



English



AUTO AIR CONDITIONING  
PARTS & TOOLS

## ALL CLEAN



Please read this owner's manual before using the equipment



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CTR srl thanks you for purchasing a product of its range, and invites you to read this manual.

Inside you will find all the information necessary for correct use of the purchased equipment; so please carefully follow the instructions and read this manual in its entirety.

Please also keep the handbook in a suitable place to keep it intact. The content of this manual may be changed without notice and without obligation to incorporate changes and improvements into units already shipped. All the reproduction or translation of any part of this manual without written permission of the owner is not permitted. During the entire warranty period, CTR srl is responsible for any lack of production, which will eliminate in the shortest possible time.

## WARRANTY

The guarantee period is 12 months from date of purchase. The warranty claim extends only to replacement of defective parts. The warranty is not valid in the event that the equipment has been improperly used or repaired by persons not authorized or by non-conform components or techniques used on it.

## Declarations of Conformity

**"Machinery" Directive 2006/42 / EC**

**"Low Voltage" Directive 2006/95 / EC Directive**

**"Electromagnetic compatibility" 2004/108 / EC**

CTR S.R.L. Via T. and E. Manzini No. 9, 43126 Parma (Italy) in the person of its Legal Representative declares under sole responsibility that the product Model Washing System "All Clean" complies with the provisions of directives and regulations listed above .

In addition, the pressure circuit is in compliance with Directive 97/23, as amended and supplemented, and is classified:

Category I

- Maximum operating pressure: Atmospheric
- Maximum operating temperature: +50 ° C.
- Minimum operating temperature: +5 ° C.



also we state that:

- the year of manufacture is printed on the label (with CE marking) on the equipment.
- the technical construction file, as required by the Directive, is kept at our company.
- the serial number of the equipment (if present since no binding) is also indicated on the equipment.



Parma – Italy  
CTR S.R.L. the legal representative:  
Ing. Adam Aldo

Test carrying out is shown by Name plate position shown in figure with CE mark on the equipment. This shows the expected data explicitly by the Directive; will however, subject to change in appearance for commercial reasons.





 <p>CTR S.r.l. Via T. ed E. Manzini n. 9 43100 Parma</p>		 <p>Made in Italy</p>
Model <b>ALLCLEAN</b>	Voltage <b>220/230VAC – 50HZ</b>	
Serial number	Absorption (A) <b>3,2 A</b>	Power absorbed (W) <b>700W</b>
Max pressure <b>8 Bar</b>	Min. temperature <b>+5°C</b>	Max. temperature <b>+50°C</b>
Cleanser <b>6026201 -1L</b> <b>6026205 – 5L</b>	Year of manufacture	

This plate is by way of example. The complete nameplate is attached directly to the unit

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## **SYMBOLS**

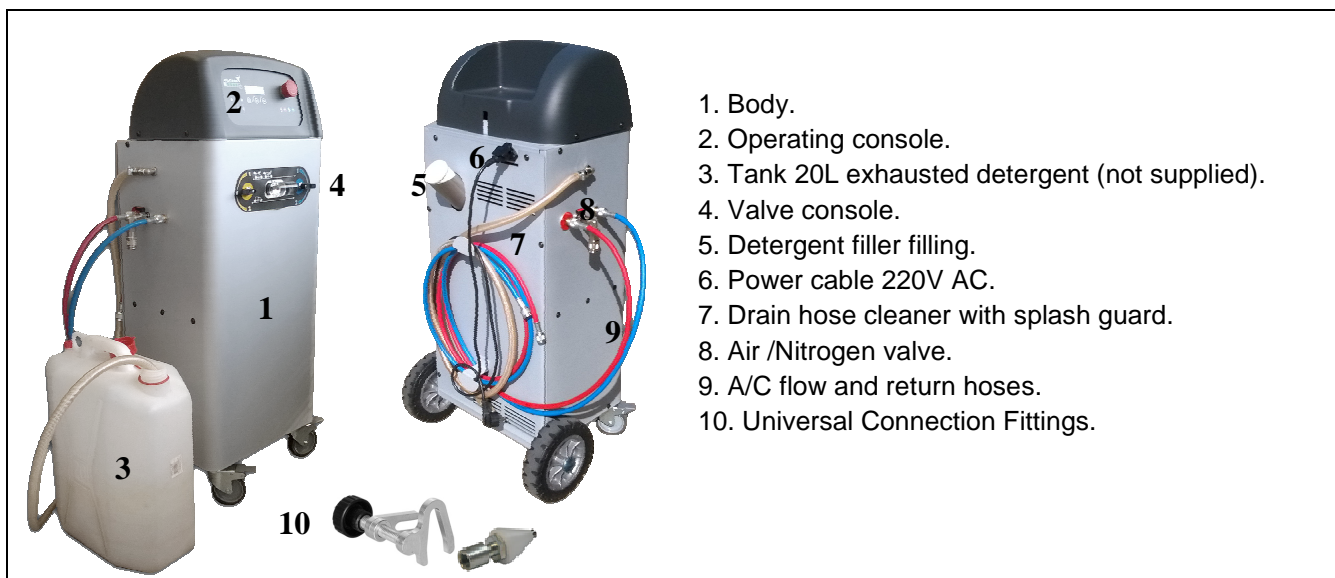
Below a short legend of the symbols used.

