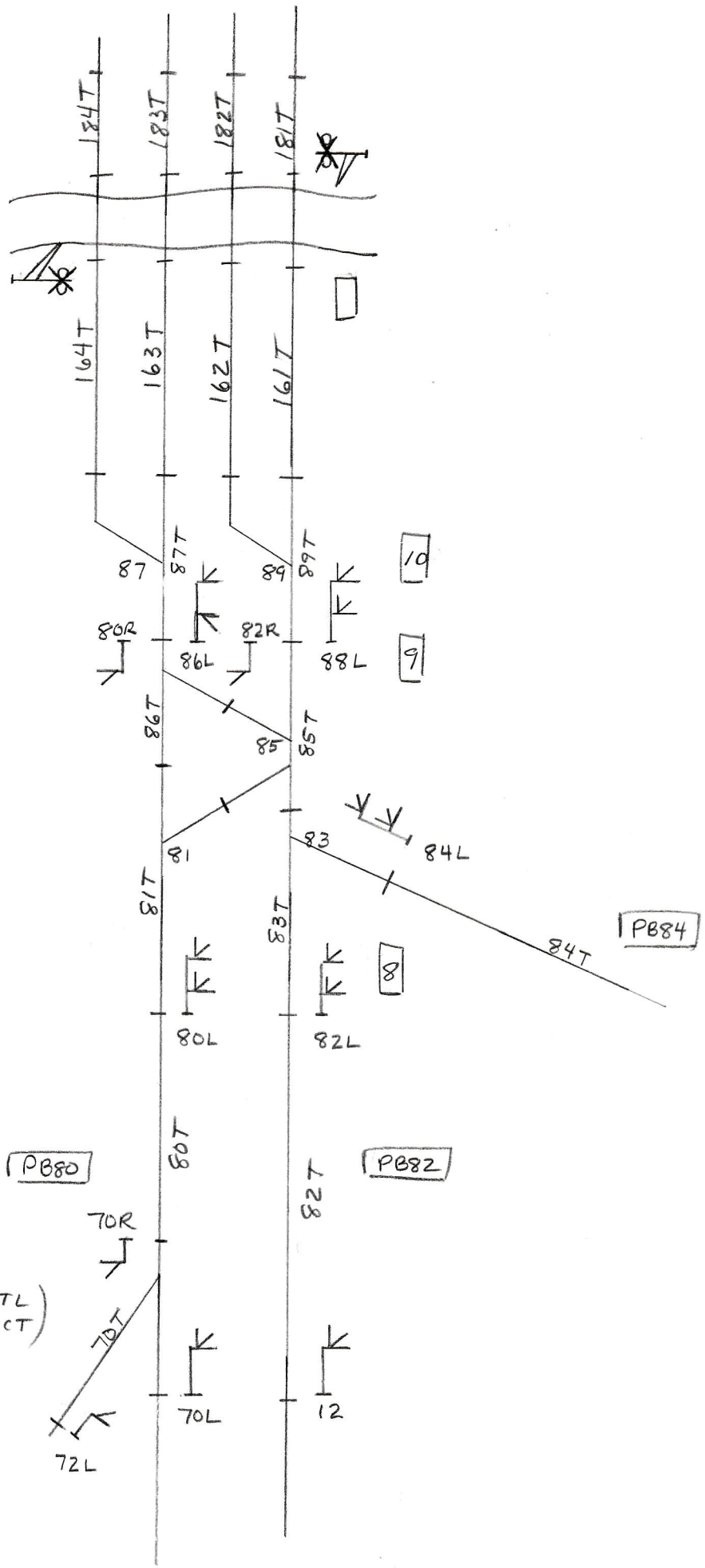


GRAND
JCT
MP 0.14

(CNTL)
KW JCT



GRAND JCT

2016

OUTPUTS

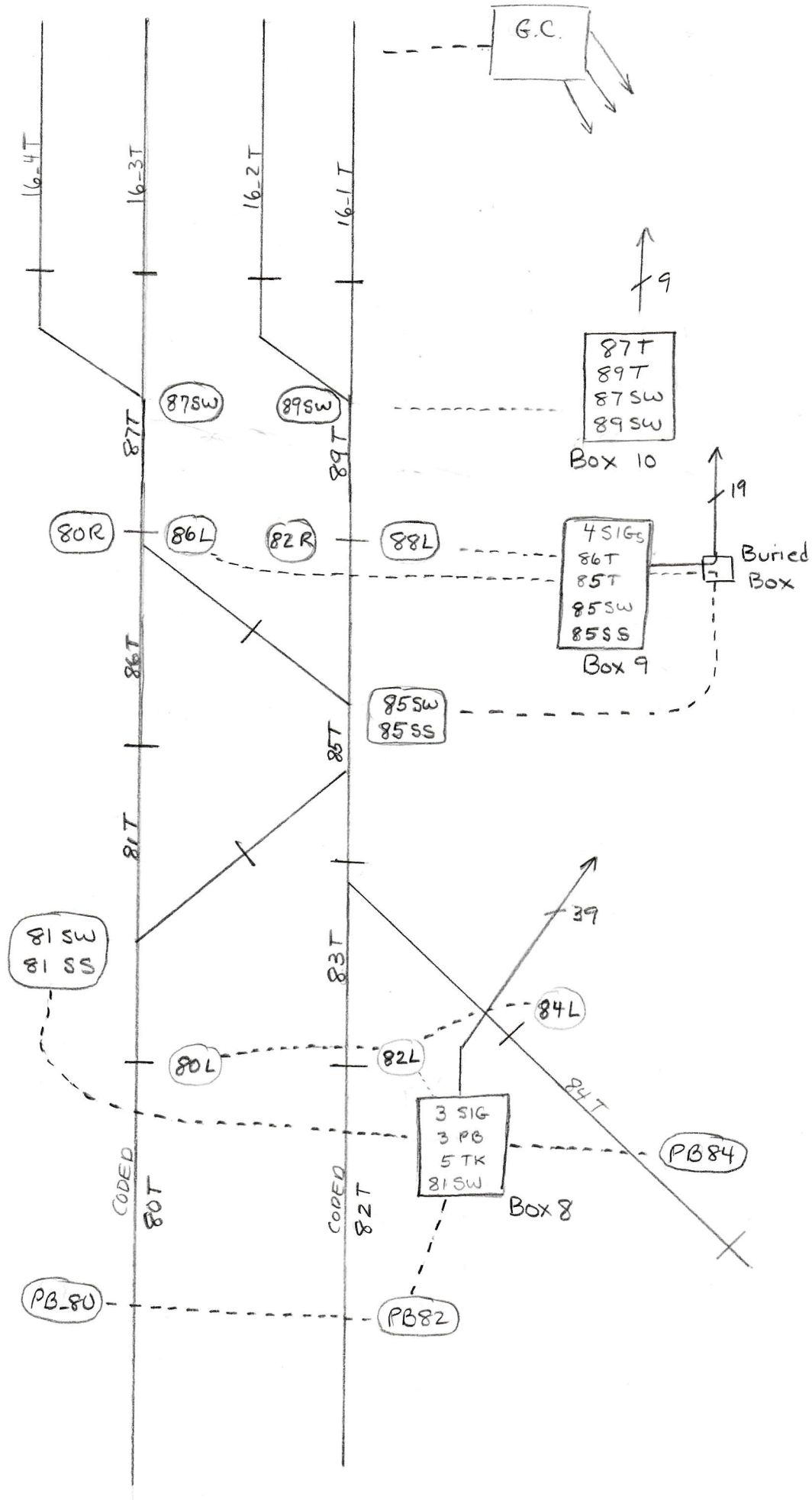
82L/84L	- 8
80L	- 5
86L	- 5
88L	- 5
82R	- 2
80R	- 2
SW	- 4
GATES	- 1
	<hr/>
	32

