



Model	From serial #
HS-6008	2.080.001
EH020	1.430.001

Serial #

Shipping date

Installation instructions for washers HS-6008 / EH020

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Installation

HS-6008


EH020



IMPORTANT SAFETY INSTRUCTIONS

WARNING: To reduce the risk of fire, electric shock or injury to persons when using the washer, follow basic precautions, including the following:

1. **READ** all instructions before using the washer and **KEEP** them in a prominent location for customer use.
2. Do not wash articles that have been previously cleaned in, washed in, soaked in, or spotted with gasoline, dry cleaning solvents, other flammable, or explosive substances as they **GIVE OFF VAPORS** that could ignite or explode.
3. **DO NOT ADD** gasoline, dry-cleaning solvents, or other flammable, or explosive substances to the wash water. These substances give off vapors that could ignite or explode.
4. Under certain conditions, hydrogen gas may be produced in a hot water system that has not been used for two weeks or more. **HYDROGEN GAS IS EXPLOSIVE**. If the hot water system has not been used for such a period, before using the washing machine, turn on all hot water faucets and let the water flow from each for several minutes. This will release any accumulated hydrogen gas. As the gas is flammable, do not smoke or use an open flame during this time.
5. Do not allow children to play on or in the washer. **CLOSE SUPERVISION** of children is necessary when the washer is used near children.
6. Before the washer is removed from service or discarded, **REMOVE** the door.
7. **DO NOT TRY TO OPEN THE WASHER'S DOOR** if the drum is moving.
8. Do not install or store the washer where it will be exposed to the **WEATHER**.
9. **DO NOT TAMPER** with controls.
10. **DO NOT REPAIR OR REPLACE** any part of the washer or attempt any servicing, unless specifically recommended in the user instructions or in published user-repair instructions that you understand and have the skills to carry out.
11. **DO NOT BY-PASS** any safety device. It is **NOT ACCEPTED ANY** electric or mechanic **MODIFICATION OR MANIPULATION**. **DO NOT INSTALL** foreign components inside the machine.
12. All **SAFETY INSTRUCTIONS** included in the Instruction Handbooks, should be reprinted and posted in the laundry room.
13. Failure to install and operate this machine according to the Instruction Handbooks or to work safety and hygiene standards and common sense, may result in conditions which **CAN PRODUCE** bodily injury or loss of life.
14. The **DANGER, WARNING, CAUTION** and **IMPORTANT** instructions appearing in the Instruction Handbooks are not meant to cover all possible conditions and situations that may occur. It must be understood that common sense, caution and carefulness are factors which cannot be built into this machine. These factors **MUST BE** supplied by the person(s) transporting, installing, maintaining, or operating the machine.
15. All connections for electrical power and plumbing **MUST** comply with the statutory safety standards applicable to each country, and be made by Licensed Installers only (*refer to note 3*).

16.  **WARNING!**
MACHINE INSPECTION, FILTER CLEANING, MAINTENANCE, SERVICE OR PARTS REPLACEMENT.
Before attempting any service or inspection of the washing machine:
Close and mechanically interlock the water supply valves and check that machine has **COMPLETELY** drained, parts have cooled down and that no pieces are in movement through inertia.
To reduce the risk of electrical shock:
- **COMPLETELY** disconnect the machine from the original power source and check for accidental reconnection. **MOVING THE ON SWITCH TO THE OFF POSITION IS NOT SUFFICIENT.**
 - Disconnect the electrical power of the external dosing to the washing machine. These circuits are independent of the washer's supply.
 - Wait a minimum of (5) five minutes after disconnection to ensure the elimination of residual voltage within the machine.
- Failure to comply with this warning may result in serious injury.**

17. **NEVER** operate the machine without the panels and guards correctly in place and secured.
18. The room **SHALL** comply with the environment conditions (air venting, temperature, humidity...) specified in the Installation Instruction Handbook. **NEVER INSTALL THE WASHING MACHINE** in very humid environments or with water splashes.
19. **DO NOT OPERATE** the machine if it is suspected to be faulty, either visually, by noise or smell, or with missing or broken parts.
20. Machine start-up **SHALL** be made by Authorised Service Technicians (*refer to note 2*).
21. Machine **SHALL BE USED** by qualified personnel (*refer to note 1*), wholly familiar with the machine's operation.
22. **DO NOT** allow children or people with handicaps incompatible to machine use to operate machine.
23. To minimise the possibility of creating a fire, take **SPECIAL** care, **KEEP** appliance area free from combustible materials and fire extinguishers should be easily **ACCESSIBLE** to all laundry staff.
24. Delimitate danger areas and **PREVENT** public access to them with machine in operation.
25. On completion of the day's work, **TURN OFF** the manual supply valves and **DISCONNECT** the electrical power by the External Automatic Switch.
26. Always **CONTACT** an Authorised Service Technician or Licensed Installer (*refer to notes 2 & 3*) about any problems or conditions you do not understand.
27. For a safe operation, machine **MUST** be kept in a good environment, used and maintained properly, and serviced annually by Authorised Service Technicians (*refer to note 2*).
28. The Distributor (seller) **IS OBLIGED** to thoroughly train the operator during the starting-up.





THE MANUFACTURER REFUSES ANY RESPONSIBILITY IF THESE SAFETY INSTRUCTIONS AND ALL INFORMATION IN THE CORRESPONDING HANDBOOKS ARE NOT FOLLOWED.

SAVE THESE INSTRUCTIONS

NOTES:

- (1) **Qualified Personnel** refers to anyone who has read the Instructions Handbooks, has been trained and has a thorough understanding of the machine's operation
- (2) An **Authorised Service Technician (AST)** is one that has successfully completed training on the product by Girbau S.A, or a Girbau, S.A. Distributor.
- (3) An **Authorised Licensed Installer** is one that is suitably qualified in the procedures and regulations applicable in that country.

HAZARD SYMBOLS USED ON WASHER LABELS:

	Electric risk Protection guard for electric components.		High temperature risk. Operate with caution. Use appropriate protections.
	Mechanical risk Protection guard for moving parts		Risk of harmful vapours inhalation. Keep dispenser box closed. Use appropriate protections.