	DANGER: draws attention to situations or problems that can affect the safety of people to risk of injury or death.
	WARNING: draws attention to situations and problems associated with the efficiency of equipment that does not endanger the safety of persons.
	PROHIBITION: do not follow the steps as they affect the efficiency of the equipment.
	IMPORTANT: it draws attention to important information of a general nature which do not involve the personal safety or the proper functioning of equipment.

## 1. INTRODUCTION

The equipment described in this manual of use and maintenance, this system is suited to cleaning and washing the inside of the vehicle air-conditioning circuit. The machine uses a cleaning detergent to perform its function.

The equipment is composed by: mechanical, electrical, pneumatic and hydraulic components.



On request, also they can be supplied with the following accessories or on demand.



### 1.1 FUNCTIONS LIST

The equipment can perform the following functions:

- In general: **ALLCLEAN** Flushing the air conditioning system. Method open a/c circuit .
- First step is **ALLCLEAN** open circuit so dirty is thrown away means not circulate thru the filter and system.
- Second step is **ALLCLEAN** closed circuit so dirty and detergent are filtered.
- Third step is **ALLCLEAN** open circuit so the detergent is evacuated by compressed air or Nitrogen.
- Fourth step **ALLCLEAN - OPTIONAL**: Print the operating parameters

	Do not use the equipment for purposes other than those for which it was designed. In case of demolition observe the current regulations of the country where you do this (keep in mind that within the device there are fluids to be disposed of properly).
	The equipment is supplied without the detergent indicated on the CE plate. Do not use detergents not permitted and indicated by CTR.



## 2. Technical Specifications

Description	Unit of measure	
Maximum power consumption	W	700
Pump capacity	l/min	7
Working pressure	bar	5
Maximum working pressure	bar	8
Tank Capacity	L	18
Tank capacity useful	L	16
Supply voltage	V	220/240 AC
Power Frequency	Hz	50
Maximum current consumption	A	3.2
Maximum temperature of the cleaning operation	°C	40
Maximum machine operating temperature	°C	50
Minimum machine operating temperature	°C	5
Net weight	Kg	74
Dimensions (H x W x D)	cm	104X48X58
CTR Code detergent - recommended		6026201/6026205

**For the connection voltage follow the instructions given on the unit name plate.**

The acoustic pressure value determined is below 70dBA and therefore are not special arrangements for the operator even in the case of continuous use (ISO 3746).

It remains the responsibility of the employer as provided for by current regulations on hygiene and safety evaluation of the worker noise exposure level.

## 3. Safety Warnings



Please carefully read this use and maintenance manual in its entirety before using and properly become familiar with the controls.



In case of need only contact our technical assistance (in particular for repair or exchange of components).



Do not attempt to repair. These actions, carried out by unskilled personnel, might alter the safety performance of the equipment.



Do not place anything on the machine; do not use it as a shelf or as a means of transport.



