

## *Service Manual*

# D3200

### **CONTENTS**

- 1) Block Diagram : Page 2
- 2) Circuit Diagram: Page 3 - 11
- 3) Test Mode: Page 12-18
- 4) Parts List: Page 19 - 16

1st Edition

Issued date: November 9, 2005

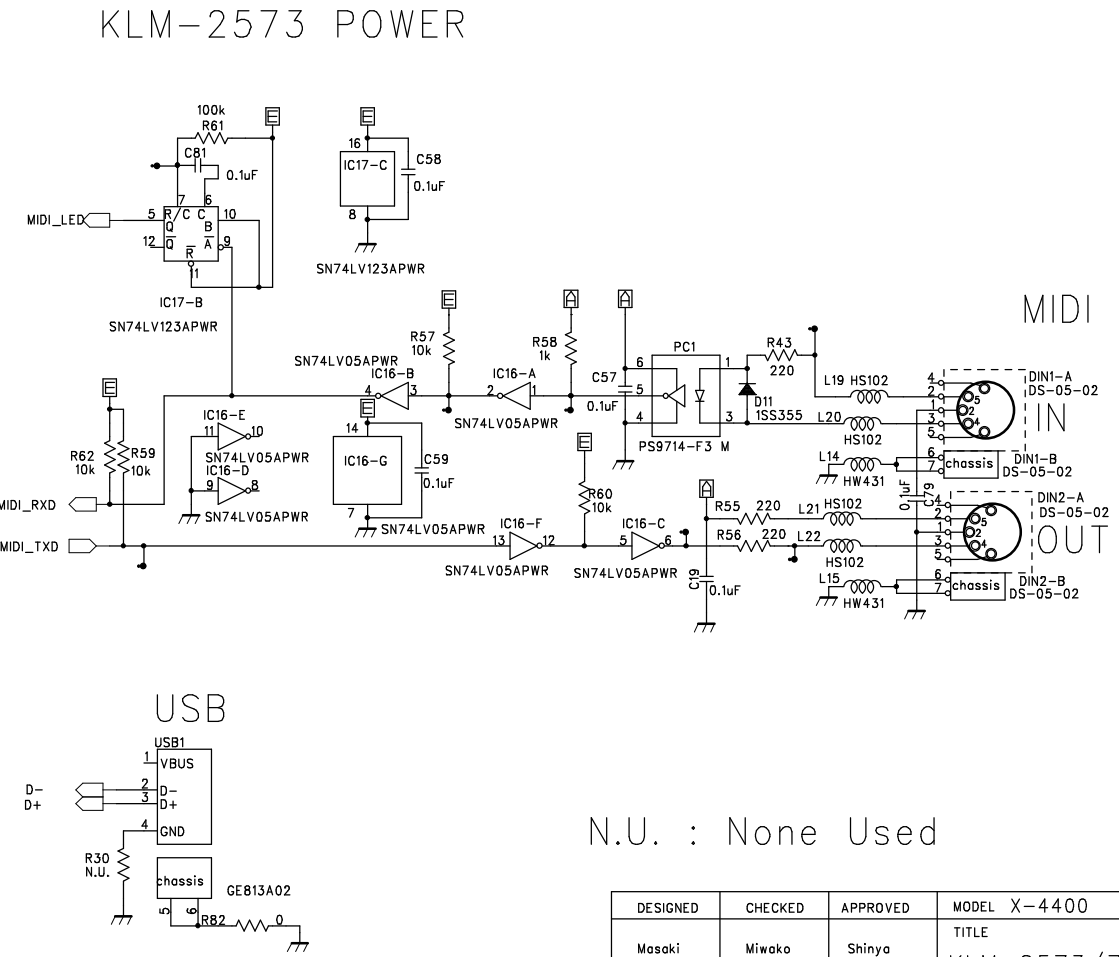
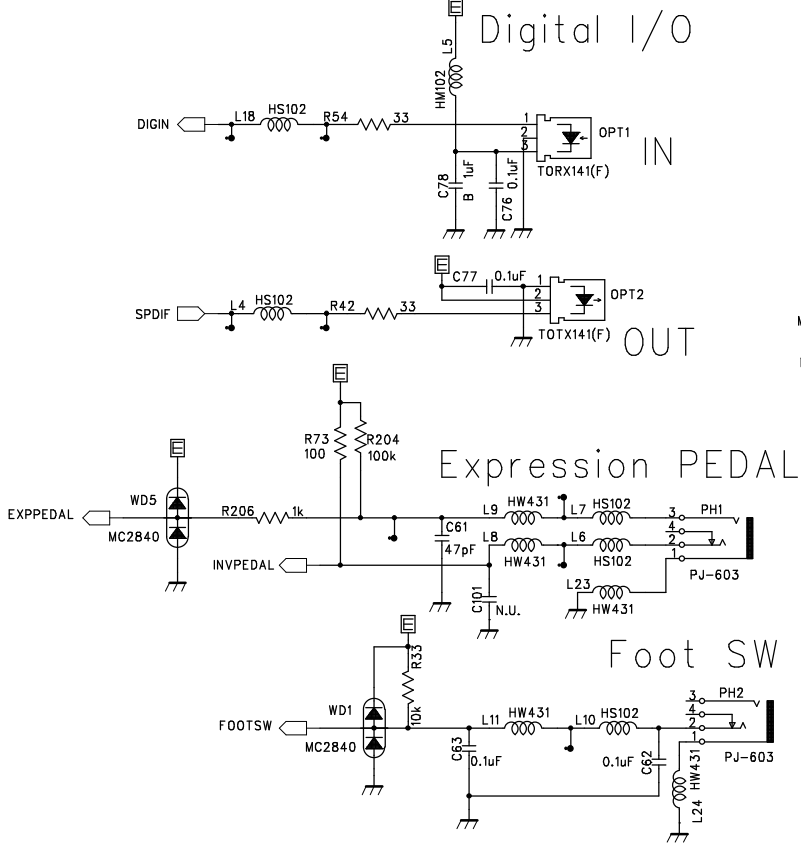
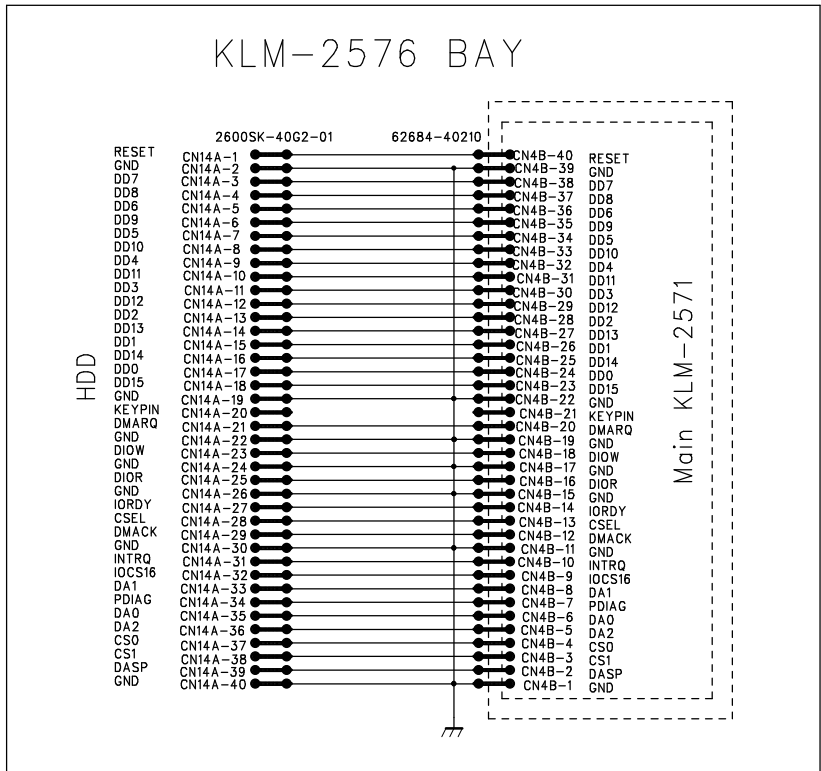
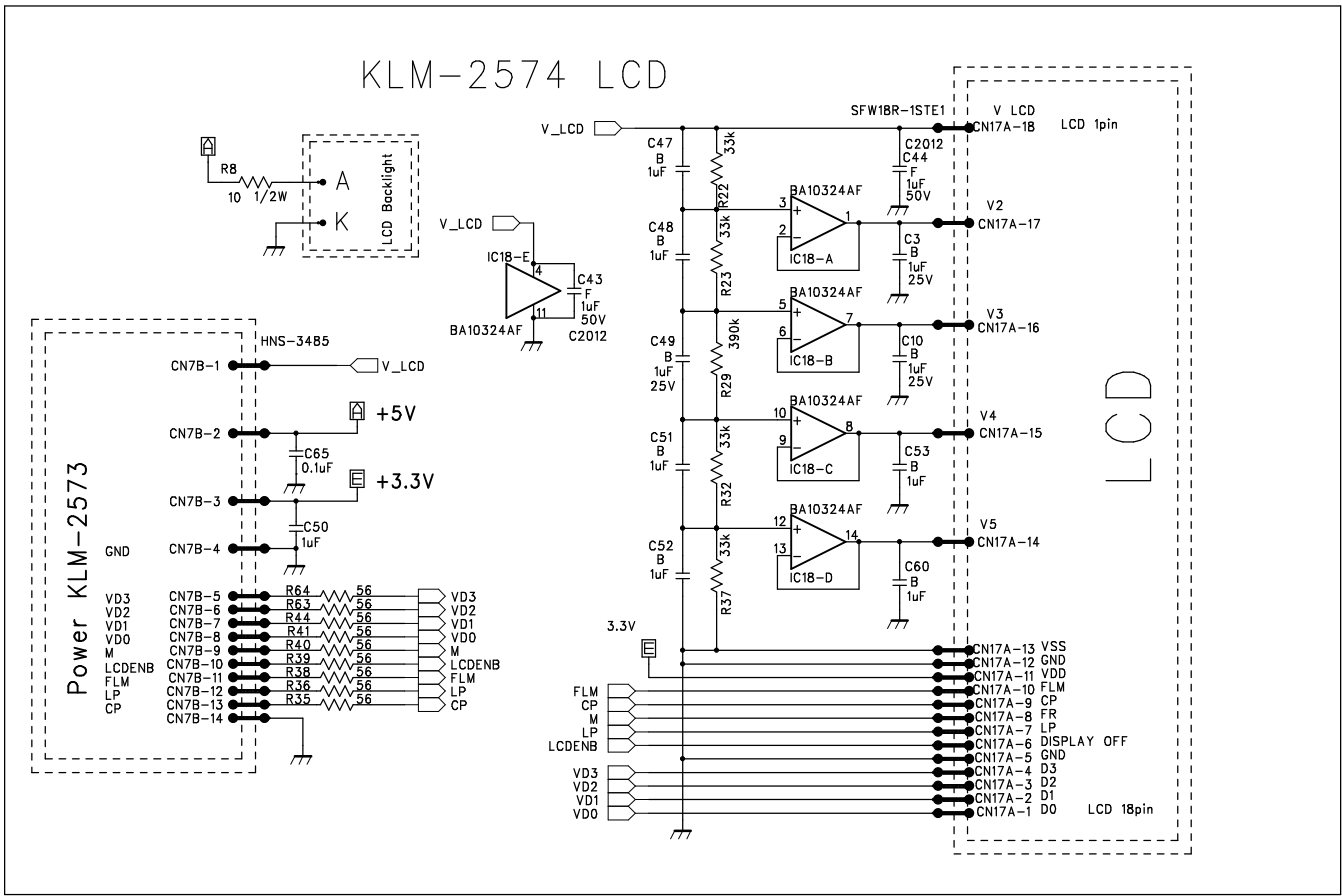
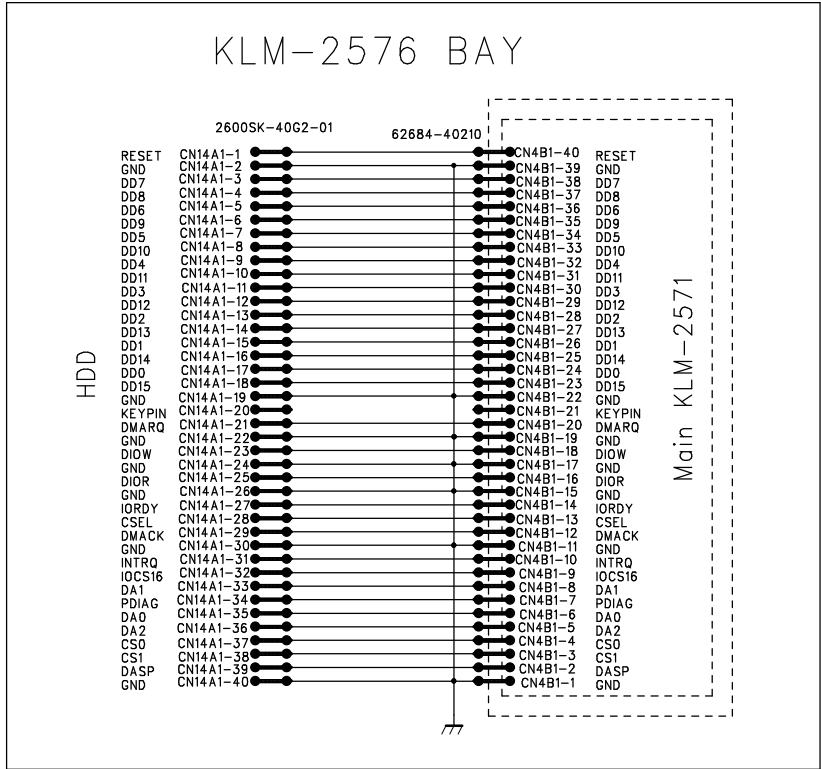
Issued by: KORG INC.