SYMBOLS USED IN THIS MANUAL

	This symbol alerts you to potential hazards for the user, the machine or the fabric.		This symbol is used to give relevance to any precise explanation
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IMPORTANT INSTRUCTIONS FOR USE AND CONSERVATION

1. **EXPECTED MACHINE USE AND DON'TS.** This machine has been made and designed for washing or cleansing in a water bath, linen and textile materials without solvent impregnation or explosives. Unless approved by the manufacturer in writing, it is not considered appropriate **FOR OTHER PROCESSES.**
2. Machine **MATERIALS** in contact with wash products are:
 - Stainless Steel **AISI-304 L.**
 - Aluminium in models HS-6008 & MS-610 (EH020 & EM025)
 - Polypropylene **PP.**
 - **EPDM** and **NBR.**
 - Borosilicate glass.The chemicals furnisher and the machine owner will be responsible to assure that the products **ARE COMPATIBLE** and will not produce machine oxidation or damage.
Notice that the hypochlorite (bleach), in certain conditions of use, generates chlorine gas. The chlorine is a corrosive and oxidizing substance that, in elevated concentrations and temperature, deteriorates the stainless steel and elastomers.
There are other highly oxidizing agents, such as the ozone, that can cause the same effect.
3. Periodically **CLEAN** machine, to prevent metallic parts corrosion, to produce higher output and for a longer life. To clean the washing machine, use water and detergent, rinse with a damp cloth, and dry.
4. **NEVER** use harsh products to clean the machine and laundry room. There are products on the market, which are highly corrosive.
5. If machine is left idle for long periods of time, it must be **PROTECTED** from humidity and temperature variations.
6. **FOLLOW** the fabric care instructions supplied by the manufacturer, **GIRBAU S.A., REFUSES ANY RESPONSIBILITY IN CASE OF TEXTILE WEAR AND TEAR.**
7. Failure due to improper machine operation may **VOID WARRANTY.**
8. Replacing any part of the washer can affect the machine's security.
Examples:
 - Just a screw or bolt of insufficient strength could cause dangerous damage.
 - A heater without an internal fuse could provoke a fire.
 - An inadequate clamp can be the cause of water leaks and short circuits... etc.The reason for which **ONLY ORIGINAL GIRBAU SPARE PARTS MUST BE USED.**

The incomppliance of this precaution may result in a washer breakdown, a serious accident, and loss of the warranty.
9. When asking for information on your machine, **MENTION** model and serial number (serial plate is located at the rear side).
10. **THE ELECTRICAL DIAGRAM IS LOCATED IN THE UNDERSIDE OF THE WASHER'S TOP COVER.**

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1. TECHNICAL SPECIFICATIONS

1.1 Tools needed for installation

- Shipping restraints open end wrench 1/2 in. (13mm)
- Legs fixing open end wrench 11/16 in. (17mm).
- Legs fixing and clamps nut driver 7mm
- Water inlet coupling open end wrench 1-3/8 in. (34mm)
- Covers fixing TORX T20 screwdriver
- Covers fixing TORX T25 screwdriver.
- Water inlet hoses slip-joint pliers or pipe wrench diam. 1-1/2 in. (35 mm).
- Electrical connection Phillips 2 screwdriver (#2)
- External dosing connection slotted-head screwdriver 3mm
- Vending circuit connection slotted-head screwdriver 3mm & Philips 1 (#1)

1.2 Standards

Compliance with the safety standard for Industrial Laundry Machinery, EN ISO 10472.
 Electrical Control Design following standard EN-60335-1 & EN-60335-2-7
 Electromagnetic Compatibility: compliance with standard EN 55014; EN 61000-3-2; EN 61000-3-3.

1.3 Accessories in machine

Keep all machine instructions in a safe place.



ACCESSORIES	QUANTITY	NOTES
Leg rubber pad	4	
Levelling parts	3	(1) machines with gravity drain
Open washer 0.06 inch (1,5mm)	2	(2) machines with pump drain
Open washer 0.12 inch (3 mm)	3	(3) not available USA / Canada
Drain elbow	1 (1)	(4) available USA / Canada only
Clamp 50-70	1 (1)	(5) machines with front dispenser only
Drain hose	1 (2)	(6) Coin Control models only
Drain hose support	1 (2)	(7) depending on target country
Elastic clamp.....	1 (2)	
Clamp	1 (2)	
Hose clamp	1 (2)	
Clamp securing screw	1 (2)	
Cold water inlet hose	1 (3)	
Hot water inlet hose	1 (3)	
Water inlet coupling	2 (4)	
Water inlet gasket	2 (4)	
Top cover lock key	1	
Microprocessor front lock key	1 (5)	
Coin meter box lock key	1 (6) (7)	
Coin meter tokens	10 (6) (7)	
Fuses 8A.....	1	
Fuse 2,5A	2	
Installation handbook	1	
Operation handbook	1	
Parts handbook	1 (7)	
Documentation	-- (7)	

1.4. Installation specifications

General specifications

MODEL	UNITS	HS-6008 / EH020
DRY LINEN CAPACITY	kg 1/10 (lbs.)	8 (17.7)
SPIN	r.p.m.	600 / 970
	factor G	108 / 283
WASHING SPEED (max)	r.p.m.	50
STATIC FORCE TRANSMITTED	kg (lbs.)	154 (340)
DYNAMIC FORCE TRANSMITTED	kg (lbs.)	52 (115)
FREQUENCY OF THE DYNAMIC FORCE	Hz	16.2
MAXIMUM TERMAL SHOCK	°C (°F)	90 (162)
KINETIC ENERGY	kJ	12.76
MAXIMUM SOUND LEVEL	dbA	< 70
PROTECTION INDEX	IP	21C

Dimensions & weights


WITH CRATING	H	mm (inch.)	1212 (47.7)
	L	mm (inch.)	720 (28.3)
	P	mm (inch.)	740 (29.1)
WEIGHT		kg (lbs.)	123 (271)
	H	mm (inch.)	1080 (42.5)
	L	mm (inch.)	685 (27.0)
WITHOUT CRATING	P	mm (inch.)	700 (27.6)
	M	mm (inch.)	390 (15.4)
	 CdG H	mm (inch.)	485 (19.0)
	 CdG P	mm (inch.)	304 (11.9)
	WEIGHT	kg (lbs.)	113 (249)

Connections

A	CONNECTION	B.S.P. thread (NH thread)	2 x 3/4
	H	mm (inch.)	938 (35.9)
	MIN/MAX PRESSURE	bar (P.S.I)	0,5-6 (7-87)
	RECOMMENDED PRESSURE	bar (P.S.I)	2-4 (30-60)
	FLOW (4 bar)	l/min (Usgal/min.)	30 (8)
	MAXIMUM TEMPERATURE	°C (°F)	80 (176)
Dg	OUTLET HOSE	∅ mm (inch.)	50 (2)
	H	mm (inch.)	106 (4.2)
	L	mm (inch.)	203 (8.0)
	P	mm (inch.)	160 (6,3)
	DRAIN BOX DIMENSIONS (H,L,P)	mm (inch.)	150x200x200 (5.9x7.8.8x7.8)
Db	DRAIN BOX PIPE	∅ mm (inch.)	80 (3 1/2)
	OUTLET PIPE	∅ mm (inch.)	25 (1)
	L	mm (inch.)	203 (80)
	H MAX. RECEPTOR	mm (inch.)	1080 (42.5)
	H MIN. RECEPTOR	mm (inch.)	820 (32.3)
E	INLET FIXING	∅ mm (inch.)	22.5 (0.89)
	H	mm (inch.)	807 (31.8)
	L	mm (inch.)	188 (7.4)
	INLET FIXING	∅ mm (inch.)	16 (5/8)
	H	mm (inch.)	807 (31.8)
Ed	L	mm (inch.)	248 (9.8)
	MAXIMUM VOLTAGE	V	240
	MAXIMUM CURRENT	A	1
d	CONNECTION	mm (inch.)	10 (3/8)
	H	mm (inch.)	796 (31.3)
	L	mm (inch.)	260 (10.2)
	INLET FIXING	∅ mm (inch.)	16 (5/8)
Vc	H	mm (inch.)	807 (31.8)
	L	mm (inch.)	248 (9.8)

