

PRESSDRIVE

PRESSDRIVE 05

EN Instruction manual *(translation)*

We declare, under our responsibility, that the products in this manual comply with the following directives and standards:

- Directive 2011/65/UE (Restriction of hazardous substances): Standard EN 50581.
- Directive EMC 2014/30/EU (Electromagnetic compatibility): Standard EN 61000-6-1 y EN 61000-6-3.
- Directive 2014/35/EU (Low voltage): Standard IEC 61010-1.

UKCA CERTIFICATE OF CONFORMITY

EVIDENCE OF CONFORMITY

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Banyoles, January 18th 2022



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Damage prevention and safety instructions (See figure 8)

A	Warning! Observe limitations of use.	I	This apparatus may be used by children 8 years or older and persons with reduced physical, sensory or mental capacities, or lacking experience and knowledge, if they are supervised or receive adequate training on the safe use of the apparatus and understand the dangers. Children should not be allowed to play with the equipment. Children should not perform the ordinary cleaning and maintenance tasks without supervision.
B	The name plate voltage must be the same as the mains voltage.		
C	Connect the unit to the mains via an omnipolar switch with at least a 3 mm opening between contacts. The terminals of the equipment not provided with a Schuko base must be connected inside connection boxes designed for this purpose.		
D	Install a high-sensitivity differential switch (0.03A) as extra protection against lethal electric shocks associated with a 15 A omnipolar circuit breaker.		
E	Connect the unit to the ground.		
F	Use unit only within performance limits indicated on the name plate.	J	Caution! Look out for accidental leaks. Do not expose pump to bad weather.
G	Remember to prime pump.	K	Cut out power supply before servicing pump.
H	Be careful with hazardous liquids and environments	L	Caution! Avoid icing.

Contents

Safety precautions8

1. General information8

2. Handling9

3. Installation9

 3.1. Fixing.....9

 3.2. Discharge pipe assembly9

 3.3. Electrical connection9

 3.4. Pre-start checks9

4. Starting9

 4.1. Starting up the group.....9

 4.2. Lack of water fault and retries.....9

 4.3. Minimum flow9

 4.4. Adjusting the start-up pressure9

5. Maintenance.....10



6. Possible faults, causes and solutions.....10




7. Technical data10

8. Wiring diagrams.....32

9. Illustrations.....32

Safety precautions

This symbol   together with one of the following words "Danger" or "Warning" indicates the risk level deriving from failure to observe the prescribed safety precautions:

-  **DANGER** Warns that failure to observe the pre cautions involves a risk of electric shock
-  **DANGER** Warns that failure to observe the pre cautions involves a risk of damage to persons and/or things.
-  **WARNING** Warns that failure to observe the pre cautions involves the risk of damaging the pump and/or the facility



According to IEC 60730-2-6, this is a unit of independent assembly, type 1B, for flood proof installation in clean or slightly contaminated environments. Pollution degree 2.


Pulse rating voltage 2500 V.


Overvoltage category: CAT II.

1. GENERAL INFORMATION

These instructions are designed to ensure the correct installation and best use of our automatic constant water pressure assemblies.

 Read these instructions before installing the unit.
 Save them for future reference.

 Correct pump operation is assured providing the instructions on electrical connection, installation and use are strictly adhered to.

 Failure to adhere to the instructions can result in premature failure of the pump and voiding of the warranty.

PRESSDRIVE is completely silent and are designed to provide an automatic supply of clean water to one or two dwellings.

It is a compact kit comprising a check valve, electronic circuit and reset button.

It is designed to maintain constant pressure. It does not permit the pump to operate without water and avoids water hammering. It requires no preloading of air or adjustment. It has a water reserve to prevent the unit from being started by a dripping tap.

If water consumption is more than 1 l/min the pump will operate continuously.

When the pump reaches maximum pressure the unit automatically switches the pump off. Unit selection must take into account the fact that the differential must be over 0.7 bars.

2. HANDLING

The unit is supplied suitably packaged to prevent damage in transit. Before unpacking, check that the packaging has not been damaged or deformed,



Lift and handle the product with care and with the right tools.

