

3. INSTALLATION

3.1. CHOOSING THE ROOM

The machine must be installed in a manned room, complying with the requirements in chapter 1.

DO NOT INSTALL THE MACHINE OUTDOORS OR ANYWHERE EXPOSED TO WEATHER.

THE EQUIPMENT IS NOT SUITABLE FOR INSTALLATION IN AREAS WHERE WATER SPRAY COULD BE USED.

ONLY INSTALL ON SMOOTH, FLAT AND STEADY FLOOR, ABLE TO SUSTAIN THE MACHINE FULL-LOAD WEIGHT.

THE MACHINE MUST BE POSITIONED ON A HORIZONTAL SURFACE (FLOORING WITH A GRADE BELOW 2%)

INSTALLATION ON INTERMEDIATE FLOOR IS ALLOWED ONLY IF THE REQUIRED LOAD BEARING CAPACITY IS VERIFIED (>1000KG/SQ.M).

INSTALL THE MACHINE AT 5-10 CM FROM THE WALLS, AND ENSURE THAT THE ROOM EASILY ALLOWS YOU TO EASILY OPEN THE SERVICE COMPARTMENTS AND THAT THE CIRCUIT BREAKER CAN BE EASILY ACCESSED.

3.2. PRODUCT LABEL AND ELECTRICAL CONNECTION

Make sure that the system meets the electrical requirements specified on the machine nameplate, then connect the power cable to the socket.

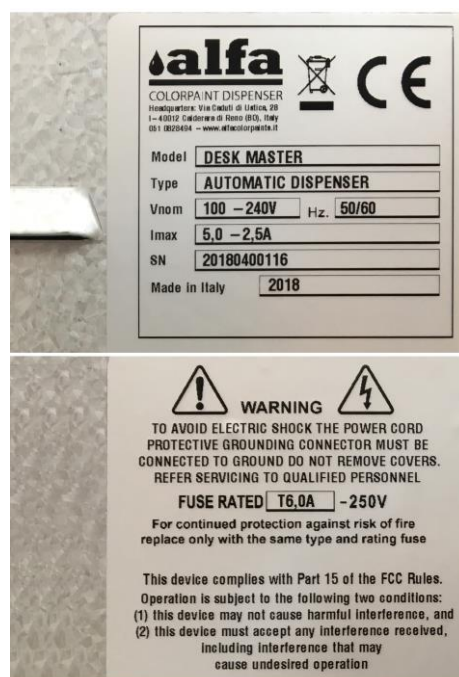
- Model: machine model
- Type: machine type
- Vnom: power supply voltage
- Hz: mains frequency
- Imax: absorbed current*
- SN: serial number
- Made in Italy: year of manufacture
- Fuse Rate: fuse value

The machine is equipped with a detachable power cable for connection to the mains.

Connect the machine to the mains using exclusively the cable supplied.

Always make sure that the voltage output from the mains is compatible with the nameplate specifications.

* maximum absorbed current in case of use of Desk at full load and of AUX sockets (see chap. 1 – ELECTRICAL CONTROL PANEL) with load of 200W.



USE ONLY LISTED DETACHABLE POWER SUPPLY CABLES NOT EXCEEDING 4.6 M. LENGTH, TYPE SVT OR SJT, 3X18 AWG 10 A, WITH GROUND CABLE.

To ensure the correct machine operation and the highest safety level, it is essential that the machine is connected to ground. Make sure that the system is connected to a power supply with an efficient ground.

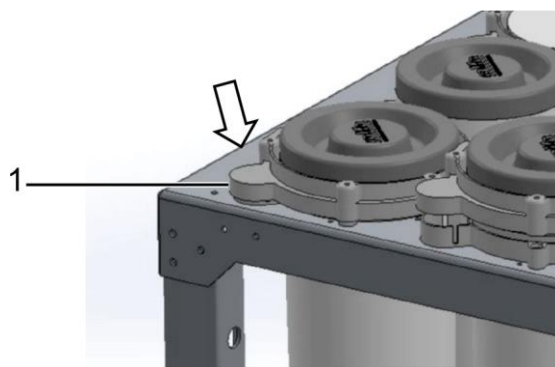


WARNING: ONLY CONNECT THE MACHINE TO ELECTRIC SYSTEMS PROVIDED WITH GROUND CIRCUIT CONNECTION COMPLIANT WITH THE NATIONAL STANDARDS.

