
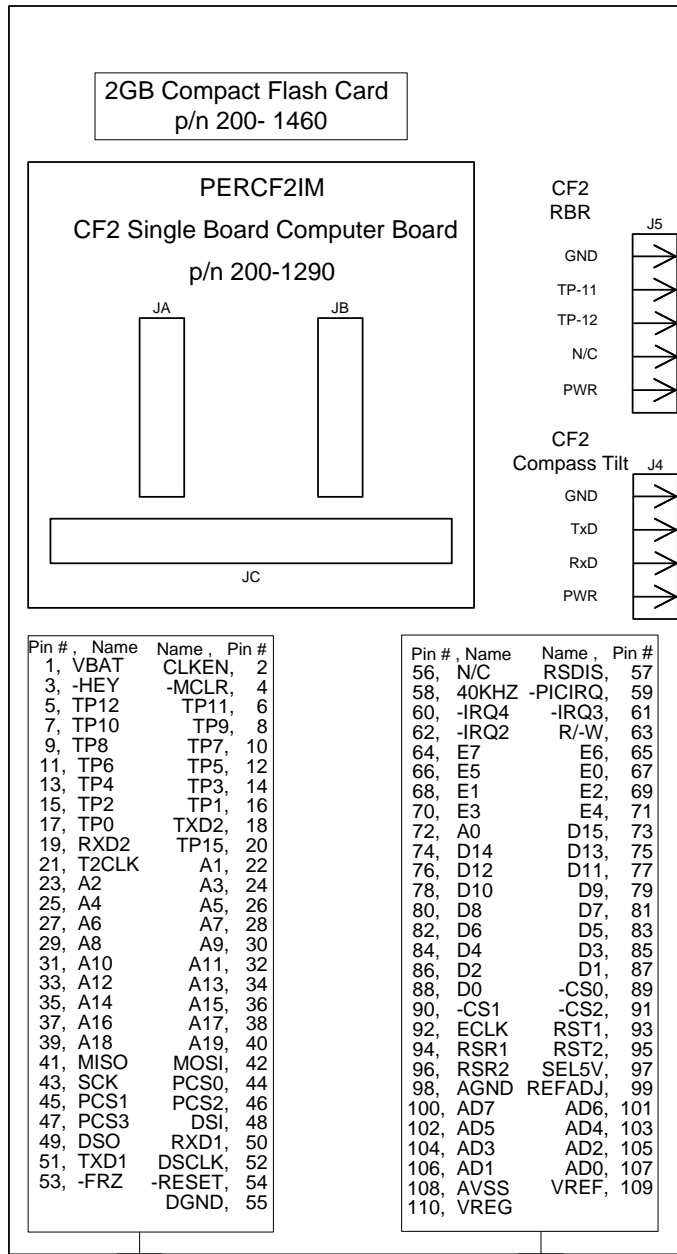


REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	Initial Release	04/27/2016	FJH

CONFIDENTIAL

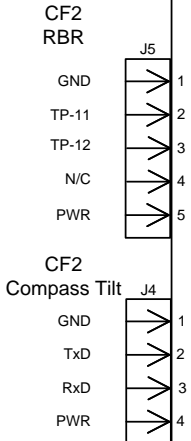
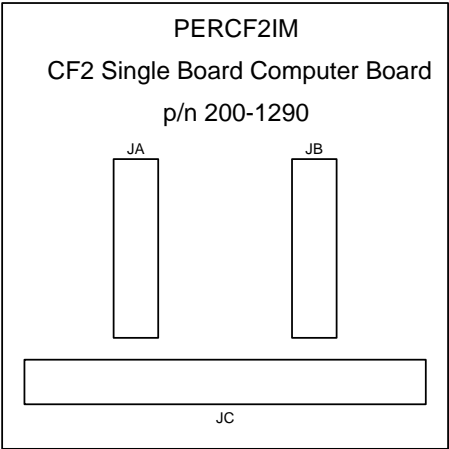
	DOCUMENT NUMBER	REV	EFFECTIVE DATE	PAGE
	ML 14028-01 & 02	A	04/27/2016	1 of 12
		See final page for revision details.		
CREATED BY / DATE: FJH / April 27, 2016	TYPE: Electrical Wiring	TITLE: PPS & WTS-LV Sampler Cable Wiring Diagrams		
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Pin #	Name	Name	Pin #
1	VBAT	CLKEN	2
3	-HEY	-MCLR	4
5	TP12	TP11	6
7	TP10	TP9	8
9	TP8	TP7	10
11	TP6	TP5	12
13	TP4	TP3	14
15	TP2	TP1	16
17	TP0	TXD2	18
19	RXD2	TP15	20
21	T2CLK	A1	22
23	A2	A3	24
25	A4	A5	26
27	A6	A7	28
29	A8	A9	30
31	A10	A11	32
33	A12	A13	34
35	A14	A15	36
37	A16	A17	38
39	A18	A19	40
41	MISO	MOSI	42
43	SCK	PCS0	44
45	PCS1	PCS2	46
47	PCS3	DSI	48
49	DSO	RXD1	50
51	TXD1	DSCLK	52
53	-FRZ	-RESET	54
		DGND	55

