

Part 544 - Equipment

MN544.0 General

All personnel are responsible for using equipment properly and for exercising due care while transporting the equipment. The Owner's Manual contains the manufacturer's recommendations for handling and storage of the equipment. The person to whom the equipment is assigned is responsible for maintaining it and for having the equipment checked, adjusted, and calibrated.

MN544.2 Transporting Equipment

- Levels, transits, and other sensitive equipment shall always be transported in the case or box provided by the manufacturer.
- All equipment shall be transported in a manner that prevents falling or severe shocks if the vehicle should stop suddenly or cross rough terrain. All vehicles in which surveying equipment is commonly transported shall be provided with racks, boxes, tie downs, etc. as needed to safely hold and protect the equipment. All equipment shall be protected against moisture, dust and dirt. Levels, transits, and similar equipment shall be further protected against vibration and shock by a layer of foam rubber, or other energy-absorbing material placed to cushion the bottom and sides of the instrument cases while in the vehicle.
- Care must be taken to prevent moisture damage to instruments. Instruments that get wet from rain must be toweled off and then allowed to air dry out of the case prior to extended storage.

MN544.3 Adjustment and Calibration

- Survey instruments shall be checked at least once every year and adjusted, if necessary, according to the procedures outlined in Part 650, Engineering Field Handbook, Chapter 1-Survey. For instruments that receive little use, the area engineer may extend the interval between checks. Instrument checks and adjustments will be made only by qualified field office personnel, engineering technicians, or engineers. The area engineer shall determine who is qualified to check and adjust instruments in the area.
- When survey instruments or other equipment cannot be adjusted in the field, arrangements for repair or adjustment will be made through the procurement officer.
- For all instruments in an area, a record of checks, adjustment, and calibrations shall be maintained by the area engineer. As a minimum, the record will include the instrument description, location, serial number, the date of the check, the initials of the person who performed the check or adjustment, and a very brief statement describing what was done. If the instrument was sent in for repair and adjustment, the date and name of the company who did the work shall be noted in the record.

MN544.6 State procedures - GPS Radio Frequencies

NRCS staff in Minnesota has been assigned the following radio frequencies for survey grade GPS equipment with transmit capability. All bandwidths are 12.5 kHz.

411.250 MHz

411.300 MHz

411.325 MHz

411.425 MHz

Maximum power level authorized is 25 watts. NRCS employees may not operate GPS equipment on any other frequency.