Always avoid placing the connecting pipes in such a position as to constitute an obstacle or be damaged.



Always follow the current regulations on hygiene and safety. Getting and always follow the instructions given in the safety data sheet. Never leave the appliance unattended at work even in case of automated operation.



**Use detergents provided in this manual. In particular not to use flammable or hazardous detergents.**

## 3.1 Work Environment



It recommends the use of the equipment into responsible adults. Take particular care that the control device is not operated by children.



Do not approach the equipment with open flames or anything that may cause overheating (with consequent fire hazard). Do not use the stove in a location where there are risks of explosion or fire.



Do not smoke in the room where you perform the work steps.



It is recommended to use the equipment in a well-lit environments.



Always work in a well-ventilated area. Operate and maintain the equipment in a dry, protected place to atmospheric deposition (generally not in harsh environmental conditions), especially do not use in places where there is a risk of explosive or hazardous areas (ATEX).



For proper use of the equipment, this manual contains essential safety rules for the operator: Wear goggles and gloves. Protect from rain and direct sunlight. Read the car's operation and maintenance manual before using the equipment.



## 3.2 Preliminary Checks



In case of shutdown for lack of power wait a few seconds (generally about 10) before proceeding to the re-ignition, so that the electronic part can reset correctly.

The electrical / electronic equipment must be disposed of separately in accordance with current legislation.

## 3.3 Cautions

Pay particular attention to the possible cleaner spills because:



A contact with the eyes and skin can cause irritation . In the case where there is ejection of detergent towards the eyes or towards the skin and rinse thoroughly immediately contact the medical staff.



The equipment is designed to be used specifically with CTR code 6015201 detergent (Package 1 L) or 6015205 (pack of 5 L).

**The type of detergent to which the equipment is specified in the identification of the machine table.**



After switching on the device wait at least five minutes before you can perform any operation. In case of interruption of the processing cycle for any reason, (example for a power failure) it is always necessary to resume the operation from the beginning.

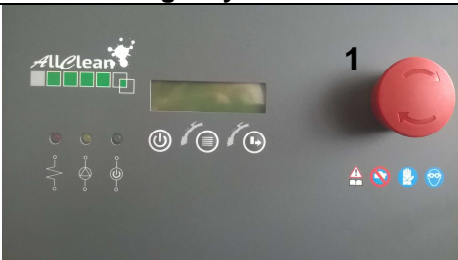

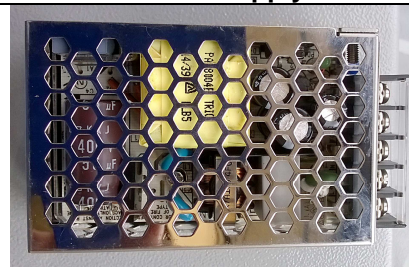


**The outer container used for the collection of the dirty cleaning agent must have a capacity of at least 20 liters. This container is not provided with the Allclean station then has to be purchased by the customer.**



The internal container of the detergent must be filled to the maximum level. in case of a surplus, it will be able to understand the level achieved through the fill tube. In the case in which the circuit of the vehicle is very large (example Buses) it is possible to perform the topping up during operation of the machine.

## Presence of voltage supply

Emergency button - 1	Electrical outlet AC	Power supply
		



The use of the machine is provided for one operator at a time. It is recommended to any other people to keep at an adequate distance during the both phases: working and the adjustment maintenance.



Always connect the supply and return hoses, (red and blue) parts supplied and do not use them for purposes other than those prescribed.



Control the level in the detergent tank during operation.



NEVER disconnect the hoses during the operation; do not operate the manual valves during normal operating phases if it is not mentioned in the instructions.

## 3.4 Power Supply

The power supply of the equipment must be carried out according to the instructions of the company CTR S.R.L. which, anyway, is not responsible for the link. The safety of the apparatus is effective only when the safety standards of the plant upstream of the machine power are respected

- To make this connection in line using the appropriate plug when the device is equipped with the possible adoption of reduction, previously checking that the line voltage corresponds to that indicated in the label provided in the back of the device.
- In case of breakage, contact exclusively with our Technical Support.



