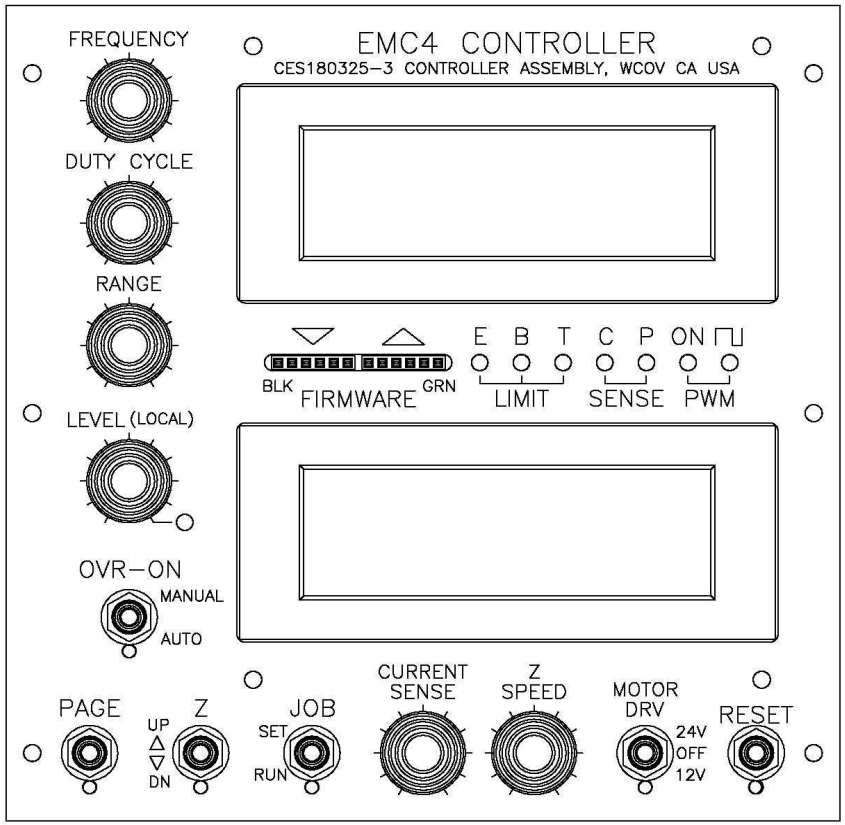
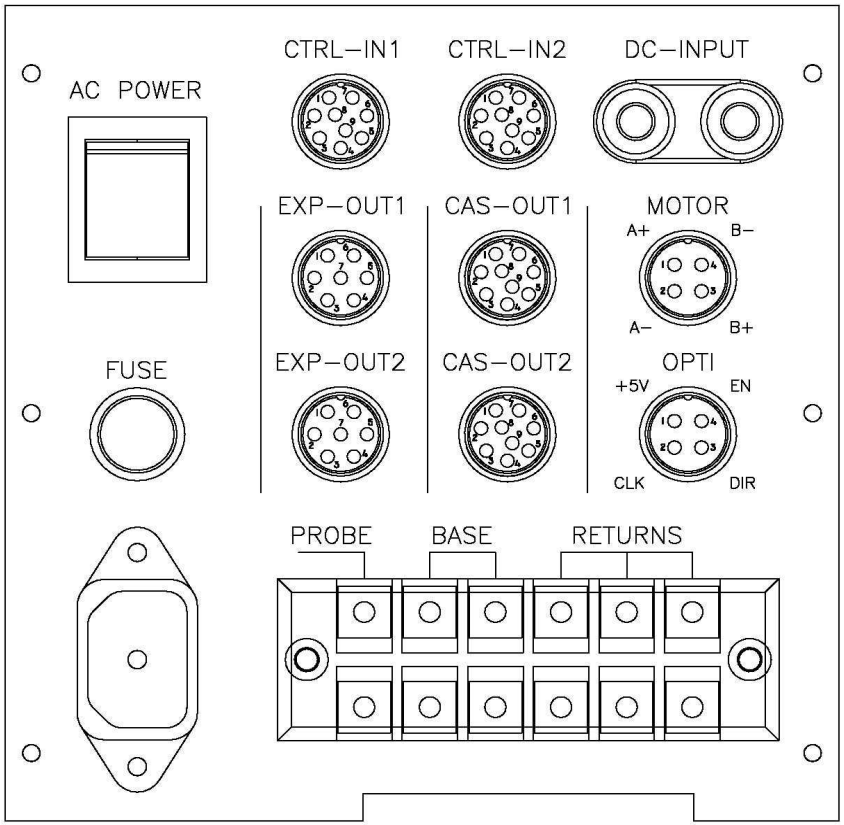


