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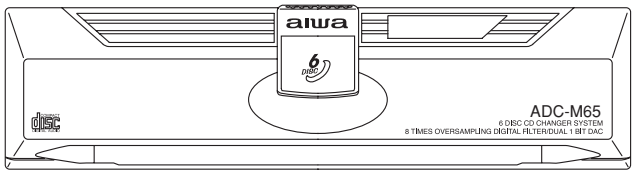
SERVICE

# ADC-M65 YU




# SERVICE MANUAL

STEREO CAR
CD CHANGER SYSTEM

BASIC CD MECHANISM : 8ZG-3 RNF

• This Service Manual contains the additional information “NOTE ON BEFORE SERVICING” and “TEST MODE” for the model ADC-M65 (YU).
If requiring the other information, see Service Manual of ADC-M65 (YU), (S/M Code No. 09-001-404-5R4).

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S/M Code No. 09-003-404-5S1

SUPPLEMENT
DATA

# NOTE ON BEFORE SERVICING

## How to Use the Repair Jig

Use the following repair jig kit for servicing

| | Part name | Part code |
|---|---|---|
| For 10 CD | JIG-ADC-M60 | SV-J00-089-010 |

The kit contains the following parts (Refer to Fig-1):

1. FFC (26P/25 cm) 1 pcs
2. P.W.B. FLEX 1 pcs
3. P.W.B. JIG 1 pcs
4. TRANSISTOR (2SD2395) 1 pcs
5. P.W.B. KEY 1 pcs

### 1-1. How to Use the Repair Jig

(1) Remove the cabinet as follows.
   1) Remove the CABI BOTTOM by removing the four screws VTT+2.6-6B. Refer to Fig-2.

(2) Remove the MAIN C.B as follows.
   1) Remove all terminals of the transistor Q623 (2SD2395) by unsoldering them.
   2) Remove the two motor wires (BLU/WHT).
   3) Remove the two wires (BLK/BRN) of the sensor (PD201).
   4) Remove the MAIN C.B from the set by removing the four screws V+2-3.
   5) Remove FFC cable (FC101) of pickup by disconnecting CN101.
   6) Remove FLEX DIN C.B by disconnecting CON1.
   7) Remove LED (LED201) from the MAIN C.B by removing GL380.
   8) Remove the sensor (PS201) from MAIN C.B by removing SENR GP1S94.

(3) Install the repair jig as follows.
   1) Install the P.W.B. JIG into the set and fix it with screws. Refer to Fig-3.

(4) Attach the parts as follows. Refer to Fig-4.
   1) Attach the supplied transistor to the location of the MAIN C.B from which Q623 is removed in the previous paragraph.
   2) Connect the supplied P.W.B. FLEX to CON1.
   • When the CONTROL UNIT is not going to be used, use the P.W.B. KEY instead. Refer to step (6).
   3) Connect the FFC cable to CON101 and to pickup. (The supplied FFC cannot be used because pitches and number of pins are different.)

