## JVC

## SERVICE MANUAL CASSETTE RECEIVER

## KS-FX888



## Contents

Safety precaution ..... 1- 2
Disassembly method ..... 1-3
Adjustment method ..... 1-12
Description of major ICs ..... 1-16~24

## Safety precaution

> \ CAUTION Burrs formed during molding may be left over on some parts of the chassis. Therefore, pay attention to such burrs in the case of preforming repair of this system.

## Disassembly method

<Main body>
■Removing the front panel assembly
(See Fig.1)

1. Press the eject button in the lower right part of the front panel. Remove the front panel assembly from the body.


Fig. 1


Fig. 2


Fig. 3

## ■Removing the heat sink (See Fig.4)

1. Remove the three screws $\mathbf{A}$ on the left side of the body.

## Removing the bottom cover

(See Fig. 5 and 6)

- Prior to performing the following procedure, remove the front panel assembly, the front chassis assembly and the heat sink.

1. Turn over the body and unjoint the five joints $\mathbf{b}$ with the bottom cover and the body using a screwdriver.


Fig. 5 (KS-FX501U)


Fig. 6 (KS-FX501U)


Fig. 4


Fig. 5 (KS-FX601U, KS-FX701U)


Fig. 6 (KS-FX601U, KS-FX701U)

## Removing the main board

(See Fig. 7 and 8)

- Prior to performing the following procedure, remove the front panel assembly, the front chassis assembly, the heat sink and the bottom cover.

1. Remove the screw $\mathbf{B}$, the five screws $\mathbf{C}$ and the two screws $\mathbf{D}$ attaching the rear bracket on the back of the body. Remove the rear panel.
(KS-FX601U / KS-FX701U)
2. Remove the screw $\mathbf{B}$, the four screws $\mathbf{C}$ and the two screws $\mathbf{D}$ attaching the rear bracket on the back of the body. Remove the rear panel. (KS-FX501U)
3. Remove the two screws $\mathbf{E}$ attaching the main board on the bottom of the body. Disconnect connector CN701 on the main board in the direction of the arrow.


Fig. 7 (KS-FX601U, KS-FX701U)


Fig. 7 (KS-FX501U)


## Removing the control switch board

## (See Fig. 10 to 12)

- Prior to performing the following procedure, remove the front panel assembly.

1. Remove the four screws $\mathbf{G}$ attaching the rear cover on the back of the front panel assembly.
2. Unjoint the twelve joints $\mathbf{c}$ with the front panel and the rear cover.
3. Remove the control switch board on the back of the front panel.


Fig. 10


Fig. 11


Fig. 12
<Removal of the cassette mechanism>
Removing the head amplifier board.
(See Fig. 1 and 2)

1. For the 6 pin wire extending from connector CN402 on the head amplifier board, disconnect it from the head relay board.
2. Disconnect the card wire from connector CN403 on the head amplifier board.
3. Remove the screw $\mathbf{A}$ attaching the head amplifier board.
4. Move the tab a as shown in Fig. 2 and remove the head amplifier board while moving it in the direction of the arrow.

## ■Removing the cassette mechanism assembly (See Fig. 1 to 3)

1. Disconnect the 6 pin wire from connector CN402 and the card wire from CN403 on the head amplifier board (Refer to Fig. 1 and 2).
2. Remove the four screws $\mathbf{B}$ on the bottom of the cassette mechanism.


Fig. 1


Fig. 3

## Removing the head relay board

(See Fig.4)

1. Unsolder the soldering $\mathbf{b}$ on the head relay board.
2. Remove the screw $\mathbf{C}$ attaching the head relay board.
3. Remove the head relay board in the direction of the arrow while releasing the two joints $\mathbf{c}$.

## ■Removing the load arm (See Fig.5)

1. Remove the $\mathbf{E}$ washer attaching the load arm using a pincette or something like that and remove the spring d.
2. Move the part of the load arm marked $※$ upwards to release it from the axis of rotation. Then rotate the load arm in the direction of the arrow to remove it from the cach.

## ■Removing the sub chassis (See Fig.6)

- Prior to performing the following procedure, remove the head relay board.

1. Remove the screw $\mathbf{D}$ attaching the sub chassis.
2. Push the tab $\mathbf{e}$ in the direction of the arrow to detach the one side of the sub chassis. Then release the sub chassis from the tab $f$.