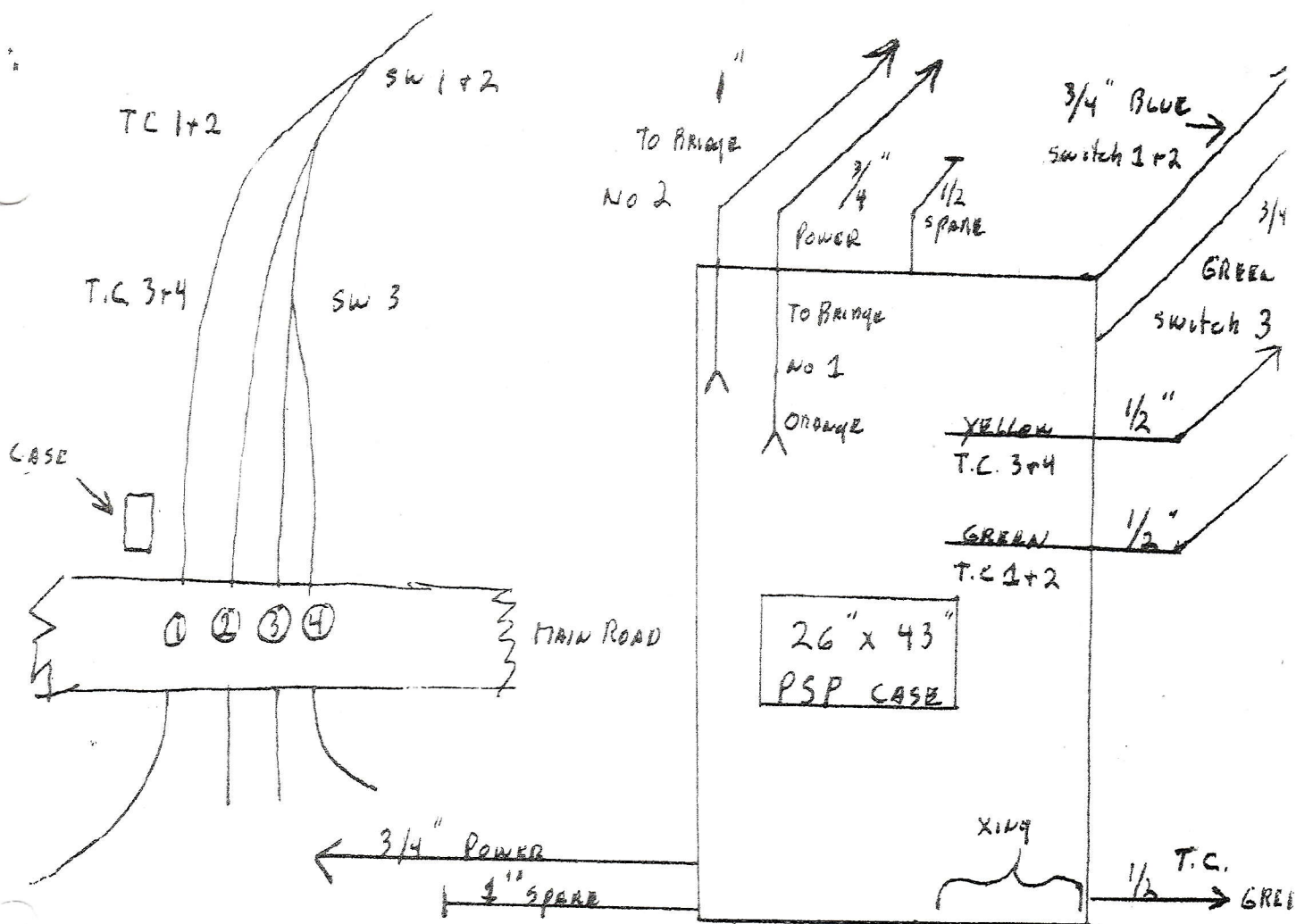
Inputs

81T-89T	- 7
16T	- 4
18T	- 4
PB80	- 4
PB82	- 5
PB84	- 5
81/85SS	- 2
	<hr/>
	31

MISC

CODED TK - 2x2
ILLUM PB - 1





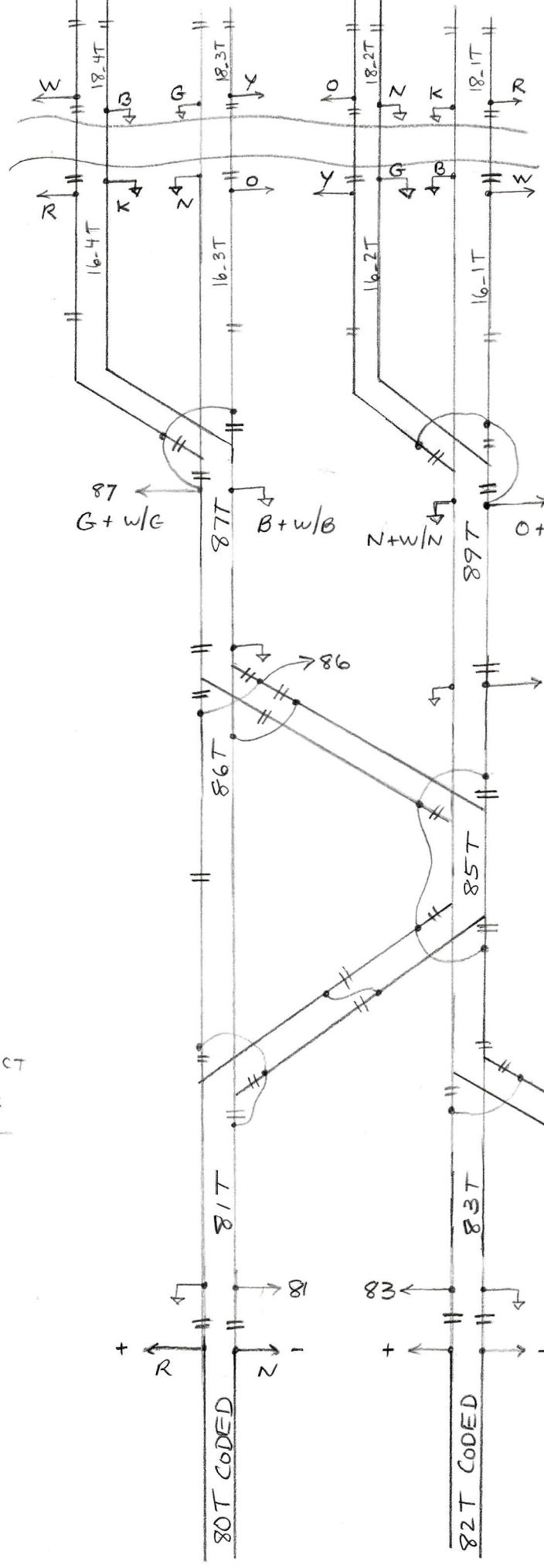
CONDUIT RUNS FROM MAIN
(4 TRACKS) XING RELAY CASE

8-7-98

By S.B. Nugent

G.C.

G.C.



