

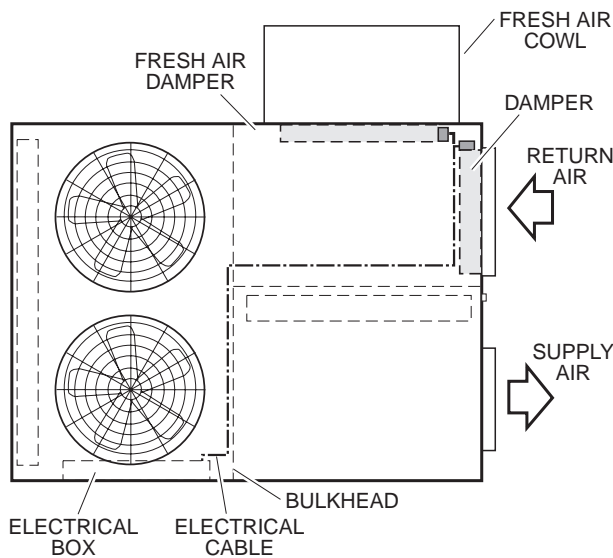
OPA 210–410

Economiser Kitset

Assembly Instructions

Fig. 1

OPA c/w Economiser



GENERAL

This Economiser kitset is designed to fit the OPA 210–410 range of packaged units.

The purpose of the Economiser is to allow the introduction of low ambient outside air into the air conditioner during the cooling cycle, thereby lowering operating costs.

The kitset does not include an electronic control system.

COMPONENTS

Each Economiser Kitset consists of the following components :

1. Return Air Damper c/w motor
2. Fresh Air Damper c/w motor
3. Fresh Air Panel c/w insulation and return air duct.
4. Economiser Fresh Air Cowl (unassembled)
 - inlet sides (x2)
 - inlet cowl
 - inlet blade
 - 14 stainless steel PK screws (34)
5. Five core electrical cable (x2)
 - 2.8 m for Fresh Air Damper motor
 - 3.0 m for Return Air Damper motor

Check that all of the above items have been supplied and that no damage has occurred in transit.

A silicon sealant (not supplied) is required to complete the Economiser Kit assembly.

ASSEMBLY

Return Air Damper

Remove the access panel from the return air side of the OPA unit to expose the return air chamber. Fit the return air damper assembly to the return air duct (refer Fig.2). Be sure to seal around the flange of the return air duct. Use the PK screws supplied to fasten.

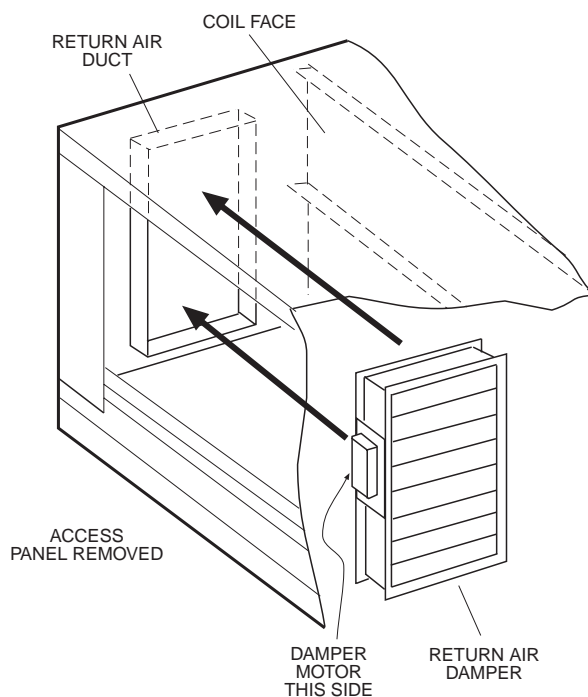
Note: Damper motor to be positioned as shown in Fig.2.

Fresh Air Cowl

Fit together cowl as shown in figure 3. Ensure all joints are properly sealed with silicon sealer. Use the PK screws supplied to fasten.

Fig. 2

Return Air Damper



Fresh Air Panel

(c/w Fresh Air Damper & Inlet Cowl)

The Fresh Air Panel replaces the OPA unit's side access panel already removed.

1. Fasten Fresh Air Damper to fresh air duct using PK screws supplied (refer figure 4).

Note: Location of damper motor.

2. Fit the Fresh Air Inlet Cowl to the reverse side of the Fresh Air Panel, leaving out the top three PK screws.
3. Ensure all joints are sealed with silicon sealant.

WIRING

Fit one end of each of the supplied 5 core electrical cables to a damper motor and trace a path back to the electrical box, as shown in figure 1.

