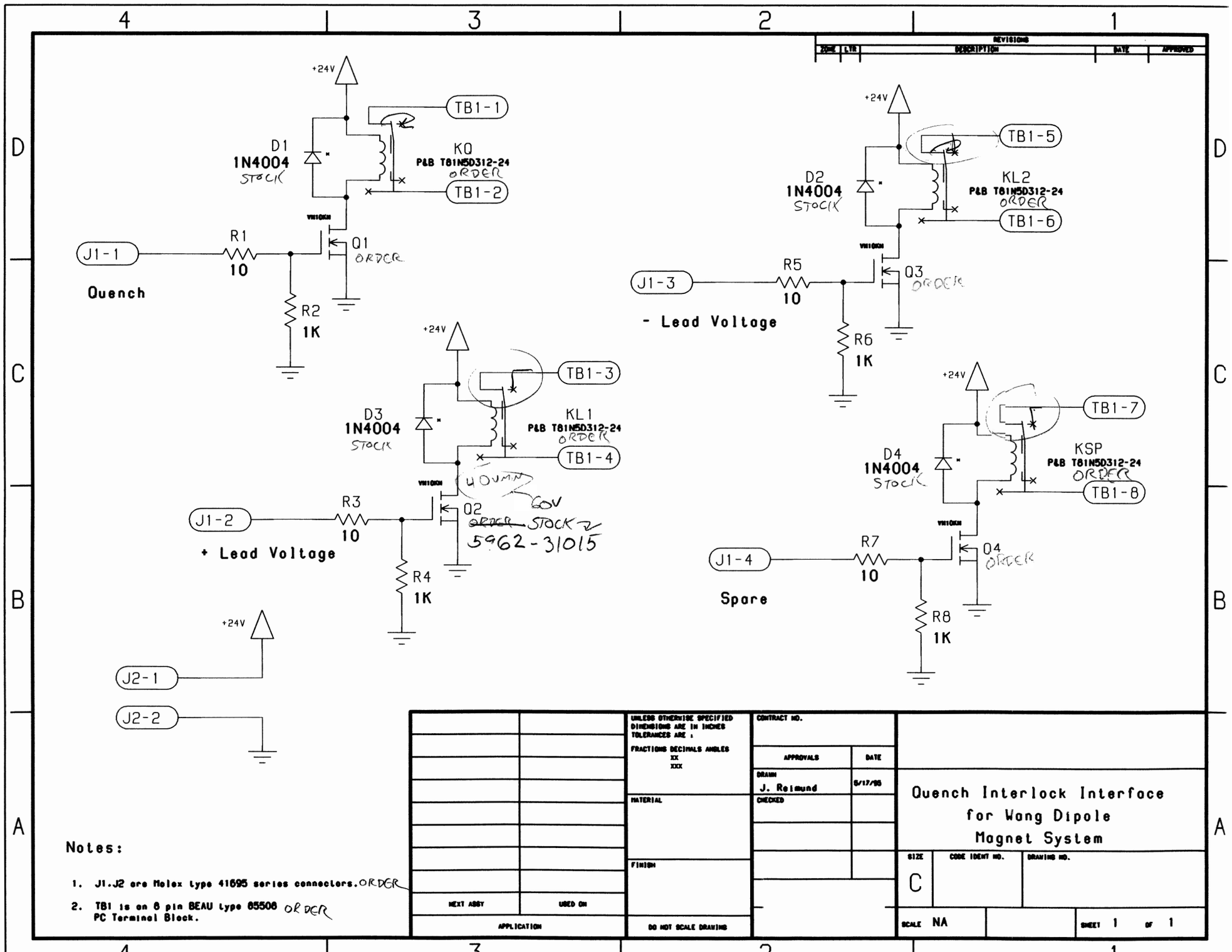
PARTS 2x



Notes:

1. J1,J2 are Molex type 41695 series connectors. ORDER
2. TB1 is an 8 pin BEAU type 65506 ORDER PC Terminal Block.

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPROVED

NEXT ASSY	USED ON
APPLICATION	

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
TOLERANCES ARE :
FRACTIONS DECIMALS ANGLES
XX
XXX

MATERIAL

FINISH

DO NOT SCALE DRAWING

CONTRACT NO.

