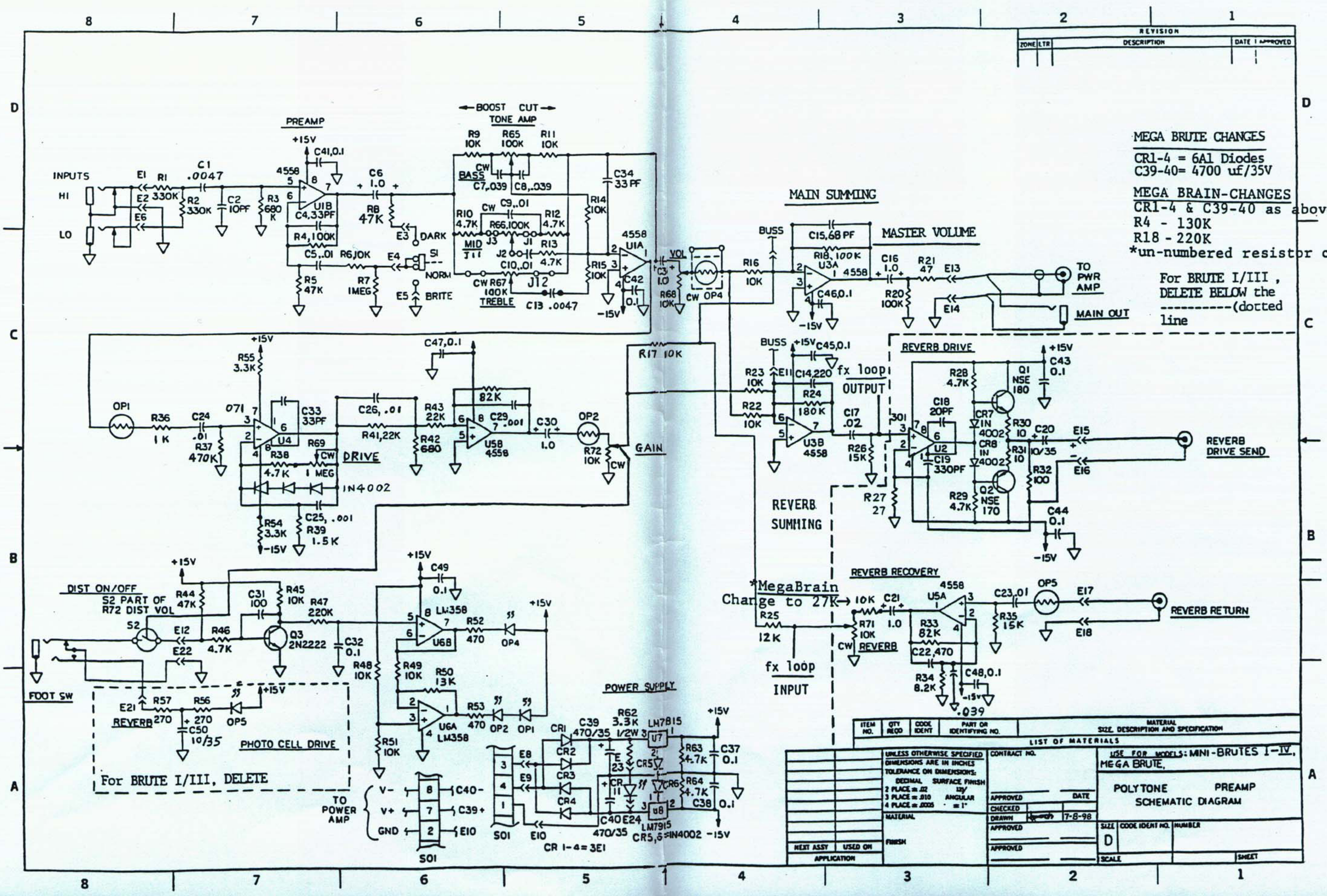