Legend

	CONNECTION
A	Water inlet
Dg	Gravity drain
Db	Pump drain
E	Electrical connection inlet
Ed	Electrical connection inlet external dosing
d	Product inlets external dosing
Vc	Vending connection inlet (not applicable to USA/CANADA models)

	DIMENSIONS (figures 1, 2, 3, 4)
B	Rear maintenance area
F	Working area
H	Height from the machine base
L	Distance from the centre of symmetry of the unit
P	Depth
M	Height to door bottom
	Gravity centre (GC)

Environment and positioning conditions

MAXIMUM TEMPERATURE	°C (°F)	+41 (+104)
MINIMUM TEMPERATURE	°C (°F)	+5 (+40)
LIGHTING	Lux	300
VENTING OPENING	cm ² (sq.ft.)	300 (0.4)
MAXIMUM RELATIVE HUMIDITY	%	90
F WORKING AREA	mm (inch.)	1000 (39.4)
B REAR MAINTENANCE AREA	mm (inch.)	500 (19.7)

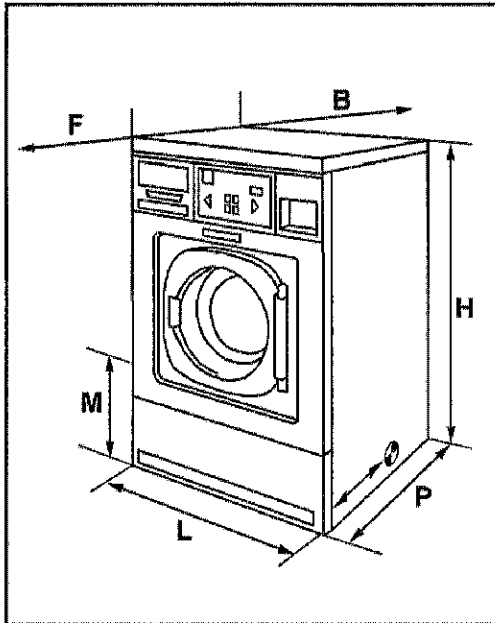


fig. 1

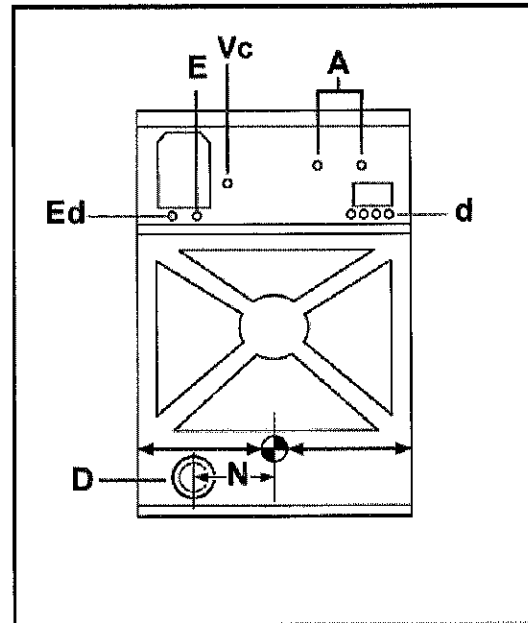


fig. 2

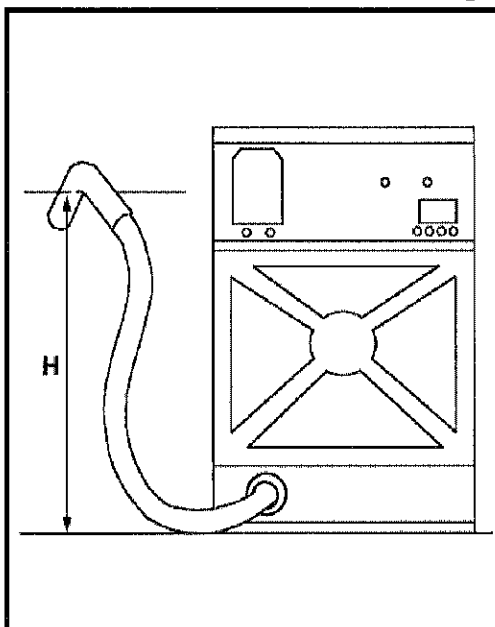


fig. 3

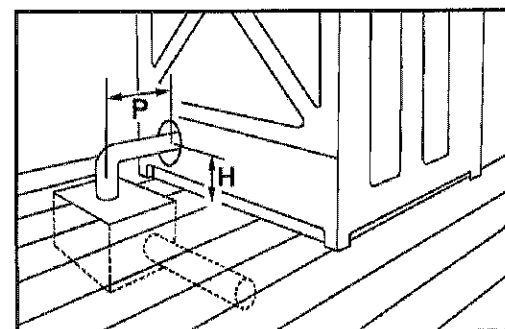


fig. 4

1.5. Electrical requirements



Check table explanation in section 1.6.