APPROVALS	DATE
DRAWN J. Reimund	6/17/95
CHECKED	

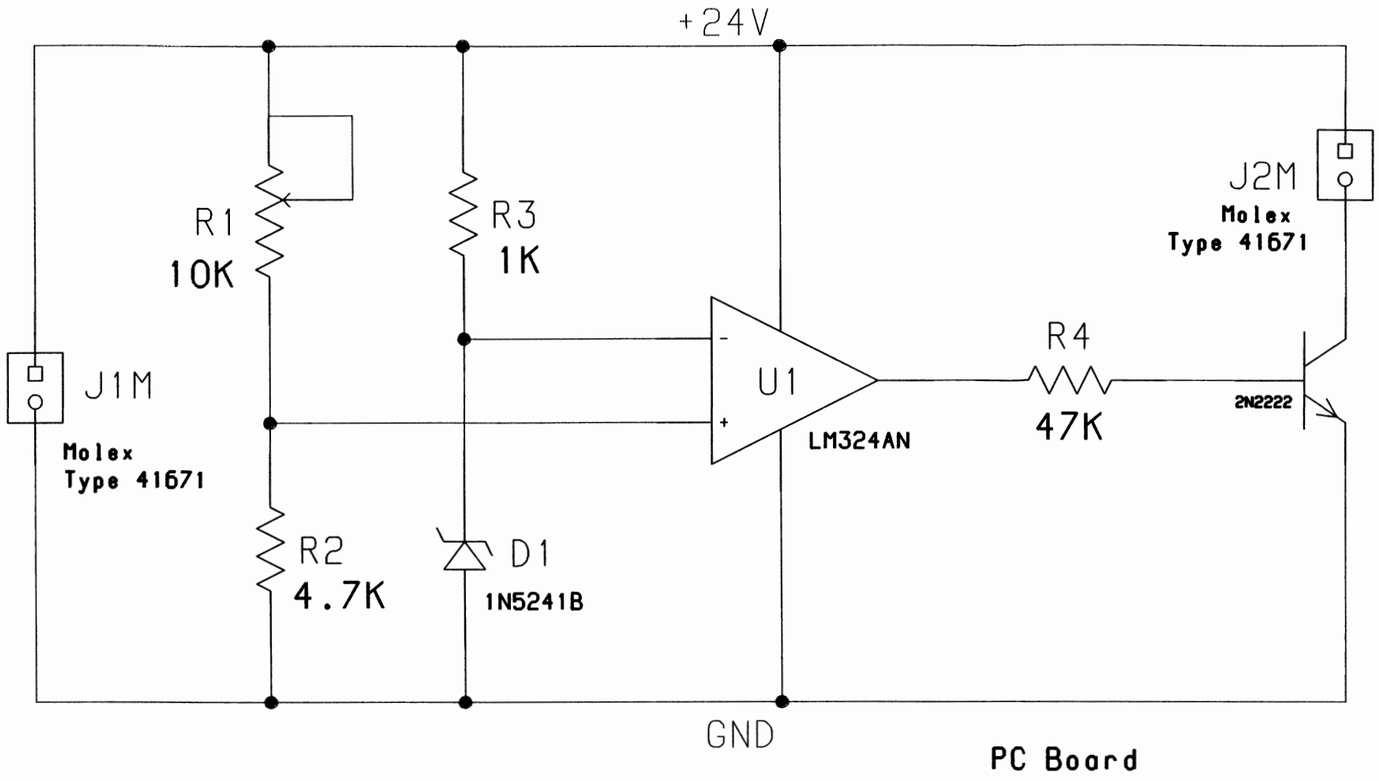
Quench Interlock Interface for Wang Dipole Magnet System

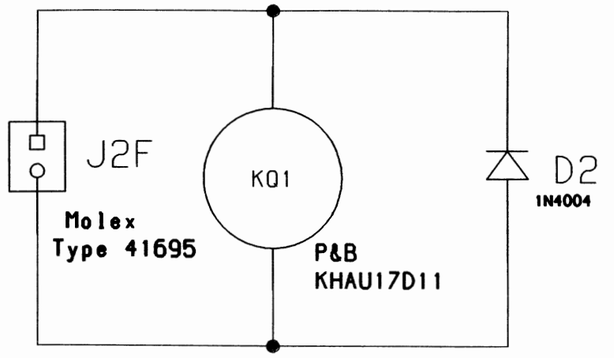
SIZE	CODE IDENT NO.	DRAWING NO.
C		

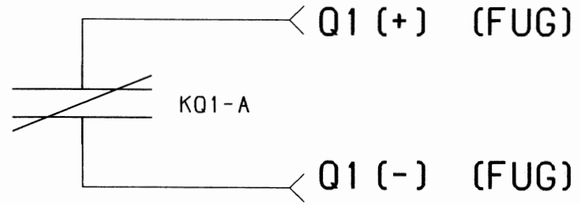
SCALE NA

SHEET 1 OF 1

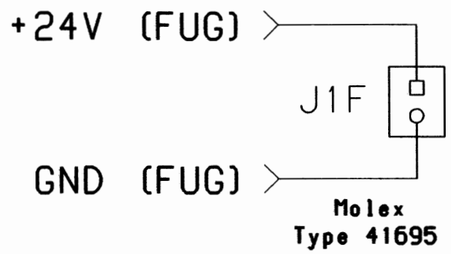
REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPROVED







Note:
1. Resistors are 1/4 watt



NEXT ASSY	USED ON
APPLICATION	

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
TOLERANCES ARE :
FRACTIONS DECIMALS ANGLES
XX
XXX

MATERIAL

FINISH

DO NOT SCALE DRAWING

CONTRACT NO.

