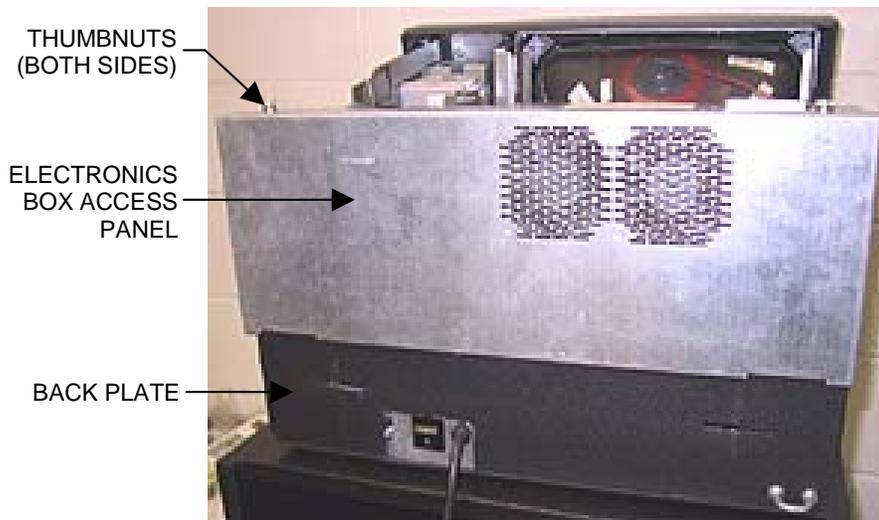


FIGURE 1 - FULL MAXX - REAR OF GAME WITH LID REMOVED

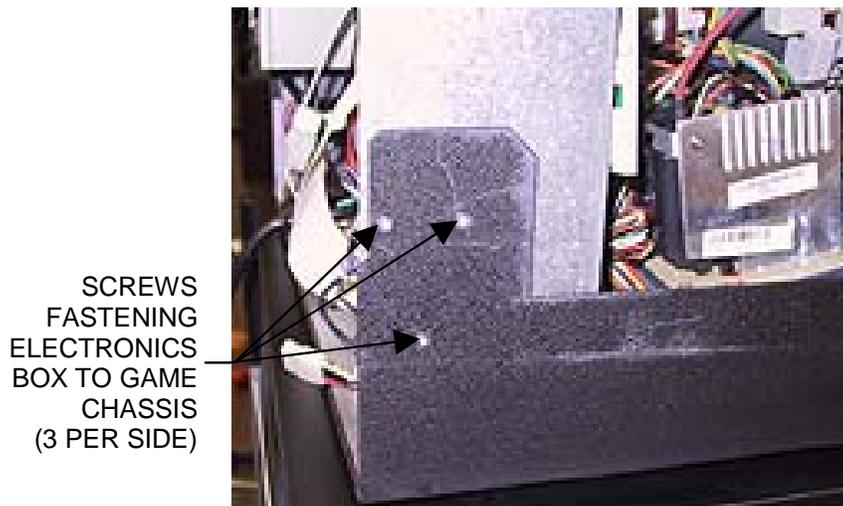


FIGURE 2 - FULL MAXX - CLOSEUP OF SIDE OF GAME

**Troubleshooting Information - Removal/Installation of Major Assemblies -
Full MAXX**

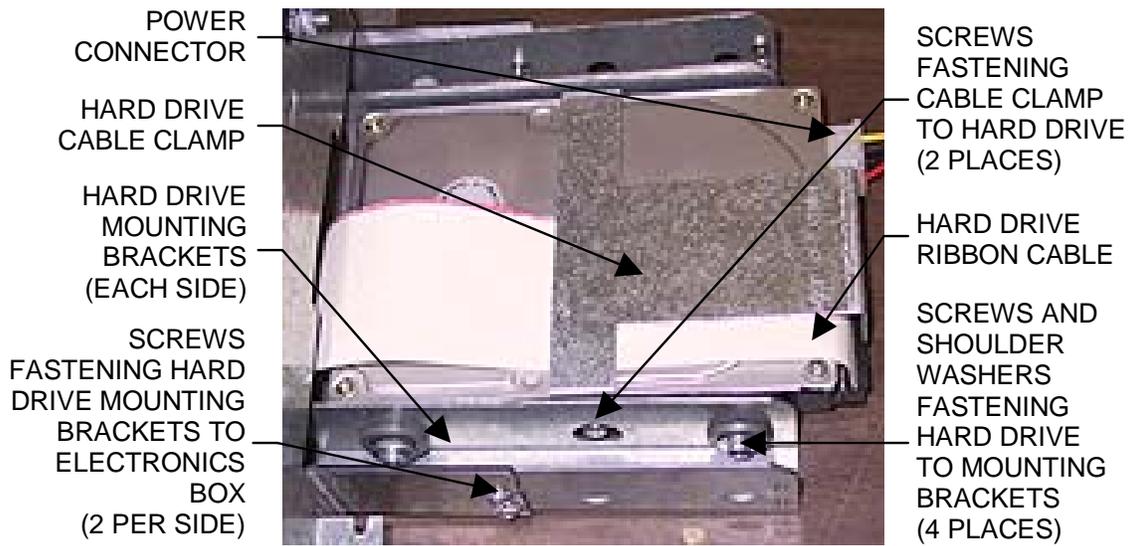


FIGURE 3 - FULL MAXX HARD DRIVE

ATTENTION:

OBSERVE PRECAUTIONS FOR HANDLING ELECTROSTATIC DEVICES

Removal/Installation of Major Assemblies - Blue MAXX/MAXX Classic Countertop

Motherboard Removal

1. Turn off and unplug the game.
2. Unlock and open the lid.
3. Use the *Motherboard Diagrams* section to determine the board type in your game, then disconnect all connections to the board.
4. Using a 1/4" nut driver, remove the 2 nuts securing the motherboard assembly to the game and remove the board. Insert the board into an anti-static bag for storage. NOTE: Be sure to read the Motherboard Handling Precautions before handling the board.

Motherboard Installation

1. Place the new motherboard in the game and fasten it with the 2 nuts.
2. Reconnect all connections to the board.
3. Close and lock the lid.
4. Plug in and turn on the game.

Monitor Removal

1. Turn off and unplug the game.
2. Unlock and remove the coin box or coin box/bill acceptor assembly.
3. Unlock and remove the lid by first disconnecting the fan power connector, then the clear drainage tubing (from lid end) and ground strap. Also remove the monitor control board attached with velcro to the inside of the game. Then press up on the spring-loaded levers (located on each side of the lid), push the levers forward, and lift and remove the lid. Also remove the front bezel. See Figures 1 and 2.
4. Disconnect the ground wire (with the ring lug) that is attached to the metalwork next to the touchscreen controller. Then disconnect the cable from the back of the controller and disconnect the Molex connector connecting the orange and gray wires (from the touchscreen controller cable) to the main harness.
5. Disconnect the monitor power connector (black and white wires running from the monitor board to the right angle connector plugged into the power supply).
6. Disconnect the monitor signal cable from the motherboard.
7. Remove the 4 nuts securing the monitor chassis to the main chassis. Two nuts are located on each side of the monitor board. See Figure 3 for locations. NOTE: BE CAREFUL TO AVOID THE FLYBACK TRANSFORMER AND HIGH VOLTAGE WIRE RUNNING TO THE MONITOR.
8. Pick up the monitor assembly and remove it from the cabinet.

Monitor Installation

1. Place the new monitor assembly in the cabinet.
2. Fasten the monitor chassis to the main chassis with the 4 nuts, 2 on each side of the monitor board. NOTE: BE CAREFUL TO AVOID THE FLYBACK TRANSFORMER AND HIGH VOLTAGE WIRE RUNNING TO THE MONITOR.

Troubleshooting Information - Removal/Installation of Major Assemblies - Blue MAXX/MAXX Classic Countertop

ATTENTION:

OBSERVE PRECAUTIONS FOR HANDLING ELECTROSTATIC DEVICES

Removal/Installation of Major Assemblies - Blue MAXX/MAXX Classic Countertop (cont'd)

3. Connect the monitor signal cable to the motherboard.
4. Reconnect the monitor power connector to the monitor board.
5. Reconnect the touchscreen cable in the back of the controller, then reconnect the Molex connector to the main harness.
6. After replacing the front bezel, install the hood on the chassis, connecting the fan power connector, monitor control board, ground strap, and plastic drain tube. Then pull the lid towards you until the spring-loaded levers lock into place. See Figures 1 and 2.
7. Close and lock the lid.
8. Replace and lock the coin box or coin box/bill acceptor assembly.
9. Plug in and turn on the game.

Hard Drive Removal

1. Turn off and unplug the game.
2. Unlock and open the lid.
3. Remove the screw securing the hard drive mounting plate to the game chassis.
NOTE: If your game was converted with an XL to MAXX Kit, the hard drive mounting plate will be fastened with 2 hexnuts on either side of the edge of the mounting plate.
4. Remove the 4 screws and shoulder washers fastening the hard drive to the mounting plate and remove the hard drive. See Figure 4.
5. Disconnect the 4-PIN power connector and hard drive ribbon cable from the hard drive, then remove the hard drive from the game.

Hard Drive Installation

1. Connect the power connector and ribbon cable to the new hard drive.
2. Fasten the hard drive to the mounting plate with the 4 screws and shoulder washers. See Figure 4.
3. Replace the hard drive and mounting plate in the game and secure it with the existing hardware.
4. Close and lock the lid.
5. Plug in and turn on the game.

Touchscreen Removal

1. Turn off and unplug the game.
2. Unlock and remove the coin box or coin box/bill acceptor assembly.
3. Unlock and remove the lid by first disconnecting the fan power connector, then the clear drainage tubing (from lid end) and ground strap. Also remove the monitor control board attached with velcro to the inside of the game. Then press up on the spring-loaded levers (located on each side of the lid), push the levers forward, and lift and remove the lid. Also remove the front bezel. See Figures 1 and 2.

Troubleshooting Information - Removal/Installation of Major Assemblies - Blue MAXX/MAXX Classic Countertop

ATTENTION:

OBSERVE PRECAUTIONS FOR HANDLING ELECTROSTATIC DEVICES

Removal/Installation of Major Assemblies - Blue MAXX/MAXX Classic Countertop (cont'd)

4. Remove the two nuts and washers securing the touchscreen controller to the game and remove the controller from the mounting screws. Then disconnect the touchscreen controller cable from the back of the controller and disconnect the Molex connector (orange and gray wires) running from the touchscreen controller cable to the main power harness.
5. Remove the black poly tape from around the edges of the old touchscreen. Remember how the tape was placed in order to tape the new touchscreen.
6. Use dental floss to carefully cut the foam tape holding the touchscreen to the picture tube until you are able to completely remove the touchscreen.
7. Remove any remaining adhesive residue with denatured alcohol, then wipe the surface of the picture tube with the supplied alcohol wipe.