3.3. COMMISSIONING - INSTALLATION

3.3.1. REMOVING THE MECHANICAL RETAINERS

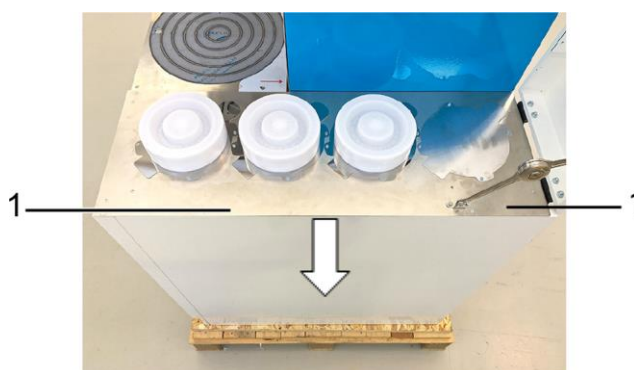
- Some versions can feature mechanical retainers on the canisters (1) that must be removed before the use.



3.3.2. MACHINE STABILIZATION

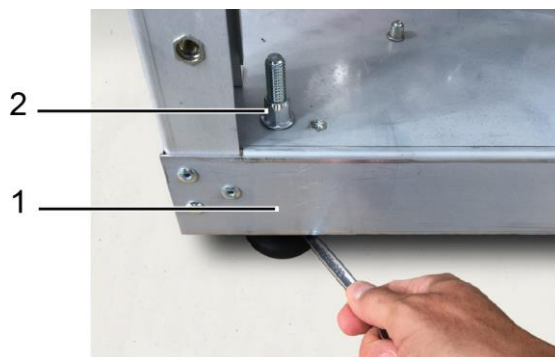
Once the machine is in the correct position, it must be stabilized on the adjustable supporting feet as follows:

- Loosen the two screws (1) with a 2.5mm Allen wrench.
- Remove the panel by overturning it in the direction indicated by the arrow and releasing it from the retainers in the lower side of the structure.
- Repeat the operations described above to remove the panel on the opposite side of the machine and reach the 4 adjustable feet.



For each of the 4 feet:

- Work on the recess located at the base of the screw (1) with a 10mm wrench to lower the foot until the underlying wheel is completely lifted. As an alternative, tighten an M12 nut fully home on the insert (2) and work on it to lift or lower the foot using a 19mm wrench.
- Use a spirit level to correct the height of the 4 feet until obtaining a good alignment.
- Use an M12 nut to lock the foot;

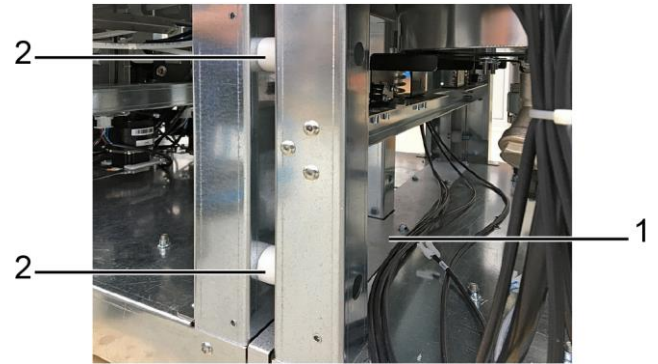


If there is a Master Module to be coupled with a Desk Tinting, or a colorant module to be added to a Master Module Head, proceed as follows.

