



AMTEC Fault List

Hardware	Software	Physical	NO	NC	Location	Fault Description	Quick Setup	RF Board = RFB Software = S Physical = Blank	Trigger	Symptom	
	X				0	Hyd Power Unit	Pressure Fault	Unplug Pressure Switch or Change set point on switch/ hmi		Start Hydraulic power unit motor.	Fault, Hyd power unit motor shuts down.
	X				0a	Hyd Power Unit	Pressure Fault	Change set point on switch/ hmi	S	Start Hydraulic power unit motor.	Fault, Hyd power unit motor shuts down.
	X				1	Hyd Power Unit	Disconnect Fault	Turn Off Hyd Motor Disconnect		NA, Have machine power on.	Fault, Hyd power unit motor does not start. Permissive
	X				2	Hyd Power Unit	Disconnect Fault	Unplug Hyd Motor from Disconnect		NA, Have machine power on.	Fault, Hyd power unit motor does not start.
	X				3	Hyd Power Unit	Level Fault	Unplug level switch		NA, Have machine power on.	Fault, Hyd power unit motor does not start.
	X	X			3a	Hyd Power Unit	Level Fault	Open signal wire from level switch (Open NC with RFB)	RFB-1	NA, Have machine power on.	Fault, Hyd power unit motor does not start. SW to input card... no contacts on Prints? Look at 1805
	X				4	Hyd Power Unit	Overload / Motor Circuit Protector	Turn off Hyd Motor Circuit Protector		NA, Have machine power on.	Fault, Hyd power unit motor does not start. Permissive
	X				5	Load	Cycle Start PB Tie Down Fault	Put debris in optical touch button beam		Machine in Auto Mode	Fault, no Auto cycle
			X		6	Load	Light Curtain "NOK"	Light curtain Cable (Emitter or Receiver) (Open NC with RFB)	RFB-2	Press Cycle Start	Unable to cycle 1117 input to safety controller
	X				7	Load	Machine E-Stops	Unplug (1 of 2) Clear to Enter Relays		Load Part when "Clear to Enter" light is on.	E-Stops machine when beam broken during Auto cycle
	X				8	Load	Part Load Fault	Machine in Auto cycle		Load Part when "Clear to Enter" light is not on.	E-Stops machine when beam broken during Auto cycle misc student triggered
	X				9	Load	Part Present Fault	Part Present Photo Eye not broken - Don't load a part	S	Cycle Start PB is pressed @ load station	Fault, no Auto cycle
X		X			9a	Load	Part Present Fault	Part Present Photo Eye broken (Close NO with RFB)	RFB-3	Cycle Start PB is pressed @ load station	Fault, no Auto cycle
	X				10	Load Conveyor	Power On Fault	Put debris between safety gate (Top) and frame. Prevents safety gate from closing.		NA, Press Master start	Fault, Unable to power on machine level 2-3
	X				10	Load Conveyor	Pull Cord Fault	Pull Cord	++++	NA, Press Master start	Fault, Unable to power on machine Permissive
	X				11	Load Conveyor VFD	Disconnect Fault	Turn Off VFD Motor Disconnect		NA, Have machine power on.	Fault, Load Conveyor motor does not start. Permissive
	X				12	Load Conveyor VFD	Disconnect Fault	Unplug VFD Motor from Disconnect		NA, Have machine power on.	Fault, Load Conveyor motor does not start.
X					13	Load Conveyor VFD	No Conveyor Motion	VFD speed wire moved on terminal or Set Speed to "0" on Hmi.	S	Start Load Conveyor	Rollers don't turn. Cross shift
X		X			13a	Load Conveyor VFD	No Conveyor Motion	VFD FWD command wire open (Open NC with RFB)	RFB-4	Start Load Conveyor	Rollers don't turn.
X	X				14	Load Conveyor VFD	Overload / Motor Circuit Protector	Turn off VFD Motor Circuit Protector		NA, Have machine power on.	Fault, Load Conveyor motor does not start.
X		X			15	Load Conveyor VFD	VFD Fault	Move Fault wire on VFD. VFD reset stuck on (Close NO with RFB)	RFB-5	NA, Have machine power on.	Fault, VFD inoperable from PLC.
	X				16	Load Conveyor VFD	VFD Not Ready	Turn off VFD Enable Power CB		Attempt to Start Load Conveyor	Fault, VFD inoperable from PLC. Permissives
X			X		17	Load Conveyor VFD	VFD Run Fault	VFD run wire moved on terminal. Wire open. (Open NC with RFB)	RFB-6	Start Load Conveyor	Fault, VFD not running. Rollers don't turn.
X					18	Load Conveyor VFD	VFD Run Fault	VFD running wire moved on terminal. (Change parameters from HMI)	S	Start Load Conveyor	Fault, VFD Run input not on to plc. Rollers turning.
	X				19	Lube	Lube Fault	Unplug lube cycle switch		Cycle Lube System	Fault, lube cycle does not complete
	X				20	Lube	Lube Fault	Unplug lube solenoid		Cycle Lube System	Fault, lube cycle does not complete
	X				21	Pneumatic	Air Fault	Shut off Main Air Supply		NA, Have machine power on.	Machine Will Not Auto Cycle Permissives
