Appendix A
Block Diagrams

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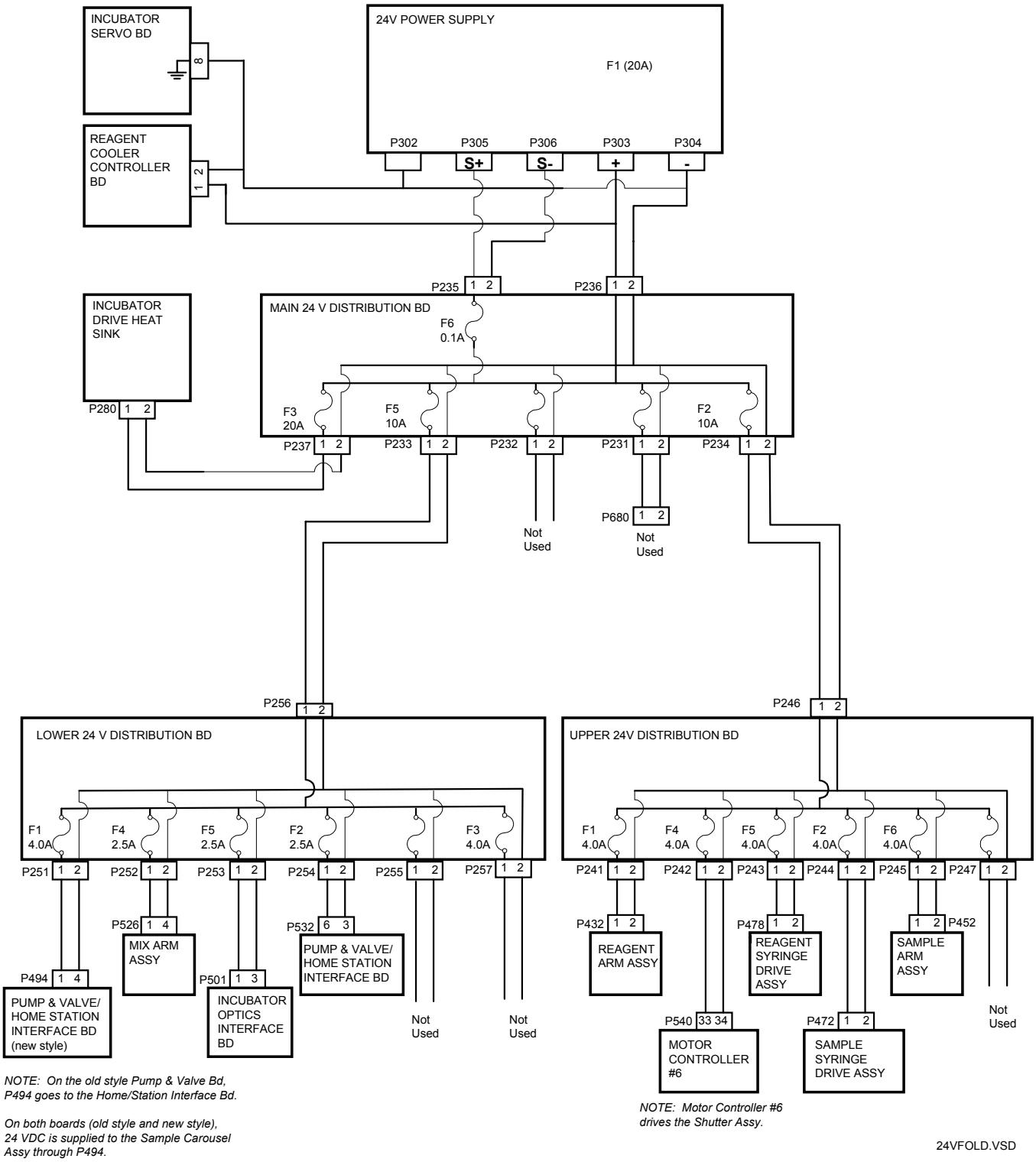
24V POWER SUPPLY WIRING DIAGRAM

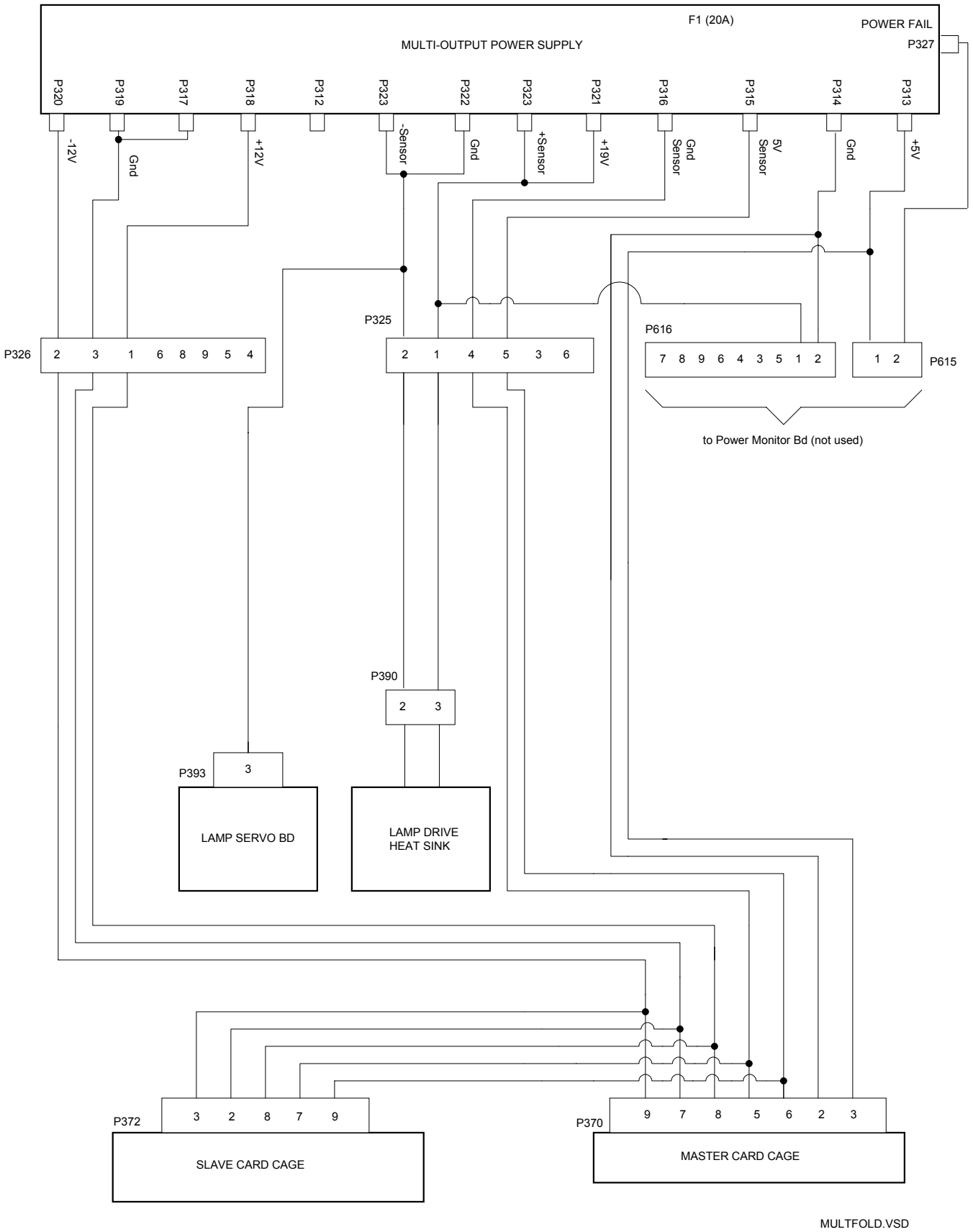


NOTE: On the old style Pump & Valve Bd, P494 goes to the Home/Station Interface Bd.