3. INSTALLATION

These units are designed for indoor use.

3.1. Fitting the Kit

Fit the kit directly at the discharge of the pump, or in line with the discharge pipes, using the connector supplied, as shown in Figures 1 and 2. Ensure that the connectors are watertight (e.g. by using Teflon tape).



NOTE: The kit must remain in the vertical position at all times, with the suction mouth at the bottom and the discharge mouth at the top. The pressure gauge will be fitted in the normal reading position

The assembly should be protected from the risk of flooding and installed in a sheltered place but well ventilated place.

If the pump to which the Kit is fitted is directly connected to the mains supply, it must be remembered that the incoming pressure must be added to that provided by the pump. Total pressure may never exceed 10 bars.

It can be fitted to any installation that has sufficient feed flow.

See installation diagrams.

3.2. Discharge pipe assembly

The discharge pipework diameter should be equal to or larger than that of the pump discharge. It should not rest against the pressure unit and should be checked for water-tightness.

We recommend the use of a flexible anti-vibration hose on the discharge, as direct connection to rigid pipework could cause damage to the PRESSDRIVE (Fig. 2).

No check valve needs to be installed.

3.3. Electrical connection



The electrical installation must have a multiple isolator with minimum 3 mm contact openings. The protection of the system will be based on a differential switch ($\Delta I_n = 30 \text{ mA}$)

The electrical connection cables must correspond, at least, to type H05 RN-F, (according to 60245 IEC 57), with sections between 1 and 1.5 mm².

The connection and its dimensioning must be performed by a qualified installer according to the needs of the facility and following the regulations in force in each country.



Nominal pump current should be no higher than 12A and the maximum motor power (P1) should never exceed 2.5 Kw.

The disconnection devices will be installed in the vicinity of the unit, in a visible and accessible place, whose access is not hindered by the equipment itself.

Follow instructions given on fig.3 and 4 for correct electrical connection.

The manufacturer declines any responsibility for damage caused by wrong connections.

3.4. Pre-start checks



Ensure the voltage and frequency of the supply corresponds to the values indicated on the electrical data label.

Ensure that the pump shaft is rotating freely.

Fill the pump body with water through the self priming plug opening. If a foot valve has been installed, also fill the suction pipe.

Check all joints and connections for leaks.

THIS PUMP MUST NEVER BE DRY RUN.

4. STARTING

4.1 Starting up the group

Leave a water spout open to purge the air from the installation.

Connect the water supply cut-off. The group starts running for 10". The green LINE indicator flashes quickly.

When the time is up:

- If the group supplies water as normal, the motor continues operating and the green LINE indicator is continuously lit.
- If the pump has not been primed, after 10" an error is caused due to lack of water. The red FAULT indicator flashes and the motor stops. To prime the pump press the RESET key.

At the end of this operation close the spout and the group will stop after 10". The green LINE indicator flashes slowly. It is in "standby" mode.

4.2 Lack of water fault and retries

If the PRESSDRIVE detects the pump is working without water it stops the motor. The red FAULT indicator flashes. The PRESSDRIVE will attempt to start up again after 1', 5', 15' and 1 hour (Fig. 7). If the retries fail the PRESSDRIVE will enter permanent fault mode. The red FAULT indicator remains lit.

To interrupt the retry cycle or to restart from permanent fault mode, press the RESET key.

4.3 Minimum flow

When the flow supplied by the group is less than 1 l/m, the green LINE indicator flashes very quickly. After 10" the normal motor stop occurs. The group changes to "standby".

4.4 Adjusting the start-up pressure

The start-up pressure is adjusted using the screw located on top of the Kit (Fig. 5).

Switch on a tap in the installation and read the pressure shown on the pressure gauge at the moment of starting.

Turn the adjusting screw in the desired direction. The start-up pressure should normally be set 0.2 bar (3 psi) over the static pressure of the installation above the kit.

5. MAINTENANCE

Our PRESSDRIVE require no specific maintenance. Clean the unit with a damp cloth without using harsh products.



If the unit is not to be operated for a long period it is recommended to remove it from the installation, drain down and store in a dry, well ventilated place.