EMC4B6_F1-v1



EMC4B6_R1R-v1

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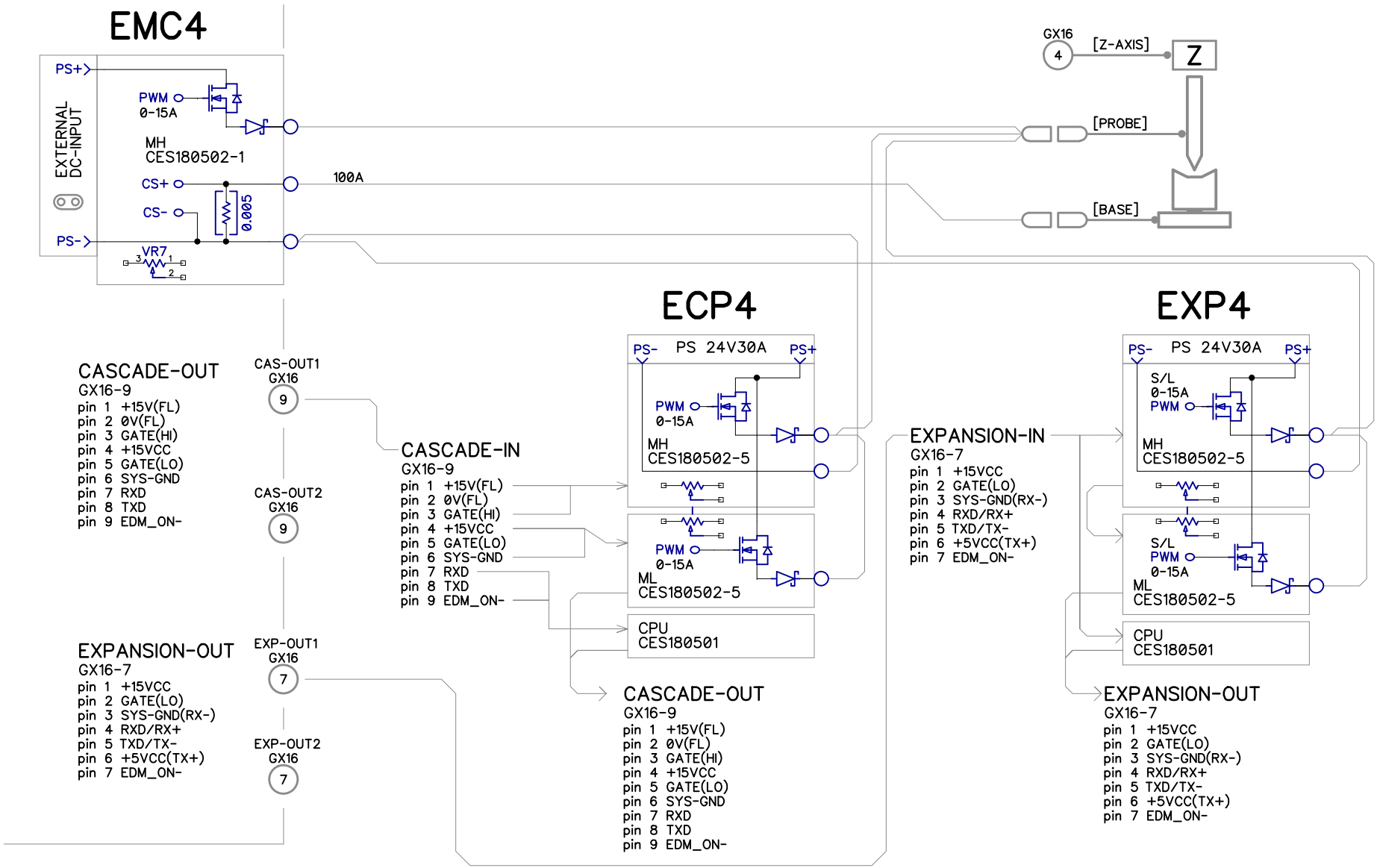
MAIN CONSOLE SYSTEM BLOCK

