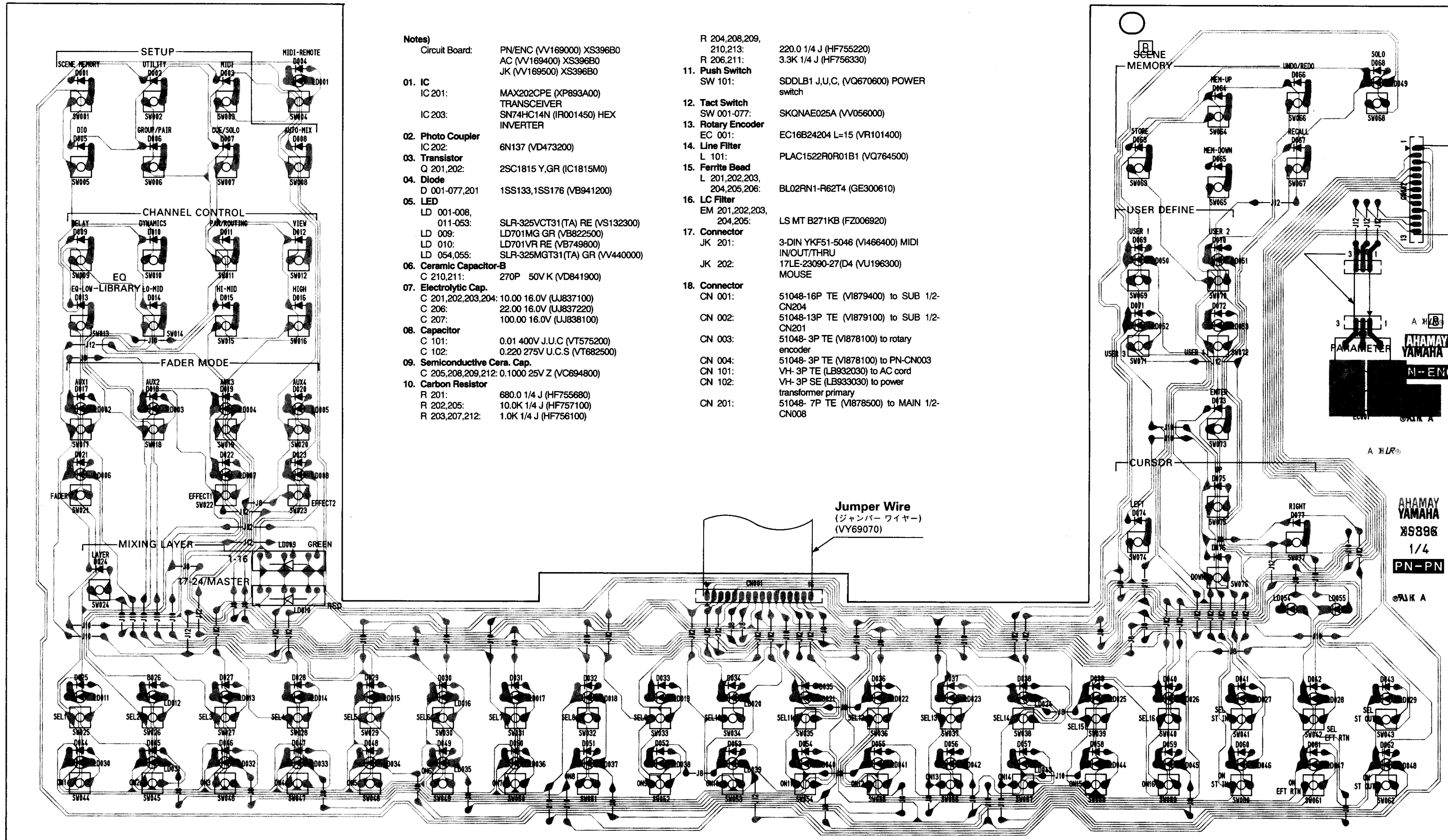


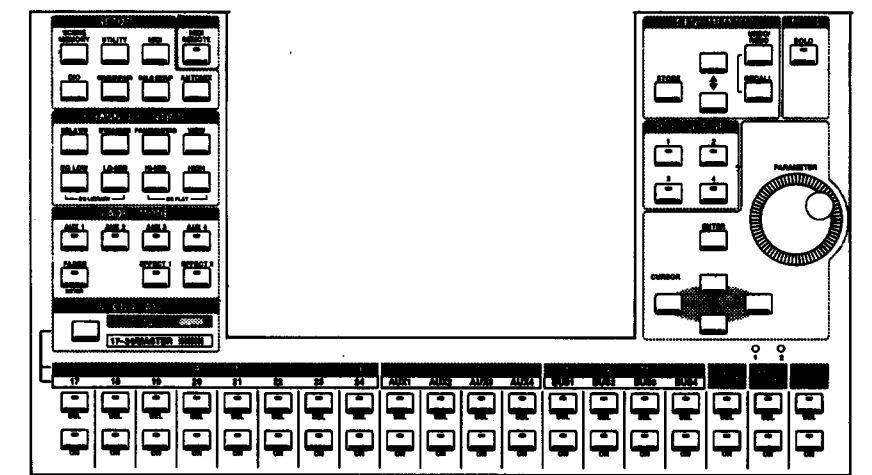
PN/ENC Circuit Board

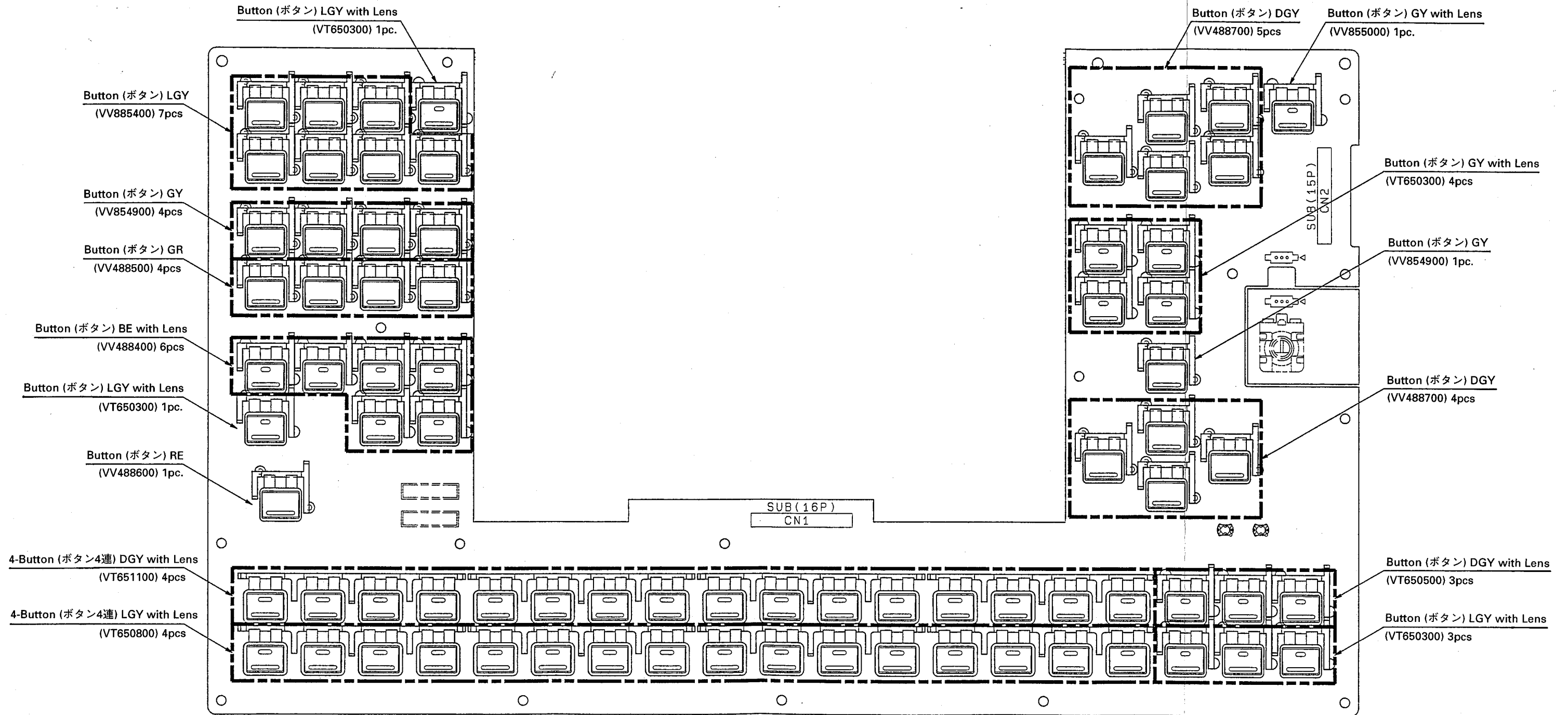


- Notes**
- Circuit Board: PN/ENC (VV169000) XS396B0  
 AC (VV169400) XS396B0  
 JK (VV169500) XS396B0
- 01. IC**  
 IC 201: MAX202CPE (XP893A00) TRANSCIEVER  
 IC 203: SN74HC14N (IR001450) HEX INVERTER
- 02. Photo Coupler**  
 IC 202: 6N137 (VD473200)
- 03. Transistor**  
 Q 201,202: 2SC1815 Y,GR (IC1815M0)
- 04. Diode**  
 D 001-077,201: 1SS133,1SS176 (VB941200)
- 05. LED**  
 LD 001-008, 011-053: SLR-325VCT31(TA) RE (VS132300)  
 LD 009: LD701MG GR (VB822500)  
 LD 010: LD701VR RE (VB749800)  
 LD 054,055: SLR-325MG T31(TA) GR (VV440000)
- 06. Ceramic Capacitor-B**  
 C 210,211: 270P 50V K (VD841900)
- 07. Electrolytic Cap.**  
 C 201,202,203,204: 10.00 16.0V (UJ837100)  
 C 206: 22.00 16.0V (UJ837220)  
 C 207: 100.00 16.0V (UJ838100)
- 08. Capacitor**  
 C 101: 0.01 400V J.U.C (VT575200)  
 C 102: 0.220 275V U.C.S (VT682500)
- 09. Semiconductor Cera. Cap.**  
 C 205,208,209,212: 0.1000 25V Z (VC694800)
- 10. Carbon Resistor**  
