

**MEHLVILLE FIRE PROTECTION DISTRICT  
EMERGENCY MEDICAL SERVICES  
GUIDELINES FOR PREHOSPITAL EMERGENCY CARE**

**PAGE 1 OF 2**

**SUBJECT: 600.06  
MECHANICAL VENTILATION  
WITH AUTOMATIC VENTILATORS**

**ORIGINAL ISSUE: 5/08  
LATEST REVISION: 5/08**

---

The following are general guidelines for automatic transport ventilators (ATV's). Specific brands and designs may require appropriate adjustments to these guidelines.

**Caution should be used as this device can dislodge the ET tube.**

**Overview:**

ATV's are time or volume cycled, gas powered mechanical ventilators designed to assist prehospital personnel in resuscitative efforts. It is intended for use primarily in arrest and peri-arrest situations where the patient is making little or no ventilatory effort and has been successfully endotracheally intubated. The following guidelines are designed to ensure proper and successful use of this device.

**GUIDELINES FOR PRE-HOSPITAL USE:**

1. All potential users are required to read and be familiar with the operating manual accompanying this product.
2. All potential users of this device are to be adequately educated on the use of this device.
3. When used, ATV settings should be reviewed with medical control in a timely manner.
4. When time constraints and clinical situations preclude immediate contact with medical direction, the following items will guide the user in proper utilization of these devices.
  - A. Use ATV's in adults and older children greater than 40 kg.
  - B. The unit will be checked for proper connections and function prior to use on each patient.
  - C. Should the unit fail to function properly at any time, disconnect the patient and ventilate by other means.

**MEHLVILLE FIRE PROTECTION DISTRICT  
EMERGENCY MEDICAL SERVICES  
GUIDELINES FOR PREHOSPITAL EMERGENCY CARE**

**PAGE 2 OF 2**

**SUBJECT: 600.06  
MECHANICAL VENTILATION  
WITH AUTOMATIC VENTILATORS**

---

D. Settings:

1. Tidal Volume:  
5-8 ml/kg - generally 600-700 cc in average size adults
2. Breaths per Minute: 10-20 BPM - generally a minimum of 12-14 in the prehospital setting. Certain clinical situations require adjustment up or down. Examples include:
  - a. Unconscious patient with head injury - set at 16 BPM.
  - b. Small children - 18-20 BPM
3. C.I.:E Ratio:
  - a. Maintain a 1:2 inhalation-to-exhalation ratio.
5. If the inspiratory pressure alarm continues to sound despite trouble shooting maneuvers, disconnect the patient and ventilate by other means.
6. Contact Medical Direction before using the ATV's on infants or neonates.
7. Maintenance, cleaning and testing should conform to the manufacturers' specifications.

**Discontinue ATV if there is any problem or deterioration in the patient's condition and use the AMBU bag.**