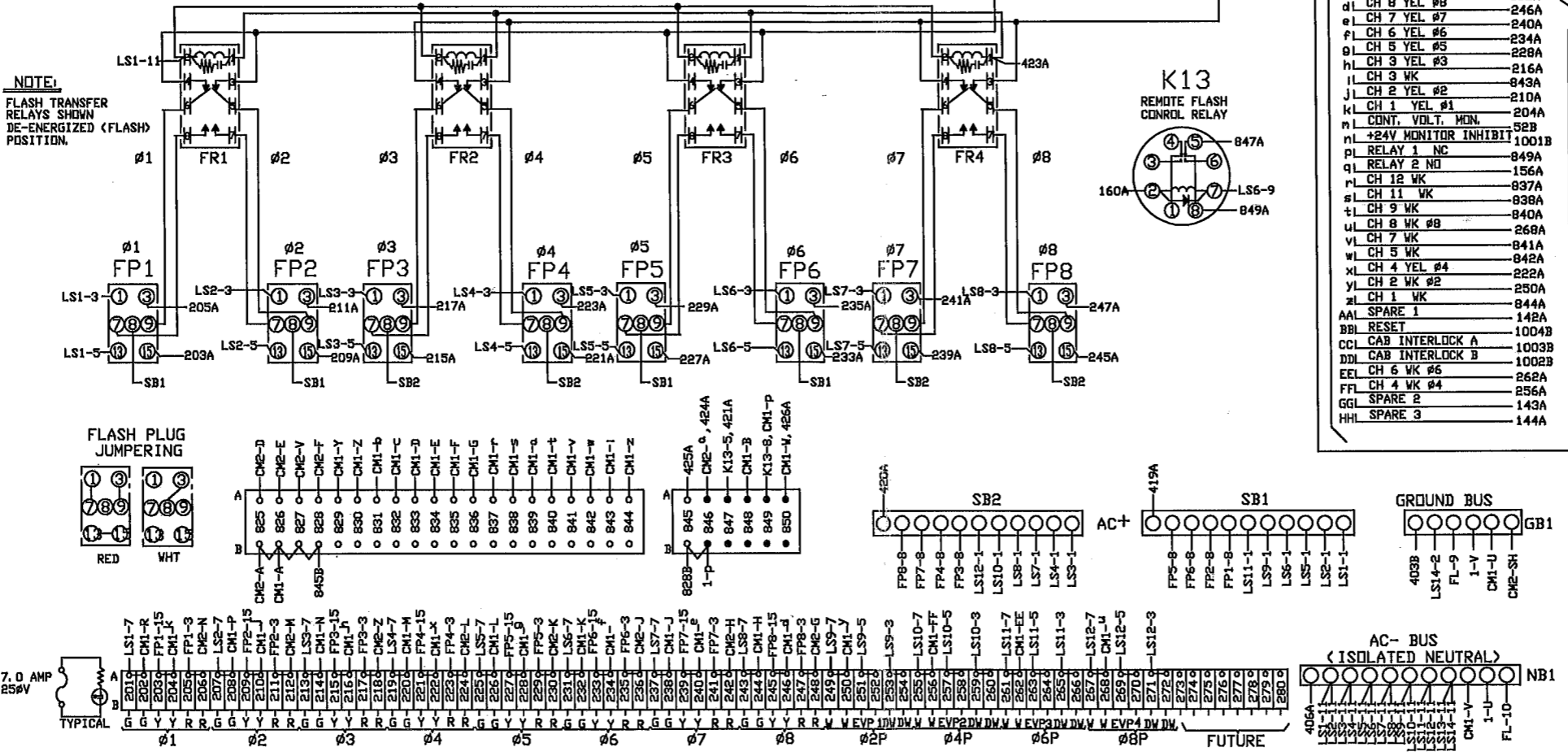


NOTES: 1. PED BUTTON RETURNS MUST BE TERMINATED AT PBR1-PBR8.
 2. JUMPERS 335A-337A AND 340A-342A, ARE TO BE ADDED AS NEEDED FOR E.V.P.
 3. 305, 310, 315, 320, 325, 330, 335, 340, 347, 352, 357, 362, 367 AND 372 ARE INTERCONNECTED BY THE HEATING RAIL.
 4. 1-3 FUTURE CONNECTIONS FOR POWER SUPPLY TO SENSITOUCH PPS'S.

LS	CONT	Z	1 2 3 4 5 6 7 8 9 10 11 12 13 14													
			1	2	3	4	5	6	7	8	2P	4P	6P	8P		
GREEN / WALK	10		62A	69A	76A	82A	102A	109A	116A	122A	72A	85A	112A	125A		
YELLOW/PED CLR	8		63A	70A	77A	83A	103A	110A	117A	123A	142B	144B	146B	149B		
RED/DON'T WALK	6		64A	71A	78A	84A	104A	111A	118A	124A	73A	86A	113A	126A		
GREEN / WALK	7		201A	207A	213A	219A	225A	231A	237A	243A	249A	255A	261A	267A		
YELLOW	5		FP1-13	FP2-13	FP3-13	FP4-13	FP5-13	FP6-13	FP7-13	FP8-13	251A	257A	263A	269A		
RED/DON'T WALK	3		FP1-1	FP2-1	FP3-1	FP4-1	FP5-1	FP6-1	FP7-1	FP8-1	253A	259A	265A	271A		
+24 VDC	9															▷60B
CHASSIS GROUND	2															▷60B
AC NEUTRAL	11		NB1	NB1	NB1	NB1	NB1	NB1	NB1	NB1	NB1	NB1	NB1	NB1	NB1	
115 VAC	1		SB1	SB1	SB2	SB2	SB1	SB1	SB2	SB2	SB1	SB2	SB1	SB2	SB1	