In brackets: USA / CANADA specific values

VOLTAGE	HEATING (*1)	TOTAL POWER	TOTAL CONSUMP.	SWITCH CURRENT	WIRE DETAILS (*2)
		kW	A	A	mm ² (AWG)
120V 1Ph + N	H	0.8	6.7	8	1,5 x 2 + ⊕
		(0.8)	(6.7)	(15A mains outlet socket)	(supplied by the manufacturer)
200V 1Ph + N	H	0.8	4.0	5	1,5 x 2 + ⊕
	E	3.3	16.4	20	2.5 x 2 + ⊕
		4.8	25.0	32	6 x 2 + ⊕
208V 1Ph + N	H	0.8	3.8	5	1,5 x 2 + ⊕
		(0.8)	(3.8)	(5)	(14 x 2 + GND)
	E	3.5	17.0	20	2.5 x 2 + ⊕
		(3.3)	(15.7)	(20)	12 x 2 + GND
	5.2	25.8	32	(6 x 2 + ⊕)	
220V 1Ph + N	H	0.8	3.6	5	1,5 x 2 + ⊕
	E	3.9	17.8	20	2.5 x 2 + ⊕
		5.7	27.0	32	6 x 2 + ⊕
230V 1Ph + N	H	0.8	3.5	5	1,5 x 2 + ⊕
	E	4.3	18.5	20	2.5 x 2 + ⊕
		6.3	28.1	32	6 x 2 + ⊕
240V 1Ph + N	H	0.8	3.3	5	1,5 x 2 + ⊕
		(0.8)	(3.3)	(5)	(14 x 2 + GND)
	E	2.3	9.4	13	1.5 x 2 + ⊕
		4.3	17.8	20	2.5 x 2 + ⊕
		(4.3)	(17.8)	(20)	(12 x 2 + GND)
	6.3	26.9	32	6 x 2 + ⊕	
200V 3Ph	E	4.8	14.4	20	2.5 x 3 + ⊕
208V 3Ph	E	5.2	14.9	20	2.5 x 3 + ⊕
		(4.8)	(13.8)	(20)	(12 x 3 + GND)
220V 3Ph	E	5.7	15.6	20	2.5 x 3 + ⊕
230V 3Ph	E	6.3	16.2	20	2.5 x 3 + ⊕
240V 3Ph	E	6.3	15.5	20	2.5 x 3 + ⊕
		(6.3)	(15.5)	(20)	(12 x 3 + GND)
380V 3Ph + N	E	5.7	9.5	13	1,5 x 3 + N + ⊕
400V 3Ph + N	E	6.3	9.9	13	1,5 x 3 + N + ⊕
415V 3Ph + N	E	6.2	9.4	13	1,5 x 3 + N + ⊕

1.6. Connection table explanation

(*1) HEATING	
H	Without heating
E	Electric heating Consult TOTAL ELECTRICAL POWER in the nameplate

(*2) EXPLANATION OF CONNECTION VALUES	
A x B + N + 	Wire details in mm ²
(A x B + GND)	(USA/CANADA: wire details in AWG)
A x B + N + 	Wire number
A x B + N + 	Neutral wire
A x B + N + 	Ground
(A x B + GND)	(USA/CANADA: ground)
USE COPPER CONDUCTORS ONLY	

2. TRANSPORT AND LOCATION

2.1 Transport of crated machines



ALWAYS USE TRANSPORT METHODS WHICH ARE SUITABLE FOR THE WEIGHT AND VOLUME OF THE WASHER. CHECK THE VALUES ON THE PACKAGING AND THE INSTALLATION SPECS (section 1.4) OF THIS MANUAL.

- Before moving the washer, check the instructions of the packaging pictograms.
- Unit must be transported in the upright position.
- Protect the machine from rain and dampness
- Avoid blows and shocks.
- It is preferable to transport the washer with its packaging using a forklift and by lifting it from its base. Never move the machine by pushing on the sides of the packaging.
- Position the washer with crating as near as possible to the final location.

2.2 Washer location. Conditions.

Respect the **ENVIRONMENTAL CONDITIONS** indicated on the **INSTALLATION SPECS** (section **1.4**). Also, respect the work and maintenance areas; these are necessary for the safe use and appropriate maintenance of the washing machine.

Do not install the washer in improper vented areas. The products used can produce steam and gas products emissions, which in high concentrations can be very dangerous to health.

The floor of the washer location must be a flat, level surface (refer to the indications on the **INSTALLATION SPECS**, section **1.4**), with a sufficient roughness to avoid the sliding of the washing machine.

In these conditions, the legs of the machine should not be modified. Only in installations over very irregular and uneven floors, should the open washers for leveling supplied with the machine be used.

TO REDUCE VIBRATION AND SOUND AND TO ENSURE THAT THE MACHINE IS CORRECTLY BALANCED, IT IS ESSENTIAL THAT THE FOUR LEGS OF THE WASHING MACHINE REST UNIFORMLY UPON THE FLOOR.

IF WASHERS ARE INSTALLED ON METALLIC SURFACES, AN ELECTRICAL CONDUCTOR INDEPENDENT TO THE WASHER GROUND MUST GROUND THESE SURFACES.

2.3 Removal of shipping braces



DO NOT REMOVE THE SHIPPING RESTRAINTS BEFORE PLACING THE WASHER IN ITS DEFINITIVE POSITION.

NEVER START THE MACHINE UP WITHOUT FIRST REMOVING THE SHIPPING RESTRAINTS. INCOMPLIANCE WITH THIS PRECAUTION MAY CAUSE SERIOUS PHYSICAL DAMAGES TO PEOPLE AND IRREPARABLE DAMAGES TO THE WASHER. THE WARRANTY DOES NOT COVER THIS INCIDENCE.

How to proceed (fig. 5)

- Disassemble the lower cover **A**, by removing the 3 screws **B**.
- Remove clamp **C** by removing the 2 nuts.
- Remove the support **D** by removing the 2 screws **E**.
- Remove the 4 shock-absorber separators **F**.
- Assemble the lower cover **A** by tightening the 3 screws **B**.
- Save the shipping braces. If the washer ever needs to be moved to another location, replace the transport system reversing the steps described in this section.

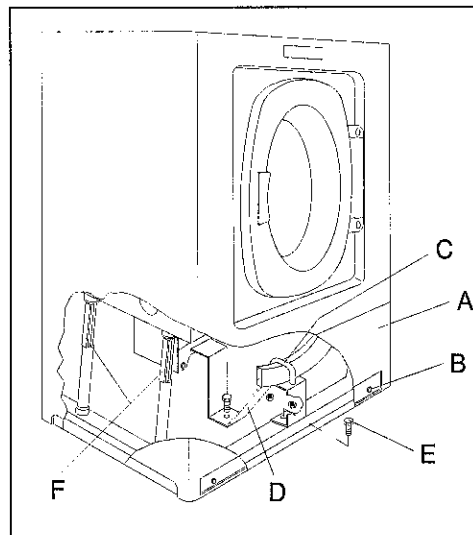


fig. 5

2.4 Washing machine levelling.



Due to its function of electrical isolation and in compliance to specific standards, **THE WASHER MUST BE ALWAYS INSTALLED ONTO THE FOUR FEET SUPPLIED BY THE MANUFACTURER** even if machine is installed onto elevation bases.

For installations on a pedestal provided by the manufacturer, consult the specific installation instructions.

How to proceed

Place the machine in its location.

Raise the front part of the washing machine and prop it with a wood block (200 mm / 8inch. height).

Install the pads onto the front legs (**fig. 6**).

Withdraw the wooden block and repeat the operation with the rear legs.

Check that the four legs rest firmly upon the floor.

If any of the legs do not rest firmly, shim it using the leveling plates provided with the washing machine (**fig. 7**).

Check leveling by placing the machine in the final spin phase of the program. In case of significant vibration, re-check leg contact with the floor.