Pin #	Name	Name	Pin #
56	N/C	RSDIS	57
58	40KHZ	-PICIRQ	59
60	-IRQ4	-IRQ3	61
62	-IRQ2	R-W	63
64	E7	E6	65
66	E5	E0	67
68	E1	E2	69
70	E3	E4	71
72	A0	D15	73
74	D14	D13	75
76	D12	D11	77
78	D10	D9	79
80	D8	D7	81
82	D6	D5	83
84	D4	D3	85
86	D2	D1	87
88	D0	-CS0	89
90	-CS1	-CS2	91
92	ECLK	RST1	93
94	RSR1	RST2	95
96	RSR2	SEL5V	97
98	AGND	REFADJ	99
100	AD7	AD6	101
102	AD5	AD4	103
104	AD3	AD2	105
106	AD1	AD0	107
108	AVSS	VREF	109
110	VREG		

2GB Compact Flash Card
p/n 200-1460



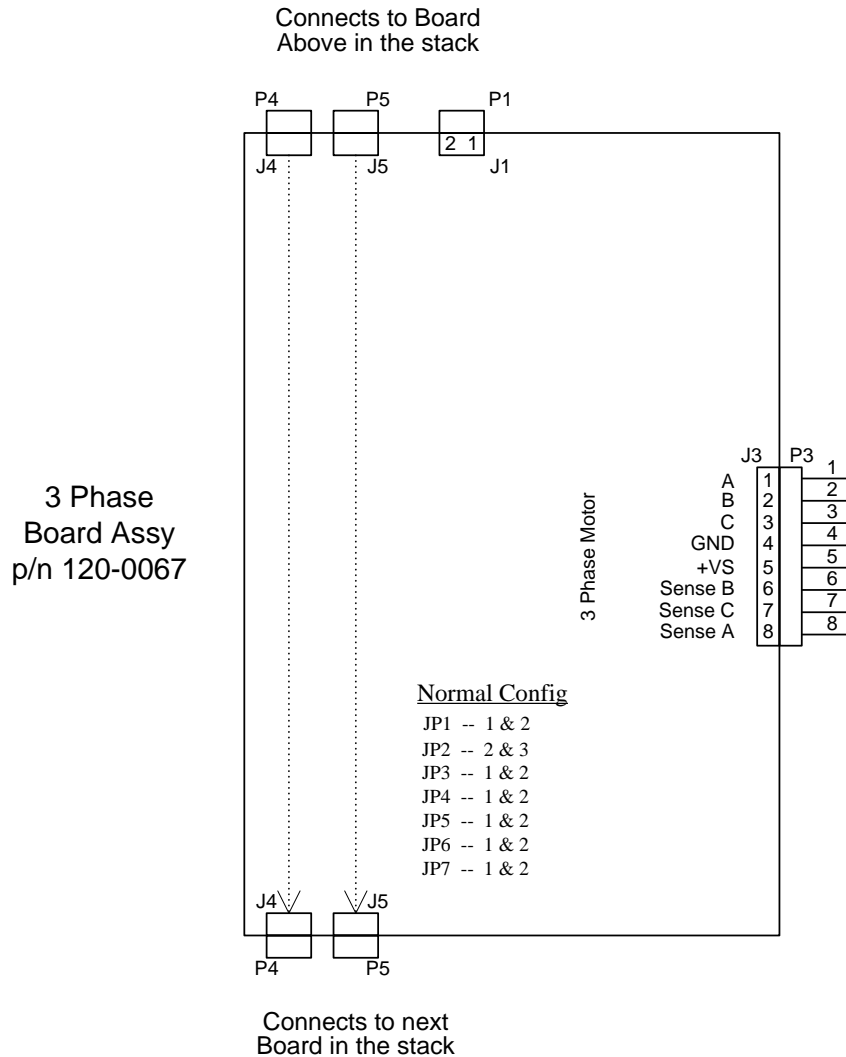
J2A CF2 Interface Board p/n 120-0064 Rev-B J2B

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Description:		CF2 & CF2 Interface	
Dwg No:			
SIZE	Drawn: Name , Date	Checked: Name , Date	REV
A	FJH , 04/14/16	XXX , XX/XX/XX	
SCALE	None	SHEET	1 OF 1

