

Claddagh Controls, Ltd.
10-32 47th Road, L.I.C., NY 11101
Telephone: 718-784-0571, Fax: 718-482-9471

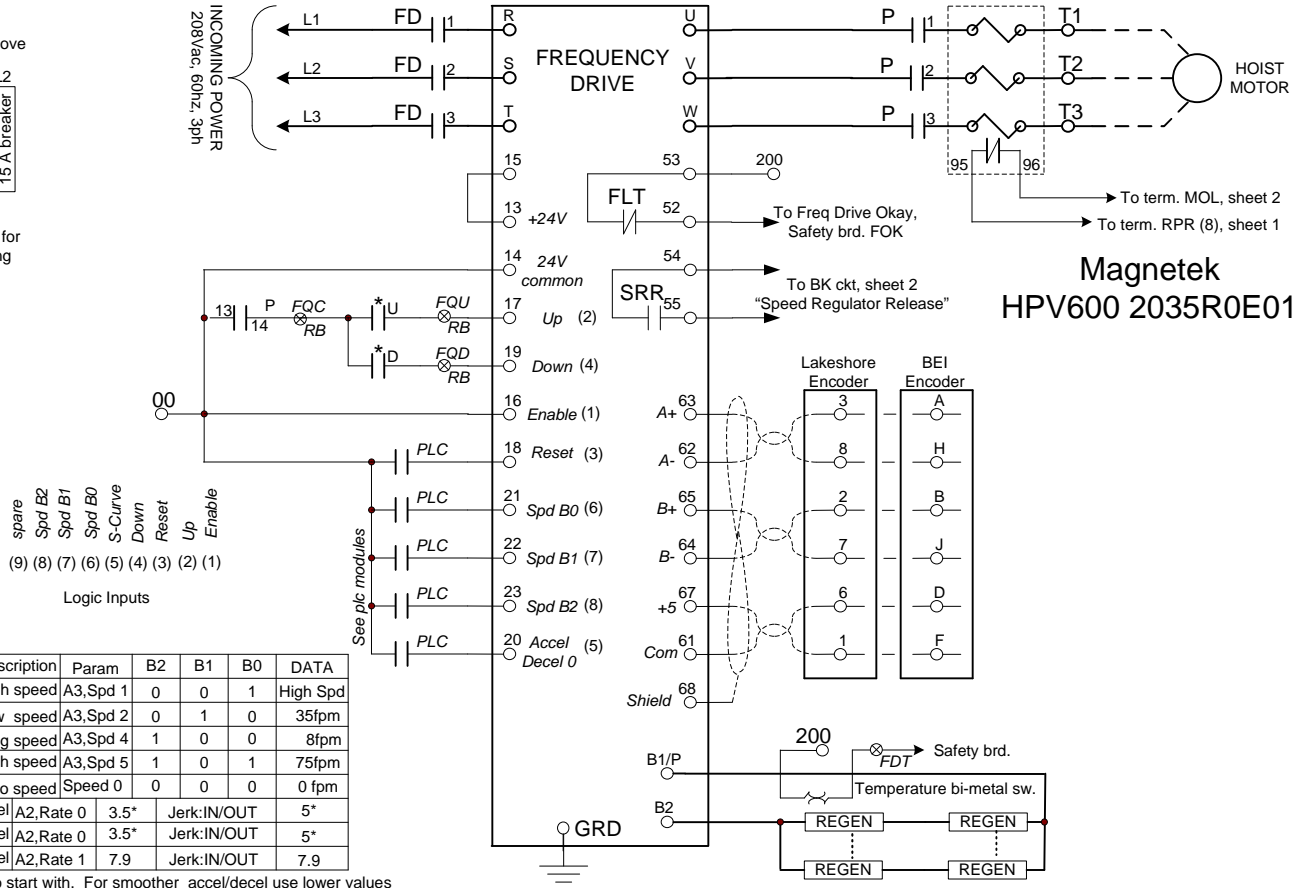
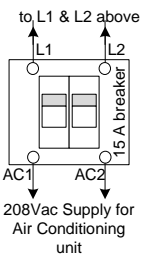
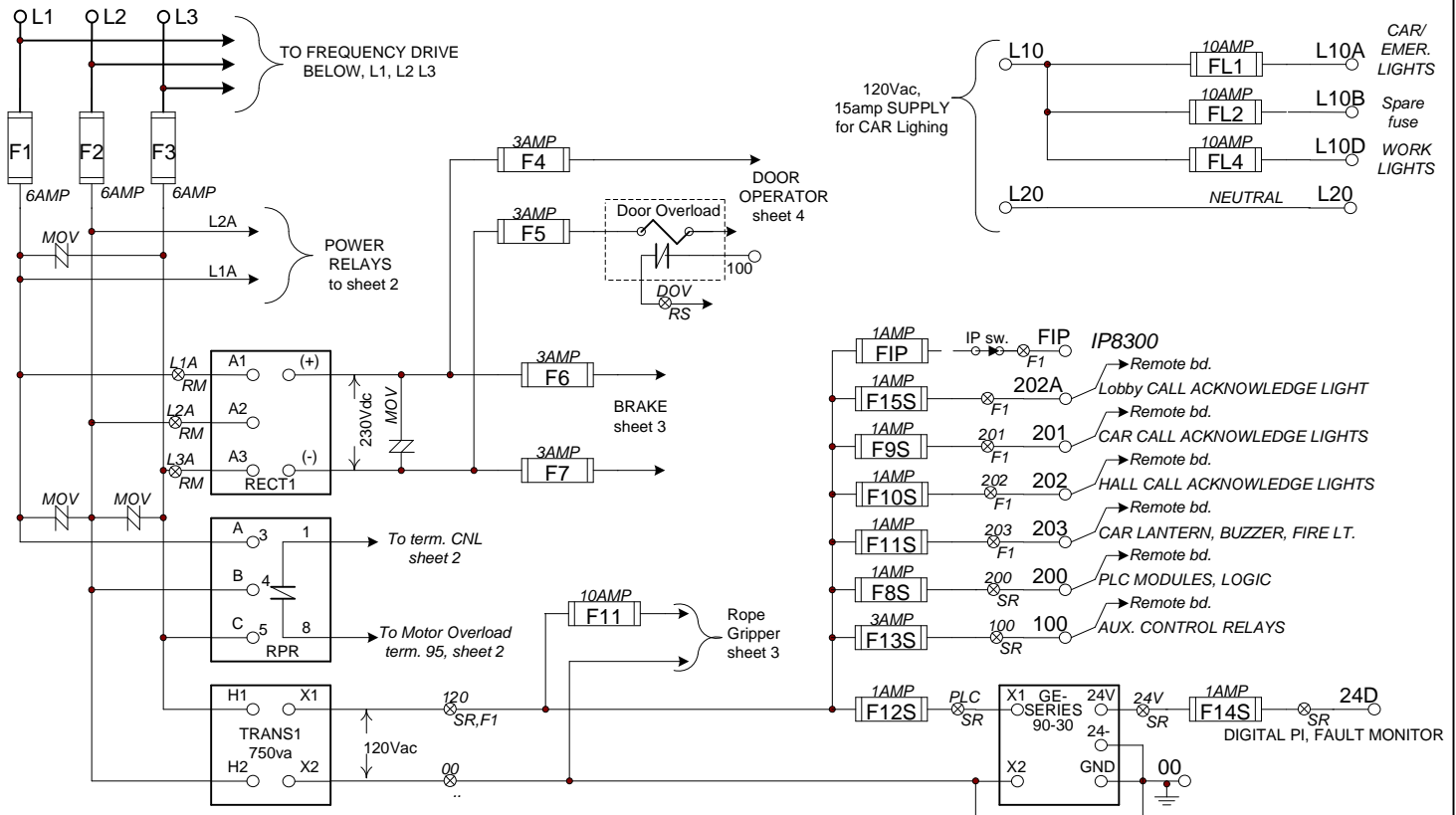
Controller Drawings and Wiring Guide
Manhattanville Houses, Project: EV4018777

Building #1 Address: 529 West 133rd St.
Building #2 Address: 1504 Amsterdam Ave.