ATTENTION: In the event of faults or damage occurring to the pump, repairs should only be carried out by an authorised service agent.

The Official Technical Services list is in www.espa.com.

When the unit is eventually disposed of, please note that it contains no toxic or polluting material. All main components are material identified to allow selective disposal

6. POSSIBLE FAULTS, CAUSES AND SOLUTIONS

- 1) The assembly does not shut down.
- 2) The motor operates but provides no flow.
- 3) The pressure is not sufficient.
- 4) The assembly is constantly stopping and starting.
- 5) The assembly does not start.

1	2	3	4	5	POSSIBLE PROBLEM	SOLUTIONS
	X				Closed gate valve	Open valve
X			X		Tap or cistern leak	Repair leak
				X	No water	Wait till water level recovered and press red button
				X	Pump blocked	Call service engineer
		X			Total head height	Chk. geometric ht. plus loss of head
X	X	X			Air entering suction channel	Carefully seal all joints and connectors
				X	No power	Check fuses
X		X			Leak in discharge pipework	repair leak
				X	The static head is greater than the assembly start pressure	Chk. start-up setting is correct

7. TECNICAL CHARACTERISTICS

Liquid temperature:.....4°C - 60°C
 Ambient temperature:0°C - 40°C
 Storage temperature:..... -10°C - 50°C
 Ambient relative humidity, max.:.....95%
 Maximum altitude1500 m.
 Start up pressure:.....1.5 - 2.5 bar.

