



Final release date:01/27/02

**DV-C601,**

**Ref: 112200-3**

**Service Tip and Troubleshooting:**

*Make sure static free work environment is observed at all times when working with Laser Pickup.*

- Symptoms:**
- (1) Disk Starts, Spins and DISK ERROR comes up.
  - (2) Disk plays with intermittent picture breaking up.
  - (3) Disk fails to initialize, or locks up trying to read disk.
  - (4) Plays DVD but fails to play CD or plays CD but not DVD.

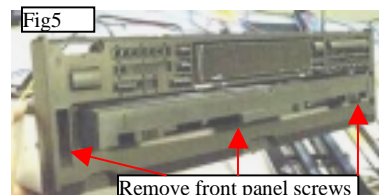
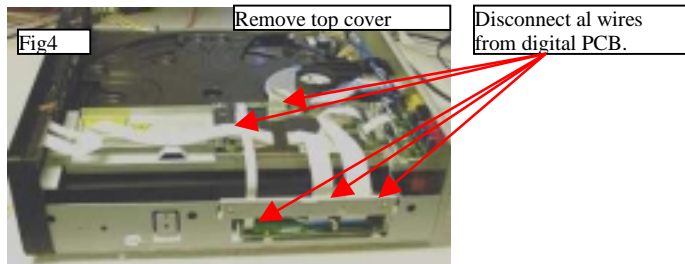
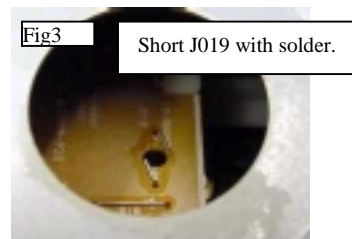
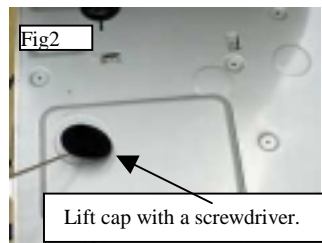
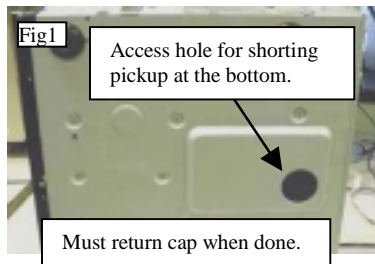
**Mandatory Solution:** Replace pickup connector cables, Remove pick-up connector intermediate PCB, update firmware with most recent version.

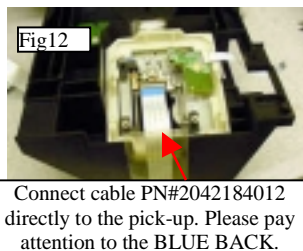
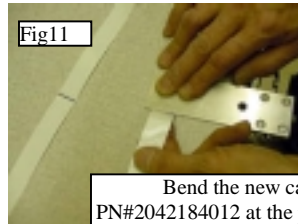
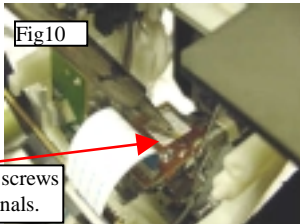
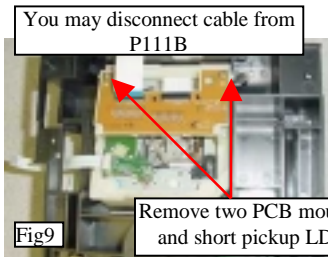
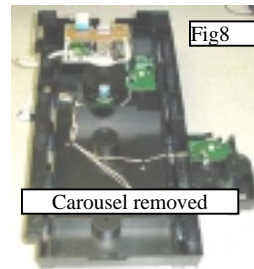
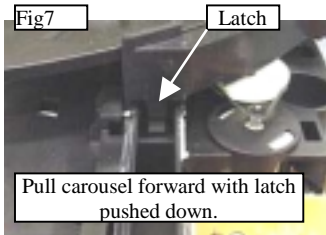
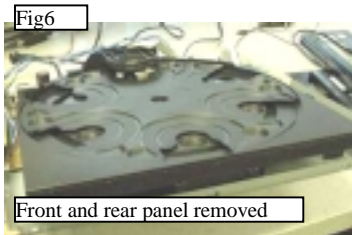
Part Location	Old Part number	New part Number	Reason For change
P112	2042183512	2042184012	Improved RF (Eye Pattern)
P111	2042180512	Eliminated (Remove)	RF Loss improved
U7	1H412554-2	Eliminated (Remove)	RF Loss improved
E210	None	230957 (Add)	RF Noise improved

Before you start work, the following process must be addressed in order to avoid damage to the pickup assembly.