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
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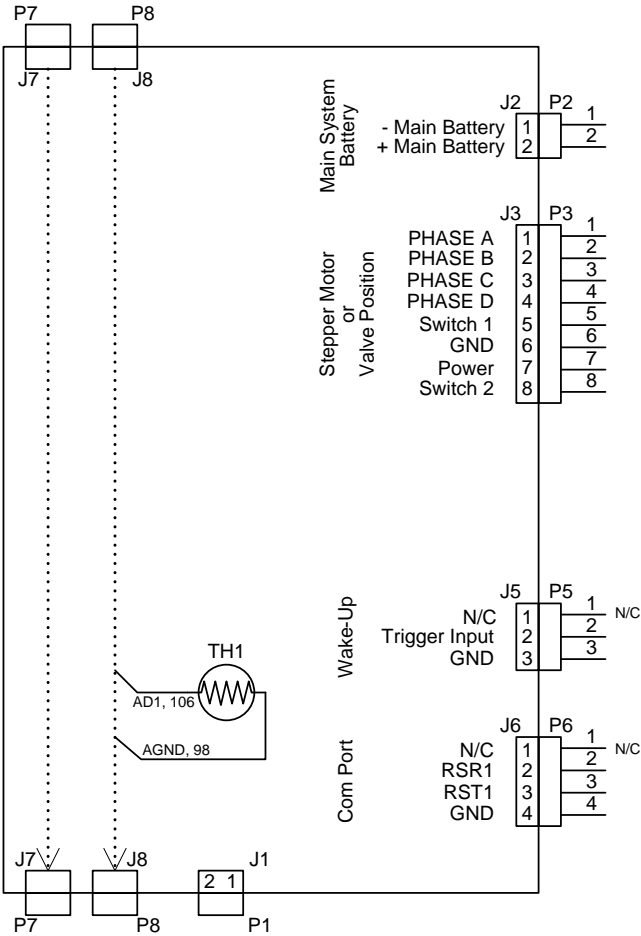
Config Motor 1	Config Motor 2
Board #1	Board #2
JP1 -- 1 & 2	JP1 -- 2 & 3
JP2 -- 2 & 3	JP2 -- 1 & 2
JP3 -- 1 & 2	JP3 -- 2 & 3
JP4 -- 1 & 2	JP4 -- 2 & 3
JP5 -- 1 & 2	JP5 -- 2 & 3
JP6 -- 1 & 2	JP6 -- 2 & 3
JP7 -- 1 & 2	JP7 -- 2 & 3

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Description:	3-Phase Assy		
Dwg No:			
SIZE	Drawn: Name , Date	Checked: Name , Date	REV
A	FJH , 04/27/13	XXX , XX/XX/XX	
SCALE	None		SHEET 1 OF 1

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
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Connects to CF2 Interface Board



Aux / Stepper Board Assy
p/n 120-0066

Connects to next Board in the stack

Note: With CF2 you can not use JP2, JP3 and JP4 configured as board 1

Config Motor 1 Board #2	Config Motor 2 Board #3	Config Motor 3 Board #4
JP2 -- 2 & 5	JP2 -- 3 & 5	JP2 -- 4 & 5
JP3 -- 2 & 5	JP3 -- 3 & 5	JP3 -- 4 & 5
JP4 -- 2 & 5	JP4 -- 3 & 5	JP4 -- 4 & 5

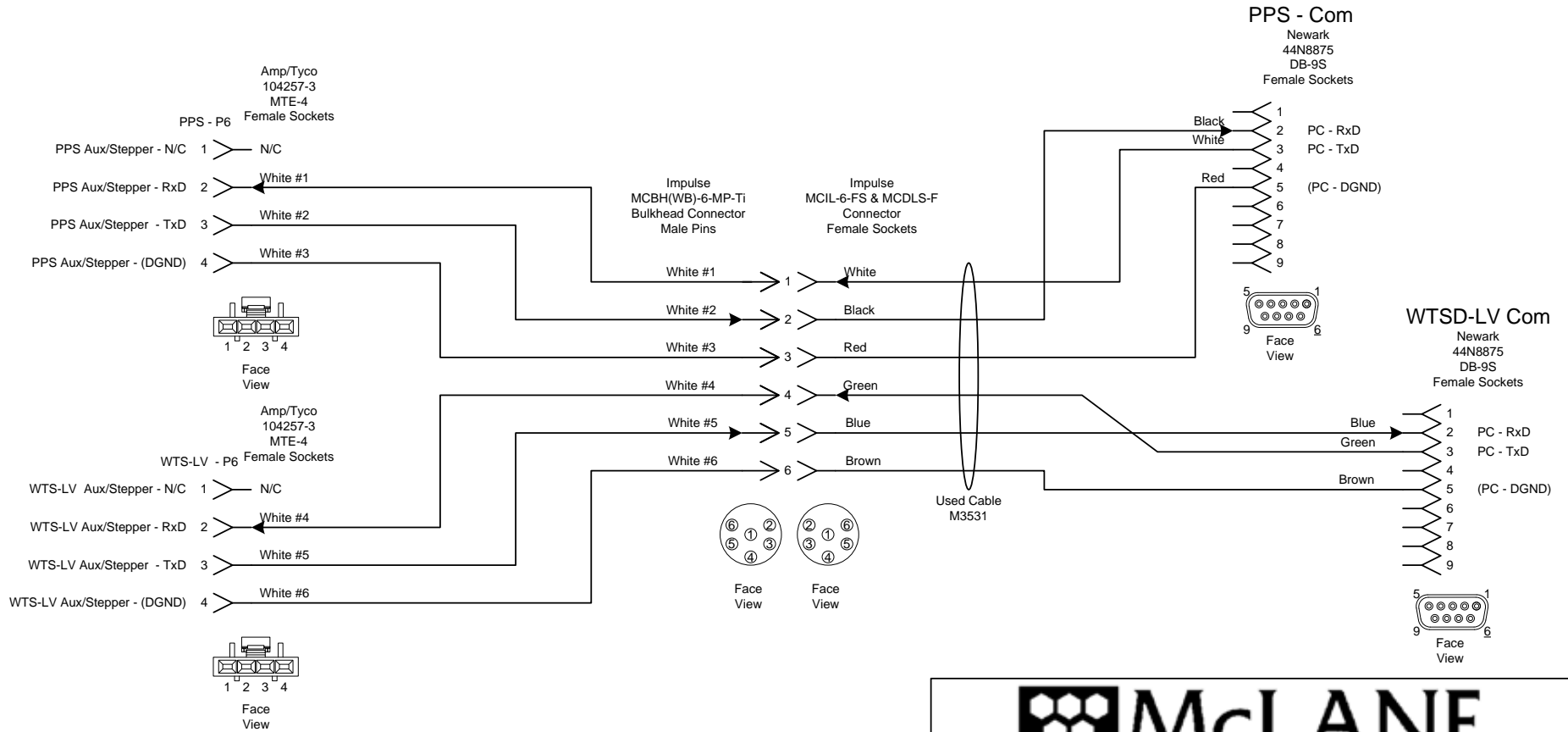
Trap Micro Switch & Optical Valve	ZPS Belt Proximity
JP1 -- 2 & 3	JP1 -- 1 & 3
JP5 -- 2 & 3	JP5 -- 2 & 3
JP6 -- 1 & 3	JP6 -- 1 & 3
R30 -- 22.6 K (p/n 100-0484)	R31 -- 10K (p/n 100-0036)
R31 -- 10uF (p/n 100-0030)	Do not install the following
Do not install the following	R28, 29, 30, 33 & D17
R28, 29, 33 & D17	