 R 201: 680.0 1/4 J (HF755680)  
 R 202,205: 10.0K 1/4 J (HF757100)  
 R 203,207,212: 1.0K 1/4 J (HF756100)
- R 204,208,209, 210,213: 220.0 1/4 J (HF755220)  
 R 206,211: 3.3K 1/4 J (HF756330)
- 11. Push Switch**  
 SW 101: SDDL B1 J,U,C, (VQ670600) POWER switch
- 12. Tact Switch**  
 SW 001-077: SKQNAE025A (VV056000)
- 13. Rotary Encoder**  
 EC 001: EC16B24204 L-15 (VR101400)
- 14. Line Filter**  
 L 101: PLAC1522R0R01B1 (VQ764500)
- 15. Ferrite Bead**  
 L 201,202,203, 204,205,206: BL02RN1-R62T4 (GE300610)
- 16. LC Filter**  
 EM 201,202,203, 204,205: LS MT B271KB (FZ006920)
- 17. Connector**  
 JK 201: 3-DIN YKF51-5046 (V1466400) MIDI IN/OUT/THRU  
 JK 202: 17LE-23090-27(D4) (VU196300) MOUSE
- 18. Connector**  
 CN 001: 51048-16P TE (V1879400) to SUB 1/2-CN204  
 CN 002: 51048-13P TE (V1879100) to SUB 1/2-CN201  
 CN 003: 51048-3P TE (V1878100) to rotary encoder  
 CN 004: 51048-3P TE (V1878100) to PN-CN003  
 CN 101: VH-3P TE (LB932030) to AC cord  
 CN 102: VH-3P SE (LB933030) to power transformer primary  
 CN 201: 51048-7P TE (V1878500) to MAIN 1/2-CN008