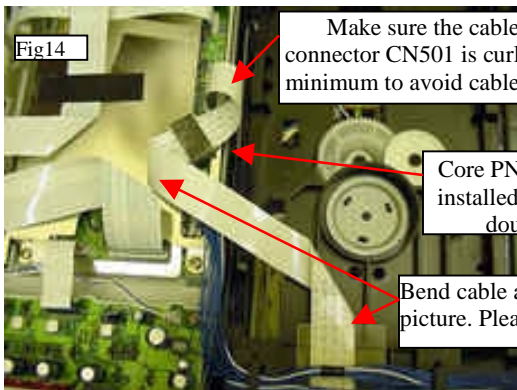
Your finding may resemble the followings:

- a. Powers, rotates carousel, chucks, (clamps) and LD is not ON, and immediately un-chuck.
- b. Powers, chucks, and LD is on spins for a few seconds and unclamps goes to next disk.
- c. Powers, chucks, LD is on, spins and spins trying to read TOC. Endless loop.
- d. DVD plays but not CD or plays CD not DVD.
- e. Picture breakup problem.





Re-assemble the unit back and attach the cable as illustrated next Fig14. It is important to keep the pickup shorted until last.



**Solution:** Replace pickup connector cable. "Second time around".

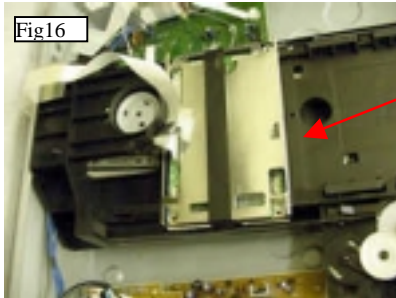


Fig16

If the shorting PCB seen in Fig 3 is not in place, you will need to keep the DSP still connected to CN501 connector until pick-up shorting is done as seen on figure 10. Keep DSP attached to the frame with an electrical tape.

**Test points and references:**

**A:** make sure static free work environment is observed at all times when working with Laser Pickup.

With the unit totally turned OFF, confirm the impedance of the Focus Coil and the tracking coil at CN501. Between pin 10 and 13, 8.2ohm for Focus coil and across pin 11 and 12, 8.3ohm for the Tracking Coil.

Check and verify procedure as given on page 43,44 of service manual. For disk to be recognized while carousel is rotating but fail to spin and focus is a result of missing LD ON. This happens when one of the connectors at any of the three points (Fig1 A, B and or Fig2 C) is lacking good contact to the ribbon.

**\*\*\*The laser pick needs no adjustment!!! \*\*\***

The troubleshooting guide given between pages of 43 and 50 is extremely helpful to determine the condition of the PICKUP.

**B:** Disregarded Step 3 of page 45 and make correction as follows.

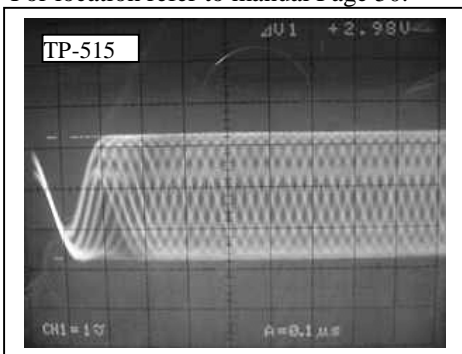
The reference should be:

$$\text{lop} = \frac{\text{Voltage between E522 and E523}}{3.3\text{ohm}}$$

The voltage drop across R505 (3.3ohm) resistor is higher than 218~238mvDC in normal operating condition and the LD is not on, connection (Fig1 A, B and or Fig2 C) may be loose or poor. This indicates the LD is not present as load to the voltage rail R505.

