



TWITOPLAST ^L_T^{D.}

Accessories & Solutions for Air Conditioning & Construction

PLASTIC • ALUMINIUM • ELECTRONICS

OPAL V.A.T - 6

Zone controller SYSTEM

Installation
and Operating
instructions





General

This Zone Control system Type **Opal VAT-6** is designed for installation in mini central Ducting systems. The system is user friendly and saves energy (30% electricity), with the proper utilization of the flow rates of the air conditioner by closing the room is not occupied.

The system can be installed with all Ducting systems air conditioners.

The system allows monitoring and control of up to **5 rooms** (Dampers) using Round ABS dampers + Dumper **By-pass** one.

Before begin the installation - Safety Instructions

- Read these instructions before you get approached to install the system.
- Electrical work must be performed by a qualified electrician.
- Always check that the power voltage matches the model you are going to install. Follow the caution signs occasionally appear in this manual. Failure to follow the precautions listed above may cause personal injury and damage the functioning of the air conditioner units.



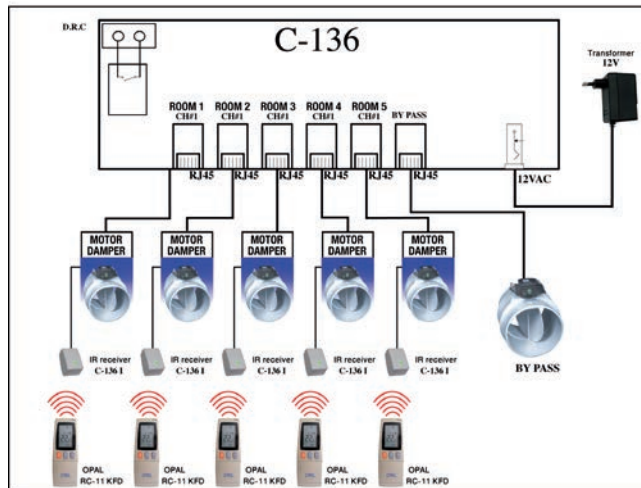
Warnings

- Make sure the air conditioner is switched off the network before starting the job.
- Work will be performed by a qualified electrician or qualified technician.
- Carefully read the instructions booklet. Unprofessional installation can cause electrical shorts and operation issues.
- Observe general installation instructions for electrical power.
- Use a power line or outlet that does not fit can cause a short circuit and breaking fires. Any questions or clarification should follow the instructions of this booklet.
- loose electrical connection may create a global and even cause a fire. Do not use a damaged power cable or composed of several sections. This may cause shorts and flare!
- Do not install this system in an environment where there is the presence or leakage of combustible gases of any kind, the presence of these gases in the system environment may cause a fire or explosion and damage to property and lives!

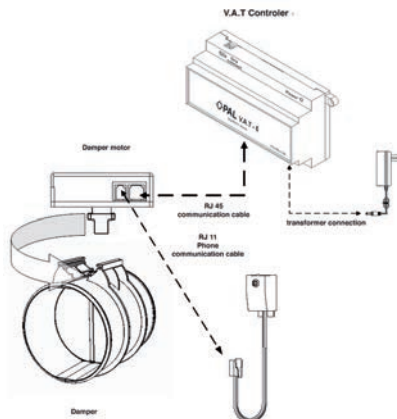
Maximum system configuration

5 channels+ By-Pass

OPAL V.A.T 6



A schematic illustration - electrical connections in ►






The system allows the connection of up to five regions (dampers) and Damper By-pass to The controller C-136, allowing flexibility and ease of installation in the field.

- All cables are supplied with the kit cable connectors includes.

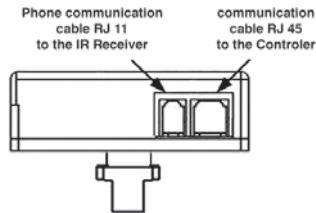
Pls. note! Prohibited in prolonging it.



