



Operator's and maintenance manual

PIANOPLAN 600 J SPEEDY STANDARD



CODE
504196-UK



ED. 06/09

SERIAL NUMBER _____

Dear Customer,

Congratulations for having purchased the Pianoplan.

Your new Pianoplan is able to transport loads up to 600 Kg on flights of stairs and ramps, reducing the physical effort and the risk of accidents.

We are sure that your purchase, together with the correct use of the equipment, will benefit your company.

We kindly inform you that:

BEFORE USING THE PIANOPLAN, IT IS MANDATORY TO READ AND UNDERSTAND THIS MANUAL AND TO IMPLEMENT THE CONTENTS.

Yours faithfully,

CTE S.p.A.

Via Caproni, 7 – Z.I. 38068 **ROVERETO** (TN) -
ITALY

Tel. +39 0464 48.50.50 Fax +39 0464 48.50.99

web: **www.ctelift.com**

e-mail: **info@ctelift.com**

OWNER :

Index

Preliminary information.....	5
- Content of the instructions	5
- Measures to take immediately	5
- Measures to take in case of re-sale	5
- Use and retention of the manual	5
1. MANUFACTURE DATA OF THE MACHINE.....	6
1.1. Address of the manufacturer.....	6
1.2. Specification data	6
1.3. Classification	6
1.4. After-sales and spare parts dept.	7
2. GENERAL INFORMATION FOR THE SAFE USE OF THE MACHINE.....	8
2.1. Explanation of the symbols and of their meaning	8
2.1.1 Symbol: WARNING - DANGER	8
2.1.2 Indication: ATTENTION	8
2.1.3 Indication: NOTE	8
2.2. General safety	8
2.3. General information for use	9
2.3.1 Checks	10
2.3.2 Foreseen conditions of use and limits of exercise	10
2.3.3 Safety parts and systems	12
2.3.4 Maintenance and repair	13
2.3.5 Residual risk	14
2.3.6 Warnings for the implementation of the practical instructions	15
2.3.7 Referring rules and provisions of the law	16
3. TECHNICAL DATA	17
3.1. Type: Pianoplan 600 J.....	17
3.2. Model: SPEEDY STANDARD	17
3.3. Construction features	17
4. DESCRIPTION OF THE MACHINE.....	18
4.1. Mechanical components description	18
4.2. Controls and movements description	19

5. MACHINE OPERATION	21
5.1. Extension of the loading platform.....	21
5.2. Steering bar positions	21
5.3. Position of the load to transport.....	22
5.4. Instructions to fasten the load.....	23
5.5. Use of the loading platform.....	24
6. TRANSPORT OF THE LOAD	25
6.1. Manoeuvre of stairs climbing	25
6.2. Arriving on the landing	26
6.3. Manoeuvre on the landings.....	26
6.4. Going down the stairs	29
6.5. Arriving to the landing	29
6.6. Manoeuvre of independent steering.....	31
6.7. Manoeuvre on flat surfaces.....	31
7. INSTRUCTIONS TO CHARGE THE BATTERIES.....	32
8. TRANSPORT OF THE EQUIPMENT	35
9. DISMANTLING	35
10. MAINTENANCE.....	36
10.1. Maintenance program.....	37
10.2. Summary table of maintenance	38
10.3. Checks to do before using the machine.....	40
10.4. Three-month checks.....	42
10.5. Annual checks.....	43
10.6. Placement of decals and plates	47
10.7. Repairs	48
11. HYDRAULIC SYSTEM.....	49
12. ELECTRICAL SYSTEM.....	51

Preliminary information :

1. CONTENT OF THE INSTRUCTIONS:

In this manual you will find instructions regarding:

- appropriate use;
- residual risks;
- safety;
- use of the machine;
- routine maintenance;
- dismantling.

These instructions for the use and the maintenance contain important information that will enable you to use the Pianoplan in a safe and appropriate way. These instructions are particularly addressed to:

- the personnel employed in the use of the machine;
- the personnel employed in the routine maintenance.

2. MEASURES TO TAKE IMMEDIATELY:

Before starting to use the machine, carefully read these instructions, respecting all the information and particularly the ones regarding the safety.

3. MEASURES TO TAKE IN CASE OF RE-SALE:

If you sell your Pianoplan, it is obligatory to hand over this manual, the maintenance register and the list of the spare parts to the buyer. In case of loss, please ask for a new/replacement manual from the supplier.

4. USE AND RETENTION OF THE MANUAL:

This manual is addressed to the following persons:

- the user of the machine;
- the supervisor of the working area;
- the person in charge of the transport of the equipment;
- the person in charge of the maintenance of the machine;
- the person in charge of the final dismantling.