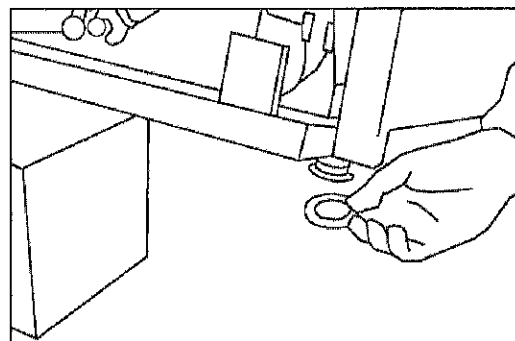


fig. 6

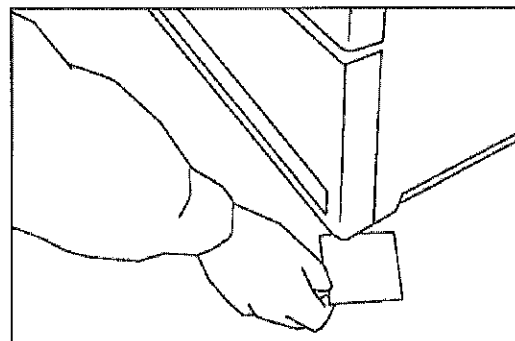


fig 7



Never shift the machine on the floor after finishing these adjustments.

2.5. Installation on a very irregular floor

If the floor is very irregular and it requires **SIGNIFICANT LEVEL CORRECTION**, use the open washers for leveling.

For this:

Determine which of the legs should be shimmed for leveling the washing machine; raising the front or the rear part of the machine and place a wooden spacer of 200mm (8 inch) in height, under the machine to serve as a lift.

Open the front cover of the washing machine or the central rear cover, depending on the leg that should be shimmed.

For opening the front cover, consult section 2.3. For opening the rear cover, take the fastening screws out, move the cover upwards and remove it.

Loosen the fastening nut of the corresponding leg by securing the upper part of the bolt with a wrench (**fig. 8**) or secure the base of the leg with an open faced wrench (**fig. 9**)

Modify the length of the leg using an open washer (included with the machine) as a spacer for leveling (**fig. 10**)

Fasten the leg again, remove the wooden spacer and assemble the corresponding cover.

Check that the four legs rest firmly upon the floor.

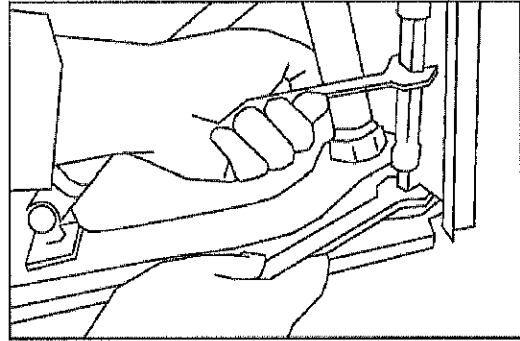


fig. 8

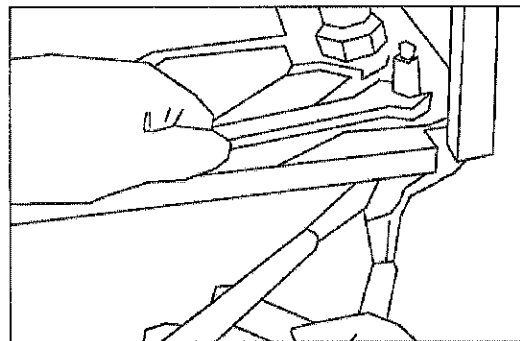


fig. 9

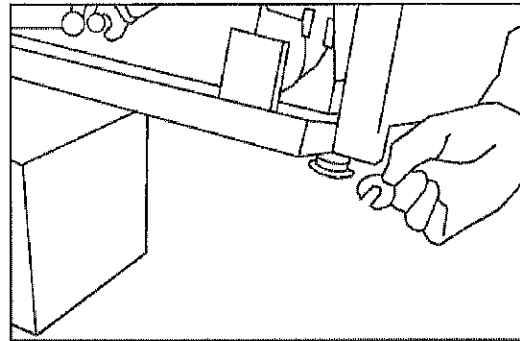


fig. 10

3. INSTALLATION



ALL CONNECTIONS FOR ELECTRICAL POWER AND PLUMBING MUST COMPLY WITH THE STATUTORY SAFETY STANDARDS APPLICABLE TO EACH COUNTRY, AND BE MADE BY LICENSED INSTALLERS ONLY.

3.1. Gravity drain

Drain to the drain box. (Most recommended option)

Build a drain box following the specifications indicated in the INSTALLATION SPECS, section 1.4.

Connect the drain elbow to the drain outlet and secure hose with the corresponding clamp (*fig. 11*).

It is recommended to not sink the free end of the drain elbow in the drain box:

- To facilitate the water drain.
- To detect water leaks through the drain
- To prevent dirty water from coming into contact with the washer

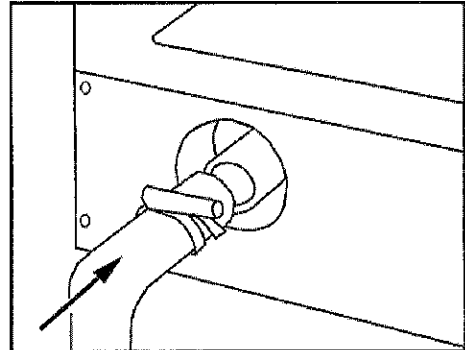


fig. 11

Direct connection of the washer drain to the sewer (*fig. 12*).

Facilities preferring this option to the open box option (recommended option) must respect the following precautions:

- Provide next to the connection point of each machine to the sewer, with a sewer ventilation pipe reaching the outside **A**, set at a height of 40 inch. (1000 mm).
- Create an anti-siphon system **B** to impede pressure variations and sewer backups before making the connection between the sewer drain and the general sewage system.

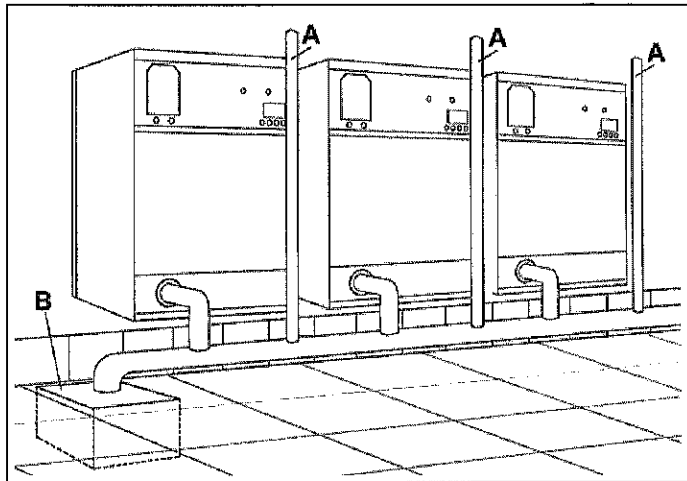


fig. 12

3.2. Pump drain

Assemble hose securing clamp to the rear cover (*fig. 13*).

