This master schematic shows all possible parts.
Installing all parts would result in much damage.

3 variations with different populations are used.
Use the appropriate schematic and parts list
for each variation.

SHACK = Shack display, no PA
LDMOS = LDMOS PA Shack or Mast
PyroJoe = PYROJOE PA Shack or Mast

1 U4 & R11 NOT to be fitted for LDMOS PA
otherwise 24V will be applied to the gate of the LDMOS FET
resulting in instant destruction

2 Active bias circuit fitted only for LDMOS FET
NOT for Pyro Joe PA

LDMOS PyroJoe

+12V
U6
ITS4141N
Vbb OUT GND IN
LOAD SWITCH
BIAS ON/OFF
U1-11
C3 10uF

PyroJoe

1
U4
PCSA1-S12-S12-S
DC to DC
-Vin +Vin -Vout +Vout
R11 47

Q3 2N7000

J1 +12V GND SENSE+ SENSE- FAN MAINS BIAS/24V DRIVER 12V

J2 Qtemp-C Qtemp-B Qtemp-E RT51 +5V
C18 100nF
+5V

MAINS
FAN

TEMPERATURE SENSE
U1-26
C15 1uF
R10 100K

LDMOS PyroJoe

CURRENT SENSING
U2 LTC6101 OUT V+ V- -IN +IN
R25 1K

R3 33K
Vdd
U1-25
R5 4700
C13 100nF

R1 33k
Idd
U1-24
R2 33K
C14 100nF

LDMOS PyroJoe

LDMOS

2 ACTIVE BIAS
TEMPERATURE
COMPENSATION

U5 78M08 Out In Com
+8V
C4 1uF

R12 432
R16 1100
R13 432
R15 200
R9 2K
R17 10K
R14 75
R19 5110
C6 100nF
R20 909
TEMP COMP IN

U3 LM7321
C7 100nF
C5 1uF
BIAS

R24 4700
PA BIAS
D4 4.7v
BZX79C4V7

LDMOS PyroJoe

BLC2425M9LS250		
PA CONTROLLER - G4WIM		
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