MC-2100 Motor Controller LEDs

The MC-2100 motor controller has a single LED that can be used to help troubleshoot electrical problems with this treadmill. The LED indicates several different conditions. Each condition and the status of the LED are given below.

OFF: When the LED is not lit the controller is not receiving power. If the LED does not come on when power is applied, check the AC wiring between the wall outlet and the controller.

ON (Solid): The controller is receiving 120 VAC and is functioning normally. No speed signal has been received from the console and the treadmill is at rest.

ON (Blinking Quickly)- The controller has received a speed signal from the console greater than 0.0 MPH. It is now sending DC voltage to the drive motor.

ON (Blinking on and off once per second): The controller is operating at its current limit. This will only occur if the controller is having to work too hard to maintain speed. Check for high friction between the board and belt or an over-tightened belt.

ON (Blinking VERY slowly: One second on, one second off): The controller has entered 'Fold-back' mode where it reduces voltage and amperage to the drive motor. This is generally caused by a locked drive motor.

Treadmill Specifications
GGTL39608
GOLD'S GYM
Trainer 480

0–10 MPH
0–10% Power Incline
2.5 HP Motor
300 lb. Max. User Weight
15 Amp Circuit Breaker
120 VAC 60 Hz

Tech Sheet Part #: 283169

Calibration Mode

This console has a calibration mode to assist the technician in troubleshooting. To enter this mode, press and hold the *Stop* and *Speed* ▲ buttons while inserting the safety key.

There are five levels to this mode. Move from one level to the next by pressing the *Stop* button. Exit this mode at any time by removing the safety key.

Level 1- This level displays how the console has been configured to operate. It also displays the numerical value of each button as it is pressed. The console will beep six times to indicate the controller is being configured.

The console will display one function at a time. The Priority window will display the name of the function while the Distance window displays the setting. Press *Speed* ▲ to advance to the next value. Press *Speed* ▼ to return to the previous value.

VEr- Current software version number
rOL- Front Roller size '1.6'
SPd- Maximum Speed of the treadmill '10'
In- Minimum PWM speed control percentage (intercept) '12'
Inc- Maximum incline '10'
c r- Software configuration results
c=configured, nc=not configured, r=released, nr=not released
cHS- Memory check (checksum). 'FP'= Flash Pass, 'FF'= Flash Fail
PLS- Pulse input '1' flashes with hand pulse
c0d- Button test values (displays code value of each button)

Level 2- This level is used to calibrate the incline and speed of the treadmill. To calibrate incline, press either *Incline* button. The treadmill will calibrate itself. To calibrate speed, press and hold the *Speed* ▲ button until the Distance window displays an 85% speed signal. Adjust the MAX SPD pot on the controller until the Speed window displays 10.0. Press *Speed* ▼ and allow the treadmill to come to a complete stop.

PRIORITY: '- -' during incline calibration
SPEED: Actual speed of the treadmill.
DISTANCE: Current PWM speed signal (%) '0–85.'

Level 3- This level lights each LED on the console in order. The *Speed* buttons control the speed of the lighting pattern. *Incline* ▲ toggles all of the LEDs on and off. *Incline* ▼ restarts the lighting routine.

Level 4- This level displays the total Time and Distance of the treadmill. It also shows the current units of measurement.

PRIORITY: Total time in hours
DISTANCE: Total distance in miles
SPEED: Units: 'E'=English, 'M'=metric
SPEED: Demo mode status. 'd' if on, blank if off.

Level 5- Functional Test. This level allows the treadmill to be tested while still in calibration mode. The treadmill will run normally after the *Start* button is pressed, but the displays will show different information.

PRIORITY: Actual speed the treadmill is running
SPEED: Speed the treadmill is set to run
DISTANCE: Current PWM speed control signal output '0-85'

Units of Measurement

The units of measurement can be changed between English and Metric in the User Information Mode. Enter this mode by pressing down the *Stop* button while inserting the key. The Speed window will display either *E* for English or *M* for metric units of measurement. Toggle between the two settings by pressing the *Speed* ▲ button.