6 Stop, Simplex, 150fpm, 10hp

----- *Table of Contents* -----

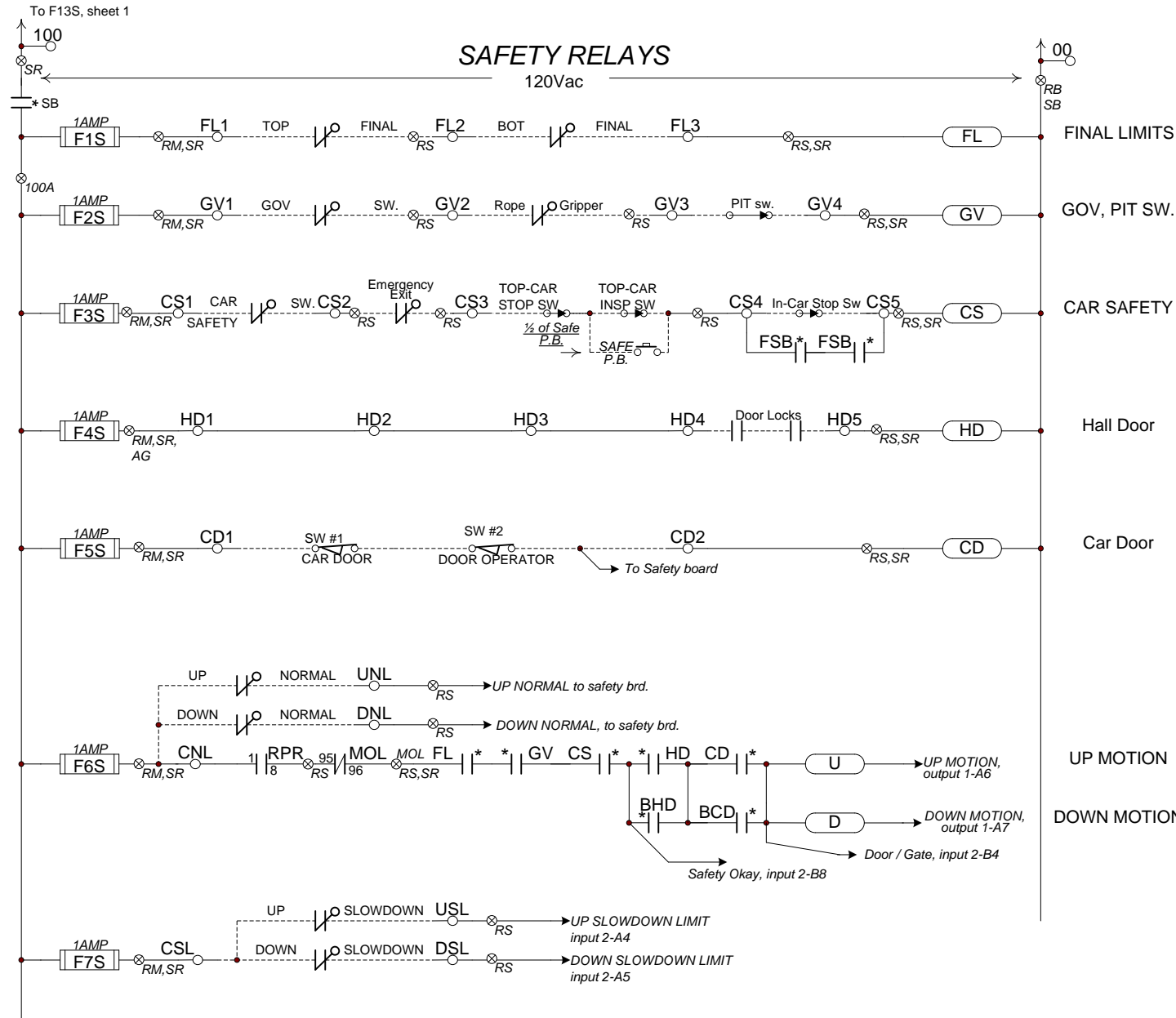
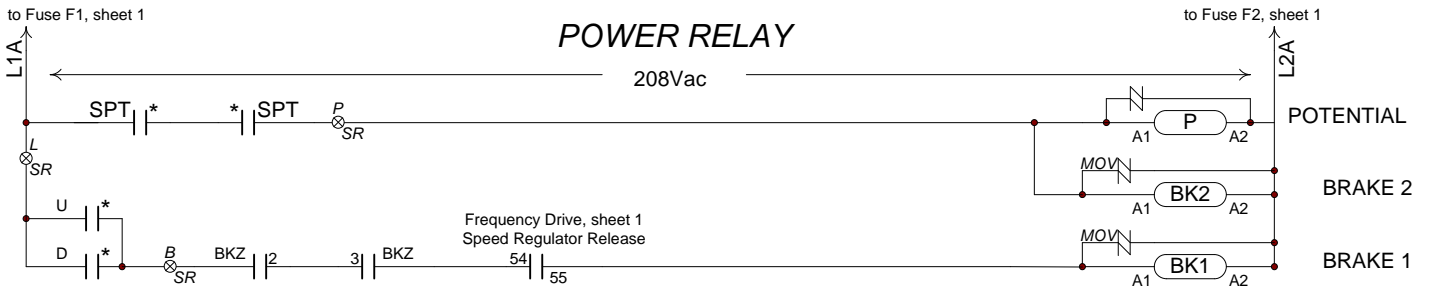
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Description	Param	B2	B1	B0	DATA
High speed	A3, Spd 1	0	0	1	High Spd
Out of zone, Insp Low speed	A3, Spd 2	0	1	0	35fpm
Leveling speed	A3, Spd 4	1	0	0	8fpm
Inspection High speed	A3, Spd 5	1	0	1	75fpm
Zero speed	Speed 0	0	0	0	0 fpm
High speed Accel	A2, Rate 0	3.5*	Jerk:IN/OUT		5*
High speed Decel	A2, Rate 0	3.5*	Jerk:IN/OUT		5*
Stopping Decel	A2, Rate 1	7.9	Jerk:IN/OUT		7.9

*...These are values to start with. For smoother accel/decel use lower values

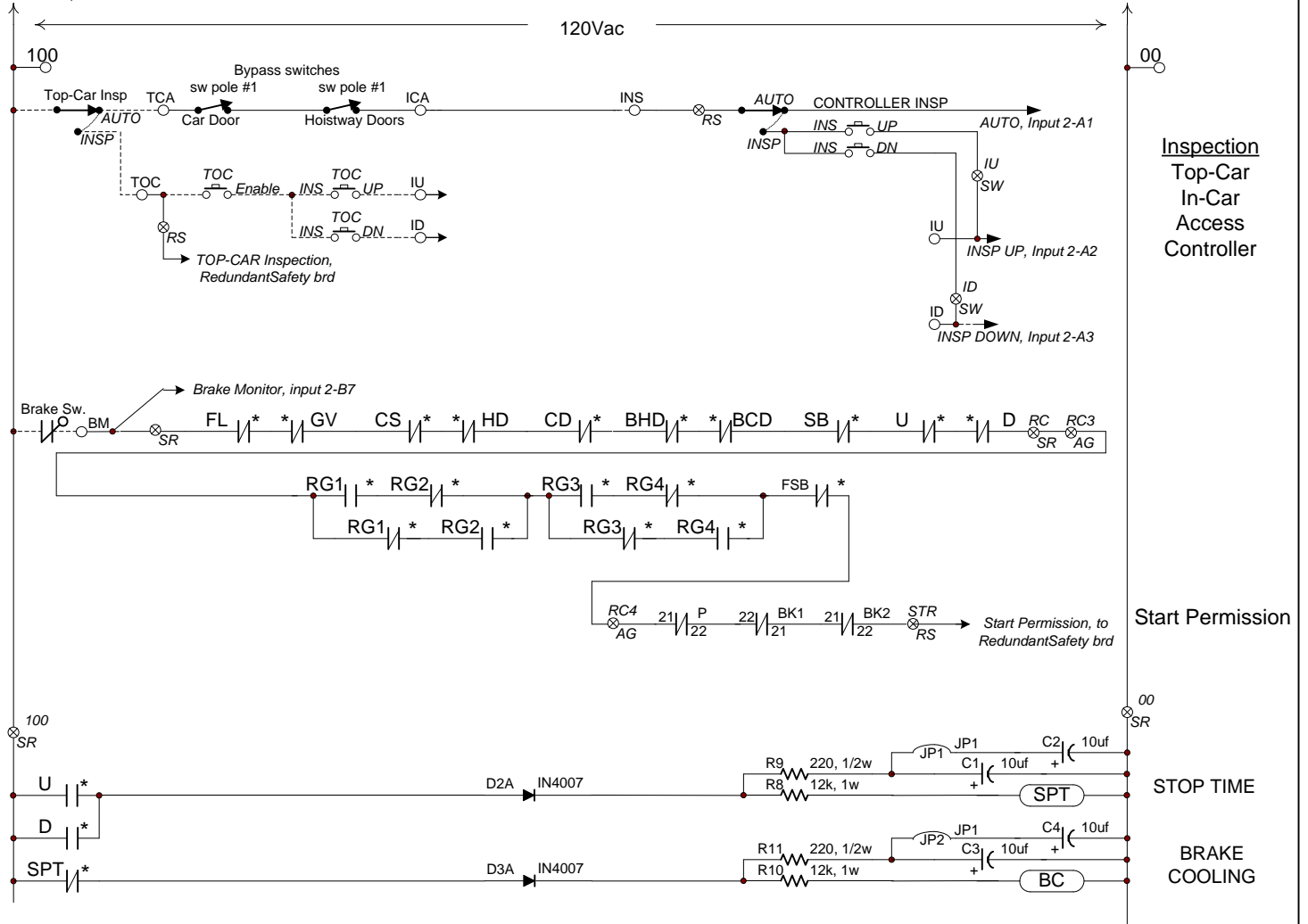
- RM → to Remon brd. F1 → to Fuses1 brd
- RS → to Redundant Safety brd.
- SR → to SafeRelay brd.
- * Force-Guided Safety relay



AG → to AccessGripper brd.
 SW → to SwCont brd.
 RS → to RedundantSafety brd.
 SR → to SafeRelay brd.
 * Force-Guided Safety relay