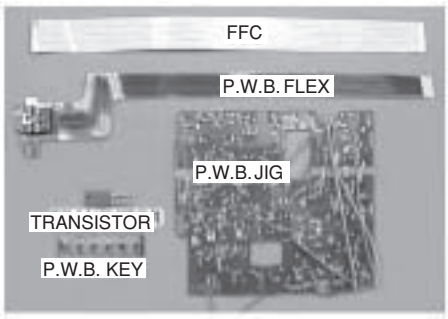


Fig-1

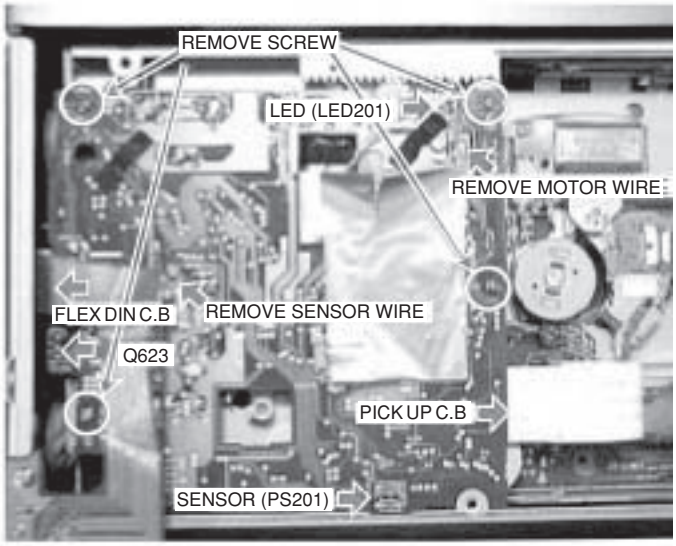


Fig-2

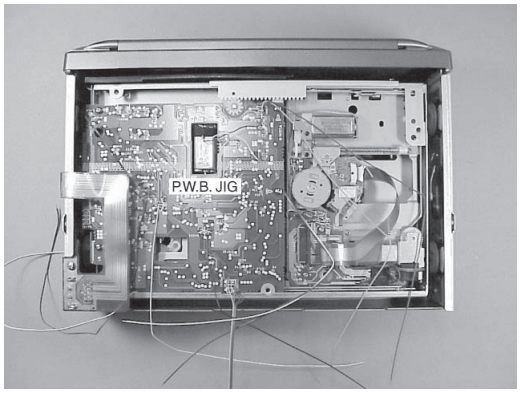


Fig-3

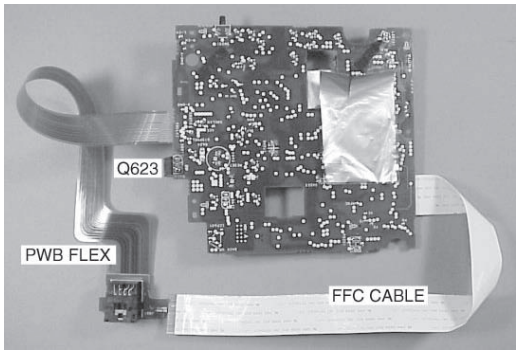


Fig-4

(5) Perform wirings to the C.Bs. Refer to Fig-5/-6.

- Be sure to connect the wires coming from the P.W.B. JIG to the same connecting points on the MAIN C.B as follows.

1) Connect the motor wires and sensor (PD201) wires that are removed in step (2) to the P.W.B. JIG.
2) Connect all wires coming from the P.W.B. JIG to the respective lands of the MAIN C.B by soldering.

- Connect the motor wires (BLU/WHT) of the P.W.B. JIG to the motor wire connecting lands on the MAIN C.B by soldering.
- Connect the LED (LED201) wires (RED/GLY) of the P.W.B. JIG to the LED wire connecting lands on the MAIN C.B by soldering.
- Connect the sensor wires (BRN/BLK) of the P.W.B. JIG to the sensor wire connecting lands on the MAIN C.B by soldering.
- Connect the sensor (PS201) wires (YER/ORN/RED/BRN) of the P.W.B. JIG to the sensor wire connecting lands on the MAIN C.B by soldering.
- Connect the SW202 wire (WHT) of the P.W.B. JIG to the SW202 wire connecting lands on the MAIN C.B by soldering.
- Connect the SW203 wire (BLK) of the P.W.B. JIG to the SW203 wire connecting lands on the MAIN C.B by soldering.
- Connect the SW204 wires (BLU/WHT) of the P.W.B. JIG to the leads of SW204 on the MAIN C.B by soldering. Refer to Fig-6.