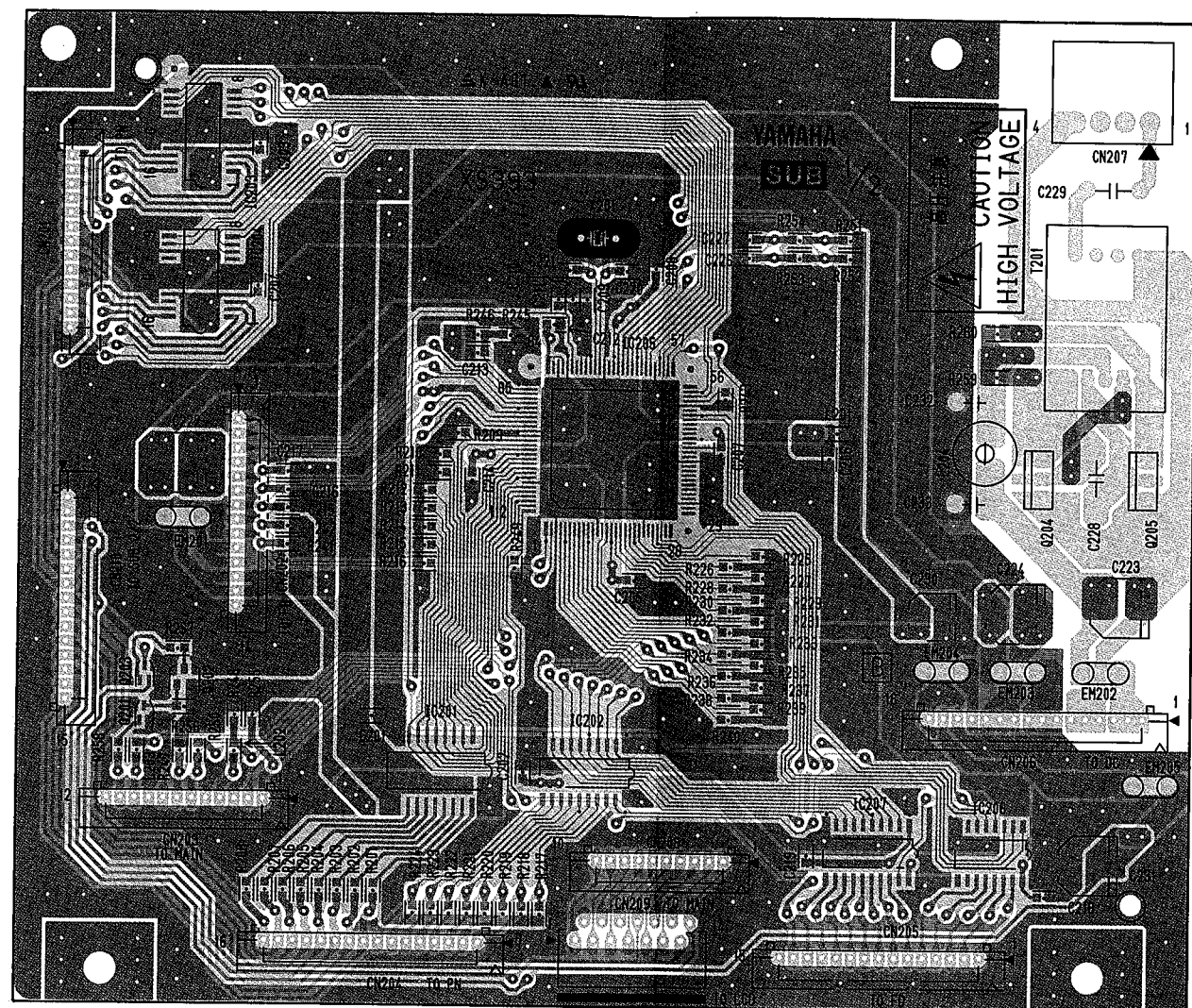
- 19. Jumper Wire**  
 FVP=2.0C26SB3-50 ( - ) CN003  
 FVP=2.0C26SB13-2 ( - ) CN002  
 FVP=2.0C26SB7-30 ( - ) CN201  
 FVP=2.0C26SB16-1 ( - ) CN001  
 0.55 (VA078900)
- 20. Button, LED**  
 TL/L-GY: (VT650300), ST IN, EFFECT RETURN, ST OUT, USER DEFINE(1-4), FADER METER, MIDI REMOTE  
 TL/D-GY: (VT650500), ST IN, EFFECT RETURN, ST OUT  
 TL/L-GY: (VT650800), Channel ON(1-16)  
 TL/D-GY: (VT651100), Channel SEL(1-16)  
 TL/BE: (VV488400), FADER MODE (AUX1, AUX2, AUX3, AUX4, EFFECT1, EFFECT2)  
 GR/GR: (VV488500), CHANNEL CONTROL (EQ LOW, LO-MID, HI-MID, HIGH)  
 RE/RE: (VV488600), MIXING LAYER  
 D-GY/D-GY: (VV488700), CURSOR (4), SCENE MEMORY (5)  
 409-3-GY/409-3-G: (VV854900), CHANNEL CONTROL (DELAY, DYNAMICS, PAN/ROUTING, VIEW), ENTER  
 TL/409-3-GY: (VV855000), SOLO  
 L-GY/L-GY: (VV885400), SETUP (SCENE MEMORY, MIDI, UTILITY, DIO, GROUP/PAIR, SOLO SETUP, AUTOMIX)
- 21. LED Spacer**  
 (VM642400)