In case you need to replace the power plug, please consult our technical assistance and not be replaced until after written permission of our competent office. Otherwise the C.T.R S.R.L. It will not respond of any damage to property or persons caused it from itself.



If using an extension cord, make sure that the cable section is coordinated with its length and that the position cannot lead to damage of any kind (avoid walkable and wetlands).



**Check that the point of connection to the electric source guarantees the existence of all protections as required by current regulation (earth and differential switch).**

## 4. Handling and Transport



Before proceeding to the lift verify the degree of stability of the machine (control the degree of horizontality of the table top).



Before proceeding to the movement it is recommended to avoid damages, to dismantle the elements installed after delivery.

During this phase, it is recommended:



- Correctly place all the accessories supplied to avoid being dropped or damaged during the transport..
- To proceed at slow speed and carefully to avoid possible instability.
- Maintain a proper distance.

Please pay special attention during handling in the workplace. In particular, avoid dips, steps or others. A phase of not careful transport could result in incorrect calibration of the adjustments made.



Use the handles to proceed to the displacement.



The operator for the transportation of equipment can use the wheels on the base, pushing the machine by hand. Move only on flat surfaces.



The operator for the handling of the equipment must use all the wheels in contact with the ground while avoiding lateral raises.



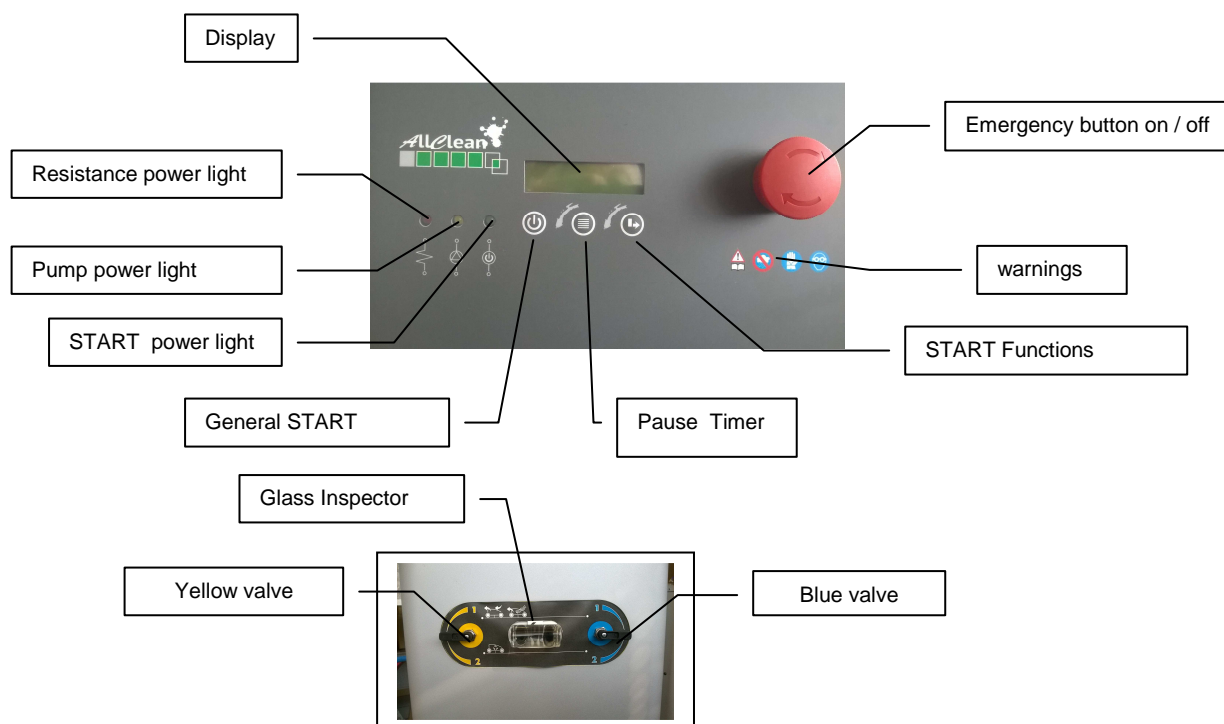
The operator, to carry out the lifting of the remote device must use an adequate lifter respect to the weight of the apparatus (indicated in the technical characteristics), using the pallet as a base.