## ■Removing the cassette holder and the holder arm in the eject mode

(See Fig. 7 and 8)

- Prior to performing the following procedure, remove the head relay board, the load arm and the sub chassis.

1. Remove the screw $\mathbf{E}$ attaching the reinforce bracket.
2. Remove the reinforce bracket.
3. Push the tab $\mathbf{g}$ fixing the cassette holder in the direction of the arrow and open the cassette holder and the holder arm upward until they stop at an angle of 45 degrees. Move the two joints $\mathbf{h}$ to the side and remove the cassette holder and the holder arm from the shaft.


Fig. 4


Fig. 5


Fig. 7

## ■Removing the play head (See Fig.9)

- Prior to performing the following procedure, remove the head relay board and the sub chassis.

1. Remove the two screws $\mathbf{F}$ attaching the play head (The spring under the play head comes off at the same time).

## ■Removing the pinch roller ass'y

(See Fig.9)

- Prior to performing the following procedure, remove the head relay board and the sub chassis.

1. Push each tab $\mathbf{i}$ in the direction of the arrow and pull out the pinch rollers on both sides.

## Removing the reel disc board

(See Fig.10)

1. Unsolder the soldering $\mathbf{j}$ on the reel disc board.
2. Push the seven tabs $\mathbf{k}$ on the bottom of the cassette mechanism assembly in the direction of the arrow.

## - Removing the motor and the sub motor

 (See Fig. 10 and 11)1. Unsolder the two soldering I of the motor and the sub motor.
2. Release the sub motor from the three tabs m. Push the sub motor upward and pull out it.
3. Remove the belt on the bottom of the cassette mechanism assembly and remove the two screws $\mathbf{G}$ attaching the motor.

ATTENTION: The motors can be detached before removing the load arm.


Fig. 8


Fig. 9


Fig. 10


Fig. 11

## Removing the flywheel

(See Fig. 10 and 12)

1. Prior to performing the following procedure, remove the head relay board, the load arm, the sub chassis, the cassette holder, the holder arm and the reel disc board.
2. Remove the belt on the bottom of the cassette mechanism ass'y.
3. Remove the slit washer attaching the flywheel on the upper side of the cassette mechanism ass'y and pull out the flywheel downward. Then remove another flywheel in the same way.

ATTENTION: When reassembling, make sure to use a new slit washer.

## $\square$ Removing the reel disc ass'y( I )

(See Fig. 12 to 14)

- Prior to performing the following procedure, remove the head relay board, the load arm, the sub chassis, the cassette holder and the holder arm.

1. Disengage the part $\mathbf{n}$ inside of the reel driver which engages with the shaft, using a pincette or something like that. Then remove the reel driver from the shaft.
2. Remove the reel driver spring and the reel table.


Fig. 10


Fig. 12


Fig. 13


Fig. 14

## ■Removing the reel disc ass'y(II)

(See Fig. 12 to 15)
ATTENTION: Prior to performing the following procedure, remove the reel disc (I).

1. Release the plate from the three tabs $\mathbf{0}$.
2. Push aside the gear over the reel table using a pincette or something like that.
3. Remove the reel disc ass'y (II) as with the reel disc ass'y ( I ).

ATTENTION: Do not break the front panel tab fitted to the metal cover.

Push aside the gear and reattach the reel disc Ass'y( I ).


Fig. 15

## Adjustment method

## ■Test instruments reqired for adjustment

1. Digital osclloscope( 100 MHz )
2. Frequency Counter meter
3. Electric voltmeter
4. Wow \& flutter meter
5. Test Tapes

MC-109C $\qquad$ for TAPA CURL confirmation (without Padd type)
VT724 $\qquad$ for DOLBY level measurement
VT739 $\qquad$ For playback frequency measurement VT712.... For wow flutter \& tape speed measurement VT703 $\qquad$ For head azimuth measurement
6. Torque gauge $\qquad$ Cassette type for CTG-N (mechanism adjustment)

## ■Measuring conditions(Amplifier section)

Power supply voltage $\qquad$ DC14.4V (10.5-16V)
Load impedance ........... $4 \Omega$ (2Speakers connection)
Line out 20k $\Omega$

## Standard volume position

Balance and Bass,Treble volume .Fader
:Center(Indication"0")
Loudness,Dolby NR,Sound,Cruise:Off
Volume position is about 2 V at speaker output with
following conditions.Playback the test tape VT721.