EVP SENSORS

CABLE	DISCR. CHAN.	PHASES	POLE#	TERMINAL SIGNAL	TERMINAL DCC+	TERMINAL GND
28	1	1-6	4	333	334	337
24	2	2-5	2	336	334	337
22	3	3-8	1	338	339	342
26	4	4-7	3	341	339	342

VEHICLE SIGNALS

CABLE	SIGNAL	TERMINAL					
		G	Y	R	G	Y	R
7	1-1	201	203	205			
6	1-2	202	204	206			
4	2-1, 2-3				207	209	211
4	2-2				208	210	212
5	4-1				219	221	223
5	4-2	237	239		220	222	224
3	4-3	238	240		219	221	223
3	5-1	225	227	229			
2	5-2	226	228	230			
8	6-1, 6-3				231	233	235
8	6-2				232	234	236
1	8-1	243	245	247			
1	8-2	213	215	244	246	248	
7	8-3	214	216	243	245	247	

VEH DETECTORS

CABLE	DET	TERMINAL
31	1-1	303, 304
32	1-2	306, 307
38	2-1	345, 346
37	2-2	348, 349
33	3-1	313, 314
34	3-2	316, 317
45	4-1	323, 324
44	4-2	326, 327
43	4-3	328, 329
40	5-1	308, 309
39	5-2	311, 312
29	6-1	350, 351
30	6-2	353, 354
42	7-1	355, 356
41	7-2	358, 359
36	8-1	368, 369

PED PUSHBUTTONS

CABLE	PPB	TERMINAL	RETURN
11	PPB2-1	301	PBP1
10	PPB2-2	301	PBP1
12	PPB4-1	302	PBP2
11	PPB4-2	302	PBP2
9	PPB6-1	343	PBP3
12	PPB6-2	343	PBP3
10	PPB8-1	344	PBP4
9	PPB8-2	344	PBP4

PED SIGNALS

CABLE	SIGNAL	TERMINAL WK	TERMINAL DW
17	P2-1	249	253
15	P2-2	250	254
19	P4-1	255	259
18	P4-2	256	260
13	P6-1	261	265
20	P6-2	262	266
16	P8-1	267	271
14	P8-2	268	272

VEH DETECTORS

CABLE	DET	TERMINAL
35	8-2	365, 366

EVP VERIFY LIGHTS

CABLE	CONTR. CHAN.	PHASES	POLE#	TERM
27	3	1-6	4	251
23	4	2-5	2	257
21	5	3-8	1	263
25	6	4-7	A	269

TIGHTENING TORQUE SPECIFICATIONS

SCREW SIZE	6-32	8-32	10-32
POUND INCHES	12	16	25.9
BLACK TYPE	SAK56	RK6-10SAK35N	
POUND INCHES	10.5	16	35
BLACK TYPE	ND-36		
POUND INCHES	35		

