

CHICAGO TRANSIT AUTHORITY  
SHOPS AND EQUIPMENT DEPARTMENT

**BUS REPAIRER'S PROCEDURE FOR  
TESTING BUS RADIOS**

1. Test radio with test set.
  - a. If radio tests as defective.
    - (1) If problem is in handset, change handset.
    - (2) If problem is in wiring, attempt to repair.
    - (3) If you are unable to repair defect or unable to discover what is wrong.
      - (a) Tag unit as defective (do not remove unit).
      - (b) Notify Garage Foreman.
  - b. If radio tests O.K. with test set, make operational check as described beginning with step 2. below.
2. Drive bus to signpost closest to garage. Pass signpost and drive at least one block before parking bus. (Do not shut off bus engine.)

NOTE: Be certain to select a safe location where you will not interfere with traffic. Do not park in a bus loading zone.
3. Set in any Series 990 run number on thumbwheels (990, 991, 992, etc.) and "key" radio by depressing button on handset.
  - a. When Radio Dispatcher acknowledges call, state "This is a radio test." When time permits, Dispatcher will give permission to proceed with test. Proceed to step 4.
  - b. If Radio Dispatcher does not acknowledge call within 2 to 3 minutes, "key" radio again. If Dispatcher still does not answer, "key" radio a third time. If you still do not receive an acknowledgement, attempt to contact Dispatcher by telephone to determine what problem exists. If he indicates that he did not receive you, the unit is defective. Discontinue test, return to garage and process defective unit.
4. Test I.D. function with a random series of run numbers.
  - a. Insert any run number on thumbwheels.
  - b. "Key" radio and wait for Dispatcher to repeat the run number.
    - (1) If Dispatcher repeats number correctly, go to step c. below.

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- (2) If Dispatcher repeats number incorrectly or responds "no change," "key" radio again. If Dispatcher still does not give correct number, make a note of the run number that was not correctly acknowledged, then go on to step c. below.
- c. Repeat steps 4a. and 4b. six more times, using a different run number each time. After the seventh run number has been acknowledged, insert a 990 Series run number on the thumbwheels. Then proceed to step 5.
5. "Key" radio. When Dispatcher acknowledges, ask him for a "Program 30" on bus. When Dispatcher acknowledges your request, hang up handset. Dispatcher will then cause computer to test data communications with bus. This process may take 2 to 3 minutes. At the end of this test, the Dispatcher will call you on the radio.
- a. If Dispatcher indicates all equipment is functioning correctly, proceed to step 6.
- b. If Dispatcher indicates a defective component exists, make a note of the defect so that you can report it when you return to the garage. Then proceed to step 6.
- c. If you do not receive a call from the Dispatcher after 3 minutes have elapsed, call him for instructions.
6. "Key" radio. When Dispatcher acknowledges, ask him for permission to test alarm switch. When permission is granted, depress alarm switch.
- a. If alarm decodes, Dispatcher will immediately respond giving the garage number, run number, bus number, location and elapsed time. When Dispatcher finishes, proceed to step 7.
- b. If alarm fails to decode, Dispatcher will respond "Alarm does not decode." Make a note of this defect. Then proceed to step 7.
7. Turn off bus. Wait approximately 2 minutes, then re-start bus. (You must wait the full 2 minutes to allow alarm to clear so that it will not reappear on Dispatcher's console.)

This concludes the test. Return to garage. Process any defects which were discovered during operational test.