

MC-2020 Connection Guide

Wednesday, May 16, 2007

AES IN PGM & PST Pin #'s: 1=PS1+, 2=PS2+, 3=PS3+, 4=PS4+, 5=PG1+, 6=PG2+, 7=PG3+, 8=PG4+, 11=PS1-, 12=PS2-, 13=PS3-, 14=PS4-, 15=PG1-, 16=PG2-, 17=PG3-, 18=PG4-, 19=PS1gnd, 20=PS2gnd, 21=PS3gnd, 22=PS4gnd, 23=PM1gnd, 24=PG2gnd, 25=PG3gnd, 26=PG4gnd

AES IN / PVW & EXT1 Pin #'s: 1=P1+, 2=P2+, 3=P3+, 4=P4+, 5=E1+, 6=E2+, 7=E3+, 8=E4+, 11=P1-, 12=P2-, 13=P3-, 14=P4-, 15=E1-, 16=E2-, 17=E3-, 18=E4-, 19=P1gnd, 20=P2gnd, 21=P3gnd, 22=P4gnd, 23=E1gnd, 24=E2gnd, 25=E3gnd, 26=E4gnd

AES IN / EXT2 & EXT3 Pin #'s: 1=E2 1+, 2=E2 2+, 3=E2 3+, 4=E2 4+, 5=E3 1+, 6=E3 2+, 7=E3 3+, 8=E3 4+, 11=E2 1-, 12=E2 2-, 13=E2 3-, 14=E2 4-, 15=E3 1-, 16=E3 2-, 17=E3 3-, 18=E3 4-, 19=E2 1gnd, 20=E2 2gnd, 21=E2 3gnd, 22=E2 4gnd, 23=E3 1gnd, 24=E3 2gnd, 25=E3 3gnd, 26=E3 4gnd

MONITOR OUT – Typically monitors the Preset Bus. User may select to view the PVW/KEY bus.

AES Out/Aux,Spare Pin #'s: 1=A1+, 2=A2+, 3=A3+, 4=A4+, 5=S1+, 6=S2+, 7=S3+, 8=S4+, 9&10=n/a, 11=A1-, 12=A2-, 13=A3-, 14=A4-, 15=S1-, 16=S2-, 17=S3-, 18=S4-, 19=A1gnd, 20=A2gnd, 21=A3gnd, 22=A4gnd, 23=S1gnd, 24=S2gnd, 25=S3gnd, 26=S4gnd.

PROGRAM OUT
2)Connections; 1 for downstream devices and 1 for monitoring.

AES Out/PGM,MON Pin #'s: 1=M1+, 2=M2+, 3=M3+, 4=M4+, 5=P1+, 6=P2+, 7=P3+, 8=P4+, 11=M1-, 12=M2-, 13=M3-, 14=M4-, 15=P1-, 16=P2-, 17=P3-, 18=P4-, 19=M1gnd, 20=M2gnd, 21=M3gnd, 22=M4gnd, 23=P1gnd, 24=P2gnd, 25=P3gnd, 26=P4gnd

PREVIEW or Clean feed out

Standard Ethernet connection. We recommend the ethernet system include only Utah Scientific equipment

Unused

U-NET Port
Connects 2020 chassis to the UNET, daisy chain, network via CAT5 cable. Connect "Y" cable to the UNET port and connect the network cable to one side and either terminate the other port or loop to the next device. Max UNET length is 1000'.

Constant Reference Signal:
SD = any SMPTE 259M
HD = any SMPTE 292M

Locked = Green
Not Locked = Red

HD reference = Green
SD reference = Amber
Incorrect reference = Flashing

"ACTIVE" reference loop through. Any downstream device will loose reference in the event of a power outage on the MC-2020.

