

DU MONT

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SERVICE NOTES

FOR

DU MONT TELESETS



ALLEN B. DU MONT LABORATORIES, INC.

Teleset Service Control Department

MARKET STREET

EAST PATERSON, N. J.

RA-102

RA-102 SECTION

This section is devoted to information pertaining to the RA-102 Telesets. Although these Telesets are no longer manufactured, we are definitely interested in their proper operation.

If any serviceman has had any particularly interesting troubles to diagnose on this Teleset, we would appreciate getting the details.

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RA-102 SECTION

INSTALLING 1N34 CRYSTAL RECTIFIER

Extreme care must be used when soldering this crystal. Care must be taken to ensure that no heat reaches the crystal element itself.

When soldering, the pigtail lead should be held by a pair of long nose pliers between the crystal element and the soldering point. This procedure will ensure that any heat generated by the soldering operation will be dissipated in the pliers and will not reach the crystal element.

CLIFTON INTER-CHASSIS POWER CABLE SHORT TO PLATE OF 807 TUBES

This cable has a tendency to work its way to close proximity to the plates of the 807 sweep amplifier tube. When this happens an arc occurs between the 807 plate caps and the wires enclosed in this power cable.

When inspecting this receiver always make sure that this cable runs directly to the chassis plug and is free and clear of all tubes on the receiver chassis.

FRONT PANEL FOCUS CONTROL

The early model RA-102 Telesets did not have the focus control mounted on the front panel. The later model with the front panel control is known as RA-102-B2.

The chassis in these Telesets are not interchangeable with the models that do not have the front panel control. All chassis for the RA-102 Teleset with serial numbers listed below are interchangeable:

1. Receiver chassis from serial #501-252 onward.
2. Power Supply chassis from serial #601-251 onward.

To install the focus control on the front panel of those early model Clifton receivers which did not have this feature, it is only necessary to drill a hole on the front panel for the focus control potentiometer and extend the leads to reach this control in its new position.

We do not recommend that circuit changes be made when so altering the early model Clifton Teleset.

ABNORMAL NOISE FLASHES ON SCREEN

Under humid atmospheric conditions a large amount of noise flashes on the CRT screen has been noticed. This has been traced to corona discharge in the high voltage RF power supply.

Examine the high voltage supply in a darkened room. Corona discharge will be seen as a blue glow surrounding exposed metal high tension points.

Remedies suggested:

- 1 - Lead dressing to lengthen discharge path.
- 2 - Insulating sleeving on leads
- 3 - Painting exposed high voltage points with insulating compound.

This condition has been encountered mainly in salt water areas where atmospheric humidity is high.

LOW PICTURE IF SENSITIVITY

This condition will cause the picture level to drop when the sound carrier is properly tuned in. The condition will be most apparent on stations with low signal strength. Check these causes:

- 1 - Poor vacuum tubes in IF chain.
- 2 - Defective 1N34 video rectifier.
- 3 - Poor vacuum tube in inputuner.

TESTING 1N34 CRYSTAL RECTIFIER

The front to back resistance ratio of the 1N34 crystal should be at least 100 to 1. Normally, the ratio falls below 100 to 1, the crystal should be replaced. These resistance ratios may be measured with a common ohmmeter.

AM TUNER BIRDIES OR HETERODYNE

Evenly spaced carriers across the broadcast band every 17 Kc. are caused by continuously running H.V. oscillator or horizontal sweep oscillator. Causes may be:

- 1 - Bias on H.V. oscillator has dropped so that oscillator is free running without triggering from sweep circuits. Check cathode resistor, grid resistor.
- 2 - Beam cut off relay not opening when television is switched off. Clean contacts, or adjust armature return spring tension.

TYPICAL TROUBLES

The following list represents troubles which may show up in the RA-102 Telesets:

<u>Indication</u>	<u>Cause</u>
No high voltage.	Defective 8016, or 807 in Power Supply. Defective high voltage transformer.
Picture has horizontal wobble.	Defective 6AC7 (Video amplifier) 807's (horizontal output stage) or 6SN7 (1st sync amplifier).

Notches in picture or raster. Bad 6AS7.
(moving up and down)

Poor definition Bad crystal.

Picture size varies excessively Improperly adjusted high
during evening's operation. voltage. (See service manual).