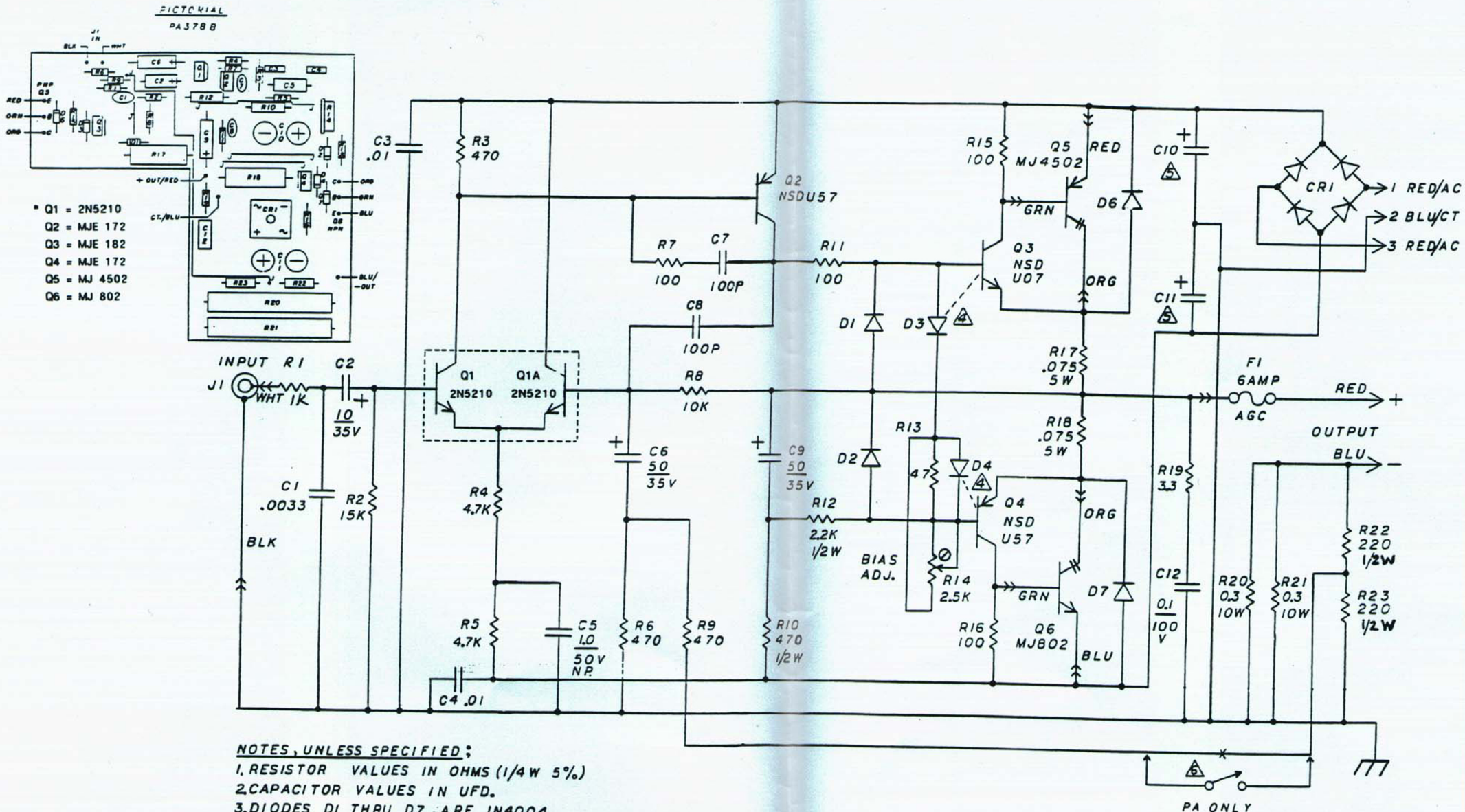