Edited: November 8, 2006 - GA



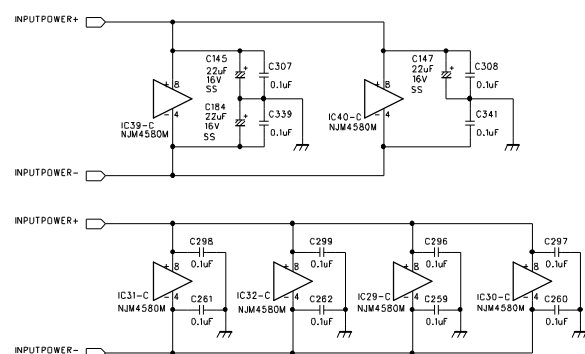
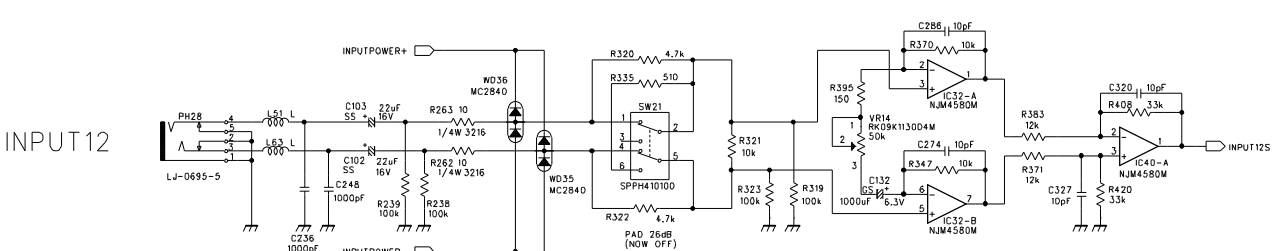
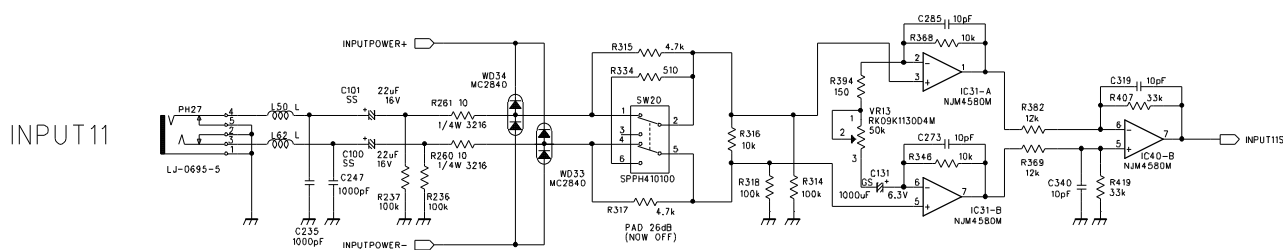
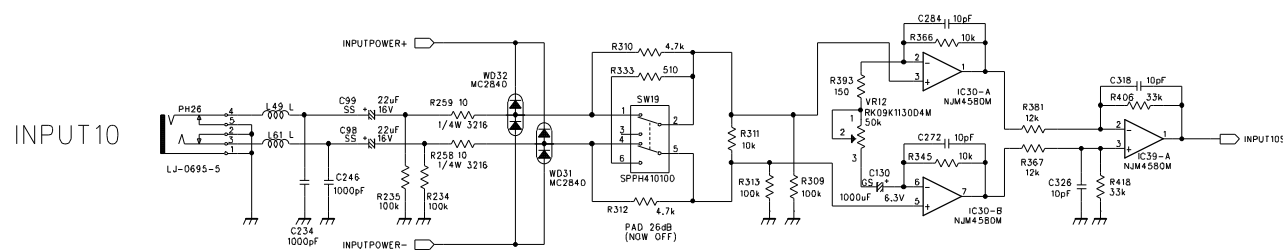
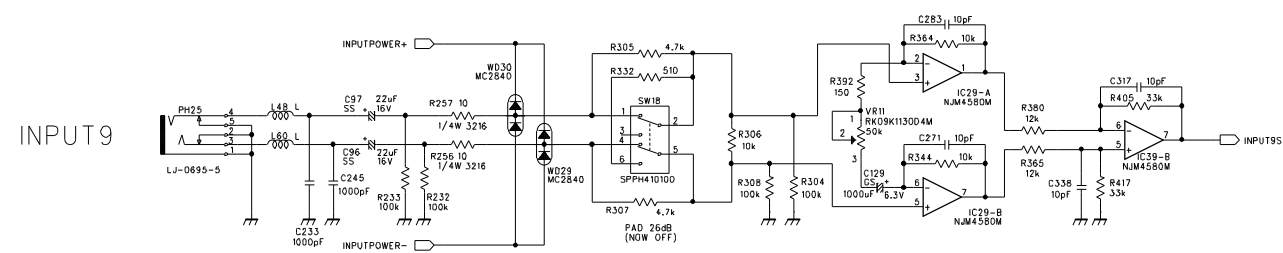






|                  |                 |                |                          |
|------------------|-----------------|----------------|--------------------------|
| DESIGNED         | CHECKED         | APPROVED       | MODEL X-4400             |
| Masaki Ogasawara | Miwako Sekimori | Shinya Yoshino | TITLE KLM-2573/74/76 2/2 |
| KORG             |                 |                | DRAWING NO. KOD-A30647   |
|                  |                 |                | DATE '2005.5.17          |