11 Inputs:
SDI: Max length 1000' using 8281
HD: Max length 500' using 1694A
All sources **must** be within +/- 1/2 line of reference

Time Code IN / AES reference
Pin 1&2 = Gnd,
3 = AES -, 4 = TC -, 5 = AES +, 6 = TC+

Relay Port B Pin #'s ("Rx"=relay number):R11=1&2, R12=3&4, R13=6&7, R14=8&9, R15=10&11, R16=13&14, R17=16&17, R18=19&20, R19=21&22, R20=23&24, R21=25&26, GND=5,12,15&18

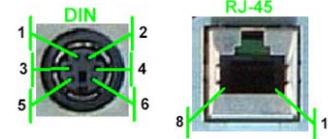
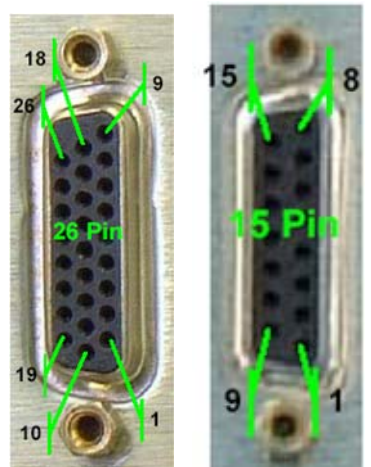
Relay Port A Pin #'s ("Rx"=relay number):R1=1&2, R2=3&4, R3=6&7, R4=8&9, R5=13&14, R6=16&17, R7=19&20, R8=21&22, R9=23&24, R10=25&26, GND=5,12,15&18, N/A=10&11

CANBUS Pin #'s: 1=reset, 2=CANH, 3,4,7&9=GND, 5=TCK, 6=TDO, 8&15=+5V, 10=CANL, 11=N/A, 12=nTRST, 13=TMS, 14=TDI

Alarm Port Pin #'s: 1=SMPTE A1, 2=A1, 3=A3, 4=A5, 5=A7, 6=SMPTE A2, 7=A2, 8=A4, 9=A6 Alarms are TTL outputs.

4)RS-422 or 232 Serial Ports & Pin#'s
RS-232: 1=CD, 2=RX, 3=TX, 4=DTR, 5=GND, 6=DSR, 7=RTS, 8=CTS, 9=GND
RS-422: 1=CD, 2=RX-, 3=TX+, 4=TC, 5=GND, 6=RC, 7=RX+, 8=TX-, 9=GND

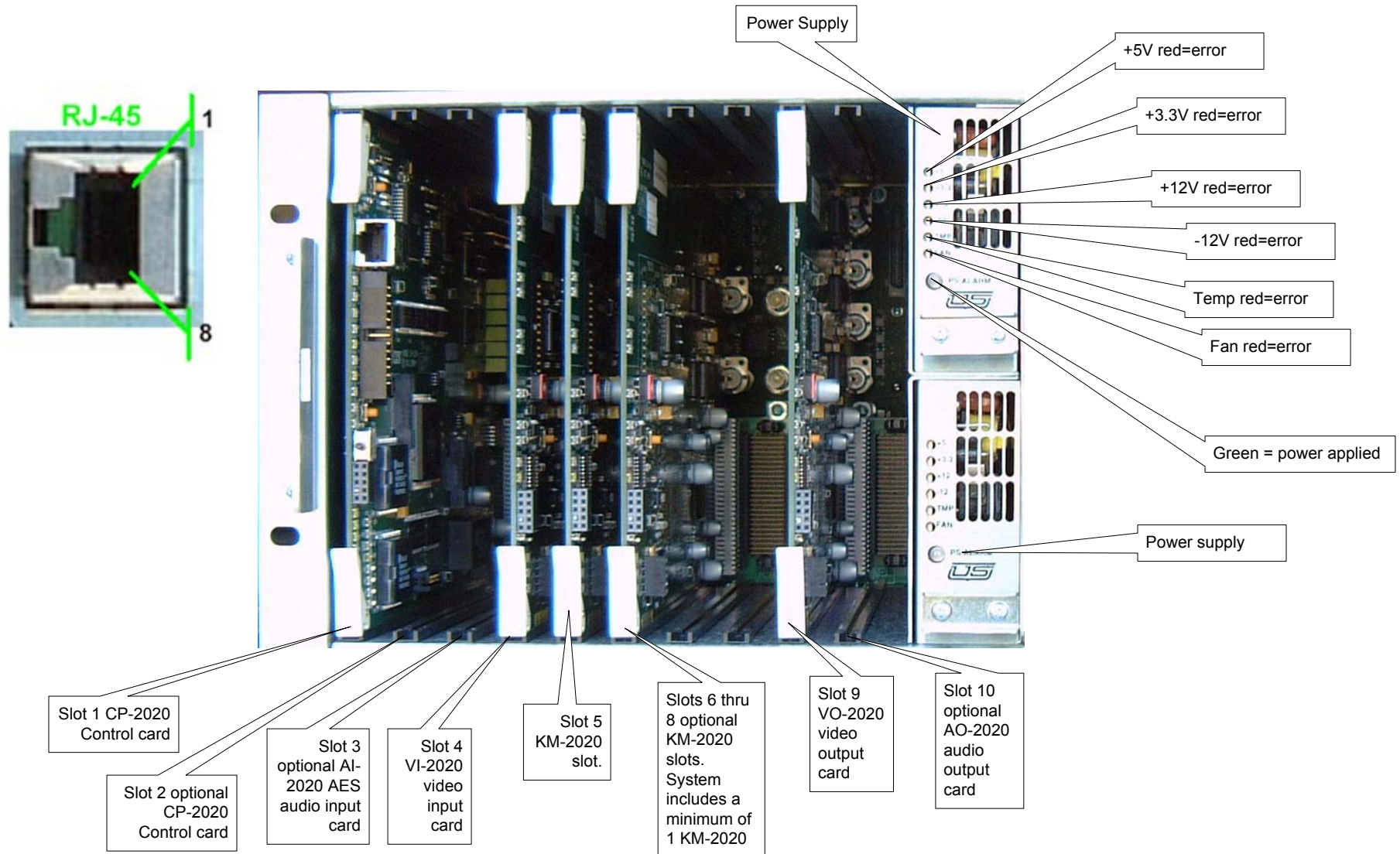
Clock IN / Pin #'s 1&2 = Gnd, 3 = T1 -, 4 = T2 -, 5 = T1 +, 6 = T2+