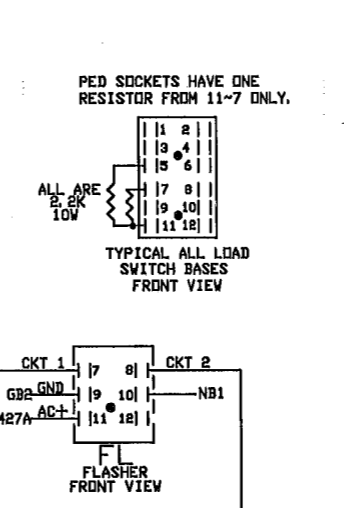
EVP VERIFY LIGHTS

TERMINAL	WIRE COLOR	WIRE COLOR
251	RED	RED
257	RED	RED
263	RED	RED
269	RED	RED

REV. STATUS

SHEET	1	2	3
REV			

LOAD SWITCH PANEL ASSEMBLY



NEMA 12CH CONFLICT MONITOR

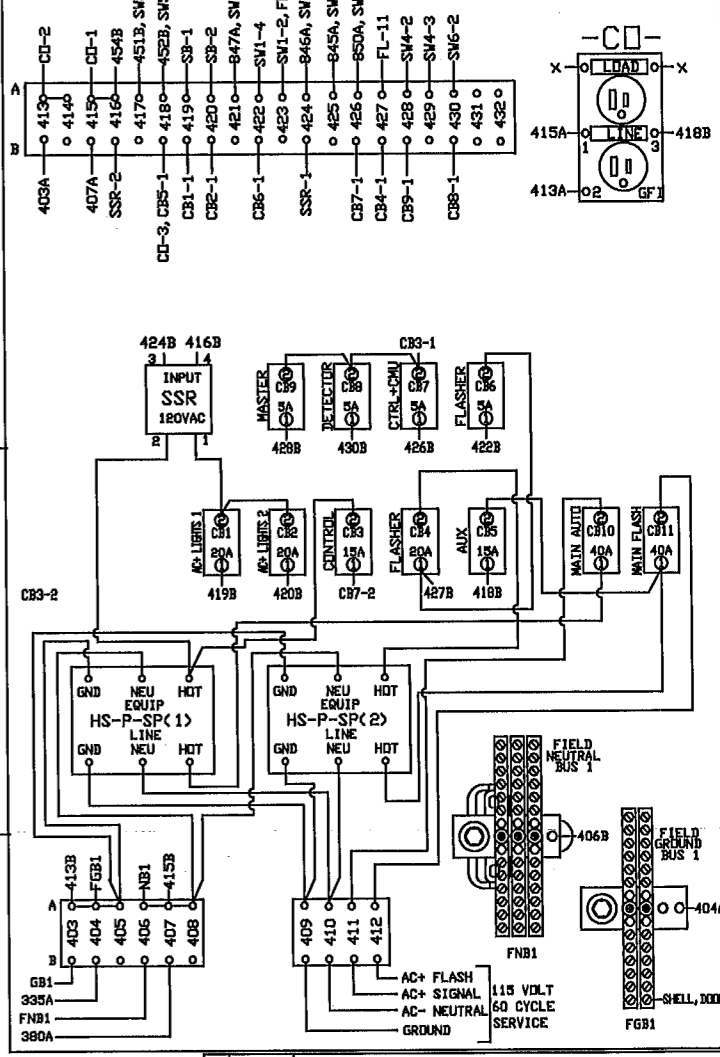
CM1	CM2
SHL SHELL GROUND	GB1
AL AC+ I	826B
BL RELAY 1 NO	848A
CL RELAY 2 NC	141A
DL CH 12 GRN	833A
EL CH 11 GRN	834A
FL CH 10 GRN	835A
GL CH 9 GRN	836A
HL CH 8 GRN #B	244A
JL CH 7 GRN #7	238A
KL CH 6 GRN #6	232A
LL CH 5 GRN #5	226A
ML CH 4 GRN #4	220A
NL CH 3 GRN #3	214A
PL CH 2 GRN #2	208A
RL CH 1 GRN #1	202A
SL +24V MONITOR I	59B
TL LOGIC GROUND	53B
UL CHASSIS GROUND	SHELL
VL AC-(NEUTRAL)	NB1
WL RELAY 1 COMMON(AC)	850A
XL RELAY 2 COMMON(LG)	54B
YL CH 12 YEL	829A
ZL CH 11 YEL	830A
al CH 10 WK	839A
bl CH 10 YEL	831A
cl CH 9 YEL	832A
dl CH 8 YEL #B	246A
el CH 7 YEL #7	240A
fl CH 6 YEL #6	234A
ol CH 5 YEL #5	228A
hl CH 3 YEL #3	216A
il CH 3 WK	843A
jl CH 2 YEL #2	210A
kl CH 1 YEL #1	204A
nl CONT. VOLT. MON.	52B
pl +24V MONITOR INHIBIT	1001B
pl RELAY 1 NC	849A
ql RELAY 2 NO	156A
rl CH 12 WK	837A
sl CH 11 WK	838A
tl CH 9 WK	840A
ul CH 8 WK #B	268A
vl CH 7 WK	841A
wl CH 5 WK	842A
xl CH 4 YEL #4	222A
yl CH 2 WK #2	250A
zl CH 1 WK	844A
AAI SPARE 1	142A
BBI RESET	1004B
CCi CAB INTERLOCK A	1003B
DDi CAB INTERLOCK B	1002B
EEL CH 6 WK #6	262A
FFi CH 4 WK #4	256A
GGi SPARE 2	143A
HHi SPARE 3	144A

CONFLICT MONITOR MATRIX PROGRAMMING INSTRUCTIONS

1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12
1-3	2-4	3-5	4-6	5-7	6-8	7-9	8-10	9-11	10-12	
1-4	2-5	3-6	4-7	5-8	6-9	7-10	8-11	9-12		
1-5	2-6	3-7	4-8	5-9	6-10	7-11	8-12			
1-6	2-7	3-8	4-9	5-10	6-11	7-12				CH5-0.5
1-7	2-8	3-9	4-10	5-11	6-12					CH6-0.6
1-8	2-9	3-10	4-11	5-12						CH7-0.7
1-9	2-10	3-11	4-12							CH8-0.8
1-10	2-11	3-12								CH9-0.9
1-11	2-12									CH10-0.10
1-12										CH11-0.11
										CH12-0.12

CHANNEL-# COMBINATIONS NOT PINNED WITH MATRIX JUMPERS CONSTITUTE CONFLICTING MOVEMENTS. TO PROGRAM, CIRCLE PERMISSIVE COMBINATIONS AND INSTALL JUMPERS ON CORRESPONDING PINS ON THE PROGRAM CARD.

POWER PANEL ASSEMBLY (FRONT VIEW)



ACT Electronics, Inc.