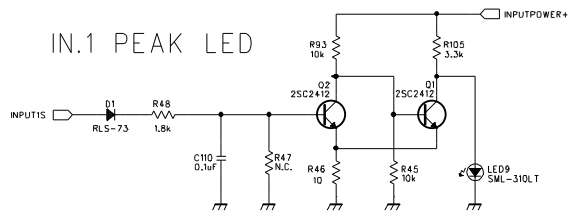


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| MARK | REVISION REASON | DATE | REVISED | APPROVED |

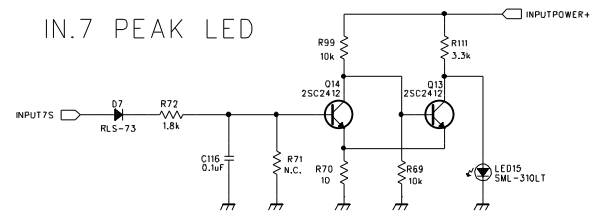
L:BK1608 HW431-T

|                                                                                       |             |                 |             |       |                                          |
|---------------------------------------------------------------------------------------|-------------|-----------------|-------------|-------|------------------------------------------|
| DRAWN BY                                                                              | DESIGNED BY | CHECKED BY      | APPROVED BY | MODEL | D3200(X-4400)                            |
| S.Ueda                                                                                | S.Ueda      | Miwako Sekimori | S.Yoshino   | TITLE | KLM-2577 JACK PCB<br>CIRCUIT DIAGRAM 2/4 |
|  |             | DRAWING NO.     |             |       | DATE                                     |
|                                                                                       |             | KOD-A30654      |             |       | '05. 5.19                                |

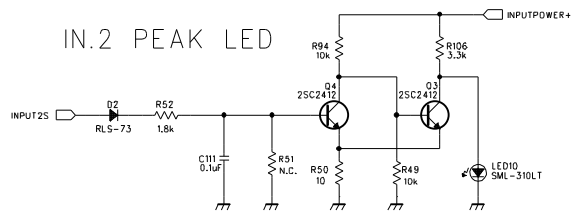
IN.1 PEAK LED



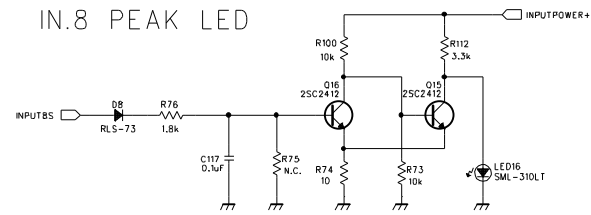
IN.7 PEAK LED



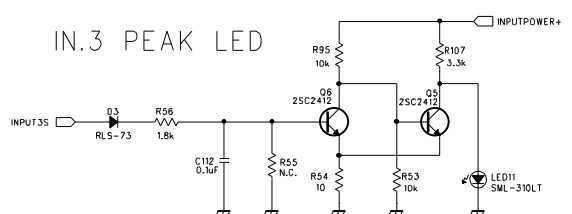
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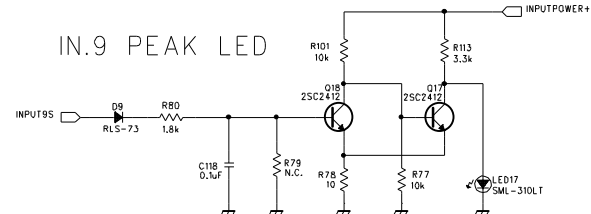
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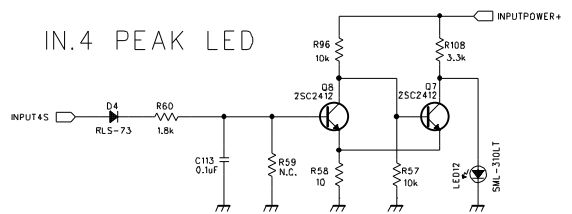
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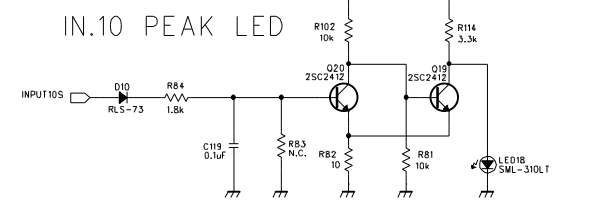
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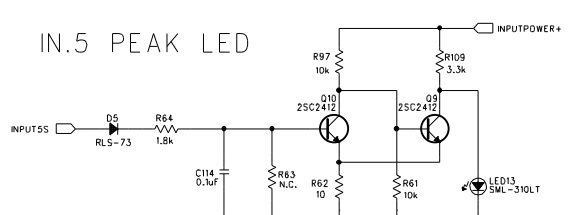
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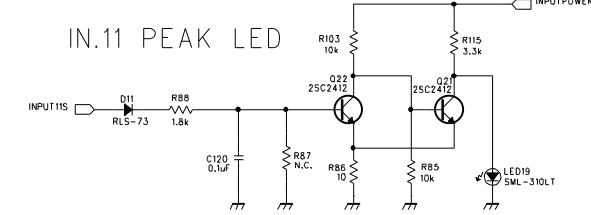
IN.10 PEAK LED



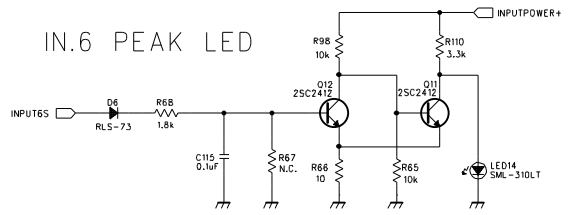
IN.5 PEAK LED



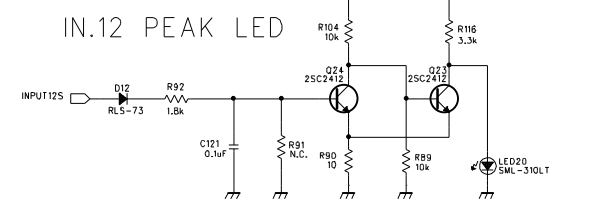
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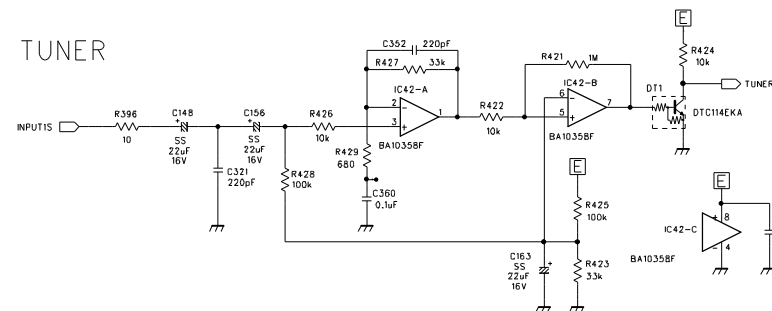
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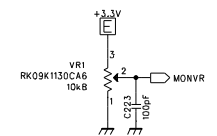
IN.12 PEAK LED