APPROVALS	DATE
DRAWN J. Reimund	5/95
CHECKED	

FUG Power Supply
Auxilliary Quency Trip Circuit

SIZE	CODE IDENT NO.	DRAWING NO.
B		

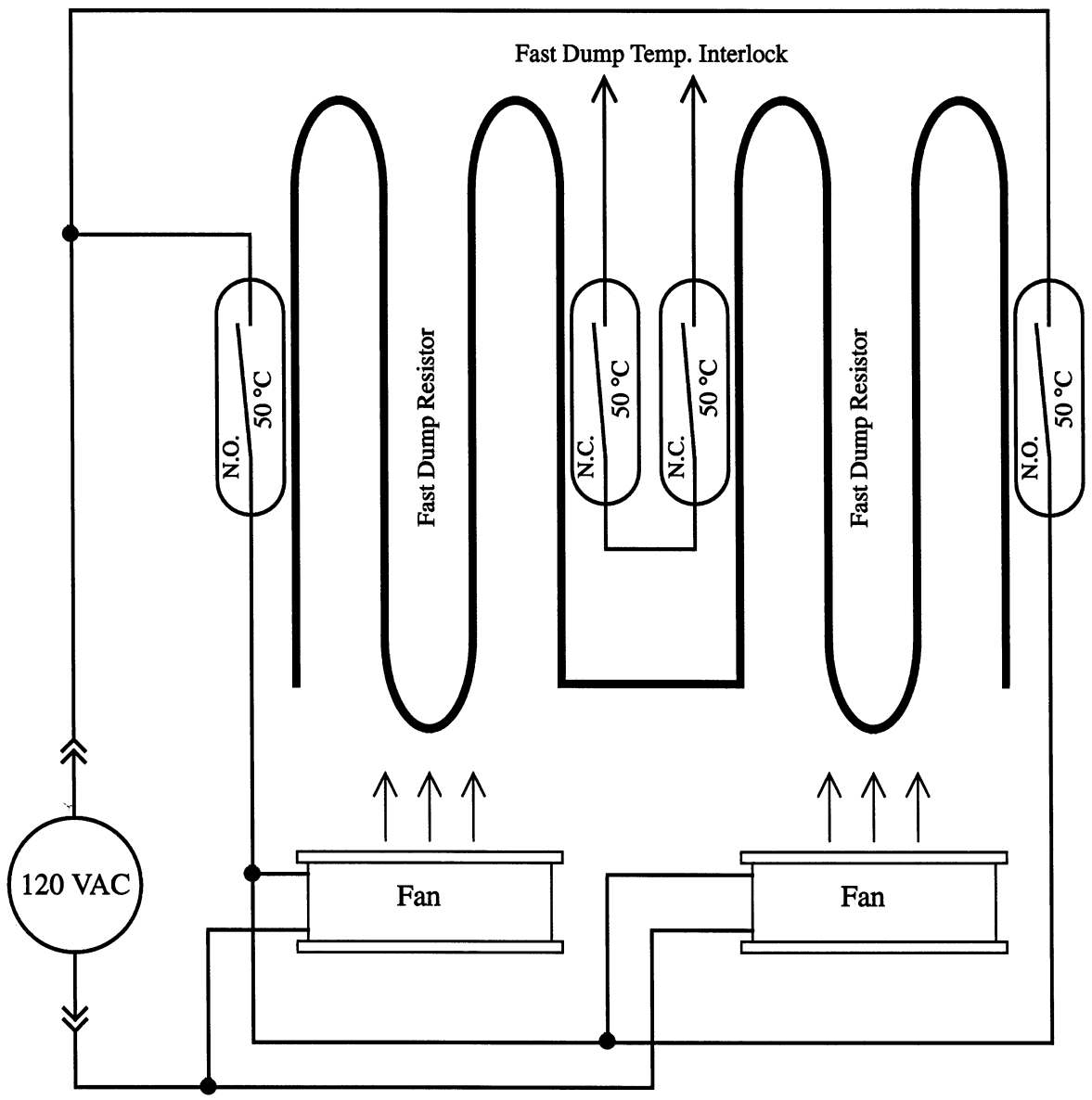
SCALE NA

SHEET 1 OF 1

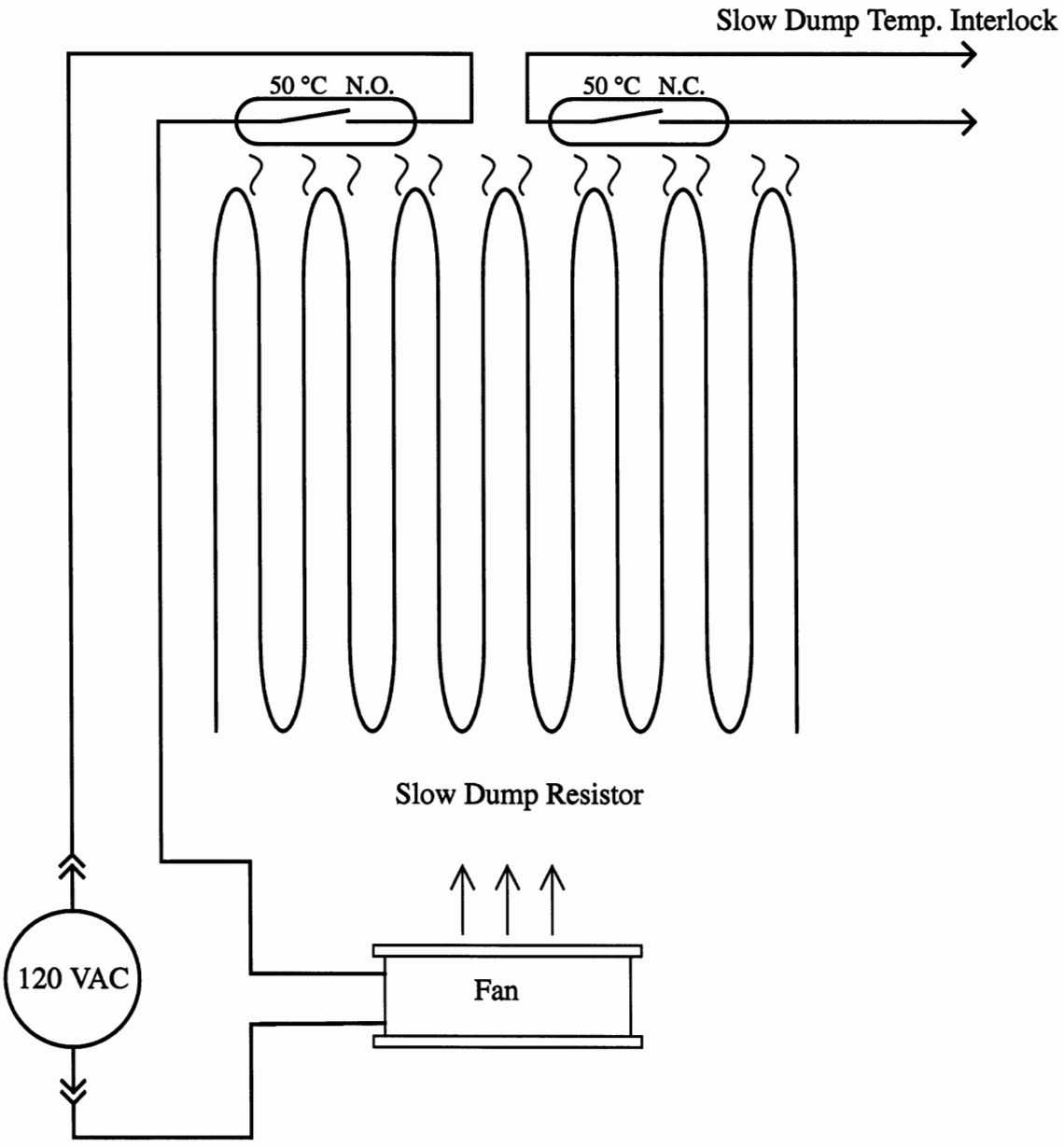
01/25/95

Dump Resistor
Fan Cooling
and
Temperature Interlock