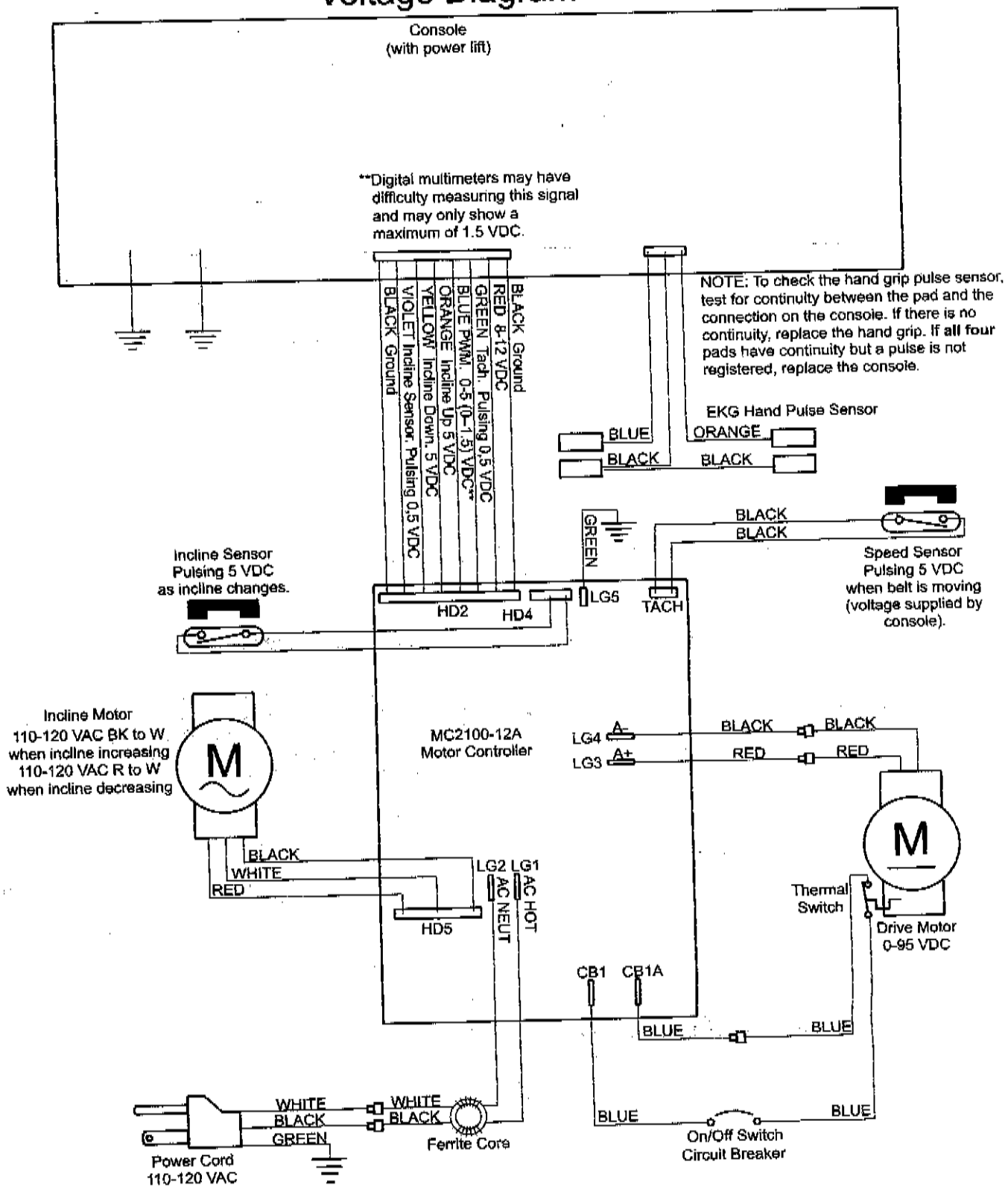
Demo Mode

The console has a demo built into its software. The demo mode loops the console display through a lighting routine when the treadmill is plugged in, but the key is not inserted. All button presses are disabled. To disable this mode, enter the User Information mode by pressing down the *Stop* button while inserting the key. The Speed window will display a 'd' if demo mode is active. Press the *Speed* ▼ button to toggle the mode on and off.

SERVICE HISTORY

DATE	SERVICE PERFORMED	TECH #

Voltage Diagram



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