A copy of the manual is supplied with the machine and must always be together with the machine in order to consult it rapidly and in a precise way.

In the case you lose or damage this important document, contact immediately our Spare Parts Department.

This manual must be considered as an integral part of the machine and must follow the machine throughout its entire working life.

CTE S.p.A., Pianoplan manufacturer, reserves the right to update either the production or the manuals, without any obligation of communication. The present manual reflects the technical state of the product as of date of manual and is drawn up in compliance with the EC Directive 98/37 (Machine Directive), attachment I, paragraph 1.7.4.

1. MANUFACTURE DATA OF THE MACHINE

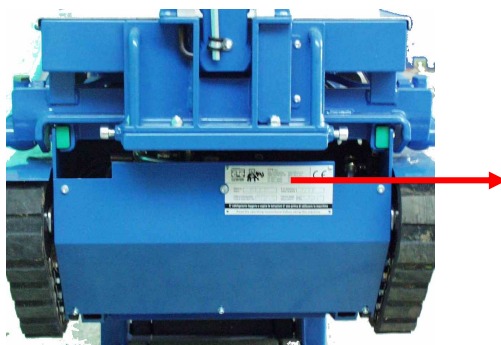
1.1. Address of the manufacturer

Your Pianoplan has been constructed by:

CTE S.p.A. **Via Caproni, 7**
38068 Rovereto - Trento - Italy
tel. +39 0464 485050 - fax +39 0464 485099

1.2. Specification data

Under the steering bar, on the front part of the Pianoplan, you will find the specification board with the specifications data.



	504217	COSTRUTTORE  CTE WORK BECOMES EASY		CTE SpA SEDE LEGALE E STABILIMENTO Via Caproni, 7 - Z.I. 38068 ROVERETO (TN) Tel. +39 0464.48.50.50 Fax +39 0464.48.50.99	
	MODELLO MODEL		PIANOPLAN 600J SPEEDY STANDARD		
N° DI FABBRICA SERIAL NUMBER	PJS	ANNO DI FABBRICAZIONE YEAR OF CONSTRUCTION		20	
PORTATA MASS. MAX CAPACITY	600 kg	MASSA MACCHINA A VUOTO LOADLESS MASS MACHINE		300 kg.	
POTENZA POWER	1,9 kW				

1.3. Classification

The machine has a projected life of 10 years, comparable to 120,000 operating cycles with a medium/high load rate (i.e. 10 years, 50 weeks per year, 40 hours per week, 6 cycles per hour). Within the forecast number of years, the Pianoplan must be completely overhauled and checked by the constructor. In case of particularly frequent use, the overhaul must be anticipated. We advise you to check the machine each two years and to overhaul it each 5 years at least.

1.4. After-sales and spare parts dept.

To order spare-parts or in case of assistance, please contact:

CTE ITALY

CTE S.p.A.	Spare-Parts Dept	tel. +39 0464 485050
	After-Sales Dept	fax +39 0464 485099 info@ctelift.com

CTE UK

CTE UK	Spare-Parts Dept	tel. +44 116 286 6743
	After-Sales Dept	fax +44 116 286 3015 info@cte-uk.co.uk

always indicating

Model
Serial number
Year of construction

of your Pianoplan

2. GENERAL INFORMATION FOR THE SAFE USE OF THE MACHINE

2.1. Explanation of the symbols and of their meaning

2.1.1 Symbol: **WARNING - DANGER**



This symbol is in front of all the safety signs for which there is a risk of an accident that could result in a fatality.

Respect these indications and carefully follow the instructions given in the safety manual.

2.1.2 Indication: **ATTENTION**

This indication informs you that you must stop or avoid damage to the machine.

2.1.3 Indication: **NOTE**

This indication informs you about a favourable economical use of the machine or refers to the correct work procedure.

2.2. General safety

In order to ensure the maximum levels of reliability, CTE has carefully chosen the materials and the components used in the construction of the Pianoplan, making regular tests and inspections before delivering. The efficiency of the machine also depends on a good use and on correct preventive maintenance, according to the instructions written in this manual.

All the constructed elements, couplers and controls have been designed and manufactured to the highest standards, able to resist to normal working stress or in any case superior to the one indicated in this manual. The materials are of the best quality and the delivery procedure, storage and ultimate use in the assembly shop are controlled, in order to guarantee lack of damage, deteriorations or malfunctions.