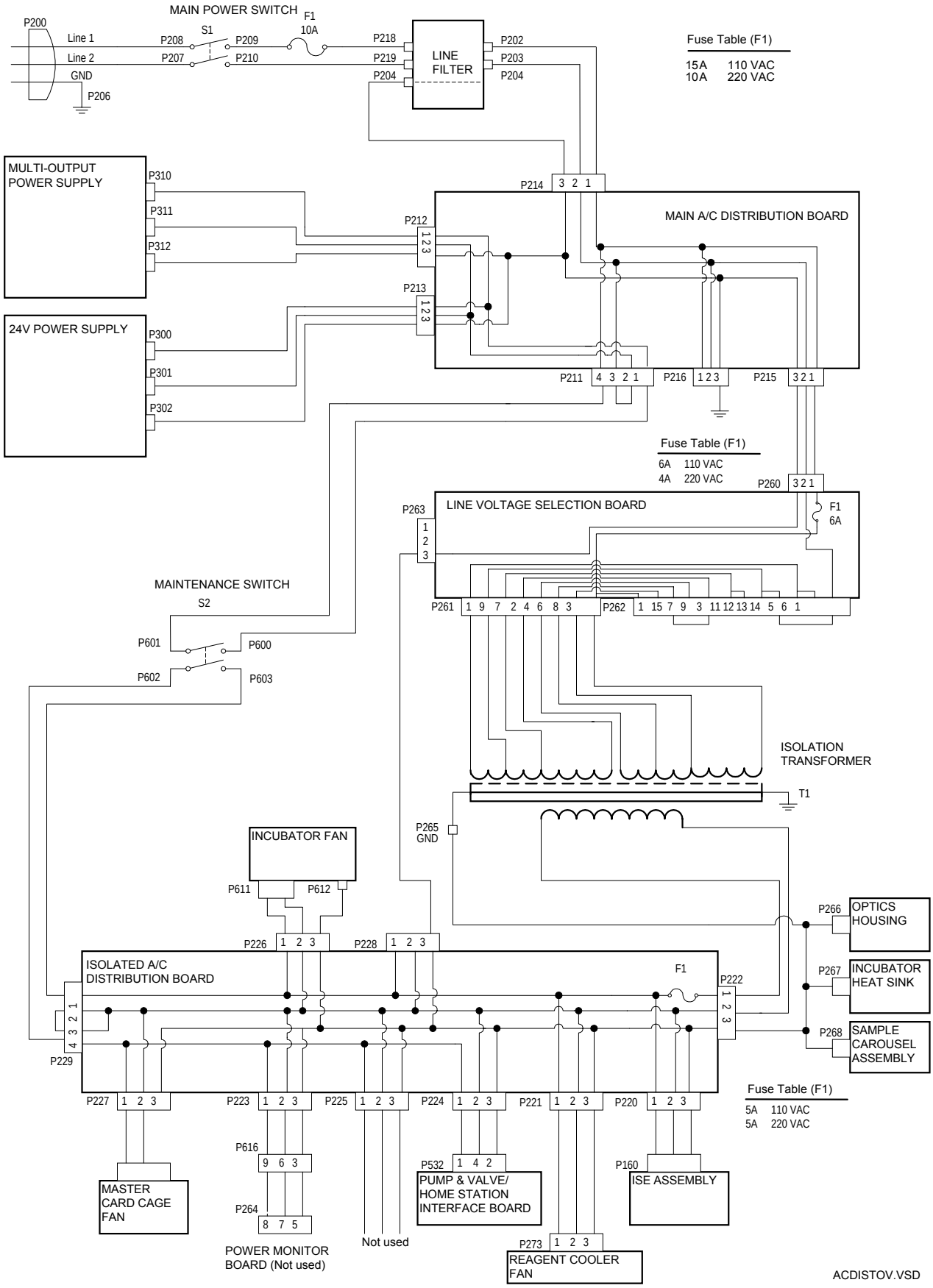
On both boards (old style and new style), 24 VDC is supplied to the Sample Carousel Assy through P494.

NOTE: Motor Controller #6 drives the Shutter Assy.

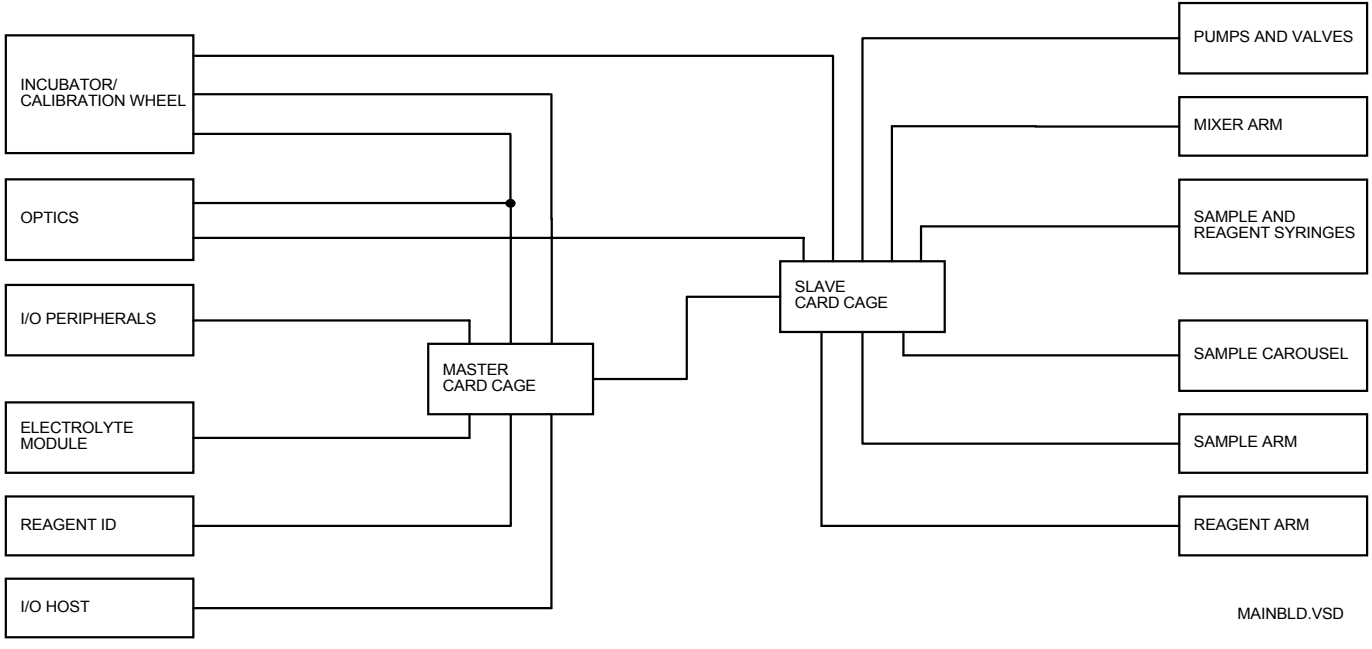
MULTI-OUTPUT POWER SUPPLY WIRING DIAGRAM