87T
89T

Box 10

85T
86T

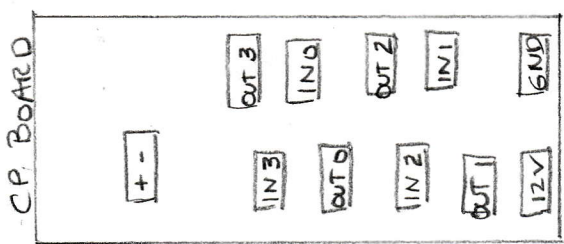
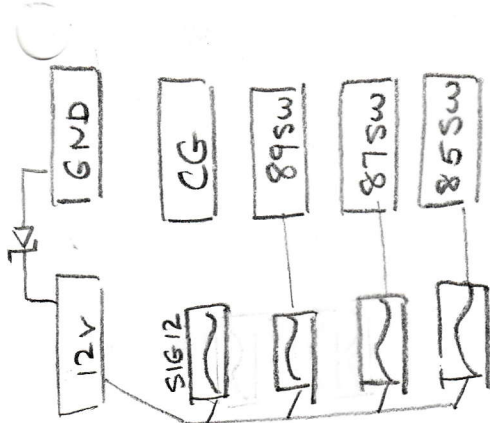
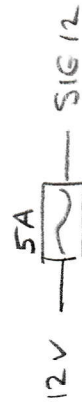
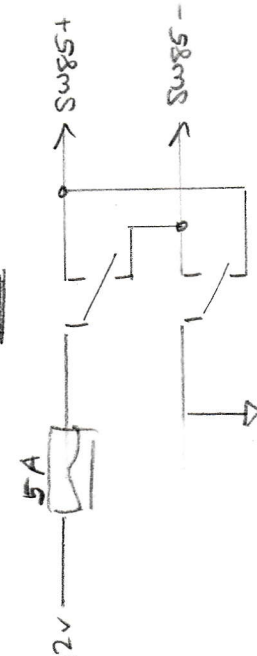
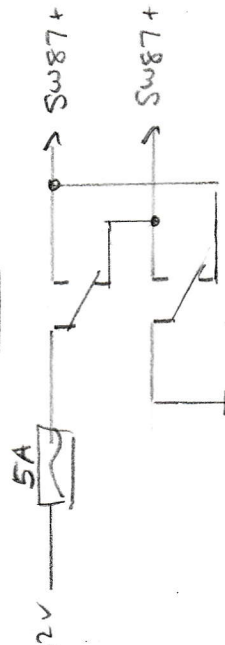
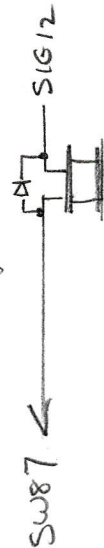
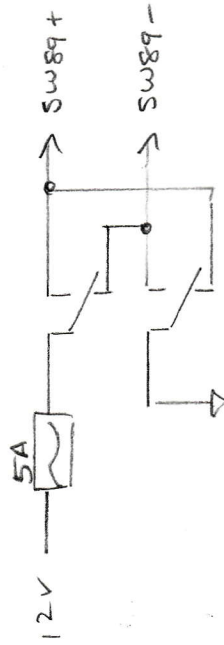
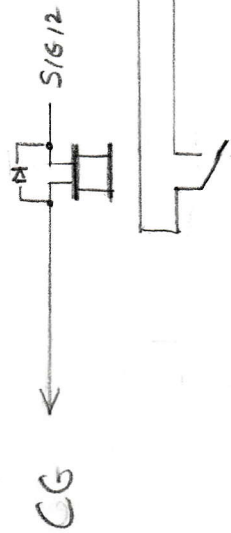
Box 9

81T
83T
84T
80T
82T

Box 8

GRAND JCT
BONDING

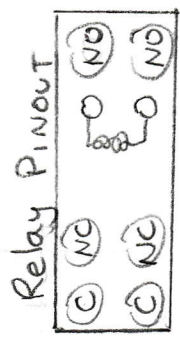
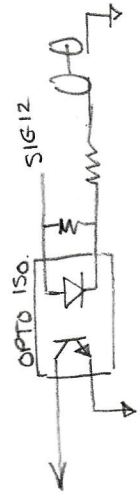
CROSSING GATE CONTACT CLOSURE TO ACTIVATE