Note: your system may contain 2 rear panels on 1 chassis.

MC-2020 Front View Guide

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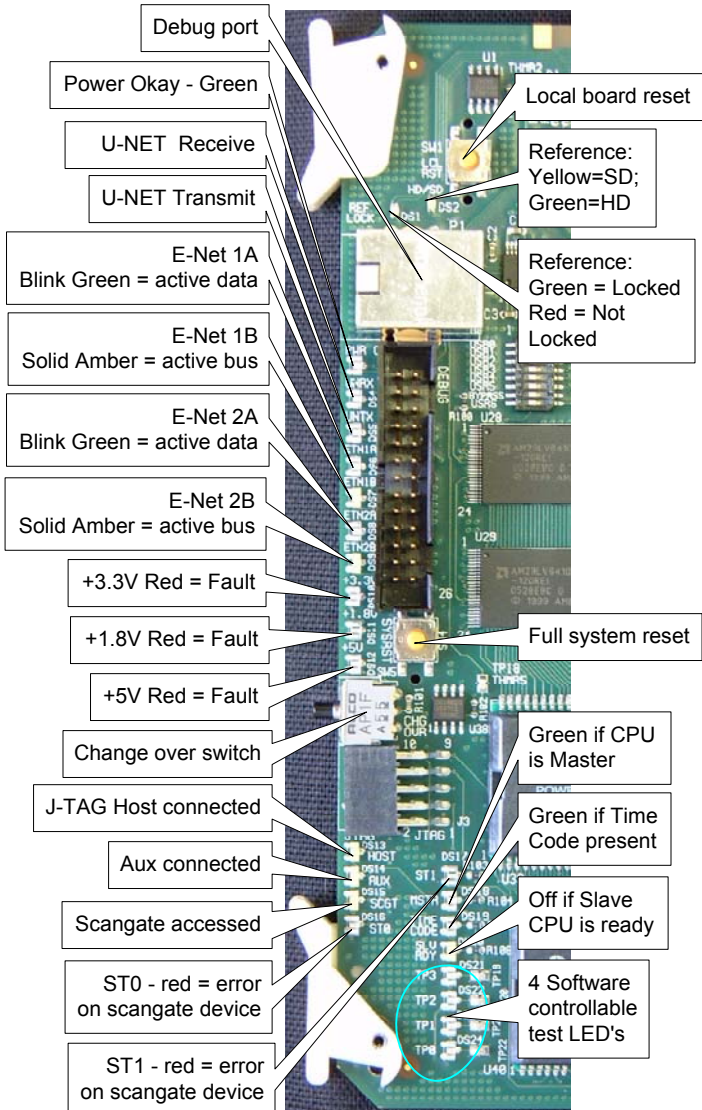


Note: your system may contain 2 master control systems in 1 chassis.

