MODIFICATION

PROBLEM:

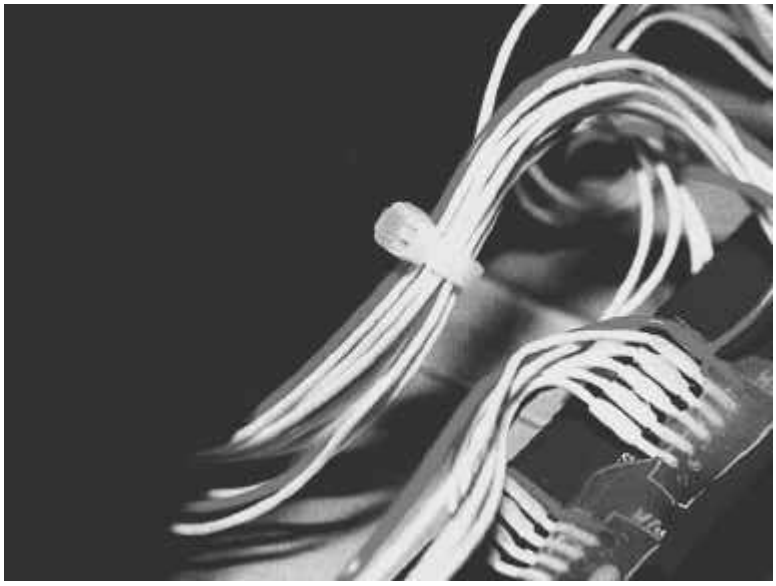
CD Player does not read disc, skips, produces scratching noise.

CAUSE:

The cable tie that ties the two cables to the laser together scrapes over the bottom of the unit.

SOLUTION:

Relocate the cable tie as shown in the below picture, it's advisable to relocate the other cables as well to avoid any contact with the other cables.



It's advisable to perform this modification whenever a unit comes in for service.

PRODUCTION:

This modification will be implemented in production, there is no serial number information known at this moment.

MODIFICATION

Adding Protection circuit after changing the laser mechanism

This will prevent further damage by ESD, power surges etc.

MODIFICATION:

After changing the laser mechanism (partno: 4102-5002-0) please perform the following modification:

1) Change R137 from 10 Ohm to 20 Ohm 1/8 W min.

2) Add a diode 1N4148 between LD and GND on J2 (cable connection to laser unit), Kathode to LD.

3) Cut trace just after collector Q101.

4) Add coil 10uH in between here.

The required parts are available from FED in a small kit, partno: 522-LASER-PROT-KIT

PRODUCTION:

Please note this modification is being implemented in running production.

The Nad 524 already has this modification except for: 1) Change R137

SERVICE HINT

PROBLEM:

CD Player does not read disc, skips, produces scratching noise only on some specific CD's

CAUSE:

The so called "playability" is affected by the use of low quality discs, scratched discs and CDR's.
The problem here is not the true jitter performance of the unit itself but the capability of handling the poor quality discs without audible effects.

POSSIBLE SOLUTIONS:

1) Add a ceramic capacitor 100pF at C309 position.

2) Change C122 from 1pF(NAD 522) or 5pF (NAD524) to optimum value between 2.2 and 8 pF.
Note that higher value will result in lower jitter with normal CD but practically worse performance on CDR's
Best balance is usually 3.3 pF

3) Re-route the cables J5 and J10; make sure they have minimal interaction with J1 and J2.

THE FOLLOWING HINTS MUST NOT BE PERFORMED WITHOUT SPECIAL MEASURE EQUIPMENT.

4) Adjust TILT-screw on the laser unit for minimal Jitter with help of a Jitter meter. This is the lower mounted screw at the yellow metal plate in the corner.

5) If the laser power is above 24mW the unit will malfunction after playing for some hours. A Laser power meter is required here. Adjust laser power down to 18-22 mW.

MODIFICATION

PROBLEM:

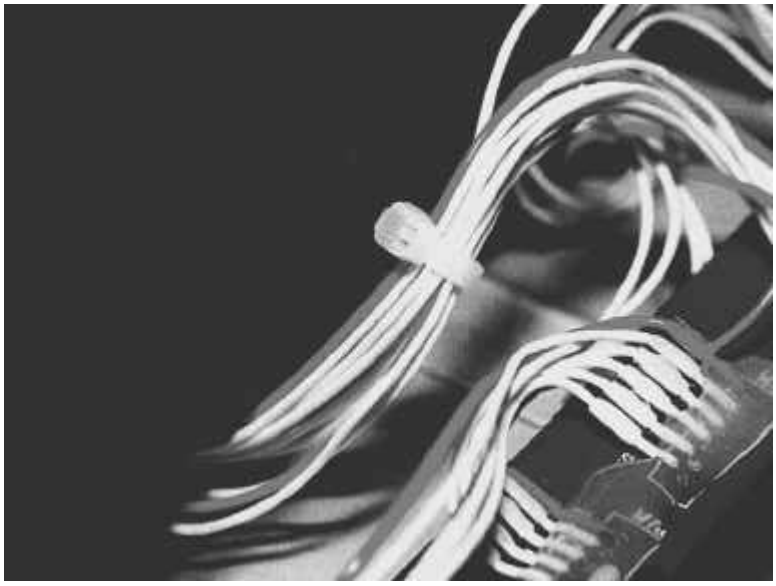
CD Player does not read disc, skips, produces scratching noise.

CAUSE:

The cable tie that ties the two cables to the laser together scrapes over the bottom of the unit.

SOLUTION:

Relocate the cable tie as shown in the below picture, it's advisable to relocate the other cables as well to avoid any contact with the other cables.



It's advisable to perform this modification whenever a unit comes in for service.

PRODUCTION:

This modification will be implemented in production, there is no serial number information known at this moment.

MODIFICATION

Adding Protection circuit after changing the laser mechanism

This will prevent further damage by ESD, power surges etc.

MODIFICATION:

After changing the laser mechanism (partno: 4102-5002-0) please perform the following modification:

1) Change R137 from 10 Ohm to 20 Ohm 1/8 W min.

2) Add a diode 1N4148 between LD and GND on J2 (cable connection to laser unit), Kathode to LD.

3) Cut trace just after collector Q101.

4) Add coil 10uH in between here.

The required parts are available from FED in a small kit, partno: 522-LASER-PROT-KIT

PRODUCTION:

Please note this modification is being implemented in running production.

The Nad 524 already has this modification except for: 1) Change R137

MODIFICATION

PROBLEM:

CD will not read in, CD is spinning on high speed.

CAUSE:

The 5V to the RF amplifier / laserunit is too low; zener diode D505 is defective, regulator U506 (78L05A) can also be defective.

SOLUTION:

Replace D505, zener 4.3V, 0.5W by 3.3V, 1.3W type.
Replace the regulator U506 from 78L05A (TO-92 housing) by a 7805 in a TO-220 housing (MC78M05 or equivalent).

PRODUCTION:

The zener and regulator will change in production, starting with serial number :

We will advise you to replace this zener whenever a 522 comes in for any service.