AIRFLOW & ZONE CONTROLS

CAR-IIA

Adjustable Constant Airflow Regulators

INSTALLATION
OPERATION
MAINTENANCE

READ AND SAVE THESE INSTRUCTIONS

PRINCIPLE OF OPERATION

The CAR-IIA is a modulating orifice that automatically regulates airflows in duct systems to constant levels. The CAR-IIA can be field adjusted to the desired airflow by removing the aero-clips.

INSTALLATION

The CAR-IIA 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-IIA must be installed with the base downward.

The CAR-IIA 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-IIA must be inserted at least 0.7 times the duct diameter from the flexible duct and/or duct connector. See **Figure 1**.

The CAR-IIA should always be installed so as to be accessible for inspection and removal, if necessary. To prevent potential damage and/or loss of operation, avoid the use of screws, rivets, or other mechanical fasteners in the specific area of duct where the CAR-IIA is installed. Also protect the CAR-IIA from construction/gypsum board duct before and after installation.

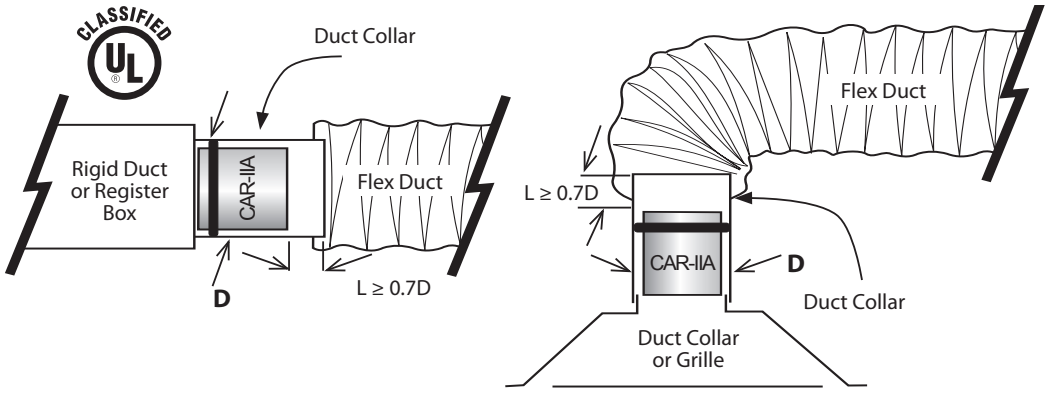
MAINTENANCE

The CAR-IIA needs no maintenance when used in normal conditions. There is no risk of dust deposit or obstruction because the CAR-IIA has no airways subject to clogging. If the intended application includes air heavily loaded with grease or dust, a fitting with an access panel or door, such as that used for flame dampers, should be provided.

ADJUSTMENT OF AIRFLOWS

All Adjustable CAR-IIs are shipped at the "0 Clips Removed" setting seen in **Table 1**. Each clip removed increases the free-area opening, allowing more air to pass through the device.

FIGURE 1



TROUBLESHOOTING

PROBLEM	CAUSE	SOLUTION
AIRFLOW TOO LOW	Insufficient duct pressure	Check fan ratings. Replace fan if too small.
		Increase fan speed
	Excessive duct air leakage	Seal ducts with mastic or tape
	Incorrect CAR-IIA installed	Remove aero-clips to reach desired CFM.
	CAR-IIA damper not functioning properly	Check CAR-IIA for damage and replace.
AIRFLOW TOO HIGH AND/OR NOISY OPERATION	CAR-IIA too close to fan	Add manual damper to reduce pressure across CAR-IIA to normal operating range.
	Fan at too high a speed	Lower fan speed.
	Incorrect CAR-IIA installed	Add aero-clips to reach desired CFM.
	CAR-IIA damper not functioning properly	Check CAR-IIA for damage and replace.

TABLE 1					
DIAMETER	PART NUMBER	REGULATED CFM			
		0 CLIPS REMOVED *	1 CLIP REMOVED	2 CLIPS REMOVED	3 CLIPS REMOVED
4"	18 110A	10	15	25	--
	18 111A	10	20	30	--
	18 115A	35	45	50	--
	18 109A	40	50	60	--
5"	18 121A	35	45	50	--
	18 124A	75	90	105	--
6"	18 131A	75	90	105	--
	18 134A	125	140	160	175
8" **	18 141A	125	140	160	175
	18145A	205	235	265	295
10"	18 151A	205	235	265	295
	18 155A	325	355	380	410

WARRANTY

American ALDES Ventilation Corporation warrants the CAR-IIA to be free from manufacturing defects and guarantees the performance within specified limits for a period of five (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.