MC-200 Card Guide

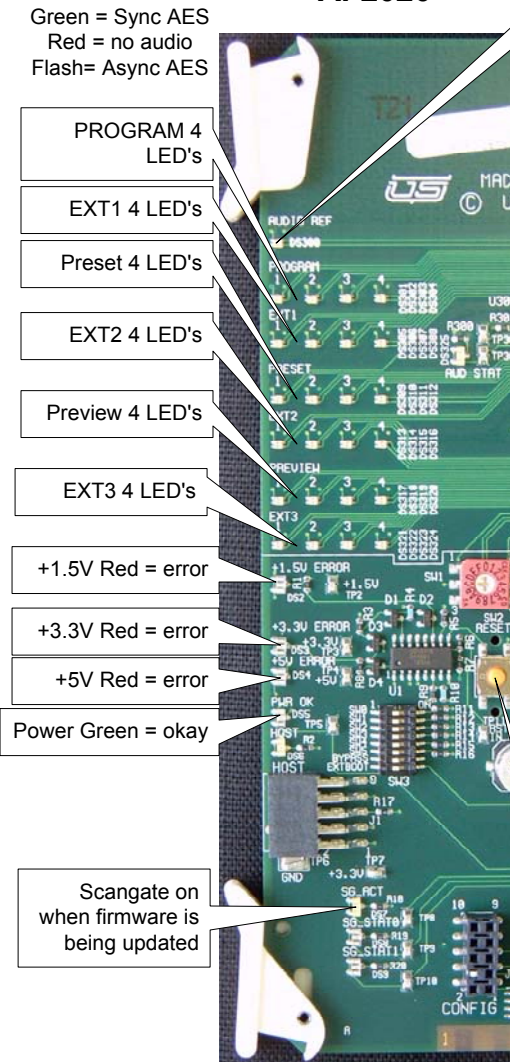
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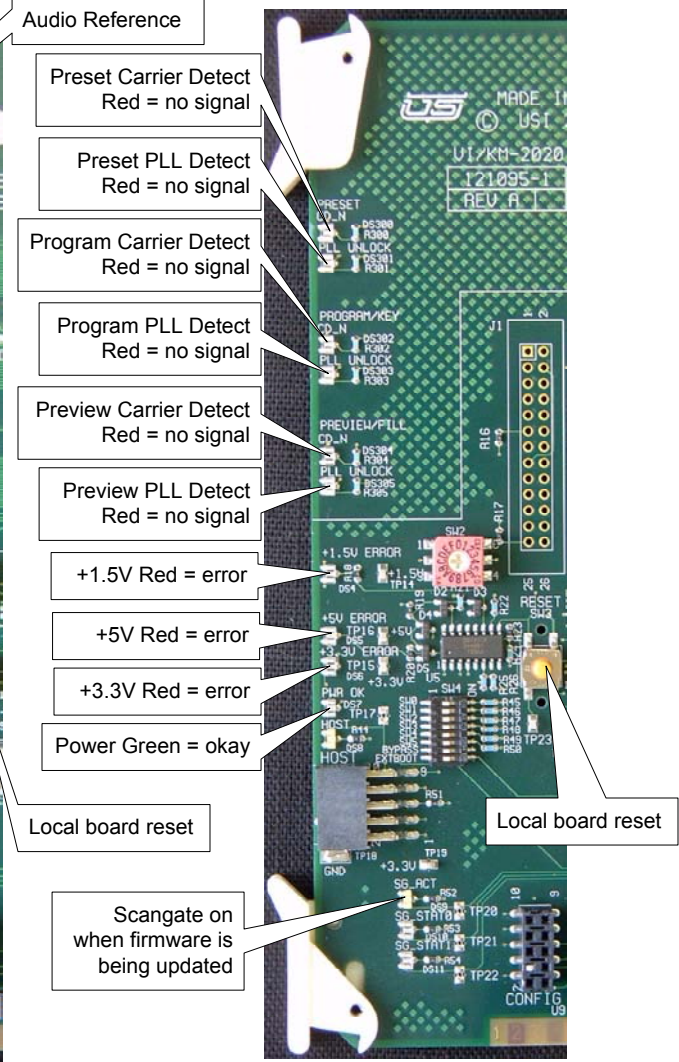