PREAMP
INPUTS
HI
LO
E1
R1
330K
E2
E6
R2
330K
C1
.0047
C2
10PF
R3
680
K
4558
U1B
C4,33PF
C41,0.1
+15V
R4,100K
C5,.01
R6,10K
R5
47K
R7
1MEG
C6
1.0
R8
47K
E3
DARK
E4
SI
NORM
E5
BRITE
BOOST CUT
TONE AMP
R9
10K
R65
100K
R11
10K
CW
BASS
C7,.039
C8,.039
C9,.01
R10
4.7K
R66,100K
R12
4.7K
MID
J11
J3
J1
R13
4.7K
J2
C10,.01
CW R67
100K
TREBLE
J12
C13 .0047
C34
33PF
R14
10K
R15
10K
4558
U1A
C42
0.1
-15V
VOL
C3
1.0
R68
10K
CW OP4
MAIN SUMMING
BUSS
R16
10K
C15,68 PF
R18,100K
U3A
4558
C46,0.1
-15V
MASTER VOLUME
C16
1.0
R21
47
E13
R20
100K
E14
TO
PWR
AMP
MAIN OUT
MEGA BRUTE CHANGES
CR1-4 = 6A1 Diodes
C39-40= 4700 uf/35V
MEGA BRAIN-CHANGES
CR1-4 & C39-40 as above
R4 - 130K
R18 - 220K
*un-numbered resistor change
For BRUTE I/III ,
DELETE BELOW the
----------(dotted
line
+15V
R55
3.3K
C47,0.1
OP1
R36
1K
C24
.01
R37
470K
071
C33
33PF
U4
R38
4.7K
R69
CW
1 MEG
1N4002
C26, .01
R41,22K
DRIVE
R43
22K
R42
680
82K
C29
.001
U5B
4558
C30
1.0
OP2
R72
10K
CW
GAIN
R54
3.3K
C25, .001
R39
1.5K
-15V
R17 10K
BUSS
+15V
C45,0.1
R23
10K
E11
C14,220
fx loop
OUTPUT
R24
180K
R22
10K
U3B
4558
C17
.02
R26
15K
R27
27
REVERB DRIVE
+15V
C43
0.1
R28
4.7K
Q1
NSE
180
C18
20PF
CR7
IN
4002
CR8
IN
4002
R30
10
C20
10/35
E15
E16
U2
C19
330PF
R31
10
R32
100
Q2
NSE
170
R29
4.7K
C44
0.1
-15V
REVERB
SUMMING
REVERB DRIVE SEND
DIST ON/OFF
S2 PART OF
R72 DIST VOL
S2
E12
E22
R44
47K
R46
4.7K
C31
100
R45
10K
Q3
2N2222
R47
220K
C32
0.1
+15V
C49
0.1
LM358
U6B
R52
470
OP4
R48
10K
R49
10K
R50
13K
U6A
LM358
R53
470
OP2
OP1
R51
10K
FOOT SW
E21
R57
270
REVERB
R56
270
C50
10/35
OP5
PHOTO CELL DRIVE
For BRUTE I/III, DELETE
TO
POWER
AMP
V-
V+
GND
C40-
C39+
E10
SO1
POWER SUPPLY
E8
E9
CR1
CR2
CR3
CR4
C39
470/35
R62
3.3K
1/2W
LM7815
U7
CR5
CR6
R63
4.7K
R64
4.7K
C37
0.1
C38
0.1
C40
470/35
E24
U8
LM7915
CR5,6=1N4002
-15V
CR 1-4=3E1
*MegaBrain
Change to 27K
R25
12K
fx loop
INPUT
10K
C21
1.0
R71
10K
CW
REVERB
REVERB RECOVERY
4558
U5A
R33
82K
C22,470
R34
8.2K
C48,0.1
.039
C23,01
R35
15K
OP5
E17
E18
REVERB RETURN
REVISION
ZONE
LTR
DESCRIPTION
DATE
APPROVED
ITEM NO.
QTY REQD
CODE IDENT
PART OR IDENTIFYING NO.
MATERIAL SIZE, DESCRIPTION AND SPECIFICATION
LIST OF MATERIALS
UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
TOLERANCE ON DIMENSIONS:
DECIMAL
SURFACE FINISH
ANGULAR
MATERIAL
FINISH
NEXT ASSY
USED ON
APPLICATION
CONTRACT NO.
APPROVED
DATE
CHECKED
DRAWN
7-8-98
USE FOR MODELS: MINI-BRUTES I-IV,
MEGA BRUTE,
POLYTONE PREAMP
SCHEMATIC DIAGRAM
SIZE
D
CODE IDENT NO.
NUMBER
SCALE
SHEET



NOTES, UNLESS SPECIFIED:

1. RESISTOR VALUES IN OHMS (1/4W 5%)
2. CAPACITOR VALUES IN UFD.
3. DIODES D1 THRU D7 ARE IN4004
4. D3,D4 MUST CONTACT Q4,Q5 THERMALLY
5. 8200UF IN 120W AMP/4000UF IN 60-80W AMPS
6. BREAK AND ADD SWITCH FOR PA MODELS
7. MPA. PA-60, PA-120: delete R22 & R23
8. Sidekick: change R6 to 220

* Q1/Q1A represents Q1 replacing PT1583

NOTES: Q2 & Q4 - MJE172 replaces NSDU57
Q3 - MJE182 replaces NSDU07

POLYTONE MUSICAL INSTRUMENTS INC.

POWER AMP PA378B

SIZE	FSCM NO.	DWG. NO.	REV.
C			
SCALE		SHEET	