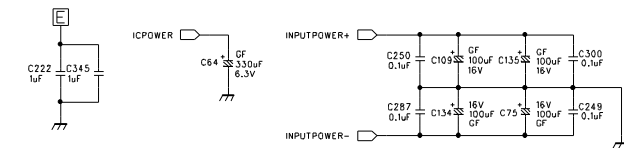
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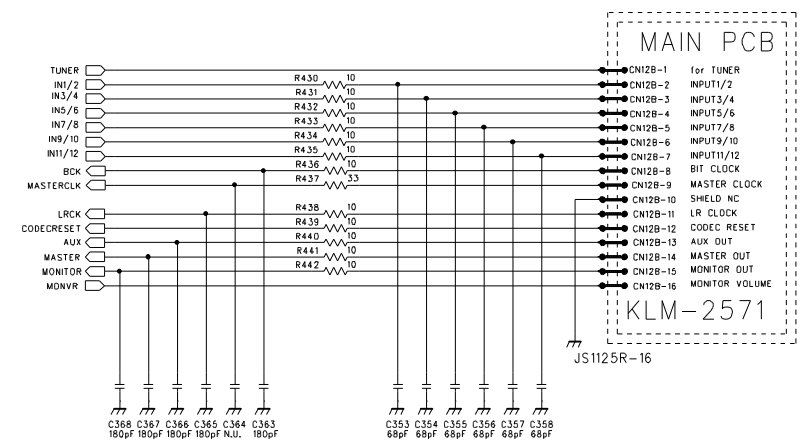
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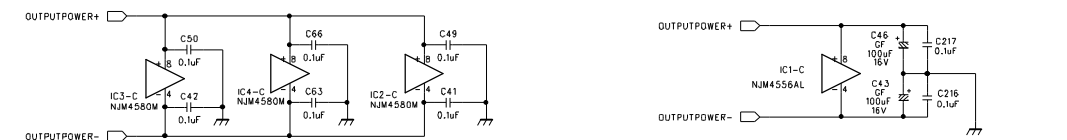
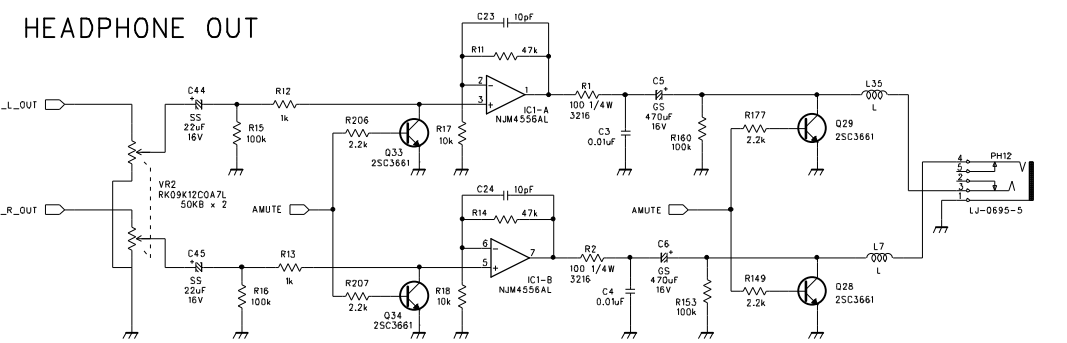
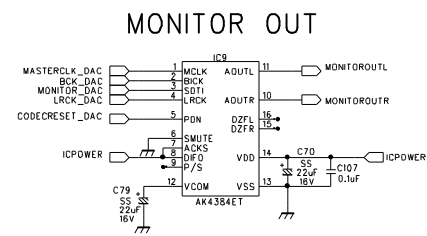
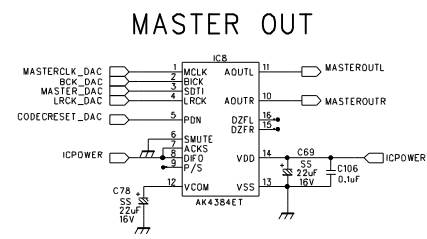
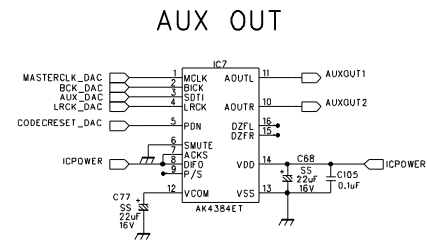
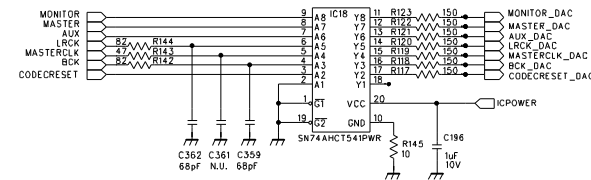
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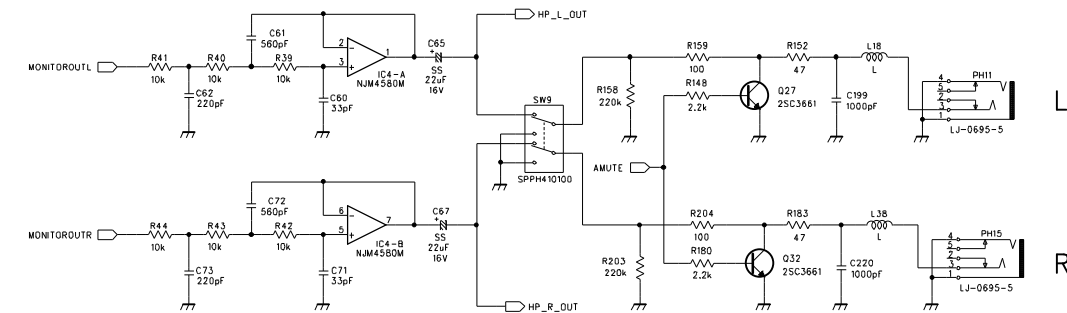
MAIN PCB



D/A PART

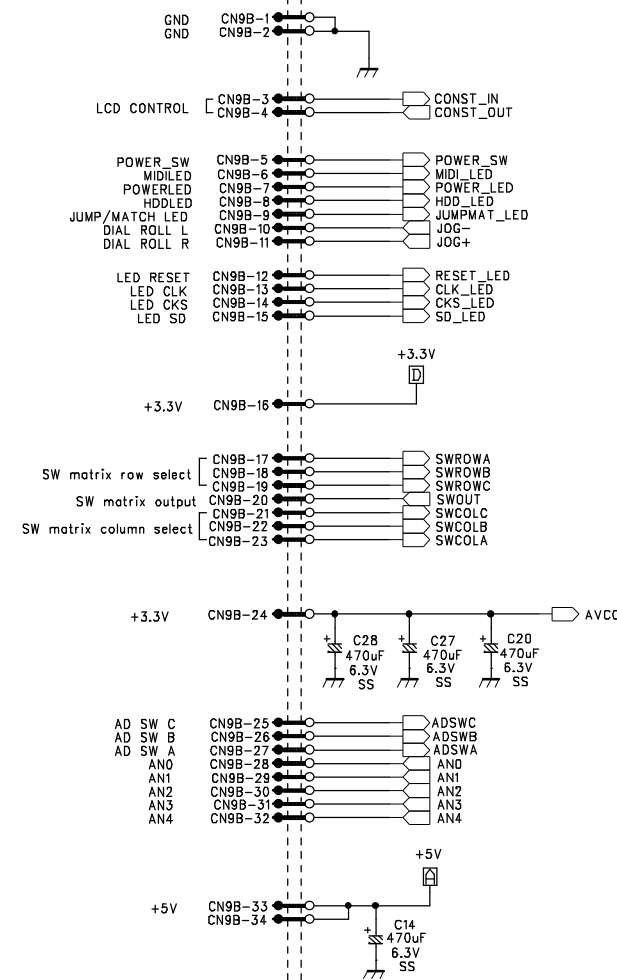


HEADPHONE OUT



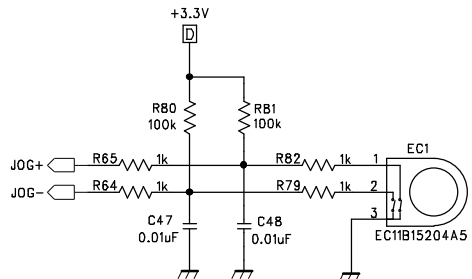
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|-------------|-------------|-----------------|-------------|---------------------------------------------------|---------------|
| DRAWN BY    | DESIGNED BY | CHECKED BY      | APPROVED BY | MODEL                                             | D3200(X-4400) |
| S.Ueda      | S.Ueda      | Miwako Sekimori | S.Yoshino   | TITLE<br>KLM-2577 JACK PCB<br>CIRCUIT DIAGRAM 4/4 |               |
| <b>KORG</b> |             | DRAWING NO.     | KOD-A30656  | DATE                                              | '05. 5.19     |

# MAIN PCB KLM-2571

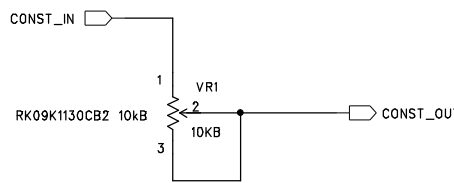


CN9B : HNS-3487

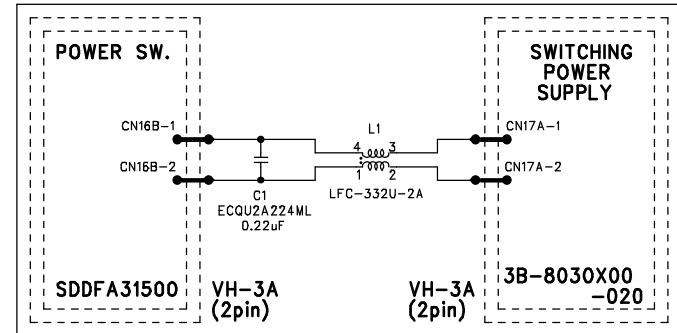
## Value Dial



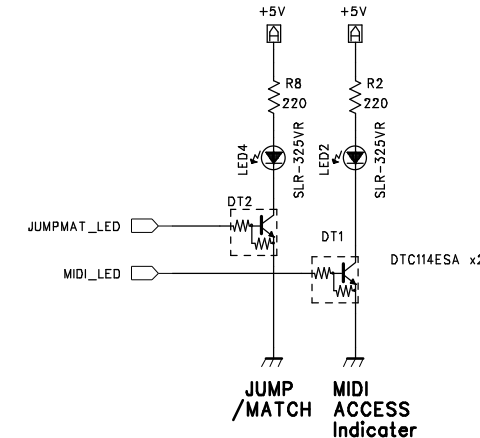
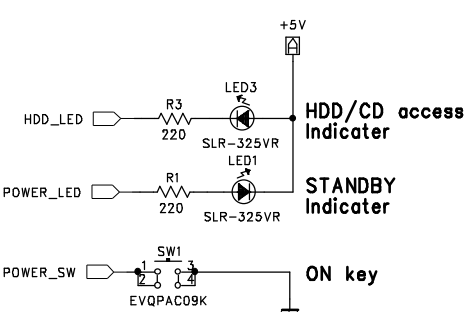
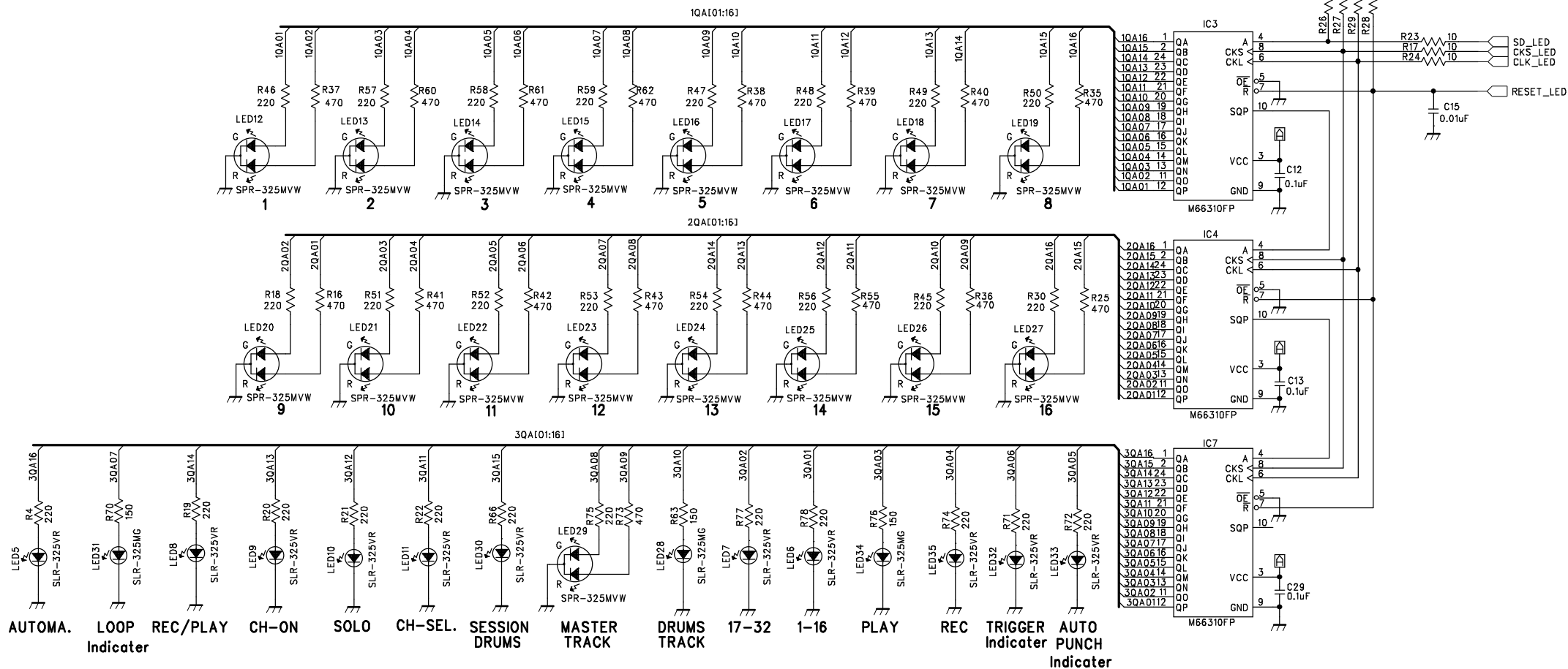
## LCD CONTRAST knob