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Description:	Aux - Stepper Assy		
Dwg No:			
SIZE	Drawn: Name , Date	Checked: Name , Date	REV
A	FJH , 04/14/16	XXX , XX/XX/XX	
SCALE	None		SHEET 1 OF 1

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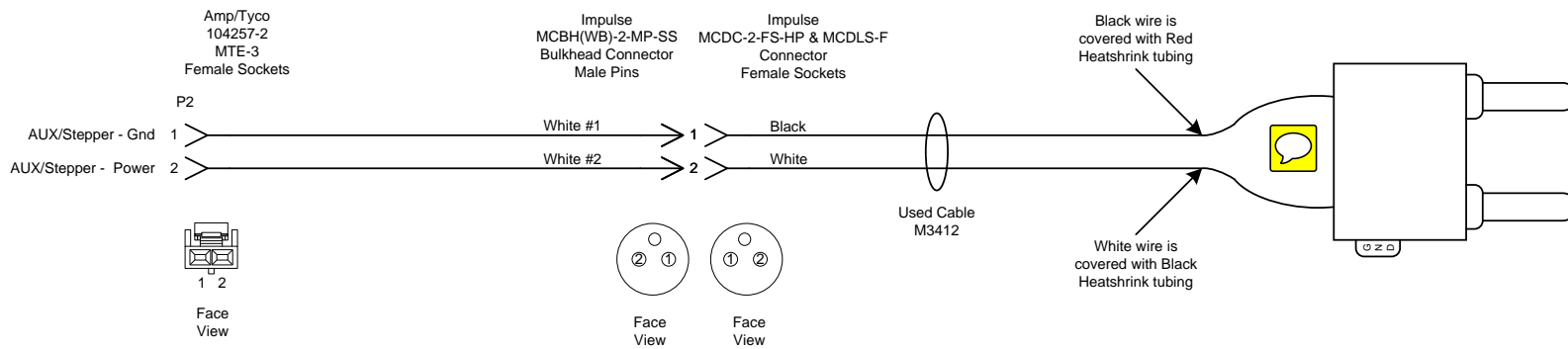
REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
	See Page 1		



Description:		Dual Com Impulse MCBH 6-Pin	
Dwg No:			
SIZE	Drawn: Name , Date	Checked: Name , Date	REV
A	FJH , 04/14/16	XXX , XX/XX/XX	
SCALE	None	SHEET	1 OF 1