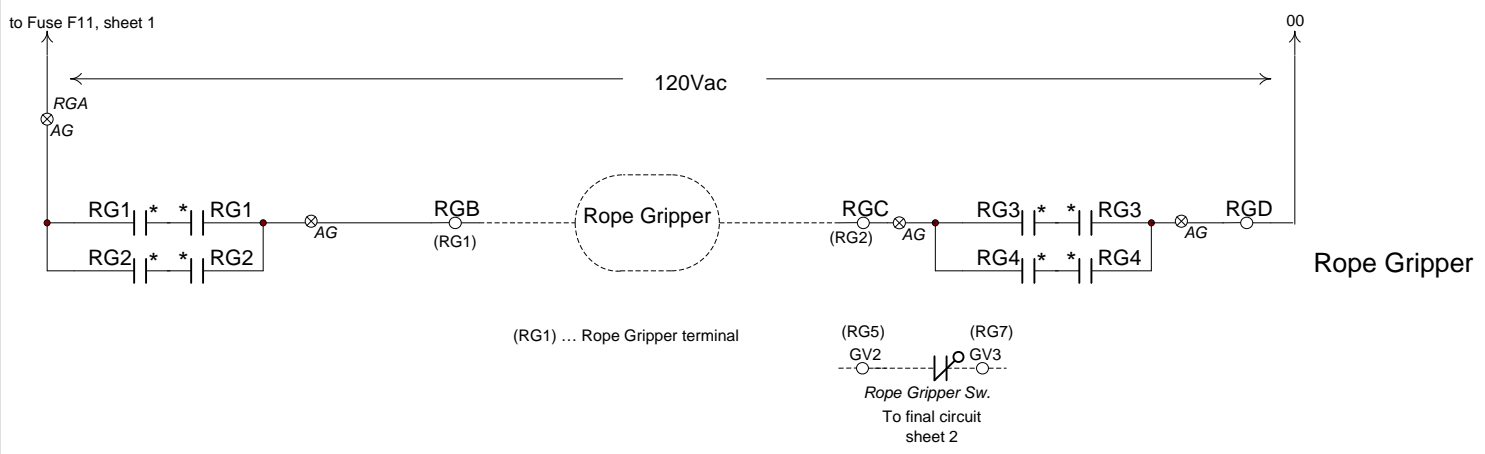
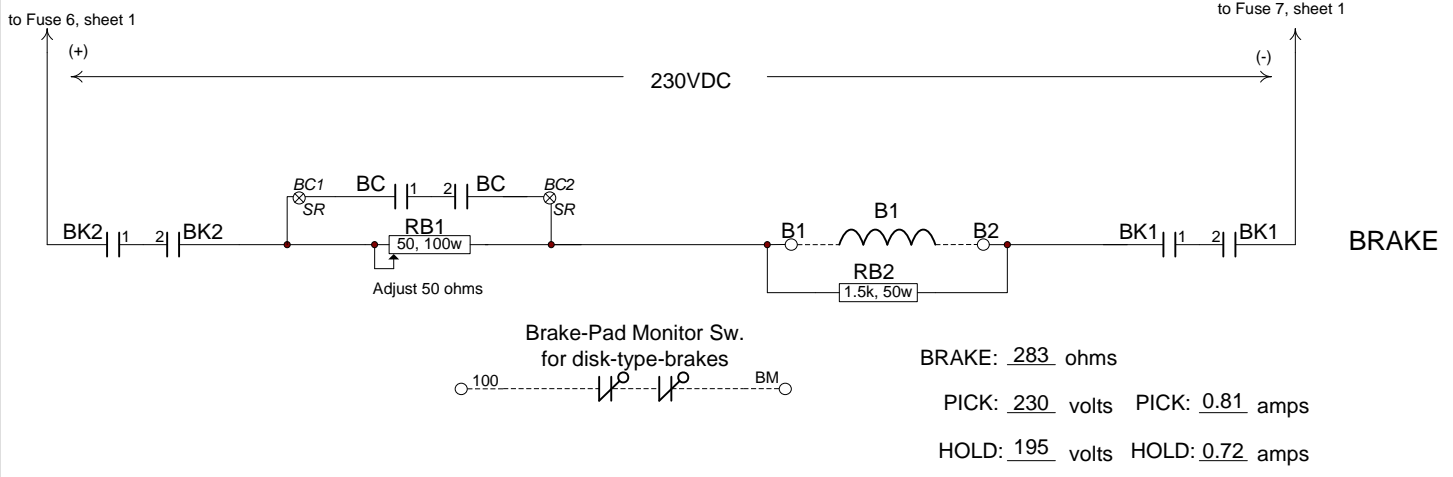
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CLADDAGH CONTROLS LTD.		Page: 2

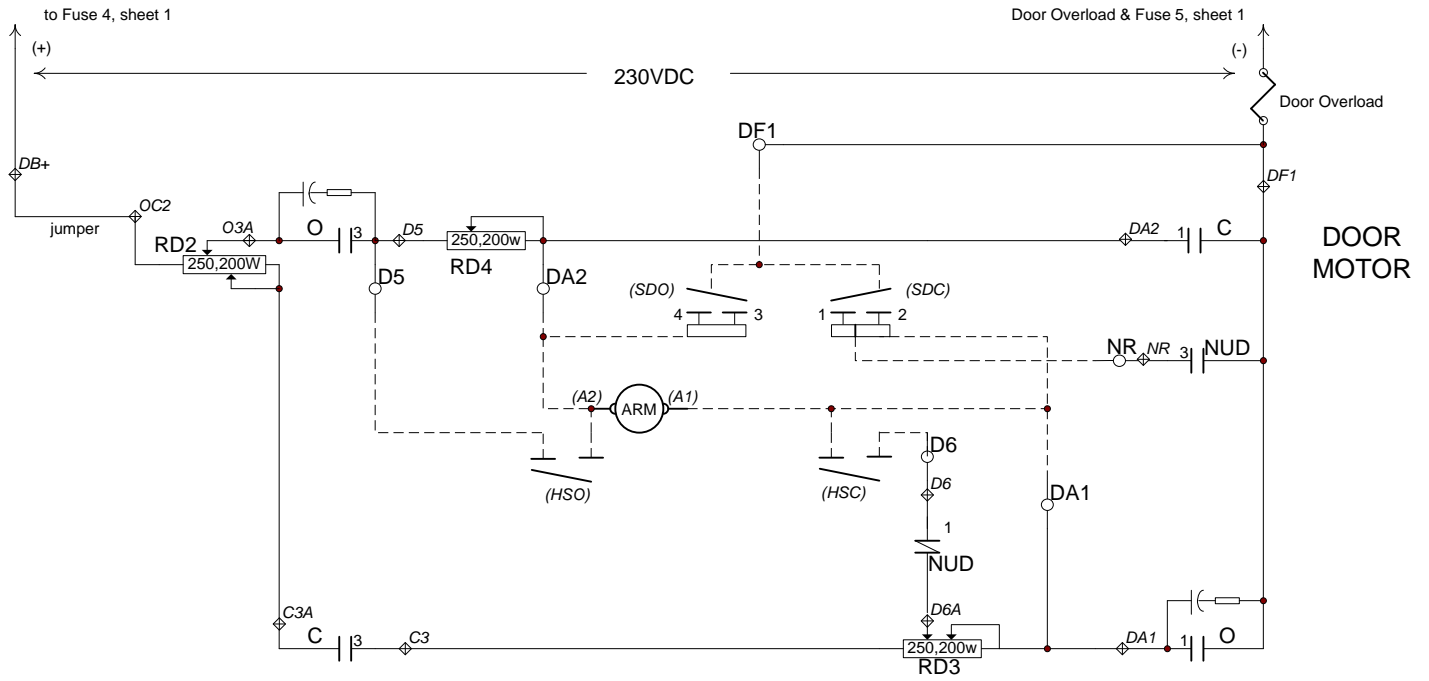
to Fuse 13S, sheet 1

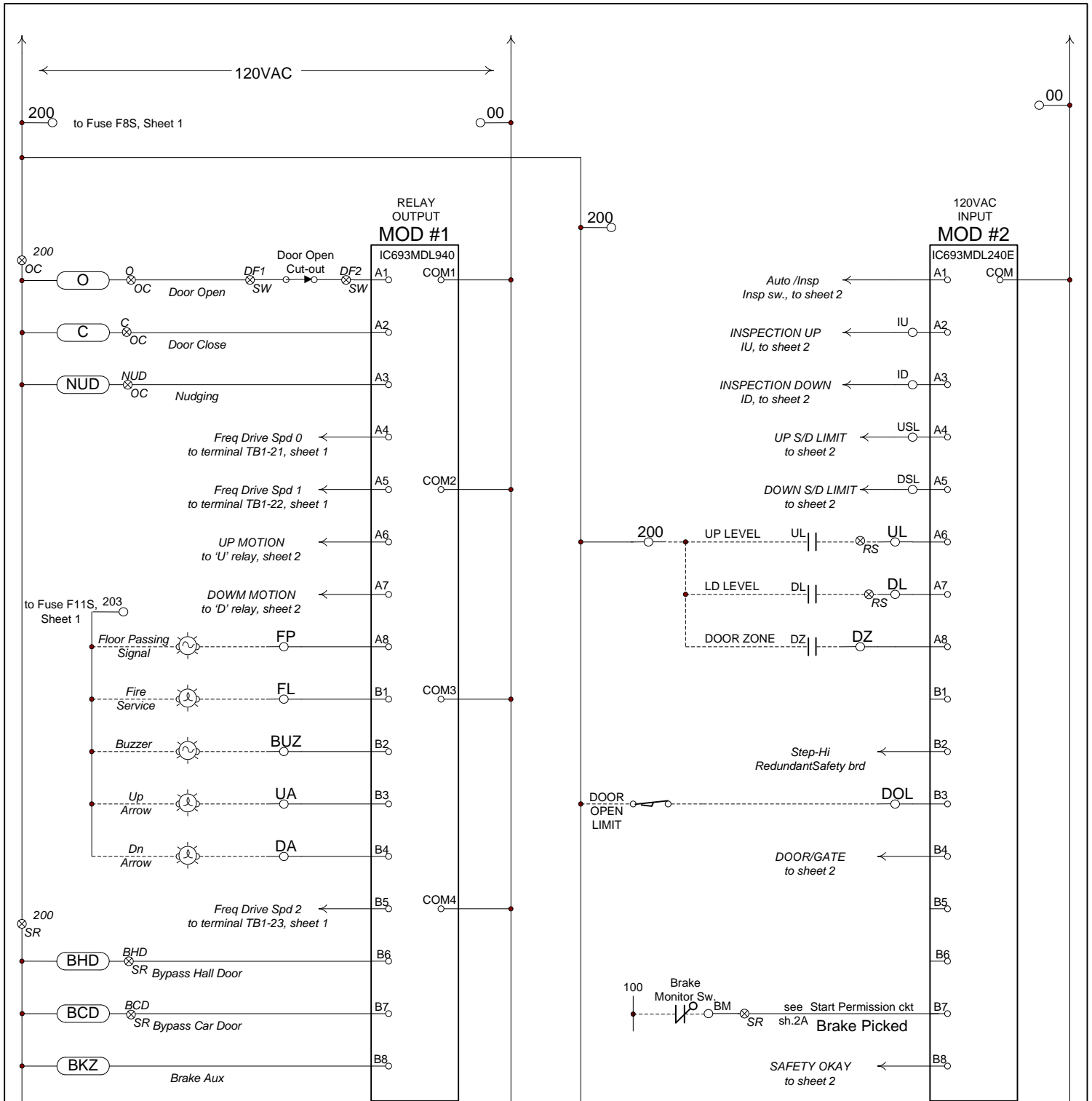


- AG → to AccessGripper brd.
- SW → to SwCont brd.
- RS → to ReduntantSafety brd.
- SR → to SafeRelay brd.
- * Force-Guided Safety relay

file: HA2200AX	Description: CONTROL RELAY, SAFETY CIRCUIT	Date: 5Dec'09
CLADDAGH CONTROLS LTD.		Page: 2A