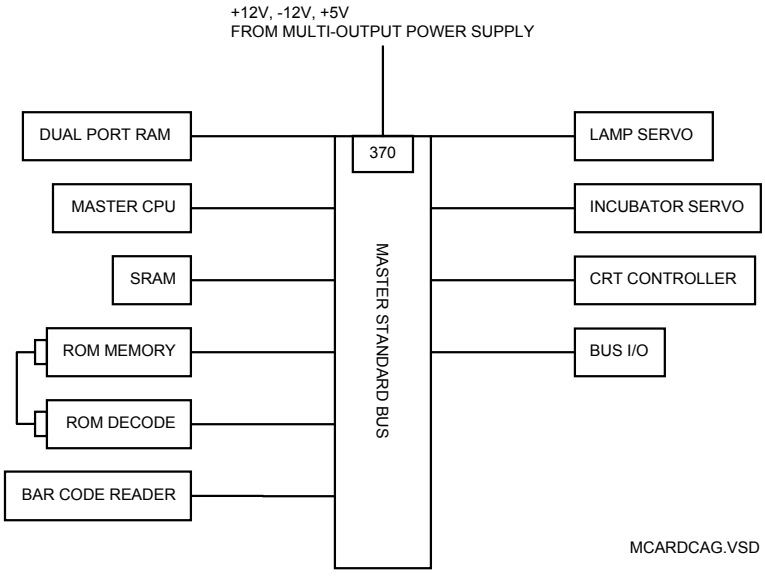
AC POWER DISTRIBUTION OVERVIEW



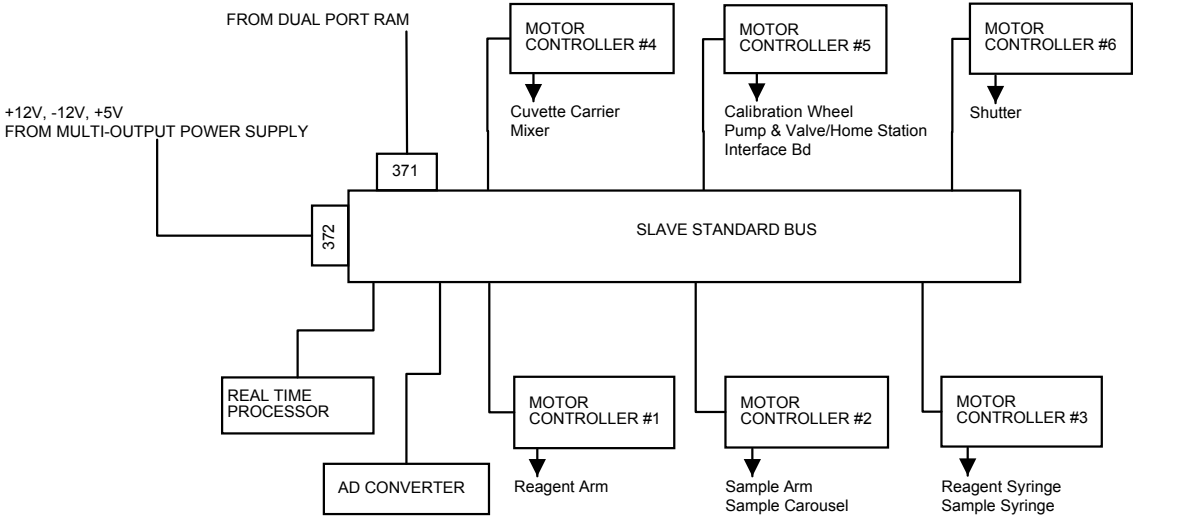
MAIN BLOCK DIAGRAM



MASTER CARD CAGE

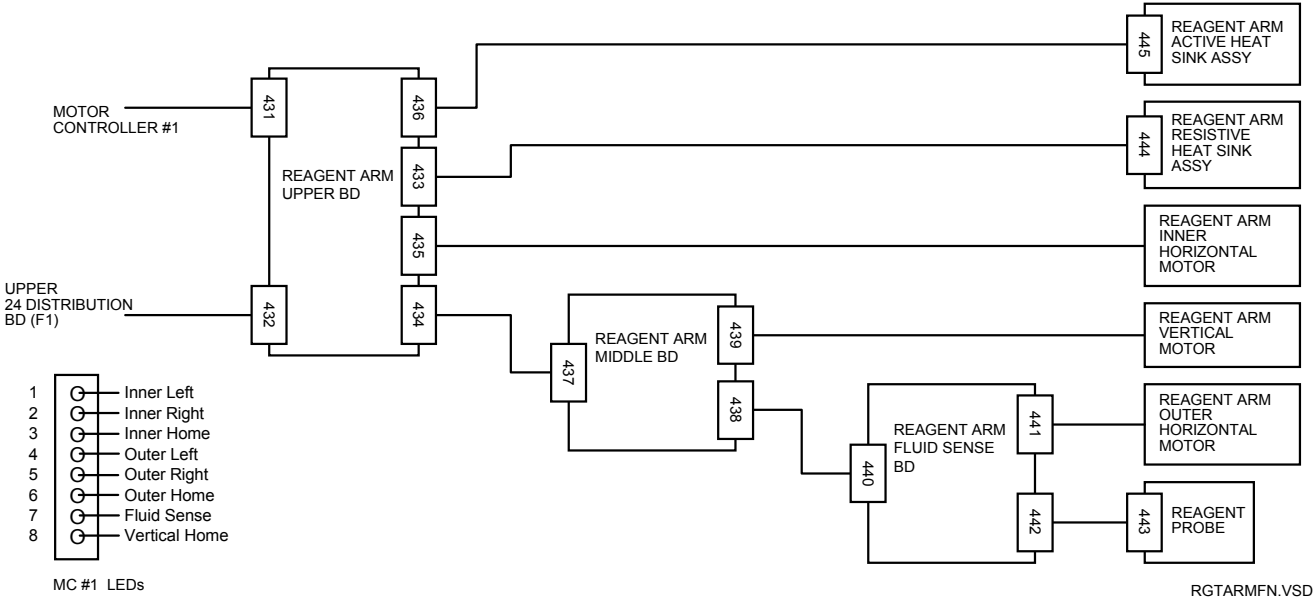


SLAVE CARD CAGE

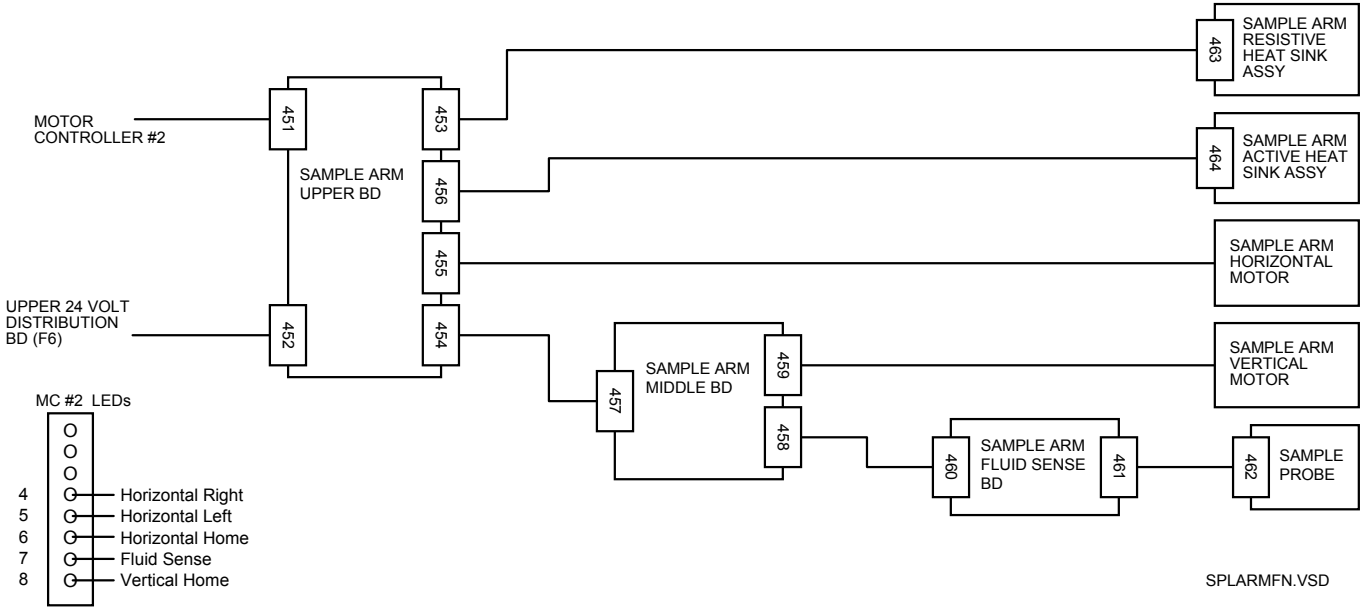


SLCARDCG.VSD

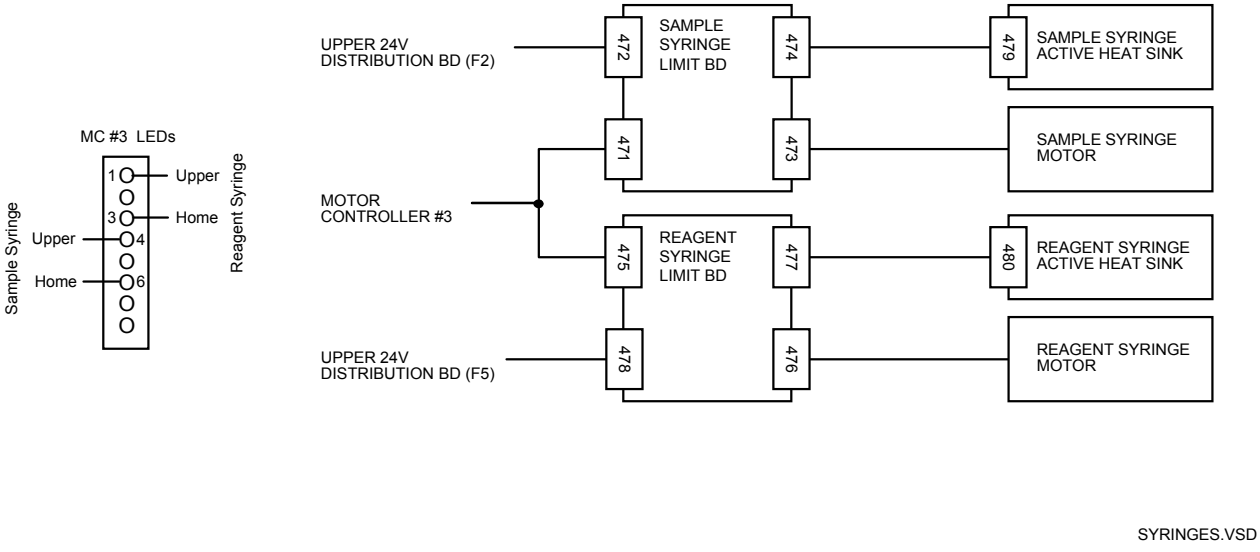
REAGENT ARM


MOTOR CONTROLLER #1
431
UPPER 24 DISTRIBUTION BD (F1)
432
REAGENT ARM UPPER BD
436
433
435
434
REAGENT ARM MIDDLE BD
437
439
438
REAGENT ARM FLUID SENSE BD
440
441
442
443
445
REAGENT ARM ACTIVE HEAT SINK ASSY
444
REAGENT ARM RESISTIVE HEAT SINK ASSY
REAGENT ARM INNER HORIZONTAL MOTOR
REAGENT ARM VERTICAL MOTOR
REAGENT ARM OUTER HORIZONTAL MOTOR
REAGENT PROBE
1 Inner Left
2 Inner Right
3 Inner Home
4 Outer Left
5 Outer Right
6 Outer Home
7 Fluid Sense
8 Vertical Home
MC #1 LEDs
RGTARMFN.VSD