AM mode $\quad 999 \mathrm{kHz} / 62 \mathrm{~dB}, \mathrm{INT} / 400 \mathrm{~Hz}, 30 \%$
modulation signal on recieving.
FM mono mode $97.5 \mathrm{MHz} / 66 \mathrm{~dB}, \mathrm{INT} / 400 \mathrm{~Hz}, 22.5 \mathrm{kHz}$
deviation pilot off mono
FM stereo mode $1 \mathrm{kHz}, 67.5 \mathrm{kHz}$ dev. pilot 7.5 kHz dev.
Output level OdB

## Arrangement of adjusting \& test points

| Cassette mechanism |
| :--- |
| (Surface) |



Azimuth screw B
(Reverse)

Head section view


## ■ Information for using a car audio service jig

1. We're advancing efforts to make our extension cords common for all car audio products. Please use this type of extension cord as follows.
2. As a U-shape type top cover is employed, this type of extension cord is needed to check operation of the mechanism assembly after disassembly.
3. Extension cord : EXTKSRT002-18P ( 18 pin extension cord ) For connection between mechanism assembly and main board assembly.
Check for mechanism driving section such as motor ,etc..

## ■Disassembly method

1. Remove the bottom cover.
2. Remove the front panel assembly.

Cassette mechanism
3. Remove the top cover .
4. Install the front panel.
5. Confirm that current is being carried by connecting an extension cord jig.
Note
Available to connect to the CP701 connector when installing the front panel.
to Cassette mechanism


EXTKSRT002-18P


## Description of major ICs

## ■ LC72366-9985 (IC701) : System CPU

1. Pin layout

| 25 | 24 | $\sim$ | 1 | 80 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 2 |  |  |  | 2 |
| 40 | 41 | $\sim$ | 64 | 65 |

2. Pin function

| Pin No. | Symbol | I/O | Function |
| :---: | :---: | :---: | :---: |
| 1 | XIN | 1 | Crystal oscillator input port |
| 2 | GND | - | Connect to GND |
| 3 | J-BUS SI | I | Data input for J-BUS information |
| 4 | J-BUS SO | 0 | Data output for J-BUS information |
| 5 | J-BUS SCK | 0 | Clock output for J-BUS information |
| 6 | J-BUS I/O | 0 | Switching signal output for J-BUS information I/O, H:Out L:In |
| 7 | NC | - | None connection |
| 8 | LCD SO | 0 | Data output for LCD driver |
| 9 | LCD SCK | 0 | Information clock output for LCD driver data |
| 10 | LCD CE | 0 | Chip enable output for LCD driver |
| 11 | DIMMER IN | - | None connection |
| 12 | EVOL SO | 0 | Data output for electrical volume |
| 13 | EVOL SCK | O | Clock output for electrical volume information |
| 14 | NC | - | Non connection |
| 15 | TUNER ILLUM | - | Non connection |
| 16 | TAPE ILLUM | - | Non connection |
| 17 | CD ILLUM | - | Non connection |
| 18 | DEMERIT | - | Non connection |
| 19 | NC | - | Non connection |
| 20 | OPEN | - | Non connection |
| 21 | NC | - | Non connection |
| 22 | NC | - | Non connection |
| 23 | NC | - | Non connection |
| 24 | NC | - | Non connection |
| 25 | KS1 | - | Non connection |
| 26 | KS0 | 0 | Diode matrix output port for initial establishing |
| 27 | K3 | 1 | Diode matrix output port for initial establishing |
| 28 | K2 | I | Diode matrix output port for initial establishing |
| 29 | K1 | - | Non connection |
| 30 | K0 | 1 | Diode matrix output port for initial establishing |
| 31 | Vdd | - | 5 V power supply port (+B) |
| 32 | TEST | , | Turn on all light indicator of LCD, L: All light a LED indicator |
| 33 | FF/REW MODE | 0 | FF/REW mode select signal output |
| 34 | SEEK/STOP | 0 | H:Auto seek, L: Stop Use both as IF count REQ and Seek/Stop |
| 35 | MONO | 0 | Forced monaural output port, H:Turn on Forced monaural |
| 36 | RADIO/TAPE | - | Non connection |
| 37 | BEEP LEVEL | - | Non connection |
| 38 | PWR-CNT | O | "H" : Turn on power |
| 39 | ACC | - | Non connection |
| 40 | KICK | - | Non connection |