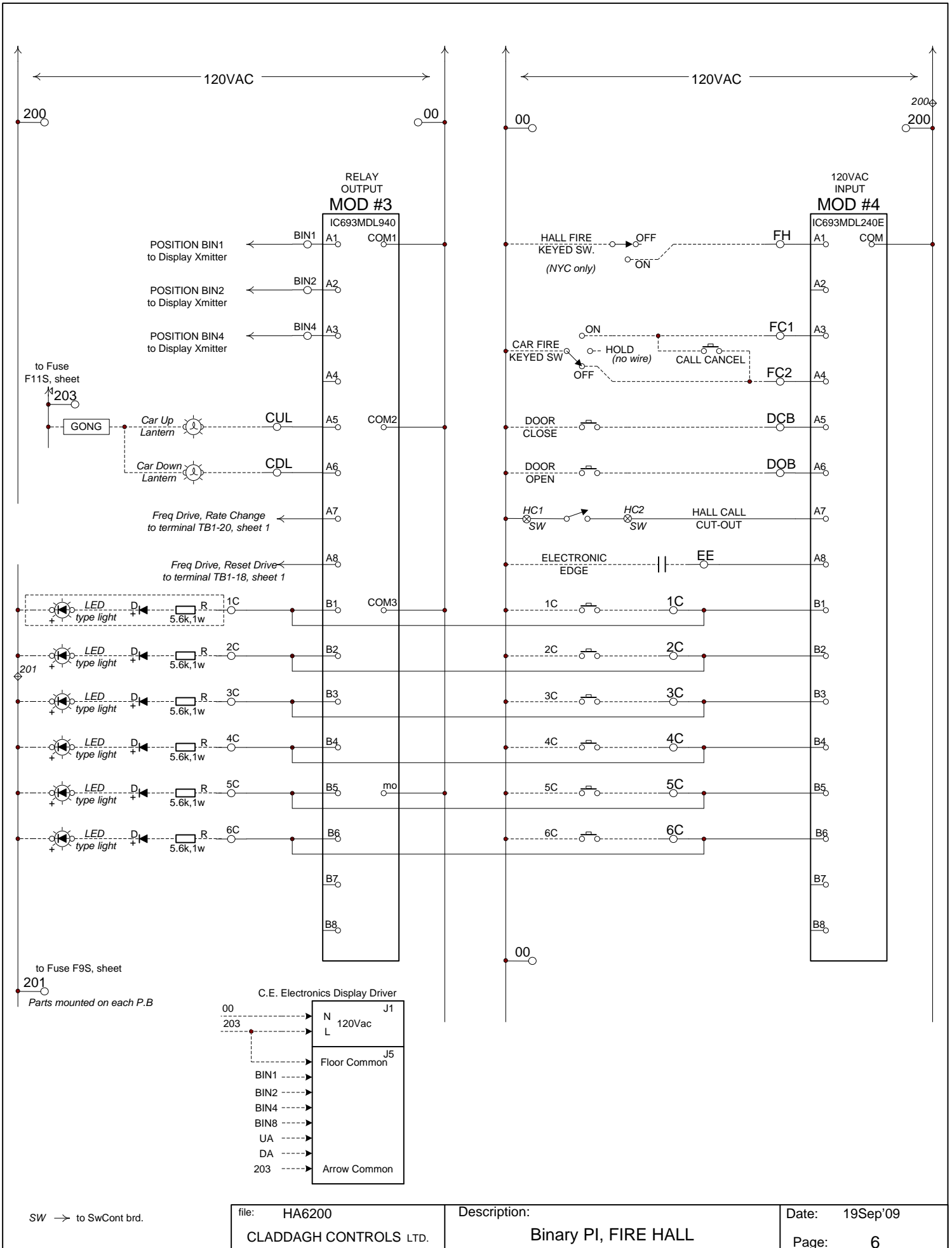






- AG → to AccessGripper brd.
- SW → to SwCont brd.
- RS → to ReduntantSafety brd.
- SR → to SafeRelay brd.
- * Force-Guided Safety relay

file: HA5200	Description: DOOR CONTROL, MOTION, ARROWS	Date: 18Sep'09
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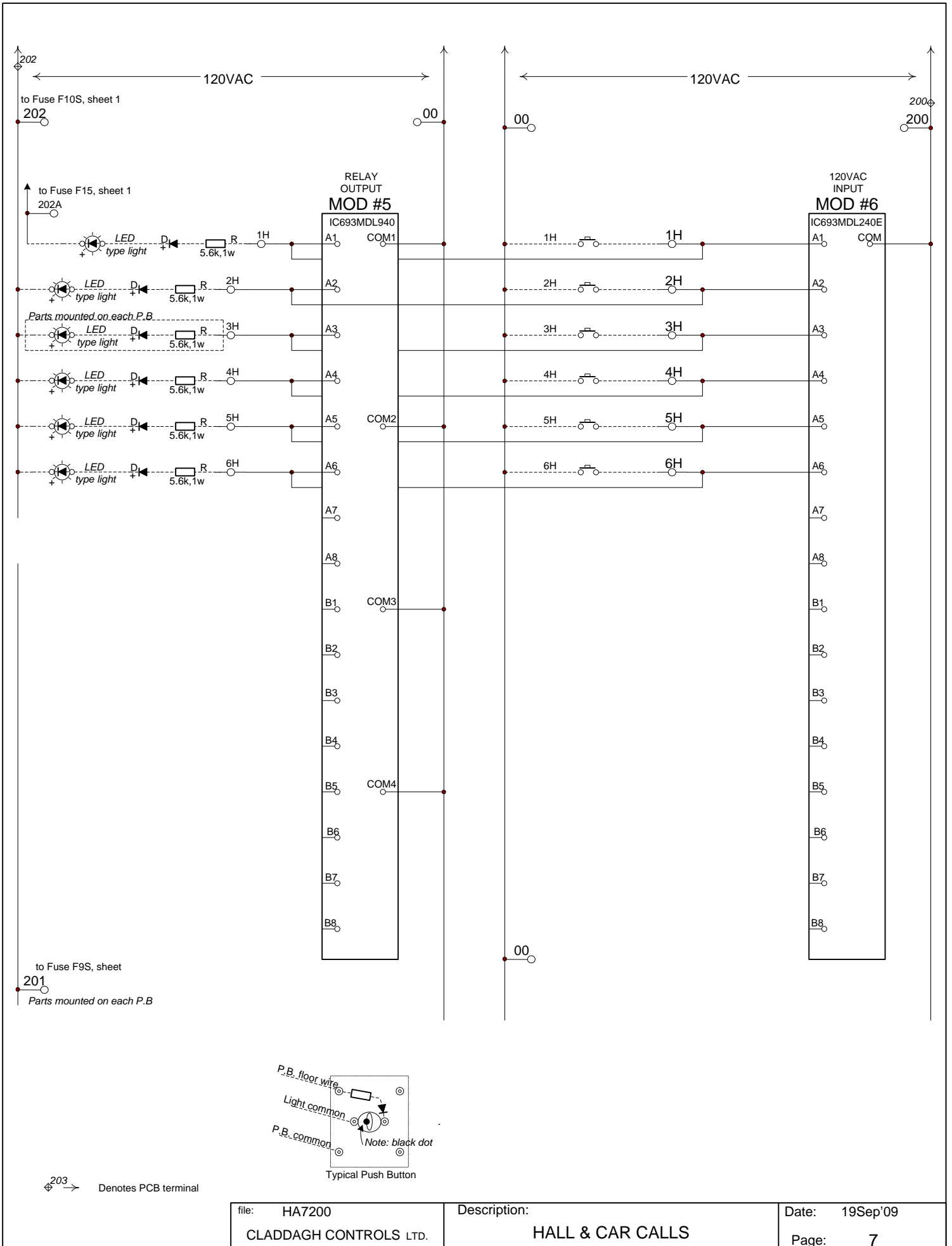


SW → to SwCont brd.

file: HA6200
CLADDAGH CONTROLS LTD.

Description: Binary PI, FIRE HALL

Date: 19Sep'09
Page: 6



Claddagh Controls, Ltd.

Magnetek HPV 600 (Close-Loop), Size Selection

File: HPVsize10Imp.doc

Motor Data:

Manufacture: Imperial Electric HP: 10 RPM: 1165 Volts: 208 Amps: 29.6

Base upon the requirements that the drive be able to handle 200% of full load current, the 7.5kw size drive HPV600-2035 should be used for this application.