SIZE	DWG NO.	REV
A	EMC4B6	01a

EMC4B6_v01a_SystemBlock.dch Sheet 1 of 9



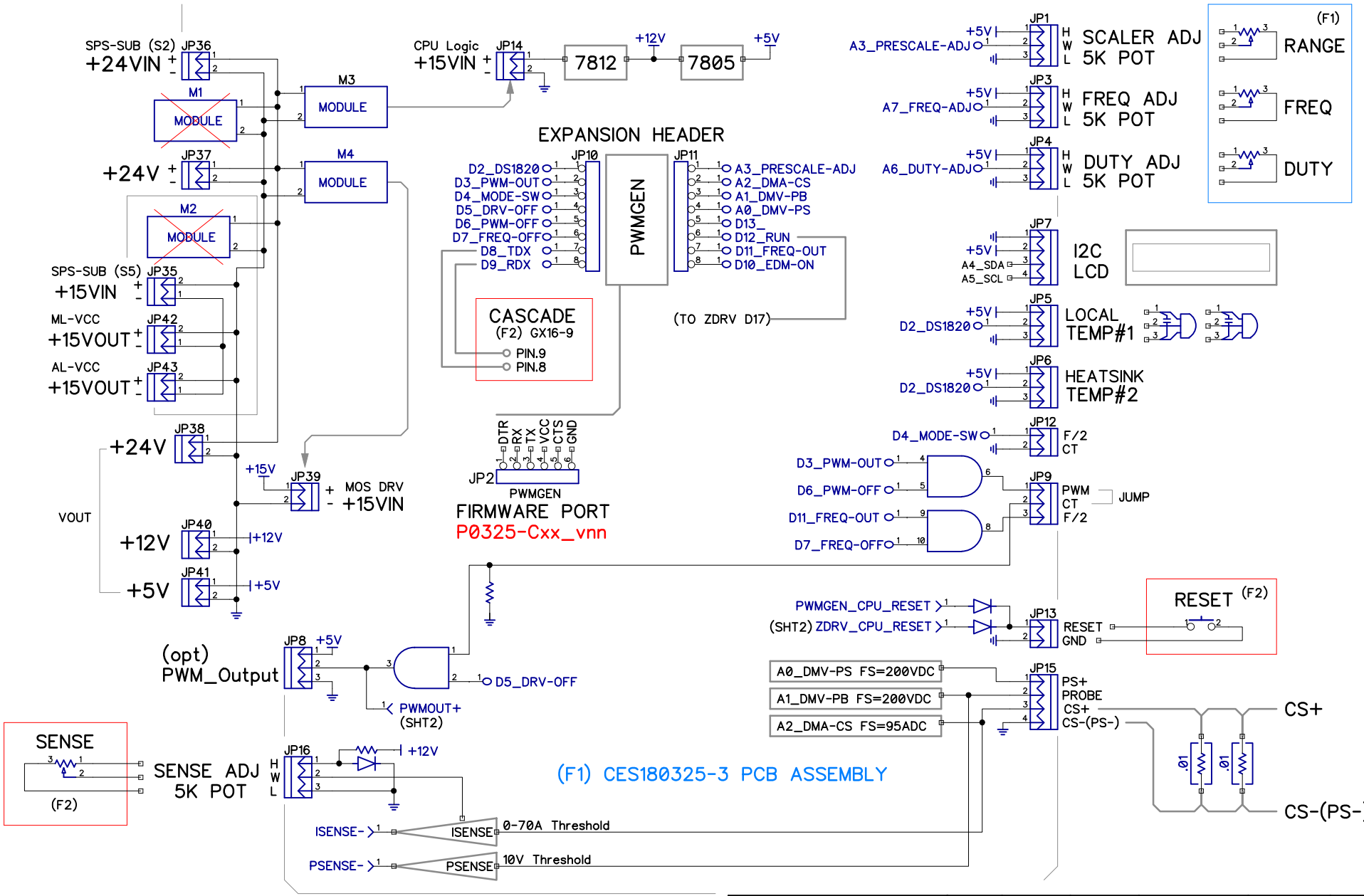
EDMC4 SYSTEM CONFIG

C. E. S. WEST COVINA, CALIFORNIA, U.S.A.

MAIN CONSOLE SYSTEM BLOCK

SIZE	DWG NO.	REV
A	EMC4B6	01a

EMC4B6_v01a_SystemBlock.dch Sheet 2 of 9

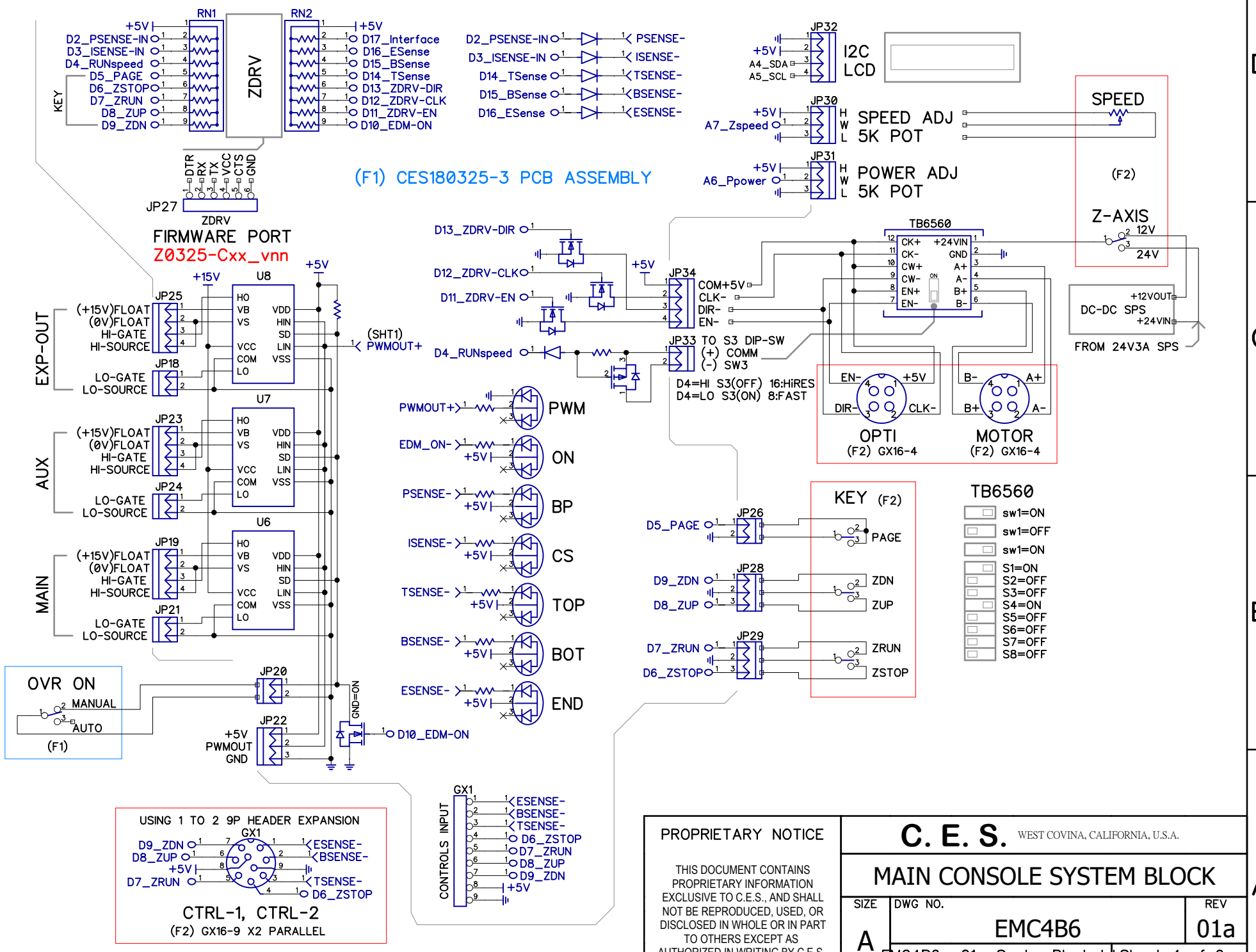


C. E. S. WEST COVINA, CALIFORNIA, U.S.A.

MAIN CONSOLE SYSTEM BLOCK

SIZE	DWG NO.	REV
A	EMC4B6	01a

EMC4B6_v01a_SystemBlock.dch Sheet 3 of 9


(F1) CES180325-3 PCB ASSEMBLY
FIRMWARE PORT
Z0325-Cxx_vnn
ZDRV
RN1
RN2
KEY
D2_PSENSE-IN
D3_ISENSE-IN
D4_RUNspeed
D5_PAGE
D6_ZSTOP
D7_ZRUN
D8_ZUP
D9_ZDN
D10_EDM-ON
D11_ZDRV-EN
D12_ZDRV-CLK
D13_ZDRV-DIR
D14_TSense
D15_BSense
D16_ESense
D17_Interface
PSENSE-
ISENSE-
TSENSE-
BSENSE-
ESENSE-
JP27
DTR
RX
TX
VCC
CTS
GND
JP32
I2C LCD
A4_SDA
A5_SCL
JP30
SPEED ADJ 5K POT
A7_Zspeed
JP31
POWER ADJ 5K POT
A6_Ppower
SPEED
(F2)
