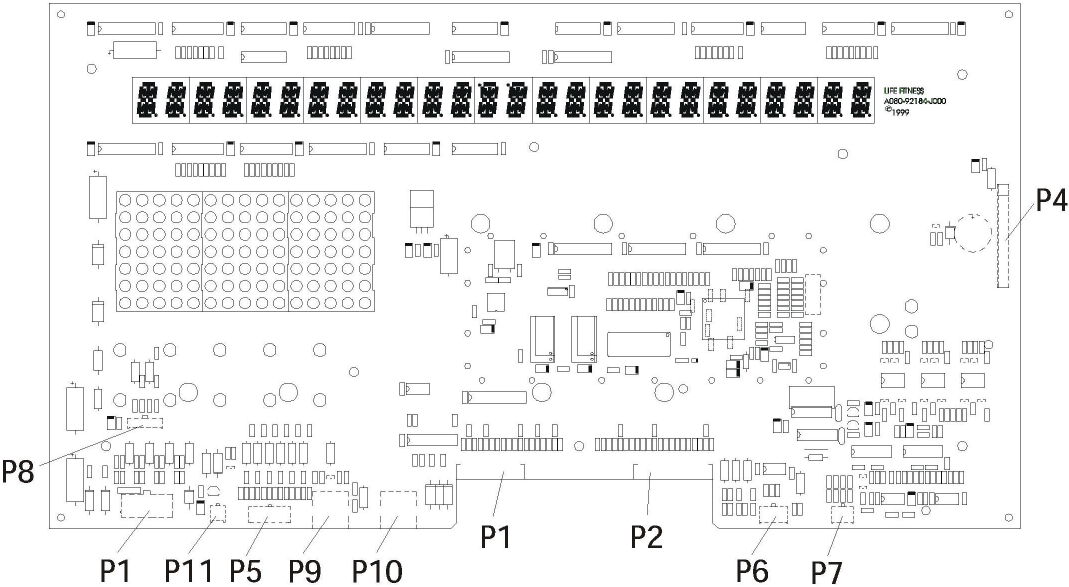


Life Fitness Models 9100, 9500HR, 9700HR, and 9700HR w/Decline Treadmills
ELECTRONIC OVERVIEW - DISPLAY CONSOLE PCB

Functional Description

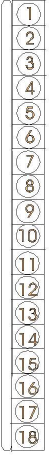
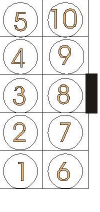
The Display Console PCB is an intelligent display and keypad interface. It works in conjunction with the Wax/Lift and Motor Control Modules. The console board reads the keypad input port to check for user inputs, updates, refreshes the status LEDs, data display, profile display matrix, reads analog voltages from the Lifepulse circuitry, and communicates with the other subsystem modules.



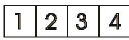
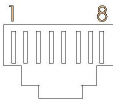
Connector and Pin Functions

Connector	Location	Pin	Functional Description
P1 is a 10 pin connector that connects to the Wax/Lift PCB		1	GND - ground
		2	GND - ground
		3	+8Vdc - LEDs
		4	+8Vdc - LEDs
		5	Reed Sense - Relay No. 1
		6	TXD – transmit data
		7	RXD – data received
		8	Bus_Req (bus request)
		9	+12Vdc – emergency stop switch
		10	Relay Enable
P2 is a 12 pin ribbon connector that connects to the Display Console Overlay		1	ESD ground
		2	Switch strobe 0
		3	Switch return 0
		4	Switch strobe 1
		5	Switch return 1
		6	Switch strobe 2
		7	Switch return 2
		8	Switch strobe 3
		9	Switch return 3
		10	Switch strobe 4
		11	Switch return 4
		12	ESD ground

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ELECTRONIC OVERVIEW - DISPLAY CONSOLE PCB

Connector	Location	Pin	Functional Description
P3 is a 10 pin ribbon connector that connects to the Display Console Overlay		1	ESD ground
		2	Switch return 6
		3	Switch strobe 2
		4	Switch return 3
		5	Switch strobe 1
		6	Switch strobe 4
		7	Switch return 5
		8	Switch return 1
		9	Switch return 7
		10	ESD ground
P4 is an 18 pin connector that connects to the Remote Console PCB (TR9700 only)		1	D15 - 'DP' Segment Data
		2	D14 - 'G' Segment Data
		3	D13 - 'F' Segment Data
		4	D12 - 'E' Segment Data
		5	D11 - 'D' Segment Data
		6	D10 - 'C' Segment Data
		7	D9 - 'B' Segment Data
		8	D8 - 'A' Segment Data
		9	ST5 - Digit Strobe 5
		10	ST6 - Digit Strobe 6
		11	ST7 - Digit Strobe 7
		12	Key
		13	ST8 - Digit Strobe 8
		14	ST9 - Digit Strobe 9
		15	ST10 - Digit Strobe 10
		16	ST11 - Digit Strobe 11
		17	+8Vdc (Not used)
		18	Ground (Not used)
P5 is a 10 pin connector that connects to the Serial Peripheral Interface serial communications port		1	MISO - master-in slave-out
		2	MOSI - master-out slave-in
		3	SCK - serial clock
		4	N/U - not use
		5	GND - ground
		6	PCS1 - peripheral chip select 1
		7	PCS2 - peripheral chip select 2
		8	PCS3 - peripheral chip select 3
		9	Open Collector Output
		10	+8Vdc
P6 is a 6 pin connector that connects to the Polar Receiver and end of Session switch		1	+5Vdc
		2	Polar signal
		3	Ground
		4	Stop Switch +
		5	Stop Switch -
		6	N/U

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ELECTRONIC OVERVIEW - DISPLAY CONSOLE PCB

Connector	Location	Pin	Functional Description
P7 is a 4 pin connector that connects to the Lifepulse electrodes		1	Left +
		2	Left -
		3	Right -
		4	Right +
P8 is a 4 pin connector that connects to the Smart Stop module		1	Smart Stop Signal
		2	Smart Stop Enable
		3	+8Vdc
		4	Ground
P9 and P10 are 8 pin connectors that connect to the CSAFE and Cardio Theater interface		1	N/U - not used
		2	N/U - not used
		3	Receive Data
		4	Transmit Data
		5	+8 Vdc
		6	CTS
		7	Ground
		8	N/U - not used
P11 is a 2 pin connector that connects to the Emergency Stop Switch		1	Switch (-)
		2	Switch +12Vdc
P14 is a 10 pin connector that connects to the Background Debug Mode Signals		1	/DS
		2	/BERR
		3	Ground
		4	/BKPT /DSCLK
		5	Ground
		6	FREEZE/QUOT
		7	/RESET
		8	IPIPE1/DS1
		9	+5 Vdc
		10	IPIPE0/DS0