SAMPLE ARM

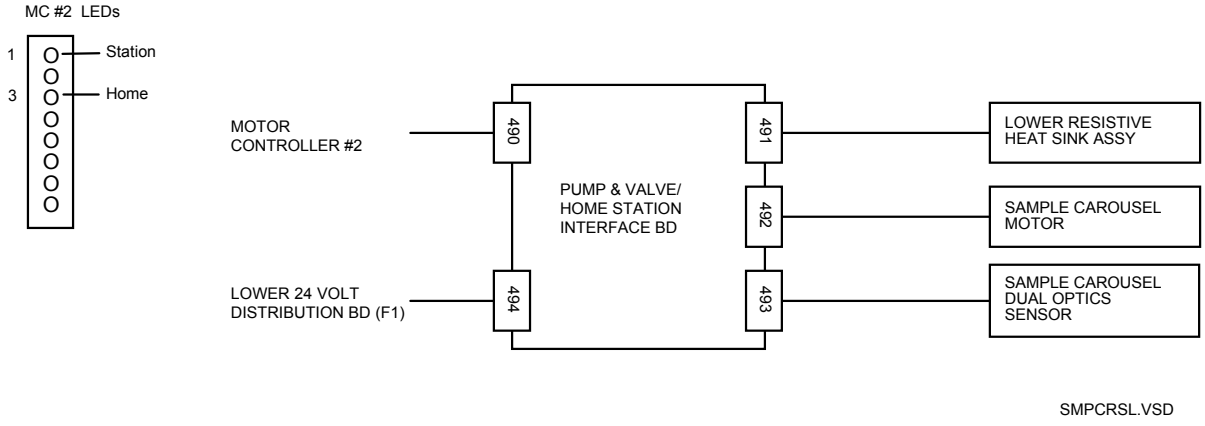

MOTOR CONTROLLER #2
451
SAMPLE ARM UPPER BD
453
456
455
454
UPPER 24 VOLT DISTRIBUTION BD (F6)
452
457
SAMPLE ARM MIDDLE BD
459
458
460
SAMPLE ARM FLUID SENSE BD
461
463
SAMPLE ARM RESISTIVE HEAT SINK ASSY
464
SAMPLE ARM ACTIVE HEAT SINK ASSY
SAMPLE ARM HORIZONTAL MOTOR
SAMPLE ARM VERTICAL MOTOR
462
SAMPLE PROBE
MC #2 LEDs
4 Horizontal Right
5 Horizontal Left
6 Horizontal Home
7 Fluid Sense
8 Vertical Home
SPLARMFN.VSD

SYRINGES (REAGENT AND SAMPLE)