Panel layout (パネル・レイアウト)





● SUB 1/2 Circuit Board



Component side (部品側)

Notes

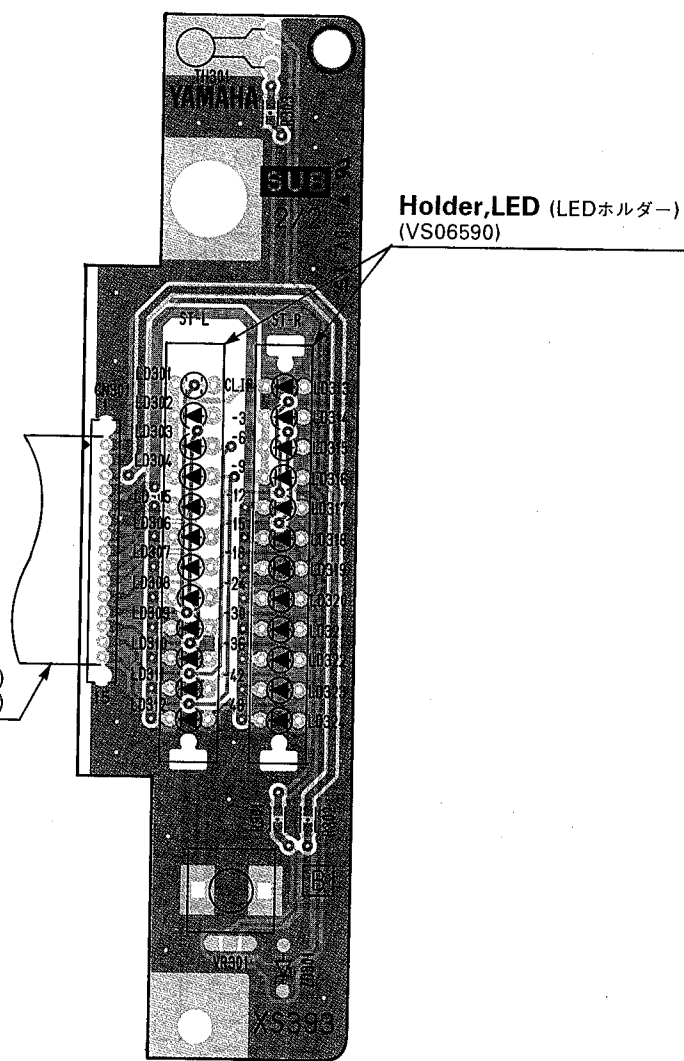
- Circuit Board: SUB 1/2(LCD-D) (NX007680) XS393B0  
SUB 2/2(LEVEL) (NX007690) XS393B0
01. IC  
IC 202,207: SN74HC245NSR (XD838A00) TRANSCEIVER  
IC 205: HD6437034F20 (XT198A00) CPU V1.00  
IC 206: SN74HC138NSR (XD835A00) DECODER
02. Transistor  
Q 201,203: 2SC2SC4081T106 (VQ986700)  
Q 202: 2SA1052 B,C (VQ395600)  
Q 204,205: 2SD1863 TV2 82-3 (VS185600)
03. Transistor Array  
IC 201: TD62783AF (VQ248400)  
IC 203,204: TD62309F(EL) (VY703900)
04. Zener Diode  
ZD 301: MTZJ6.8B 6.8V (VQ553900)
05. Thermistor  
TH 301: ERT-D2FGL332S 3. (VT816300)
06. LED  
LD 301,313: LN882RPX-(TA) OR (VQ735300)  
LD 302-307, 314-319: LN482YPX-(TA) YE (VS184400)