Damper assembly scheme

C	B	A
 <p>Route the motor into It's place</p>	 <p>Connect the two parts of The Damper (you hear click). Make sure that the Flap moves and rotates freely.</p>	 <p>Place The flap in half Of The Damper.</p>

Motor Damper connection

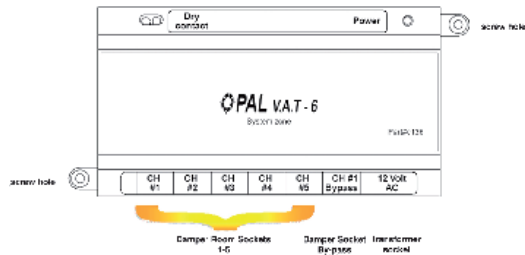


Use a transformer 12 Vac only

Install the controller

Features

- 12Vac input voltage Nominal.
- 5 ports Damper.
- 1 port Damper By-pass..
- LED indication for action.
- Protection from voltage dips network.
- fireproof plastic UL94 V0.
- Relative humidity 10% to 90% RH.
- built by UL standards / IEC.
- Dimensions 190X80X60 mm.





- A. Connect the input transformer to the controller.
- B. Connect the Motor Dumper using supplied communication cable (RJ45) To the **C-136** controller.
- C. **Note!** The dampers connecting should be in Order attached . to start the connection from **CH # 1** and continue till **CH # 5**. example, if connected to three dampers They must be connected as follows:
- D. **CH # 1** Room # 1 **CH #2** Room 2, **CH# 3** Room # 3 -.Connect the controller **C-136** to the A/C or wall using two screws of 6 mm .



- Warning! Do not extend the power cord or other cables in the system.
- Installation of the Receiver with control Led



- Considerations in choosing The Receiver location.
- The Receiver must be installed close to the ceiling, or elsewhere on request. Make sure that the Receiver will be caught in line of the remote location.
- The Receiver unit connected via cable (RJ-11)Communication to the Dumper Motor 3 M in length.

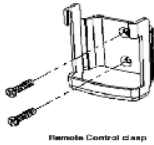
Installing of the remote

Features

- hard plastic body. • LCD digital display. • Tmp. range 15-30 degrees Celsius.
- Accuracy + / - 1 degree Celsius. • operated at a voltage of 3 V using two AAA size batteries alkaline). • Internal Temperature emotion (I Feel).
- Option to select mode manually or automatically. Location considerations
- Do not place the remote control in a direct place with the air flow from the air conditioner.
- Select a location to install the Remote, considering the client's request. preferably at a height of 1.5 meters from the floor.
- prohibited to put the remote on the external wall, in the stairs, or in the affected external temperature (solar radiation, a heating, air pocket, etc.). The remote should be installed under the receiver .
- Note: Do not store the remote in a drawer.



Remote Control



Remote Control clasp

Replace the remote clasp using two 6 mm diameter screws

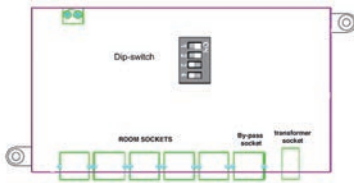
Set Damper By-Pass

When you connect to the C136 By-pass you need to set for a proper operation of the controller, the number of rooms connected to the controller C-136.

The definition is by tuning with the Dip-switch in the controller card.

Do the setting, as follows:

- remove the Top covers of the controller (by pressing the two tabs on the sides of the controller).
- the Dip-switch located in the electronic circuitry (see schema below)



- Set the Dip-switch depending on the number of rooms connected to the controller and according to the table below:

Dip Switch	Dip # 4	Dip # 3	Dip # 2	Dip # 1	No. Of Dampers
	OFF	OFF	OFF	OFF	Dampers 3
	OFF	OFF	ON	OFF	Dampers 4
	OFF	OFF	OFF	ON	Dampers 5
	OFF	OFF	ON	ON	Dampers 5



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After the Dip-switch Set ,close The top cover and plug the RJ cord to the Motor By-pass and to the input in the Controller C-136 (channel number 6)
Entry number one (CH # 1) allows to use of a high flow Damper (10 "or 12") When using a high flow Damper This channel has should be (Dip-switch) number # 3 to ON.

Also Available



OPAL R.F



OPAL RC



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