CSAH#56 AT SUNWOOD

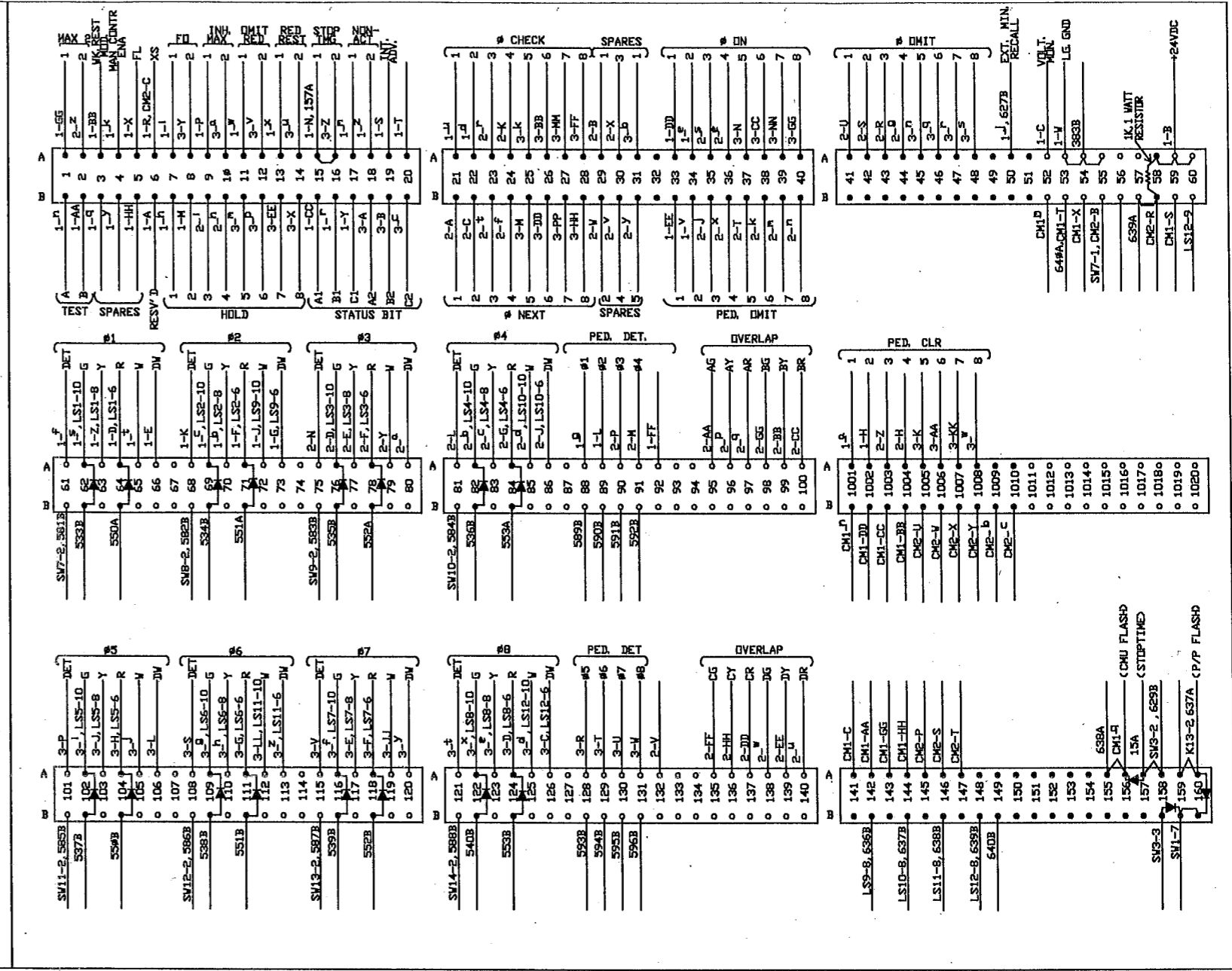
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REV	DATE	BY	DESCRIPTION

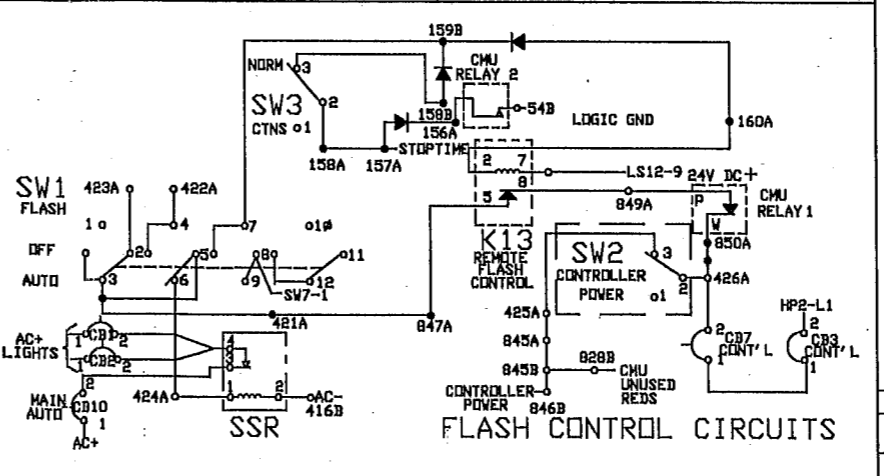
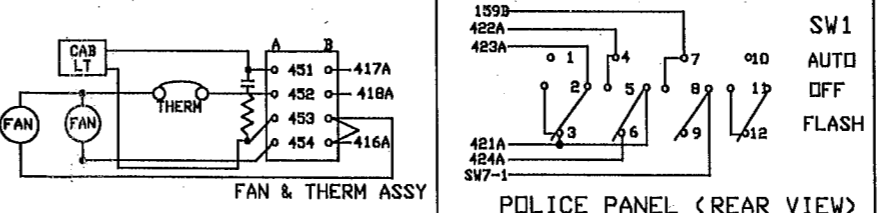
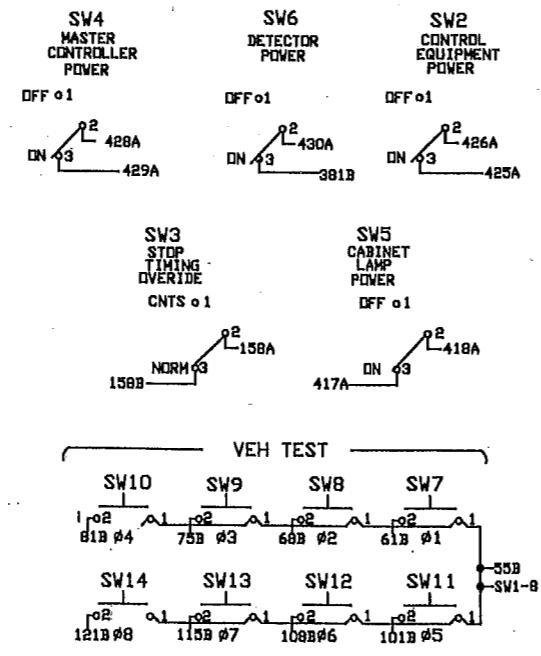
FILE ACT#M01 REV. SHEET 1 OF 3