| Pin No. | Port Name | I/O | Function |  |
| :---: | :---: | :---: | :---: | :---: |
| 41 | MOTOR | 0 | Main motor output, H:Transport L: Stop |  |
| 42 | SUBMO+ | 0 | Sub-motor output(+), Loading direction to transport output |  |
| 43 | SUBMO- | 0 | Sub-motor output(-), Eject direction to transport output |  |
| 44 | BEEP | - | Non connection |  |
| 45 | TAPE IN | 1 | Switch for detecting to input cassette, L: Cassette in |  |
| 46 | STANDBY | 1 | Switch for detecting standby position |  |
| 47 | REEL | 1 | Switch for detecting tape end position |  |
| 48 | MODE | 1 | Detecting mode position input |  |
| 49 | F/R | 1 | Switch for detecting forward/reverse , H:FWD L:REV |  |
| 50 | MS | 1 | MS input port, |  |
| 51 | SD/ST | 1 | Station detector, Stereo signal input, H:SD |  |
| 52 | DETACH | 0 | Front panel detect |  |
| 53 | ENC1 | 1 | Connect to encoder 1 |  |
| 54 | ENC2 | 1 | Connect to encoder 2 |  |
| 55 | J-BUS INT | 1 | Cut in signal detecting port from J-Bus information |  |
| 56 | REMOCON | - | Non connection |  |
| 57 | FM/AM | 0 | FM/AM mode switching signal port, H:FM L:AM |  |
| 58 | DOLBY | - | Non connection |  |
| 59 | NC | - | Non connection |  |
| 60 | MUTE | 0 | Mute output port, L:Mute |  |
| 61 | MEM DET | 1 | Back-up power supply detecting port, H:input L:no input |  |
| 62 | LEVELMETER | 1 | Pressure voice level voltage input for level meter. |  |
| 63 | S.METER | 1 | S meter voltage input |  |
| 64 | KEY2 | 1 | Key 2 input port |  |
| 65 | KEY1 | 1 | Key 1 input port |  |
| 66 | KEYO | 1 | Key 0 input port |  |
| 67 | ACCDET | 1 | Hold port for Acc detecting, L: Hold mode |  |
| 68 | SENSE | 1 | Voltage sensor port |  |
| 69 | AM IF COUNT | - | Non connection |  |
| 70 | FM IF COUNT | 1 | FM frequency detecting |  |
| 71 | NC | - | Non connection |  |
| 72 | NC | - | Non connection |  |
| 73 | Vdd | - | 5V power supply (+B) |  |
| 74 | AM OSC | 1 | Non connection |  |
| 75 | FM OSC | 1 | FM limited signal input |  |
| 76 | VSS | - | Ground port for power supply |  |
| 77 | NC | - | Non connection |  |
| 78 | E0 | 0 | Error signal output port for PLL |  |
| 79 | TEST1 | - | Test port for LSI, To connect ground |  |
| 80 | XOUT | 0 | 4.5MHz crystal oscillator output |  |

AN80T05 (IC901) : Regulator

1. Terminal layout \& Block diagram

2.Pin function

| in <br> No. | Symbol | Function |
| :---: | :---: | :--- |
| 1 | ILL | 10 V power supply for illumination. |
| 2 | MODE2 | When 5V is input,becomes AM. and the antenna output is turned on. |
| 3 | MODE1 | When 5V is input,becomes AM. and the output of FM is switched. |
| 4 | STB | When 5V is input, outputs to ILL,COM, and AMP. It is 0 V usually. |
| 5 | VDD | 5.6 V power supply. |
| 6 | AMP | Power supply supply to remote amplifier |
| 7 | VCC | Back up. connects with ACC with it. |
| 8 | ANT | Power supply supply to auto antenna. |
| 9 | COM | 8.7 V power supply. |
| 10 | AM | The power supply of 8.7V to AM. |
| 11 | FM | The power supply of 8.7 V to FM. |
| 12 | GND | Ground |