TK DET	181	182	181	181	181	181	181	181
--------	-----	-----	-----	-----	-----	-----	-----	-----

TK DET	181	162	163	163	163	163	163	163
--------	-----	-----	-----	-----	-----	-----	-----	-----

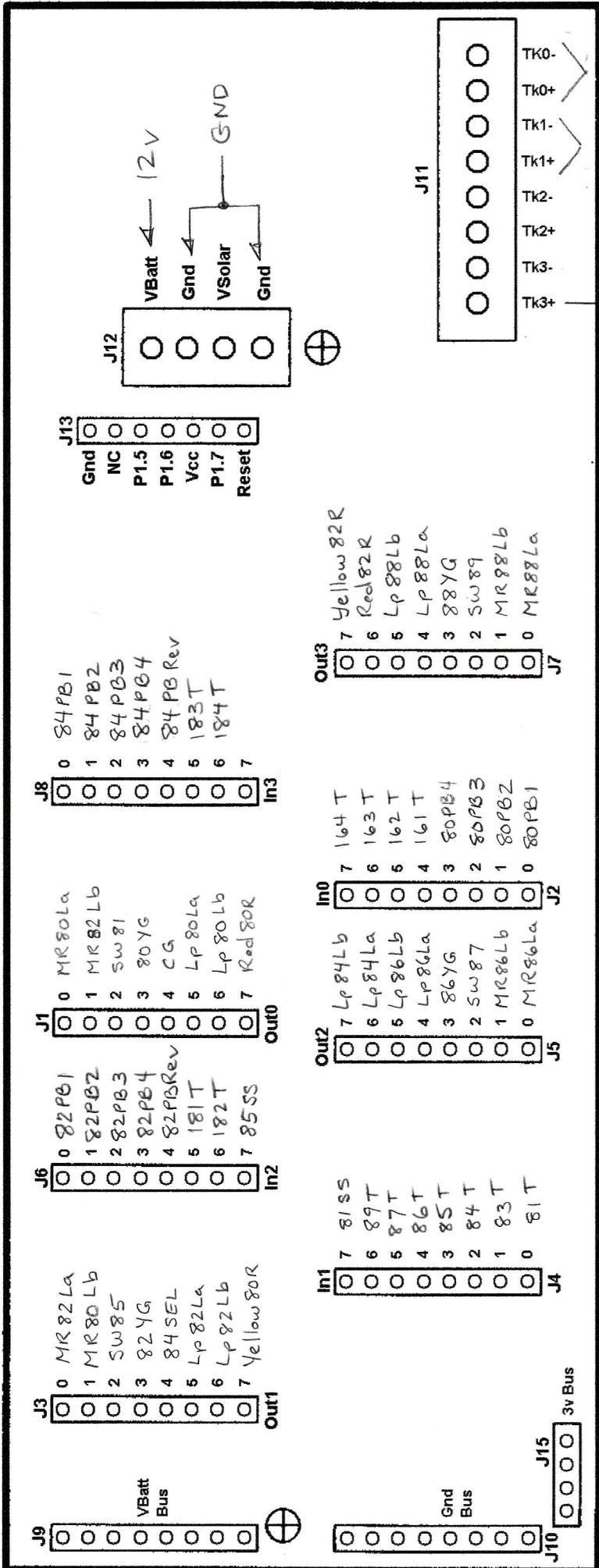
TK DET X8



CP BOARD IN CG CABINET

Gxct 2016
 CP BOARD
 PINOUT

5/2016



Box 10 Cable Terminations

N	87SW+
P	87SW-
nc	
W	89SW+
B	89SW-
K	87T
Y	89T
G	
R	
O	

Box 8 Cable Terminations

	nc
	nc
81SW	R
80YG	R/K

R/G	82YG
R/WK	84SEL
R/W	80MRa
G	80MRb
G/W	82MRa
G/WK	82MRb
G/K	80LPa
W	80LPb
W/RK	82LPa
W/R	82LPb
W/K	84LPa
B	84LPb

Box 9 Cable Terminations

	nc
86YG	O
86MRa	O/R
86MRb	O/K
88YG	W
88MRa	W/R
88MRb	W/K
85T	G
86T	G/W
85SS	G/K

B/WK	81T
B/K	83T
B/R	84T
B/W	80T+
K	80T-
K/RG	82T+
K/WR	82T-
K/W	81SS
K/R	
O	PB-LED-TX
O/WK	
O/R	

85SW+	K/W
85SW-	K
86LPa	K/R
86LPb	R
88LPa	R/K
88LPb	R/W
80LP-Y	B/W
80LP-R	B/K
82LP-Y	B/R
82LP-R	B

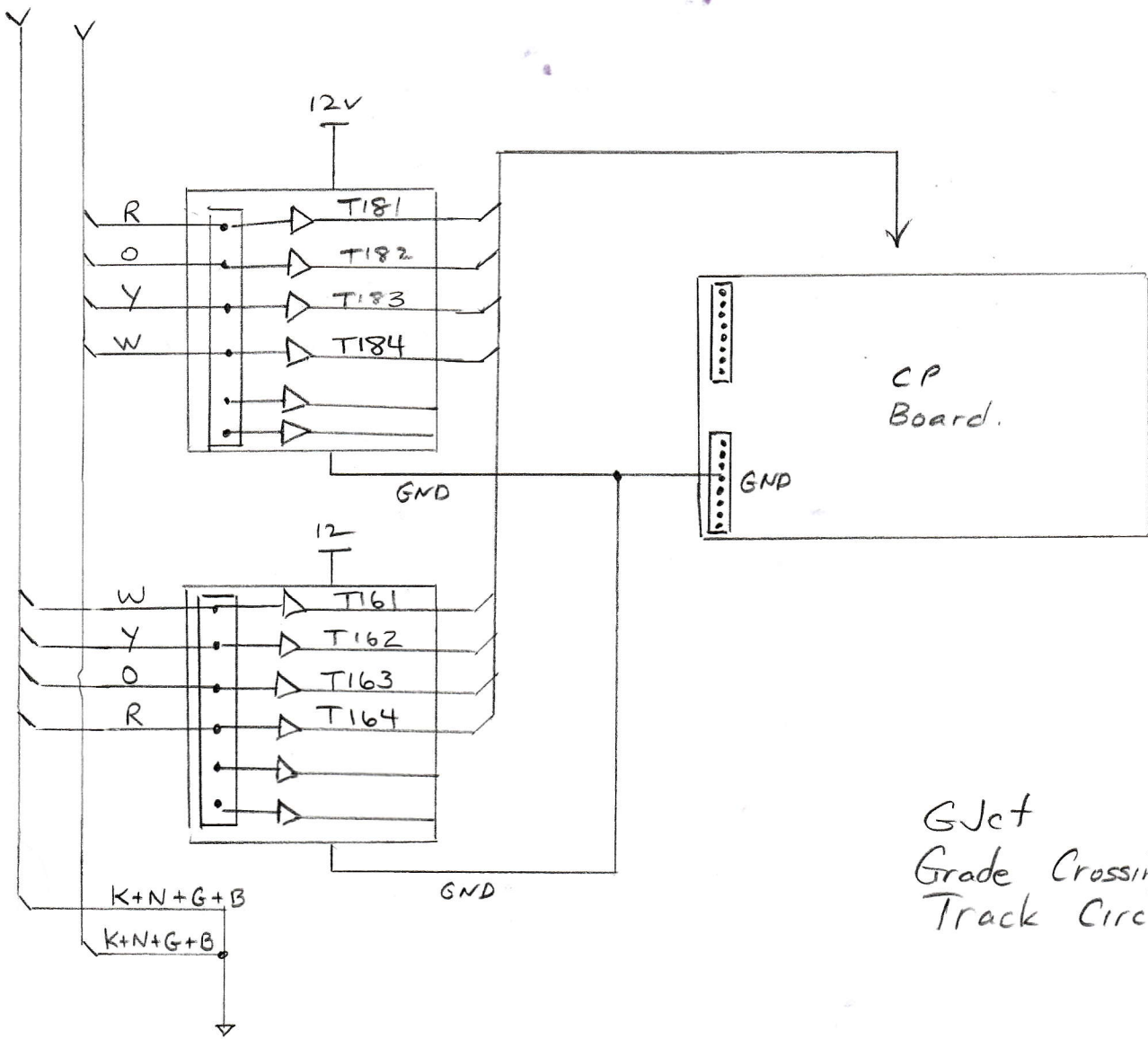
nc	
nc	
W/RG	80PB1
W/GK	80PB2
W/KB	80PB3
W/RO	80PB4
W/RB	82PB1
G/WB	82PB2
G/KO	82PB3
G/OR	82PB4
R/GW	82PBR
R/WB	84PB1

Grade Crossing Box
Terminal Strip Diagram

Color Key

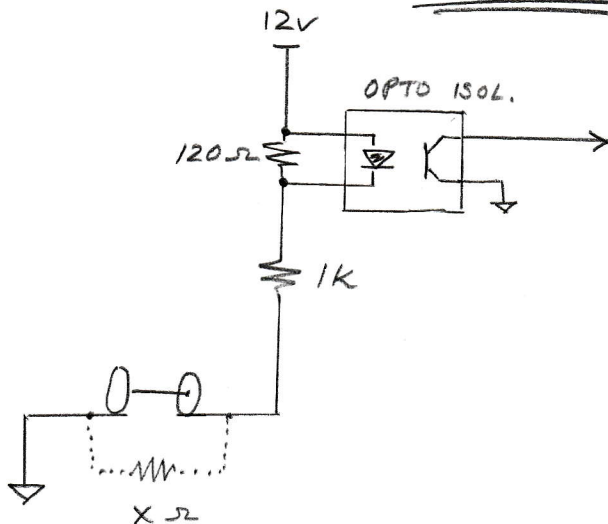
- B Blue
- R Red
- G Green
- K Black
- O Orange
- W White
- P Purple
- Y Yellow
- N Brown
- nc No Connect

R/GK	84PB2
K/RO	84PB3
K/OW	84PB4
K/WB	84PBR
K/WG	
B/WO	
B/RG	
B/RO	
O/RG	
O/RB	
O/GK	
O/BW	



GJet
Grade Crossing
Track Circuits

Track Detector



1.2v to activate opto iso.