CONTROLLER INTERFACE PANEL

1	2	3
SH SHELL GROUND 1-V	A1 #1 PHASE NEXT 21B	A1 STATUS BIT A2 10B
A RESV 6B	B SPARE 1 29A	B STATUS BIT B2 19B
B 24VDC+ 59A	C #2 PHASE NEXT 22B	C #8 DVK 126A
C VOLTAGE MONITOR 52A	D #3 GRN 76A	D #8 RED 126A
D #1 RED 64A	E #3 YEL 77A	E #7 YEL 124A
E #1 DVK 66A	F #3 RED 78A	F #7 RED 117A
F #2 RED 71A	G #4 RED 84A	G #6 RED 118A
G #2 DVK 73A	H #4 PCL 1004A	H #5 RED 111A
H #2 PCL 1002A	J #4 DVK 86A	J #5 YEL 104A
I #2 VK 72A	K #4 CHECK 24A	K #5 PCL 103A
K #2 VEH DET 68A	L #4 VEH DET 81A	L #5 DVK 1005A
L #2 PED DET 89A	M #4 PED DET 91A	M #5 PHASE NEXT 106A
M #2 HOLD 8B	N #3 VEH DET 75A	N #5 VEH DET 101A
N STOP TIMING 1 15A	P #3 PED DET 90A	P #5 PHASE DN 37A
P INHIBIT MAX TERM 1 9A	R #3 PHASE DMIT 43A	R #5 PED DET 128A
R EXTERNAL START 6A	S #2 PHASE DMIT 42A	S #6 VEH DET 108A
S INTERVAL ADVANCE 19A	T #5 PED DMIT 37B	T #6 PED DET 108A
T INDICATOR LAMP COUNT 20A	U #1 PHASE DMIT 41A	U #7 PED DET 129A
U AC- NEUTRAL N81	V PED RECYCLE 2 132A	V #7 VEH DET 130A
V CHASSIS GROUND 6B1	X SPARE 2 29B	X #8 PED DET 115A
W LOGIC GROUND 53A	Y SPARE 3 30A	Y #8 HOLD 131A
X FLASH LOGIC OUT 5A	Z #3 VK 79A	Z #8 YEL 125A
Y STATUS BIT C1 17B	a #3 PCL 1003A	a #8 YEL 125A
Z #1 YEL 63A	b #3 DVK 80A	b #7 GRN 123A
a #1 PCL 1001A	c #4 GRN 82A	c #6 GRN 116A
b #2 YEL 70A	d #4 YEL 83A	d #6 YEL 109A
c #2 GRN 69A	e #4 VALK 85A	e #5 GRN 110A
d #2 CHECK 22A	f #4 PHASE DN 36A	f #5 VK 102A
e #2 PHASE DN 34A	g #4 PHASE NEXT 24B	g #5 CHECK 105A
f #1 VEH DET 61A	h #4 PHASE DMIT 44A	h #5 HOLD 25A
g #1 PED DET 88A	i #4 HOLD 10B	i #5 PHASE DMIT 11B
h #1 HOLD 7B	j #3 HOLD 9B	j #6 HOLD 12B
i FORCE OFF 1 7A	k #3 PED DMIT 35B	k #6 PHASE DMIT 46A
j EXT MIN RECALL ALL 50A	l #6 PED DMIT 38B	l #7 PHASE DMIT 47A
k MAIN CONTROL ENABLE 4A	m #7 PED DMIT 39B	m #8 PHASE DMIT 48A
l CALL TO NON-ACT I 17A	n #8 PED DMIT 40B	n #8 PHASE DMIT 48A
m TEST INPUT A 1B	p DL A YEL 96A	p #8 VEH DET 121A
n AC+ CONTROL 846B	q SPARE 1 3B	q RED REST MODE 2 12A
o SPARE 1 3B	r #3 CHECK 23A	r DMIT RED CLR 2 14A
p STATUS BIT B1 16B	s #3 PHASE DN 35A	s #8 PCL 1008A
q #1 GRN 62A	t #3 PHASE NEXT 23B	t #7 DVK 122A
r #1 VK 65A	u DL D RED 23B	t #6 DVK 120A
s #1 CHECK 21A	v SPARE 4 140A	u #6 PCL 1006A
t #2 PED DMIT 34B	w DL D GRN 30B	vv #6 CHECK 26A
u DMIT RED CLR 11A	x #4 PED DMIT 138A	cc #6 PHASE DN 38A
v RED REST MODE 1 13A	y SPARE 5 31B	dd #6 PHASE NEXT 26B
w SPARE 2 4B	z MAX 2 SELECT 2 2A	ee #7 HOLD 13B
x CALL TO NON-ACT II 18A	AA DL A GRN 95A	ff #8 CHECK 28A
y TEST INPUT B 2B	BB DL B YEL 99A	gg #8 PHASE DN 40A
z WALK REST MODIFIER 3A	CC DL B RED 100A	hh #8 PHASE NEXT 28B
AA STATUS BIT A1 15B	DD DL C RED 137A	jj #7 PCL 119A
BB #1 PHASE DN 33A	EE DL D YEL 139A	kk #7 VK 1007A
CC #1 PED DMIT 33B	FF DL C GRN 135A	ll #6 CHECK 112A
DD #1 PED DMIT 33B	GG DL B GRN 98A	mm #7 PHASE DN 27A
EE #1 PED DMIT 33B	HH DL C YEL 136A	nn #7 PHASE DN 39A
FF PED RECYCLE 1 92A		pp #7 PHASE NEXT 27B
GG MAX 2 SELECT 1A		
HH SPARE 3 5B		