## CXA2559Q(IC401):Playback equalizer amplifier with music sensor

1.Pin layout

| $O$ | 40 | $\sim$ | 31 |  |
| :--- | :--- | :--- | :--- | :--- |
| 1 |  |  | 30 |  |
| $s$ |  |  | $s$ |  |
| 10 |  |  |  | 21 |
|  | 11 | $\sim$ | 20 |  |

3.Pin function
2.Blockdiagram


| Pin No. | Symbol | I/O |  |
| :---: | :---: | :--- | :--- |
| 1 | PBTC1 | - | Terminal of capacity of reproduction equalizer reproduction |
| 2 | PBOUT1 | O | qualizer output terminal |
| 3 | OUTREF1 | O | Output standard terminal |
| 4 | TAPEIN1 | I | Tape input terminal |
| 5 | Vcc | - | Power supply terminal |
| 6 | NC | - | Non connection |
| 7 | LINEOUT1 | O | Line-out output terminal |
| 8,9 | NC | - | Non connection |
| 10 | MSLPF | - | Detection LPF terminal between tunes |
| 11 | G2FB | - | Detection level set terminal between tunes |
| 12 | GI1FB | - | Detection level set terminal between tunes |
| 13 | MSTC | - | Time constant connection terminal for the detection between tunes |
| 14 | MSOUT | O | Detection output terminal between tunes |
| 15,16 | NC | - | Non connection |
| 17 | MUTESW | I | Mute function control terminal |
| 18 | TAPESW | I | Reproduction equalizer control terminal |
| 19 | DRSW | I | Head change control terminal |
| 20 | MSMODE | I | Detection mode control terminal between tunes |
| 21 | MSSW | I | Detection function control terminal between tunes |
| 22,23 | NC | - | Non connection |
| 24 | LINEOUT2 | O | Line-out output terminal |
| 25 | DIREF | - | Resistance connection terminal for standard current setting |
| 26 | GND | - | Earth terminal |
| 27 | TAPEIN2 | I | Tape input terminal |
| 28 | OUTREF2 | O | Output standard terminal |
| 29 | PBOUT2 | O | Reproduction equalizer output terminal |
| 30 | PBTC2 | - | Terminal of capacity of reproduction equalizer |
| 31 | PBFB2 | I | Reproduction equalizer return terminal |
| 32 | PNRIN2 | I | Reproduction equalizer input terminal |
| 33 | PBGND | - | Reproduction equalizer system earth terminal |
| 34 | PBFIN2 | I | Reproduction equalizer input terminal |
| 35 | VCT | O | Middle point terminal |
| 36 | PBREF | O | Reproduction equalizer standard terminal |
| 37 | PBFIN1 | I | Reproduction equalizer input terminal |
| 38 | PBGND | - | Reproduction equalizer system earth terminal |
| 39 | PBRIN1 | I | Reproduction equalizer input terminal |
| 40 | PBFB1 | I | Reproduction equalizer return terminal |
|  |  |  |  |

■ HA13158A (IC301) : Power amp

1. Pin layout

2. Block diagram


HD74HC126P (IC801) : Changer control
1.Pin arrangement


## 2. Pin function

| Input |  | Output |
| :---: | :---: | :---: |
| C | A | Y |
| L | X | Z |
| H | L | L |
| H | H | H |

3. Block diagram


■KIA7810PI (IC902) : Regulator


## LB1641 (IC402) : DC motor driver

1. Pin layout
 GNDOUT1 P1 VZ IN1 IN2 VCC1VCC2 P2 OUT2
2. Pin function

| Input |  | Output |  | Mode |
| :---: | :---: | :---: | :---: | :---: |
| IN1 | IN2 | OUT1 | OUT2 |  |
| 0 | 0 | 0 | 0 | Brake |
| 1 | 0 | 1 | 0 | CLOCKWISE |
| 0 | 1 | 0 | 1 | COUNTER-CLOCKWISE |
| 1 | 1 | 0 | 0 | Brake |