$$\frac{1.2}{12} = \frac{120}{120 + 1000 + X}$$

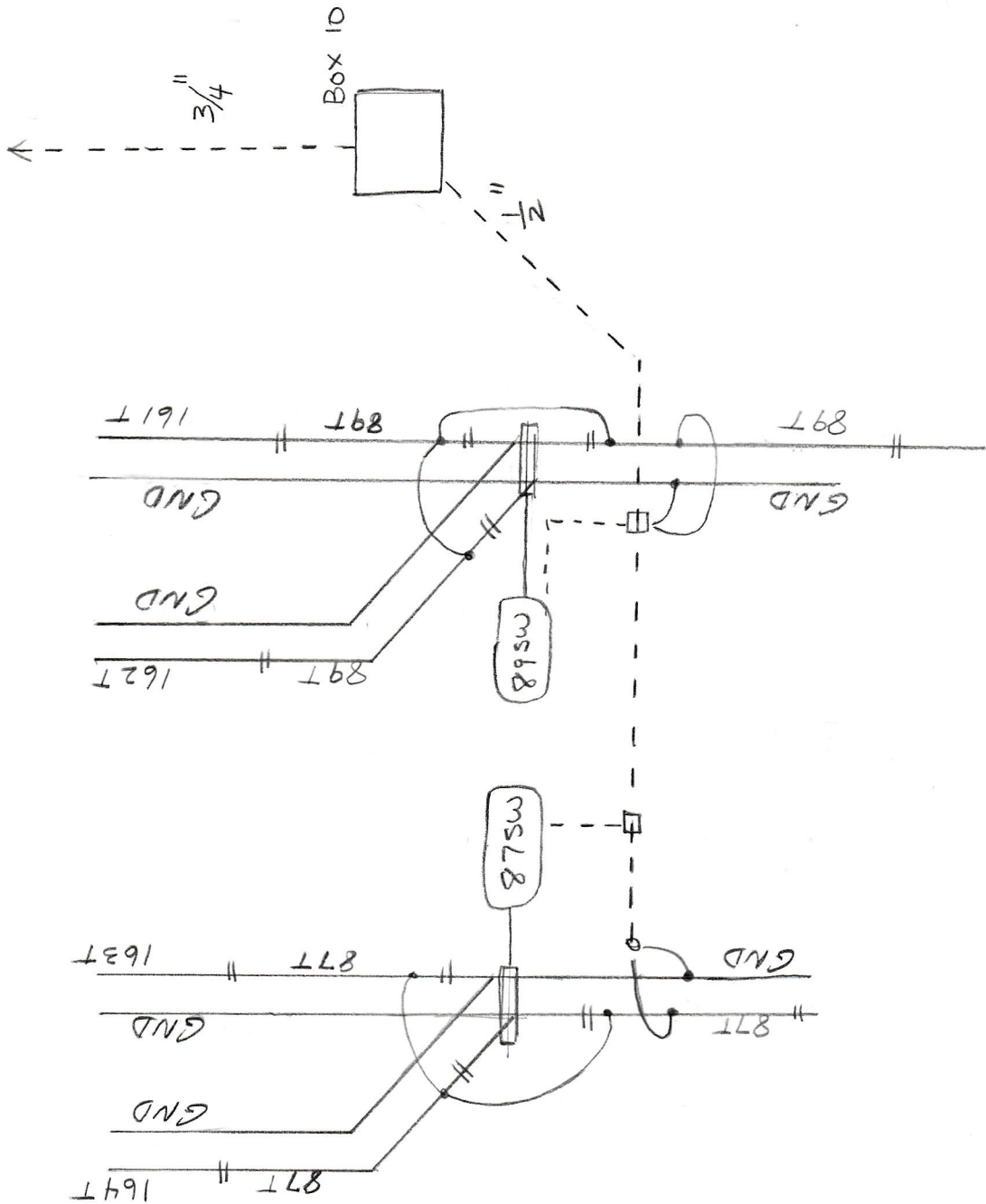
$$1.2(1120 + X) = 12 \cdot 120$$

$$1344 + 1.2X = 1440$$

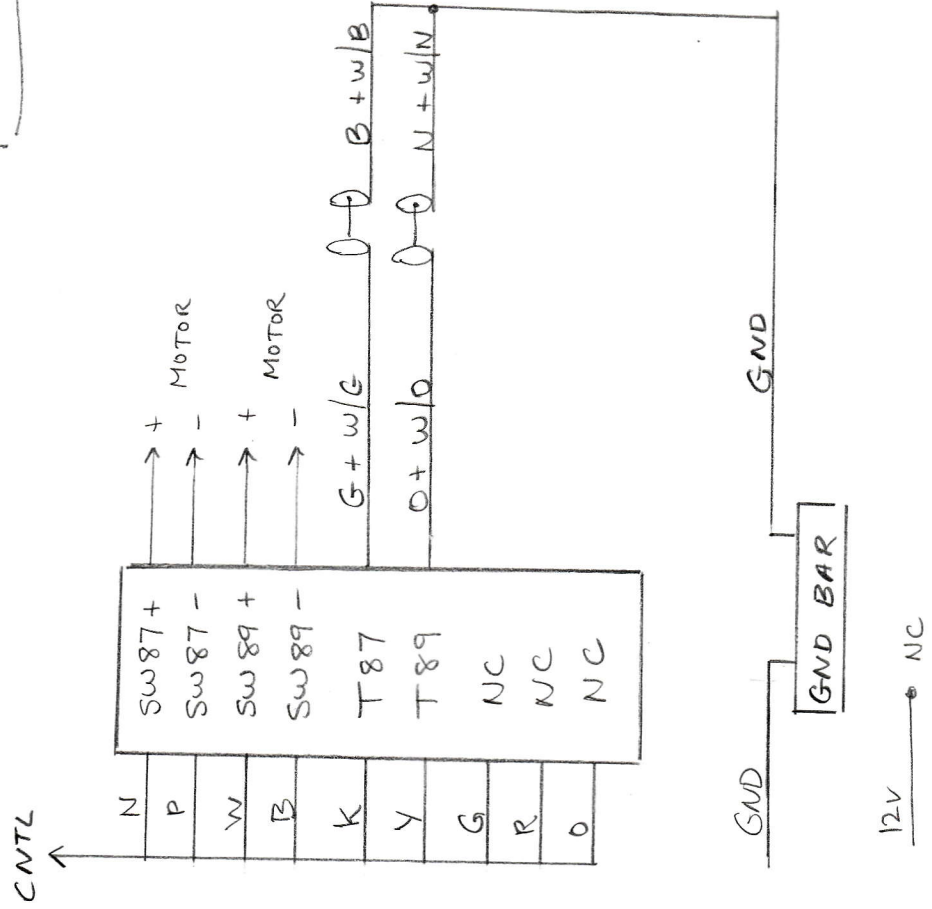
$$1.2X = 96$$

$$X = 80 \Omega$$

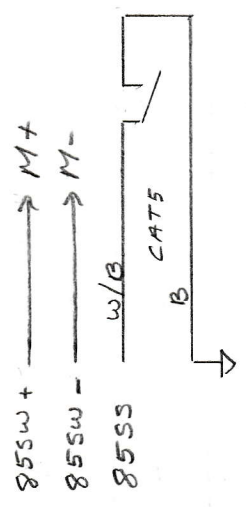
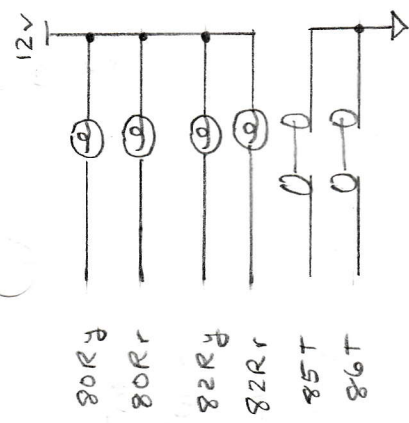
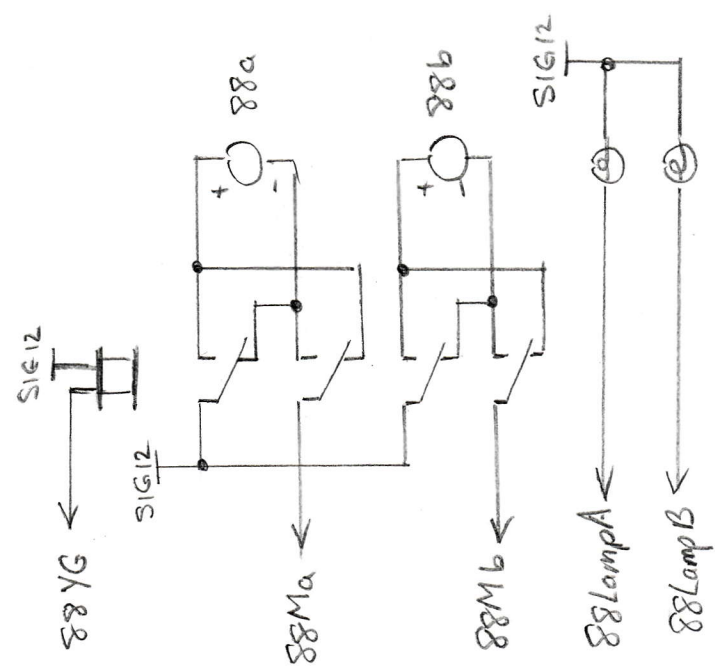
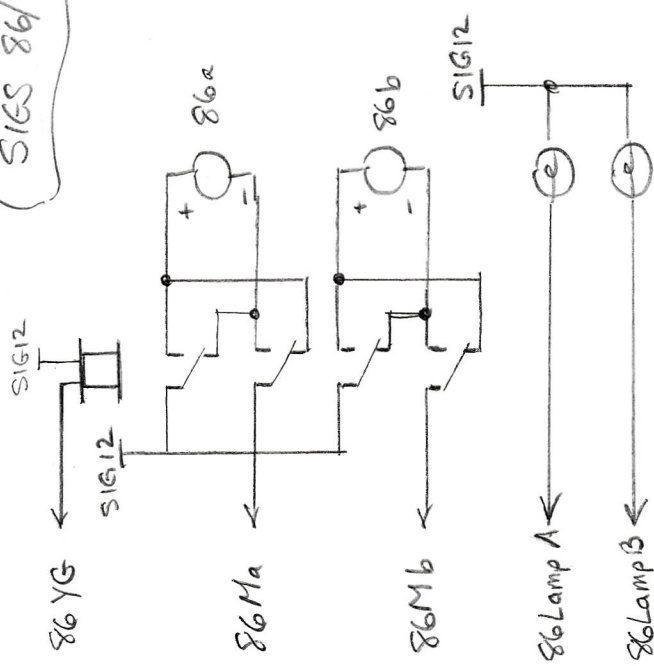
80 Ω shunt needed
to activate track circuit