Z-AXIS
12V
24V
TB6560
JP34
COM+5V
CLK-
DIR-
EN-
JP33 TO S3 DIP-SW
(+) COMM
(-) SW3
D4=HI S3(OFF) 16:HiRES
D4=LO S3(ON) 8:FAST
+12VOUT
DC-DC SPS
+24VIN
FROM 24V3A SPS
OPTI
(F2) GX16-4
MOTOR
(F2) GX16-4
EXP-OUT
AUX
MAIN
JP25
JP18
JP23
JP24
JP19
JP21
U8
U7
U6
(+15V)FLOAT
(0V)FLOAT
HI-GATE
HI-SOURCE
LO-GATE
LO-SOURCE
(SHT1)
PWMOUT+
PWM
ON
BP
CS
TOP
BOT
END
OVR ON
MANUAL
AUTO
(F1)
JP20
JP22
PWMOUT
GND
GND=ON
KEY (F2)
JP26
PAGE
JP28
ZDN
ZUP
JP29
ZRUN
ZSTOP
TB6560
sw1=ON
sw1=OFF
sw1=ON
S1=ON
S2=OFF
S3=OFF
S4=ON
S5=OFF
S6=OFF
S7=OFF
S8=OFF
USING 1 TO 2 9P HEADER EXPANSION
GX1
CTRL-1, CTRL-2
(F2) GX16-9 X2 PARALLEL
CONTROLS INPUT
PROPRIETARY NOTICE
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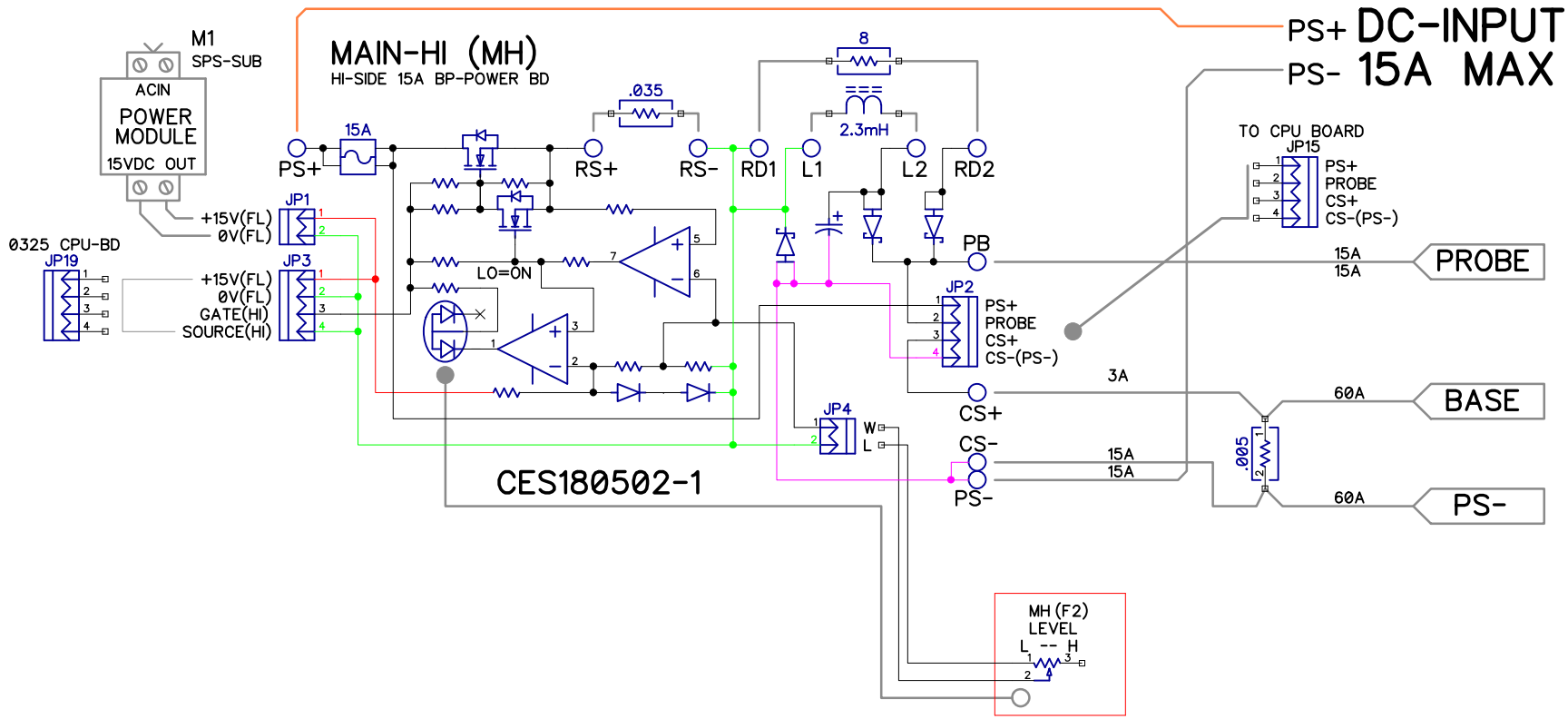
C. E. S.
WEST COVINA, CALIFORNIA, U.S.A.
MAIN CONSOLE SYSTEM BLOCK
SIZE
A
DWG NO.
EMC4B6
REV
01a
EMC4B6_v01a_SystemBlock.dch
Sheet 4 of 9