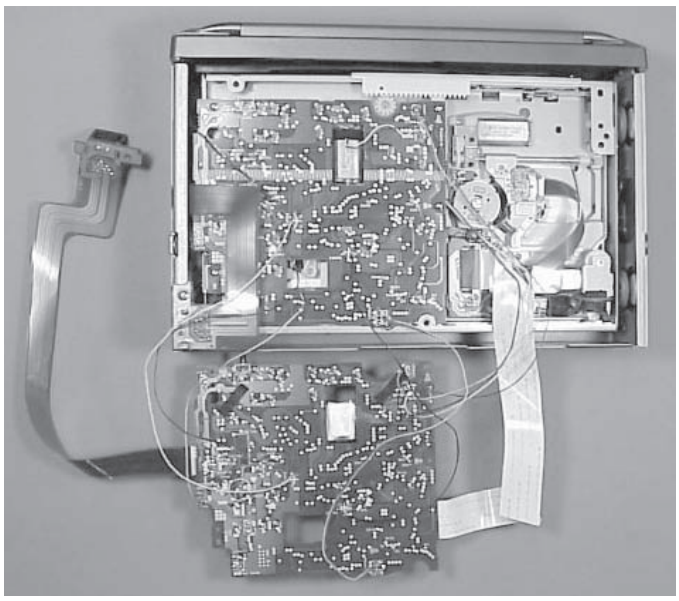

Fig-5

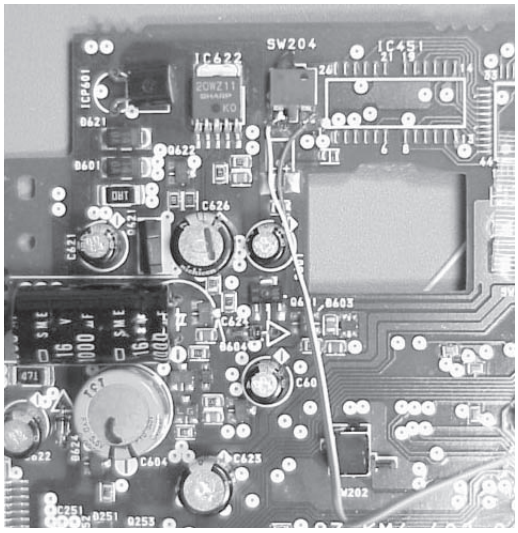


Fig-6

(6) How to use the repair jig

When the Control Unit (CDC/CT) is going to be used

1) After all wires and connections are complete, connect the Control Unit (CDC/CT) with the DIN jack of the P.W.B. FLEX.
2) Connect external power +12 V to ACC/BACKUP wire and ground (-) to the GROUND wire.
3) Perform the operation check.

When the Control Unit (CDC/CT) is not used

1) Connect the supplied P.W.B KEY to the MAIN C.B by performing all connections between them. Refer to Fig-7/-8.
   (Wires to be used for connecting the MAIN C.B are not supplied.)
2) Connect the wires as follows. Refer to Fig-9.