2.00 (%) x 29.6 amps (motor rating) = 59.2 amps peak

Current Ratings

North American

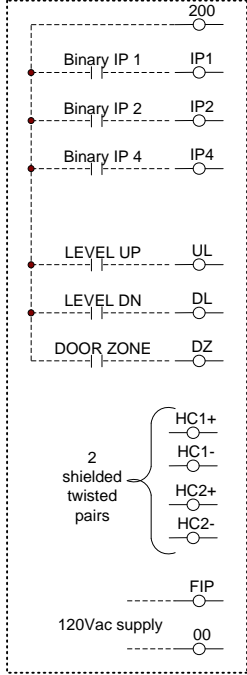
<i>Voltage Class</i>	<i>Rated HP</i>	<i>Rated kW</i>	<i>Continuous Output General Purpose Current Rating</i>	<i>Continuous Output Elevator Duty Cycle Current Rating</i>	<i>150% Output Current For 60 Sec</i>	<i>200% Maximum Output Current For 5 Sec</i>	<i>Cube Size*</i>	<i>Model Number**</i>
380V to 480V	10	7.5	18 A	20.8 A	27 A	36 A	B	HPV600-4018-xxxx-xx
	15	11	24 A	27.8 A	36 A	48 A	B	HPV600-4024-xxxx-xx
	20	15	34 A	39.44 A	51 A	68 A	C	HPV600-4034-xxxx-xx
	25	18	39 A	45.2 A	58.5 A	78 A	C	HPV600-4039-xxxx-xx
200V to 240V	7.5	5.5	28 A	34.4 A	42 A	56 A	A	HPV600-2028-xxxx-xx
	10	7.5	35 A	40.6 A	52.5 A	70 A	B	HPV600-2035-xxxx-xx
	15	11	47 A	54.5 A	70.5 A	94 A	B	HPV600-2047-xxxx-xx
	20	15	60 A	69.6 A	90 A	120 A	C	HPV600-2060-xxxx-xx

- All ratings at 60/50hz, 10kHz carrier frequency and based on a geared elevator application
- Standard: CSA

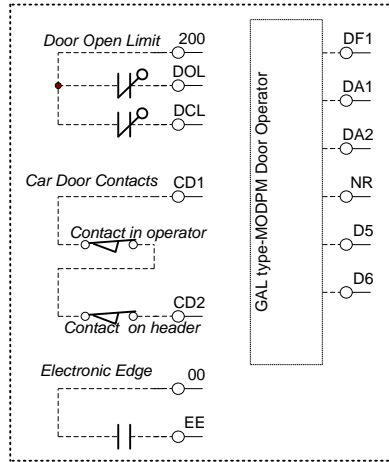
Note:

The above chart is from page 4 of the MAGNETEK: HPV 600 AC Elevator Drive Technical Manual

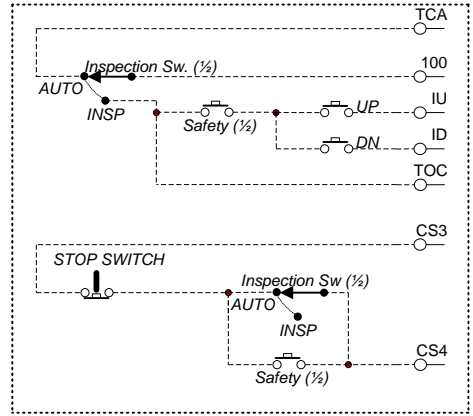
IP8300+ Leveling Unit



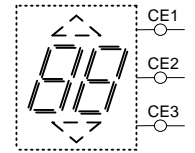
Door Operator



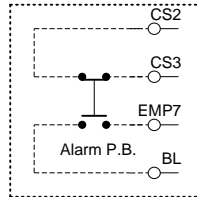
Top-Car Inspection



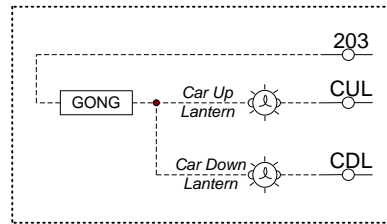
Car Digital PI



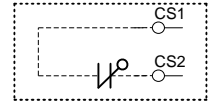
Emergency Exit Sw.



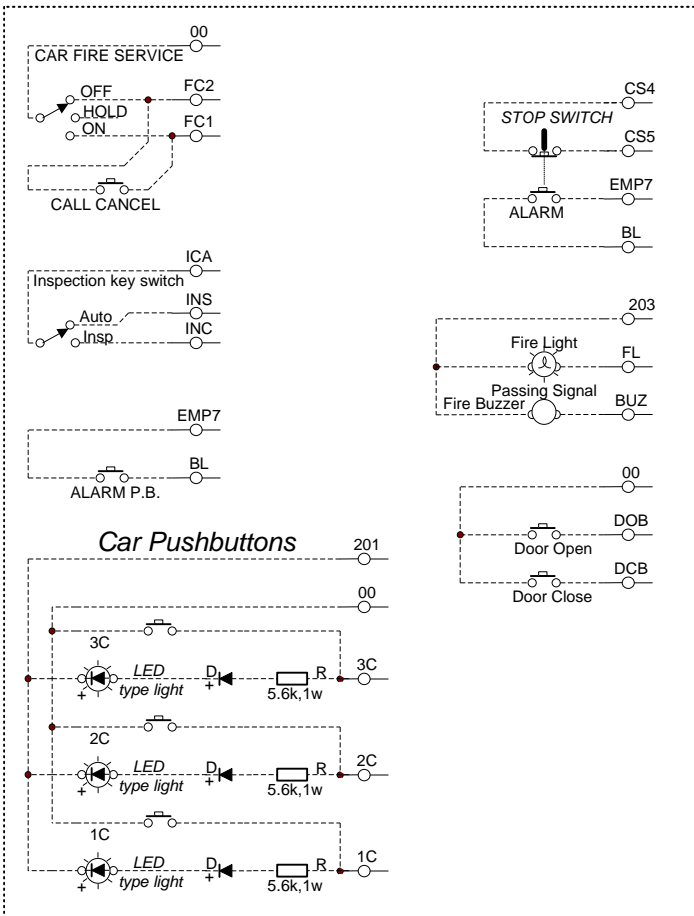
Car Arrival Lantern



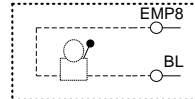
Car Safety Plank Sw.



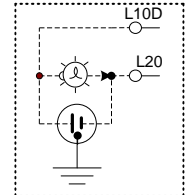
Car Station



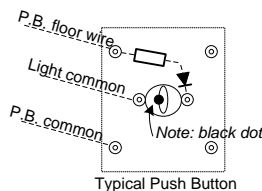
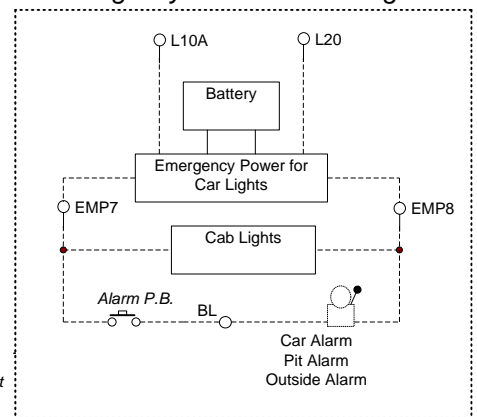
Car Alarm



WORK LIGHT



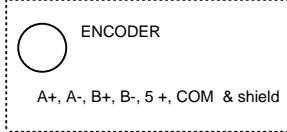
Emergency Power for Car Lights



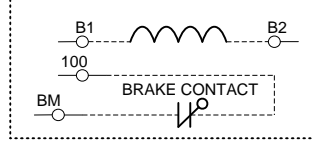
Governor



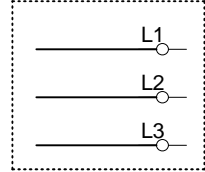
Encoder



Brake



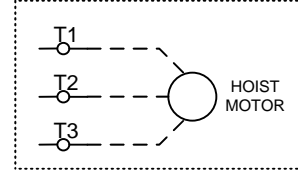
Main Line



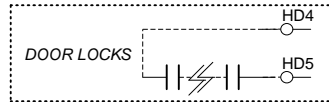
Rope Gripper



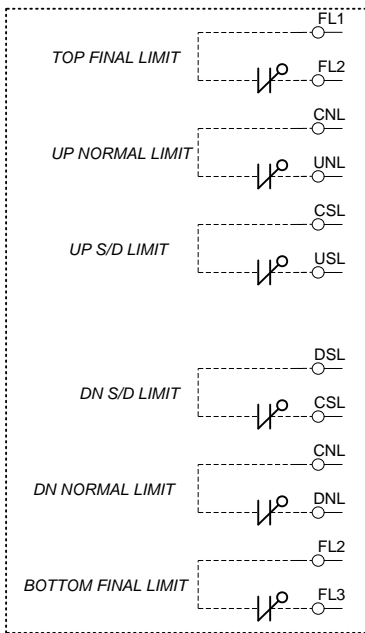
Hoist Motor



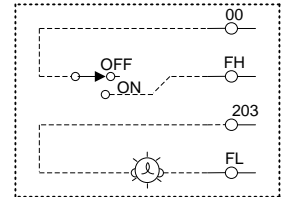
Door Locks



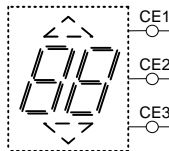
Shaft-way Limits



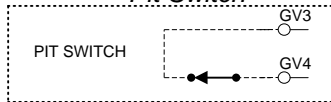
Hall Fire Service



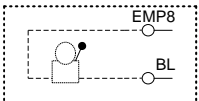
Hall Digital PI



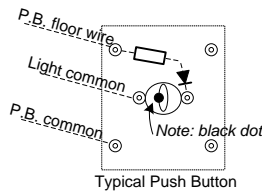
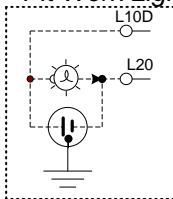
Pit Switch