Scheme

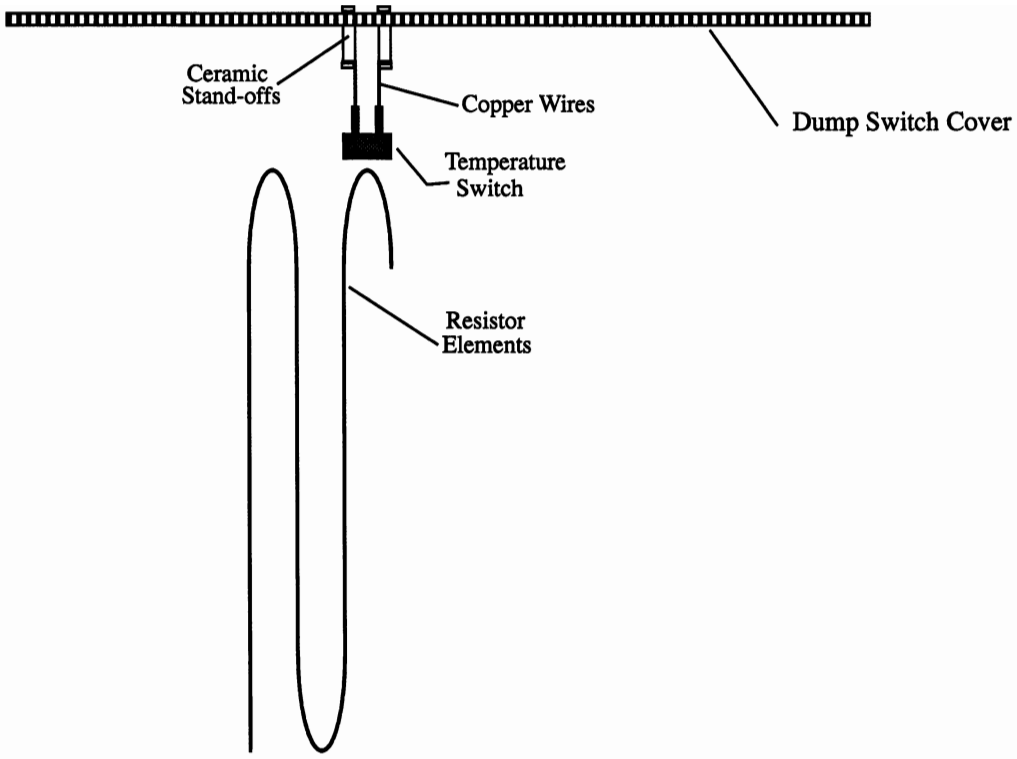
James Reimund



Fast Dump Resistor Cooling System and Interlock



Slow Dump Cooling System and Interlock

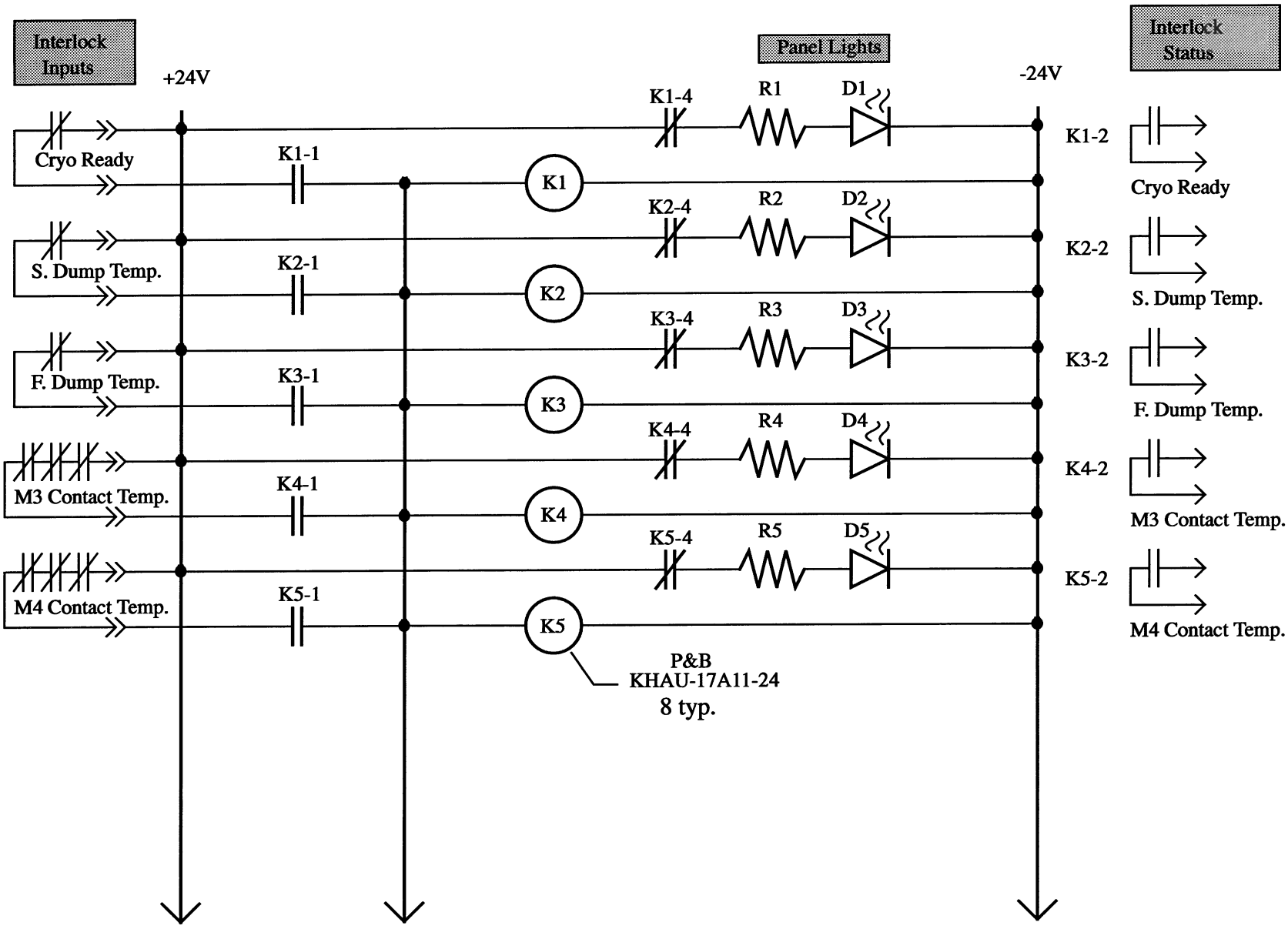


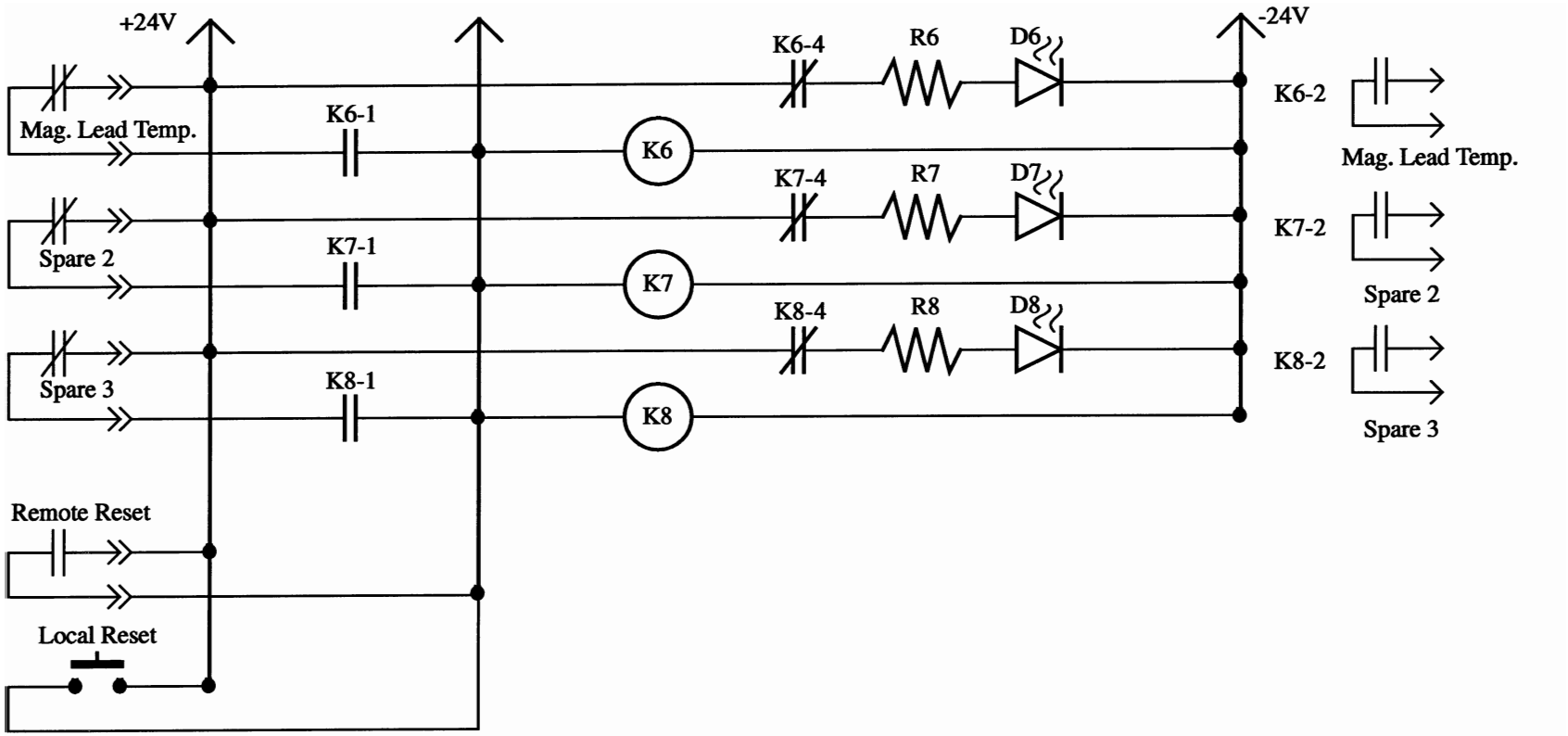
Dump Resistor Thermal Switch Mounting

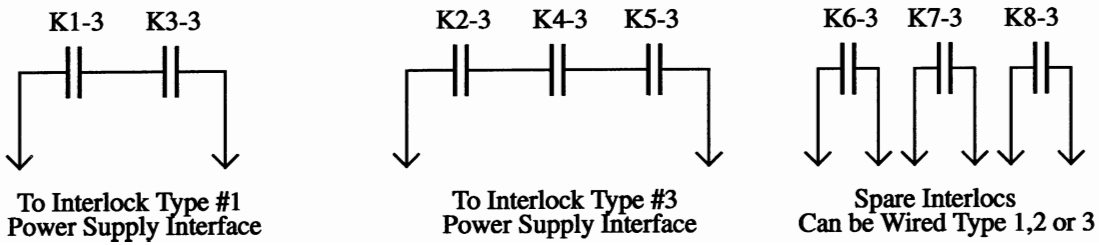