3.3.3. MECHANICAL CONNECTION OF MASTER (OR COLORANT) MODULE OPTIONAL MODULE

Connect the optional module structure to the Desk module structure as follows:

- Join the bases using the junction plate (1) with FLANGED TE screws M8x20;
- Join the columns with 4 spacers (2 per cylinder (2) tightening 4 TCEI screws M10x60, 8 WASHERS \varnothing 10 \varnothing 20, into the relevant M10 inserts.



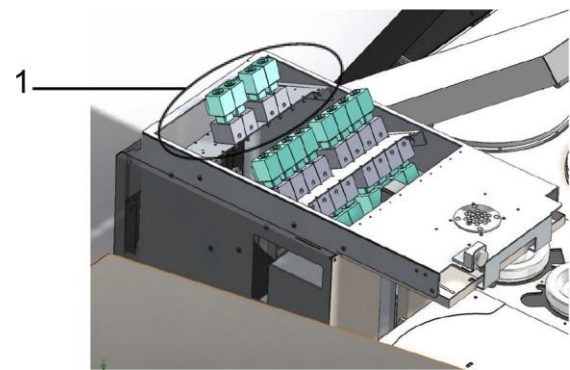
3.3.4. OPTIONAL MODULE CIRCUIT CONNECTION

Each circuit of the optional module is provided with a delivery pipe (identified by an "M") and a recirculation pipe (identified by an "R").

- Remove the sheet cover from the head.
- Find the electrovalves of the free circuits.

Master circuit valves are positioned in second line on the head (1) or on the lower fixing plate.

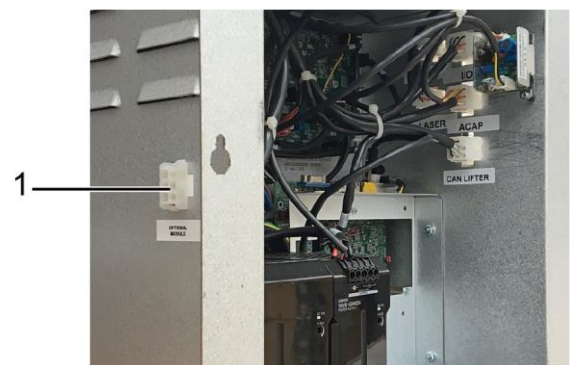
- Route the delivery and recirculation pipes inside the machine and connect them to the relevant electrovalves.



For further details, refer to the technical manual.

3.3.5. ELECTRICAL CONNECTIONS

The RS485 wiring of the circuits of the optional module ends with a free connector ("MACHINE CONNECTION" label) that must be connected to the relevant connector on the electric box (1) ("OPTIONAL MODULE" label).



For operator safety, it is recommended to refit all the panels previously removed before accessing the machine.

3.3.6. CONTROL PC INSTALLATION

Remove the rear panel of the dispensing head to access the electrical part and a compartment where a control PC can be housed, to be left on board the machine (note: the PC is not supplied with the machine).

As an alternative, it is advisable to position the PC over the dispensing head. Connect the PC to an electrical outlet with voltage suitable to the electrical characteristics.

Then connect the PC Ethernet plug to the machine Ethernet socket (or to LTE modem, if any) using the cable supplied with the machine. For the first setup of the machine or to retrieve the DHCP IP address assigned by the network to a machine connected to the LAN, it is necessary to connect to the "0.100" port of the machine.

If an LTE modem router is used, refer to the next paragraph.

Connect the accessories required, such as monitor, mouse, keyboard, and printer if necessary.

DISCLAIMER

Alfa machines are set for local network communication with third party devices and for access to services via internet (alfa-cloud, alfa-service in VPN, etc.) using Ethernet or wireless interfaces.

These systems are NOT designed to be directly used online, as they do not ensure the necessary cyber security protection.

Direct exposure of network interfaces to the internet network without a firewall or similar protection system poses a cyber security risk, that must be avoided with a suitable configuration at the time of installation and for which Alfa srl is not responsible.