DANGER: the non-compliance of these SAFETY INSTRUCTIONS can cause serious accidents or death.

The Pianoplan must be used by people who, thanks to their professional training, their experience and understanding of the relative danger, are able to guarantee professional and safe use.

These persons must have the following qualifications:

- to be 18 years old;
- to know the content of this manual;
- to be duly trained and instructed on the possible dangers and on the correct use;
- to be authorized to use this machine by a responsible person in the company.

2.3. General information for use



DANGER! The non-compliance of the instructions and of the safety rules written in this manual, as well as the ones foreseen by the law for accident prevention, can cause serious accidents or death.



Before using the Pianoplan, it is obligatory to read this manual.
Authorized persons, properly instructed and trained, must only use the Pianoplan.



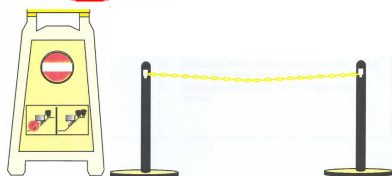
IT IS ABSOLUTELY PROHIBITED TO TRANSPORT PERSONS.
THE PIANOPLAN HAS ONLY BEEN CREATED TO TRANSPORT MATERIAL WITH A MAXIMUM WEIGHT OF 600 KG.



Never allow unqualified or unauthorized persons to use the machine.
They could cause serious accidents.



Do not permit access in the working area to persons who are not authorized or qualified for the use of the Pianoplan due to the danger of loads falling down.



For the Health & Safety reasons, it is obligatory to restrict with crush barriers the working area using appropriate equipment, such as extensible safety barrier (white and red), plastic columns with chains (white and red), signalling bands (white and red).



IT IS OBLIGATORY to always dress suitably and to wear safety shoes. Remove, loose fitting clothing and objects such as rings and chains. There is the risk of accident due to catching or dragging.



DANGER:
INCORRECT USE OF THE PIANOPLAN CAN CAUSE:

- Danger of accident or death for the operator and third parties;
- Damage to the Pianoplan and to other equipment.

2.3.1 Checks


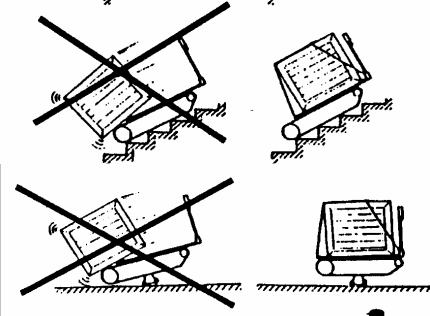

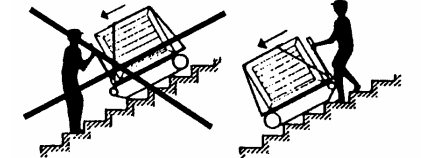

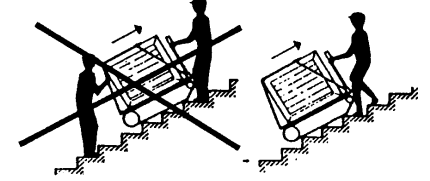





Before using the Pianoplan, it is obligatory to proceed with a series of checks and maintenance indicated in this manual chapter 10.









The following people can do these checks:

- qualified workers
- mechanic chiefs
- specialists having the correct training
- mechanics of the CTE After-sales Dept.

The operator of the Pianoplan must conduct himself in a manner observing all safety rules and regulations, always being aware of their own responsibility to themselves, the machinery, property and others nearby. The Pianoplan must be thoroughly checked, inspected and maintained in line with this manual and for the use in the country where the machine is used.

2.3.2 Foreseen conditions of use and limits of exercise

	<p>IT IS OBLIGATORY to secure the load with the belts and straps provided, and to centre the barycentre of this load before operating.</p>	
	<p>THE OPERATOR MUST always be upstream of the Pianoplan.</p>	
	<p>IT IS PROHIBITED to stay near the Pianoplan or to stay below it.</p>	
	<p>IT IS PROHIBITED to go up and down the stairs with more than 45 degrees inclination.</p>	
	<p>IT IS PROHIBITED to operate with wet belts on wet stairs or with ice.</p>	
	<p>IT IS PROHIBITED to operate on a slippery surface, on broken or wrap-around steps.</p>	