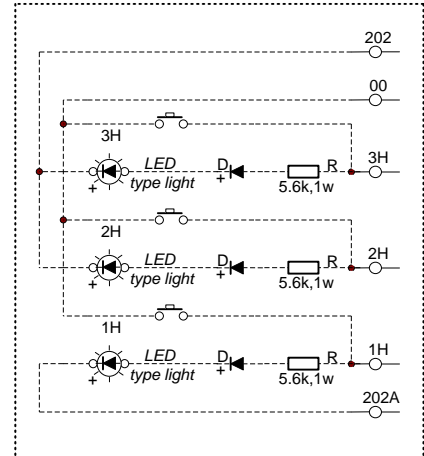
Pit Alarm



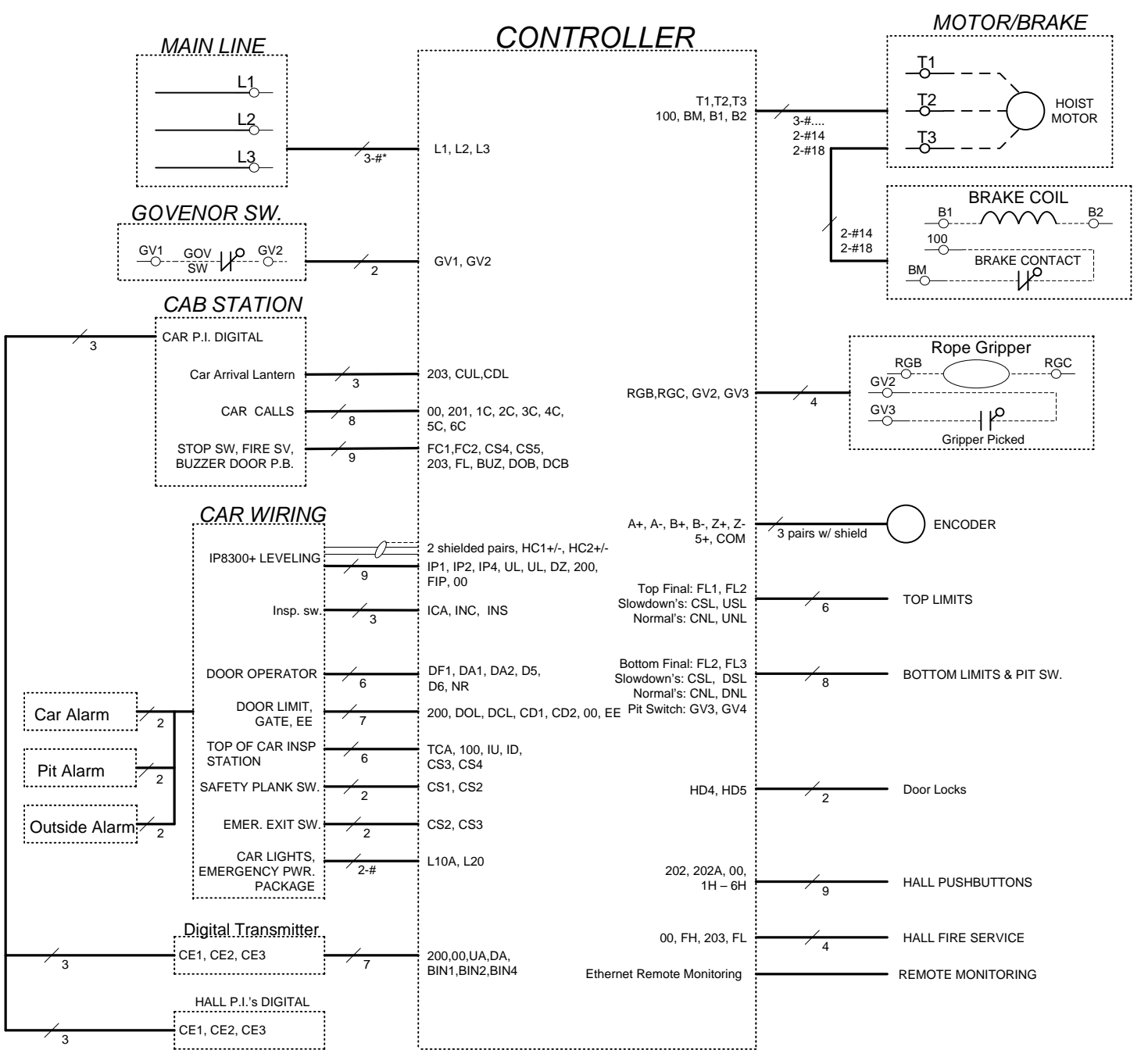
Pit Work Light



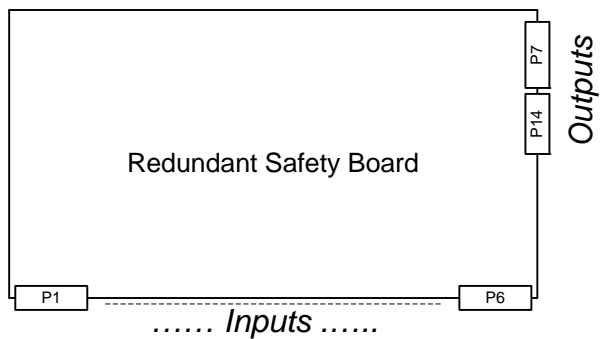
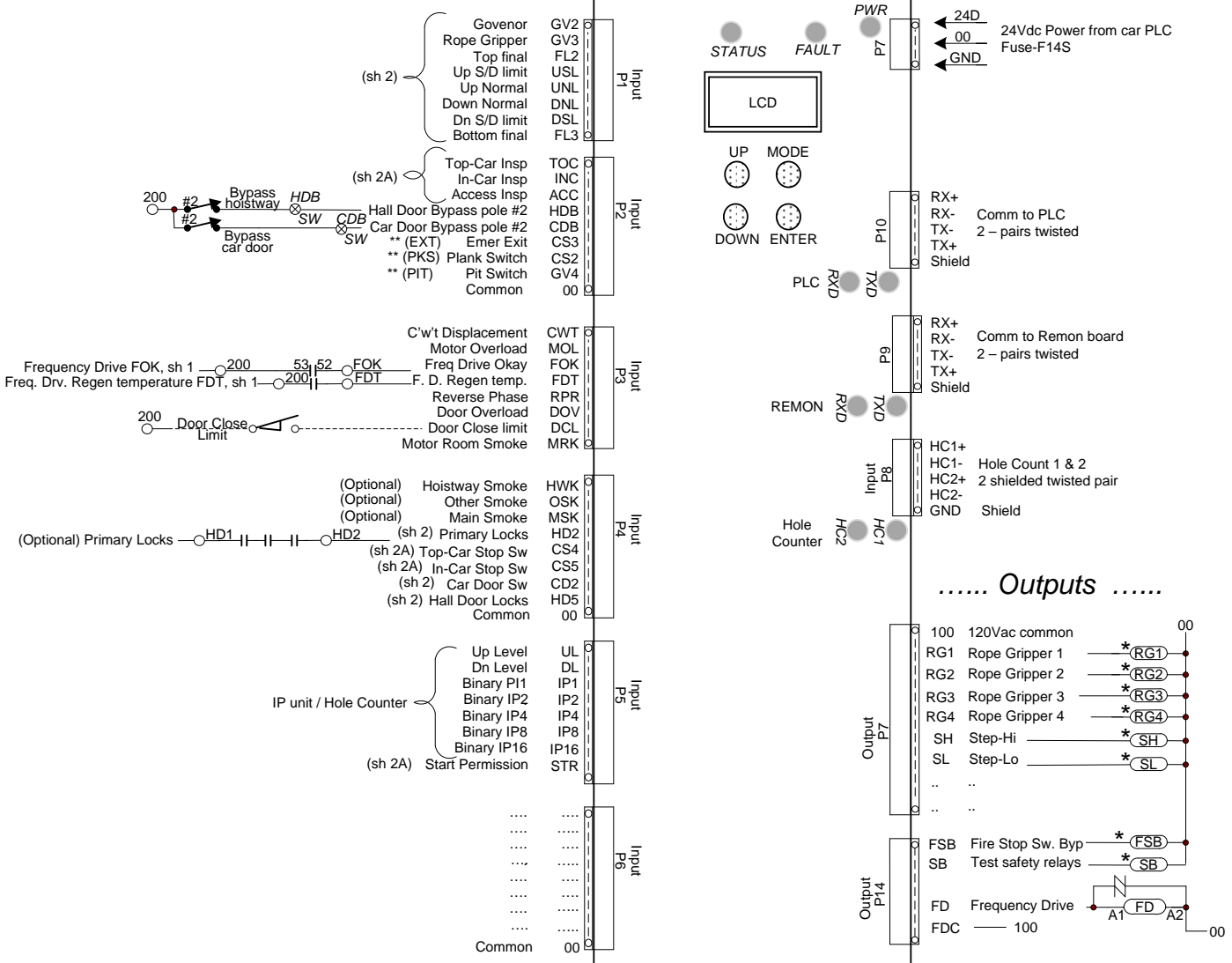
Hall Pushbuttons



CONTROLLER



..... Inputs



Note:
 * Force-Guided relay
 SW → to SwCont brd.

Rev: 24Jan'10

file: RedundantSafetyH	Description: Redundant Safety Board	Date: 22Jul'09
CLADDAGH CONTROLS LTD.		Page: 12

RELAYS

Name	Function	Sheet	Relay Type	Part Number
BAC	Bottom Access Insp	5	Safety Relay	Altech 085611.48/2496L1/61 110vdc
BK1	Brake 1	2	Contactactor	3RT1017-1AM22
BK2	Brake 2	2	Contactactor	3RT1026-1AM20
BKC	Brake Cooling	2A	4 Pole	Altech 085611.48/2496L1/61 110vdc
BKZ	Brake Aux.	5	Safety Relay	
C	Close	6	3PDT	KUP-14A35120V
CD	Car Door switch	2	Safety Relay	Altech 085611.48/2496L1/61 110vdc
CDB	Car Door Bypass	5	Safety Relay	Altech 085611.48/2496L1/61 110vdc
CS	Car Safety circuit	2	Safety Relay	Altech 085611.48/2496L1/61 110vdc
D	Down Motion	2	Safety Relay	Altech 085611.48/2496L1/61 110vdc
FL	Final Limits	2	Safety Relay	Altech 085611.48/2496L1/61 110vdc
FSB	Fire Stop Bypass	6	Safety Relay	Altech 085611.48/2496L1/61 110vdc
GS	Gate switch	2	Safety Relay	Altech 085611.48/2496L1/61 110vdc
GV	Gov. Pit sw.	2	Safety Relay	Altech 085611.48/2496L1/61 110vdc
HD	Hall Door Locks	2	4PDT,120Vac	Altech 085611.48/2496L1/61 110vdc
HDB	Hall Door Bypass	5	Safety Relay	Altech 085611.48/2496L1/61 110vdc
NUD	Nudging	6	3PDT,120Vac	KUP-14A35120V
O	Open	6	3PDT,120Vac	KUP-14A35120V
P	Potential	2	Contactactor	3RT1034-1AM20
FD	Frequency Drive	1	Contactactor	3RT1034-1AK60
RPR	Reverse Phase	1	Special	PLR240A
SPA	Stop Time	2	Safety Relay	Altech 085611.48/2496L1/61 110vdc
TAC	Top Access insp	5	Safety Relay	Altech 085611.48/2496L1/61 110vdc
U	Up Motion	2	Safety Relay	Altech 085611.48/2496L1/61 110vdc