Connect the drain hose at the machine outlet and secure with the corresponding clamp.

Secure the drain hose to the rear cover with the securing clamp (*fig. 14*).

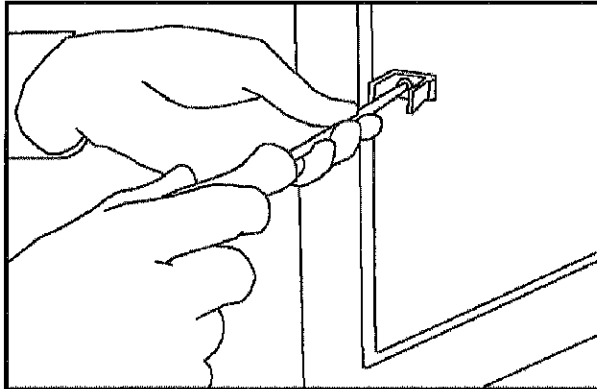


fig. 13

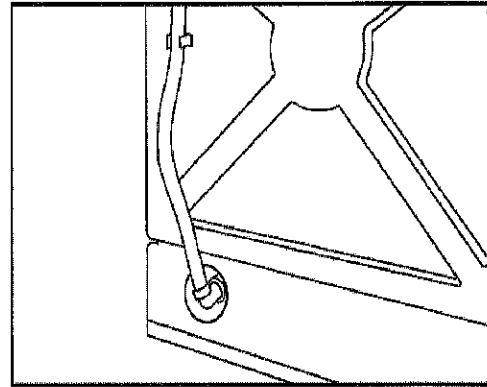


fig. 14

Use one of the two systems indicated in figures 15 & 16 to drain. In both situations:

Follow technical specifications for drain hose outlet (see receptor height parameter: H maximum and minimum)

Secure the drain hose to the laundry sink leg or standpipe with the beaded strap provided.

The height between the most elevated point of the drain hose support and the free end of this hose mustn't be superior to 100 mm (4 inch). Otherwise there's the risk of machine bath siphoning.

Check the hose does not remain forced

Do not add additional pieces to lengthen the drain hose without consulting the manufacturer.

Standpipe drain

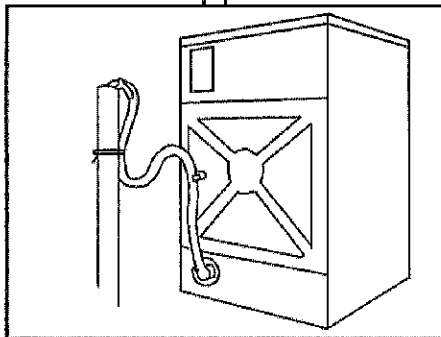


fig. 15

Drain to the laundry sink

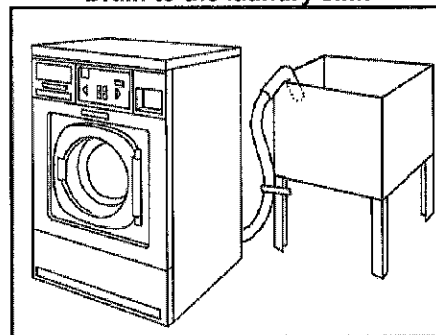


fig. 16

3.3. Water supply


Hoses and pipes should be flushed through before being connected to the machine.


Install at each water supply and in an accessible location, a mechanically interlocked water valve.

Refer to technical specifications on the INSTALLATION SPECS, section 1.4.

Arrangement of the hoses (fig. 17)

The inlets are identified by the label posted at each inlet. The washer mixes hot and cold water according to the temperature programmed. The use of hot/cold water allows the machine to gain time and effectiveness in its washing programs.

Inlet 1.  **1** The cold water must **ALWAYS** be connected. The hose is marked with a blue line.

Inlet 2.  **2** Connect hot water. This hose is marked with a red line.

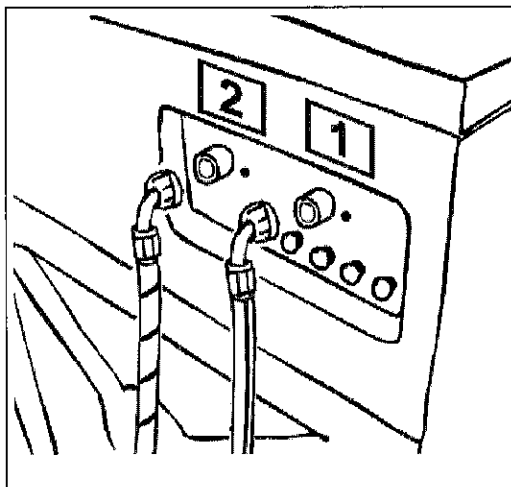




fig. 17

 **DO NOT CONNECT THE HOT WATER TO INLET 1. THIS INLET DOES NOT HAVE A TEMPERATURE CONTROL SYSTEM. INCOMPLIANCE OF THIS PRECAUTION CAN CAUSE FABRIC DAMAGE.**

 **For a correct operation of the washing machine, the two water inlets must be supplied. If hot water supply is not available, connect cold water or cold softened water to inlet 2.**

Assembling the connection couplings USA/CANADA (fig. 18)

Insert seal **B** inside each of the water inlet couplings **C**
Assemble the couplings to the electrovalves **A**.

Place water inlet hoses **D** in the electrovalves couplings.

Open the manual valves and check for leaks in the installation

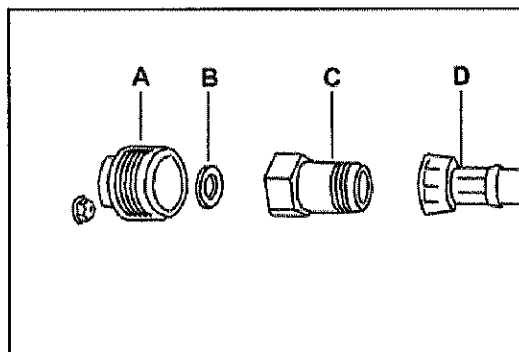


fig. 18

3.4. Electrical connection. Permanently connected appliances.

Permanently connected appliances are those that do not incorporate power cord from works. The electrical wiring of these machines is the responsibility of the installer and must comply with the indications of sections 3.4.1, 2 and 3.

1Ph 120V units supplied by the manufacturer with power cord, for USA/CANADA installations, **are excluded** from this group.

3.4.1. Previous requirements



CHECK THAT THE POWER AND FREQUENCY OF THE ELECTRICAL SUPPLY CORRESPONDS TO THOSE OF THE APPLIANCE. Check the nameplate posted on the back panel of the machine.



