APL Electrical Block Diagram

10-4112J	PDB - Power Box
PS1	
PS2	
PS3	
PS4	
PS5	
Bay1,2	Unlock sol
Emergency stop	ES1-5
Bay lights	
Base machine Vac Blower	
Shutter	
PTM Servo Drive	

10-4801C	Lionel 4 - Power Box
Light	SW1- bay1 Front SW2- bay2(3) Front SW3 - bay1 Rear SW4 - bay2 Rear
Shutter	
Pallet Detection	bay1-1 bay1-2 bay2-1 bay2-2
Servo Controller	
User Interface	bay1 Front bay1 Rear bay2 Front bay2 Rear

10-4227E Genine 5 - Table gantry, APL back	
Table	Up Transition Height Z home Z away Y home Y away Y safe home **Y motor + Drive** **Z motor** Z unlock left Z unlock right
PTP Y Unlock	
Plate Shifter home	
Plate Exit close	
Plate Transition	
Manifold Interface BRD - Plate transfer module manifold	

Genine 6 - Picker Gantry	
Picker	Crash sens Home right Home left
Picker gantry	frame manifold
Picker gantry table	Lock on rear Lock off rear Lock on front Lock off front
Picker gantry brake	Brake on front Brake off front Brake on rear Brake off rear
Picker gantry park	left right
Float bar	z home z away extend right retract right extend left extend right **Z motor**
Pusher	Y home Y away mate right mate left **Y motor +drive**
Plate Height	ind sens left (to genine 10) ind sens right (to genine 9)

Genine 7 - Picker Right Tower	
Right tower	Load cell LC2 Load cell Amp LCA2 ss sensor
Right Shoe	Z away Z home **Z motor** X home X away **X motor + drive** extend retract
Right pcup	up dn
Right plate	location 1 location 2 location 3
Right Y belt	lock(RSW1)
Right Y Track	brake(RSW2)
Dump valve	Manifold
Picker Right tower	Manifold

Genine 8 - Picker Left tower	
Left tower	Load cell LC2 Load cell Amp LCA2 ss sensor
Left Shoe	Z away Z home **Z motor** X home X away **X motor + drive** extend retract
Left pcup	up dn
Left plate	location 1 location 2 location 3
Left Y belt	lock(RSW1)
Left Y Track	brake(RSW2)
Picker Left tower	Manifold

Genine 9 - Pusher, Right Side	
Pusher right	X home X away **X motor** Z home Z away **Z motor + drive** Shoe min height ss presence
Plate height	right
Air Amp right	kick up kick dn
Pucher valve	Manifold

Genine 10 - Pusher, Center	
Pusher left	X home X away **X motor** Z home Z away **Z motor + drive** Shoe min height ss presence
Plate height	left
Air Amp left	kick up kick dn
Pusher	safe

Genine 11 - Pusher Left Side	
Pusher left	Y home(left hook) Y away(left hook)
Pusher right	Y home(right hook) Y away(right hook)
Push Y	Left plate hook advance motor Right plate hook advance motor

Power Supplies		
PS 1	166-00056	24V DC,200W Unswitched ,Pneumatics, boards power
PS 2	13-5165	48 DC,1000W,switched, Picker gantry stepper motors
PS 3	166-00106	12 V DC,25 V, Internal lighting
PS 4	166-00056	24V DC,200W Unswitched ,Servo Drive Control Power
PS 5	166-00057	48 DC,1000W,switched, PTM stepper motors

601-00109 PTM Servo Drive	
Servo Motor	M2
PS4	24V
Resistor Assy	

503-00429C Servo Isolation Brd	
Gantry detect Table gantry x home	