## LC75823W (IC651) : LCD driver

1. Pin Layout \& Symbol

## 2. Pin Function

| Pin No. | Symbol | I/O | Function |
| :---: | :---: | :---: | :---: |
| 1 to 52 | S1 to S52 | 0 | Segment output pins used to display data transferred by serial data input. |
| 53 to 55 | COM1 to COM3 | 0 | Common driver output pins. The frame frequency is given by : $\mathrm{t} 0=(\mathrm{fosc} / 384) \mathrm{Hz}$. |
| 56 | VDD | -- | Power supply connection. Provide a voltage of between 4.5 and 6.0 V . |
| 57 | $\overline{\mathrm{INH}}$ | 1 | Display turning off input pin. <br> TNT="L" (Vss) ----- off (S1 to S52, COM1 to COM3="L" <br> $\overline{\mathrm{INT}}=\mathrm{H} \mathrm{H}^{\prime}$ (VDD)----- on <br> Serial data can be transferred in display off mode. |
| 58 | VDDD1 | I | Used for applying the LCD drive $2 / 3$ bias voltage externally. <br> Must be connected to VDD2 when a $1 / 2$ bias drive scheme is used. |
| 59 | VDD2 | I | Used for applying the LCD drive $1 / 3$ bias voltage externally. <br> Must be connected to VDD1 when a $1 / 2$ bias drive scheme is used. |
| 60 | Vss | -- | Power supply connection. Connect to GND. |
| 61 | OSC | 1/O | Oscillator connection. <br> An oscillator circuit is formed by connecting an external resistor and capacitor at this pin. |
| 62 63 | CE CL | 1 | Serial data <br> interface connection <br> to the controller. CL : Chip enable |
| 64 | DI |  | DI : Transfer data |

## TEA6320T-X (IC161) : E.volume

1.Pin layout

| SDA | 1 | 32 | SCL |
| ---: | :--- | :--- | :--- |
| GND | 2 | 31 | VCC |
| OUTLR | 3 |  | 30 |
| OUTRR |  |  |  |
| OUTLF | 4 | 29 | OUTRF |
| TL | 5 | 28 | TR |
| B2L | 6 | 27 | B2R |
| B1L | 7 |  | 26 |
| B1R |  |  |  |
| IVL | 8 | 25 | IVR |
| ILL | 9 | 24 | ILR |
| QSL | 10 |  | 23 |
| IDL | 11 |  | 22 |
| IDR |  |  |  |
| MUTE | 12 |  | 21 |
| ICL | Vref |  |  |
| ICL | 13 | CD-CH | 20 |
| ICR |  |  |  |
| IMD | 14 |  | 19 |
| IBL | 15 | TAPE | 18 |
| IAR |  |  |  |
| IAL | 16 | TUNER | 17 |

2.Block diagram

3.Pin functions

| Pin <br> No. | Symbol | I/O | Functions | Pin <br> No. | Symbol | I/O | Functions |
| :---: | :---: | :---: | :--- | :---: | :---: | :--- | :--- |
| 1 | SDA | I/O | Serial data input/output. | 17 | IAR | I | Input A right source. |
| 2 | GND | - | Ground. | 18 | IBR | I | Input B right source. |
| 3 | OUTLR | O | output left rear. | 19 | CAP | - | Electronic filtering for supply. |
| 4 | OUTLF | O | output left front. | 20 | ICR | I | Input C right source. |
| 5 | TL | I | Treble control capacitor left channel or <br> input from an external lequalizer. | 21 | Vref | - | Reference voltage (0.5Vcc) |
| 6 | B2L | - | Bass control capacitor left channel or <br> output to an external equalizer. | 22 | IDR | - | Not used |
| 7 | B1L | - | Bass control capacitor left channel. | 23 | QSR | O | Output source selector right channel. |
| 8 | IVL | I | Input volume 1. left control part. | 24 | ILR | I | Input loudness right channel. |
| 9 | ILL | I | Input loudness. left control part. | 25 | IVR | I | Input volume 1. right control part. |
| 10 | QSL | O | Output source selector. left channel. | 26 | B1R | - | Bass control capacitor right channel |
| 11 | IDL | - | Not used | 27 | B2R | O | Bass control capacitor right channel or <br> output to an external equalizer. |
| 12 | MUTE | - | Not used | 28 | TR | I | Treble control capacitor right channel or <br> input from an external equalizer. |
| 13 | ICL | I | Input C left source. | 29 | OUTRF | O | Output right front. |
| 14 | IMO | - | Not used | 30 | OUTRR | O | Output right rear. |
| 15 | IBL | I | Input B left source. | 31 | VcC | - | Supply voltage. |
| 16 | IAL | I | Input A left source. | 32 | SCL | I | Serial clock input. |

< MEMO >