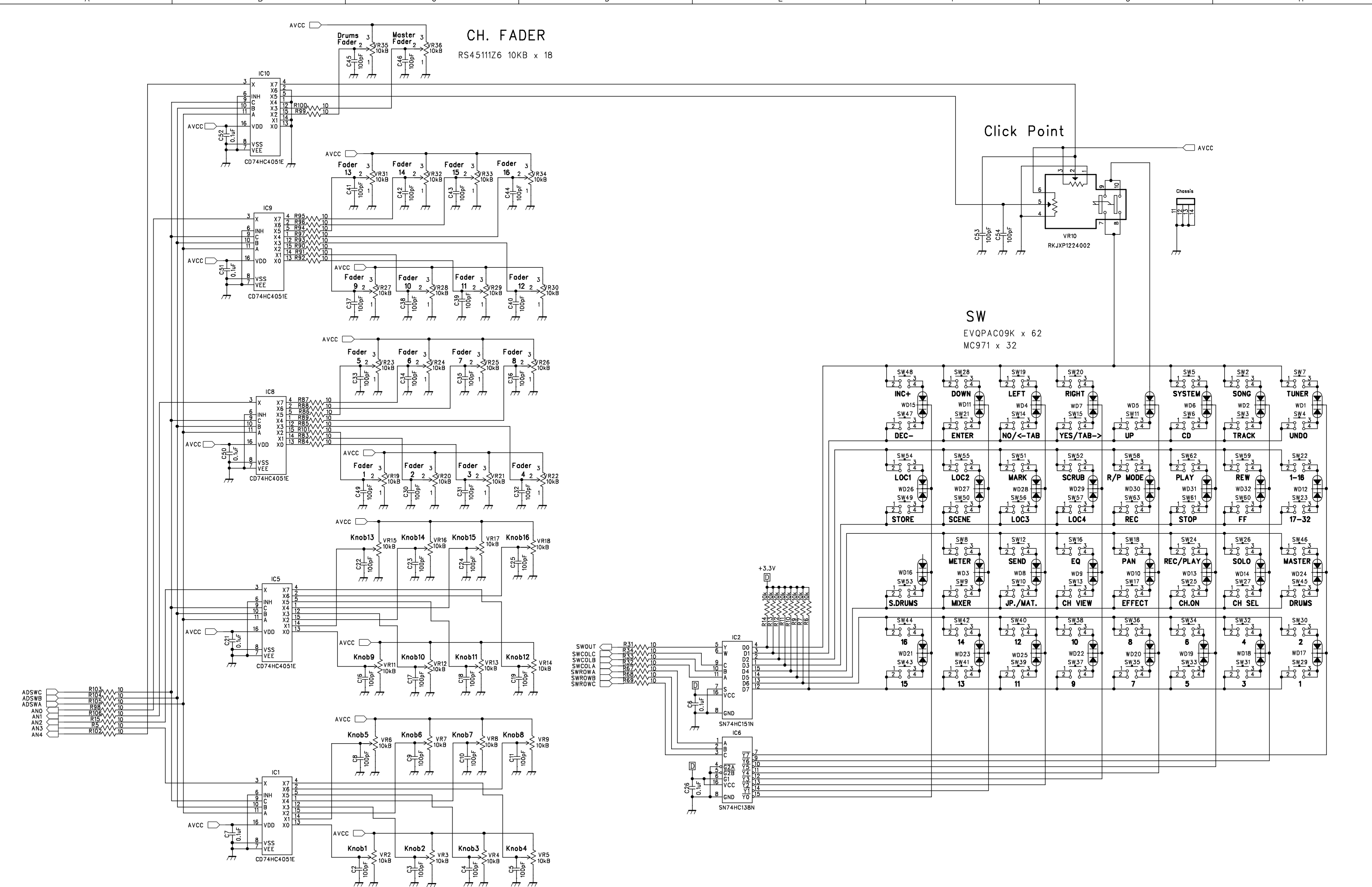
## KLM-2580 LINE FILTER



## LED



|          |             |                  |             |       |                                                           |
|----------|-------------|------------------|-------------|-------|-----------------------------------------------------------|
| DRAWN BY | DESIGNED BY | CHECKED BY       | APPROVED BY | MODEL | D3200 (X-4400)                                            |
| s.ueda   | s.ueda      | Masaki Ogasawara | S. Yoshino  | TITLE | KLM-2578/2580<br>CIRCUIT DIAGRAM 1/2<br>(LED&FILTER part) |
| KORG     |             | DRAWING NO.      | KOD-A30642  | DATE  | '05.5.24                                                  |



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| APPROVED |          |        |      |         |

KNOB MATRIX  
RK09K1130CBU 10KB x 16

|          |             |                  |             |          |                                                              |
|----------|-------------|------------------|-------------|----------|--------------------------------------------------------------|
| DRAWN BY | DESIGNED BY | CHECKED BY       | APPROVED BY | MODEL    | D3200 (X-4400)                                               |
| s.ueda   | s.ueda      | Masaki Ogasawara | S. Yoshino  | TITLE    | KLM-2578/2580<br>CIRCUIT DIAGRAM 2/2<br>(SW,FADER&KNOB part) |
| KORG     |             | DRAWING NO.      | KOD-A30643  |          | DATE                                                         |
|          |             |                  |             | '05.5.24 |                                                              |

# Korg D3200 Start-Up Options

## Start-Up Options.

*There are a number of useful functions that can be performed by holding down certain buttons while powering up the D3200. These are listed below.*

- |                          |                                                                                                |
|--------------------------|------------------------------------------------------------------------------------------------|
| 1) [FF(▶▶)] + [PLAY(▶)]  | Full Diagnostic Test                                                                           |
| 2) [REC(●)] + [SCENE]    | External Diagnostic Test                                                                       |
| 3) [PAN] + [LOC 4]       | Forced HDD Initialize - Erases HDD data                                                        |
| 4) [PAN] + [LOC 3]       | System Recovery & HDD Test - Erases all data on HDD<br>(Requires System Recovery CD)           |
| 5) [PAN] + [LOC 2]       | System Recovery - Preserves non-system data on HDD<br>(Requires System Recovery CD)            |
| 6) [REW(◀◀)] + [STOP(■)] | HDD Format, System Update, Demo Song Load<br>(Requires System Recovery CD + DEMOSONG.DBK file) |

## System Recovery CD

The D3200 stores important system information on its hard drive. The system recovery CD can be used to restore this system data to the hard drive if it has become corrupted or if a new hard drive has been installed.

A recovery CD can be created directly from a working D3200 by selecting “Save System” from the D3200’s [SYSTEM / MIDI] menu. See page 91 of the owner’s manual for more information.

An file containing the recovery data is also available in the D3200 section of KORG USA’s service website. The file is named *D3200\_Recover.zip* and includes instructions for creating the CD, as well as instructions on how to use the D3200’s recovery functions.

## DEMOSONG.DBK (Demo Song Load)

The *DEMOSONG.DBK* file required for Start-Up Option 6 is very large, and therefore not available for download. The HDD Format and System Update portions of this option can still be performed without this file.

The demo song (and/or any customer data) can be backed up and reloaded via the D3200’s normal backup function - located in the [SYSTEM / MIDI] menu. A CD that takes full advantage of Start-Up Option 6 can be created by naming the backup “DEMOSONG.DBK” and placing it on a CD along with the system recovery files.

# Running the Full Diagnostic Tests

## Requirements

*You will need the following items in order to complete all the tests.*

- One mono ¼” patch cable.
- One MIDI cable.
- One optical digital audio cable (Toslink)
- A momentary footswitch. (Such as the Korg PS100 or PS1 )
- An expression pedal. (Such as the Korg EXP2)
- An oscilloscope for monitoring the outputs.
- A signal generator.
- An audio test CD to test the CD drive’s ability to playback audio.