Fig.1

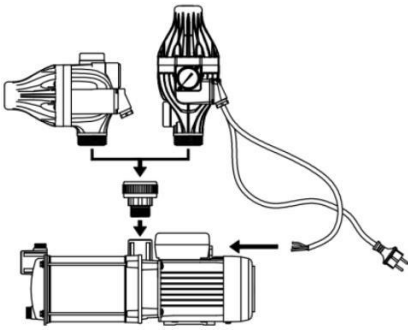


Fig.2

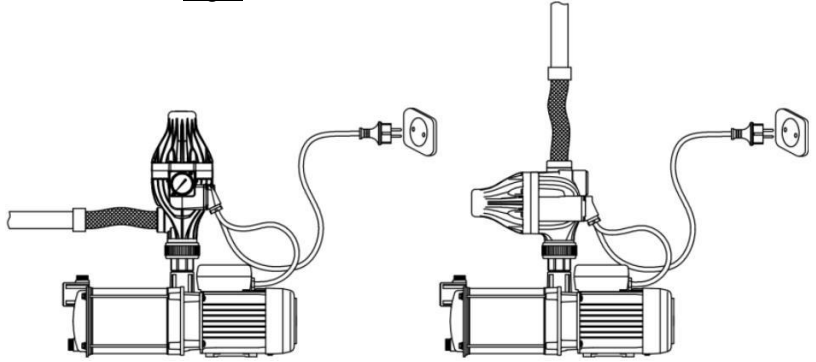


Fig.3

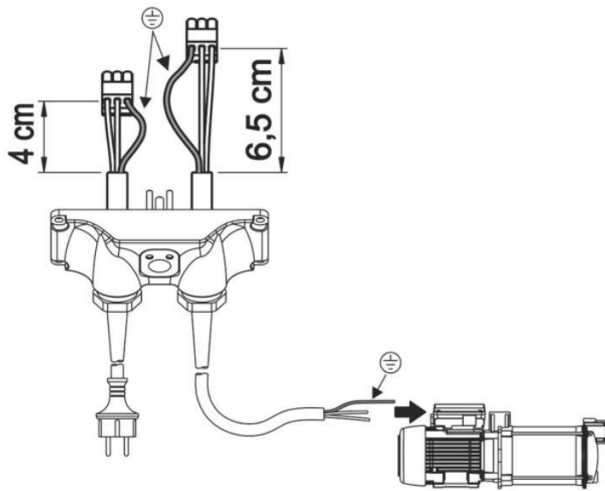


Fig.4

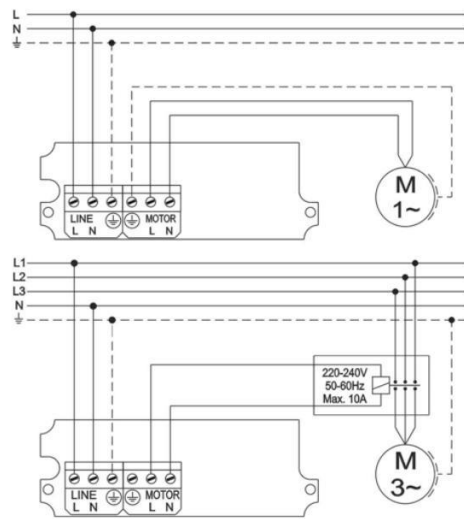
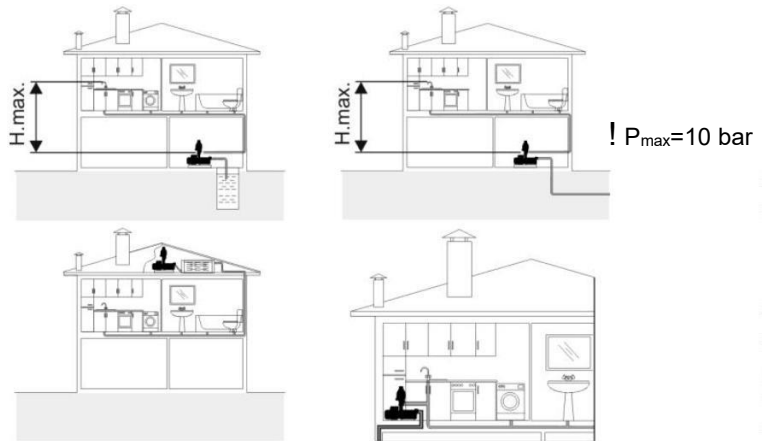
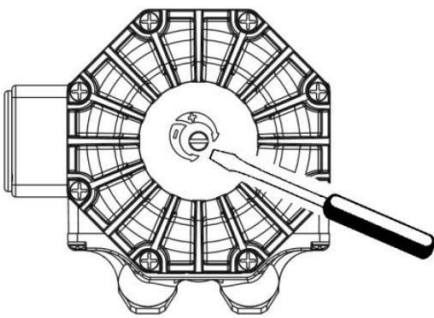


Fig.5



$$P_{0N} [bar] \geq \frac{H_{max} [m]}{10} + 0.5$$

Head losses:

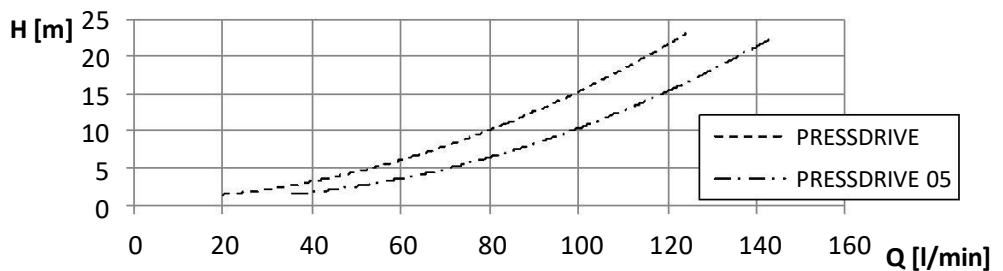


Fig.6



	LINE		FAULT	
EN	Blinking slowly =	Standby mode. The equipment has power, motor stopped.	Blinking =	Lack of water error. Start-up retry attempted.
	Blinking quickly =	Flow below minimum. Motor stop after 10".	Constant =	Lack of water error. Full shut down.
	Constant =	Motor running.		