ALL CONNECTIONS FOR ELECTRICAL SUPPLY MUST BE CARRIED OUT BY LICENSED ELECTRICIANS AND MUST COMPLY WITH THE STATUTORY SAFETY STANDARDS APPLICABLE TO EACH COUNTRY.



ALL THE MATERIALS USED IN THE ELECTRICAL INSTALLATION MUST COMPLY WITH THE STATUTORY SAFETY STANDARDS APPLICABLE TO EACH COUNTRY.



ALWAYS CONNECT THE GROUND EXTERNAL PROTECTION CIRCUIT. THIS UNIT MUST BE CONNECTED TO THE GROUND INSTALLATION WITH A CONDUCTOR CONNECTED TO THE EQUIPMENT GROUNDING TERMINAL.



Specific warning for appliances installed in USA/CANADA.

GROUNDING INSTRUCTIONS. This appliance must be connected to a grounded metal, permanent wiring system, or an equipment grounding conductor must be run with the circuit conductors and connected to the equipment grounding terminal on the appliance.

3.4.2. Installation characteristics.

Before connecting the washer refer to INSTALLATION SPECIFICATIONS, section 1.4 and specific characteristics on the ELECTRICAL CONNECTION table, section 1.5.

Conductor:

- The data referring to conductors are based on those of multi-wire hose with copper conductor.
- The length of the conductor from the safety switch to the washer must not be longer than 30ft (10m).
- For a correct fixation of the stuffing box to the washer inlet, the conductor must be of normalised hose and following the specifications on table section 1.5.
- The conductor must be secured against any pulling, crushing or rubbing.
- Other conductor specifications: it must concur with the normative of the country of installation.

Circuit breaker. Install an earth-leakage protected circuit breaker.

Characteristics:

- Installed in an easily accessible place.
- number of poles and intensity: consult ELECTRICAL CONNECTION table (section 1.5)
- A type.
- protected against pulse currents, harmonics, the presence of continuous components... (consult manufacturer specifications)

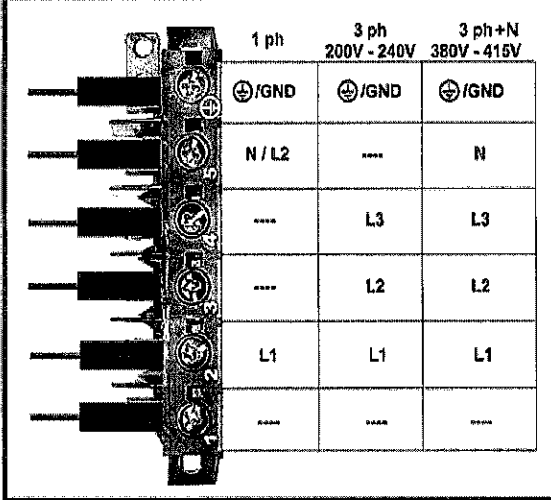
Safety switch. Install an Automatic on/off Switch, outside the washer, with individual protection for each machine.

Characteristics:

- number of poles and intensity: consult ELECTRICAL CONNECTION table (section 1.5)
- C type with top opening at 3 mm. (0.12 inch.)
- Must isolate electrical source phases and the N cable.
- Mechanically lockable.
- Installed in an easily accessible place.

3.4.3. Machine electrical connection

- Disconnect and mechanically interlock the external automatic switch.
- Open machine terminal box.
- Fix the electrical supply hose to the stuffing box at the washer entry.
- Connect the wires to the connection board.
- The connection sequence of the cables to the entry board varies according to the number of phases and the voltage of the washer. On the label posted next to the entry board are indicated the different connection options. Refer to *fig. 19*.



	1 ph	3 ph 200V - 240V	3 ph+N 380V - 415V
⊕/GND	⊕/GND	⊕/GND	⊕/GND
N / L2	----	N	N
----	L3	L3	L3
----	L2	L2	L2
L1	L1	L1	L1
----	----	----	----

fig. 19

3.5. Electrical connection. 1ph, 120V units with power cord (USA / CANADA only)

These models, available only for **USA/CANADA** installations are supplied with power cord built-in the washer.

Connection characteristics

Connect to 15A mains outlet socket, Individual Branch Circuit.
Do not use any adaptor or extension cord between plug and socket.

GROUNDING INSTRUCTIONS

This appliance must be grounded. In the event of malfunction or breakdown, grounding will reduce the risk of electric shock by providing a path of least resistance for electric current. This appliance is equipped with a cord having an equipment-grounding conductor and a grounding plug. The plug must be plugged into an appropriate outlet that is properly installed and grounded in accordance with all local codes and ordinances.

WARNING. Improper connection of the equipment-grounding conductor can result in a risk of electric shock. Check with a qualified electrician or serviceman if you are in doubt as to whether the appliance is properly grounded.

Do not modify the plug provided with the appliance – if it will not fit the outlet, have a proper outlet installed by a qualified electrician.

3.6. External dosing (option)

This machine can control external dispenser equipment by generating a signal able to activate the various inlets of the dispenser equipment.

These signals are made by closing a relay contact between the COMMON terminal and the outputs of each one of the various terminals coinciding with the different dosing made by the washing programs. The icons on the label indicate which output corresponds with each dispenser compartments.

The length of the signal has a fixed time (between 20 and 30 sec.) and can not be modified.

Consult electrical connection specifications in the INSTALLATION SPECS, section 1.4.

3.6.1. External dosing electrical connection

Signal conductor

- If using single-wire conductors, these must be encased within a safety conduit.
- The conductor must be affixed to the inlet opening of the machine using a secure connection appropriate for the type of conductor or safety conduit.
- The conductor must be secured against any pulling, crushing or rubbing.
- Other conductor specifications: it must concur with the normative of the country of installation.

Connection of the dispenser equipment to the washer (fig. 20).

- Disconnect and mechanically interlock the external automatic switch.
- Open machine terminal box.
- Place a mechanism (not supplied with the washer) to fasten the conductor to the drilled entry hole and fasten the conductor.
- Connect the dispenser signal conductor to the terminal board **A**, according to the functions specified on the corresponding label. (This terminal board is identified on the electrical schematic as **A-4**)
- Connect the electrical supply of the dispenser equipment to an electrical inlet separate from the washer. The electrical protection of the dispenser equipment must be separate from the washer protection.

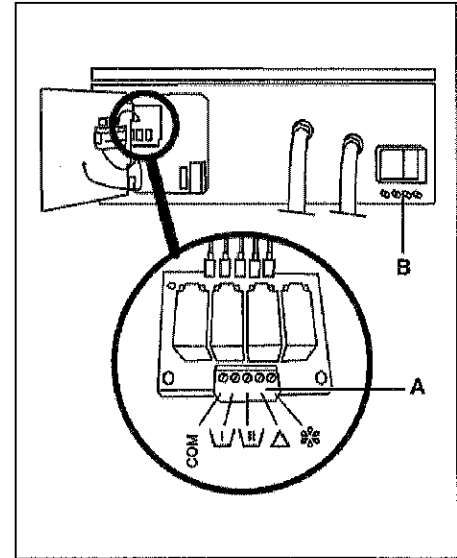


fig. 20

NEVER CONNECT THE DISPENSER EQUIPMENT SUPPLY TO THE WASHER

3.6.2. External dosing hoses connection

The external dispenser inlets are protected by a tube cap. To connect the product conduits: See the technical specifications section.