Box 10
© SW 87/89



Box 9
SIGS 86/88



Relay

P	P	P	P
C	w	C	
88 YG			
NC	NC	NC	NC
NO	NO	NO	NO

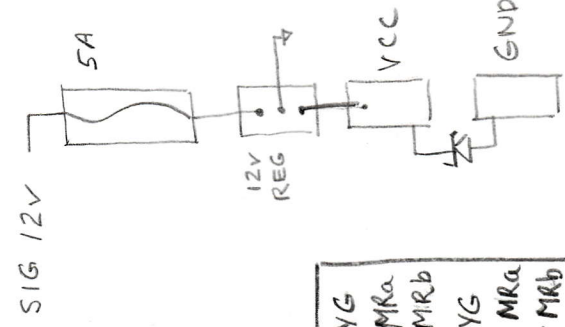
Relay

C	C	NO
P	P	P
86 YG		
NC	NC	NC
NO	NO	NO

86Ma+	w/N
86Mb-	N
86Mb-	w/o
86Mb+	O
88Ma+	N
88Ma-	w/N
88Mb-	O
88Mb+	w/o
86LpA	w/B
86LpB	w/G
88LpA	w/B
88LpB	w/G
SIG12Y	B+B+G+G
SIG12V	
80Ry	B/W
80Rr	B/K
82Ry	B/R
82Rr	B

86YG	O/R
86Mka	O/K
86MRb	W
88YG	W/R
88Mka	W/K
88MRb	

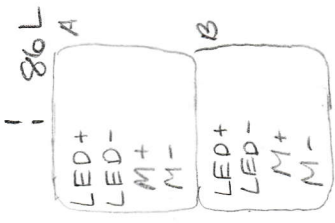
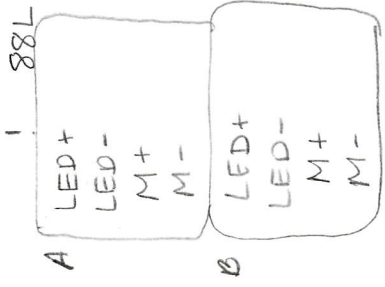
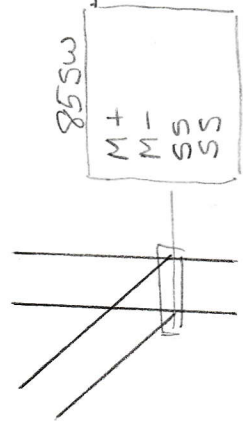
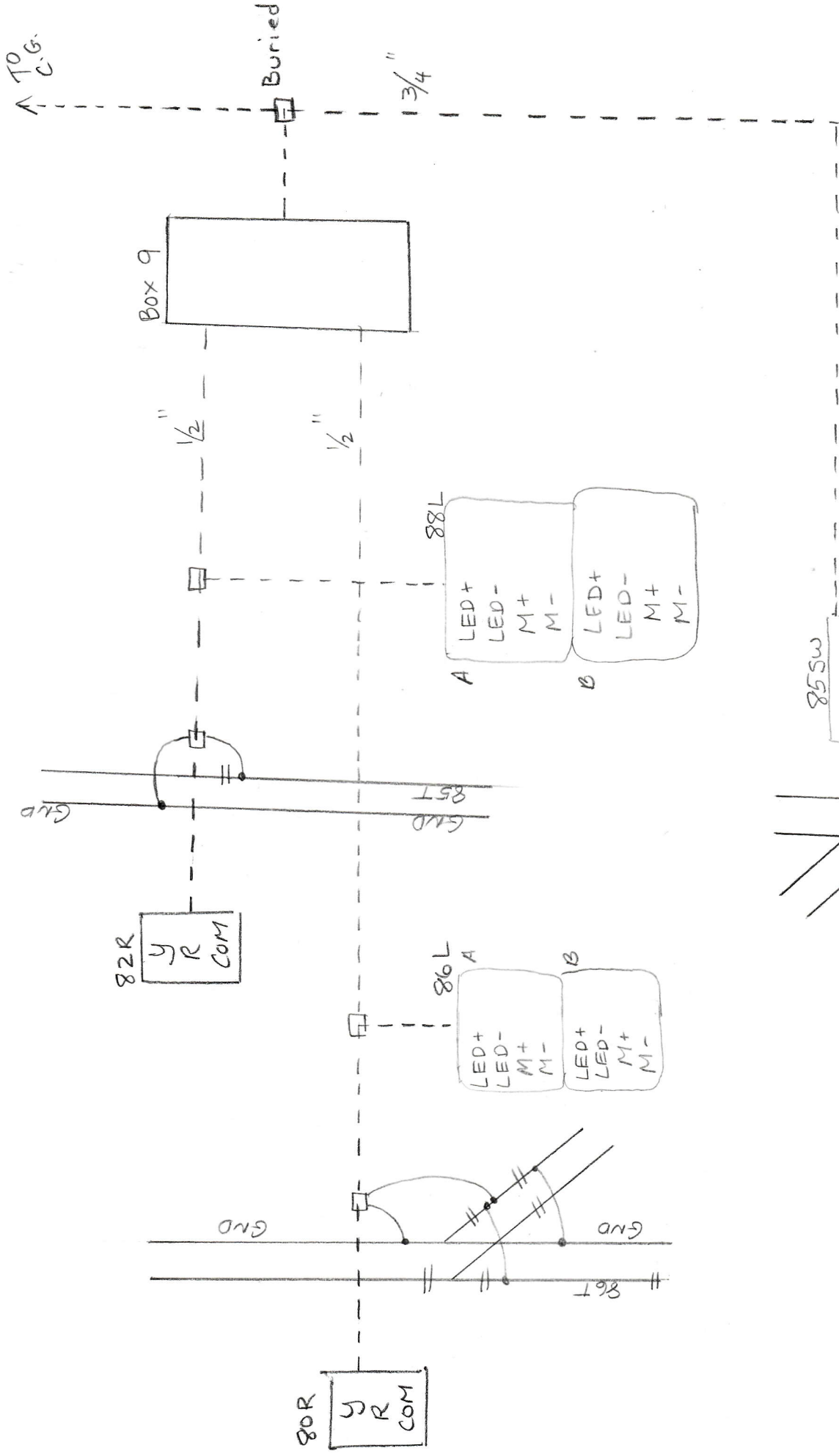
85T	R
86T	P
85SS	w/B
NC	
85Sw+	R
85Sw-	S



GND

CNTL

TO FIELD



TO C.G.