3.3.7. LTE ROUTER MODEM INSTALLATION (OPTIONAL)

LTE modems supplied by Alfa are always configured to provide router-machine communication at the address 192.168.0.100.

In case the router is used, it will be necessary to start VPN connection by using the specially provided certificate and to connect to the router IP by setting the last digits of the IP address to 100 (see technical manual for more detailed information).

Different LTE Routers may be supplied, depending of the destination market of the machine.

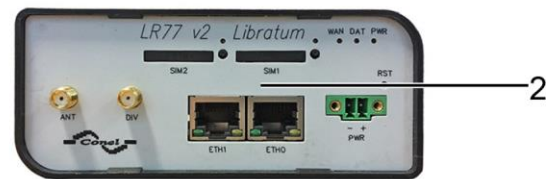
With reference to the figure on the side, the upper model (1) is suitable for North American markets (Mexico, USA, Canada), whereas the lower model (2) can be used elsewhere in the world. Further models can be used in specific areas where special type-approval requirements are necessary (e.g. Australia).

- Connect the machine Ethernet 0.100 plug to one of the two Router Ethernet sockets and the PC Ethernet plug to the other Router Ethernet socket;
 - Connect the power cable present inside the router box between modem PWR connector and 24Vdc socket available in the internal power supply unit. As an alternative, it is possible to use the power supply unit included in the package, to be directly connected to an external mains socket.
 - Screw the antenna supplied (3) to ANT threaded connector;
 - Insert a data SIM into SIM1 slot, taking care to previously check that no PIN is enabled (before inserting the SIM into the router, insert the SIM into a telephone and disable the PIN if necessary).
- NOTE: In some types of modem, SIM1 slot can be located in the rear part of the modem.

Check that the accessory kit includes:

- Modem
- Network cable
- No. 2 antennae

If necessary the antenna equipped with cable and magnet can be used.



3.4. SWITCH-ON AND INITIALISATION

Connect a PC to the machine Ethernet “0.100” socket using the supplied Ethernet cable, then proceed as described.

- Update the PC network configuration so that the IP address is within the same subnet as that of the machine (see the adjacent example).
- The machine default IP address is 192.168.0.100.
- For more information on how to modify your PC's IP address, contact your IT administrator.
- Turn on the machine by turning the on switch to its “I” position.

MACHINE:

IP: 192.168.0.100
NETMASK: 255.255.255.0

PC:

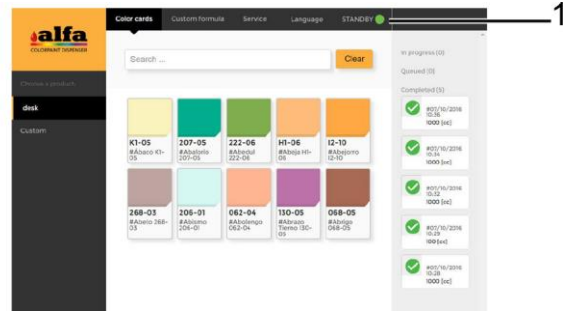
IP: 192.168.0.XXX
NETMASK: 255.255.255.0

xxx = free subnet address



- Open the Alfa TINT control interface on the Internet browser (preferably Chrome or Mozilla Firefox) and enter the address indicated in the figure.
- When the interface displays the window shown in the figure, the machine is ready to be commissioned and used.
- If the window is not displayed, check the Ethernet connection.

On top right you can always see the machine (1) status. Upon switch-on, the machine is in ALERT status (red status indicator). To use the machine it is necessary to perform a RESET. When the operation is completed, check that the STAND-BY status is displayed.



If the machine shows alarm or error warnings, check type of alarm and take the required steps to restore proper operation (see Chapter 8 - Trouble Shooting).

If machine does not switch on, check that power voltage is correct and fuse is not blown. For further details on malfunction issues, please refer to Chapter 8 "Trouble Shooting".

WARNING: if you are unable to communicate with the machine via the web browser, turn off the machine and contact the manufacturer's technical support service.