*\* Any audio CD will work, but a CD containing stable sine waves on the left and right channels would be useful for seeing distortion and level problems. If no adequate test CD is available, you can create a basic test CD by downloading the “1khz\_sine.wav” file from Korg USA’s service web site and burning it to an audio CD.*

## Setup

*Setup the D3200 as follows.*

- Connect the ¼” mono patch cable between AUX Out 1 and Input 1.
- Turn all the input trim potentiometers all the way down.
- Connect a MIDI cable between MIDI In and MIDI Out.
- Plug the Footswitch and Expression pedals into their respective jacks on the back panel.
- Connect the oscilloscope probes to the main outputs.
- Do not connect the digital cable at this time.

## Operating the Test Mode

*The following key presses are used to navigate through the diagnostic tests.*

- |               |                                             |
|---------------|---------------------------------------------|
| ▪ [PLAY( ▶ )] | Proceed to the next step in the test.       |
| ▪ [REC( ● )]  | Skip an error and proceed to the next step. |
| ▪ [FF( ▶▶ )]  | Proceed to the next test.                   |
| ▪ [REW( ◀◀ )] | Return to the previous test.                |

## Starting and operating the Full Test

*These instructions will walk you through running the full test. The full test consists of a number of Internal tests, followed by the External Tests listed in the next section.*

- 1) Start the diagnostic test by holding down [FF(▶▶)] + [PLAY(▶)] while powering on the D3200.

The D3200 will perform some internal tests and then stop at the S/PDIF test.  
If the test stops with a tuner error, check the patch cable between Aux 1 and Input 1.  
Also make sure the input trims are turned down. If the error continues, check the associated circuitry.

- 2) As indicated on the screen, plug one end of the Toslink optical cable into the S/PDIF optical input and the other end of the cable into the S/PDIF optical output.

TEST09: FS  
STEP01: Please Connect S/PDIF Cable. (Out->In)

The unit will pause for a short time while it tests the optical connection. If there is an error, please check the cables and associated circuitry.

- 3) When the S/PDIF test completes, the unit will move onto the USB test. This test will fail.

The USB test requires a special tool and cannot be tested in the field. If you need to test the USB feature please do so outside of the test mode. You can do this by connecting the D3200 to computer and using the “USB Mode” function located in the PC File tab of the SYSTEM/MIDI menu.

TEST10: USB  
STEP01: Wait a moment



TEST10: USB  
STEP01: NG

- 4) Press [REC(●)] to skip the USB error. This will start the External Test mode.

Remove the audio cable connected between Aux Out 1 and Input 1.  
Remove the cable connected between the MIDI input and output.  
Leave the S/PDIF cable connected.

- 5) Continue on to the External Tests by following the instructions on the next page.

## Running the External Diagnostic Test

*The External Test can be performed as part of the Full Test, or can be initiated separately by holding [REC] + [SCENE] while powering up.*

```
TEST01: Drive List
STEP01: Drive List

HDD: 037GB
CD:  o

Ver.1.0.1 + Boot1.05
```

### 1) Test the Inputs, Trim Pots, and Pad Switches.

Setup each input with the trim pot turned down to a minimum and the pad switch set to off (not pressed in).

While monitoring the main outputs with an oscilloscope, check the guitar input with a -10dB 1kHz sine wave. This input level should cause the clip LED to light but still give an undistorted signal. (dB values are referenced to 0db = 0.775v)

Push the pad button in and turn the trim pot up to it's full value. Make sure the signal level on the scope changes smoothly as you turn the trim pot.  
Bring the Trim pot back down to just below clipping. This should be around three o'clock on the Trim pot.

Repeat the above test for each channel.

### 2) Press [PLAY( ▶ )] - The output should mute.

```
TEST02: Mute
STEP01: Mute On
```

### 3) Press [PLAY( ▶ )] - The output will come back on.

```
TEST02: Mute
STEP01: Mute Off
```

- 4) Press [PLAY( ▶ )] - To start the S/PDIF Loop test .

|                                           |
|-------------------------------------------|
| TEST03: S/PDIF<br>STEP01: S/PDIF DOUT/DIN |
|-------------------------------------------|

Connect an optical cable between the S/PDIF input and output.  
Plug the input signal into channel 8 and adjust the trim for an undistorted output signal.

- 5) Test the Aux and Monitor Outputs.

Connect the scope to Aux Outputs and check that you have a clean signal at roughly the same output level as the Master Outs.

Connect the scope to Monitor Outputs and check that you have a clean signal at roughly the same output level as the Master and Aux Outs. Also check that the Monitor Mute switch mutes the Monitor Output.

Leave the Monitor Mute switch in the un-muted position for the rest of the tests.

\* During this test there will be no signal out of the Aux or Monitor Outs when the optical cable is not connected.

- 6) Press [PLAY( ▶ )] - To start the CD test .

*Insert an audio test CD as described in the “requirements” section of this document.*

|                            |
|----------------------------|
| TEST04: CD<br>STEP01: Stop |
|----------------------------|

Press [PLAY( ▶ )] - The left channel of CD track 1 will be output to the left monitor output.

|                              |
|------------------------------|
| TEST04: CD<br>STEP02: Play L |
|------------------------------|

Press [PLAY( ▶ )] - The right channel of CD track 1 will be output to the right monitor output.

|                              |
|------------------------------|
| TEST04: CD<br>STEP03: Play R |
|------------------------------|

Press [PLAY( ▶ )] - Both channels of CD track 1 will be output to the monitor outputs.

|                                 |
|---------------------------------|
| TEST04: CD<br>STEP04: Play Both |
|---------------------------------|

7) Press [PLAY( ▶ )] - To start the LED test.

TEST05: Switch/LED  
STEP01: LED ON

The first step of this test will turn on the LEDs on the front panel. Please note that not all switches have LEDs below them. The following LEDs should be lit.

- All track select button LEDs, including DRUMS and MASTER select.
- The five round buttons above the track select buttons.  
(1-16, 17-32, REC/PLAY, CH ON, SOLO, CH SELECT)
- The JUMP/MATCH, SESSION DRUMS, PLAY, and REC buttons.
- The LEDs for AUTOMATION, LOOP, TRIGGER, and AUTO PUNCH.

8) Press [PLAY( ▶ )] - To start the Switch test.

TEST05: Switch/LED  
STEP02: METER

Test all the switches as indicated on the screen, starting with the METER switch. As each switch is pressed the next switch will be indicated on the display.

\* The REC/PLAY MODE switch requires 3 presses to test the 3 possible LED states.

\*\* After pressing the [REC] switch, the screen will go dark. This is the start of the LCD test.

9) Press [PLAY( ▶ )] - The screen will change from dark to light.

10) Press [PLAY( ▶ )] - To start the Rotary Encoder Test.

TEST07: Rotary Encoder  
STEP01: Right

Rotate the encoder wheel clockwise until a value of +30 is reached.  
Press [PLAY( ▶ )] and repeat for the counter-clockwise direction.

11) Press [PLAY( ▶ )] - To start the A/D Test.

TEST08: A/D  
STEP01:  
  
(Graphical representation of digital controls)

One at a time, move all the front panel controllers up to max and then down to minimum. If a control is already at it's max, turn it down first,. Then turn it up and back down. Watch the display to make sure the values change smoothly from 0 - 127. A successful test of a controller will result in that controller's label being highlighted.

12) Press [PLAY( ▶ )] - To start the Joystick Test.

TEST09: Joystick  
STEP01:  
  
(Graphical representation of Joystick)

Move the Joystick Up/Down and then Left/Right. Check that the values go from 0-127, and return to a middle value of around 64.

Press the middle of the Joystick down to test the button. Check that the “Click” parameter jumps from 0 to 127 and back.

13) Press [PLAY( ▶ )] - To complete the test

TEST10: Exit

Restart = SONG SW  
Power Off = UNDO SW

Eject the test CD and Press the [SONG] switch to restart the unit in normal mode.

14) Perform listening tests by playing back the demo song.

15) Check the headphone jack.

16) Check that phantom power is working

17) Check USB operation using a computer.

Connect the unit to a computer using a standard USB cable.

Press the [SYSTEM/MIDI] button on the D3200.

Select the PC File tab using the joystick.

Select the on screen “USB Mode” button using the joystick.

Your computer should recognize and install the D3200.

Once installed, you will be able to see the D3200 as a drive on your computer. You can move, copy, or delete files just like on a regular drive.

Stop the USB device on your computer and then select “EXIT” from the D3200 screen.