Touchscreen Installation

1. Clean the reverse side of the replacement touchscreen with the supplied alcohol wipe.
2. If there is no tape already on the screen, cut pieces of the supplied 1/2" double-sided foam tape long enough to cover each edge of the screen without overlapping. After the tape is in place on the screen, peel off the backing.
3. Replace the new touchscreen over the picture tube (with the cable on the right if you are facing the game), making sure the screen is properly and evenly aligned over the picture tube. Then clean the front of the screen with the supplied alcohol wipe.
4. Remembering the manner in which the tape was placed around the touchscreen you removed, place and cut a length of the supplied black poly tape evenly over an entire edge of the touchscreen and repeat until all 4 edges are covered.
5. Place and cut a longer length of black poly tape around all 4 edges of the screen.
6. Route the new touchscreen controller cable under the picture tube and away from the flyback transformer. Then reconnect the cable in the back of the controller and secure the controller on the mounting screws in the game with the existing hardware. Also connect the Molex connector (orange and gray wires) to the main power harness.

NOTE: Use the supplied roll of 3/8" foam tape (the thicker of the two 3/8" rolls) if you need to replace the gasket on the inside of the front bezel. Be sure to remove all of the existing foam tape and adhesive first.

7. After replacing the front bezel, install the lid on the chassis, connecting the fan power connector, monitor control board, ground strap, and plastic drain tube. Then pull the lid towards you until the spring-loaded levers lock into place. See Figures 1 and 2 for locations.
8. Close and lock the lid.
9. Plug in and turn on the game.
10. When the game is finished booting, calibrate the touchscreen.
11. Replace and lock the coin box or coin box/bill acceptor assembly.

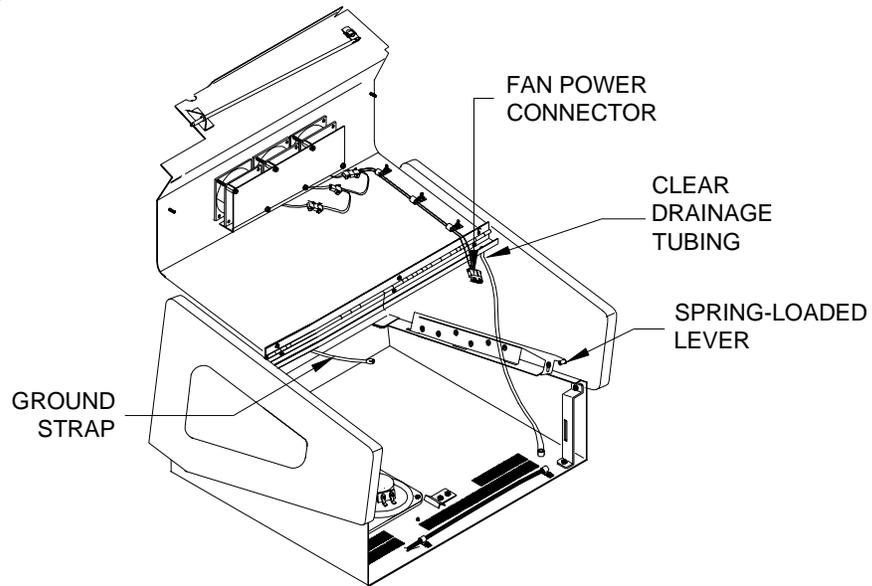


FIGURE 1 - BLUE MAXX/MAXX CLASSIC - HOOD ASSEMBLY

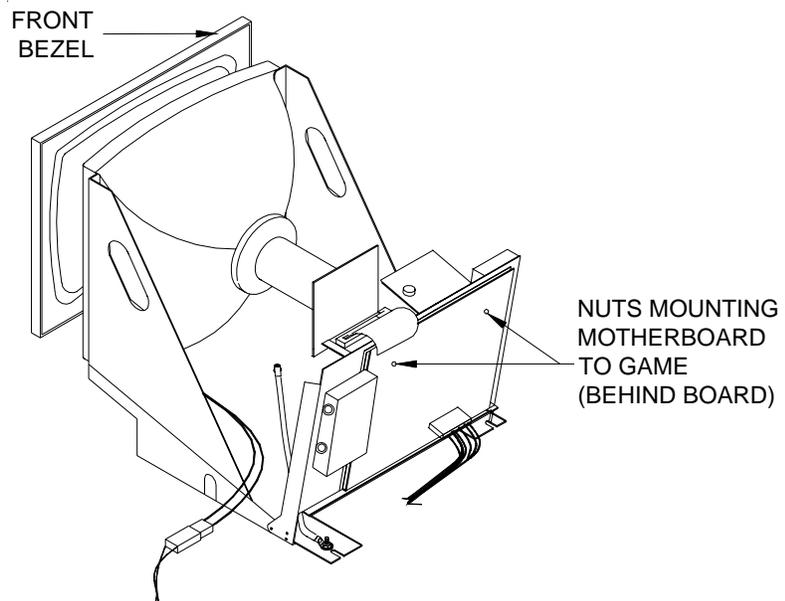


FIGURE 2 - BLUE MAXX/MAXX CLASSIC - MONITOR/MOTHERBOARD ASSEMBLIES

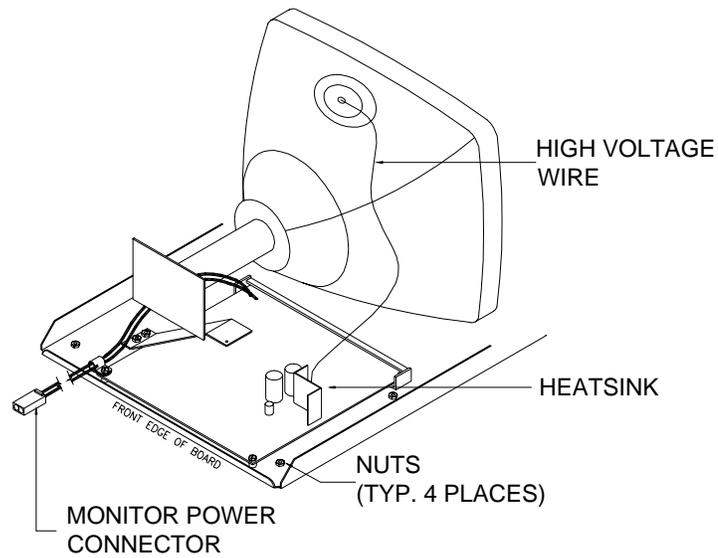


FIGURE 3 - BLUE MAXX/MAXX CLASSIC - MONITOR REMOVAL

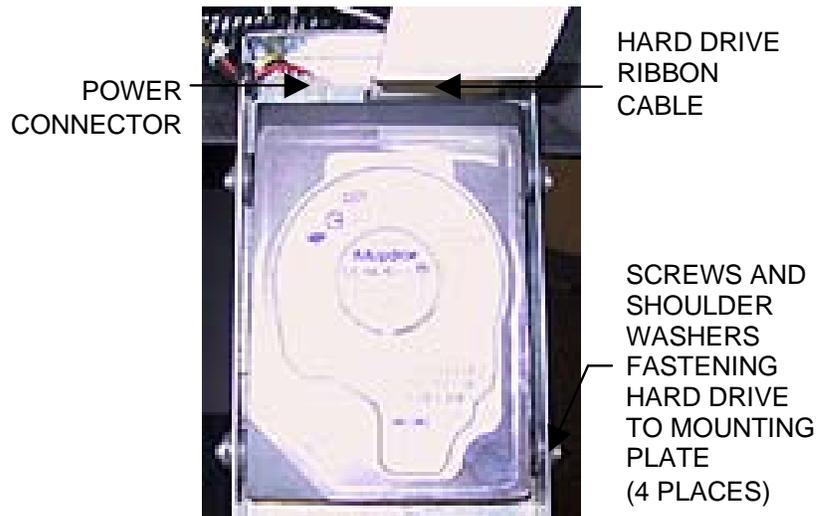


FIGURE 4 - BLUE MAXX/MAXX CLASSIC - CLOSEUP OF HARD DRIVE

ATTENTION:

OBSERVE PRECAUTIONS FOR HANDLING ELECTROSTATIC DEVICES

Removal/Installation of Major Assemblies - MAXX Select/Slim MAXX Countertop

Motherboard Removal

1. Turn off and unplug the game.
2. Unlock and open the rear door.
3. Lift the spring-loaded pin (see Figure 1) and carefully slide the CPU shelf out from the game and into its service position.
4. Use the *Motherboard Diagrams* section to determine the board type in your game, then disconnect all connections to the board.
5. Motherboard Removal:

Mitsubishi:

Remove the 2 screws securing the motherboard assembly to the shelf and the 2 screws holding the 2 standoffs that are mounted to the shelf. After removing the standoffs, remove the board and insert it into an anti-static bag for storage. NOTE: Be sure to read the Motherboard Handling Precautions before handling the board.

Unicorn:

Remove the standoff securing one support bracket to the motherboard and the standoff securing the other support bracket to the audio board. Then disconnect the audio board and remove the remaining standoff securing the motherboard to the game and remove the board. Insert the board into an anti-static bag for storage. NOTE: Be sure to read the Motherboard Handling Precautions before handling the board.

Motherboard Installation

1. Motherboard Installation:

Mitsubishi:

Place the new motherboard in the game, then attach the 2 standoffs to the shelf and attach the 2 screws to the standoffs. Then replace the 2 screws fastening the motherboard to the shelf.

Unicorn:

Place the new motherboard in the game and fasten the board to the game with the standoff. After connecting the audio board, replace the standoffs fastening the support brackets to the audio board and the motherboard.

2. Reconnect all connections to the motherboard.
3. Slide the CPU shelf back into the game until the spring-loaded pin clicks in place.
4. Close and lock the rear door.
5. Plug in and turn on the game.

Hard Drive Removal

1. Turn off and unplug the game.
2. Unlock and open the rear door.
3. Lift the spring-loaded pin (see Figure 1) and carefully slide the CPU shelf out from the game and into its service position.

Troubleshooting Information - Removal/Installation of Major Assemblies - MAXX Select - Slim MAXX Countertop

ATTENTION:

OBSERVE PRECAUTIONS FOR HANDLING ELECTROSTATIC DEVICES

Removal/Installation of Major Assemblies - MAXX Select/Slim MAXX Countertop (cont'd)

4. Remove the screw and washer fastening the hard drive mounting plate to the CPU tray and carefully pull the hard drive assembly away from the game. See Figure 2.
5. Remove the 4 screws and shoulder washers fastening the hard drive to the mounting plate. See Figure 2.
6. Remove the grommet surrounding the wires on the 4-pin power connector from the cutout in the hard drive mounting plate in order to allow room to disconnect the connector from the drive. Then disconnect both the power connector and the hard drive ribbon cable from the hard drive and remove the drive. See Figure 2.

Hard Drive Installation

1. Connect the power connector and ribbon cable to the new hard drive.
2. Replace the grommet surrounding the wires on the power connector in the cutout in the hard drive mounting plate, then fasten the drive to the mounting plate with the 4 screws and shoulder washers. See Figure 2.
3. Place the hard drive assembly in the game and fasten the mounting plate to the CPU tray with the screw and washer. See Figure 2.
4. Slide the CPU shelf back into the game until the spring-loaded pin clicks in place.
5. Close and lock the rear door.
6. Plug in and turn on the game.

