

Merit Industries, Inc.
Troubleshooting Guide for *Megatouch Ion™ Games*

PROBLEM	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 	<ul style="list-style-type: none"> • Check the power on jumper wire located on the motherboard. It should connect J2 to pin 21 of Panel 1. If this jumper wire is missing or not connected between the correct pins, it may prevent the power supply from turning on. For more information, see Tech Note 52. • Check the D/C harness connection to the motherboard. • Check the A/C harness connection to the power supply.
<ul style="list-style-type: none"> • no video • cooling fans are working • there is a sound when coins are deposited 	<ul style="list-style-type: none"> • Check the video cable connections to the motherboard and the LCD display (and the monitor control board in EVO and Fusion games). • Check the +12 volt supply voltage to the LCD display (yellow wire +12, black wire ground) • Check the harness connections between the PC boards on the back of the LCD display. • Replace the LCD display.
<ul style="list-style-type: none"> • no video • constant beeping or a sequence of beeps 	<ul style="list-style-type: none"> • The memory card (DIMM) may not be seated properly. Reseat the DIMM or replace it.
<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.
<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 J1, J3, J7, and J8 of the I/O board. If the coin jam still appears, the I/O board will have to be sent for repair.
<ul style="list-style-type: none"> • meter not advancing 	<ul style="list-style-type: none"> • Check connection at I/O board. • Check wiring at J2 <i>METER</i> connector on I/O board.

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PROBLEM	CORRECTIVE ACTION
<ul style="list-style-type: none"> • game locks up or resets 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: Enhance SFX 1211J 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 • Clean the vents and the fans of any dust and dirt that may interfere with airflow. • Clean the CPU cooling fan on the motherboard. • Replace the CPU cooling fan if it is not operating properly. • Reseat the DIMM on the motherboard. • Clear memory with the following procedure: <ul style="list-style-type: none"> • Turn 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"> • Turn off the game. • Turn on DIP switch 8 on the I/O board. • Turn on the game. The test will take about 10 minutes. <ul style="list-style-type: none"> • A failure will cause the test to stop. • A passed test will display "DRIVE CHECKSUM COMPLETE RESET ALL DIP SWITCHES TO REBOOT MACHINE". • With power on, turn off DIP switch 8.
<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. • 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. • Check the USB cable that connects the I/O board to the motherboard. • Try another security 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 	<ul style="list-style-type: none"> • If the security key was replaced before the download: <ul style="list-style-type: none"> • The motherboard did not boot from the DVD drive. • Check that the DVD drive is set as master. • Check the ribbon cable connections between the DVD drive and the motherboard. • Try another DVD drive or another set of discs.

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<ul style="list-style-type: none"> the screen displays MAXX and not ION and the H2H category is missing 	<p>When the game is turned on, it will check the type of touchscreen controller, motherboard and hard drive. If one of these does not match with Ion hardware, the game will power up and display "MAXX" on the screen and it will not have the H2H category.</p> <ul style="list-style-type: none"> Make sure the game is only using ION hardware.
<ul style="list-style-type: none"> game will not download disc 	<ul style="list-style-type: none"> Make sure the disc is installed correctly, with the logo facing up. Check for scratches or a defective disc. Try a different DVD drive or another disc. If you're downloading a disc set, make sure each disc is of the same revision.
<ul style="list-style-type: none"> "ERROR READING DRIVE C" 	<ul style="list-style-type: none"> This message can be caused by the hard drive or in some program versions, a coin jam while the game is turned on. <ol style="list-style-type: none"> Turn the game off. Locate DS 1, 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. When the hard drive passes the test it will display a "CHECKSUM GOOD" message and 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"> "DISK BOOT FAILURE" 	<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 to the motherboard and hard drive. Check the power to the hard drive. It should have +5 volts, +12 volts, and ground.
<ul style="list-style-type: none"> "QUANTUM FIREBALL, SMART FAILURE DETECTED, BACK UP HARD DRIVE" 	<p>The self-diagnostics on the hard drive has detected an error.</p> <ul style="list-style-type: none"> 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 different set of update discs compatible with the security key. If it will not accept the download, try another DVD drive. If it still does not work, replace the hard drive.