Fig.7

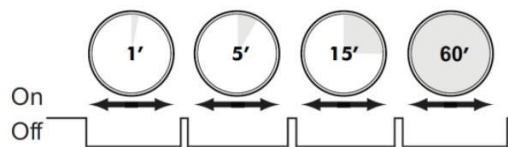
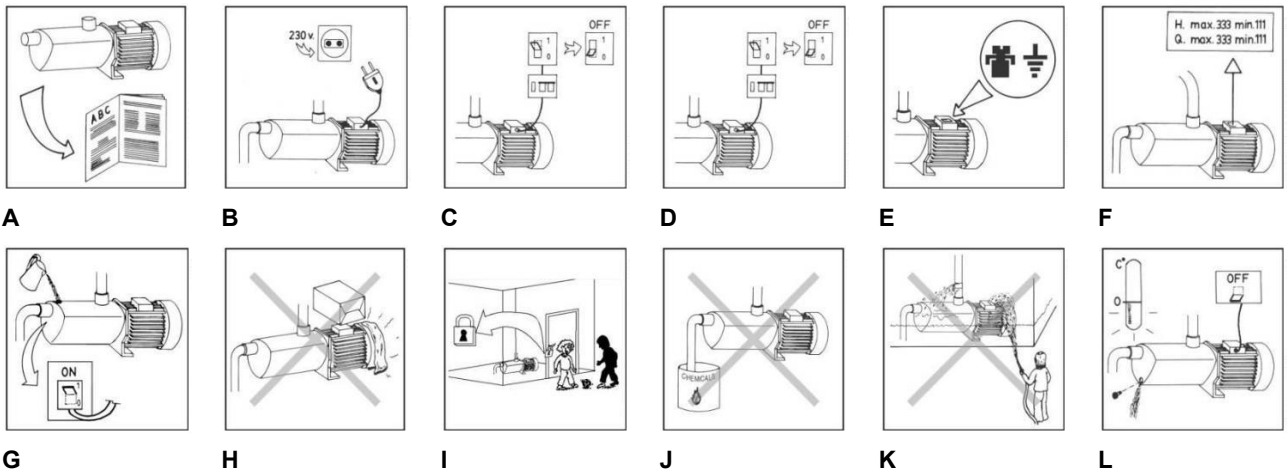
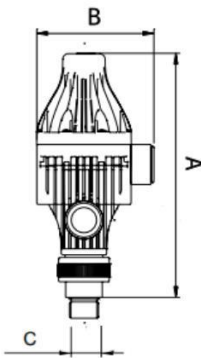


Fig.8

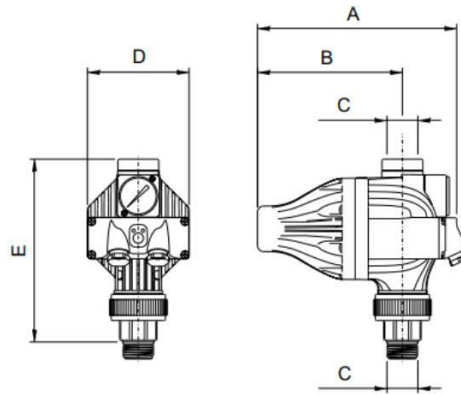


PRESSDRIVE



PRESSDRIVE 50/60 Hz	P max. [Mpa]	A 1~ 230V (± 10%)	IP	A [mm]	B [mm]	C	⚖️ [kg]
AM NP	1	12	55	281	134	1"	1,5
AM 2E	1	12	55	281	134	1"	1,5
AM	1	12	55	281	134	1"	1,5
AM NP ME	1	12	55	281	134	1"	1,5
R	1	12	55	281	134	1"	1,5
AMS ME	1	12	55	281	134	1"	1,5

PRESSDRIVE05



PRESSDRIVE05 50/60 Hz	P max. [Mpa]	A 1~ 230V (± 10%)	IP	A [mm]	B [mm]	C	D [mm]	E [mm]	⚖️ [kg]
AM 2E	1	12	55	213	155	1"	108	195	1,5
AM NP	1	12	55	213	155	1"	108	195	1,5
AM	1	12	55	213	155	1"	108	195	1,5
AM NP ME	1	12	55	213	155	1"	108	195	1,5
AMS ME	1	12	55	213	155	1"	108	195	1,5

PRESSDRIVE05 60 Hz	P max. [Mpa]	A 1~ 115V (± 10%)	IP	A [mm]	B [mm]	C	D [mm]	E [mm]	⚖️ [kg]
AM NP	1	12	55	213	155	1"	108	195	1,5

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