INTERNAL MAIN 15A PB POWER

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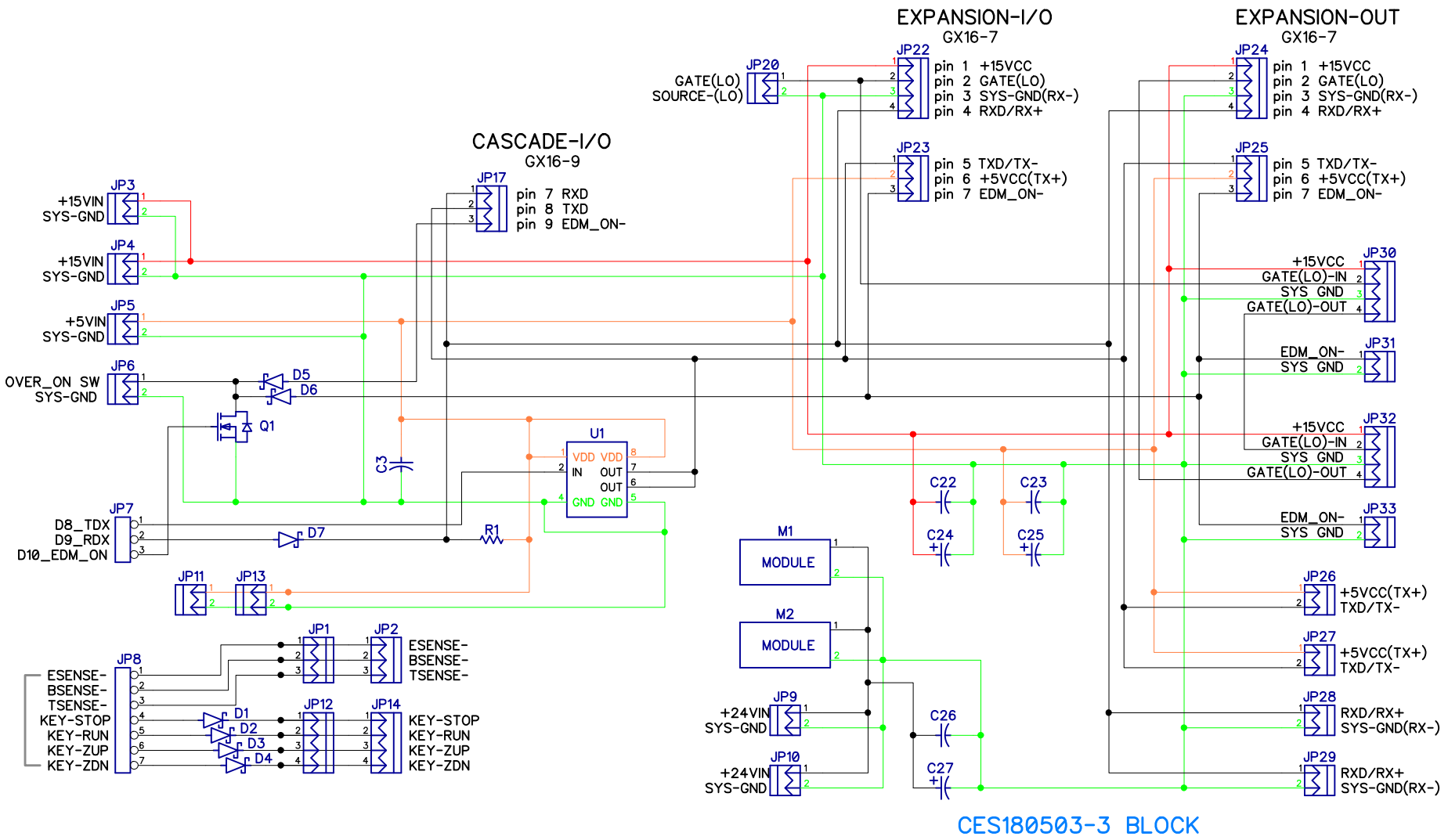
MAIN CONSOLE SYSTEM BLOCK