- LD 308-312, 320-324: LN382GPX-(TA) GR (VQ917600)
07. Ceramic Capacitor-SL  
C 229: 18P 3KV J (VS147400)
08. Monolithic Ceramic Cap.  
C 201-219: F 0.100 25V Z (UB245100)  
C 220,221: CH 10P 50V D (VJ899500)  
C 226,227: CH 1000P 50V J (VJ904300)
09. Electrolytic Cap. (chip)  
C 222,223,224: 100 16V (UF038100)  
C 228: 0.068 250 ECQE (VP318400)  
C 230: 33 16V (UF037330)  
C 231: 47 35V UUR1 (UF157470)
10. Carbon Resistor (chip)  
R 201-208: 33.0 0.1 J (RD254330)  
R 209-243,246-249,251,252, 255-258,301: 10.0K 0.1 J (RD257100)  
R 245,250: 100.0 0.1 J (RD255100)  
R 253,254: 100.0K 0.1 J (RD258100)  
R 259,260: 5.6K 0.1 J (RD256560)  
R 302: 1.2K 0.1 J (RD256120)  
R 303: 11.0K 0.1 J (RD257110)
11. Rotary Variable Resistor  
VR 301: B10.0K RK09K1130 (VS368200) CONTRUST control

12. Inverter Transformer  
T 201: CLF16A (VT646400)
13. Coil  
L 204: LH L 08TB221K (VS587900)
14. Chip Inductance  
L 201-203: BLM21B751S 2125 (VS740100)
15. Quartz Crystal Unit  
X 201: 20.0000M AT-49 (VI927300)
16. LC Filter  
EM 201,202,203, 204,205: LS MT Y223NB (FZ006970)
17. Connector  
CN 201: 52147-13P TE (VK025700) to PN-CN002  
CN 202: 52147-14P TE (VK025800) to FD-CN003  
CN 203: 52147-12P TE (VK025600) to MAIN 1/2-CN006  
CN 204: 52147-16P TE (VJ861600) to PN-CN001  
CN 205: 52147-15P TE (VF667600) to FD-CN002  
CN 206: 52147-16P TE (VJ861600) to DC-CN108  
CN 207: 53259-4P SE (VT389600) to LCD  
CN 208: 52147-10P TE (VF728200) to MAIN 1/2-CN007  
CN 209: 52044-14P SE (VF982200) to LCD  
CN 210: 52147-15P TE (VF667600) to SUB 2/2-CN301

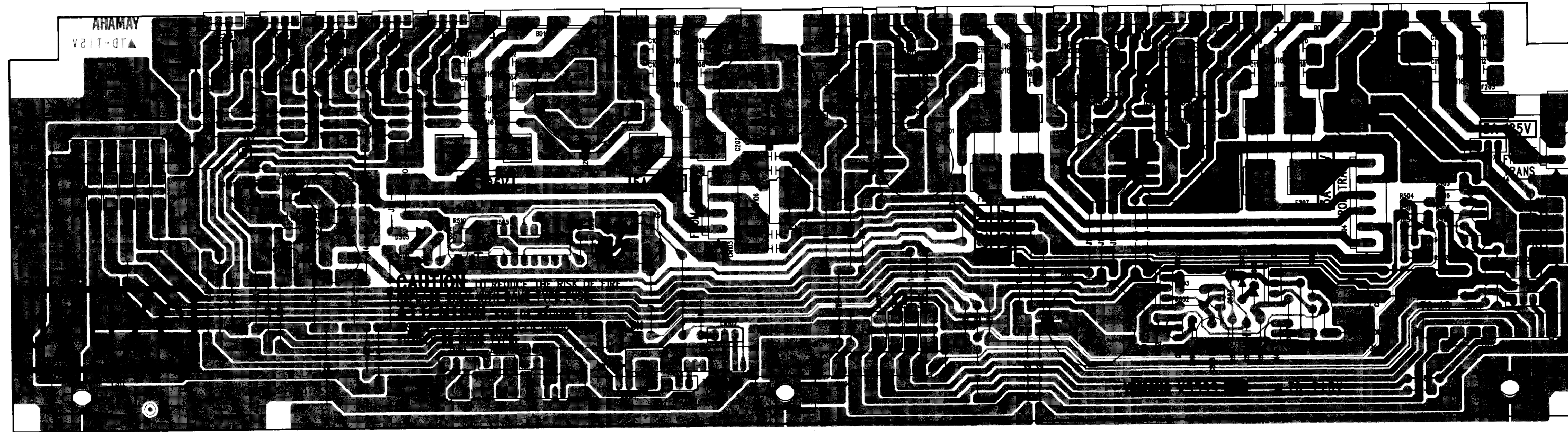
- CN 301: 51048-15P TE (VI879300) to SUB 1/2-CN210
18. LED Holder  
: (VS065900)
19. Jumper Wire  
: FVP=2.0C26SB15-8 ( -- ) CN301