The Individual optical output level may be monitored at the pickup connector point using an oscilloscope with no more than 10pf input capacitance.

For location refer to manual Page 50.



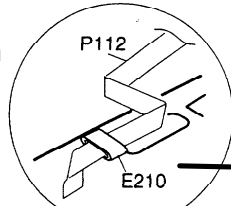
**D:** To help reduce the break up of the video signal, remount **CORE #230957**. The installation of this core should be as illustrated on Fig14.

**\*\* Since the root cause for the failure of DV-C600 and DV-C601 is mainly noisy pick-up signal do to poor connector terminals, it is very important all of the necessary steps mentioned are exhausted before attempting to replace the PICKUP.**

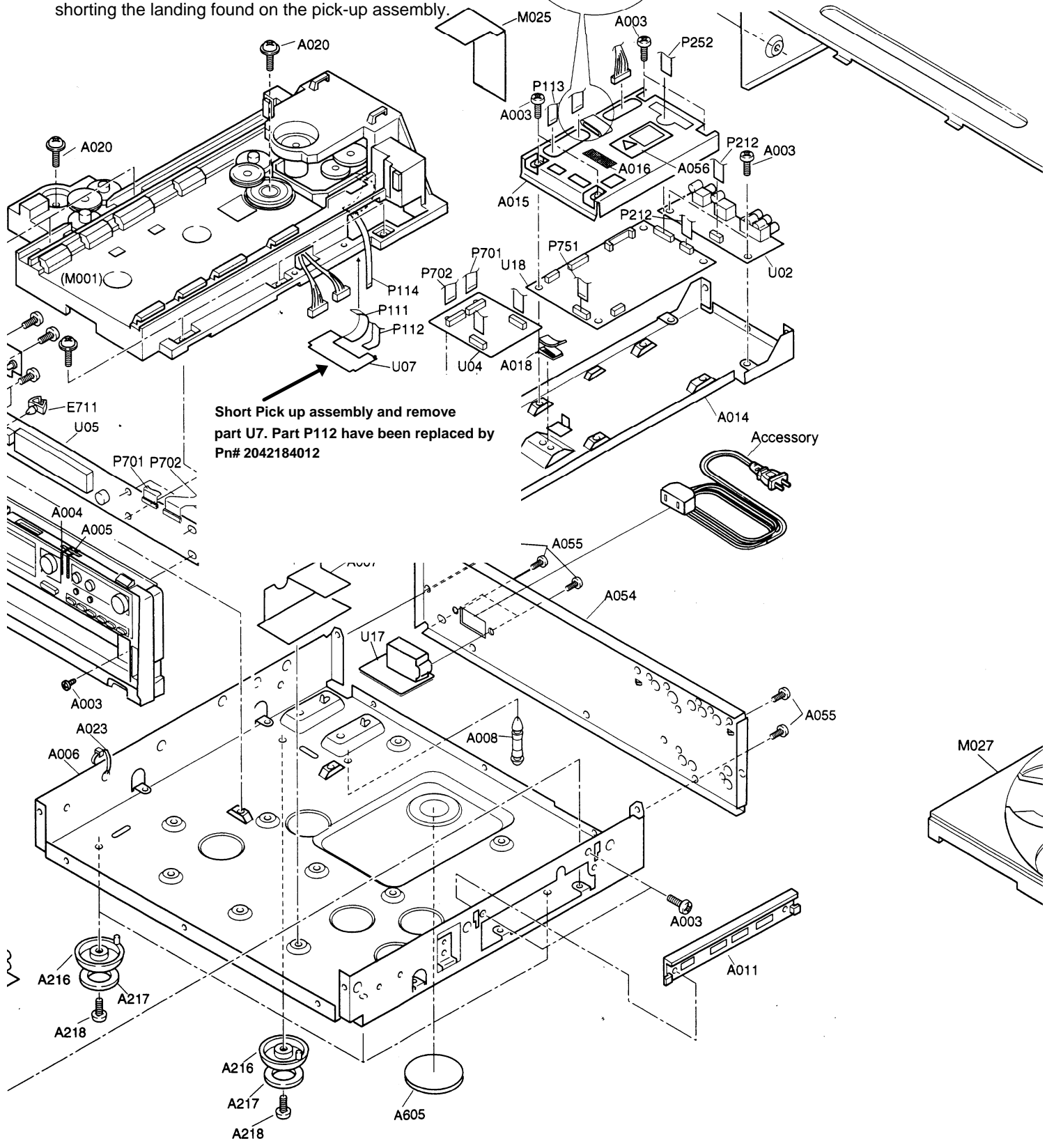
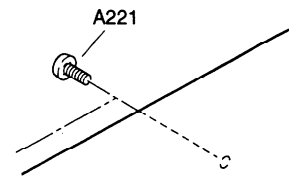
## Mandatory:

Picture freeze, does not play DVD, or CD or Both related problem.

Before replacing a pickup assembly it is important that the following component change is addressed properly. Do Not Attempt to Remove Optical Ribbon cable before shorting the landing found on the pick-up assembly.



Must add ferrite core  
PN#230957 or 230951



## **REPLACED ROM ICS OR UPGRADED FIRMWARE**

To check the Firmware version before update is done follow this process.

Using the remote controll Press [ZOOM] ----> [606] -----> [ZOOM]

The display will show the version on the display panel.

If the dsiplay indicates a firmware of curent version need not update, unless PCB has been replaced.

**\*\* Firmware runs in DOS mode only.**

# UPGRADE FIRMWARE

**\*\* Firmware runs in DOS mode only.**

## Preparation

The power supply is turned off, and top Cover is opened.

Remove the FFC which has been inserted in P751A on the microprocessor PC board.

Connect the J912 and J907 (jumper lead) with a clip. <MDD1N>

The power supply is turned on, and release a clip wire and insert the FFC to connector (P751A) again.

1. Writing of firmware (all destinations) in main board.
  - 1-1. The power supply is turned on and you puts it into the state of STANDBY.  
Press the STANDBY/ON button.
  - 1-2. Connect a computer to the main PC board of DVD video player with using UPGRADE FIRMWARE KIT. (P/No. 0P37)
  - 3-3. The program for the data writing is executed with the personal computer.
  - 3-4. Type the following command in DOS prompt mode.  
Flash99 "firmware filename"
  - 3-5. Select "1. WRITE " when the MENU appeared on your screen.  
After about 10 min.