SIZE	DWG NO.	REV
A	EMC4B6	01a

EMC4B6_v01a_SystemBlock.dch Sheet 5 of 9



CES180503-3 BLOCK

CASCADE-I/O
GX16-9
pin 1 +15V(FL)
pin 2 0V(FL)
pin 3 GATE(HI)
pin 4 +15VCC
pin 5 GATE(LO)
pin 6 SYS-GND
pin 7 RXD
pin 8 TXD
pin 9 EDM_ON-

EXPANSION-I/O
GX16-7
pin 1 +15VCC
pin 2 GATE(LO)
pin 3 SYS-GND(RX-)
pin 4 RXD/RX+
pin 5 TXD/TX-
pin 6 +5VCC(TX+)
pin 7 EDM_ON-

CONTROLS-IN
GX16-9
pin 1 ESENSE-
pin 2 BSENSE-
pin 3 TSENSE-
pin 4 K.ZSTOP(SET)-
pin 5 K.ZRUN-
pin 6 K.ZUP-
pin 7 K.ZDN-
pin 8 +5V
pin 9 GND

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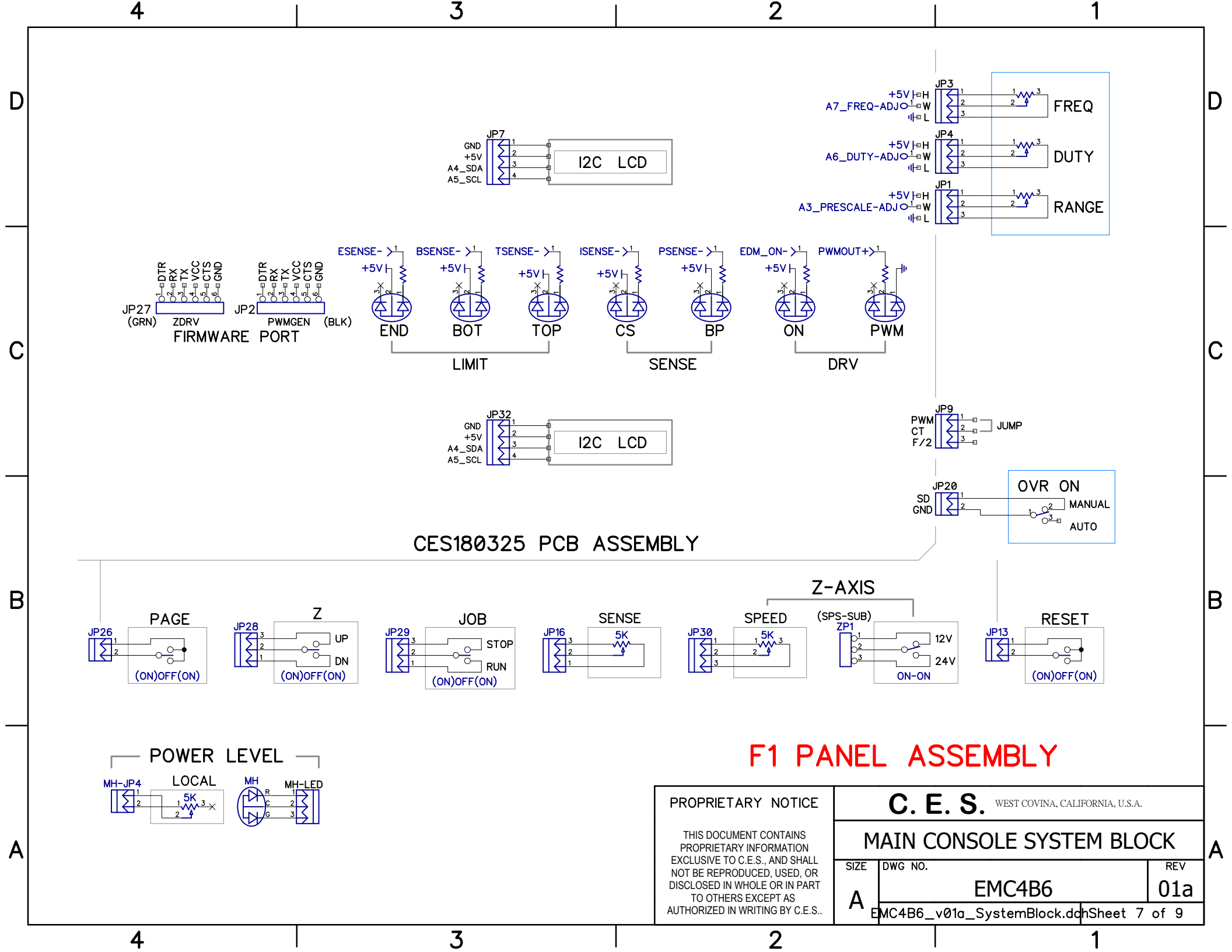
MAIN CONSOLE SYSTEM BLOCK