## 5. General use instructions



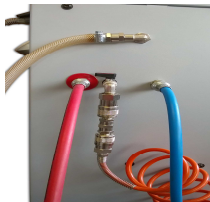

### 5.1 Description

Here are some parts of the control panel



## 5.2 Equipment Start-up

### 5.2.1 Before using the equipment, you must:

1. Fill the tank with about 10 liters of detergent. According to the system on flushing.		2. Insert the waste bottle of detergent dirt of at least 20 liters capacity	
3. Connect the hoses and the compressed air to the equipment		4. Connect the power supply and power up	



**Make sure that the compressed air distribution power supply is turned off before inserting the quick coupling. The compressed air supply must be from 4 to 8 bar.**



## 5.2.2 Flooding filter. Drain – Start-up and Maintenance

This is required only at the first start of the machine and always is provided that you do filter maintenance .

- Put the valves in the positions: **YELLOW position 2 and BLUE position 0.**
- Press **START / Functions.**
- **Slowly turn the BLUE valve gradually bringing it to position 1 (1 or 2 second) , so by monitoring the flow.** Observe that there are no more air bubbles in the **GLASS INSPECTOR (this should take a few seconds. Almost 8/10 second).**
- Press **START Functions**
- Rotate the **Yellow valve in position 0 and BLUE valve in position 0.**
- **Turn off the machine with the Emergency button.**

## 5.3 OPERATING EQUIPMENT

Before using the equipment, you must:



NEVER the operator can use flammable liquids or detergents for cleaning the equipment.

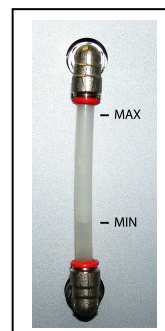


Always wait a few minutes after power off to allow the system to return at resting conditions (temperature and pressure).

- Make sure that the emergency button is not pressed, if not, unlock it by turning the dial.
- **Press the START button: at this point will turn on the staying power light up when reaching the prescribed temperature (about 40 °C), with relative lamp turn s off.**
- **To heat 16 liters of cleaning takes about 30 minutes.**
- Connect the flow and return hoses / red and blue to the vehicle.
- Before each use, check that the DETERGENT level is above the minimum



Do not proceed to the next step if you have not checked for proper connection of the hoses. **In the air conditioning system of the vehicle must be by passed or disassembled: the filter, the expansion valve and the compressor. It must also be by passed or disassembled the condenser in case it is present integrated filter - cartridge.**



### 5.3.1 A/C System Flooding

Place the front valves of the machine at the following positions:

- **YELLOW valve in position 1 and BLUE valve in position 1.**
- Press the **"START functions"** button: at this point will turn on the pump (and its lamp) and the affected section will be flooded. The complete flooding will be confirmed when the **GLASS INSPECTOR** will be completely full and the cleaner will be poured into the waste bottle. Check the **GLASS INSPECTOR** and wait until the liquid that passes through it will appear lightened highlighting that most of the dirt has been removed.
- Press **START functions** to turn off the pump.
- Put the **YELLOW valve to the position 0 and BLUE valves to the position 0.**

### 5.3.2 Flushing the a/c system thru the recycling

- Check that the detergent level is above to the minimum level.
- Place the **YELLOW valve to the position 2 and the and BLUE valve to the positions 2.**
- Press **START/STOP** : will starts the pump and will turn on the respective power light.
- The machine will stay on for 16 minutes by recirculating the detergent, then will turn off automatically.
- If present the printer automatically prints the report occurred washing.
- In the case in which the vehicle system is particularly large (example Buses) and the liquid present in the inner tank is not enough in term of quantity, it is possible to top up, during the operation. To do the topping use the **PAUSE** button to stop the pump, top up and start pressing the **START functions** button.