Buried

3/4"

Box 9

1/2"

1/2"

82R

y R COM

80R

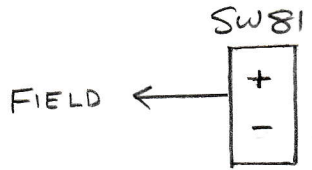
J R COM

86L

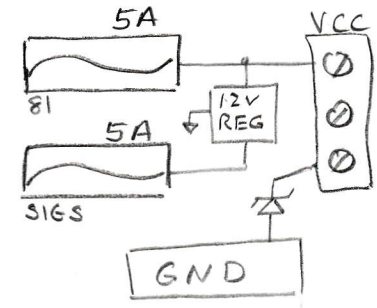
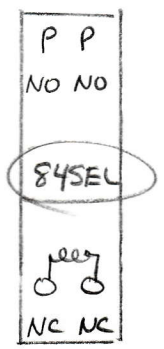
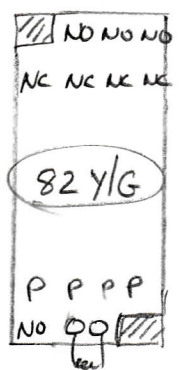
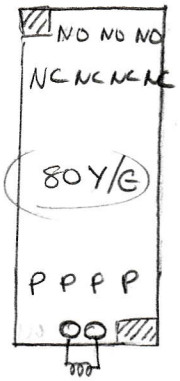
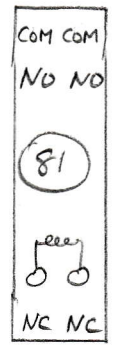
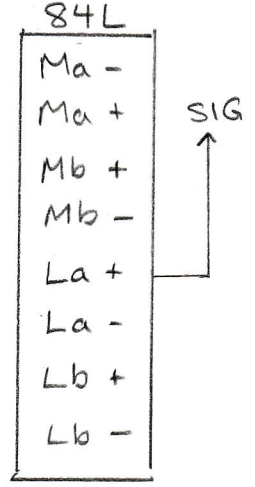
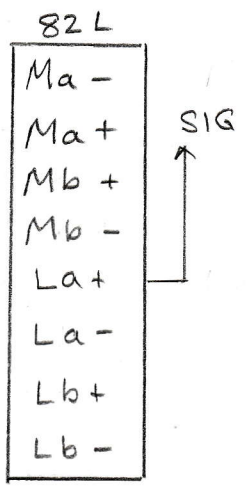
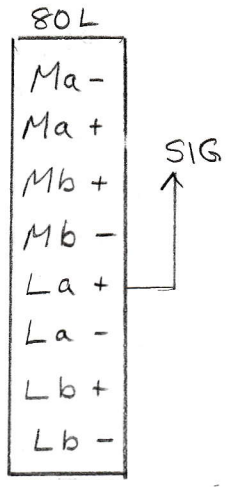
LED+ LED- M+ M- LED+ LED- M+ M-

85Sw

M+ M- SS SS



Box 8
@ SIG BRIDGE



R	81 SW
R/K	80YG
R/G	82YG
R/WK	84SEL
R/W	80MRA
G	80MRB
G/W	82MRA
G/WK	82MRB
G/K	80Lpa
W	80LPb
W/RK	82Lpa
W/R	82LPb
W/K	84Lpa
B	84LPb

CNTL ↓

B/WK	81T	R
B/K	83T	R/K
B/R	84T	W/K
	80+	R
K	80-	N
K/RG	82+	S
K/WR	82-	S

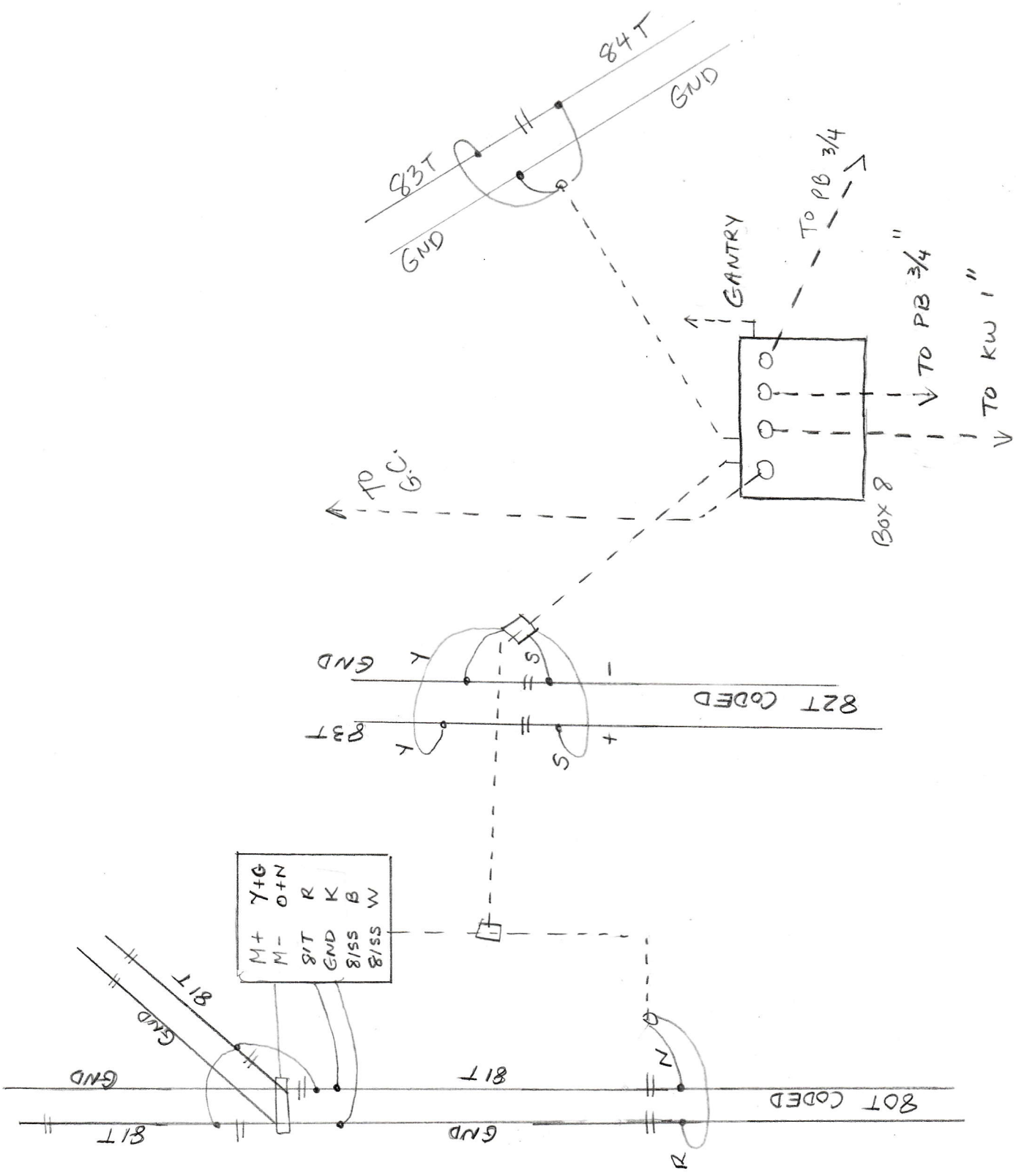
CNTL ↓ FIELD ↓

K/W	81SS	W
W/RG	80PB1	B/W
W/GK	80PB2	O/W
W/KB	80PB3	G/W
W/RO	80PB4	N/W
W/RB	82PB1	S/W
G/WB	82PB2	R/B
G/KO	82PB3	R/O
G/OR	82PB4	R/G
R/GW	82PBR	R/N
R/WB	84PB1	W/G
R/GK	84PB2	W/O
K/RO	84PB3	W/B
K/Ow	84PB4	W/N
K/WB	84PBR	W/N

