

CONSTANT AIRFLOW REGULATOR (CAR) Installation. Operation and Maintenance Instructions

READ AND SAVE THESE INSTRUCTIONS

PRINCIPAL OF OPERATION: The CAR is an airflow control device that automatically responds to changes in duct pressure in order to regulate airflow at a constant rate. A damper mechanism within each CAR controls the net free area through the device in order to maintain constant velocity and net airflow rates.

INSTALLATION: The round CAR is designed for installation in rigid ducts, duct collars, or register boxes without the use of screws or any other mechanical fixing device. The perimeter gasket provides a seal to grip the interior of the duct in which the unit is installed. It may be installed in vertical or horizontal ducting. When installed in horizontal ducting, the CAR must be installed with the base downward. The square/rectangular CAR-R is designed for installation in rigid ducts or register boxes using screws provided by others. The perimeter should be sealed with an approved duct sealant or caulk to prevent air leakage. It may be installed in vertical or horizontal ducting. When installed in horizontal ducting, the flexible CAR element (bulb) must be in a vertical position (See Figure 2).

The CAR should be installed in accordance with all applicable building and mechanical codes. If installed in a metal duct or duct collar with a flexible duct connector (listed to UL 181), the CAR must be inserted at least 2 inches from the flexible duct and/or duct connector. (See Figure 1) The CAR should always be installed where accessible for inspection and removal if necessary. To prevent potential damage and loss of operation, avoid the use of screws, rivets, or other mechanical fasteners in the specific area of duct where the CAR is installed



MAINTENANCE: In most cases the CAR requires no regular maintenance. If it is installed in an exhaust duct system without filtration, it is advisable to provide a means of access for inspection and cleaning. If cleaning is desired, remove and clean with warm soapy water, dry, and reinstall in the duct.

ADJUSTMENT OF AIRFLOWS: The CAR is provided with factory-preset airflows. If it is necessary to make adjustment to the calibrated airflow value, contact the factory for assistance.

TROUBLESHOOTING:

Problem	Cause	Solution
Airflow too low	Insufficient duct pressure	Check fan ratings. Replace fan if tooo small.
		Increase fan speed
	Excessive duct air leakage	Seal ducts with mastic or tape
	Incorrect CAR installed	Check cfm calibration on CAR label. Replace with proper CAR.
	CAR damper not functioning properly	Check CAR for damage and replace.
Airflow too high and/ or Noisy Operation	CAR too close to fan	Add manual damper to reduce pressure across CAR to normal operating range.
	Fan at too high speed	Lower fan speed.
	Incorrect CAR installed	Check cfm calibration on CAR label. Replace with proper CAR.
	CAR damper not functioning properly	Check CAR for damage and replace.

WARRANTY: American ALDES Ventilation Corporation warrants the CAR to be free from manufacturing defects, and guarantees the performance within specified limits for a period of 5 years when installed in normal environmental air systems for general residential and commercial heating, ventilating and air conditioning. This warranty does not include installation in industrial applications or caustic, noxious, or otherwise hazardous air handling equipment. This warranty is limited to replacement of the product only and does not extend to consequential claims.



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