## 5.3.3 Draining the a/c system

- Place the **YELLOW** valve in the **position 1** and **BLUE** valve in the **position 1**.
- Connect the compressed air quick connector to the machine.
- Open the compressed air valve – slowly and progressive to avoid the counterstrokes.
- Allow the air in the circuit making sure that the **Glass inspector** is completely empty.
- Close the air valve and disconnect the quick coupling.
- Disconnect the hoses from the vehicle

## 6. Maintenance





During maintenance operations do not dispose residues in the environment, but follow to the provisions of current regulations.



Only perform the maintenance and repair operations described in sections of this manual. Please remember that interventions carried out by non-experts can alter the overall safety of the equipment and expose the operator to serious risks.

## 6.1 Filter cleaning

<p>1. The filter cleaning should be performed periodically and is subject to the amount of dirt that passes through it. Not exceed 30 washes.</p>		<p>2. Ensure that the valves are in the position <b>YELLOW</b> and <b>BLUE</b> positions <b>0</b>.</p>	
<p>3. Remove the filter from its seat.</p> <p>4. Remove the top and bottom screw to empty .</p> <p>5. Unscrew the second screw in the head to remove the bottom of the filter.</p>		<p>6. Clean with compressed air or replace the cartridge if necessary.</p>	



After cleaning filter mounting: proceed in reverse order and run to the 5.2.3 phase filter flooding.

## 7. Spare Parts




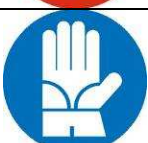
For the ALL CLEAN replacement parts, contact the sales network and CTR assistance. Use only original spare parts

CTR	DESCRIPTION	QTY
2106	PLUG 220 VOLT DC FUSE	1
2107	FUSE	2
2148	POWER SUPPLY CABLE	1
3046	HOSE BLUE F / F 3/08 L 2.5 MT	1
3047	HOSE RED F / F 3/08 L 2.5 MT	1
4043	PUMP 400L / H	1
4044	ENGINE 1/4 HP 180W 220V	1
4046	FILTER ALUMINIUM G.1 "	1
4059	VALVE 3 WAYS FEMALE 3/8 "	2
4075	HOSE EXHAUST CIRCUIT OPEN	1
4076	UNIVERSAL CONNECTOR	2
4077	CONE TEFLON	2

CTR	DESCRIPTION	QTY
4820	MAXIMUM TEMPERATURE SENSOR	1
4264	REAR WHEELS 200 MM	2
4383	EMERGENCY SWITCH	1
4550	TURNING FRONT WHEEL /BRAKE	2
4688	POWER 15W	1
4747	DECAL DASHBOARD	1
4748	DECAL VALVES	1
4751	ELECTRONIC CARD	1
4802	GLASS INSPECTOR	1
4817	TANK CAP	1
4822	RESISTANCE FLAT W500	1
4545/GS	BODY HEAD DARK GREY	1
4305-4	PRINTER	1

## 8. Tags and symbols

The following chart explains the meaning of the adhesive labels used:

	It indicates that there are high-voltage parts with risk of electric shock
	Wear safety glasses. Contact with the eyes can cause serious injury.
	Use and store the equipment in a dry place and protected against the elements.
	Wear protective gloves; contact with the skin (given the extremely low boiling temperature) may cause cold burns

## **9. Trouble & shooting**



To perform the repair, maintenance and adjustment operations that are not described in the previous chapters, contact skilled staff. Failure to follow these instructions cause malfunctions to the unit that CTR will not be responsible.



The following table shows the operator who have to perform the operation. Follow the instructions carefully.

After solving the problem by following the instructions, the steps that were running on the machine should be repeated as they were not completed..

<b>Trouble</b>	<b>Reason</b>	<b>Accion</b>	<b>Operator</b>
The equipment does not turn on.	1) Repeat ON OFF. 2) outdoor unit Blown fuse.	1) Turn off the machine and wait at least 10 seconds before restarting. 2) Replace with fuses of type T	1) Technician. 2) Technician.
The pump doesn't start and the acoustic signal is active\	1) Not enough detergent	1) Add detergent in enough quantity to flooding the a/c working section	1) Technician.