● SUB 2/2 Circuit Board



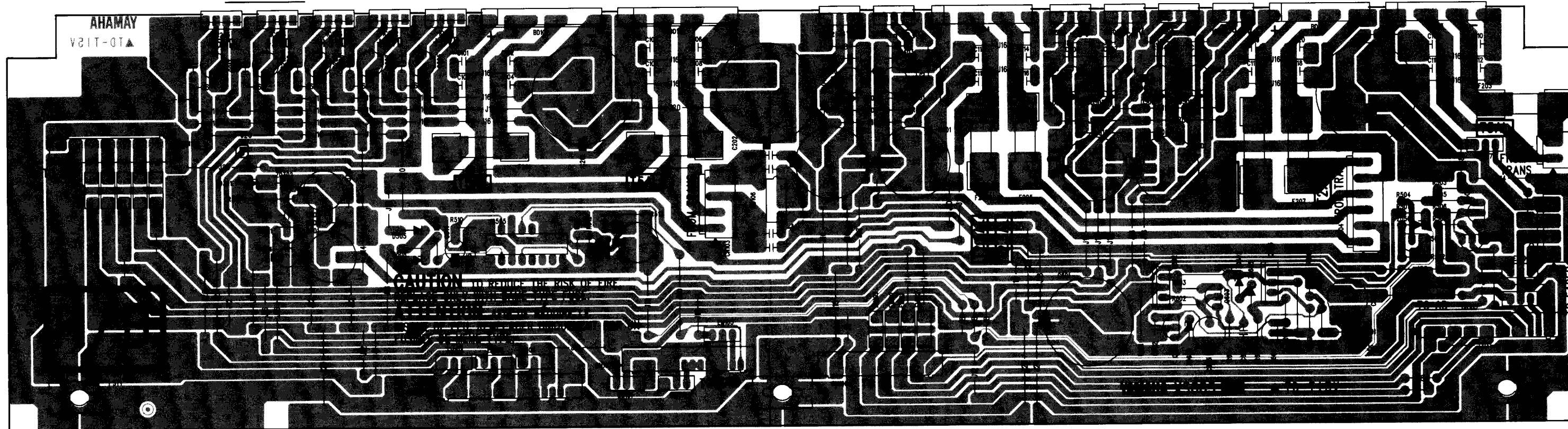
Component side (部品側)

• DC Circuit Board (Japanese, U·S and Canadian models)



Component side (部品側)

• DC Circuit Board (European model)



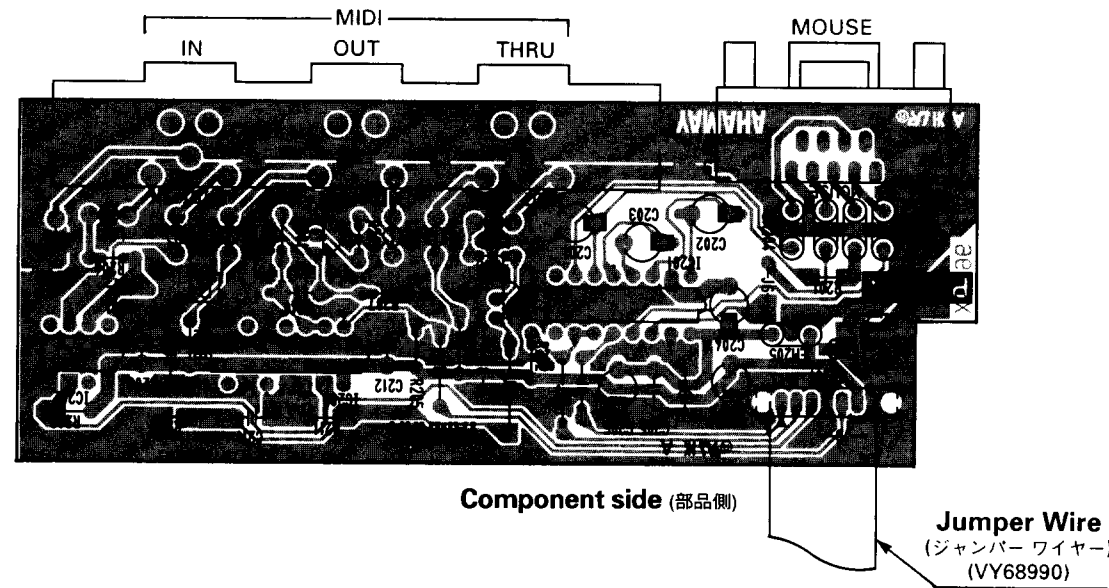
Component side (部品側)

Notes)