	X				22	Pneumatic	Air Fault	Unplug Air Pressure Switch		NA, Have machine power on.	Machine Will Not Auto Cycle
	X				23	Pneumatic	Air Fault	Adjust Air regulator to < 60 psi		NA, Have machine power on.	Machine Will Not Auto Cycle
X			X		24	Pneumatic	Air Fault	Unplug Air On Sol (Open NC with RFB)	RFB-7	NA, Have machine power on.	Machine Will Not Auto Cycle 4802
	X				25	Robot	Robot Fault	Turn off robot power ss		NA, Have machine power on.	Fault, Robot does not start. Permissives
	X				26	Robot	Disconnect Fault	Turn Off Robot Power Disconnect		NA, Have machine power on.	Fault, Robot does not start.
	X				27	Robot	Disconnect Fault	Unplug Robot from Disconnect		NA, Have machine power on.	Fault, Robot does not start.
	X				28	Robot	No Motion	Put robot in T1 Mode - ss		Attempt to cycle start robot from HMI	Robot does not move Cross shift
	X				29	Robot	Power On Fault	Put debris between safety gate (Rear) and frame. Prevents safety gate from closing.		NA, Press Master start	Fault, Unable to power on machine Permissive
	X				30	Robot	Robot Cycle Overtime Fault	Slow robot speed to "0"		Cycle Robot	Fault, Robot does not complete cycle in allotted time Cross shift
	X				31	Robot	Robot Fault	Unplug Pendant		NA, Have machine power on.	Fault, no Auto cycle
	X				32	Robot	Robot not Clear	Move robot into conveyor zone		Cycle Start System	Parts will not feed to robot area Cross shift
	X				33	Robot	Vacuum Fault	Install plug in air line to vacuum generator		u	Fault, Robot does not complete cycle
	X				34	System	Power On Fault	Turn of CB that feeds Safety Power		NA, Press Master start	Fault, Unable to power on machine Permissive
X			X		35	Unload Conveyor	Motor Run Fault	Motor Starter run wire moved on terminal coil open (Open NC with RFB)	RFB-8	Start Unload Conveyor	Fault, motor not running. Rollers don't turn.
X			X		36	Unload Conveyor	No Conveyor Motion	Unplug Hyd Run Sol (Open NC with RFB)	RFB-9	Start Unload Load Conveyor	Rollers don't turn. 4914 level 1 ??
	X				37	Unload Conveyor	Power On Fault	Put debris between safety gate (Robot) and frame. Prevents safety gate from closing.		NA, Press Master start	Fault, Unable to power on machine Permissive
	X				38	Unload Conveyor	Power On Fault	Put debris between safety gate (Top) and frame. Prevents safety gate from closing.		NA, Press Master start	Fault, Unable to power on machine Permissive
	X				39	Unload Pusher	Advance Fault	Place "debris" in stroke motion (flip over stop?)		Advance Unload pusher	Fault, unload pusher does not make advanced position. Cross shift
X			X		40	Unload Pusher	Advance Fault	Unplug Unload Pusher Advance Sol (Open NC with RFB)	RFB-10	Advance Unload pusher	Fault, unload pusher does not make advanced position. 4904 - level 1
	X				41	Unload Pusher	Part Exit Fault	Block Chute Full Photo-Eye	S	Cycle Unload Pusher	Fault, no Auto cycle
	X				42	Unload Pusher	Power On Fault	Put debris between safety gate (End) and frame. Prevents safety gate from closing.		NA, Press Master start	Fault, Unable to power on machine Permissive
					43	Unload Pusher	Power On Fault	Put debris between safety gate (End) and frame. Prevents safety gate from closing.		NA, Press Master start	Fault, Unable to power on machine Permissive
X				X	44	Unload Pusher	Return Fault	Servo (Pneumatic - return reed switch?) - returned wire moved on terminal. (Open NC with RFB)	RFB-11	Return Unload Pusher	Fault, unload pusher does not make return position. 5113 level 1 ?
	X				45	Unload Pusher	Return Fault	Unplug Unload Pusher Return Sol		Return Unload Pusher	Fault, unload pusher does not make return position.
	X				46	Unload Pusher	Stop Advance Fault	Unplug Stop Advanced Switch		Advance Unload Pusher Stop	Fault, no Auto cycle
X			X		47	Unload Pusher	Stop Advance Fault	Unplug Stop Advance Sol (Open NC with RFB)	RFB-12	Advance Unload Pusher Stop	Fault, no Auto cycle 4906 level 1
	X				48	Unload Pusher	Stop Return Fault	Move Stop Advanced Switch to Returned Position	S	Return Unload Pusher Stop	Fault, no Auto cycle
		X			49	Unload Pusher	Will not cycle while in Auto Cycle	Rotate part present so metal tag is not in front of part present proximity switch		Cycle Unload Pusher	Machine will not unload part. Misloaded part