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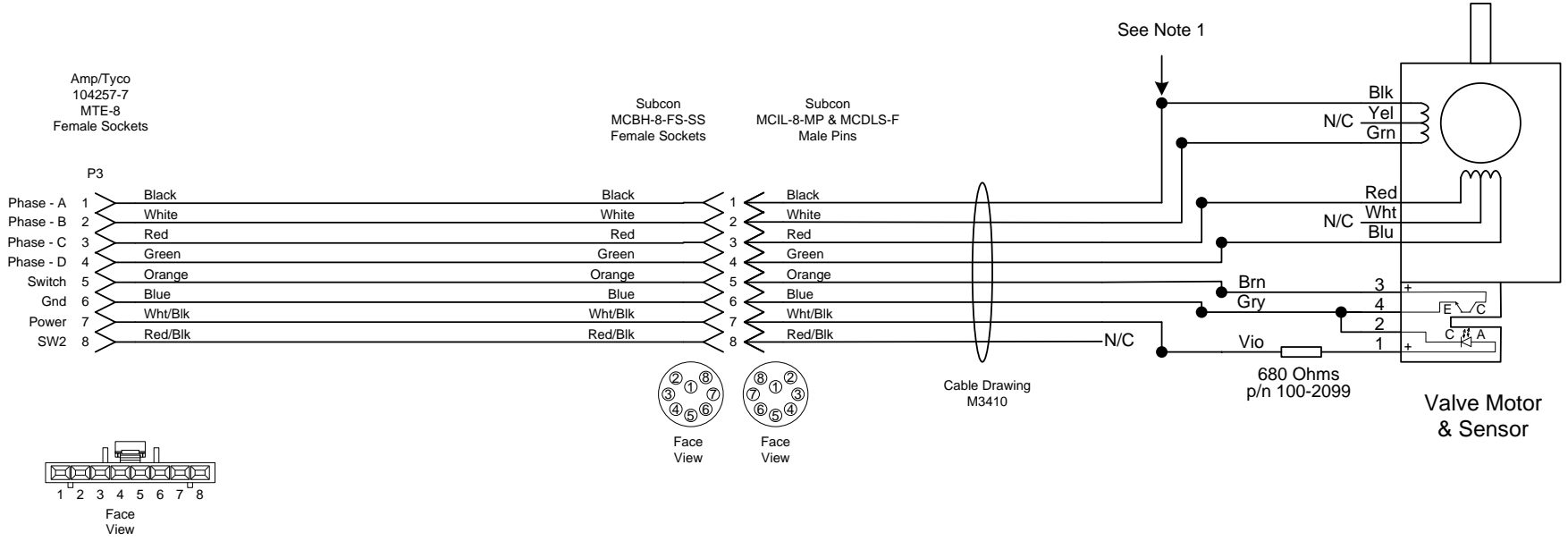
REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
	See Page 1		



Description:		External Power Impulse MCBH 2-Pin	
Dwg No:			
SIZE	Drawn: Name , Date	Checked: Name , Date	REV
A	FJH , 05/10/16	XXX , XX/XX/XX	
SCALE	None	SHEET	1 OF 1

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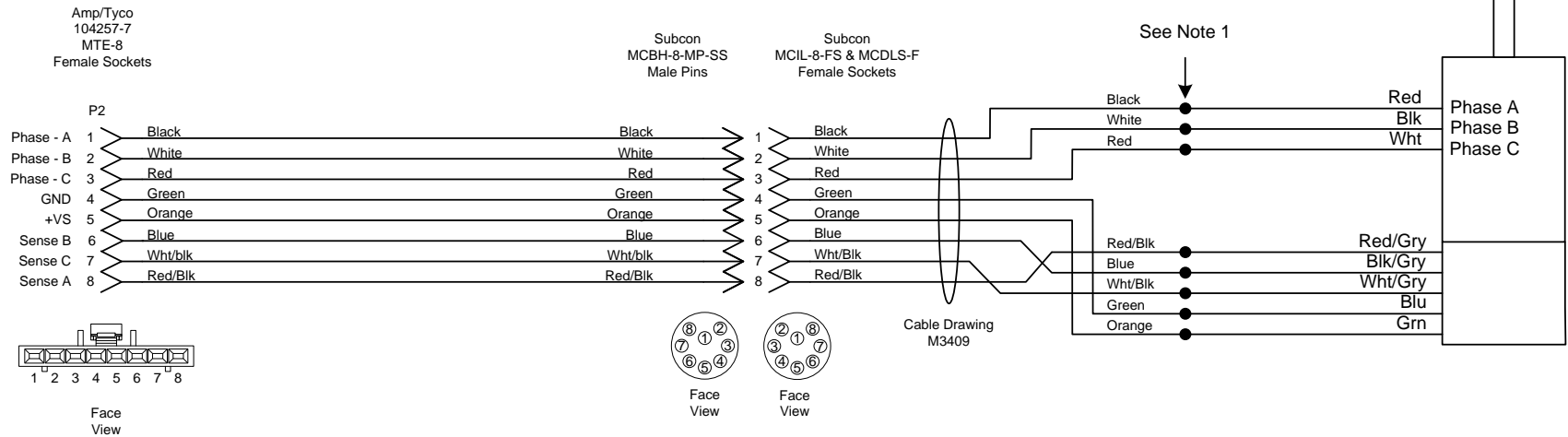


Note:
1. Wires solder together inside the Motor Assy

Description:		Valve SubConn 8-Socket	
Dwg No:			
SIZE	Drawn: Name , Date	Checked: Name , Date	REV
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SCALE	None	SHEET	1 OF 1