Circuit Board: DC ( - ) J,U,C,V XS399B0  
DC ( - ) H,B,W XS885B0

01. IC  
IC 201,202,203,204,205: PQ05RF2 (XH672A00) REGULATOR +5V 2A  
IC 301: NJM79L24A (XS571A00) REGULATOR -24V 0.1A  
IC 401: UPC2415AHF (XR608A00) REGULATOR +15V  
IC 402: NJM7915FA (XD854A00) REGULATOR -15V  
IC 501,503: UPC2405AHF (XR607A00) REGULATOR +5V  
IC 502,504: NJM7905FA (XK309A00) REGULATOR -5V  
IC 505: HD74HC123AP (IR012310) SINGLE SHOT
02. Transistor  
Q 501: 2SC1815 Y,GR (IC1815M0)  
Q 502: 2SA1015 O,Y (IA101590)  
Q 503: 2SB647 C,D (IB064730)  
Q 504: 2SD667 C,D (ID066700)  
Q 601,603,604: 2SC3200 GR (VS150800)  
Q 602,605: 2SD2015 (VM923000)
03. Diode  
D 301,302,401-404,501-505,601: 11ES4 (VB481900)
04. Diode Stack  
BD 101,102: D6SB60L 6.0A 600 (VT682400)  
BD 103,104,105: D3SBA20 4.0A 20 (VT359600)  
BD 106: S1WB(A)60 1.0A (VB845300)
05. Zener Diode  
ZD 301: MTZJ15B 15.0V (VQ556000)  
ZD 302: MTZJ24B 24.0V (VQ557500)  
ZD 501: MTZJ6.2B 6.2V (VQ313100)  
ZD 502: MTZJ4.3A 4.3V (V1241100)  
ZD 601: MTZJ6.8B 6.8V (VQ553900)  
ZD 602: MTZJ33B 33.0V (VQ558500)  
ZD 603: MTZJ27B 27.0V (VQ557800)
06. Mylar Capacitor  
C 303,403,404,503,504,507,508: 0.1000 50V J (UA355100)
07. Monolithic Mylar Capacitor  
C 204,206,208,210,212: ECQ-V1H334JL3 (VR169000)
08. Ceramic Capacitor-E  
C 101-124,602,604: 4700P 500V M (VS589000)
09. Semiconductive Cera. Cap.  
C 515: 0.1000 25V Z (VC694800)
10. Electrolytic Cap.  
C 201,202: 22000 16 USP (VT598600)  
C 203: 15000 25 USP (VS310900)  
C 205,207,209,211,213,505,506,509,510: 100.00 16.0V (UJ838100)  
C 301: 100.00 100.0V (UJ698100)  
C 302,605: 47.00 100.0V (UJ697470)  
C 304: 10.00 50.0V (UJ867100)  
C 401,402: 2200 35.0V (UJ659220)  
C 405,406: 100.00 25.0V (UJ848100)  
C 501,502: 4700 16.0V (UJ639470)  
C 513: 1000 16.0V (UJ839100)  
C 514: 1.00 50.0V (UJ866100)  
C 601: 1000 100 USP (VT598700)  
C 603: 10.0 100.0V (UJ897100)
11. Carbon Resistor  
R 401,402,505,506,606: 10.0K 1/4 J (HF757100)  
R 501,511,512: 4.7K 1/4 J (HF758470)  
R 502,503,607,609: 2.2K 1/4 J (HF756220)  
R 504,507,602: 22.0K 1/4 J (HF757220)  
R 508: 1.2K 1/4 J (HF756120)  
R 509: 1.0K 1/4 J (HF756100)  
R 510: 75.0K 1/4 J (HF757750)  
R 513: 5.6K 1/4 J (HF756560)  
R 604: 100.0K 1/4 J (HF758100)
12. Metal Film Resistor  
R 610: 47.0K 1/5 F (VB068800)  
R 611: 8.2K 1/5 F (VB067400)
13. Metal Oxide Film Resistor  
R 301: 560.0 1W J (VC746800)  
R 513: 47.0 1W J (VC744200)  
R 601: 5.6K 1W J (VC749400)  
R 605: 22.0 1W J (VC743400)  
R 608: 12.0K 1W J (VC750200)
14. LC Filter  
EM 101-118: LS MT Y223N (FZ006970)
15. Base Post Connector  
CN 101: VH- 2P TE (LB932020) to Power transformer secondary  
CN 102: VH- 4P TE (LB932040) to FD-CN001  
CN 103: VH- 4P TE (LB932040) to Power transformer secondary  
CN 104: VH- 6P TE (LB932060) to Power transformer secondary
16. Connector  
CN 105: 52147-15P TE (VF667600) to AD 1/2-CN003  
CN 108: 52147-16P TE (VJ861600) to SUB 1/2-CN206
17. Wire Trap  
CN 106: 52147-13P TE (VK025700) to DA-CN702  
CN 107: 52147-14P TE (VK025800) to MAIN 1/2-CN002  
CN 109: 52147-13P TE (VK025700) to MAIN 2/2-CN503
18. Fuse Holder  
F 201,202,203,204,205,206,207: PC-PH1 (LB201530)
19. Jumper Wire  
: 0.55 (VA078900)

### • JK Circuit Board



Component side (部品側)

Jumper Wire  
(ジャンパーワイヤー)  
(VY68990)

#### Notes

Circuit Board: PN/ENC (VV169000) XS396B0  
AC (VV169400) XS396B0  
JK (VV169500) XS396B0

|                                |                                      |
|--------------------------------|--------------------------------------|
| <b>01. IC</b>                  |                                      |
| IC 201:                        | MAX202CPE (XP893A00)<br>TRANSCEIVER  |
| IC 203:                        | SN74HC14N (IR001450) HEX<br>INVERTER |
| <b>02. Photo Coupler</b>       |                                      |
| IC 202:                        | 6N137 (VD473200)                     |
| <b>03. Transistor</b>          |                                      |
| Q 201,202:                     | 2SC1815 Y,GR (IC1815M0)              |
| <b>04. Diode</b>               |                                      |
| D 001-077,201                  | 1SS133,1SS176 (VB941200)             |
| <b>05. LED</b>                 |                                      |
| LD 001-008,<br>011-053:        | SLR-325VCT31(TA) RE (VS132300)       |
| LD 009:                        | LD701MG GR (VB822500)                |
| LD 010:                        | LD701VR RE (VB749800)                |
| LD 054,055:                    | SLR-325MGT31(TA) GR (VV440000)       |
| <b>06. Ceramic Capacitor-B</b> |                                      |
| C 210,211:                     | 270P 50V K (VD841900)                |
| <b>07. Electrolytic Cap.</b>   |                                      |
| C 201,202,203,204:             | 10.00 16.0V (UJ837100)               |
| C 206:                         | 22.00 16.0V (UJ837220)               |
| C 207:                         | 100.00 16.0V (UJ838100)              |
| <b>08. Capacitor</b>           |                                      |
| C 101:                         | 0.01 400V J.U.C (VT575200)           |
| C 102:                         | 0.220 275V U.C.S (VT682500)          |

#### 09. Semiconductive Cera. Cap.

C 205,208,209,212: 0.1000 25V Z (VC694800)