Monitor Removal

1. Turn off and unplug the game.
2. Unlock and remove the coin mech from the game.
3. Unlock and open the rear door.
4. Remove the 2 thumbnuts securing the hood, slide the hood back, and remove it.
5. Lift the spring-loaded pin and carefully slide the CPU shelf out from the game and into its service position. See Figure 1.
6. Disconnect the monitor power connection (black and white wires running from the monitor board to the right angle connector plugged into the power supply).
7. Disconnect the monitor signal cable from the motherboard.
8. Remove the two screws fastening the touchscreen controller (see Figure 1) to the game and remove the controller. Then disconnect the touchscreen controller cable from the back of the controller and disconnect the Molex connector (orange and gray wires) running from the touchscreen controller cable to the main power harness.
9. Loosen the thumbnut securing the power supply mounting bracket to the monitor assembly.
10. Remove the 4 screws on top of the front bezel and the 2 screws (one on each side) fastening the front bezel to the game, then separate the bezel from the monitor.
11. Remove the 3 nuts (one on each side, one on the bottom of the game along the edge opposite the power switch) securing the monitor assembly to the game and remove the monitor from the cabinet.

Troubleshooting Information - Removal/Installation of Major Assemblies - MAXX Select - Slim MAXX Countertop

ATTENTION:

OBSERVE PRECAUTIONS FOR HANDLING ELECTROSTATIC DEVICES

Removal/Installation of Major Assemblies - MAXX Select/Slim MAXX Countertop (cont'd)

Monitor Installation

1. Place the new monitor in the cabinet and fasten it with the 3 nuts.
2. Replace the front bezel, then replace the 4 screws on top of the bezel and the 2 screws (one on each side) fastening the bezel to the game.
3. Fasten the power supply mounting bracket to the monitor with the thumbnut.
4. Connect the touchscreen controller cable in the back of the controller, then fasten the controller to the game with the existing hardware (see Figure 1). Also connect the Molex connector (orange and gray wires) to the main power harness.
5. Reconnect the monitor signal cable to the motherboard.
6. Reconnect the monitor power connector.
7. Slide the CPU shelf back into the game until the spring-loaded pin clicks in place.
8. Slide the hood back onto the game and secure it with the two thumbnuts.
9. Replace and lock the coin mech.
10. Close and lock the rear door.
11. Plug in and turn on the game.

Touchscreen Removal

1. Turn off and unplug the game.
2. Unlock and remove the coin mech from the game.
3. Unlock and open the rear door.
4. Remove the 2 thumbnuts securing the hood, slide the hood back, and remove it.
5. Remove the two screws fastening the touchscreen controller (see Figure 1) to the game and remove the controller. Then disconnect the touchscreen controller cable from the back of the controller and disconnect the Molex connector (orange and gray wires) running from the touchscreen controller cable to the main power harness.
6. Remove the 4 screws on top of the front bezel and the 2 screws (one on each side) fastening the bezel to the game, then separate the bezel from the monitor.
7. Remove the black poly tape from around the edges of the old touchscreen. Remember how the tape was placed in order to tape the new touchscreen.
8. Use dental floss to carefully cut the foam tape holding the touchscreen to the picture tube until you are able to completely remove the touchscreen.
9. Remove any remaining adhesive residue with denatured alcohol, then wipe the surface of the picture tube with the supplied alcohol wipe.

Touchscreen Installation

1. Clean the reverse side of the replacement touchscreen with the supplied alcohol wipe.
2. If there is no tape already on the touchscreen, cut pieces of supplied 1/2" foam tape long enough to cover each edge of the screen without overlapping. After the tape is in place, peel off the backing.

Troubleshooting Information - Removal/Installation of Major Assemblies - MAXX Select - Slim MAXX Countertop

ATTENTION:

OBSERVE PRECAUTIONS FOR HANDLING ELECTROSTATIC DEVICES

Removal/Installation of Major Assemblies - MAXX Select/Slim MAXX Countertop (cont'd)

3. Replace the new touchscreen over the monitor (with the cable on the left if you are facing the game), making sure the screen is properly and evenly aligned over the picture tube. Then clean the front of the screen with the supplied alcohol wipe.
4. Remembering the manner in which the tape was placed around the touchscreen you removed, place and cut a length of supplied black poly tape evenly over an entire edge of the touchscreen and repeat until all four edges are covered.
5. Replace the front bezel, then replace the 4 screws on top of the bezel and the 2 screws (one on each side) fastening the bezel to the game.
6. Connect the touchscreen controller cable in the back of the controller, then fasten the controller to the game with the existing hardware (see Figure 1). Also connect the Molex connector (orange and gray wires) to the main power harness.
7. Slide the hood back onto the game and secure it with the two thumbnuts.
8. Replace and lock the coin mech.
9. Close and lock the rear door.
10. Plug in and turn on the game.

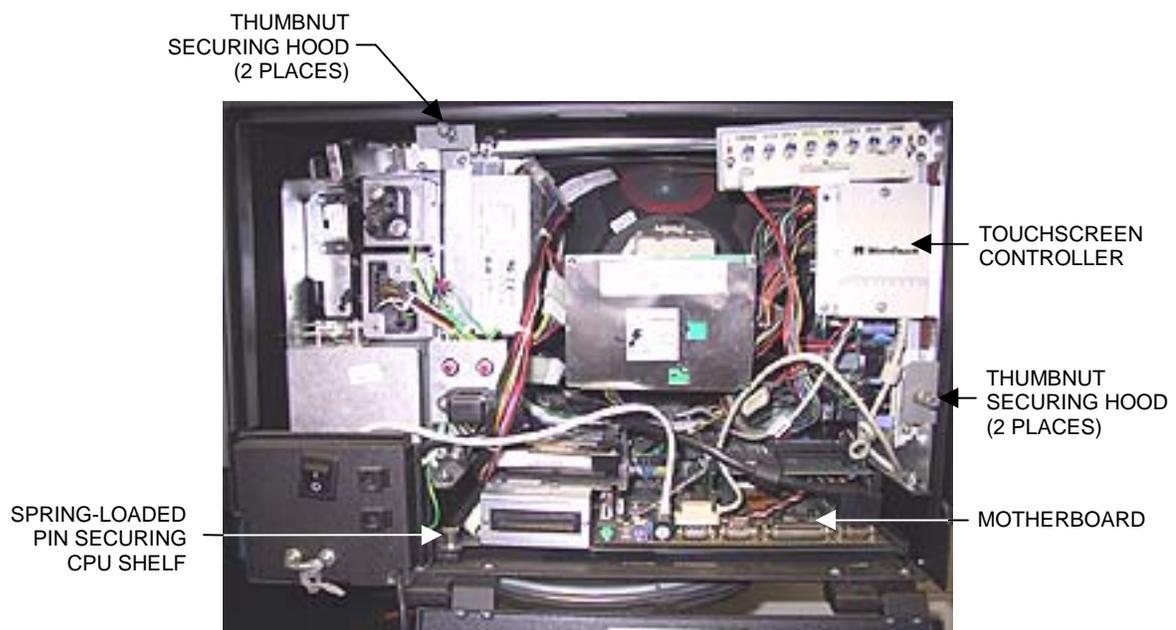


FIGURE 1 - SLIM MAXX/MAXX SELECT - CPU SECTION

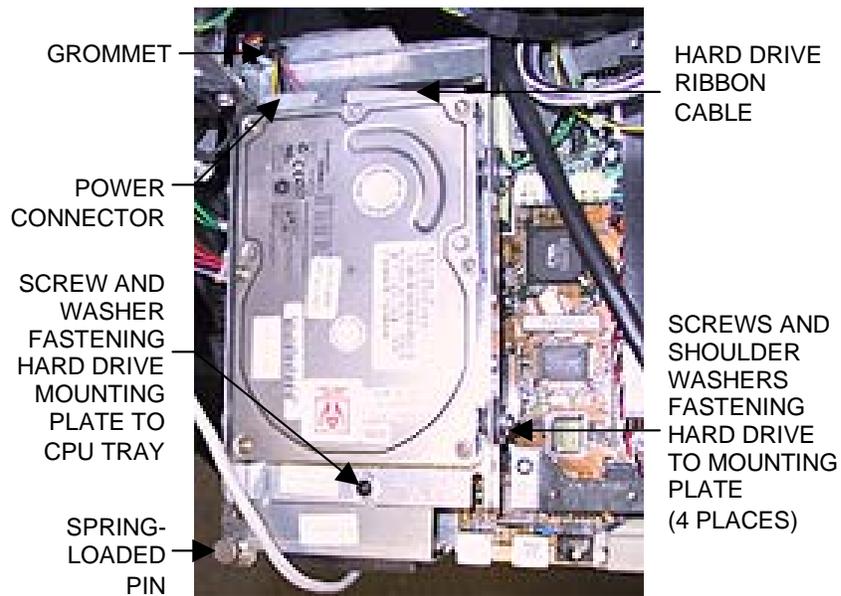


FIGURE 2 - SLIM MAXX/MAXX SELECT - CLOSEUP OF HARD DRIVE

ATTENTION:

OBSERVE PRECAUTIONS FOR HANDLING ELECTROSTATIC DEVICES

Removal/Installation of Major Assemblies - EZ MAXX/MAXX Elite Countertop

Motherboard Removal

1. Turn off and unplug the game.
2. Unlock and open the rear door.
3. Use the *Motherboard Diagrams* section to determine the board type in your game, then disconnect all connections to the board. NOTE: Be sure to read the Motherboard Handling Precautions before handling the board.
4. Remove the 2 screws securing the motherboard assembly to the shelf and the 2 screws holding the 2 standoffs mounted to the shelf. After removing the standoffs, remove the board and insert it into an anti-static bag for storage.

Motherboard Installation

1. Place the new motherboard in the game and mount the 2 standoffs to the shelf. Also secure the motherboard to the shelf with the 2 screws.
2. Reconnect all connections to the motherboard.
3. Close and lock the rear door.
4. Plug in and turn on the game.

Hard Drive Removal

1. Turn off and unplug the game.
2. Unlock and open the rear door.
3. Remove the centronics cable from the clamp fastened to the hard drive (See Figure 1).
4. Remove the screw and washer fastening the hard drive mounting plate to the rear door and carefully pull the hard drive assembly away from the door. See Figure 1.
5. Remove the 4 screws and shoulder washers fastening the hard drive to the mounting plate. See Figure 1.
6. Unplug the 4-pin power connector and the ribbon cable from the hard drive and remove the drive. See Figure 1.
7. Note the orientation of the cable clamp on the hard drive, then carefully remove the clamp from the surface of the drive by using dental floss to cut the foam tape. Use denatured alcohol to remove the remaining foam tape from the clamp.

Hard Drive Installation

1. Use double-sided foam tape to attach the cable clamp to the supplied hard drive in the same manner as the old drive.
2. Plug the power connector and ribbon cable into the supplied hard drive.
3. Place the hard drive in the mounting plate and secure it with the 4 screws and shoulder washers.
4. Replace the hard drive assembly on the rear door of the game and secure it with the screw and washer.