Note: AES LED's
Green = Sync AES
Red = no audio
Flash= Async AES

AI-2020



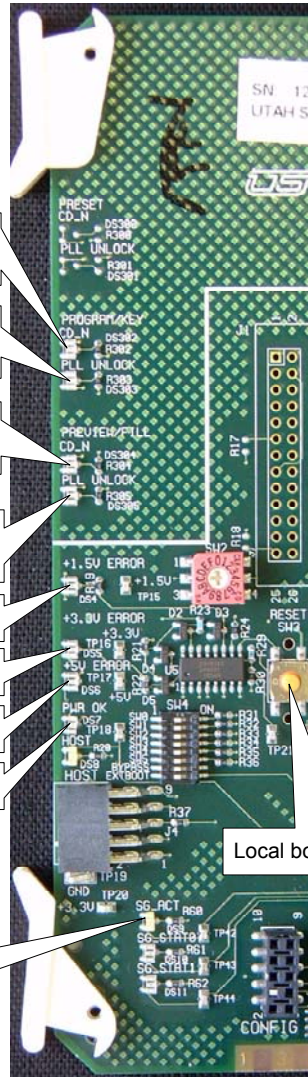
VI-2020



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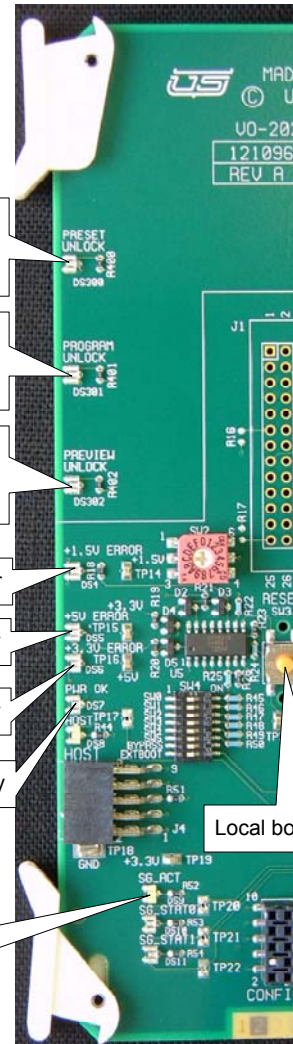
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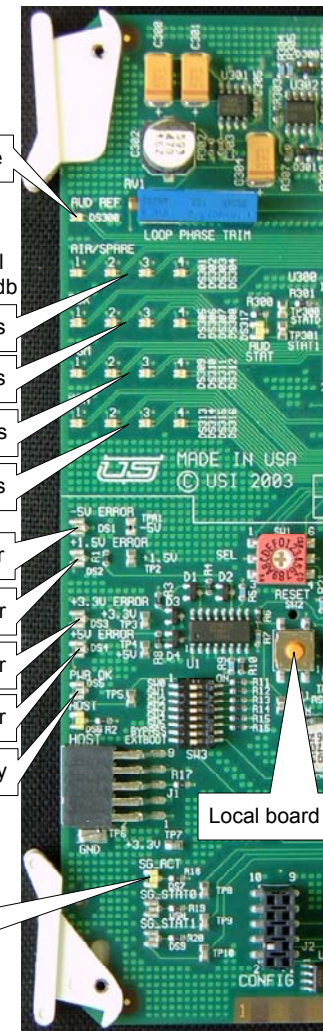
- Program/Key CD_N
- Program/Key PLL Unlock
- Preview/Fill CD_N
- Preview/Fill PLL Unlock
- +1.5V Error
- +3.3V Error
- +5V Error
- Power Okay
- Local board reset
- Scangate on when firmware is being updated

VO-2020



- PRESET Red = not locked to reference
- PROGRAM Red = not locked to reference
- PREVIEW Red = not locked to reference
- +1.5V Error
- +5V Error
- +3.3V Error
- Power Okay
- Local board reset
- Scangate on when firmware is being updated

AO-2020



- Audio Reference
- Note: AES LED's
Off = No audio
Green = Good level
Red/Orange = >+20db
- 4 Spare AES LED's
- 4 Aux AES LED's
- 4 PGM AES LED's
- 4 MON AES LED's
- 5V Error
- +1.5V Error
- +3.3V Error
- +5V Error
- Power Okay
- Local board reset
- Scangate on when firmware is being updated