3.5. SWITCH-OFF

In order to switch off the machine, turn the main switch to its “O” position and disconnect the power cable from the socket.

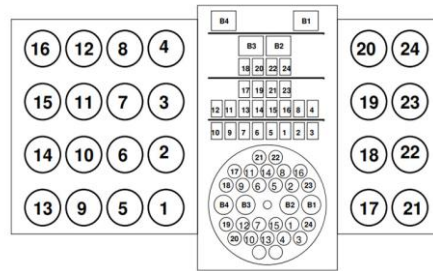
WARNING: in order to disconnect the machine, the operator must not rely exclusively upon the power switch, but must also unplug the machine power cable.

NOTE: The Desk is provided with an integrated board whose aim, among other things, is to maintain the internal 12V power supply for the time required to safely shut down the Linux board (approx. 60 seconds). Any voltage interruptions or dips with a shorter duration do not cause machine switching off by the PC.

3.6. COMMISSIONING - PREPARATION

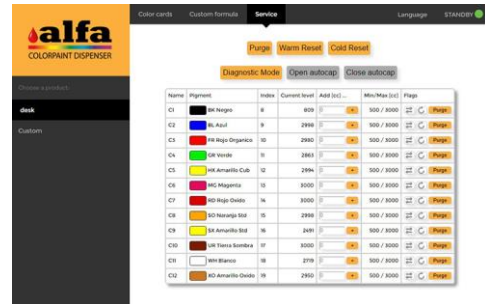
3.6.1. DYE CANISTER LOADING

Each colorant group is matched to a hardware address. By convention, colorant order is as shown in figure below. The canisters are always marked with labels from C1 to Cn, according to the actual number of present circuits.



The position-colorant association can be viewed by accessing the special software section.

Such associations can be modified by qualified TECHNICAL personnel. For further information, refer to the Software manual.



Upon first installation, the technician must set the proper tinting system and fill the tanks according to the proper sequence.

To load the products refer to chapter 5.

WARNING: Do not overfill the tanks.

Then, trigger the circuits and leave them in recirculation mode for the time needed (see chapter 3 - RECIRCULATION).

The tinting system loaded on the machine can be changed, as well as the colorant software indexing. These operations are reserved to authorised technical staff.

To see or change the positions associated with each colorant, please refer to machine configuration (ref. "Software manual").



3.6.2. SEMI-FINISHED PRODUCT LOADING (DESK MASTER VERSION)

The semi-finished products must be loaded in the Master Module tanks. Fill as follows:

- Open the upper door of the Master Module (1).
- Remove the covers (2) and fill the tanks with the product indicated by the software.

The Master Module can have different configurations; the circuit numbers are indicated on the circuits.

WARNING: Do not overfill the tanks.
Refer to chapter 5 – COLORANT AND SEMI-FINISHED PRODUCT TANKS TOP-UP for the correct filling modes.



3.6.3. HUMIDIFIER

The humidifier unit, if any, is used to produce vapour inside the autocap in order to keep nozzles moistened. It works both with closed and open autocap, preventing or reducing product drying on nozzle terminal parts.

The system is composed of a distilled water tank that must be periodically filled, a pump and a vaporiser.

Safety function

A level sensor allows detecting when the tank is empty and allows the machine to disable moisturising function until the liquid level is restored. At software level no alarms or errors are shown.

Operation intervals

The machine periodically activates the humidifier according to factory preset and programmed timings, as shown in the table below.

Time in seconds	Closed autocap	Open autocap
Vapour dispensing	1	2
Repetition interval	1200	30

Intervals are parametrised and can be changed by authorised operators (see technical manual and/or software manual).

When switching on the machine, perform the autocap moisturising as described in chapter 6 – AUTOCAP CLEANING AND MOISTURISING.

3.6.4. SEMI-FINISHED PRODUCT CIRCUIT OPENING

Under the tanks there are the relevant pumping units provided with shut-off valves (1). Upon commissioning and before testing the circuits, check that the valves are open.