Troubleshooting Information - Removal/Installation of Major Assemblies - EZ MAXX/MAXX Elite Countertop

ATTENTION:

OBSERVE PRECAUTIONS FOR HANDLING ELECTROSTATIC DEVICES

Removal/Installation of Major Assemblies - EZ MAXX/MAXX Elite Countertop (cont'd)

5. Replace the centronics cable in the cable clamp.
6. Close and lock the rear door.
7. Plug in and turn on the game.

Monitor Removal

1. Turn off and unplug the game.
2. Unlock and open the rear door.
3. Disconnect the monitor power connection (black and yellow wires) running to the power supply.
4. Disconnect the monitor signal connector from the motherboard, then remove the cable from the clamps.
5. Inside the game, access the latches for each side panel and remove both panels (see Figure 2).
6. Remove the two nuts and washers securing the touchscreen controller to the game and remove the controller from the mounting screws. Then disconnect the cable from the back of the controller and disconnect the Molex connector connecting the orange and gray wires (from the touchscreen controller cable) to the main power harness.
7. Remove the 3 screws at the top of each side piece fastening the top cover to the game (see Figure 3) and remove the top cover.
8. Loosen the 5/16" nuts securing the 2 LCD clips (one on each side piece). See Figure 3.
9. Lift the bezel and monitor assembly from the game.

Monitor Installation

1. Place the new monitor assembly in the game.
2. Secure the 2 LCD clips by tightening the 5/16" nuts (see Figure 3).
3. Fasten the top cover to the game with the 3 screws at the top of each side piece (see Figure 3).
4. Connect the touchscreen controller cable in the back of the controller, then fasten the controller to the game with the existing hardware. Also connect the Molex connector (orange and gray wires) to the main power harness.
5. Replace both side panels.
6. Replace the monitor signal cable in the clamps, then connect the cable to the motherboard.
7. Connect the monitor power connector to the power supply.
8. Close and lock the rear door.
9. Plug in and turn on the game.

Touchscreen Removal

1. Turn off and unplug the game.
2. Unlock and open the rear door.

ATTENTION:

OBSERVE PRECAUTIONS FOR HANDLING ELECTROSTATIC DEVICES

Removal/Installation of Major Assemblies - EZ MAXX/MAXX Elite Countertop (cont'd)

3. Disconnect the monitor power connection (black and yellow wires) running to the power supply.
4. Disconnect the monitor signal cable from the motherboard and remove it from the cable clamps.
5. Inside the game, access the latches for each side panel and remove both panels (see Figure 2).
6. Remove the two nuts and washers securing the touchscreen controller to the game and remove the controller from the mounting screws. Then disconnect the cable from the back of the controller and disconnect the Molex connector (orange and gray wires) running from the touchscreen controller cable to the main power harness.
7. Remove the 3 screws at the top of each side piece fastening the top cover to the game (see Figure 3) and remove the top cover.
8. Loosen the 5/16" nuts securing the 2 LCD clips (one on each side piece). See Figure 3.
9. Lift the bezel and monitor assembly from the game.
10. Remove the 3 screws on top of the front bezel (see Figure 3) and separate the bezel from the monitor.
11. Use dental floss to carefully cut the foam tape holding the touchscreen to the monitor until you are able to completely remove the touchscreen.
12. Remove any remaining adhesive residue with denatured alcohol, then clean the monitor glass with the supplied alcohol wipe.

Touchscreen Installation

1. Clean the reverse side of the replacement touchscreen with the supplied alcohol wipe.
2. Cut pieces of the supplied 1/2" double-sided foam tape long enough to cover each edge of the screen without overlapping. After the tape is in place on the screen, peel off the backing.
3. Replace the new touchscreen over the monitor (with the cable on the left if you are facing the game), making sure the screen is properly and evenly aligned over the monitor glass. Then clean the front of the screen with the supplied alcohol wipe.
4. Reattach the front bezel to the monitor with the 3 screws removed earlier. See Figure 3.
5. Replace the monitor assembly, aligning it with the support brackets inside the game and making sure the LCD clips fit properly into the slots at the top of each side.
6. Tighten the nuts securing the 2 LCD clips. See Figure 3.
7. Replace the top cover.
8. Replace the 3 screws at the top of each side piece. The shorter screw will go in the screw hole closest to the rear of the game. See Figure 3.
9. Connect the new touchscreen controller cable in the back of the controller and secure the controller on the mounting screws in the game with the existing hardware. Also connect the Molex connector (orange and gray wires) to the main power harness.
10. Replace both side panels.

Troubleshooting Information - Removal/Installation of Major Assemblies - EZ MAXX/MAXX Elite Countertop

ATTENTION:

OBSERVE PRECAUTIONS FOR HANDLING ELECTROSTATIC DEVICES

**Removal/Installation of Major Assemblies -
EZ MAXX/MAXX Elite Countertop (cont'd)**

11. Reconnect the monitor power connector to the power supply.
12. Route the monitor signal connector through the cable clamps and reconnect it to the motherboard.
13. Plug in and turn on the game.
14. When the game is finished booting, calibrate the touchscreen.
15. Close and lock the rear door.

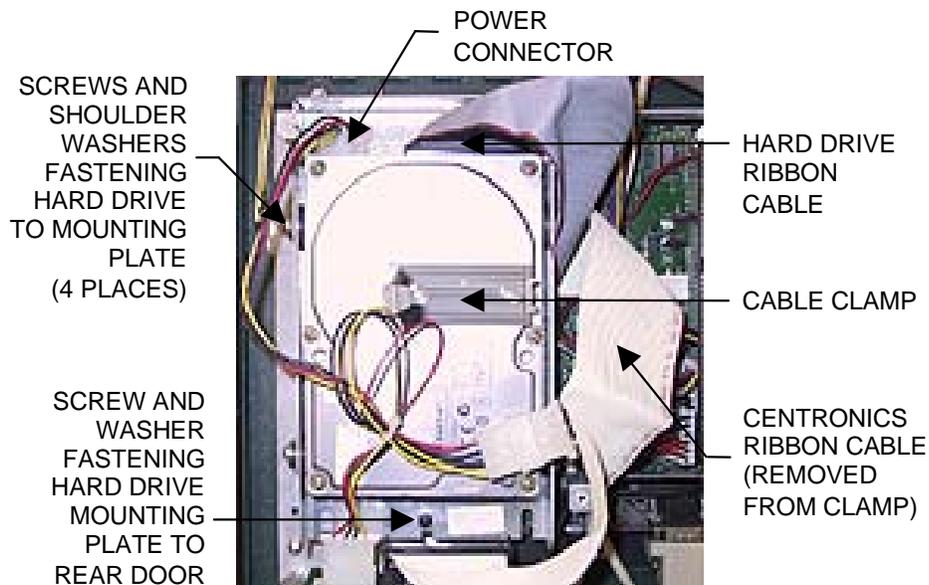


FIGURE 1 - EZ MAXX/MAXX ELITE - CLOSEUP OF CPU SECTION

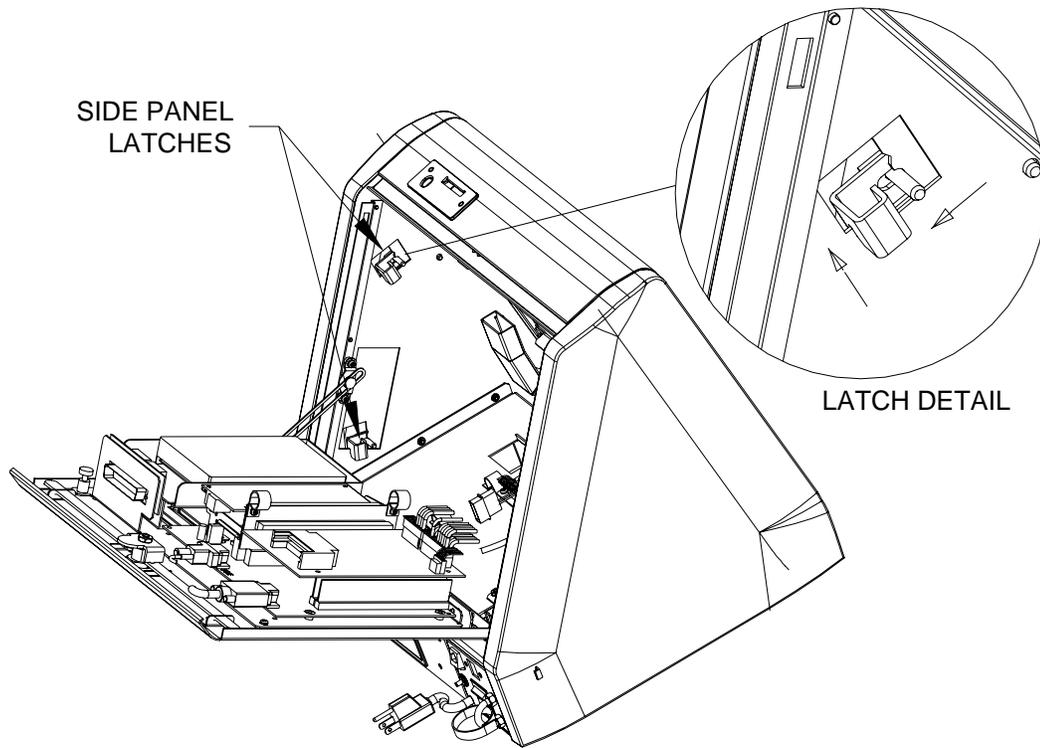


FIGURE 2 - EZ MAXX/MAXX ELITE - SIDE PANEL LATCH ACCESS

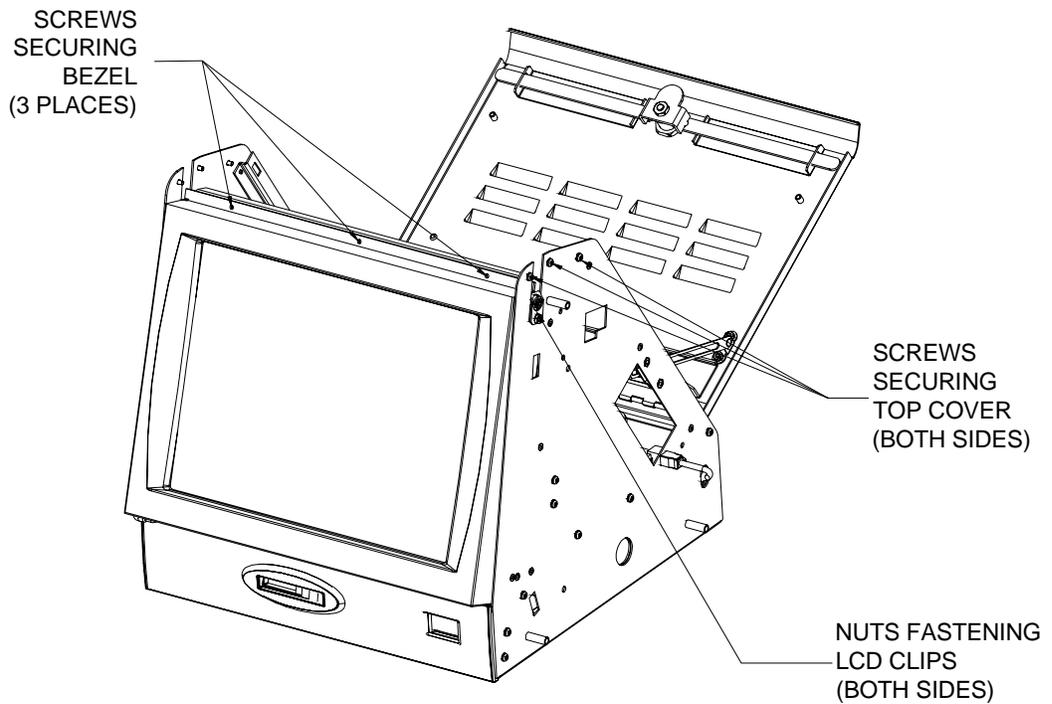


FIGURE 3 - EZ MAXX/MAXX ELITE - TOP COVER/LCD CLIP ACCESS

ATTENTION:

OBSERVE PRECAUTIONS FOR HANDLING ELECTROSTATIC DEVICES

Removal/Installation of Major Assemblies - MAXX Upright

Hard Drive Removal

1. Turn off and unplug the game.
2. Unlock and open the front bezel.
3. Slide the CPU shelf out of the game and into its service position.
4. Remove the screw and washer fastening the hard drive mounting plate to the CPU shelf and carefully pull the hard drive assembly away from the game. See Figure 1.
5. Remove the 4 screws and shoulder washers fastening the hard drive to the mounting plate and remove the drive. See Figure 1.
6. Remove the grommet surrounding the wires on the 4-pin power connector from the cutout in the hard drive mounting plate in order to make room to unplug the connector. Then unplug both the power connector and the ribbon cable from the hard drive. See Figure 1.

Hard Drive Installation

1. Connect the power connector and ribbon cable to the new hard drive.
2. Replace the grommet surrounding the wires on the power connector in the cutout in the hard drive mounting plate, then fasten the drive to the mounting plate with the 4 screws and shoulder washers.
3. Place the hard drive assembly in the game and fasten the mounting plate to the CPU tray with the screw and washer. See Figure 1.
4. Slide the CPU shelf back into the game.
5. Close and lock the front bezel.
6. Plug in and turn on the game.

Motherboard Removal

1. Turn off and unplug the game.
2. Unlock and open the front bezel.
3. Slide the CPU shelf into its service position.
4. Use the *Motherboard Diagrams* section to determine the board type in your game, then disconnect all connections to the board.
5. Remove the screws securing the motherboard assembly to the game and remove the board. Insert the board into an anti-static bag for storage. NOTE: Be sure to read the Motherboard Handling Precautions before handling the board.

Motherboard Installation

1. Place the new motherboard in the game and fasten it with the mounting screws/standoffs.
2. Reconnect all connections to the board.
3. Slide the CPU shelf back in the game.
4. Close and lock the rear door.
5. Plug in and turn on the game.

Troubleshooting Information - Removal/Installation of Major Assemblies - MAXX Upright

ATTENTION:

OBSERVE PRECAUTIONS FOR HANDLING ELECTROSTATIC DEVICES

Removal/Installation of Major Assemblies - MAXX Upright

Monitor Removal

1. Turn off and unplug the game.
2. Unlock and open the rear door to gain access to the monitor. See Figure 2.
3. Disconnect all harnesses from the monitor.
4. Remove the two nuts and washers securing the touchscreen controller to the game (see Figure 3) and remove the controller from the mounting screws. Then disconnect the cable from the back of the controller and disconnect the Molex connector (orange and gray wires) running from the touchscreen controller cable to the main power harness.
5. Remove both bolts securing the rear of the monitor shelf to the cabinet. See Figure 3.
6. Unlock and open the front bezel.
7. Remove both bolts securing the front of the monitor shelf to the cabinet (located on the underside of the shelf). See Figure 3.
8. Remove the ground strap attached to the monitor.
9. Pull the monitor up and out through the front of the game.

Monitor Installation

1. Place the new monitor in the game.
2. Replace the ground strap on the monitor.
3. Secure the front of the monitor shelf to the cabinet with the 2 bolts. See Figure 3.
4. Close and lock the front bezel.
5. Secure the rear of the monitor shelf to the cabinet with the 2 bolts. See Figure 3.
6. Connect the new touchscreen cable in the back of the controller and secure the controller on the mounting screws in the game with the existing hardware (see Figure 3). Also connect the Molex connector (orange and gray wires) to the main power harness.
7. Reconnect all harnesses to the monitor.
8. Close and lock the rear door.
9. Plug in and turn on the game.

Touchscreen Removal

1. Turn off and unplug the game.
2. Unlock and open the front bezel.
3. Remove the black poly tape from around the edges of the old touchscreen, keeping the manner in which the tape was placed around the screen in mind.
4. Remove the two nuts and washers securing the touchscreen controller to the game (see Figure 3) and remove the controller from the mounting screws. Then disconnect the cable from the back of the controller and disconnect the Molex connector (orange and gray wires) running from the touchscreen controller cable to the main power harness.

Troubleshooting Information - Removal/Installation of Major Assemblies - MAXX Upright

ATTENTION:

OBSERVE PRECAUTIONS FOR HANDLING ELECTROSTATIC DEVICES

Removal/Installation of Major Assemblies - MAXX Upright

5. Use dental floss to carefully cut the foam tape holding the touchscreen to the picture tube until you are able to completely remove the touchscreen.
6. Remove any remaining adhesive residue with denatured alcohol, then wipe the surface of the picture tube with the supplied alcohol wipe.

Touchscreen Installation

1. Clean the reverse side of the replacement touchscreen with the supplied alcohol wipe.
2. Peel the backing from the 8 pieces of double-sided foam tape already adhered to the reverse side of the touchscreen.
3. Replace the new touchscreen over the picture tube (with the cable on the right if you are facing the game), making sure the screen is properly and evenly aligned over the picture tube. Then clean the front of the screen with the supplied alcohol wipe.
4. Connect the new touchscreen cable in the back of the controller and secure the controller on the mounting screws in the game with the existing hardware (see Figure 3). Also connect the Molex connector (orange and gray wires) to the main power harness.
5. Remembering the manner in which the tape was placed around the touchscreen you removed, place and cut a length of the supplied black poly tape evenly over an entire edge of the touchscreen and repeat until all 4 edges are covered.
6. Place and cut a longer length of black poly tape around all 4 edges of the screen.
7. Plug in and turn on the game.
8. When the game is finished booting, calibrate the touchscreen.
9. Close and lock the front bezel.



FIGURE 1 - MAXX UPRIGHT - CLOSEUP OF HARD DRIVE

Troubleshooting Information - Removal/Installation of Major Assemblies - MAXX Upright

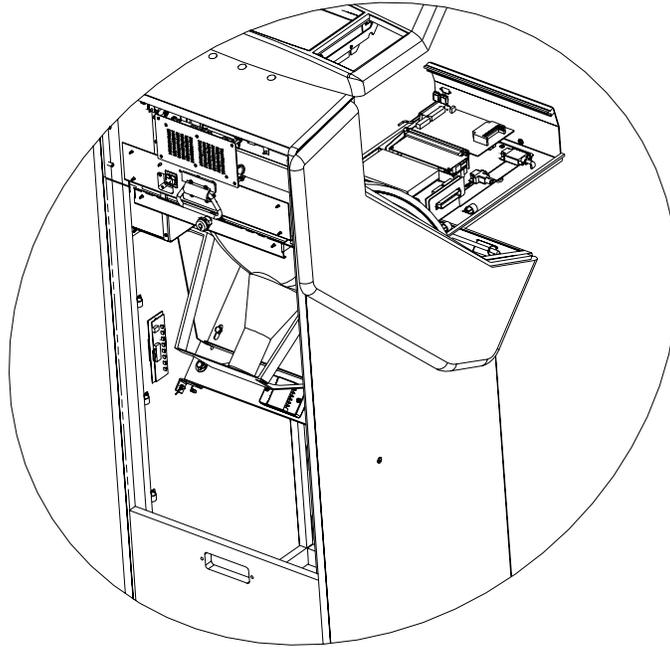


FIGURE 2 – MAXX UPRIGHT - MONITOR ACCESS

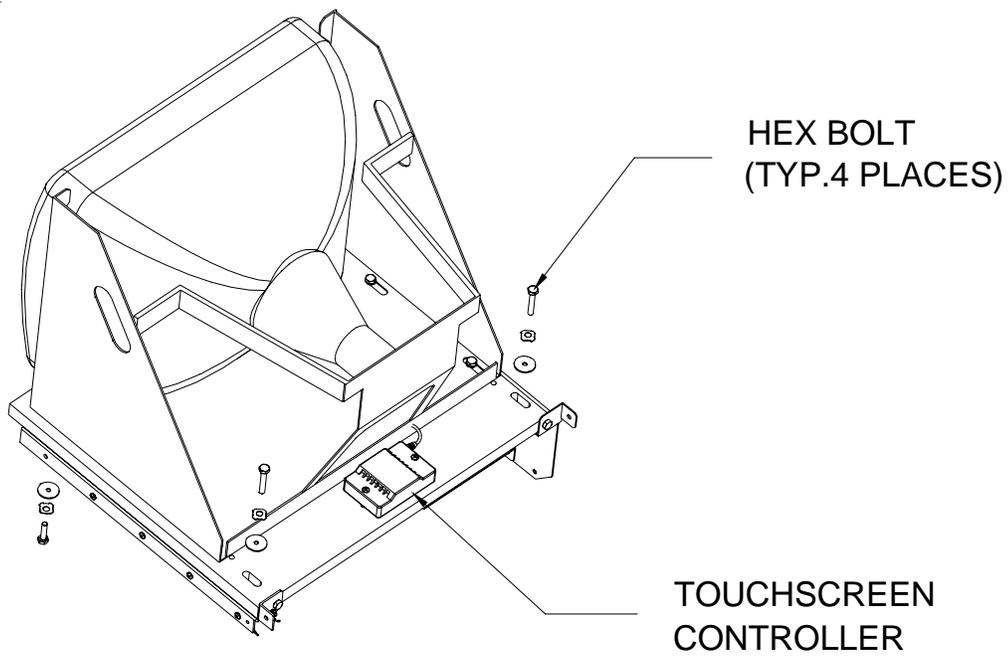


FIGURE 3 – MAXX UPRIGHT - MONITOR REMOVAL

ATTENTION:

OBSERVE PRECAUTIONS FOR HANDLING ELECTROSTATIC DEVICES

Removal/Installation of Major Assemblies - Blue MAXX Upright

Motherboard Removal

1. Turn off the game and unplug it from its power source.
2. Open the front door and slide the CPU shelf into its service position. See Figure 1.
3. Use the Mitsubishi motherboard diagram in the *Motherboard Diagrams* section to determine connector locations, then disconnect all connections to the board. NOTE: Be sure to read the Motherboard Handling Precautions before handling the board.
4. Remove the screws securing the motherboard assembly to the game and remove the board. Insert the board into an anti-static bag for storage.