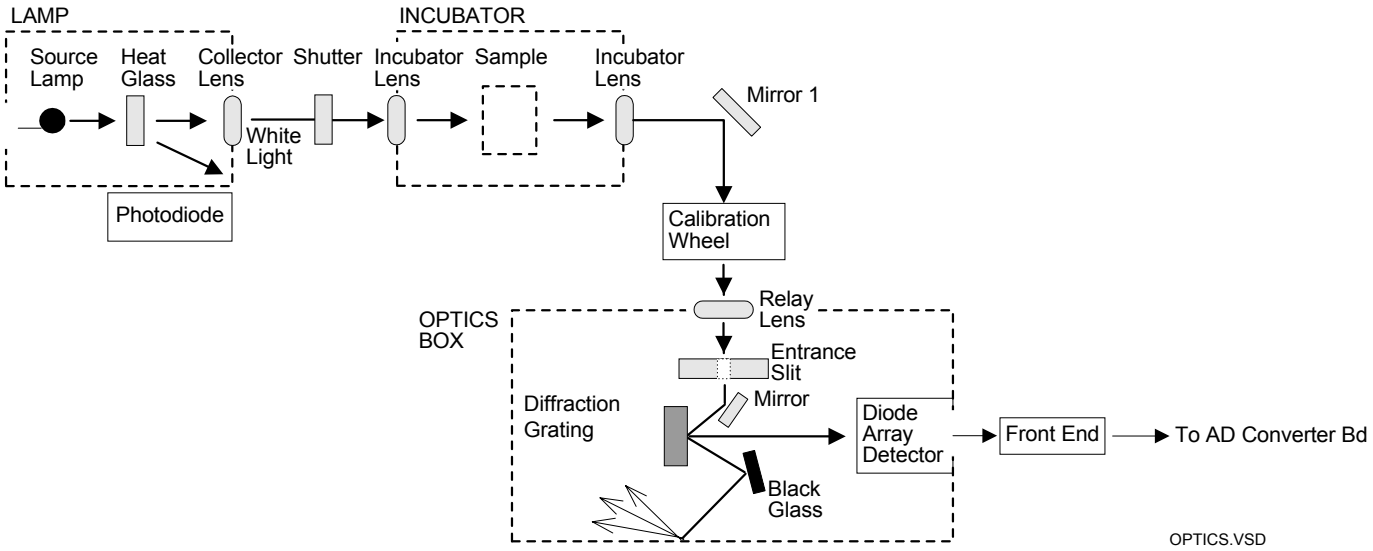


SYRINGES.VSD

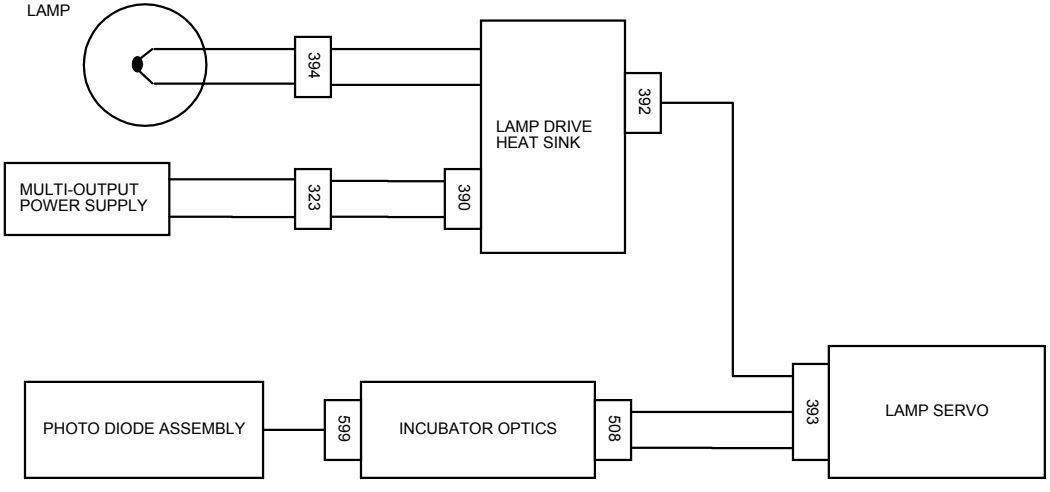
SAMPLE CAROUSEL DRIVE



OPTICS

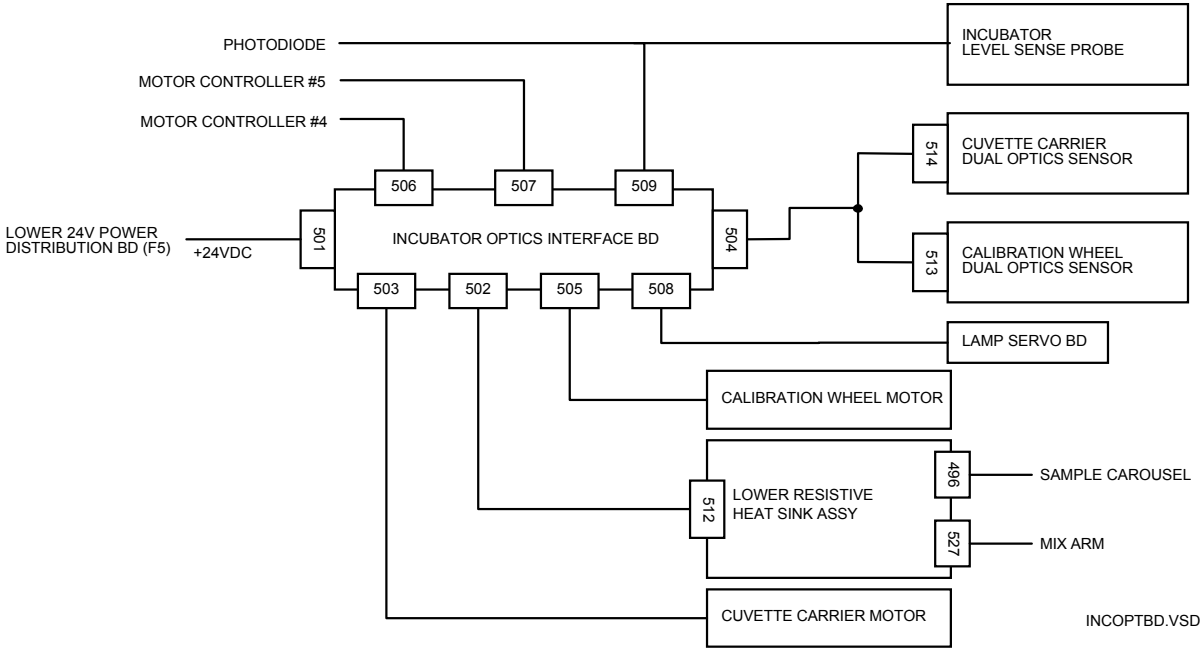

LAMP
INCUBATOR
Source Lamp
Heat Glass
Collector Lens
Shutter
Incubator Lens
Sample
Incubator Lens
Mirror 1
White Light
Photodiode
Calibration Wheel
OPTICS BOX
Relay Lens
Entrance Slit
Mirror
Diffraction Grating
Diode Array Detector
Front End
To AD Converter Bd
Black Glass
OPTICS.VSD