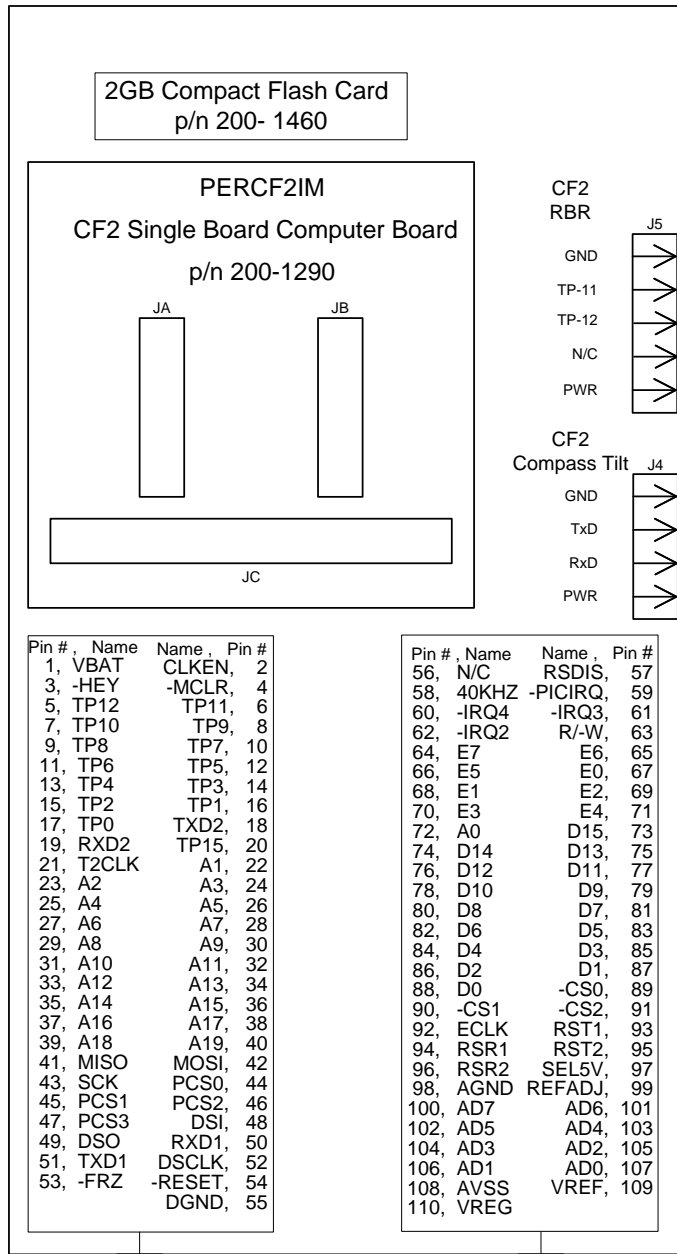
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REV	DESCRIPTION	DATE	APPROVED
	See Page 1		



Note:
1. Wires solder together inside the Motor Assy

Description:		Micro Pump SubConn 8-Pin	
Dwg No:			
SIZE	Drawn: Name , Date	Checked: Name , Date	REV
A	FJH , 07/10/13	XXX , XX/XX/XX	
SCALE	None	SHEET	1 OF 1




Pin #	Name	Name	Pin #
1	VBAT	CLKEN	2
3	-HEY	-MCLR	4
5	TP12	TP11	6
7	TP10	TP9	8
9	TP8	TP7	10
11	TP6	TP5	12
13	TP4	TP3	14
15	TP2	TP1	16
17	TP0	TXD2	18
19	RXD2	TP15	20
21	T2CLK	A1	22
23	A2	A3	24
25	A4	A5	26
27	A6	A7	28
29	A8	A9	30
31	A10	A11	32
33	A12	A13	34
35	A14	A15	36
37	A16	A17	38
39	A18	A19	40
41	MISO	MOSI	42
43	SCK	PCS0	44
45	PCS1	PCS2	46
47	PCS3	DSI	48
49	DSO	RXD1	50
51	TXD1	DSCLK	52
53	-FRZ	-RESET	54
		DGND	55

Pin #	Name	Name	Pin #
56	N/C	RSDIS	57
58	40KHZ	-PICIRQ	59
60	-IRQ4	-IRQ3	61
62	-IRQ2	R-/W	63
64	E7	E6	65
66	E5	E0	67
68	E1	E2	69
70	E3	E4	71
72	A0	D15	73
74	D14	D13	75
76	D12	D11	77
78	D10	D9	79
80	D8	D7	81
82	D6	D5	83
84	D4	D3	85
86	D2	D1	87
88	D0	-CS0	89
90	-CS1	-CS2	91
92	ECLK	RST1	93
94	RSR1	RST2	95
96	RSR2	SEL5V	97
98	AGND	REFADJ	99
100	AD7	AD6	101
102	AD5	AD4	103
104	AD3	AD2	105
106	AD1	AD0	107
108	AVSS	VREF	109
110	VREG		