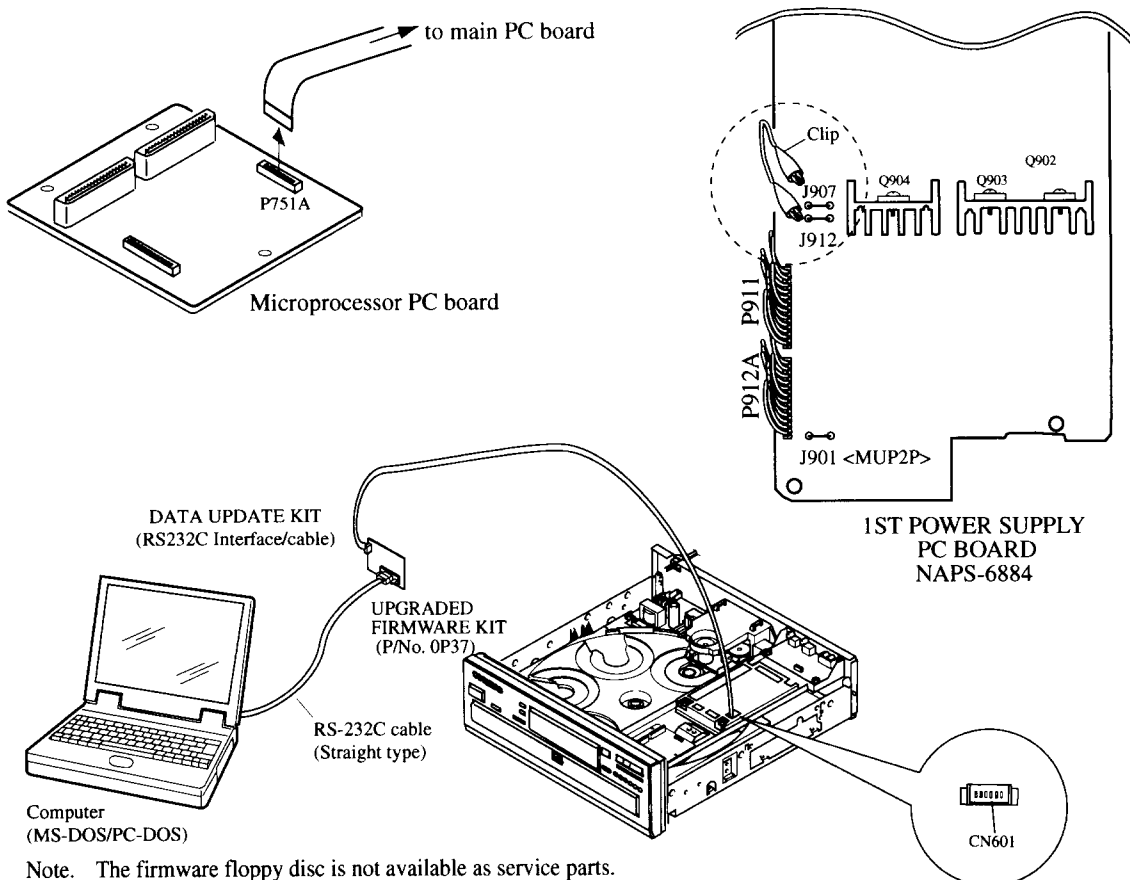
<Screen>

000

ALL CHECK SUM (Send: 0xF8AC340E vs Receive: 0xF8AC340E)----0000

Continue? "Y/N"

It is confirmed that the end of ALL CHECK SUM is "0000". (Write it again, except for this)



Note. The firmware floppy disc is not available as service parts.

## 2. Confirmation of content of writing (all destinations)

- 2-1. The power supply is turned on, and press the STANDBY/ON button to turn on the DVD player.
- 2-2. The "STOP" key and the "SKIP-DOWN" key are pushed at the same time in the state of No Disc.
- 2-3. It is confirmed that the display of monitor is as follow.

Item	MDD1N area	MUP2P area
ROM1	Version V*.**R1	Version V*.**R2
ROM2	V*.**	
OSD	Eng/Fre/Spa	Eng/Fre/Spa/Ger/Ita
VCD	On	
BUZZER	Off	
A.3D	Off	
RANDOM	On	
KARA	Off	
DTS	On	
VOCAL	Setup	
DIMMER	2typ	
V.3D	Off	
V-FMT	Ntsc	Pal
JOG	Off	
MPEG-A	On	

\*.\*\* : Shown ROM version

## 3. Display confirmation of FL tube

All lighting of the FL tube only while "STOP" is being pushed when "STOP" key is pushed while pushing "SKIP-UP" key to the main body key.

## 4. Setting of the first setup screen mode

- 4-1. The "STOP" key and the "DIMMER" key on the main body key are pushed at the same time in the state of No Disc.
- 4-2. It is confirmed that the Setup screen goes out, and the character of "First Setup ON" has come out in lower right.
- 4-3. The power supply again by On after turning off the power supply, and it is confirmed that the first setup screen goes out by Standby/ON mode. (Never push the Setup key here)
- 4-4. The power supply is turned off, and the AC cord is pulled out.

		MDD1N	MUP2P
Language	On Screen Language	Eng	
	Dis Menu Language	Eng	
	Audio Language	Eng	
	Subtitle Language	--	
Picture	TV Shape	4:3LB	
	Black Level	Normal	
Audio	Audio Out Select	Analog 2ch	

## 5. Initialized of mechanism

- 5-1. Press the DISC-6 key while pushing STANDBY/ON at standby condition.
- 5-2. It is confirmed that the character of "First Setup ON" appears in the lower right of the display.
- 5-3. It is confirmed to be displayed that the display of FL is "COMPLETE".
- 5-4. The AC code is pulled out.