Motherboard Installation

1. Place the new motherboard in the game and fasten it with the existing hardware.
2. Reconnect all connections to the board.
3. Slide the CPU shelf back into the game, then close the front door.
4. Plug in and turn on the game.

Hard Drive Removal

1. Turn off the game and unplug it from its power source.
2. Open the front door and slide the CPU shelf into its service position. See Figure 1.
3. Remove the screw fastening the adapter carriage plate to the game.
4. Remove the 4 screws and shoulder washers securing the hard drive to the adapter carriage plate. See Figure 1.
5. Slide the hard drive forward until you're able to remove the 4-pin power connector and ribbon cable from the hard drive.

Hard Drive Installation

1. Connect the power connector and ribbon cable to the new hard drive.
2. Secure the hard drive to the adapter carriage plate with the 4 screws and shoulder washers. See Figure 1.
3. Fasten the adapter carriage plate to the game with the screw removed earlier.
4. Slide the CPU shelf back into the game and close the front door.
5. Plug in and turn on the game.

Monitor Removal

1. Turn off the game and unplug it from its power source.
2. Unlock and open the front bezel and rear door to gain access to the monitor section.
3. Disconnect the touchscreen cable and all harnesses from the monitor.
4. Remove the front and rear bolts (2 per side) securing the monitor shelf to the cabinet. See Figure 2.
5. Pull the monitor out through the rear door.

Troubleshooting Information - Removal/Installation of Major Assemblies - Blue MAXX Upright

ATTENTION:

OBSERVE PRECAUTIONS FOR HANDLING ELECTROSTATIC DEVICES

Removal/Installation of Major Assemblies - Blue MAXX Upright

Monitor Installation

1. Place the new monitor assembly in the game through the rear door.
2. Fasten the monitor shelf with the front and rear bolts (2 per side). See Figure 2.
3. Close and lock the front bezel and rear door.
4. Plug in and turn on the game.

Touchscreen Removal

1. Turn off and unplug the game.
2. Unlock and open the front bezel.
3. Remove the black poly tape from around the edges of the old touchscreen, keeping the manner in which the tape was placed around the screen in mind. See Figure 2.
4. Remove the two nuts and washers securing the touchscreen controller to the game (see Figure 2) and remove the controller from the mounting screws. Then disconnect the cable from the back of the controller and disconnect the Molex connector (orange and gray wires) running from the touchscreen controller cable to the main power harness.
5. Use dental floss to carefully cut the foam tape holding the touchscreen to the picture tube until you are able to completely remove the touchscreen.
6. Remove any remaining adhesive residue with denatured alcohol, then wipe the surface of the picture tube with the supplied alcohol wipe.

Touchscreen Installation

1. Clean the reverse side of the replacement touchscreen with the supplied alcohol wipe.
2. Peel the backing from the 8 pieces of double-sided foam tape already adhered to the reverse side of the touchscreen.
3. Replace the new touchscreen over the picture tube (with the cable on the right if you are facing the game), making sure the screen is properly and evenly aligned over the picture tube. Then clean the front of the screen with the supplied alcohol wipe.
4. Connect the new touchscreen cable in the back of the controller and secure the controller on the mounting screws in the game with the existing hardware (see Figure 2). Also connect the Molex connector (orange and gray wires) to the main power harness.
5. Remembering the manner in which the tape was placed around the touchscreen you removed, place and cut a length of the supplied black poly tape evenly over an entire edge of the touchscreen and repeat until all 4 edges are covered.
6. Place and cut a longer length of black poly tape around all 4 edges of the screen.
7. Plug in and turn on the game.
8. When the game is finished booting, calibrate the touchscreen.
9. Close and lock the front bezel.

Troubleshooting Information - Removal/Installation of Major Assemblies - Blue MAXX Upright

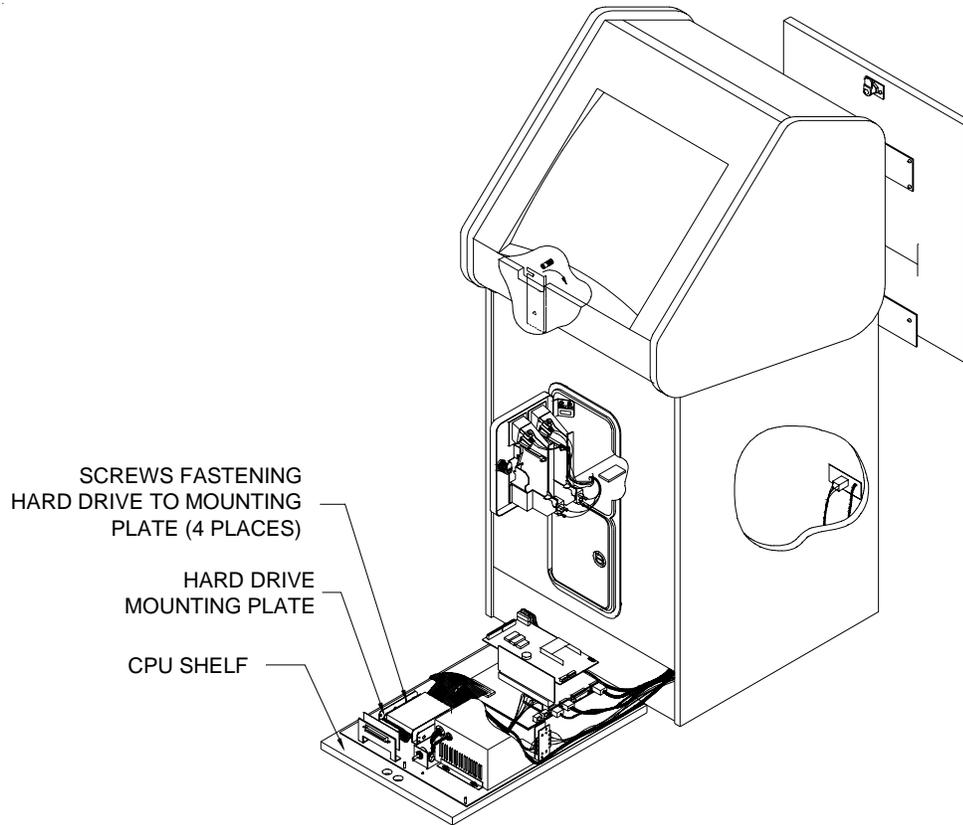


FIGURE 1 - HARD DRIVE REMOVAL - BLUE MAXX UPRIGHT

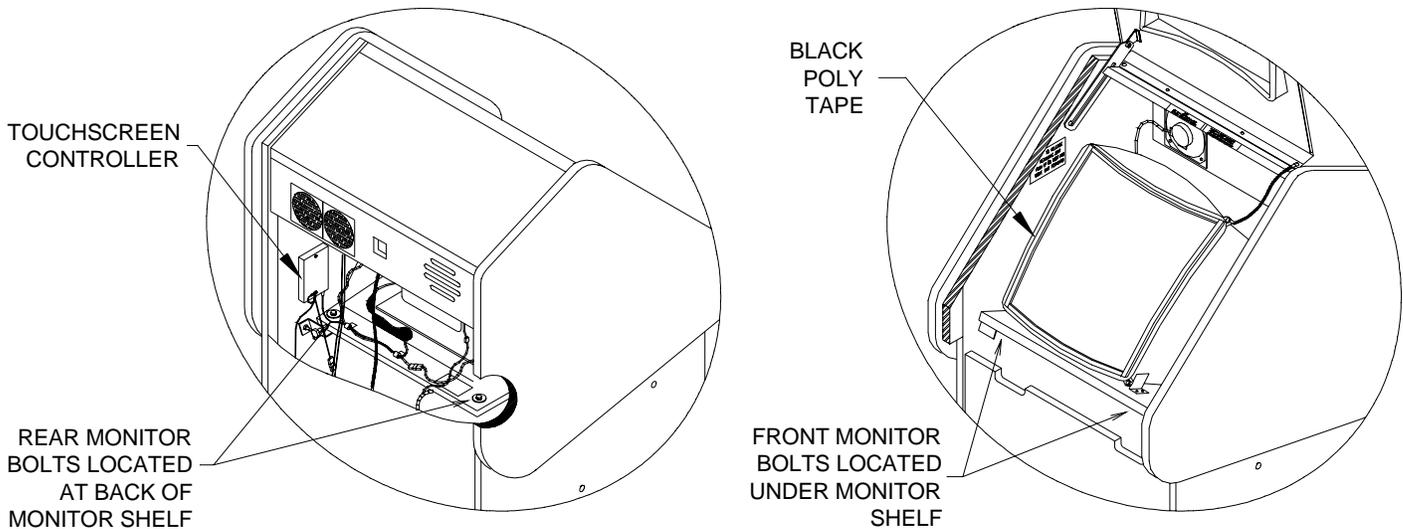


FIGURE 1 - MONITOR AND TOUCHSCREEN - BLUE MAXX UPRIGHT

**Troubleshooting Information - Removal/Installation of Major Assemblies -
Blue MAXX Upright**

Merit Industries, Inc.

Troubleshooting Guide for **Megatouch MAXX™ Games**

Refer to the list below if you are experiencing a problem with your Megatouch MAXX™ Game.

PROBLEM(S)	CORRECTIVE ACTION
<ul style="list-style-type: none"> • no power • bill acceptor motor does not run • no flash on the monitor screen • no cooling fans operating • no output from power supply 	<ul style="list-style-type: none"> • Check that the power cord is connected to a "live" outlet. • Check that the power switch is on. • Check that the power cord is connected to the game power supply. • Check that the power supply's voltage select switch is set to the proper voltage. • Check the harness connections to the on/off switch and circuit breaker. • Check the circuit breaker for an "open". • Check the A/C harness connection to the power supply. • Check the line cord.
<ul style="list-style-type: none"> • no video • no cooling fan operation • screen is blank • A/C power to the monitor and bill acceptor • no output from power supply 	<p>Unicorn motherboards</p> <ul style="list-style-type: none"> • Turn the game off and locate J3 along the edge of the motherboard next to the audio board. There is a jumper shorting pins 20 and 21 together that will set the motherboard to work with an ATX power supply. Move the jumper to pins 19 and 20 and turn the game on. If the fans in the cabinet start working and the screen displays "CMOS CHECKSUM ERROR", turn off the game and connect a keyboard with a PS/2 connector to the motherboard, then follow the CMOS configuration procedure for a Unicorn motherboard. After the motherboard is configured, replace the jumper on pins 20 and 21 of J3. If the fans do not start working and there is no display, replace the power supply. <p>Mitsubishi, Itox, and Telco motherboards</p> <ul style="list-style-type: none"> • Replace the power supply.
<ul style="list-style-type: none"> • no video • cooling fans are working • sound is functioning • A/C power to the monitor and bill acceptor • power supply has +5 and +12 volt outputs 	<ul style="list-style-type: none"> • Check the video cable connections from the motherboard to the monitor or LCD display. • Make sure the RAM DIMM is properly seated. • Check the fuse on the monitor • If there is sound, the monitor may be defective.
<ul style="list-style-type: none"> • no video • constant beeping or a sequence of beeps 	<ul style="list-style-type: none"> • The DIMM may not be seated properly or may need to be replaced.
<ul style="list-style-type: none"> • no video • no sound when coins are deposited 	<ul style="list-style-type: none"> • Check all connections to the motherboard. • Reseat the DIMM. • Replace the motherboard or send it for repair.
<ul style="list-style-type: none"> • poor picture quality 	<ul style="list-style-type: none"> • Adjust Brightness, Contrast, Horizontal, and Vertical controls with monitor controls located in the CPU section of the game.
<ul style="list-style-type: none"> • no sound or distorted sound 	<p>Mitsubishi and ITOX motherboards with the mini I/O board</p> <ul style="list-style-type: none"> • Check the audio cable connections at PL101 of the motherboard and J11 on the I/O board. • Check the speaker harness connection at J9 of the I/O board. • Do a two-button memory clear. <p>Unicorn motherboard</p> <ul style="list-style-type: none"> • Reseat the audio board connected to CN7 on the motherboard. Make sure there are no exposed header pins on CN7 with the audio board connected. • Check the connection at J11 of the I/O board. • Check the speaker harness connection at J9 of the I/O board. • Do a two-button memory clear. <p>Telco 586 and Mitsubishi motherboards with I/O Light</p> <ul style="list-style-type: none"> • Check the speaker harness connection at J9 of the I/O board. • Do a two-button memory clear.