LAMP DRIVE

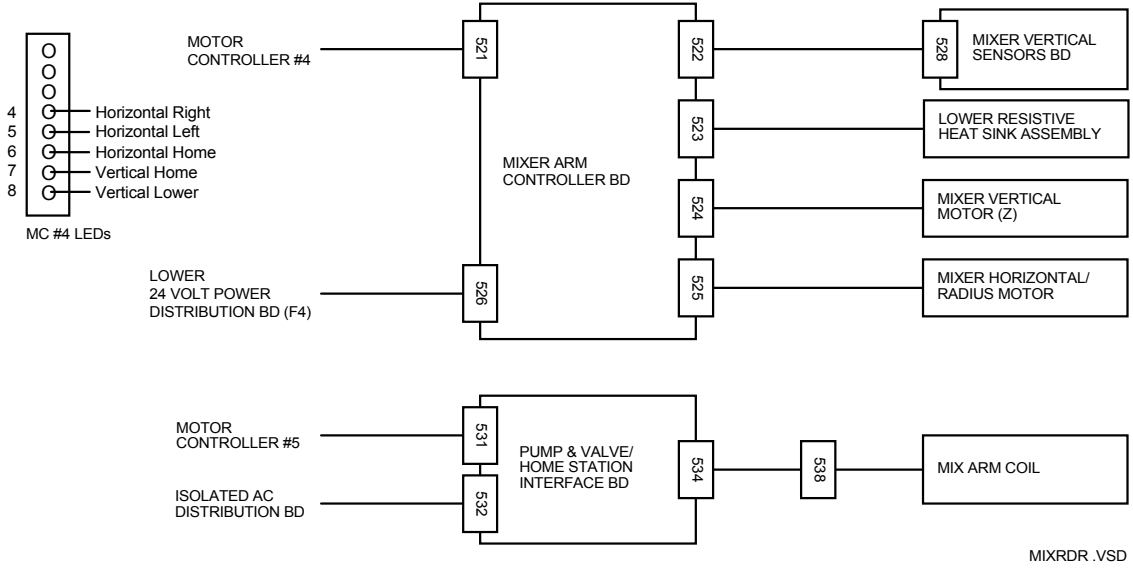


LAMPDRIV.VSD

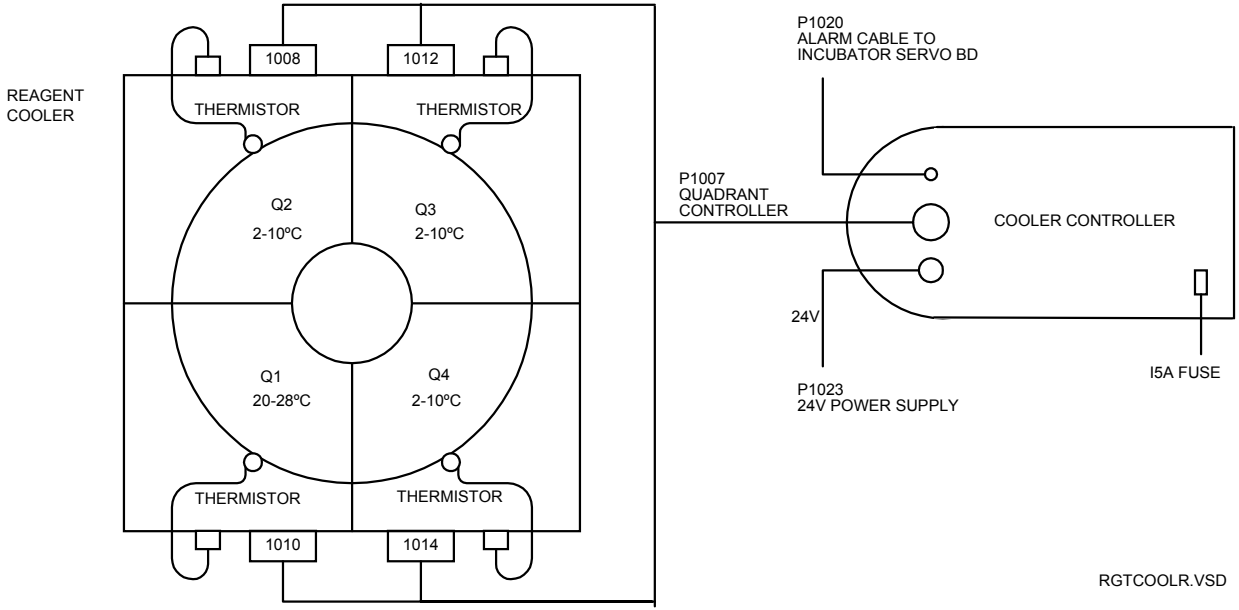
INCUBATOR OPTICS INTERFACE BOARD



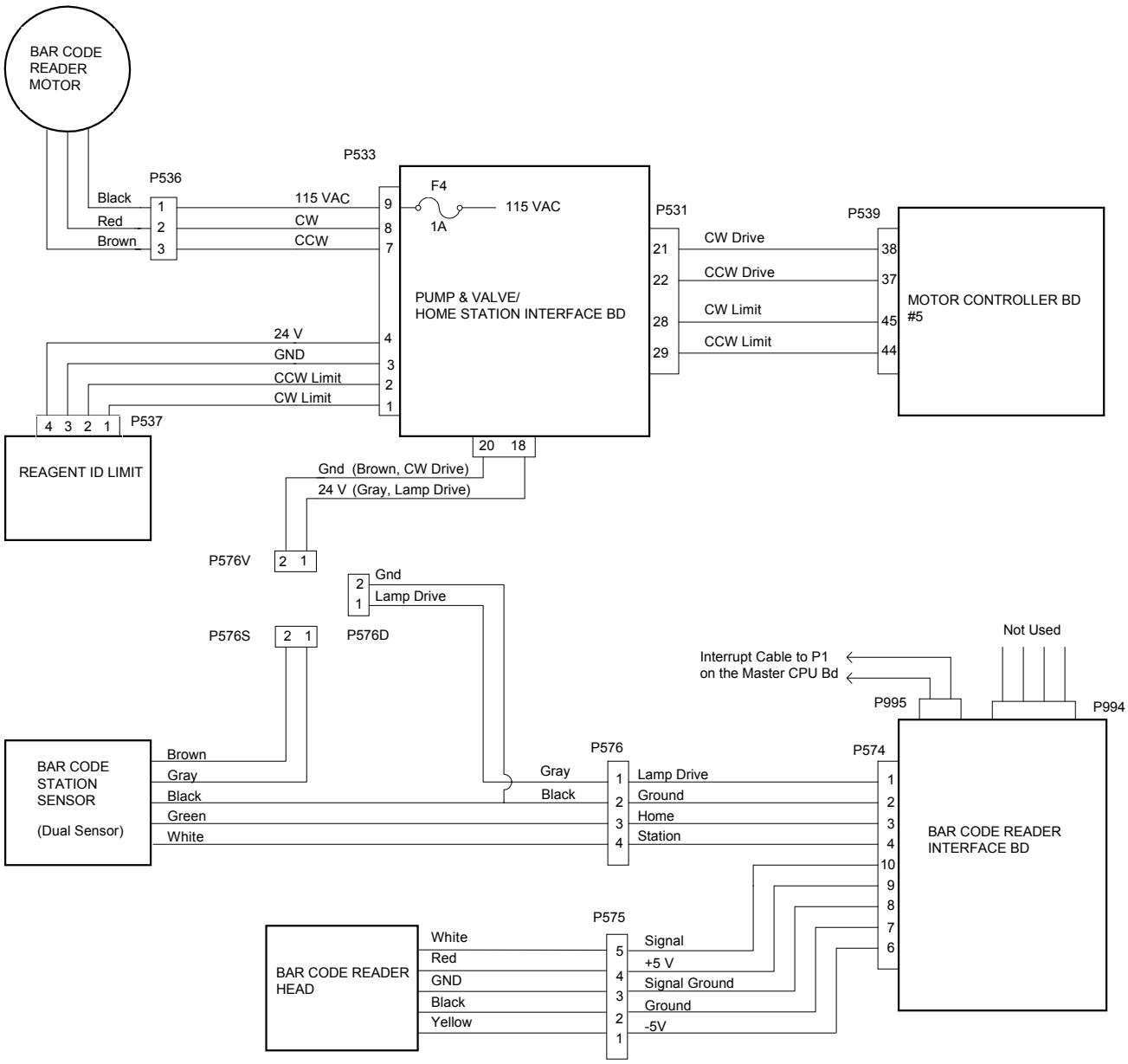
MIXER DRIVE


MOTOR CONTROLLER #4
521
522
528
MIXER VERTICAL SENSORS BD
4 Horizontal Right
5 Horizontal Left
6 Horizontal Home
7 Vertical Home
8 Vertical Lower
MC #4 LEDs
MIXER ARM CONTROLLER BD
523
LOWER RESISTIVE HEAT SINK ASSEMBLY
524
MIXER VERTICAL MOTOR (Z)
LOWER 24 VOLT POWER DISTRIBUTION BD (F4)
526
525
MIXER HORIZONTAL/ RADIUS MOTOR
MOTOR CONTROLLER #5
531
PUMP & VALVE/ HOME STATION INTERFACE BD
534
538
MIX ARM COIL
ISOLATED AC DISTRIBUTION BD
532
MIXRDR .VSD

REAGENT COOLER



REAGENT BAR CODE READER ASSEMBLY INTERCONNECT



NOTE: P576V connected to J576S only when Welch Allyn Interface and Welch Allyn reader head is used.

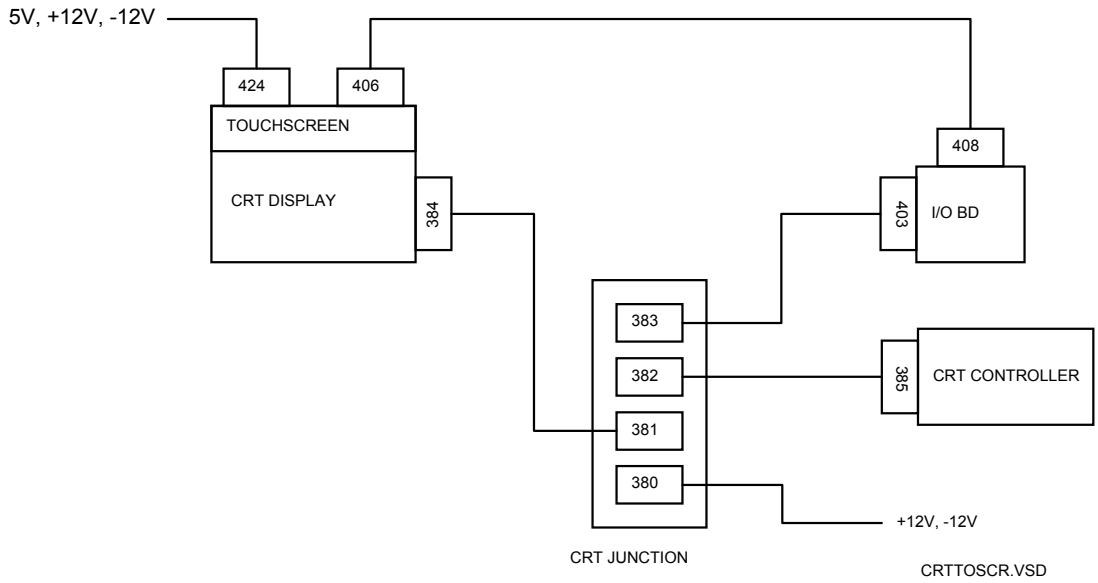
NOTE: Voltage between pins 1 and 2 of P576V will be 24 VDC only when reader head is driving clockwise.

NOTE: J576S and P576D are used only with the InterMec board and Bar Code Reader Head.