FUSES

Name	Function	Sheet	Fuse Size	Type	Part Number
CB1	208Vac Air Conditioner	1	15 amp		15 circuit-breaker
F1	208V AC supply	1	6 amp	Midget	6AMP 250V OTMG6
F2	208V AC supply	1	6 amp	Midget	6AMP 250V OTMG6
F3	208V AC supply	1	6 amp	Midget	6AMP 250V OTMG6
F4	Door Operator supply	1	3 amp	Midget	3AMP 250V OTMG3
F5	Door Operator supply	1	3 amp	Midget	3AMP 250V OTMG3
F6	Brake supply	1	3 amp	Midget	3AMP 250V OTMG3
F7	Brake supply	1	3 amp	Midget	3AMP 250V OTMG3
F11	Rope Gripper	1	10 amp	Midget	
F9S	Car Ack Lights	1	1 amp	Midget	1AMP 250V OTMG1
F10S	Hall Ack Lights	1	1 amp	Midget	1AMP 250V OTMG1
F11S	Lantern, buzzer	1	1 amp	Midget	1AMP 250V OTMG1
F12S	PLC supply	1	1 amp	Midget	1AMP 250V OTMG1
F13S	Control relays	1	3 amp	Midget	3AMP 250V OTMG1
F14S	Fault monitor, Display	1	1 amp	Midget	1AMP 250V OTMG1
F15S	Lobby Call Ack	1	1 amp	Midget	1AMP 250V OTMG1
FL1	Car lights, Emer. Lights	1	10 amp	Midget	10AMP 250V OTMG10
FL2	spare	1		Midget	
FL4	Work lights	1	10 amp	Midget	10AMP 250V OTMG10
FIP	IP8300+ power supply	1	3 amp	Midget	3AMP 250V OTMG3

MISCELLANEOUS

Qty	Name	Function	Sheet	Part Number
1	FREQ	Frequency Drive	1	HVP 600 2035
1	FREQH2	Relay PC board	1,2	FREQH2.PCB
2	Mod 1,3,5	Output Modules, Relay, 2 amp	6, 7	IC693MDL940
3	Mod 2,4,6	Inputs Modules, 120Vac	5,6,7	IC693MDL240
4	MOV's	Movistors, 275Vac	1	ERZ-V14D391
1	OL	Hoist Motor overload	1	3RU1146 4JB0
1	OLD	Door Motor overload	1	SIEMENS 48DA-18AA4
1	OLD	Door Motor overload Heater	1	SIEMENS #E11
1	PLC	GE-90-30, 10 slot chassis	1	IC693CPU323
1	RB1	Resistor	3	50 ohms, 100 watts
1	RB2	Resistor	3	1.5k ohms, 50 watts
2	RECT1	Full Wave Rectifiers	1	RS807V04
4	REGEN	Resistor	1	20 ohms, 275 watts
1	REMON	Remote monitoring PC board	LCD.doc	REMON.PCB
1	RS485	Cable for PLC to REMON	LCD.doc	4ft. cable, 15 pin M/F
1	TRANS	Transformer, 208/120, 750VA	1	

WIRE SIZE for AC HOIST MOTORS

file:acmtr.doc

A. C. Hoist Motor			Number of Wires & Wire Size			
HP	Volts AC	Amps AC	Main Line L1,L2,L3	H. Motor T1,T2,T3	Brake	Ground
5	208v	17.5a	3 - #10's	3 - #10's	3 - #14's	1 - #10
7.5	208v	25.3a	3 - #8's	3 - #8's	3 - #14's	1 - #10
10	208v	32.2a	3 - #8's	3 - #8's	3 - #14's	1 - #10
12.5	208v	40a	3 - #8's	3 - #8's	3 - #14's	1 - #8
15	208v	48.3a	3 - #6's	3 - #6's	3 - #14's	1 - #8
20	208v	62.1a	3 - #4's	3 - #4's	3 - #14's	1 - #8
25	208v	78.2a	3 - #3's	3 - #3's	3 - #14's	1 - #6
30	208v	92a	3 - #2's	3 - #2's	3 - #14's	1 - #6
40	208v	120a	3 - #0's	3 - #0's	3 - #14's	1 - #4

Claddagh Controls, Ltd.

Magnetek HPV 600 (Close-Loop)

File:HVP10hp150Imp.doc

<u>Parameter</u>	<u>New</u>	<u>Description</u>
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A1

Contract Car Speed	150 fpm	High speed
Contract Motor RPM	1165 rpm	

A2

(slowdown e.g.: a value of 1 is a very long slowdown and a value of 8 is very rapid slowdown)

Accel Rate 0	2.5	Acceleration
Decel Rate 0	2.5	Deceleration
Accel Jerk In 0	5	Initial start
Accel Jerk Out 0	5	Accel end rounding
Decel Jerk In 0	5	Initial slowdown
Decel Jerk Out 0	5	Final rounding on decel
Decel Rate 1	7.99	Final stop
Decel Jerk in 1	7.99	Final stop
Decel Jerk out 1	7.99	Final stop

A3

Speed cmd 1	150 fpm	High speed
Speed cmd 2	35 fpm	Out of zone & Inspection low speed
Speed cmd 4	8 fpm	Leveling speed
Speed cmd 5	75 fpm	Inspection high speed

A4

Input L-L volts	208 volt	
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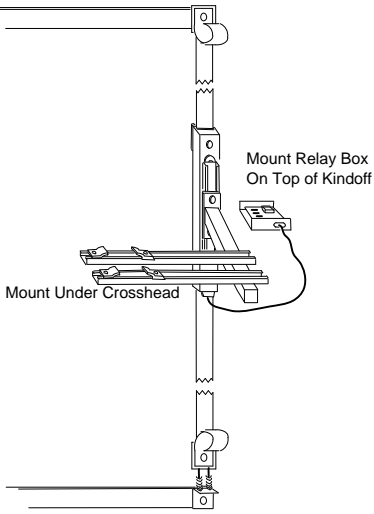
A5

Motor ID	6	Number of poles
Rated Motor power	10 hp	Horse Power
Rated Motor volts	208 v	
Rated Motor current	29.6 amp	
Motor Poles	6	
Rated Motor speed	1165 rpm	

C2

Logic input 1	Drive enable
Logic input 2	Run up
Logic input 3	Fault reset
Logic input 4	Run down
Logic input 5	S-Curve sel 0
Logic input 6	Step ref b0
Logic input 7	Step ref b1
Logic input 8	Step ref b2

Relay Coil 2	Speed Regulator Release
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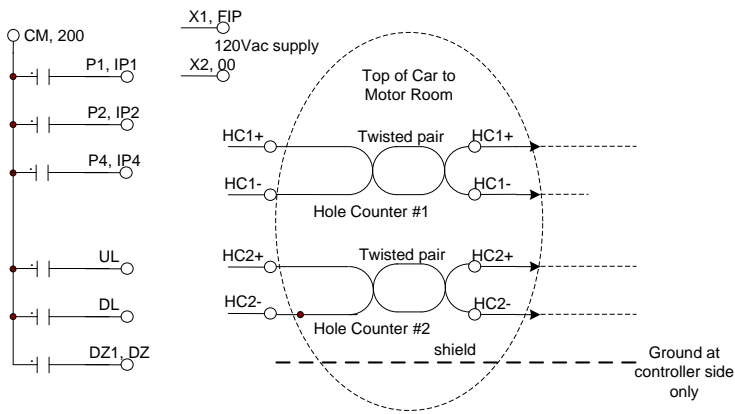


Note 1:
When UL & DL are on Leveling target, the car is level.

DP1 & DP2 are optical hole counters

Note 2: If you have a GAL MOVFR door operator, DO NOT RUN LEVELING UNIT WIRING in the SAME PIPING or TRAVELER or CABLE

Terminals X1 & X2 are for 120Vac supply



Material:

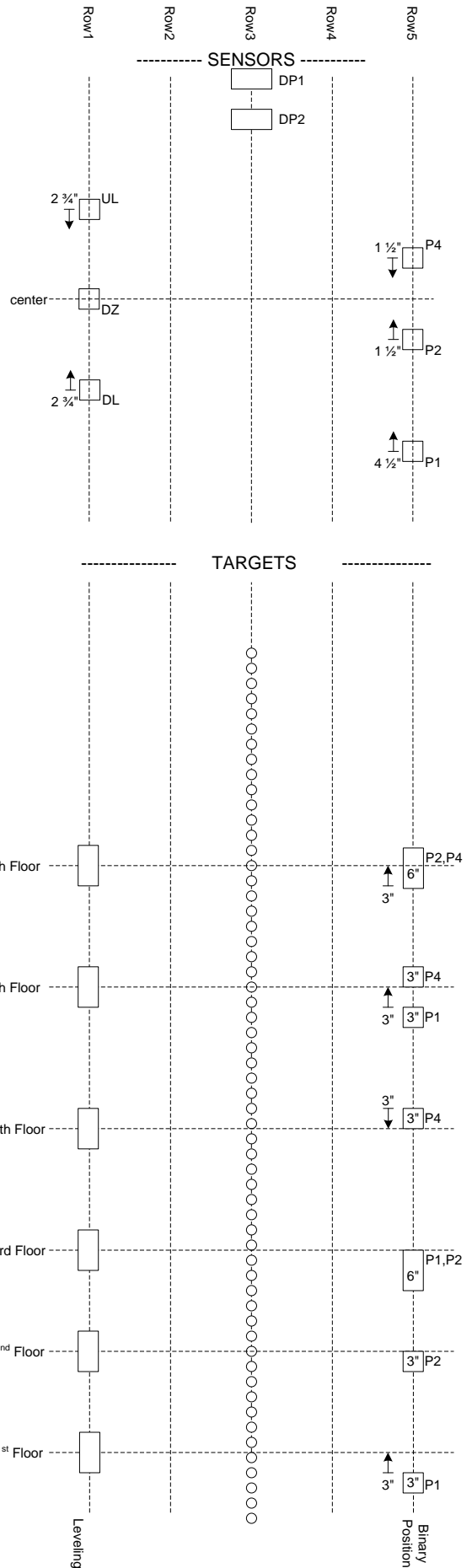
- 6" Targets: UL, DL & DZ
- 3" Targets: P1, P2 & P4
- 6" Targets: P1 & P2 or P2 & P4