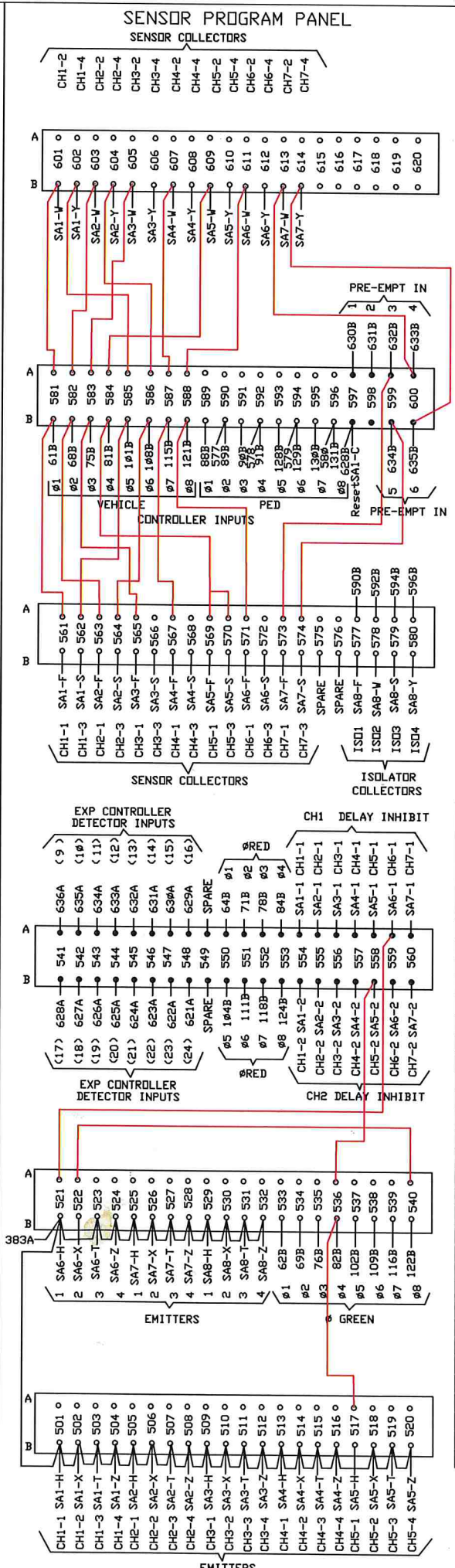
AUX PANEL (REAR VIEW)