01/23/94

Auxilliary Interlocks
for the
Hall A Dipole Power Supply

James Reimund
Physics Dept.
Hall A

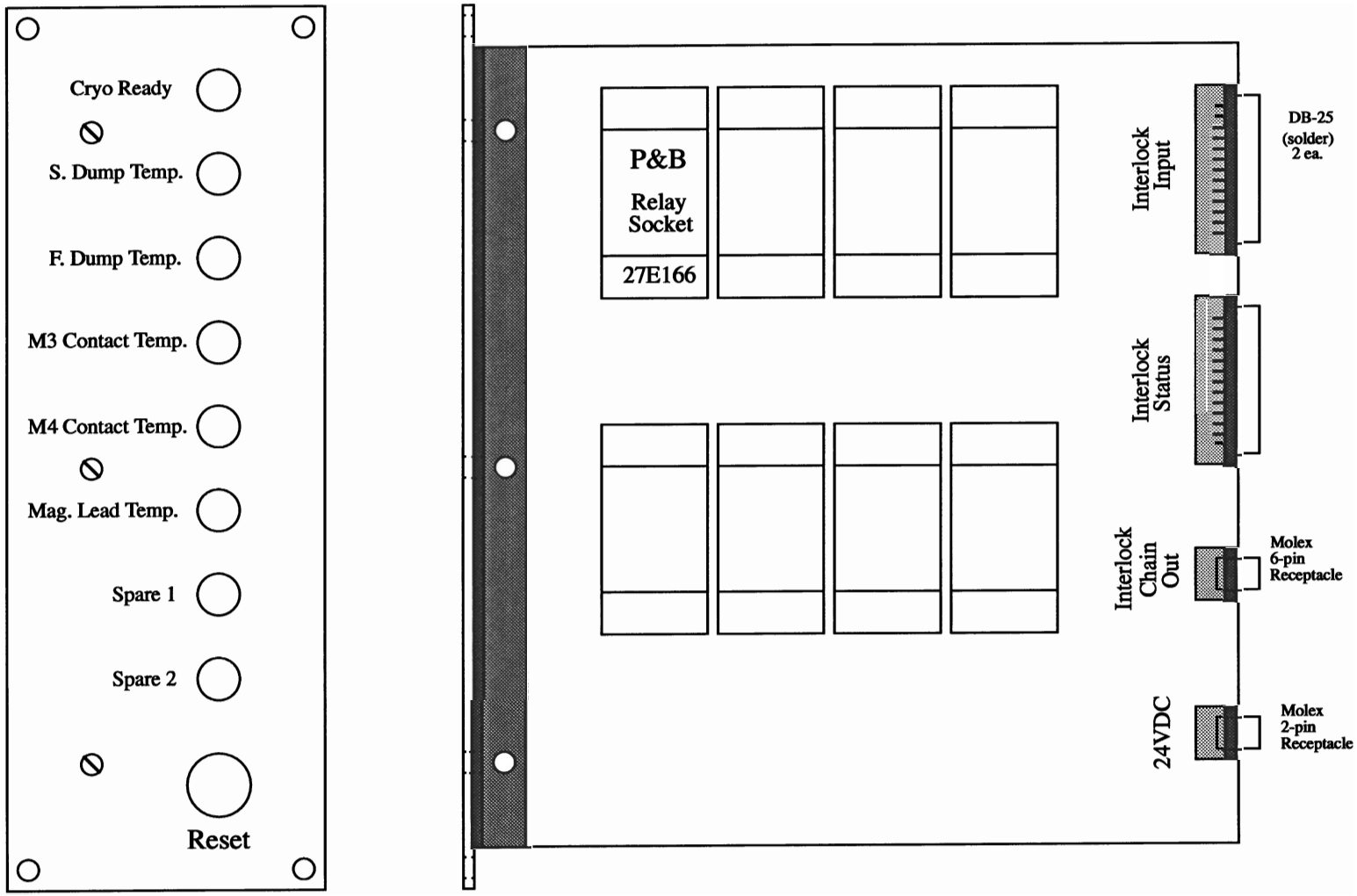

Interlock Inputs
+24V
Panel Lights
-24V
Interlock Status
Cryo Ready
S. Dump Temp.
F. Dump Temp.
M3 Contact Temp.
M4 Contact Temp.
K1-1
K2-1
K3-1
K4-1
K5-1
K1
K2
K3
K4
K5
K1-4
K2-4
K3-4
K4-4
K5-4
R1
R2
R3
R4
R5
D1
D2
D3
D4
D5
K1-2
K2-2
K3-2
K4-2
K5-2
Cryo Ready
S. Dump Temp.
F. Dump Temp.
M3 Contact Temp.
M4 Contact Temp.
P&B
KHAU-17A11-24
8 typ.





Note:

Type #3 interlock achieved by connecting in series with door interlock or creating an Allen-Bradley PLC type #3 interlock.


Cryo Ready
S. Dump Temp.
F. Dump Temp.
M3 Contact Temp.
M4 Contact Temp.
Mag. Lead Temp.
Spare 1
Spare 2
Reset
P&B
Relay
Socket
27E166
Interlock
Input
DB-25
(solder)
2 ea.
Interlock
Status
Interlock
Chain
Out
Molex
6-pin
Receptacle
24VDC
Molex
2-pin
Receptacle