SIZE	DWG NO.	REV
A	EMC4B6	01a

EMC4B6_v01a_SystemBlock.dch Sheet 6 of 9


JP7
GND
+5V
A4_SDA
A5_SCL
I2C LCD
JP3
+5V
A7_FREQ-ADJ
H
W
L
FREQ
JP4
A6_DUTY-ADJ
DUTY
JP1
A3_PRESCALE-ADJ
RANGE
DTR
RX
TX
VCC
CTS
GND
JP27
(GRN)
ZDRV
JP2
PWMGEN
(BLK)
FIRMWARE PORT
ESENSE-
BSENSE-
TSENSE-
ISENSE-
PSENSE-
EDM_ON-
PWMOUT+
+5V
END
BOT
TOP
CS
BP
ON
PWM
LIMIT
SENSE
DRV
JP32
I2C LCD
JP9
PWM
CT
F/2
JUMP
JP20
SD
GND
OVR ON
MANUAL
AUTO
CES180325 PCB ASSEMBLY
PAGE
JP26
(ON)OFF(ON)
Z
JP28
UP
DN
JOB
JP29
STOP
RUN
SENSE
JP16
5K
Z-AXIS
SPEED
JP30
(SPS-SUB)
ZP1
12V
24V
ON-ON
RESET
JP13
POWER LEVEL
MH-JP4
LOCAL
MH
MH-LED
F1 PANEL ASSEMBLY
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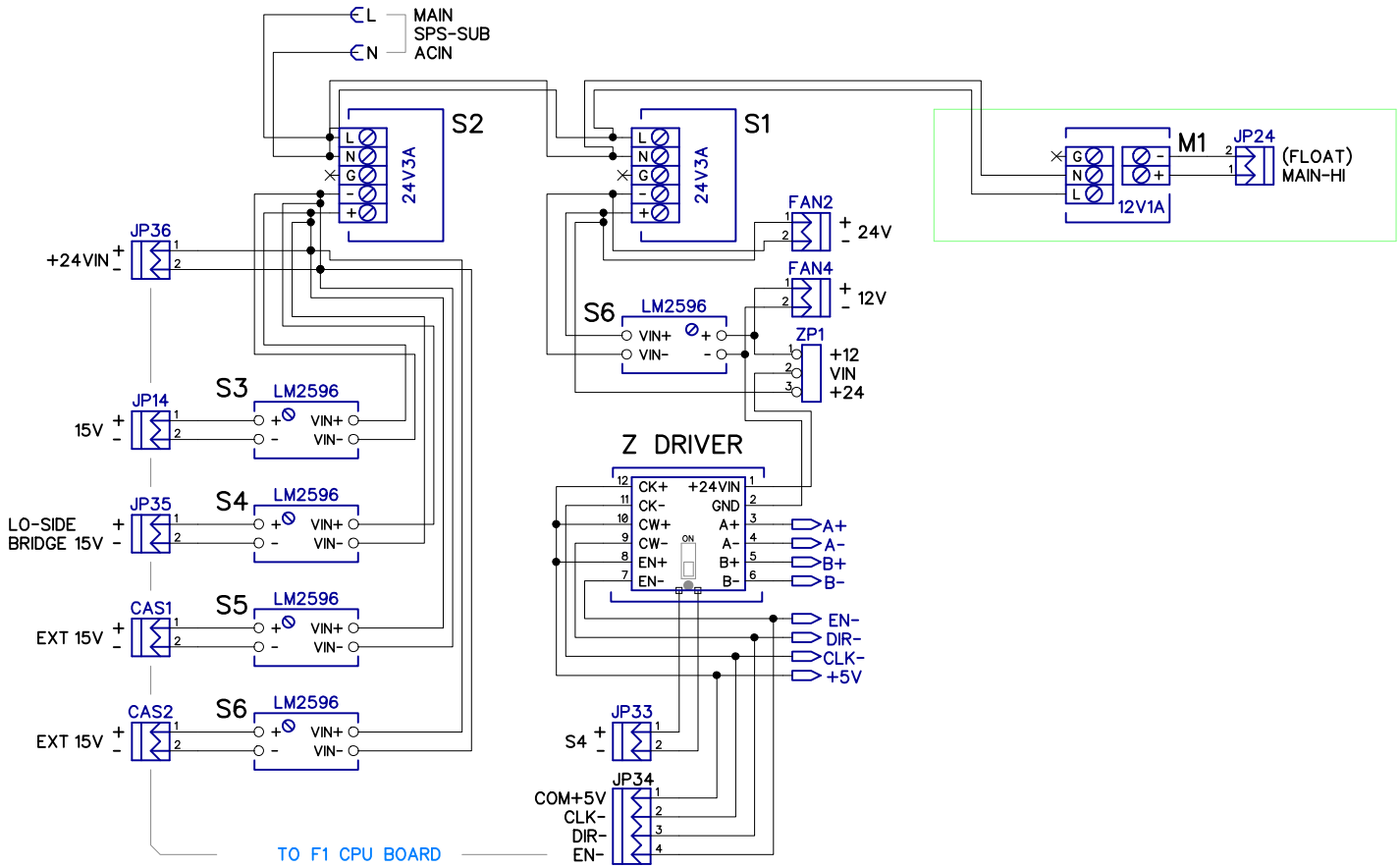
C. E. S.
WEST COVINA, CALIFORNIA, U.S.A.
MAIN CONSOLE SYSTEM BLOCK
SIZE
A
DWG NO.
EMC4B6
REV
01a
EMC4B6_v01a_SystemBlock.dch
Sheet 7 of 9