Merit Industries, Inc.

Troubleshooting Guide for **Megatouch MAXX™ Games** (continued)

Refer to the list below if you are experiencing a problem with your Megatouch MAXX™ Game.

PROBLEM	CORRECTIVE ACTION		
<ul style="list-style-type: none"> • coin jam 	<ul style="list-style-type: none"> • Check the coin mech and coin chute for coins blocking the pathway. • Make sure the coin harness is connected between the normally open and common terminals on the coin switch. • Disconnect the bill acceptor and the coin switch one at a time to narrow down the problem. • Check the coin harness for pinched or damaged wires. • Disconnect the coin harness from J3 of the I/O board. If the coin jam still appears, the motherboard will have to be sent for repair. <p><i>(NOTE: Full MAXX™™, Slim MAXX™™ and Select MAXX™™ cabinets have an optical coin switch.)</i></p>		
<ul style="list-style-type: none"> • meter not advancing 	<ul style="list-style-type: none"> • Check connection at I/O board. • Check wiring at J3 METER connector on I/O board. 		
<ul style="list-style-type: none"> • game locks up while being played or in the attract mode • no movement on the screen • power has to be cycled off and on to get the game to function again 	<ul style="list-style-type: none"> • Check the output voltages from the power supply: <table border="0" style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> <p>Globtek ST230</p> <p>Red wire +5 volt Yellow wire +12 volt Blue wire -12 volt White wire -5 volt Orange wire +5 volt power good Black wire ground</p> <p>EOS VTL 100-4000</p> <p>Red wire +5 volt Yellow wire +12 volt Blue wire -12 volt White wire -5 volt Violet wire +5 volt power good Black wire ground</p> </td> <td style="width: 50%; vertical-align: top;"> <p>Globtek Mini GPS145-MATX</p> <p>Red wire +5 volt Yellow wire +12 volt Blue wire -12 volt Violet wire +5 volt power good Black wire ground</p> <p>Enhance SFX 1211J</p> <p>Red wire +5 volt Yellow wire +12 volt Blue wire -12 volt White wire +5 volt power good Violet wire +5 volt VSB Black wire ground Brown wire +3.3 volt</p> </td> </tr> </table> <ul style="list-style-type: none"> • Clean the vents and the fans of any dust and dirt that may interfere with airflow. • Clean the CPU cooling fan under the I/O board. • Replace the CPU cooling fan if it is not operating properly. • Clean the contacts between the I/O board, riser board, and motherboard. • Reseat the DIMM on the motherboard. • Clear memory with the following procedure: <ul style="list-style-type: none"> • Power off the game. • Press and hold the "Setup" and "Calibrate" buttons. • Turn the game on and keep holding the buttons until the screen displays "TWO BUTTON CLEAR DETECTED RELEASE BUTTONS". This should take about 30 seconds. • Release the buttons. This will clear high scores, clear the books and reset options, and reset the game menu and coin menu to their factory settings. • Perform a checksum test on the hard drive: <ul style="list-style-type: none"> • Power off the game. • Turn on DS2, position 8. • Turn on the game. The test will take about 25 minutes. • A failed test will lock up and display "CHECKSUM ERROR" on the screen. • A passed test will display "CHECKSUM OK" then continue to the attract screens mode. 	<p>Globtek ST230</p> <p>Red wire +5 volt Yellow wire +12 volt Blue wire -12 volt White wire -5 volt Orange wire +5 volt power good Black wire ground</p> <p>EOS VTL 100-4000</p> <p>Red wire +5 volt Yellow wire +12 volt Blue wire -12 volt White wire -5 volt Violet wire +5 volt power good Black wire ground</p>	<p>Globtek Mini GPS145-MATX</p> <p>Red wire +5 volt Yellow wire +12 volt Blue wire -12 volt Violet wire +5 volt power good Black wire ground</p> <p>Enhance SFX 1211J</p> <p>Red wire +5 volt Yellow wire +12 volt Blue wire -12 volt White wire +5 volt power good Violet wire +5 volt VSB Black wire ground Brown wire +3.3 volt</p>
<p>Globtek ST230</p> <p>Red wire +5 volt Yellow wire +12 volt Blue wire -12 volt White wire -5 volt Orange wire +5 volt power good Black wire ground</p> <p>EOS VTL 100-4000</p> <p>Red wire +5 volt Yellow wire +12 volt Blue wire -12 volt White wire -5 volt Violet wire +5 volt power good Black wire ground</p>	<p>Globtek Mini GPS145-MATX</p> <p>Red wire +5 volt Yellow wire +12 volt Blue wire -12 volt Violet wire +5 volt power good Black wire ground</p> <p>Enhance SFX 1211J</p> <p>Red wire +5 volt Yellow wire +12 volt Blue wire -12 volt White wire +5 volt power good Violet wire +5 volt VSB Black wire ground Brown wire +3.3 volt</p>		
<ul style="list-style-type: none"> • game resets while being played or in the attract screens 	<ul style="list-style-type: none"> • Follow same steps as above. 		

Merit Industries, Inc.Troubleshooting Guide for **Megatouch MAXX™ Games** (continued)

Refer to the list below if you are experiencing a problem with your Megatouch MAXX™ Game.

PROBLEM	CORRECTIVE ACTION
<ul style="list-style-type: none"> • game locks up with “invalid key for version PG3002 – V XXXX” 	<ul style="list-style-type: none"> • Check the program number on the security key, it should be compatible with the program on the hard drive. (<i>Note: See the hard drive and security key program number list.</i>) • Check the contacts on the security key socket. Lift up on the contact on the bottom of the socket, and make sure there is a good connection to the base of the security key. • Clean the connections between the I/O, riser, and motherboards. Loose or dirty contacts can cause an “invalid key”. • Try another key with the same program number or test the security key in another game with the same program version.
<ul style="list-style-type: none"> • “invalid key” message while downloading software to the hard drive 	<p>This message indicates the motherboard did not boot from the CD ROM drive.</p> <ul style="list-style-type: none"> • Check that the CD ROM drive is set as master. • Check the ribbon cable connections between the CD ROM drive and the motherboard. • Try another CD ROM drive. • Make sure the security key is replaced <i>after</i> the download is completed • Follow same steps as above.
<ul style="list-style-type: none"> • “OPERATING SYSTEM NOT FOUND” (Mitsubishi motherboard) or “DISK BOOT FAILURE” (Unicorn or Telco 586 motherboard) 	<p>This message indicates the motherboard is not receiving data from the hard drive and has locked up.</p> <ul style="list-style-type: none"> • Check the IDE ribbon cable connections at the power supply and hard drive. • Check the power to the hard drive. It should have +5 volts, +12 Volts, and ground. • Check the CMOS settings on the motherboard. • Move the hard drive IDE cable to the secondary IDE port on the motherboard to test the board. If the game does not lock up, there is a motherboard failure and the board should be sent for repair. The game will work this way, but it cannot be updated with new software.
<ul style="list-style-type: none"> • “QUANTUM FIREBALL, SMART FAILURE DETECTED, BACK UP HARD DRIVE” 	<ul style="list-style-type: none"> • The self-diagnostics on the hard drive has detected an error. The hard drive will have to be replaced.
<ul style="list-style-type: none"> • “ERROR READING DRIVE C” 	<p>This message can be caused by the hard drive or in some program versions, a coin jam while the game is turned on.</p> <ul style="list-style-type: none"> • Turn the game off. • Locate DS 2, position 8 and turn it on. • Turn on power to the cabinet. This will start the hard drive checksum test, which should take about 20 minutes to complete. <ul style="list-style-type: none"> • When the hard drive passes the test it will display a “CHECKSUM GOOD” message—continue to boot up into the game attract screens. This indicates a coin jam. • When the hard drive fails the test, the game will lock up with a “CHECKSUM ERROR” message, which will stay on the screen until the power is turned off. In this case, the hard drive will have to be replaced.
<ul style="list-style-type: none"> • “CRITICAL ERROR ABORT RETRY FAIL” – or “BAD COMMAND OR FILE NAME” error 	<ul style="list-style-type: none"> • Try reloading the program onto the hard drive with a set of update CD’s compatible with the security key. If it will not take the download, replace the hard drive.
<ul style="list-style-type: none"> • “TOUCH CONTROLLER NOT FOUND” error 	<ul style="list-style-type: none"> • Make sure the touchscreen controller is connected to the touchscreen, the motherboard, and the power supply. • Perform a CMOS configuration.
<ul style="list-style-type: none"> • game doesn’t recognize CD-ROM drive 	<ul style="list-style-type: none"> • Make sure the jumper setting on the back of the CD-ROM drive is set to MASTER (MA). • Check if the CD-ROM drive is defective by trying another drive. • Perform a CMOS configuration.

Merit Industries, Inc.

Troubleshooting Guide for **Megatouch MAXX™ Games** (continued)

Refer to the list below if you are experiencing a problem with your Megatouch MAXX™ Game.

PROBLEM	CORRECTIVE ACTION
<ul style="list-style-type: none">• game will not download CD	<ul style="list-style-type: none">• Make sure the CD is installed correctly, with the logo facing up.• Check for scratches or a defective disc.• Try a different set of CDs.• If you're downloading a CD set, make sure each disc is of the same revision.

CMOS Configuration Procedure for Megatouch MAXX

The CMOS configuration should only be performed if your Megatouch MAXX game experiences problems booting up.