\* For more information on using the D3200 via USB please download the owner’s manual from [www.korg.com](http://www.korg.com)

| PART CODE    | PART NAME                       | NOTE                   | Q'TY |
|--------------|---------------------------------|------------------------|------|
| 500304020230 | TR 2SC3661-TB-E (S)             | KLM2577-D3200          | 10   |
| 500304050140 | TR DTC114EKA T146 (TS) (S)      | KLM2573/4/6-D3200      | 6    |
| 500304050140 | TR DTC114EKA T146 (TS) (S)      | KLM2577-D3200          | 1    |
| 500304050150 | TR DIGITAL DTA114EKA T146 (S)   | KLM2573/4/6-D3200      | 2    |
| 500304050220 | TR DTC114ESA TP (S)             | KLM2578/79/80/81-D3200 | 2    |
| 500304050310 | TR 2SA1037AKT146R               | KLM2573/4/6-D3200      | 1    |
| 500304050330 | FET IRFR5305TR(TS)              | KLM2573/4/6-D3200      | 6    |
| 500304050390 | 2SC2412KT146 (S)                | KLM2577-D3200          | 24   |
| 500304060140 | TR 2SK170-GR (D)                | KLM2577-D3200          | 1    |
| 500314001400 | DIODE RLS-73 TE-11 (S)          | KLM2577-D3200          | 12   |
| 500314001800 | DIODE 1SS355 TE17 (S)           | KLM2573/4/6-D3200      | 1    |
| 500314030600 | DIODE 1SR154-400 TE25 (PMDS)    | KLM2573/4/6-D3200      | 11   |
| 500314030600 | DIODE 1SR154-400 TE25 (PMDS)    | KLM2577-D3200          | 8    |
| 500314031000 | LED SLR-325MG-T31-L/M/N/P(TR)   | KLM2578/79/80/81-D3200 | 3    |
| 500314032000 | LED SLR-325VR-T31-K/L/M/N(TR)   | KLM2578/79/80/81-D3200 | 15   |
| 500314032700 | DIODE RB160L-60TE25(TS)         | KLM2573/4/6-D3200      | 2    |
| 500314034900 | CHIP LED SML-310LT T86 (RED)    | KLM2577-D3200          | 20   |
| 500315000900 | DOUBLE DIODE MC971-T112(TR)     | KLM2578/79/80/81-D3200 | 32   |
| 500315001200 | DIODE DAN217 T146               | KLM2577-D3200          | 16   |
| 500320005022 | IC LC89056W-E SQFP48            | KLM2571-D3200          | 1    |
| 500320009108 | IC NJM4556AL-#ZZZB              | KLM2577-D3200          | 1    |
| 500320011151 | IC M66310P (DIP24)              | KLM2578/79/80/81-D3200 | 3    |
| 500320011226 | IC M66273AFP RB0T (S)           | KLM2571-D3200          | 1    |
| 500320012293 | IC MB87J8140PFVS-G-BND(S)       | KLM2571-D3200          | 1    |
| 500324003018 | IC TC4W53F(TE12L)(TS)SOP8       | KLM2577-D3200          | 2    |
| 500324007001 | IC BA10324AF-E2                 | KLM2573/4/6-D3200      | 1    |
| 500324007002 | IC BA-10358F-E2 (S)             | KLM2577-D3200          | 1    |
| 500324009012 | IC NJM78L09UA-TE1-#ZZZB(TS)     | KLM2577-D3200          | 1    |
| 500324009039 | IC NJM4580M (SOP) (S)           | KLM2577-D3200          | 21   |
| 500324009041 | IC NJM79L09UA-TE1-#ZZZB         | KLM2577-D3200          | 1    |
| 500324009045 | IC NJM7805DLA/1A-TE1-#ZZZB(TS)  | KLM2577-D3200          | 1    |
| 500324009052 | IC NJM79M12DL1A-TE1 (TS) (S)    | KLM2577-D3200          | 2    |
| 500324009063 | IC NJM2374AM-TE2-#ZZZB(TS)SOP8  | KLM2573/4/6-D3200      | 2    |
| 500324009065 | IC NJM7812DL1A-TE1-#ZZZB(TS)    | KLM2577-D3200          | 2    |
| 500324011042 | IC M51957BFP#CF 1J (S)          | KLM2571-D3200          | 1    |
| 500324021023 | IC SN74HCU04APWR SSOP14 (S)     | KLM2571-D3200          | 1    |
| 500324021026 | IC SN74AHCT541PWR(TS)SSOP20     | KLM2573/4/6-D3200      | 1    |
| 500324021101 | IC SN74LV04APWR SPO14 (S)       | KLM2571-D3200          | 1    |
| 500324021106 | IC SN74LV139APWR (S)            | KLM2571-D3200          | 1    |
| 500324021110 | IC SN74LV574APWR (S)            | KLM2571-D3200          | 1    |
| 500324021113 | IC SN74LV4040APWR (S)           | KLM2571-D3200          | 1    |
| 500324021114 | IC SN74LV05APWR (S)             | KLM2573/4/6-D3200      | 1    |
| 500324021115 | IC SN74LV00APWR                 | KLM2571-D3200          | 1    |
| 500324021119 | IC SN74LV4051APWR(TS)           | KLM2573/4/6-D3200      | 1    |
| 500324021121 | IC SN74LV541APWR                | KLM2571-D3200          | 1    |
| 500324021128 | IC SN74LV123APWR(TS)            | KLM2571-D3200          | 1    |
| 500324021128 | IC SN74LV123APWR(TS)            | KLM2573/4/6-D3200      | 1    |
| 500324021174 | IC SN74LVC1G08DCKR DCK6         | KLM2571-D3200          | 1    |
| 500324026004 | MT48LC8M16A2TG-75TR(TS)128M SD  | KLM2571-D3200          | 1    |
| 500330002900 | OPTICAL MODULE TOTX141(F)       | KLM2573/4/6-D3200      | 1    |
| 500330003000 | OPTICAL MODULE TORX141(F)       | KLM2573/4/6-D3200      | 1    |
| 500334001700 | PHOTO COUPLOR PS9714 M-RANK(S)  | KLM2573/4/6-D3200      | 1    |
| 500335010600 | CRYSTAL SMD HC-49US 8.00MHZ (S) | KLM2571-D3200          | 1    |

| PART CODE    | PART NAME                                | NOTE                   | Q'TY |
|--------------|------------------------------------------|------------------------|------|
| 500335012200 | CRYSTAL HC-49US 22.5792MHZ SS            | KLM2571-D3200          | 1    |
| 500335012700 | CRYSTAL HC-49US 24.000MHZ SS             | KLM2571-D3200          | 1    |
| 500335012900 | CRYSTAL HC-49US 24.576MHZ SS             | KLM2571-D3200          | 1    |
| 500362009016 | VR RK09K1130CA6 10KB(F2067613M)          | KLM2577-D3200          | 1    |
| 500362009025 | VR RK09K1130CBU 10KB(F2062298M)          | KLM2578/79/80/81-D3200 | 16   |
| 500362009048 | VR RK09K1130CB2 10KB(F2062336M)          | KLM2578/79/80/81-D3200 | 1    |
| 500370005000 | ROTARY ENCODER EC11B15204A5(D)           | KLM2578/79/80/81-D3200 | 1    |
| 500375016000 | PUSH SWITCH SPPH410100                   | KLM2577-D3200          | 21   |
| 500402007700 | LFC-332U-2A                              | KLM2578/79/80/81-D3200 | 1    |
| 500454012709 | DIN JACK 5P DS-05-02(W/OUT SW)           | KLM2573/4/6-D3200      | 2    |
| 500454012724 | PHONE JACK LJ-0695 (P:9MM)               | KLM2577-D3200          | 20   |
| 500471070300 | CONNECTORJS-1125-3(B3B-PH-K-S)           | KLM2571-D3200          | 1    |
| 500474036000 | XLR JACK LX-1602-3                       | KLM2577-D3200          | 8    |
| 500540020200 | AC SOCKET SS-7B (D)                      | D3200                  | 1    |
| 500600005700 | POWER SUPPLY CORD UC-953-J01             | D3200 120US-UF         | 1    |
| 500620024600 | X-952 PSW KNOB E40304-2                  | D3200                  | 1    |
| 500620034700 | X-610 ENCODER KNOB E40466-2              | D3200                  | 1    |
| 500646071100 | X-610 ENCODER FRAME E40467-2             | D3200                  | 1    |
| 510300511023 | TR 2SC5103TL                             | KLM2573/4/6-D3200      | 1    |
| 510312512009 | LED SPR-325MVWT31                        | KLM2578/79/80/81-D3200 | 17   |
| 510313006400 | LCD FGE#EMTG320240A-04                   | D3200                  | 1    |
| 510320004689 | IC HD6417709SF133BV                      | KLM2571-D3200          | 1    |
| 510320004698 | FET 2SK2788VYTR(TS)                      | KLM2573/4/6-D3200      | 1    |
| 510320012341 | IC MBM29LV004TC-90TN:S                   | KLM2571-D3200          | 1    |
| 510320511022 | IC NJM2386DL2-33-TE1-#ZZZB               | KLM2573/4/6-D3200      | 1    |
| 510320511023 | IC NJM2387DL2-TE1-#ZZZB                  | KLM2573/4/6-D3200      | 2    |
| 510320511024 | IC NJM2885DL1-33-TE1-#ZZZB               | KLM2573/4/6-D3200      | 1    |
| 510320514020 | IC BR24L02FJ-WE2 12C-BUS 2KB             | KLM2571-D3200          | 1    |
| 510320516039 | IC SN74LVC1G32DCKR DCK5                  | KLM2571-D3200          | 1    |
| 510320516040 | IC SN74LVC2G14DCKR DCK6                  | KLM2571-D3200          | 1    |
| 510320516040 | IC SN74LVC2G14DCKR DCK6                  | KLM2573/4/6-D3200      | 1    |
| 510320516041 | IC SN74LVC2G74DCTRE6 DCT8                | KLM2571-D3200          | 1    |
| 510320516045 | IC SN74HCOOPWR                           | KLM2571-D3200          | 1    |
| 510320516048 | IC SN74AHCT541PWR(TS)SSOP20              | KLM2577-D3200          | 1    |
| 510320516051 | IC CD74HC4051AE DIP16                    | KLM2578/79/80/81-D3200 | 5    |
| 510320516052 | IC SN74HC138N                            | KLM2578/79/80/81-D3200 | 1    |
| 510320516053 | IC SN74HC151N                            | KLM2578/79/80/81-D3200 | 1    |
| 510320519502 | IC LT1085CM                              | KLM2573/4/6-D3200      | 1    |
| 510324026007 | IC MC68H908QY1CDTE                       | KLM2571-D3200          | 1    |
| 510324026008 | IC MT48LC4M16A2P-75                      | KLM2571-D3200          | 1    |
| 510324026009 | IC CY7C68300A-56PVC                      | KLM2571-D3200          | 1    |
| 510324038010 | IC AK4384ET TSSOP16                      | KLM2577-D3200          | 3    |
| 510324038011 | IC AK5357ET TSSOP16                      | KLM2577-D3200          | 6    |
| 510335510004 | SSL4000000E18F5FZ80A4.00MHZ              | KLM2571-D3200          | 1    |
| 510335510005 | SSM1228800E18F5FZ80A12.288MHZ            | KLM2571-D3200          | 1    |
| 510340501001 | KLM2571 PCB 153X136MM 4LAYERS-GLASS FR-4 | KLM2571-D3200          | 1    |
| 510340501002 | KLM-2573/4/6 246X169MM DOUBLE-SIDE CEM-3 | KLM2573/4/6-D3200      | 1    |
| 510340501003 | PCB KLM-2577 2LAYER GLASS 320X166MM FR-4 | KLM2577-D3200          | 1    |
| 510340501004 | PCB KLM-2578,80,81 1LAYERBAKELITE498X290 | KLM2578/79/80/81-D3200 | 1    |
| 510345520501 | MC-306 32.768KHZ CL=15PF 50PPM           | KLM2571-D3200          | 1    |
| 510360520010 | VR RK09K1130D4M 50K                      | KLM2577-D3200          | 12   |
| 510360520012 | VR RK09K12C0A7L 50KB X 2                 | KLM2577-D3200          | 1    |
| 510360520015 | VR RS45111Z6A02 10KB(F2062395M)          | KLM2578/79/80/81-D3200 | 18   |