J2A CF2 Interface Board p/n 120-0064 Rev-B J2B

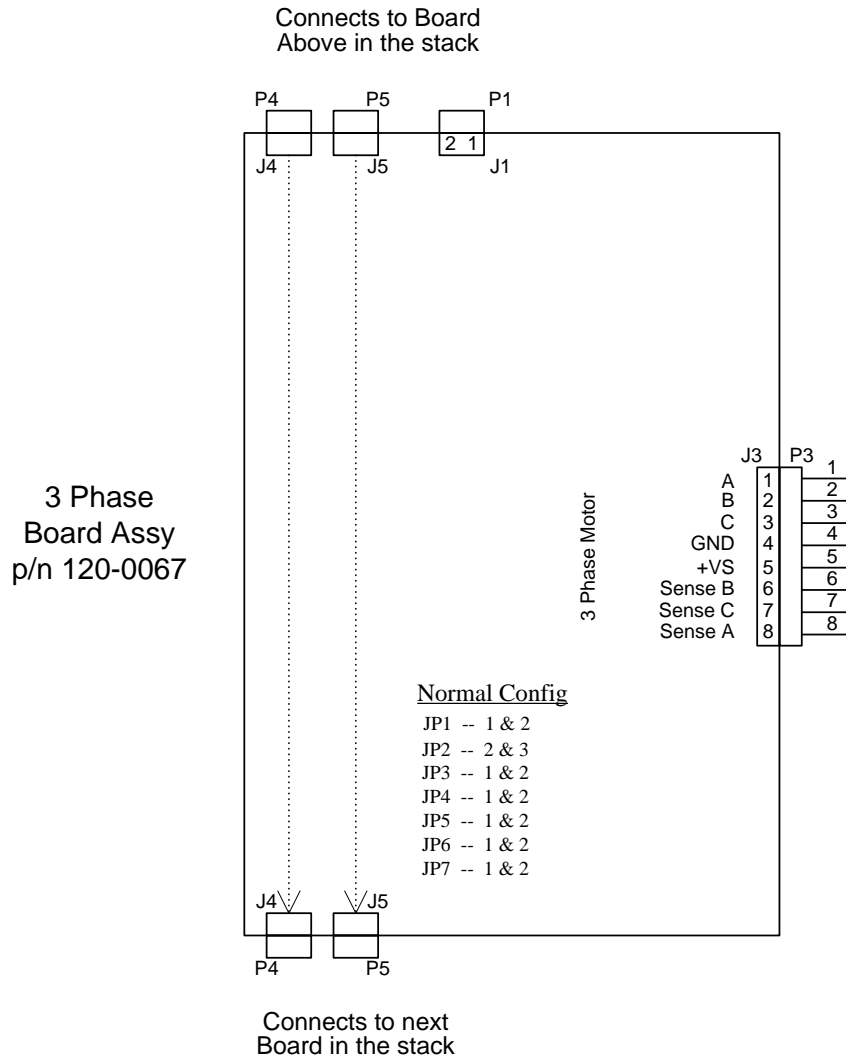
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Description:		CF2 & CF2 Interface	
Dwg No:			
SIZE	Drawn: Name , Date	Checked: Name , Date	REV
A	FJH , 04/14/16	XXX , XX/XX/XX	
SCALE	None	SHEET	1 OF 1

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
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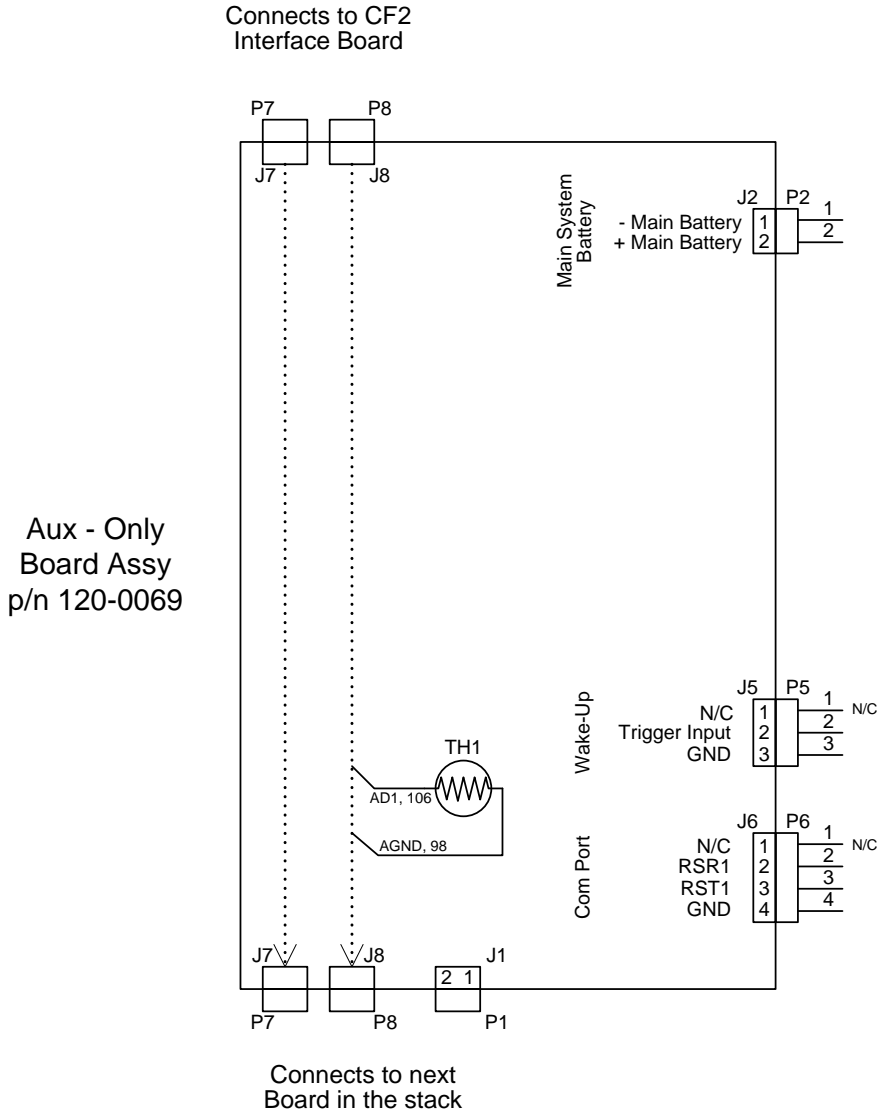


