



OptX™ ERROR CODES



QUESTIONS?



1-866-931-9730
PWSService@millerwelds.com
MillerWelds.com/optxinfo

Error Codes

Code	Type Of Alarm	Description	How To Clear Error
Er00	—	Reserved	—
Er01	Galvo Position	Beam wobble control reported laser beam position error. Laser beam did not go to commanded position.	Trigger 1 Control or “Clear Alarms”
Er02	Under Temp	The laser module temperature is below the minimum temperature threshold for operation. To view the laser’s temperature reading, go to the Welder web page and check Welder Status Temperature (refer to section 9.4 [▶ 132]).	Wait until case temperature is greater than 8.5°C (47°F) then clear with either Trigger 1 Control or “Clear Alarms”
Er03	Over Temp	The laser module temperature has exceeded normal operating temperature (>55°C). If this occurs during welding, laser emission will turn OFF automatically. To view the laser’s temperature reading, go to the Welder web page and check Welder Status Temperature (refer to section 9.4 [▶ 132]).	Wait until case temperature has cooled down below warning threshold of 52°C (125°F) then clear by Trigger 1 Control or “Clear Alarms”
Er04	No Plasma	Plasma detection feature did not detect plasma during welding. There are two independent conditions that can cause this: 1. Normal — No plasma detected during welding (light detected was below material threshold). 2. Ambient — Ambient light surrounding the material is interfering with the plasma detector operation. This is always paired with the Ambient Light Warning. If Ambient Light Warning is active with Er04, then error was due to ambient. Refer to Table 31 [▶ 133] #4.	Trigger 1 Control or “Clear Alarms”
Er05	—	Reserved	—
Er06	Fiber Fuse 1	First Internal fiber fuse photodiode reading exceeded the maximum allowable threshold (there is too much power in the external fiber). This is a critical error that must be addressed. Contact Miller for assistance.	Trigger 1 Control or “Clear Alarms”
Er07	Fiber Fuse 2	Second Internal fiber fuse photodiode reading exceeded the maximum allowable threshold (there is too much power in the internal fiber). This is a critical error that must be addressed. Contact Miller for assistance.	Trigger 1 Control or “Clear Alarms”
Er08	Back Reflection	Internal back reflection photodiode reading exceeded its threshold. Light is reflecting back into fiber.	Trigger 1 Control or “Clear Alarms”
Er09	Under Power	Actual laser power is less than set point.	Trigger 1 Control or “Clear Alarms”
Er10	Over Power	Actual laser power is greater than set point.	Trigger 1 Control or “Clear Alarms”
Er11	Interlock Malfunction	Malfunctioning Interlock Safety Loop. Monitors key signals, remote start and “all safe” signals.	Power off and on the unit with the keyswitch, E-Stop or AC power cord
Er12	Fiber Interlock	Malfunctioning fiber interlock safety loop. Check fiber cable connection to torch. Disconnect and reconnect the fiber into the torch.	If fiber interlock opens up then Trigger 1 Control or “Clear Alarms” will clear error
Er13	External Interlock	External A and External B (pins 1,2 and 3,4 on 12-pin connector) interlock state does not match. This indicates that one channel opened while the other one stayed closed.	Both Ext A and Ext B interlocks must both be open before Trigger 1 Control or “Clear Alarms” will clear error
Er14	PS Enable	On system startup, the laser power supply was in the enabled state.	Power off and on the unit with the keyswitch, E-Stop or AC power cord
Er15	Startup Diagnostic	One or more safety signals powered up into incorrect state. Monitors fiber interlock signals, remote start and “all safe” signals on startup.	Power off and on the unit with the keyswitch, E-Stop or AC power cord

Error Codes

Code	Type Of Alarm	Description	How To Clear Error
Er16	Power B Disable	Power supply was enabled before rising edge of emission on.	Power off and on the unit with the keyswitch, E-Stop or AC power cord
Er17	Power A Disable	On rising edge of emission on signal, laser power supply enable was not on.	Power off and on the unit with the keyswitch, E-Stop or AC power cord
Er18	External B Shutdown	While emission was ON, external interlock B (pins 3, 4 on the 12-pin interface connector) opened unexpectedly so the laser was shutdown.	Trigger 1 Control or "Clear Alarms"
Er19	External A Shutdown	While emission was ON, external interlock A (pins 1, 2 on the 12-pin interface connector) opened unexpectedly so the laser was shutdown.	Trigger 1 Control or "Clear Alarms"
Er20	Fiber Interlock Shutdown	While emission was ON, the fiber interlock opened which resulted in the laser being shutdown. Check fiber cable to torch connection.	Trigger 1 Control or "Clear Alarms"
Er21	Nozzle Shutdown	While emission was ON, the nozzle to workpiece clamp interlock opened which resulted in the laser being shutdown (e.g. During welding the operator lifted nozzle off part while still pressing Trigger 2).	Trigger 1 Control or "Clear Alarms"
Er22	Trigger 1 Shutdown	While emission was ON, the Trigger 1 interlock opened which resulted in the laser being shutdown (e.g. During welding the operator released the Trigger 1 gas control on the torch).	Trigger 1 Control or "Clear Alarms"
Er23	PS Voltage	On the rising edge of emission ON, detected that the laser power supply was not regulating the voltage properly.	Trigger 1 Control or "Clear Alarms"
Er24	PS Current	While emission was ON, detected that the laser power supply was not regulating current properly.	Trigger 1 Control or "Clear Alarms"
Er25	Nozzle Startup	On system power up via keyswitch, E-Stop, or AC power the nozzle interlock was closed.	Open nozzle interlock (e.g. lift nozzle off part) then clear by Trigger 1 Control or "Clear Alarms"
Er26	Trigger 1 Startup	On system power up via keyswitch, E-Stop, or AC power the Trigger 1 interlock was closed.	Open Trigger 1 interlock (e.g. release Trigger 1 Control on torch) then clear by Trigger 1 Control or "Clear Alarms"
Er27	Thermal Shutdown	The system's optical or electrical model determined the laser diodes were going to overheat.	Wait until the model(s) have cooled to a safe operating temperature with emission OFF then use Trigger 1 Control or "Clear Alarms"
Er28	Nozzle Reset	Emission has occurred 25 times without the nozzle interlock opening up.	Open nozzle interlock (e.g. lift nozzle off part) then clear by Trigger 1 Control or "Clear Alarms"
Er29	Trigger 1 Reset	Emission has occurred 25 times without the Trigger 1 interlock opening up.	Open Trigger 1 interlock (e.g. release Trigger 1 Control on torch) then clear by Trigger 1 Control or "Clear Alarms"
Er30	Gas Shutdown	Gas pressure was not detected while emission was ON or the laser tried to fire before gas delay was met.	Trigger 1 Control or "Clear Alarms"
Er31	Fan Alarm	Either fan was not detected spinning, checks continuously after 30 second startup delay.	Trigger 1 Control or "Clear Alarms" once fans resume spinning