	<p>IT IS OBLIGATORY to check the suitability, integrity and load bearing of the stairs and of the floor before operating. The Pianoplan weighs 325 kg and can carry till 600 kg.</p> <p>IT IS PROHIBITED to use the Pianoplan if the ground surface is not strong enough to take the weight. That is why, it is necessary to check the integrity of the floor for trapdoors or drain covers in the floor, in which case it is necessary to create, in advance, a suitable surface for the stability of the machine with the use of planks of wood, etc</p>	
	<p>IT IS PROHIBITED to carry persons.</p> <p>THE PIANOPLAN CAN ONLY BE USED TO TRANSPORT MATERIALS.</p>	
	<p>IT IS PROHIBITED to transport material with more than 600 Kg.</p>	
	<p>IT IS PROHIBITED to stay in the working area of the Pianoplan due to the possible danger of loads falling off.</p>	
	<p>IT IS PROHIBITED to use the Pianoplan if visibility or lighting conditions are insufficient.</p>	
	<p>IT IS PROHIBITED to use the Pianoplan in case of rain.</p>	
	<p>IT IS PROHIBITED to interfere with or to bridge the security systems such as: limit switches, sensors or other devices. It is prohibited to move the protection carters.</p>	
	<p>IT IS PROHIBITED to move the Pianoplan if the Pianoplan, a part of it or the load are a danger for people.</p> <p>In case of a sudden danger for the personnel or for the machine, you can stop the engine, pressing the emergency button.</p>	
	<p>IT IS PROHIBITED to use the Pianoplan if there are anomalies, damages or structural insufficiencies verified during the daily analyses or during its use.</p> <p>Stop immediately the Pianoplan and repair it thus not to compromise the safety use.</p> <p>The repair is only permitted to duly instructed and authorized personnel. Please contact the nearest CTE After-Sales Dept.</p>	
	<p>IT IS PROHIBITED to use the Pianoplan in a potentially explosive atmosphere.</p> <p>IT IS PROHIBITED to use the Pianoplan with a temperature inferior to - 5°C or superior to + 40°C.</p>	

2.3.3 Safety parts and systems

The Pianoplan has safety parts and systems to avoid accidents to persons and damage to objects.

- Emergency stop button



Pressing the emergency stop button, all the controls stop.

- Micro switch for the control of the lifting platform

This system is inside the Pianoplan. The micro switch controls the locking of the lifting platform. If the rollers are not completely inside, the red pilot light on the steering bar (*Fig. 4.2 Pos. 3*) remains illuminated and if the driving manoeuvre is attempted an audible warning alarm sounds.

- Negative electro-magnetic brake

On each drive motor of the Pianoplan there is a negative electro-magnetic brake. In case of any electric damage or loss of energy, the machine and all the functions stop.

- Block valves

Each cylinder has a block valve. In case of hydraulic break, the machine and all the functions stop.

- Safety start system

This system is inside the Pianoplan. When the manipulator is activated, during the starting stroke, it is not possible to move and the system is blocked. The operator has to release the manipulator to re-activate the systems.

2.3.4 Maintenance and repair



DANGER! Before starting any service or maintenance operation, remove the ignition key and disconnect the system.

- The MAJOR maintenance and repair must always be done, exclusively, by specialized persons, instructed and authorized (technical maintenance).
- For the ROUTINE maintenance, the operator is responsible for the machine which has to be clean from extraneous bodies such as debris, oil or other components. That is why, it is necessary to clean the machine having finished working with it. During the cleaning the machine must be stopped, in a stable position.



IT IS PROHIBITED DURING THE CLEANING OF THE MACHINE TO USE HIGH PRESSURE AIR OR WATER.
IT IS PROHIBITED TO USE INFLAMMABLE FLUID DURING THE CLEANING.

When the cleaning of the machine is finished, the operator must check there are no worn, damaged or loose parts (if necessary, ask immediately for the intervention of the maintenance technician).



Protection and safety systems for the machine must **ONLY** be removed if you have to repair and/or to service the machine.

In any case, before using the machine, all protections and security parts must be replaced and reset



IT IS OBLIGATORY FOR THE OPERATOR TO STOP USING THE PIANOPLAN IF A BREAKDOWN, WHICH CAN COMPROMISE THE PHYSICAL INTEGRITY OF THE NEXT USER OR IRRETRIEVABLE DAMAGE TO THE EQUIPMENT, HAS BEEN FOUND.

When the maintenance operations are finished, the operator must move away from the machine all the objects which are not integral part of the machine (for example the tools used after an intervention, cables used for the transport of parts, objects, etc.

USE ONLY SPARE PARTS CONFORMING TO THE TECHNICAL REQUIREMENTS OF THE MANUFACTURER.

WE RECOMMEND YOU ONLY TO USE ORIGINAL CTE SPARE PARTS.

It is prohibited to make modifications!