| P.W.B KEY | MAIN C.B |
|---|---|
| HOT | TO |
| GND | GND |

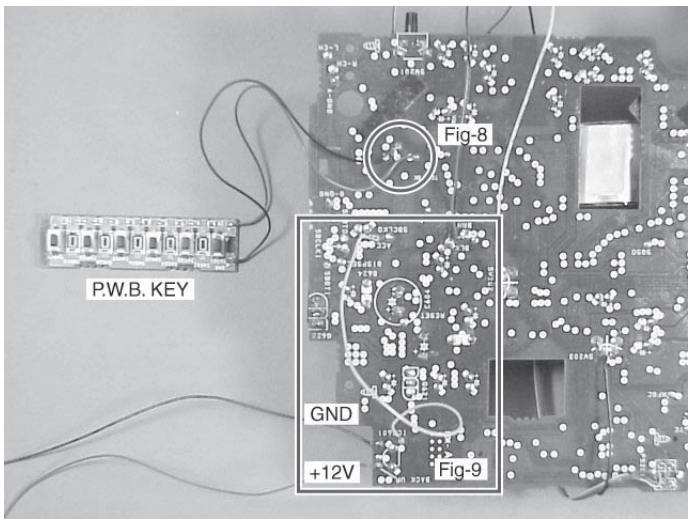


Fig-7

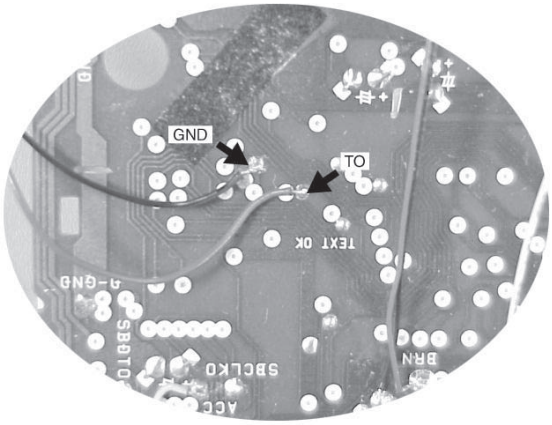


Fig-8

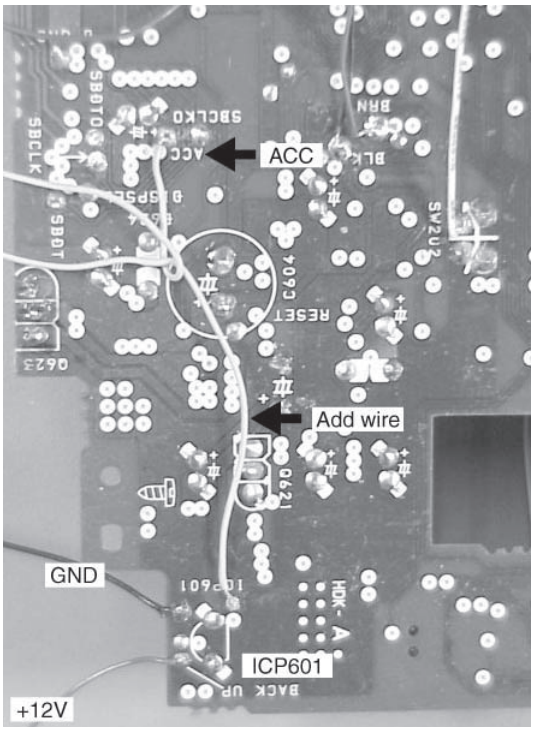


Fig-9

* Connect wire for +12 V power to BACK UP of ICP601 by soldering.
* Connect ICP601 and ACC pattern land by soldering a wire.
* Connect GND by soldering a wire.
* Connect the +12 V power to the ACC/BACK UP wire and connect ground (-) to the GROUND wire of the connector. (Wires to be used for connection are not supplied.)

3) Perform the operation check. Refer to Fig-10.
The P.W.B KEY has the following pin assignment.

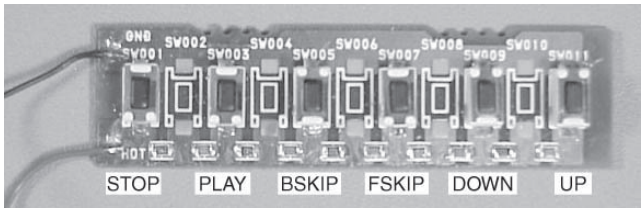


Fig-10

# TEST MODE

There are two methods to perform operation check using test mode. One method uses the head unit. The other method uses the repair jig. Because different operation buttons must be used for entering the operation modes and there are cases that the set does not run at all in the method that uses the head unit, the method using the repair jig is described as follows.

## 2-1. How to start up the CD test mode

Connect the P.W.B KEY in accordance to "SERVICE JIG AND TOOLS" step (6) How to use the repair jig - When the Control Unit (CDC/CT) is not used.

1) While pressing the STOP button of the P.W.B KEY, turn on the +12 V power of ACC/BACK UP.

## 2-2. How to exit the CD test mode

1) Turn off the +12 V power of ACC/BACK UP.

## 2-3. Function description of CD test mode

Uses of the respective buttons of the P.W.B KEY are described in Fig-1.

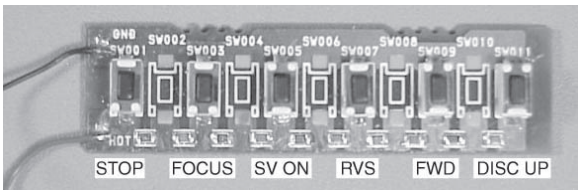


Fig-1

| Mode | Operation key | Operation | Contents |
|---|---|---|---|
| Servo OFF | STOP | All servos off | |
| Search mode | FOCUS | Continuous focus search<br>Pickup lens repeats full swing (Note 1) | APC circuit check<br>Laser current measurement<br>Focus error waveform check |
| Play mode | FOCUS<br>↓<br>SV ON | Normal playback | Focus servo<br>Tracking servo<br>CLV servo<br>Sled servo |
| Sled mode | FWD<br>RVS | Pickup moves to outer circumference<br>Pickup moves to inner circumference | Sled servo<br>Mechanism operation check |
| CD change | DISC UP | Disc unload<br>↓<br>Magazine change<br>↓<br>Disc load | Mechanism operation check (cyclic) |

* During the PLAY mode, the REV, FWD and DISC UP keys are invalid. Press the STOP key once.

* When a Head Unit is connected, the Disc No. and the Track No. are shown on display in the same way as in the normal operation.

Note 1: If the focus search operation is continued for 10 minutes or longer, the driver IC heats up sufficiently to trigger the protection circuit, which stops the CD system. Turn off the main power and re-start operation about 10 minutes later.

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