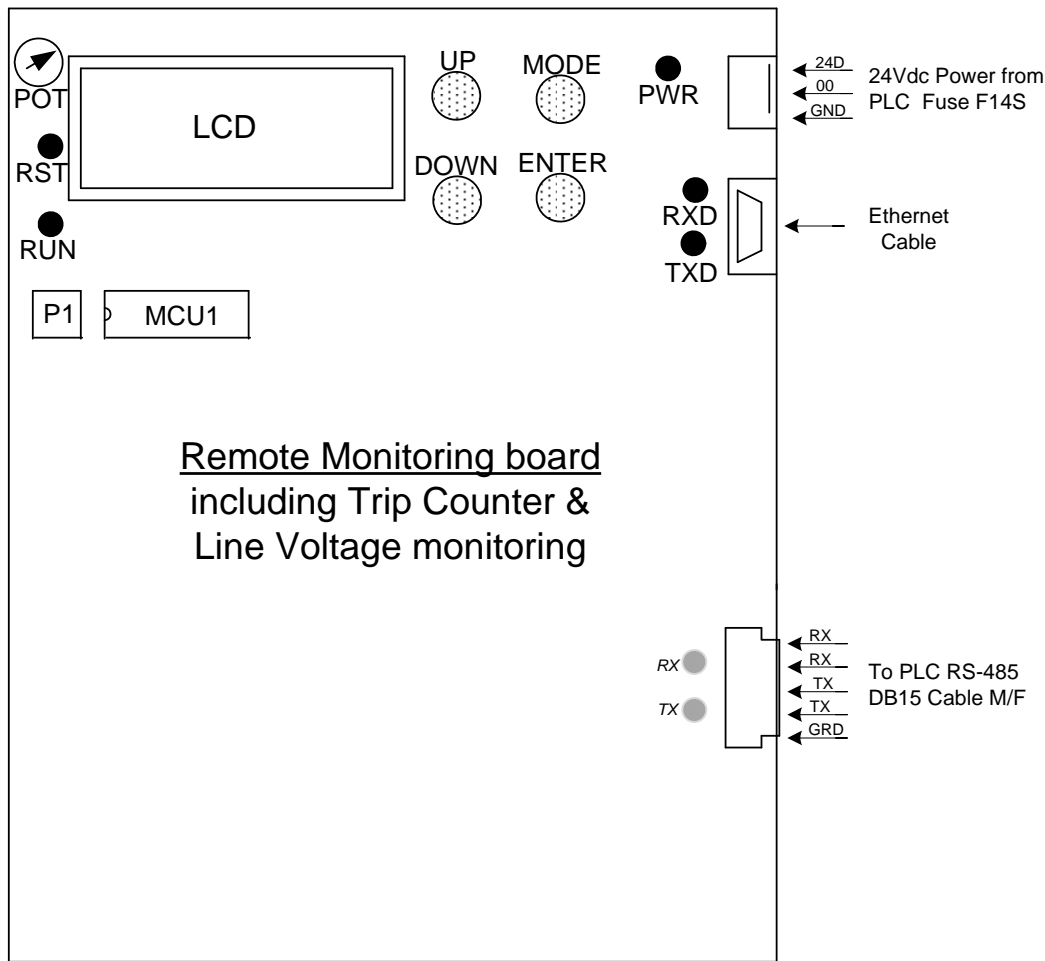
- Mounting Bracket
- Rail Bracket
- Tape Bracket
- Feet of 3" Steel Tape

Job Address:

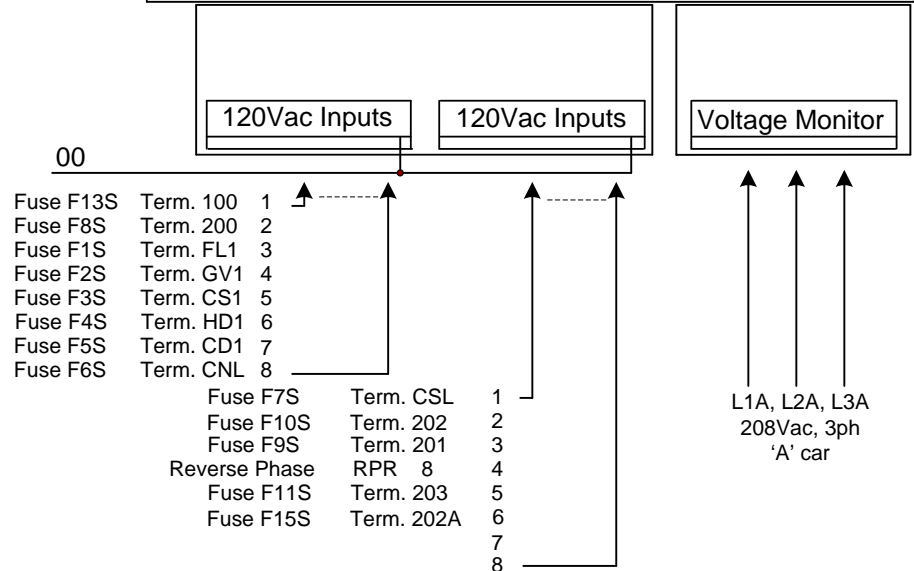
Note:

All Sensors / Magnets are North Pole except
Sensors / Magnets w/ Shaded area are South Pole

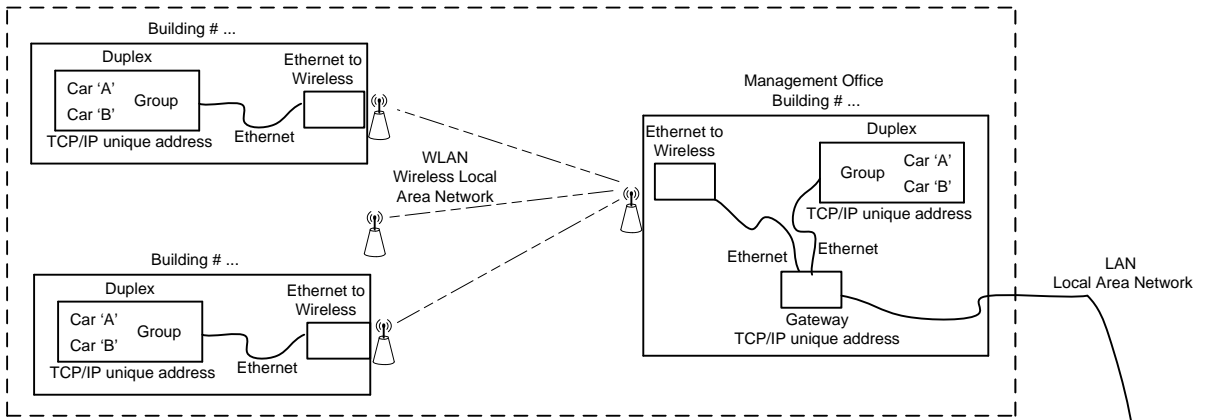




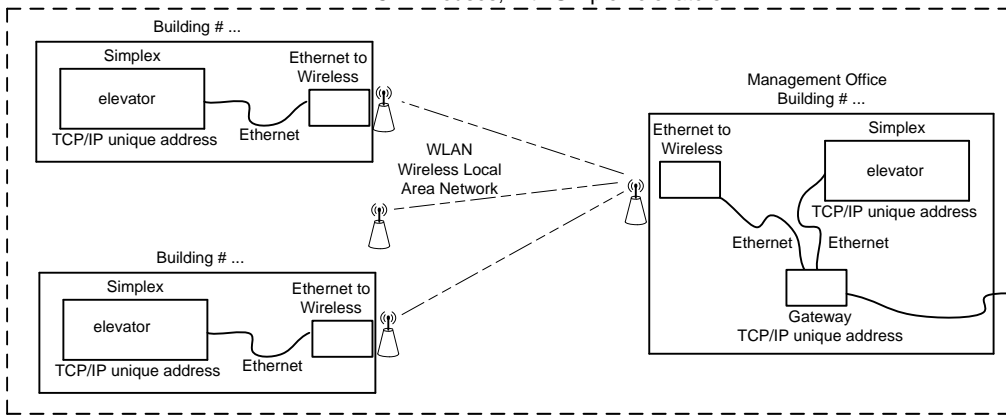
**Remote Monitoring board
including Trip Counter &
Line Voltage monitoring**



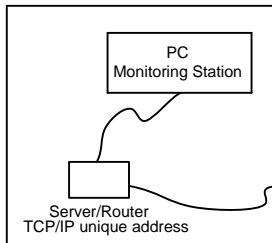
NYCHA Houses, with Duplex elevators



NYCHA Houses, with Simplex elevators



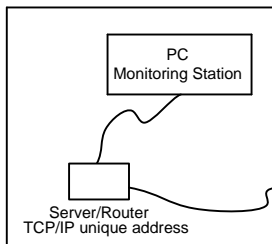
Remote Monitoring Site # 1 of 4



Remote Monitoring Site # 2 of 4

Remote Monitoring Site # 3 of 4

Remote Monitoring Site # 4 of 4



LAN
Local Area Network

Example Monitoring System

file: RemonOverview	Description:	Date: 26Jun'09
CLADDAGH CONTROLS LTD.	System: Ethernet/WLAN/LAN/PC	Page: 18

Drive Model Number

Ref: HPV 600 manual, specifications, page 6

The HPV 600 nameplate contains the model number, which provides complete identification of the drive.