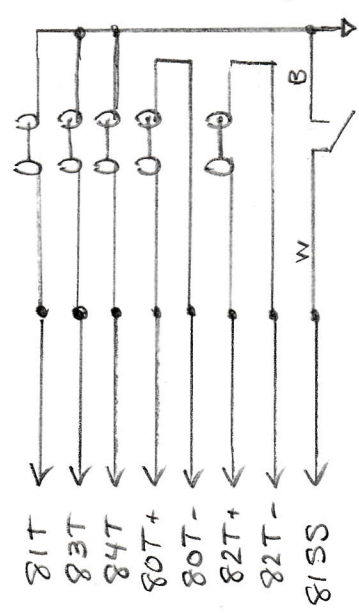
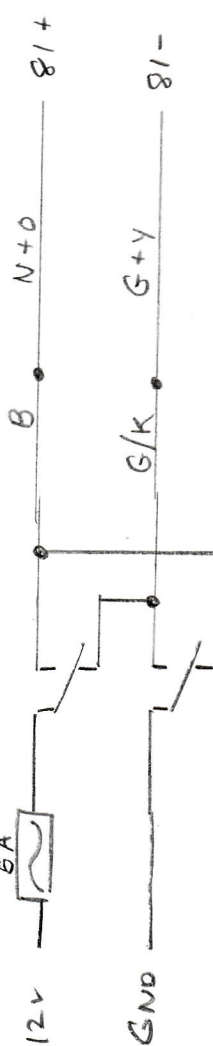
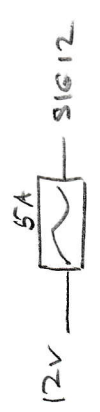
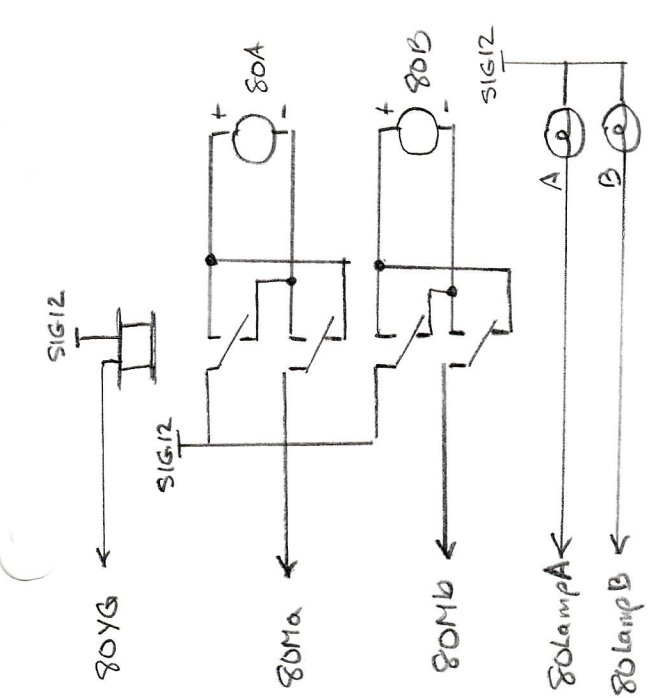
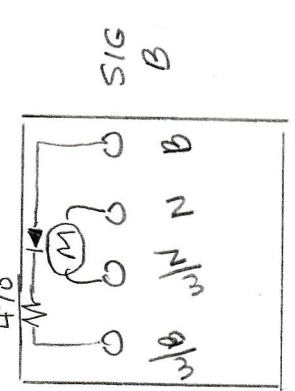
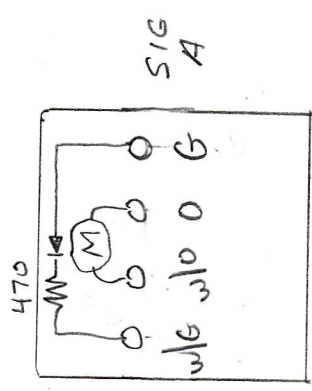
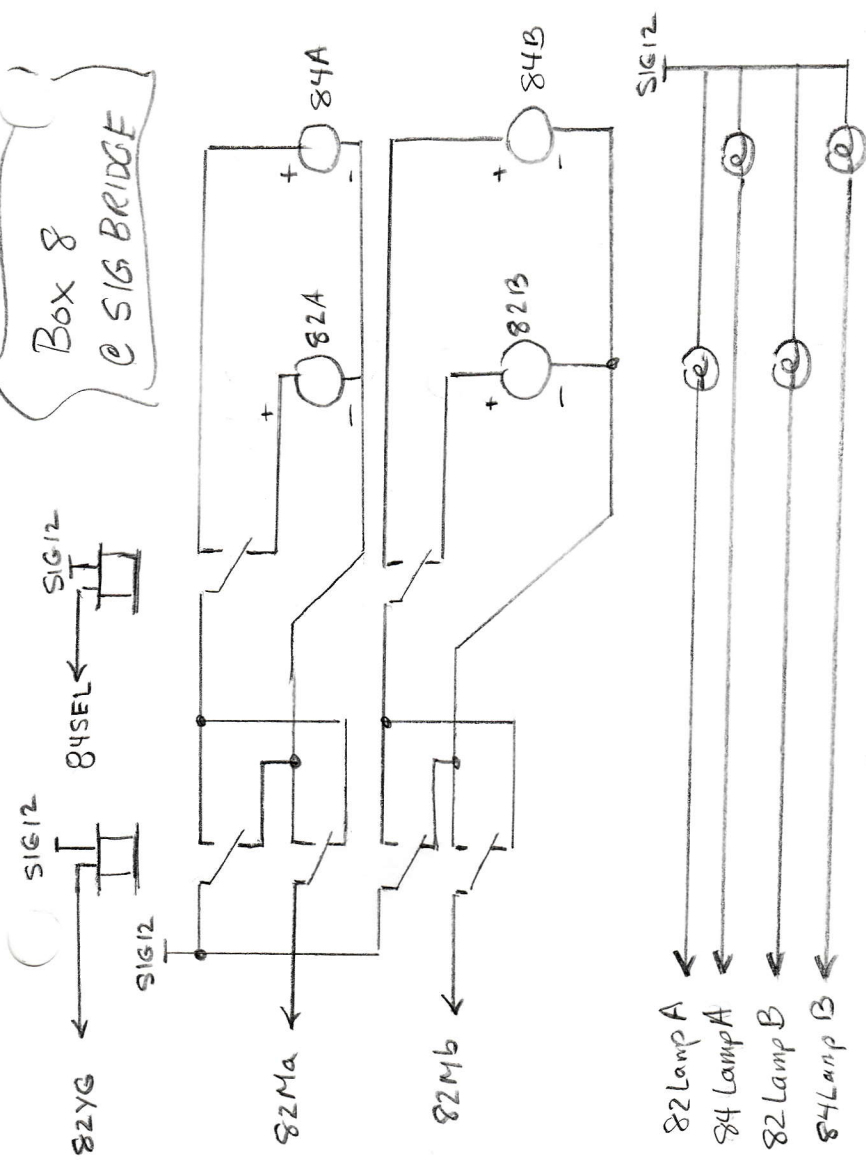
CNTL ↓ TO PB ↓ FIELD ↓

O	Rx
W/B	80PB1
W/O	80PB2
W/G	80PB3
W/N	80PB4
W/S	82PB1
B/R	82PB2
O/R	82PB3
G/R	82PB4
N/R	82PBRev
G	84PB1
O	84PB2
B	84PB3
N	84PB4
N	84PBRev

CNTL ↓ TO LED ↓ PB LED



Box 8
© SIG BRIDGE



GND-wire not beneath cabinet