#### 10. Carbon Resistor

R 201: 680.0 1/4 J (HF755680)  
R 202,205: 10.0K 1/4 J (HF757100)  
R 203,207,212: 1.0K 1/4 J (HF756100)  
R 204,208,209,  
210,213: 220.0 1/4 J (HF755220)  
R 206,211: 3.3K 1/4 J (HF756330)

#### 11. Push Switch

SW 101: SDDL81 J,U,C, (VQ670600) POWER  
switch

#### 12. Tact Switch

SW 001-077: SKQNAE025A (VV056000)

#### 13. Rotary Encoder

EC 001: EC16B24204 L=15 (VR101400)

#### 14. Line Filter

L 101: PLAC1522R0R01B1 (VQ764500)

#### 15. Ferrite Bead

L 201,202,203,  
204,205,206: BL02RN1-R62T4 (GE300610)

#### 16. LC Filter

EM 201,202,203,  
204,205: LS MT B271KB (FZ006920)

#### 17. Connector

JK 201: 3-DIN YKF51-5046 (VI466400) MIDI  
IN/OUT/THRU  
JK 202: 17LE-23090-27(D4) (VU196300)  
MOUSE

#### 18. Connector

CN 001: 51048-16P TE (VI879400) to SUB 1/2-  
CN204  
CN 002: 51048-13P TE (VI879100) to SUB 1/2-  
CN201  
CN 003: 51048-3P TE (VI878100) to rotary  
encoder  
CN 004: 51048-3P TE (VI878100) to PN-CN003  
CN 101: VH-3P TE (LB932030) to AC cord  
CN 102: VH-3P SE (LB933030) to power  
transformer primary  
CN 201: 51048-7P TE (VI878500) to MAIN 1/2-  
CN008

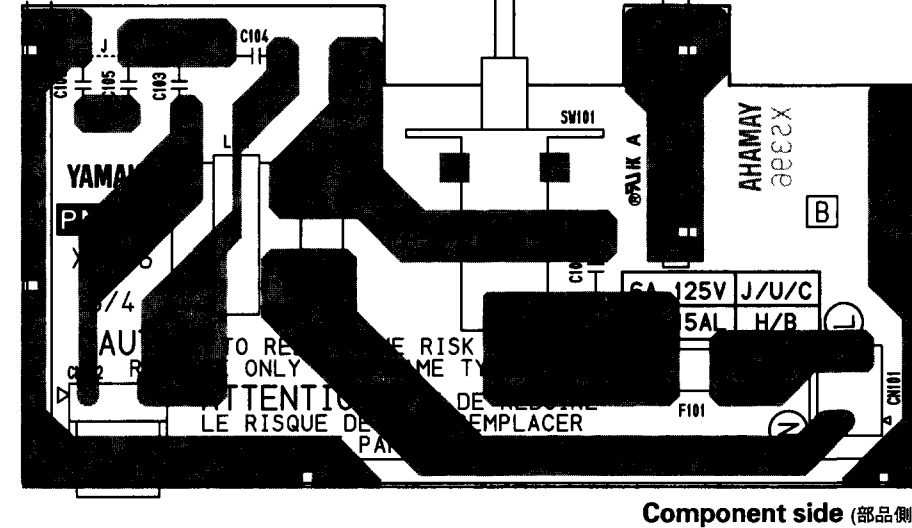
#### 19. Jumper Wire

: FVP=2.0C26SB3-50 ( - ) CN003  
: FVP=2.0C26SB13-2 ( - ) CN002  
: FVP=2.0C26SB7-30 ( - ) CN201  
: FVP=2.0C26SB16-1 ( - ) CN001  
: 0.55 (VA078900)

#### 20. Button, LED

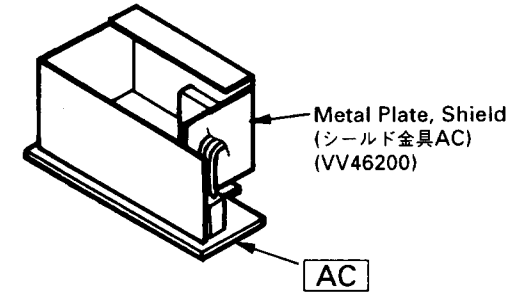
TL/L-GY: (VT650300), ST IN, EFFECT RETURN,  
ST OUT,USER DEFINE(1-4), FADER  
METER,MIDI REMOTE  
(VT650500), ST IN,EFFECT RETURN,  
ST OUT  
TL/L-GY: (VT650800), Channel ON(1-16)  
TL/D-GY: (VT651100), Channel SEL(1-16)  
TL/BE: (VV488400), FADER MODE (AUX1,  
AUX2, AUX3, AUX4, EFFECT1,  
EFFECT2)

### POWER



Component side (部品側)

### • Metal Plate,Shield (シールド金具AC)

Metal Plate, Shield  
(シールド金具AC)  
(VV46200)

GR/GR: (VV488500), CHANNEL CONTROL  
(EQ LOW, LO-MID,HI-MID,HIGH)

RE/RE: (VV488600), MIXING LAYER  
D-GY/D-GY: (VV488700), CURSOR (4), SCENE  
MEMORY (5)

409-3-GY/409-3-G: (VV854900), CHANNEL CONTROL  
(DELAY, DYNAMICS, PAN/ROUTING,  
VIEW

TL/409-3-GY: (VV855000), SOLO  
L-GY/L-GY: (VV885400), SETUP (SCENE MWMORY,  
MIDI, UTILITY, DIO, GROUP /PAIR,  
SOLO SETUP,AUTOMIX

#### 21. LED Spacer

: (VM642400)