Cryogenics Ready Interlock

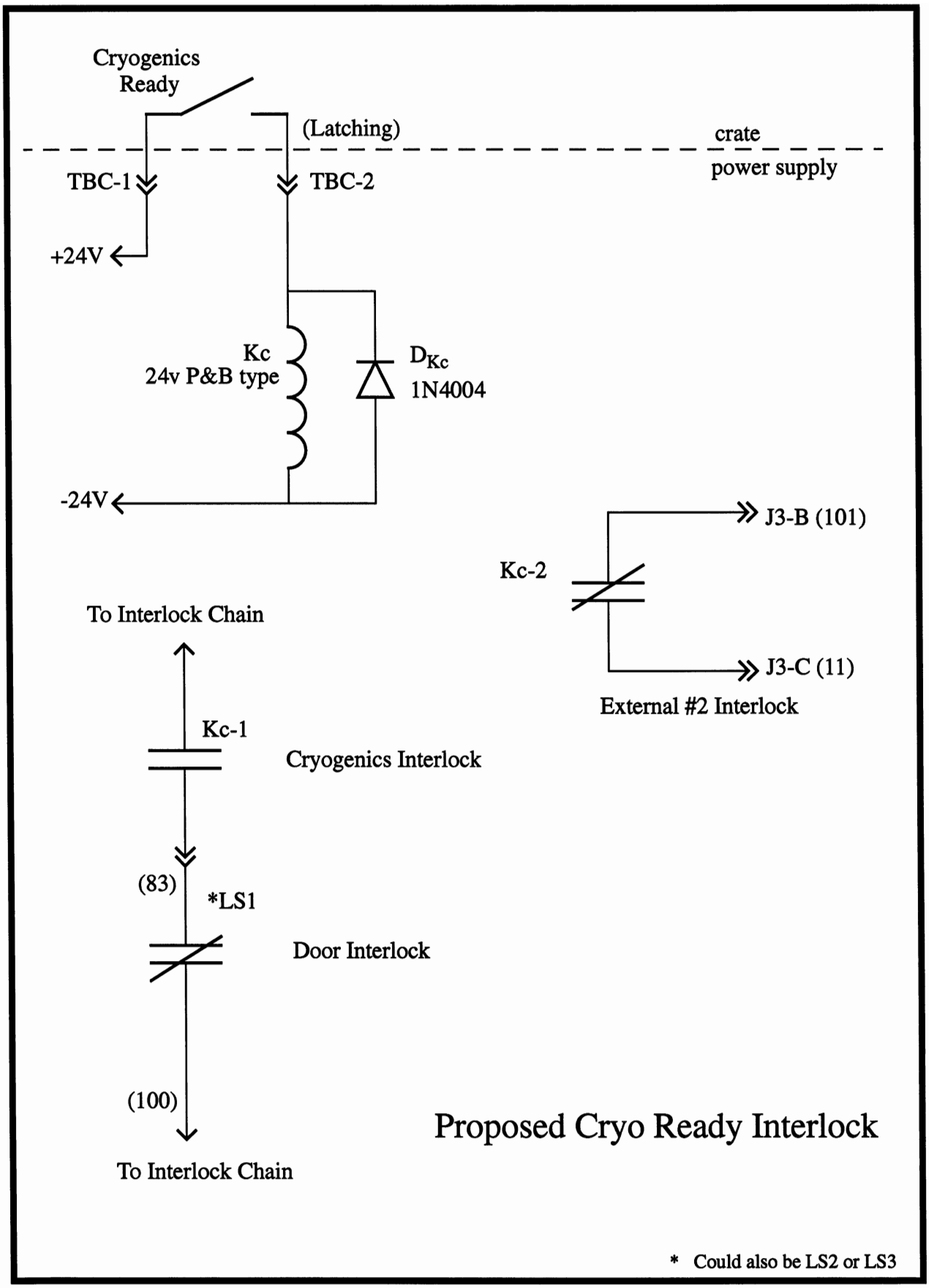
This circuit receives an external "Cryogenics Ready" contact that would be provided by the cryogenics control system. Closure of this contact would indicate that:

1. Helium liquid level is nominal.
2. Nitrogen liquid level is nominal.
3. Cooling gas is flowing in leads at some established flow rate.

This contact needs to latch "OPEN" on a fault condition.

With this contact in the closed state, relay Kc energizes causing contact Kc-1 to close and make up the door lock chain. This chain is used because there is currently no external interlock which, when tripped, will cause a slow dump. The door interlocks do cause a slow dump and the wiring is easily accessible. A terminal block or connector will need to be installed on top of the power supply.

Monitoring of fault conditions is important, even if only at the local panel. To achieve this function, an additional pair on contacts are needed to at least turn on a local panel light. The "External 2" interlock incorporated into the existing power supply causes only a warning light (yellow) to illuminate when tripped. Using a normally closed set of contacts from relay Kc could be connected to this interlock. When the cryogenics interlock is made up, the light would be out. When the interlock is tripped, the light would be on informing the operator of the reason for the power supply turning off and going into slow dump mode. This modification requires the relabeling of the front panel to say "Cryogenics" instead of "#2 External Interlock".


Cryogenics
Ready
(Latching)
crate
power supply
TBC-1
TBC-2
+24V
Kc
24v P&B type
D_{Kc}
1N4004
-24V
J3-B (101)
Kc-2
J3-C (11)
External #2 Interlock
To Interlock Chain
Kc-1
Cryogenics Interlock
(83)
*LS1
Door Interlock
(100)
To Interlock Chain
Proposed Cryo Ready Interlock
* Could also be LS2 or LS3