REV. STATUS	
SHEET	1 2 3
REV	

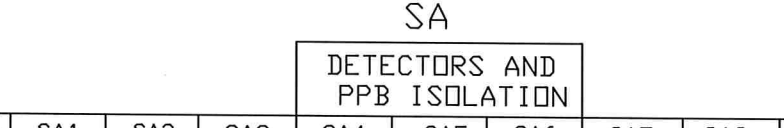
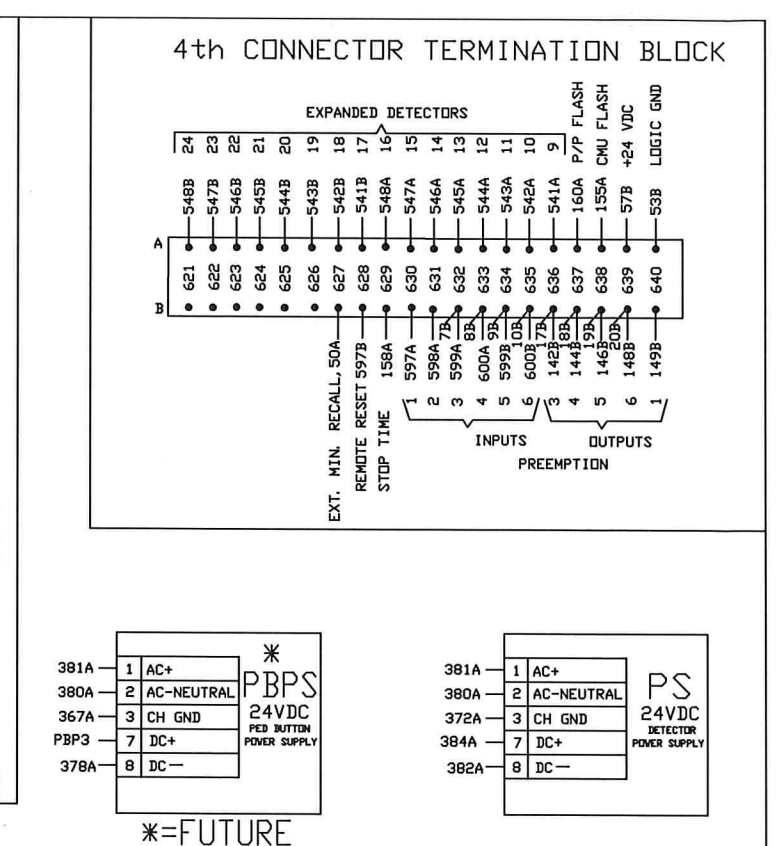
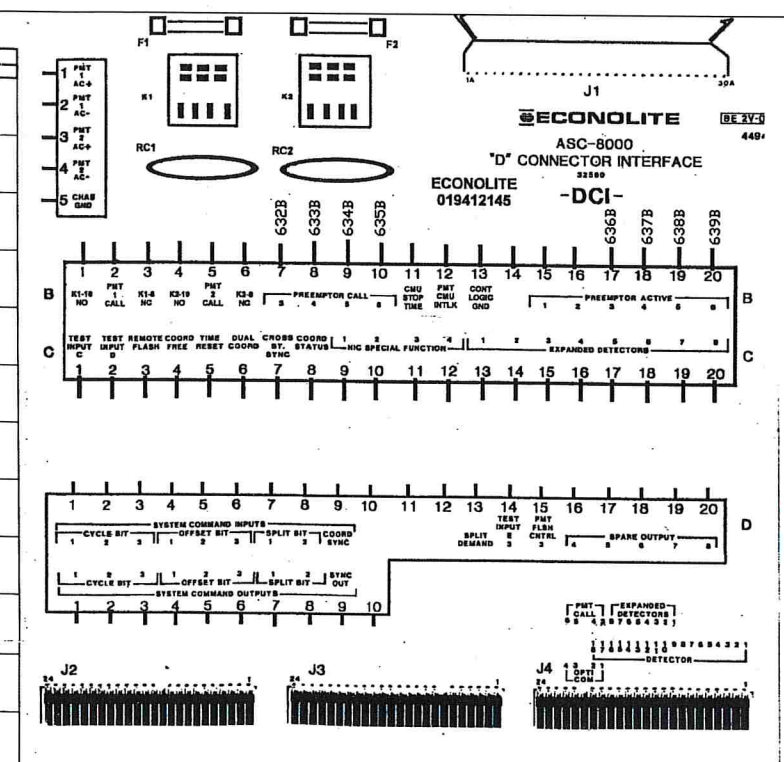
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MNDOT 2002 'R' & 'P' CABINET	
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BY	
CHKD	
APP'D	
SCALE	

CSAH#56 AT SUNWOOD	
ACT Electronics, Inc.	
FILE	
ACT#	
REV	
SHEET	8 OF 8



ASC 8000 "D" CONNECTOR INTERFACE PANEL

TERM	FUNCTION
1	PREEMPT #3 ACTIVE
2	SYSTEM COMMAND OFFSET BIT 3 OUTPUT
3	INVT DEMAND
4	SYSTEM COMMAND COORD SYNC INPUT
5	CROSS STREET SYNC
6	SYSTEM COMMAND CYCLE BIT 3 INPUT
7	NOT USED
8	HC SPECIAL FUNCTION 2
9	SYSTEM COMMAND OFFSET BIT 2 INPUT/EXTERNAL ADDRESS BIT 4
10	SYSTEM COMMAND OFFSET BIT 2 INPUT/EXTERNAL ADDRESS BIT 1
11	HC SPECIAL FUNCTION 4/SPARE OUTPUT 2
12	SYSTEM COMMAND OFFSET BIT 1 INPUT/EXTERNAL ADDRESS BIT 0
13	EXPANDED DETECTOR #8
14	TIME RESET
15	SYSTEM COMMAND OFFSET BIT 1 INPUT/EXTERNAL ADDRESS BIT 3
16	EXPANDED DETECTOR #1
17	EXPANDED DETECTOR #4
18	TEST INPUT #2
19	TEST INPUT #1
20	TEST INPUT #3
21	SYSTEM COMMAND SPLIT BIT 1 OUTPUT
22	PREEMPTOR #3 ACTIVE
23	PREEMPTOR #1 ACTIVE
24	HC SPECIAL FUNCTION SPARE OUTPUT 1
25	SYSTEM COMMAND CYCLE BIT 1 INPUT
26	COORD FREE
27	COORD STATUS
28	HC SPECIAL FUNCTION 1
29	SYSTEM COMMAND CYCLE BIT 3 OUTPUT
30	EXPANDED DETECTOR #5
31	EXPANDED DETECTOR #3
32	PREEMPTOR #2 ACTIVE
33	SYSTEM COMMAND OFFSET BIT 1 OUTPUT
34	PREEMPTOR #4 ACTIVE
35	SYSTEM COMMAND CYCLE BIT 2 INPUT
36	SYSTEM COMMAND OFFSET BIT 3 INPUT/EXTERNAL ADDRESS BIT 2
37	DUAL COORD
38	EXPANDED DETECTOR #6
39	EXPANDED DETECTOR #7
40	SPARE OUTPUT 4
41	SYSTEM COMMAND OFFSET BIT 2 OUTPUT
42	SYSTEM COMMAND CYCLE BIT 1 OUTPUT
43	SYSTEM COMMAND CYCLE BIT 2 OUTPUT
44	SPARE OUTPUT 3
45	SYSTEM COMMAND SPLIT BIT 2 OUTPUT
46	EXPANDED DETECTOR #2
47	PREEMPTOR #3 ACTIVE
48	PREEMPTOR CALL #2
49	PREEMPTOR CALL #1
50	NOT USED
51	CALL STOP TIME (CONFLICT FLASH)
52	PREEMPTOR CALL INTERLOCK (H PULL UP)
53	REMOTE FLASH