MITSUBISHI/ITOX MOTHERBOARD CMOS CONFIGURATION:

1. Make sure the game is turned off.
2. Plug in your keyboard.
3. Turn on the power.
4. Press F2 to enter Phoenix BIOS Setup Utility.
5. Press F9 to load Setup Default.
6. At Setup confirmation, press ENTER with YES shaded.
7. Press F10 to save and exit
8. Press YES for confirmation.
9. Unplug the keyboard

TELCO 586 MOTHERBOARD CMOS CONFIGURATION:

1. Make sure the game is turned off.
2. Connect your keyboard to J4 on the motherboard assembly.
3. Turn on the power.
4. Select LOAD SETUP DEFAULTS.
5. Press ENTER.
6. Press Y for YES.
7. Press ENTER.
8. Select STANDARD CMOS SETUP.
9. Press ENTER.

The Settings should be as follows:

Date: Current date

Time: Approximate time

Hard Disks: All TYPE and MODE fields set to AUTO

Drive A: 1.44M, 3.5 in.

Drive B: None

Floppy 3 Mode Support: Disable

Video: EGA/VGA

Halt On: All but keyboard

10. After all settings have been changed or verified, press ESC.
11. Press F10.
12. Press Y for YES.
13. Press ENTER. Configuration is now complete--the system should reboot.
14. Unplug the keyboard.

UNICORN MOTHERBOARD CMOS CONFIGURATION:

1. Make sure the game is turned off.
2. Connect your keyboard to J4 on the motherboard assembly.
3. Turn on the power.
4. Select LOAD SETUP DEFAULTS.
5. Press ENTER.
6. Press Y for YES.
7. Press ENTER.
8. Select STANDARD CMOS SETUP.

CMOS Configuration Procedure for Megatouch MAXX (cont'd)

9. Press ENTER.

The Settings should be as follows:

Date: Current date

Time: Approximate time

Hard Disks: All TYPE and MODE fields set to AUTO

Drive A: 1.44M, 3.5 in.

Drive B: None

Video: EGA/VGA

Halt On: All but keyboard

10. After all settings have been changed or verified, press ESC.
11. Press F10.
12. Press Y for YES.
13. Press ENTER. Configuration is now complete--the system should reboot.
14. Unplug the keyboard.

DIP Switch Settings for the Mars 2000 Bill Acceptor

(The DIP switches are located on the side of the bill acceptor)

SETTING	SWITCHES
1 WAY	DIP 1 ON/DIP 2 OFF
2 WAY	DIP 1 OFF/DIP 2 ON
4 WAY	DIP 1 ON/DIP 2 ON
HIGH ACCEPTANCE	DIP 3 OFF
HIGH SECURITY	DIP 3 ON
*\$1	DIP 4 ON=ACCEPT/OFF=REJECT
*\$2	DIP 5 ON=ACCEPT/OFF=REJECT
*\$5	DIP 6 ON=ACCEPT/OFF=REJECT
1 PULSE PER DOLLAR	DIP 7 OFF
*4 PULSES PER DOLLAR	DIP 7 ON
ALWAYS ENABLE	DIP 8 OFF
HARNESS ENABLE	DIP 8 ON

* Recommended factory settings allow for acceptance of \$1, \$2, and \$5 bills at 4 pulses per dollar.

Section 4

Power Supplies

Power Supplies Used in MAXX Games

GlobTek ST-230WHF

EOS VTL100-4000

Mini-Globtek AT145-S/GPS145-MATX

Enhance SFX-1211J

Power Supplies Used in MAXX Games

Power Supplies - GlobTek



GlobTek ST-230WHF

Used in:

Full MAXX

MAXX Classic and Blue MAXX

MAXX Upright and Blue MAXX Upright

Power Supplies - GlobTek

Power Supplies - EOS



EOS VTL100-4000

Used in:

MAXX Elite and EZ MAXX

MAXX Select and Slim MAXX

Power Supplies - EOS

Power Supplies - Enhance



Enhance SFX-1211J

Used in:

MAXX Classic and Blue MAXX

MAXX Elite and EZ MAXX

MAXX Select and Slim MAXX

MAXX Upright

Section 5

Motherboards

Circuit Board Cross Reference Chart

Telco
Mitsubishi
Itox
Unicorn

I/O Board Pinouts

I/O Board Pinouts

Merit # SA10047 Series I/O Boards

J3 I/O Board Connector

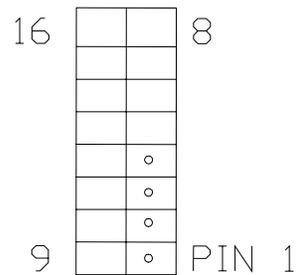


Figure 1 - Rear View of Cable Connector
Molex Connector (manufacturer part # 39-01-2160)

<u>PIN</u>	<u>USE</u>
1	-----
2	-----
3	-----
4	-----
5	-----
6	-----
7	-----
8	METER GND
9	SET-UP HIGH
10	CALIBRATE HIGH
11	COIN 1 HIGH
12	COIN 2 HIGH
13	COIN 3 HIGH
14	COIN 4 HIGH
15	SET-UP/CALIBRATE/COIN GND
16	COIN GND

Merit # SA10047 Series I/O Boards (continued)

J2 I/O Board Connector (optional)

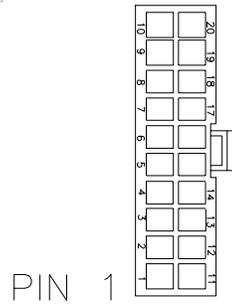


Figure 2 - Rear View of Cable Connector
Molex Connector (manufacturer part # 39-01-2200)

<u>PIN</u>	<u>USE</u>
1	COIN 5 HIGH (optional)
2	COIN 6 HIGH (optional)

Merit # SA10051 Series I/O Boards

J3 I/O Board Connector

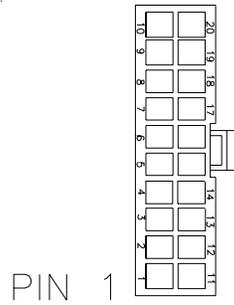


Figure 3 - Rear View of Cable Connector
Molex Connector (manufacturer part # 39-01-2200)

<u>PIN</u>	<u>USE</u>
1	----
2	----
3	----
4	----
5	----
6	----
7	----
8	METER GND
9	SET-UP/CALIBRATE/COIN GND
10	COIN GND
11	SET-UP HIGH
12	CALIBRATE HIGH
13	COIN 1 HIGH
14	COIN 2 HIGH
15	COIN 3 HIGH
16	COIN 4 HIGH
17	----
18	----
19	----
20	----

Section 6

Monitors

Monitors Used in MAXX Games

Tatung--type 38

Tatung--type 58

Tatung--type 66

Tatung VS-20475TZ21

Tatung VT19726Z

Wells-Gardner--type 41

Wells-Gardner--type 67

Tatung/Wells--type 40

Kortek flatscreen

Monitor Adjustments

Degaussing

Monitor Adjustment Procedures

Monitors Used in MAXX Games

Tatung--Type 38

Used in:
MAXX Select and Slim MAXX

Tatung--Type 58

Used in:
MAXX Upright and Blue MAXX Upright

Tatung--Type 66

Used in:
Blue MAXX and MAXX Classic

Tatung VS-20475TZ21

Used in:
Full MAXX

Tatung VT19726Z

Used in:
MAXX Upright

Wells-Gardner--Type 41

Used in:
MAXX Select and Slim MAXX

Wells-Gardner--Type 67

Used in:
Blue MAXX and MAXX Classic

Tatung/Wells--Type 40

Used in:
MAXX Select and Slim MAXX

Kortek flatscreen

Used in:
EZ MAXX and MAXX Elite

Degaussing your Monitor

If your monitor is displaying “purity problems,” (a display with purity problems will have parts of an all-white screen affected by blotches of color) the monitor needs to be degaussed using a “degaussing coil.” A degaussing coil is a circular electromagnet used to cancel out any stray magnetic fields that may build up on a metal object.

All of our monitors have built-in degaussing coils that are automatically activated on power-up. If your game is experiencing minor purity problems, try powering down the game for 5 minutes and then reapplying power to activate the degaussing coil. If the problem is not corrected, you will have to use a manual degaussing coil.

Follow the instructions below for degaussing a monitor.

1. Plug in your degaussing coil.
2. Hold the coil about three feet from the monitor, press the trigger to activate the magnetic field (for circular-shaped coils, orient the coil so you see the monitor through the hole in the middle; for wand-shaped coils, point the wand towards the screen).
3. Move the coil in a circular motion around the face of the monitor and slowly approach the game.
4. Continuing to move the coil in a circular motion, slowly back away from the monitor.
- 5a. CIRCULAR-SHAPED COILS: When you are about three feet away, quickly turn the coil perpendicular to the monitor and release the trigger.
- 5b. WAND-SHAPED COILS: When you are about three feet away, point the wand away from the monitor and release the trigger.

Monitor Adjustment Procedures

For adjusting the picture on MAXX games, we suggest following the procedures described below. The vertical/horizontal controls and brightness/contrast controls are located on the monitor control panel that is Velcroed inside the game. The monitor RGB controls are located on the monitor neck board.

Tatung/Wells Gardner Monitors

For games running software versions prior to Emerald:

1. Under STRATEGY, select the 11-Ball game.
2. Adjust the brightness and contrast controls until there is no shadow on the yellow balls and no pixels of the incorrect color appear on any of the balls. (Adjusting the brightness and contrast can also correct for a lack of sharpness.)
3. To adjust the color and screen positioning, use the SETUP button inside the game to bring up the VIDEO TEST button.
4. Select VIDEO TEST and bring up the grid screens (the third and fourth screens in the VIDEO TEST). Use the grid screen to ensure that the game is centered, using the vertical/horizontal controls on the monitor control board to adjust the screen position and ensure that the game screen correctly fills the monitor screen.
5. Use the RGB controls on the monitor neck board with the remaining video test screens to adjust screen color.
6. Once the necessary adjustments have been made, touch the screen until you bring up the VIDEO TEST menu again, then exit out of the menu.

For games running Emerald software or a later version:

1. Under STRATEGY, select the 11-Ball game.
2. Adjust the brightness and contrast controls until there is no shadow on the yellow balls and no pixels of the incorrect color appear on any of the balls. (Adjusting the brightness and contrast can also correct for a lack of sharpness.)
3. To adjust the color, use the SETUP button inside the game to bring up the VIDEO TEST button.
4. Select VIDEO TEST and bring up the color test screens, then use the RGB controls on the monitor neck board to adjust screen color.
5. Once the necessary adjustments have been made, touch the screen until you bring up the VIDEO TEST menu again, then exit out of the menu.
6. To adjust the screen positioning, select NEW GAMES, then Backjammin, then Acey Deucey (Acey Deucey has the widest playing screen of all the games). Use the vertical/horizontal controls on the monitor control board to center the screen position and ensure that the game screen correctly fills the monitor screen.

Kortek Flatscreen Monitors

1. Press any button on the monitor control board (located on the reverse side of the LCD screen) to bring up the menu screen.
2. Use the SW2 and SW3 buttons to arrow through the menu and select BASIC SETTINGS with the SW1 button.
3. Use SW1 to select default or manual settings. Follow the menus on the screen to make manual adjustments.
4. Exit out of each menu once the necessary adjustments have been made.

Section 7

Technical Service

Bulletins