- Locate the dosing inlets in the back of the machine.
- Remove the tube caps and save them for connection for non-dosing in the future.
- Connect the hoses to the nipples **B** on the manifold.
- Fix the dosing hoses to the washing machine with the appropriate clamps.

COIN CONTROL units:

To enable the external dosing system, you must modify the external dosing parameter at the MODIFICATION menu (see the Advanced Operation Instructions, for **HS-6 / EH COIN CONTROL** at the manufacturer's website: www.girbau.com)

(USA/CANADA www.cont-girbau.com)

3.7. Initial Start-up.



THE WASHER MUST BE PUT INTO SERVICE BY AN AUTHORIZED SERVICE TECHNICIAN.

Before the initial STARTING, make sure that you accomplish the following points:

- Remove all packaging materials (Break them down in order to appropriately recycle them)
- Remove all tools used during the installation.
- Verify that all accessories have been removed from the drum interior.
- Verify the correct installation of all the accessories necessary for the washer operation.
- Check that the electrical installation corresponds with the voltage and the frequency of the machine.
- Verify that the four washer feet come in contact with the floor.
- Verify that all the shipping restraints are removed.
- Connect all the water and power inlets according to the technical specifications.
- Open the manual water inlet valves and check for any leaks around the manual flow valves and connection couplings.
- Connect the electrical supply.
- Check the operation (it is recommended to use the TEST program).
- Keep the manual in a safe place and in good condition for its possible consultation.
- Before washing clothes for the first time we recommend to run a complete cycle with detergent (1/4 the normal recommended amount).

3.8. Emergency stop in coin-op installations



IN ACCORDANCE WITH SAFETY REQUIREMENTS FOR INDUSTRIAL MACHINERY STANDARD (UNE-EN ISO 10472-1,5-2) AND OTHER SAFETY REQUIREMENTS, THE LAUNDRY OWNER / USER IS RESPONSIBLE FOR INSTALLING A REMOTE LOCATED EMERGENCY STOP DEVICE, CONNECTED TO EACH MACHINE.

Device features

- To be located in a visible place, separated from all machines and easily accessible.
- To break the electrical supply for all machines.
- To safely isolate all machines at maximum consumption.
- To need reinstating (the whole installation) after the Emergency Stop Push-button has been released.

3.9. Connection to central vending point (option only available in Coin Control models. Not applicable to models in the USA/CANADA)

It is possible to connect the washer to an external central vending point by means of an adaptation circuit installed inside the washer. This option allows payments to be made and the prices to be controlled entirely from the central vending point.

The adaptation circuit allows the **PROGRAM START** command to be received from the central vending point and at the same time, a relay contact informs the central vending point of the **AVAILABILITY OF THE WASHER** to start a wash cycle.

a) PROGRAM START command. Features.

The adaptation circuit is able to receive two signals or electrical impulses of different potentials from the central vending point. Each impulse detected by the circuit adaptor will decrease the value needed to start the wash cycle by one unit. When the total value has been accounted for, the washer will begin the wash cycle.

It must be pointed out that the Start Wash Program command can be overridden by pressing the **STOP** button on the washer's keyboard. Refer to the **PSH** parameter in the **Mod** menu in the Advanced Coin Control Instruction Manual on the manufacturer's Web: www.girbau.com.

Features and wiring for different inputs (see board A8 on electric circuit diagram)

- Alternating current signal: voltage between 115 and 230V. Connection terminals: X1-4 and X1-5.
- Direct current signal: voltage between 5 and 25V. Connection terminals: X1-7 and X1-8.

The minimum duration for these impulses will be 50ms (0.05 seconds).

The electrical features on the central vending point will determine the application of one or another electrical signal.

b) AVAILABILITY OF WASHER indicator. Features.

Free voltage relay contact. Maximum voltage: 250V.AC.

- Machine NOT AVAILABLE. Contacts closed between terminals C and NC (X1-1 and X1-2). Washer not in operation, door open, end of cycle or in the process of a wash cycle.
- Machine AVAILABLE. Contacts closed between terminals C and NO (X1-1 and X1-3). Washer ready to begin a wash cycle and door closed.

Making use of the AVAILABILITY indicator will depend on the central vending point's operating features.

3.9.1. Electrical connection from the central vending point to the washer

Signal conductor

- Features of the conductor: minimum section: 0.35mm²; minimum voltage: 250V.
- If using single-wire conductors, these must be encased within a safety conduit.
- The conductor must be affixed to the inlet opening of the machine using a secure connection appropriate for the type of conductor.
- The conductor must be protected against traction, crushing and friction.
- Additional specifications for the conductor: must comply with the statutory regulations of the country in which it is to be installed.

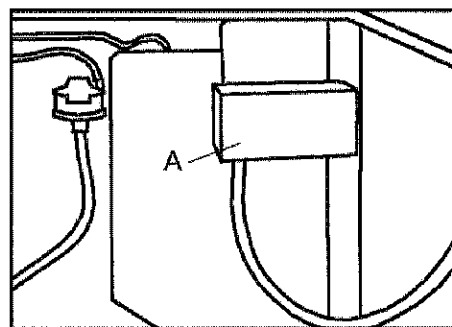


fig. 21

Connecting the central vending point to the washer

- Disconnect and mechanically lock the external automatic switch.
- Open the machine's top cover.
- Fix a conductor bracket (not supplied with the washer) to the inlet hole and secure the conductor in place. (Vc installation specifications, section 1.4. fig. 2).

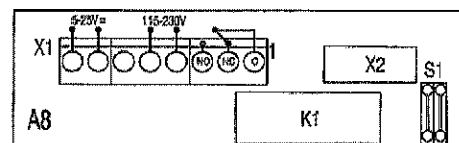


fig. 22

- Open circuit adapter box cover **A**. This box is located at the rear panel (*fig. 21*). Drill a hole in the inlet box protector to the size of the conductor to be used.
- Connect the communication signal wires up to the vending circuit on to terminal strip **X1**, according to the instructions in the previous section (*fig. 22*). Close the circuit box.
- Position and lock the top cover in place. Connect the electricity supply.

3.9.2. Washer configuration

In washers connected to central vending points, the configuration for the token or coin meters (parameter **P**) should be configured as tokens (value **to**)

Refer to CONFIGURATION of COIN control in the Service Manual on the manufacturer's Web: www.girbau.com.