Two holes are provided in the bulkhead wall for passing the cables through. Locate these holes from the electrical box side of the wall. Pierce the foil insulation and push the cable through these holes. At the electrical box pass the cables through the same entry hole used by the unit's existing wiring.

Complete wiring connections as follows:

WHITE – Y – 0-10 VOLTS DC

BLUE – G₀ – COMMON

BROWN – G – 24 VOLTS HOT

FINAL ASSEMBLY

When wiring of dampers is complete and all joints are properly sealed to prevent air leaks, fit the Fresh Air Panel (c/w cowl and damper) to the return air side of the unit using the original PK screws supplied. Ensure the top of the cowl is tucked under the roof panel lip of the air conditioner and secured with PK screws.

OPERATION

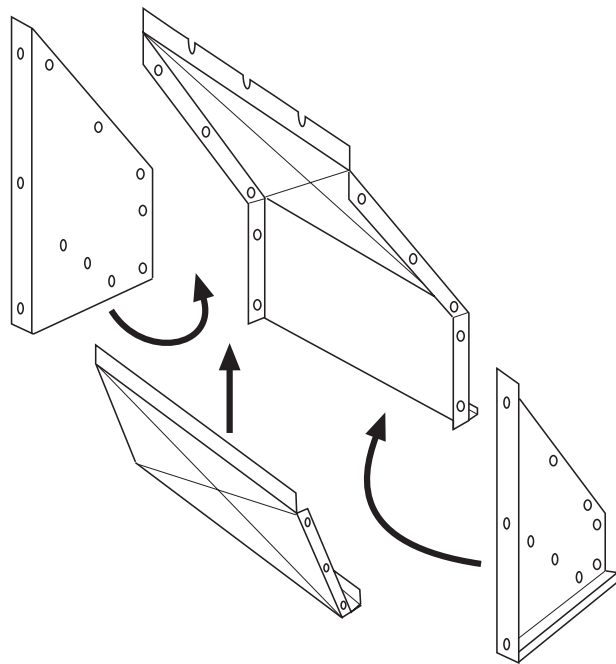
Air flow through the damper should not exceed 15% of the OPA unit's nominal air flow when the OPA unit's refrigeration system is operating.

To use amounts greater than 15% on the cooling cycle, it is mandatory to install both a HP fan speed controller and some form of frost protection for the indoor coil. Refer to **temperzone** for control details.

Note: Excessive amounts of low ambient fresh air will reduce the performance of a reverse cycle OPA unit on heating cycle.

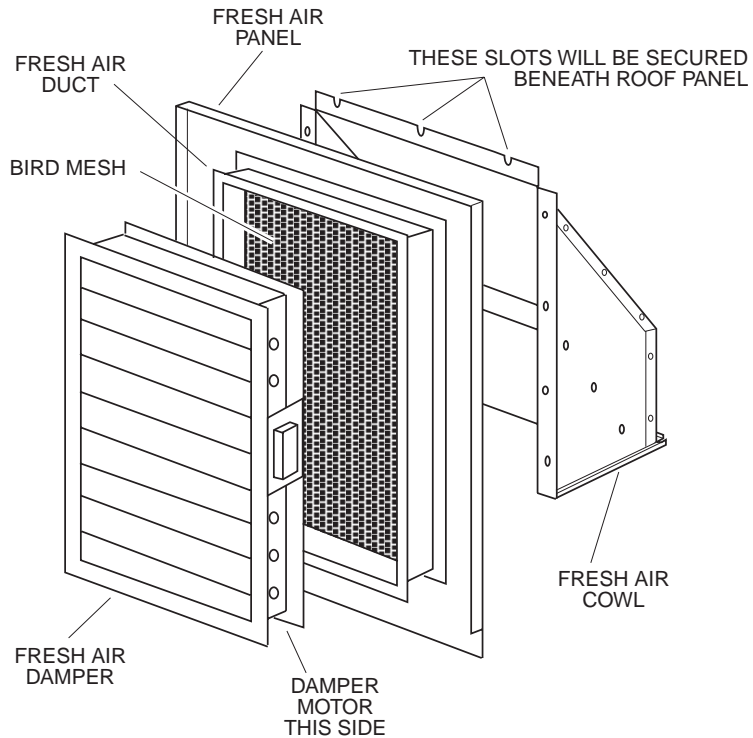
This pamphlet replaces the previous issue no. 1657 dated 04/99. OPA 380 now 410.

Fig. 3



Fresh Air Cowl

Fig. 4



Return Air Damper

NOTE

The manufacturer reserves the right to change specifications at any time without notice or obligation.