SPS-SUB ASSEMBLY

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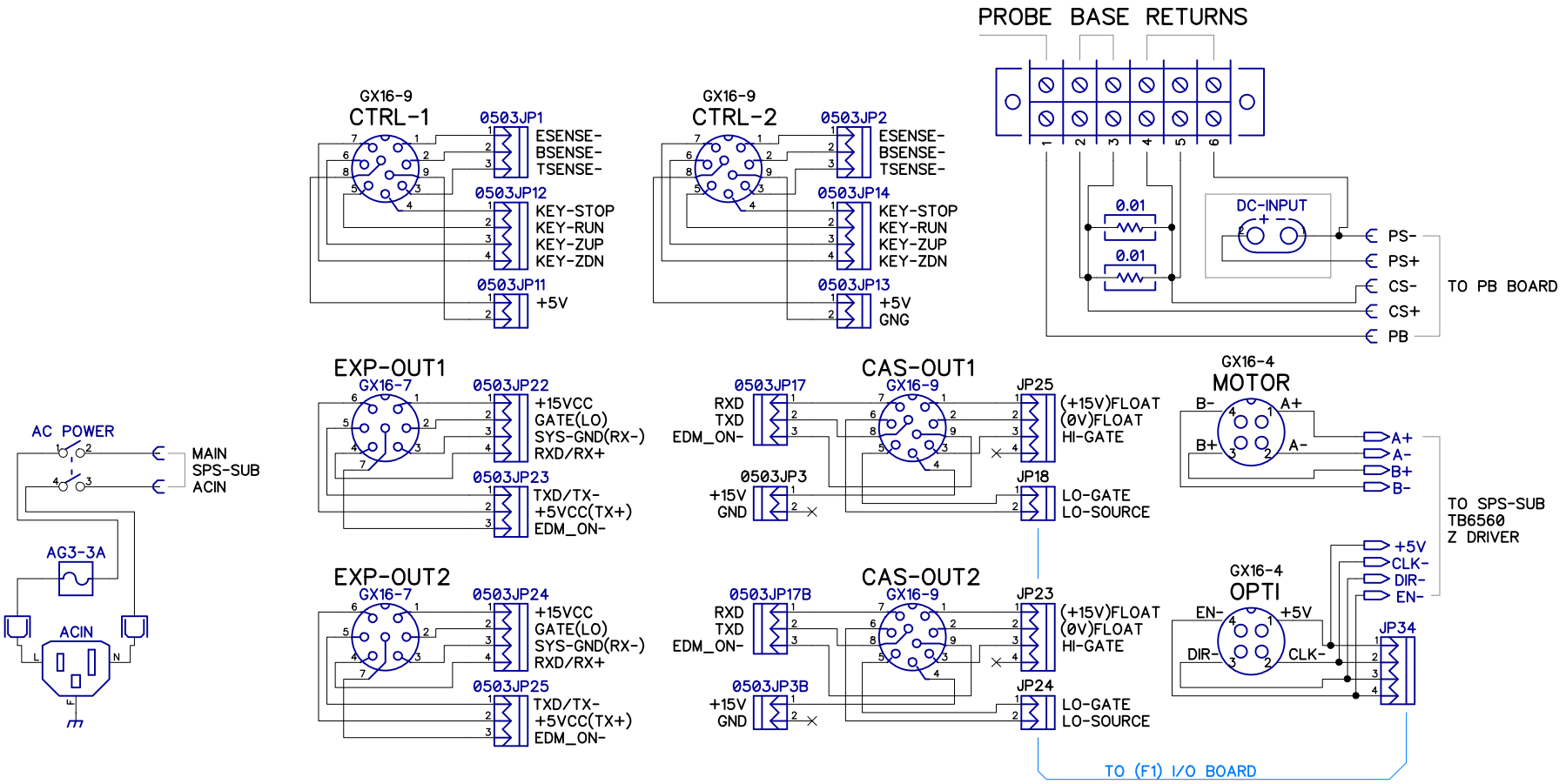
MAIN CONSOLE SYSTEM BLOCK

SIZE	DWG NO.	REV
A	EMC4B6	01a

EMC4B6_v01a_SystemBlock.ddn Sheet 8 of 9



F2 PANEL ASSEMBLY

CASCADE-OUT
GX16-9
pin 1 +15V(FL)
pin 2 0V(FL)
pin 3 GATE(HI)
pin 4 +15VCC
pin 5 GATE(LO)
pin 6 SYS-GND
pin 7 RXD
pin 8 TXD
pin 9 EDM_ON-

EXPANSION-OUT
GX16-7
pin 1 +15VCC
pin 2 GATE(LO)
pin 3 SYS-GND(RX-)
pin 4 RXD/RX+
pin 5 TXD/TX-
pin 6 +5VCC(TX+)
pin 7 EDM_ON-

CONTROLS-IN
GX16-9
pin 1 ESENSE-
pin 2 BSENSE-
pin 3 TSENSE-
pin 4 K.ZSTOP(SET)-
pin 5 K.ZRUN-
pin 6 K.ZUP-
pin 7 K.ZDN-
pin 8 +5V
pin 9 GND

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MAIN CONSOLE SYSTEM BLOCK

SIZE	DWG NO.	REV
A	EMC4B6	01a
	EMC4B6_v01a_SystemBlock.dch	Sheet 9 of 9