Config Motor 1	Config Motor 2
Board #1	Board #2
JP1 -- 1 & 2	JP1 -- 2 & 3
JP2 -- 2 & 3	JP2 -- 1 & 2
JP3 -- 1 & 2	JP3 -- 2 & 3
JP4 -- 1 & 2	JP4 -- 2 & 3
JP5 -- 1 & 2	JP5 -- 2 & 3
JP6 -- 1 & 2	JP6 -- 2 & 3
JP7 -- 1 & 2	JP7 -- 2 & 3

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Description:	3-Phase Assy		
Dwg No:			
SIZE	Drawn: Name , Date	Checked: Name , Date	REV
A	FJH , 04/27/13	XXX , XX/XX/XX	
SCALE	None		SHEET 1 OF 1

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
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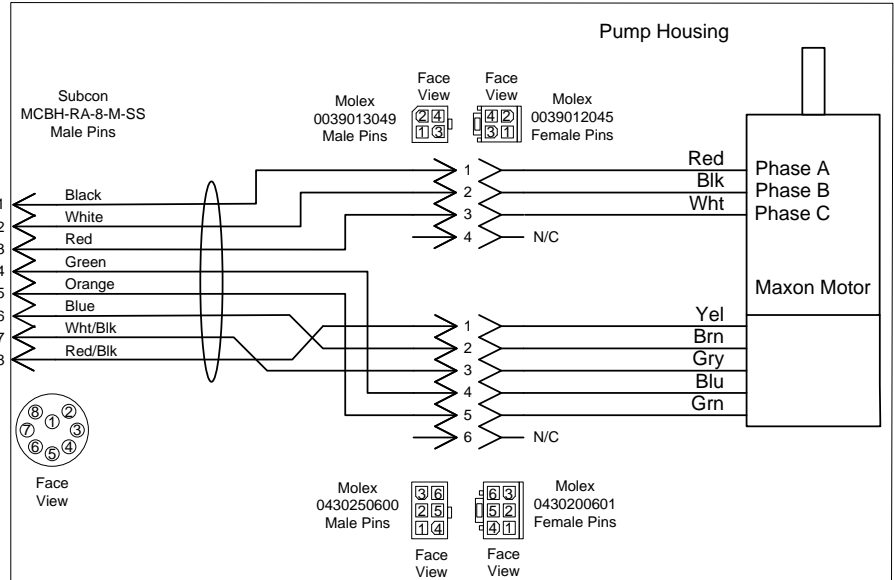
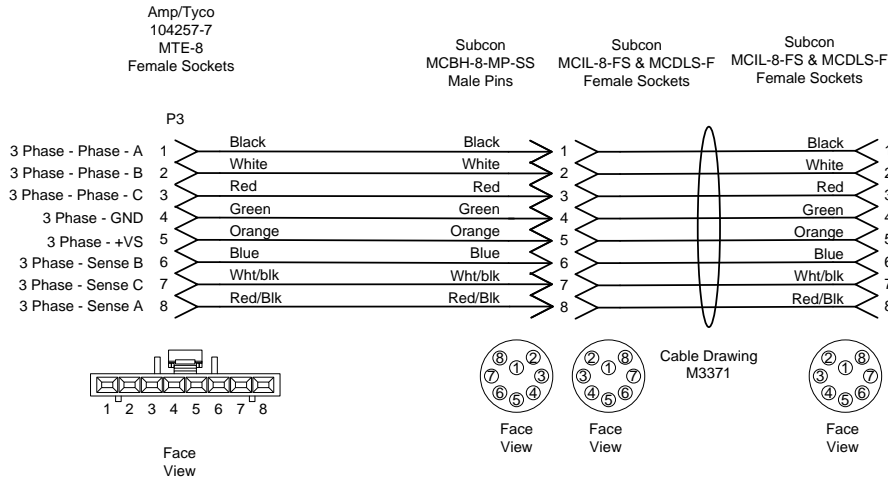
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Description:		Aux - Only with out Battery Backup Assy	
Dwg No:			
SIZE	Drawn: Name , Date	Checked: Name , Date	REV
A	FJH , 04/14/16	XXX , XX/XX/XX	
SCALE	None	SHEET	1 OF 1

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Description:		WTS-LV Maxon 4 & 8 Liter Pumps SubConn 8-Pin	
Dwg No:			
SIZE	Drawn: Name , Date	Checked: Name , Date	REV
A	FJH , 07/10/13	XXX , XX/XX/XX	
SCALE	None	SHEET	1 OF 1