SA DETECTORS AND PPB ISOLATION

WIRE COLOR	SA I/O BLOCK	EDGE CONN	FUNCTION	SA1	SA2	SA3	SA4	SA5	SA6	SA7	SA8	FUNCTIONS	PEP ISOLATOR PIN
1	BLK/YEL	A	DC GROUND	382B								1-CALL&EXTEND	A
2	RED	B	24V DC+	384B								2-CALL ONLY	B
3	BLK/BLU	C	REMOTE RESET	597B								3-EXTEND ONLY	C
BRN	3	D-4	CH 1 LOOP	303A	345A	313A	355A	323A	365A	333A	301A	4-CALL ONLY DENS	D
WHT/BRN	4	E-5	CH 1 LOOP	304A	346A	314A	356A	324A	366A	334A	379A	5-DLY CALL ONLY	E
			6 ADDRESS BIT#0		SA1-15	SA2-10	SA3-15	SA4-15	SA5-10	SA6-15	NC	6-DLY CALL ONLY	
WHT/BLU	5	F	CH 1 OUTPUT (+)	561B	563B	565B	567B	569B	571B	573B	577B	7-DENSITY	F
BLUE	6	H	CH 1 OUTPUT (-)	50B	505B	509B	513B	517B	521B	525B	529B	8-IMMED EXT.	H
BLK/RED	7	J-8	CH 2 LOOP	306A	348A	316A	358A	326A	368A	336A	302A	9-CARRY OVER	J
BLK/WHT	8	K-9	CH 2 LOOP	307A	349A	317A	359A	327A	369A	337A	379B	10-ADVISORY	K
			10 ADDRESS BIT#1		SA1-6	SA3-6	SA4-6	SA4-10	SA5-15	SA7-6	NC	11-EVP/SPECIAL	
12	GREEN	L	CHASSIS GROUND	340A								CH 1	L
15	WHITE	M	AC-	SA2-M								CH 2	M
13	BLACK	N	115V AC+	SA2-N								CH 3	N
ORANGE	9	P-13	LOOP CH 3	308A	350A	318A	360A	328A	370A	338A	343A	CH 4	P
WHT/DR	10	R-14	LOOP CH 3	309A	351A	319A	361A	329A	371A	339A	379B	CH 1	R
			15 ADDRESS BIT#2	SA1-10	SA2-6	SA2-15	SA3-10	SA5-6	SA6-10	SA7-10	NC	CH 2	
WHT/GRY	11	S	CH 3 OUTPUT (+)	562B	564B	566B	568B	570B	572B	574B	579B	CH 3	S
GREY	12	T	CH 3 OUTPUT (-)	503B	507B	511B	515B	519B	523B	527B	531B	CH 4	T
YELLOW	13	U-17	CH 4 LOOP	311A	353A	321A	363A	331A	373A	341A	344A	CH 1	U
WHT/YEL	14	V-18	CH 4 LOOP	312A	354A	322A	364A	332A	374A	342A	379A	CH 2	V
			19 DATA TRANSMIT									CH 3	
			21 DATA RECEIVE									CH 4	
WHT/VID	15	W	CH 2 OUTPUT (+)	601B	603B	605B	607B	609B	611B	613B	578B	CH 1	W
VIOLET	16	X	CH 2 OUTPUT (-)	502B	506B	510B	514B	518B	522B	526B	530B	CH 2	X
WHT/GRN	17	Y	CH 4 OUTPUT (+)	602B	604B	606B	608B	610B	612B	614B	580B	CH 3	Y
WHT/BLK	18	Z	CH 4 OUTPUT (-)	504B	508B	512B	516B	520B	524B	528B	532B	CH 4	Z
WHT/RED	1	1	CH 1 GREEN	554A	555A	556A	557A	558A	559A	560A		SPARE	
RED	2	2	CH 2 GREEN	554B	555B	556B	557B	558B	559B	560B		SPARE	

381A 1 AC+
380A 2 AC-NEUTRAL
367A 3 CH GND
PBP3 7 DC+
378A 8 DC-

381A 1 AC+
380A 2 AC-NEUTRAL
372A 3 CH GND
384A 7 DC+
382A 8 DC-

24VDC
24VDC
DETECTOR
POWER SUPPLY

PS
24VDC
DETECTOR
POWER SUPPLY

*=FUTURE

REV. STATUS

SHEET	1	2	3
REV			

DATE 10/26/98
DRAWN HPO

REV. DATE

REVISION

ACT Electronics, Inc.

CSAH#56 AT SUNWOOD

TITLE
MNDOT 2002 'R' & 'P' CABINET

SIZE PARTS
D

FUR MNDOT

SCALE

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FILE ACT0093 REV 1/03