Hardware	Software	Physical	NO	NC		Location	Fault Description	Quick Setup	RF Board = RFB Software = S Physical = Blank	Trigger	Symptom		
		X			50	Xfer Pusher	Advance Fault	Place "debris" in stroke motion (flip over stop?)		Advance Xfer pusher	Fault, transfer pusher does not make advanced position.		
X				X	51	Xfer Pusher	Reference Fault	Servo homed wire moved-on-terminal (Open NC with RFB)	RFB-13	Home Xfer pusher	Fault, transfer pusher does not indicate a position.		
		X			52	Xfer Pusher	Return Fault	Servo returned wire moved-on-terminal disconnected		Return Xfer Pusher	Fault, transfer pusher does not make return position.		
		X			53	Xfer Pusher	Servo Fault	Move Fault wire on Servo (tape and reinsert to simulate open)		NA, Have machine power on.	Fault, Servo inoperable from PLC.		
		X			54	Xfer Pusher	Servo Fault	Unplug servo motor power cable		Attempt to move xfer pusher	Fault, Servo inoperable from PLC.		
		X			55	Xfer Pusher	Servo Fault	Unplug servo motor encoder cable		Attempt to move xfer pusher	Fault, Servo inoperable from PLC.		
		X			56	Xfer Pusher	Servo Fault	Move over travel + switch to within stroke motion		Advance Xfer Pusher	Fault, transfer pusher stops, will not move in advance +	Cross shift	
		X			57	Xfer Pusher	Servo Fault	Move over travel - switch to within stroke motion		Return or Home Xfer Pusher	Fault, transfer pusher stops, will not move in return - direction.	Cross shift	
		X			58	Xfer Pusher	Servo Not Ready	Turn off Servo Enable Power CB		Attempt to move xfer pusher	Fault, Servo inoperable from PLC.	Permissive	
		X			60	Xfer Pusher	Stop Advance Fault	Unplug Stop Advance Sol		Advance Xfer Pusher Stop	Fault, no Auto cycle		
		X			60a	Xfer Pusher	Stop Advance Fault	Unplug Stop Advance Sol (Open NC with RFB)	RFB-14	Advance Xfer Pusher Stop	Fault, no Auto cycle		
		X			61	Xfer Pusher	Stop Return Fault	Move Stop Advanced Switch to Returned Position		Return Xfer Pusher Stop	Fault, no Auto cycle		
		X			62	HMI	Disable Fault Messages	Enter code to disable		Instructor discretion	No annunciator messages to identify subsystem		
X				X	63	Junction Box	Common disconnected	Open common wire (Open NC with RFB)	RFB-15	Attempt to operate	Chosen subsystem will not work		
X		X			64	Mat Switch	Mat switch shorted	Short mat switch (Close NO with RFB)	RFB-16	Part in position to unload	Part will not push out	4904 ?	
		X			65	PLC	Communication Fault	Loose cable connection		Attempt to operate	No fault, no action from machine		
		X			66	PLC	Communication Fault	Duplicate IP address		Attempt to operate	No fault, no action from machine	Cross shift	
		X			67	PLC	Wiped memory	Use laptop to erase PLC memory		Attempt to operate	No fault, no action from machine	Cross shift	
		X			68	PLC	Bad battery	Disconnect battery		Restart after power down condition, memory lost	No fault, no action from machine		
		X			69	PLC	Inputs won't work	Input module inhibited		Attempt to operate	Inputs not functional	Cross shift	
		X			70	PLC	Communication Fault	Communication module configuration wrong (version number)		Attempt to operate	Remote devices not operating		
		X			71	PLC	I/O not working properly	I/O forces present and enabled (stoppers?)		Operation in auto	Unexpected action from machine	Cross shift	
		X			72	PLC	Major Fault	Turn on system bit to force major fault		Machine down	Fault, no action from machine		
					73								
					74								
					75								
					76								

- In- cycle level 1
- Needs to be checked out
- Permissives
- Cross shift



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