| PART CODE    | PART NAME                       | NOTE                   | Q'TY |
|--------------|---------------------------------|------------------------|------|
| 510360520016 | STICK CONTROLLER RKJXP1224002   | KLM2578/79/80/81-D3200 | 1    |
| 510374510504 | SW ECQU2A224ML                  | KLM2578/79/80/81-D3200 | 1    |
| 510374520019 | POWER SWITCH PSW SDDFA31500     | D3200                  | 1    |
| 510374524502 | CARBON FILM ECQB1H223JF3:TR     | KLM2577-D3200          | 1    |
| 510374525001 | TACT SWITCH EVQPAC09K 9.5MM (D) | KLM2578/79/80/81-D3200 | 63   |
| 510402511505 | SOLID INDUCTOR BK1608HS102-T    | KLM2571-D3200          | 6    |
| 510402511505 | SOLID INDUCTOR BK1608HS102-T    | KLM2573/4/6-D3200      | 9    |
| 510402511506 | SOLID INDUCTOR BK1608HW431-T    | KLM2573/4/6-D3200      | 7    |
| 510402511506 | SOLID INDUCTOR BK1608HW431-T    | KLM2577-D3200          | 63   |
| 510402511509 | SOLID INDUCTOR FBMH1608HM102-T  | KLM2571-D3200          | 2    |
| 510402511509 | SOLID INDUCTOR FBMH1608HM102-T  | KLM2573/4/6-D3200      | 1    |
| 510402511511 | SOLID INDUCTOR FBMH1608HM601-T  | KLM2571-D3200          | 1    |
| 510402521502 | INDUCTOR LEMC3225T470K          | KLM2573/4/6-D3200      | 1    |
| 510402521503 | FBMH1608HM600-T                 | KLM2573/4/6-D3200      | 4    |
| 510402522501 | CDRH4D28NP-101NC                | KLM2573/4/6-D3200      | 1    |
| 510402522502 | CDRH105RNP-101NC                | KLM2573/4/6-D3200      | 1    |
| 510405540021 | SW POWER PCB 3B-803OX00-020     | D3200                  | 1    |
| 510430500501 | HARD DISK DRIVER SP0411N        | D3200                  | 1    |
| 510430501001 | CD-W552G-B10                    | D3200                  | 1    |
| 510450523016 | PLASTIC BUSH TW-1               | D3200                  | 4    |
| 510470521551 | HNS-3569 SW-GND                 | D3200                  | 1    |
| 510474520045 | CONNECTOR JS1125-16             | KLM2571-D3200          | 1    |
| 510474520047 | HARNESS HNS-3223 SW-INLET       | D3200                  | 1    |
| 510474520048 | HARNESS HNS-3224 SW-FILTER      | D3200                  | 1    |
| 510474520049 | CONNECTOR JS1125R-16            | KLM2577-D3200          | 1    |
| 510474520050 | HARNESS HNS-3480 JACK-MAIN      | D3200                  | 1    |
| 510474520051 | HARNESS 250MM HNS-3487          | KLM2578/79/80/81-D3200 | 1    |
| 510474520052 | HARNESS HNS-3032 INIET-GND      | D3200                  | 1    |
| 510474520053 | HARNESS HNS-3483 POWER-CD       | D3200                  | 1    |
| 510474520054 | HARNESS HNS-3486 POWER-HDD      | D3200                  | 1    |
| 510474520055 | HARNESS HNS-3484 FILTER         | D3200                  | 1    |
| 510474520056 | HARNCSS HNS-3491 50PIN          | D3200                  | 2    |
| 510474520057 | HARNESS HNS-3492 40PIN          | D3200                  | 1    |
| 510474520058 | HARNESS HNS-3494 40PIN          | D3200                  | 1    |
| 510474520059 | CONNECTOR JS-1125-14            | KLM2573/4/6-D3200      | 1    |
| 510474520060 | CONNECTOR VH-6A                 | KLM2573/4/6-D3200      | 1    |
| 510474520061 | CONNECTOR VH-3A(2PIN)           | KLM2578/79/80/81-D3200 | 2    |
| 510474520062 | HARNESS HNS-3481 JACK-POWER     | D3200                  | 1    |
| 510474520063 | HARNESS HNS-3482 CD-MAIN        | D3200                  | 1    |
| 510474520064 | HARNESS HNS-3479 POWER          | D3200                  | 1    |
| 510474520065 | CONNECTOR JS1132R-8             | KLM2577-D3200          | 1    |
| 510474521006 | CONNECTOR 302AE34PGAS003        | KLM2573/4/6-D3200      | 1    |
| 510474521007 | CONNECTOR 2600SK-40G2-01        | KLM2573/4/6-D3200      | 2    |
| 510474524020 | HARNESS HNS-3485 BOARD-IN       | KLM2573/4/6-D3200      | 1    |
| 510474525001 | CONNECTOR FOR FFC 62684-40210   | KLM2571-D3200          | 2    |
| 510474525001 | CONNECTOR FOR FFC 62684-40210   | KLM2573/4/6-D3200      | 2    |
| 510474525002 | CONNECTOR FOR FFC 62684-50210   | KLM2571-D3200          | 2    |
| 510474525002 | CONNECTOR FOR FFC 62684-50210   | KLM2573/4/6-D3200      | 2    |
| 510474525003 | CONNOCTOR FORFFC SFW18R-1STE1   | KLM2573/4/6-D3200      | 1    |
| 510500036000 | CASE LEG FF-017-A4              | D3200                  | 4    |
| 510525520002 | DATA LINE FILTER NFT-25         | D3200                  | 1    |
| 510620049000 | SLIDER KNOB S772-H-08-M(BK G)   | D3200                  | 17   |
| 510620049100 | SLIDER KNOB S772-H-89-M(G W)    | D3200                  | 1    |

| PART CODE     | PART NAME                      | NOTE              | Q'TY |
|---------------|--------------------------------|-------------------|------|
| 510640502525  | LCD SCREW KOC-C41390           | D3200             | 2    |
| 510640505533  | UPPER CASE KOC-C10248          | D3200             | 1    |
| 510640505534  | BOTTOM CASE KOC-C10249         | D3200             | 1    |
| 510640505535  | POWER SW SUPPORT KOC-C30666    | D3200             | 1    |
| 510640505536  | CD-HDD SUPPORT KOC-C30667      | D3200             | 4    |
| 510640505537  | JACK-PCB SUPPORT KOC-C30668    | D3200             | 1    |
| 510640505538  | LCD SUPPORT KOC-C30669         | D3200             | 1    |
| 510640505539  | LCD COVER KOC-C30670           | D3200             | 1    |
| 510640505540  | LCD SPRING KOC-C41389          | D3200             | 1    |
| 510645500003  | SIDE BOARD-L KOC-D30298-1      | D3200             | 1    |
| 510645500004  | SIDE BOARD-R KOC-D30298-2      | D3200             | 1    |
| 510646504139  | LCD CASE KOC-E10224            | D3200             | 1    |
| 510646504140  | OVAL BUTTON (4-KEY) KOC-E20257 | D3200             | 9    |
| 510646504141  | CIRCULAR BUTTON(4-KEY) E20258  | D3200             | 3    |
| 510646504142  | KEY BLOCK KOC-E20259           | D3200             | 1    |
| 510646504143  | KEY FRAME-1 KOC-E20260-1       | D3200             | 1    |
| 510646504144  | KEY FRAME-2 KOC-E20260-2       | D3200             | 1    |
| 510646504145  | LED REFLECTOR-4 KOC-E30380-4   | D3200             | 5    |
| 510646504146  | PUSH BUTTON KOC-E30382         | D3200             | 21   |
| 510646504147  | JS KNOB KOC-E30383             | D3200             | 1    |
| 510646504148  | DOUBLE INJECTION KNOB E30393   | D3200             | 30   |
| 510646506013  | LCD WINDOW KOC-E30381          | D3200             | 1    |
| 550314X323001 | DIODE MC2840-T112-1 (S)        | KLM2573/4/6-D3200 | 3    |
| 550314X323001 | DIODE MC2840-T112-1 (S)        | KLM2577-D3200     | 22   |
| 550454X111001 | PHONE JACK PJ-603 (D)          | KLM2573/4/6-D3200 | 2    |
| 550471X254008 | WAFER JS1132-08 (D)            | KLM2573/4/6-D3200 | 1    |
| 550471X255004 | WAFER JS1132-04 (D)            | KLM2573/4/6-D3200 | 2    |
| 550474X283003 | USB CONNECTOR B TYPE GE813A02  | KLM2573/4/6-D3200 | 1    |