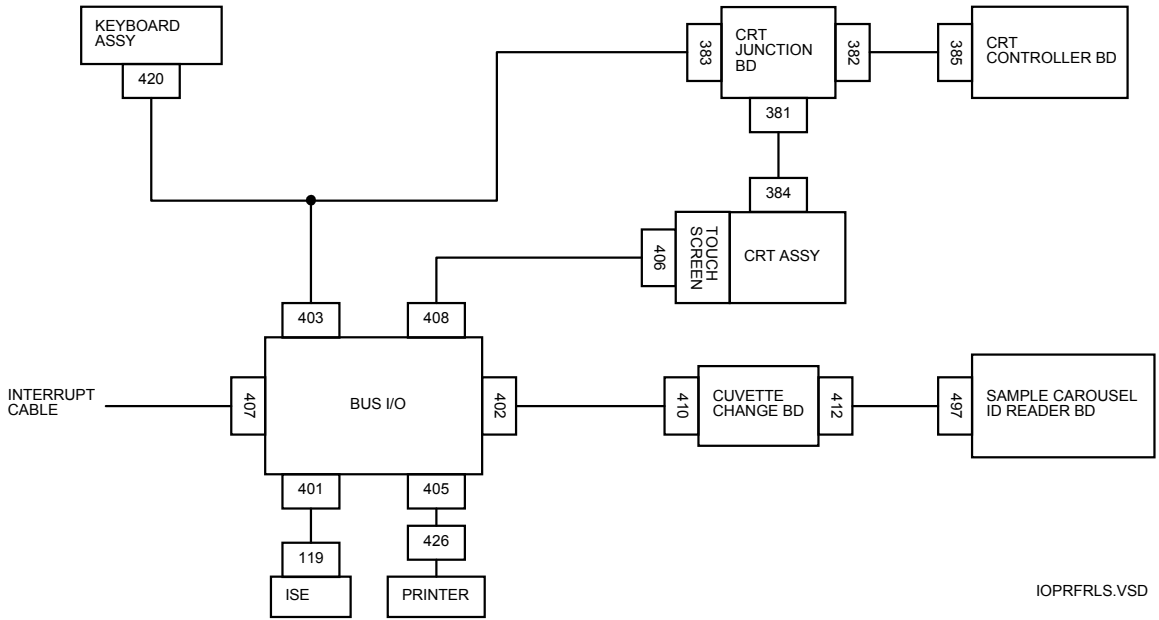
Bar Code Reader Bd	Bar Code Reader Head	Interface Bd Needed	576S	576D	576V
InterMec	InterMec	No	Yes	Yes *or*	Yes
InterMec	Welch Allyn	No	Yes	Yes *or*	Yes
Welch Allyn	Intermec	*This combination will not work.*			
Welch Allyn	Welch Allyn	No	Yes		Yes

BARCODE.VSD

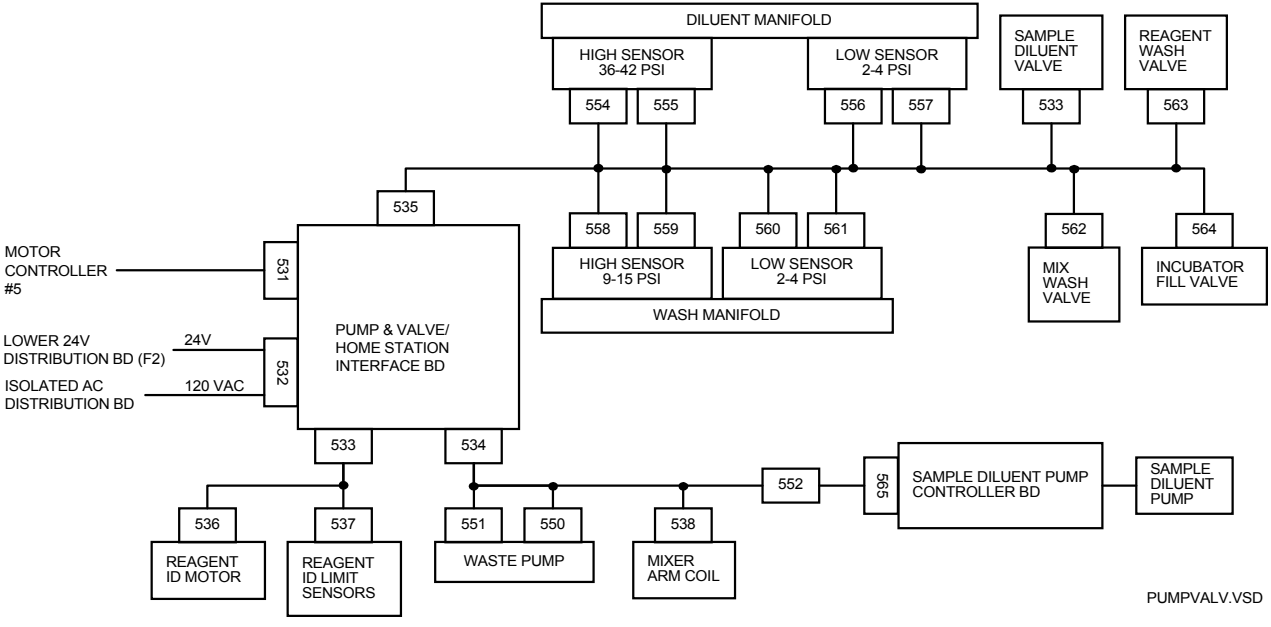
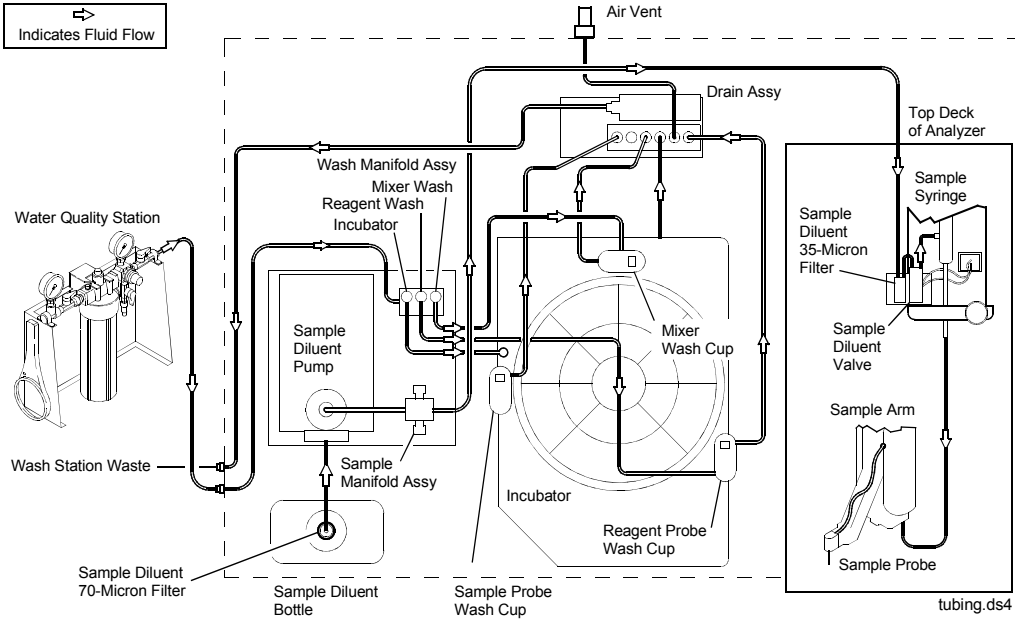
CRT AND TOUCHSCREEN



I/O PERIPHERALS



PUMPS AND VALVES



WATER SYSTEM