THE OPERATOR, THE ASSISTANT AND THE MAINTENANCE TECHNICIAN MUST DRESS IN SUITABLE PROTECTIVE CLOTHES, ACCORDING TO THE NECESSITY AND THE CHARACTERISTIC OF THE WORK TO DO WITH THE MACHINE, OR AROUND IT, SUCH AS:

- Safety helmet in case of falling material;
- safety glasses and masks against the splinters projections or the existence of intense dust (if you use compressed air as drainage system it is better to use a dust collector system);
- safety gloves and shoes;
- ear protection (earplugs or earmuffs) if the acoustic noise level is superior to 85 dB (A).

2.3.5 Residual risk

Even if all safety regulations are observed there remains residual risks during the operation of the Pianoplan. There are potential risks which are not immediately obvious and that you cannot avoid without compromising the functionality of the Pianoplan, such as:



- accidents due to un-coordinated works;
- accidents due to the collision between other working vehicles;
- danger due to unexpected breakdowns at the control panel;
- danger during works to the electric and hydraulic systems;
- danger due to the subsidence of the ground;
- danger due to atmospheric discharge or to static current.

2.3.6 Warnings for the implementation of the practical instructions

The practical instructions are rules written by the manufacturer in order to use the machine in a safe way. These are binding instructions, introduced by the manufacturer in his area of competence. The accident prevention rules oblige the employees to respect these instructions.

The general engagements of the manufacturer regarding the implementation and the communication of the practical instructions are written in the relative rules for the accidents prevention (in Italy decree law 81 of 2008). According to these rules, the manufacturer is obliged to offer safe working methods to prevent accidents. Furthermore, the operators must be instructed about the danger of their activity and informed about the necessary countermeasures. The operator with the use of practical instructions can fulfil these obligations.

These instructions for the use of the machine must be completed by the national rules for accident prevention and for the protection of the environment.

For example, in Italy:

Decree law 81 of 2008 (called security consolidating act)

The operators must be informed:

- about the danger regarding handling the specific load material, about the necessary safety and behaviour measures, and also about the dispositions in case of dangerous situations, and first aid measures;
- about the different type of procedures and control of the Pianoplan to achieve different working requirements in order to work in safe conditions;
- about the maintenance;
- about the elimination of functional anomalies;
- about the protection of the environment;
- about the safe use of electrical systems.

Through appropriate dispositions and controls, the undertaker must guarantee the cleaning and the order where the Pianoplan is used.

The responsibility for the use, the transport and the maintenance must be clearly and unequivocally established (and respected by all the personnel), in order to avoid misunderstandings that could compromise safety.

The operator can use the Pianoplan only if it is in a good condition. The operator must inform his superiors if he has noted any faults in using the machine that could compromise the machine safety.

The operator has to respect the indication and warning plates put on the Pianoplan.

The operator has to assure that no unauthorised personnel are nearby the Pianoplan.

2.3.7 Referring rules and provisions of the law

The manual instructions must be completed and integrated by the RULES FOR ACCIDENTS PREVENTION and for the HYGIENE OF THE WORK, for ex.:

Decree law 81 of 2008 (called security consolidating act)

D.P.R. 15th of Aug. 1991 n° 277 implementation of the directives n. 80/1107/CEE, n. I 82/605/CEE, n. 83/477/CEE, n. 86/188/CEE and n. 88/642/CEE, on the subject of the workers protection against the risks resulting from expositions of chemical, physical and biological agents during the work, according to art. 7 from the law 30th of July 1990, n. 212

NOTE: THIS LIST IS NOT EXHAUSTIVE

3. TECHNICAL DATA

3.1. Type: Pianoplan 600 J

3.2. Model: SPEEDY STANDARD

3.3. Construction features



LENGTH (stowed position)	1280 mm
WIDTH	540 mm
HEIGHT (stowed position)	325 mm
MAXIMUM WORKING HEIGHT	700 mm
WEIGHT	300 Kg
MAXIMUM LOADING	600 Kg
MAXIMUM WORKING SLOPE	45°
SPEED TRACTION	12 m/min
POWER	2 x 12 V 65 Ah BATTERY
TRACTION POWER (2 ENGINES)	2 x 700 W at 2850 Rpm
HYDRAULIC POWER	500 W
HYDRAULIC PUMP	GR1 1,6 CC-giro
MAXIMUM EXERCISE PRESSURE	110 Bar
CAPACITY OF THE HYDRAULIC TANK	3 litres

4. DESCRIPTION OF THE MACHINE

4.1. Mechanical components description

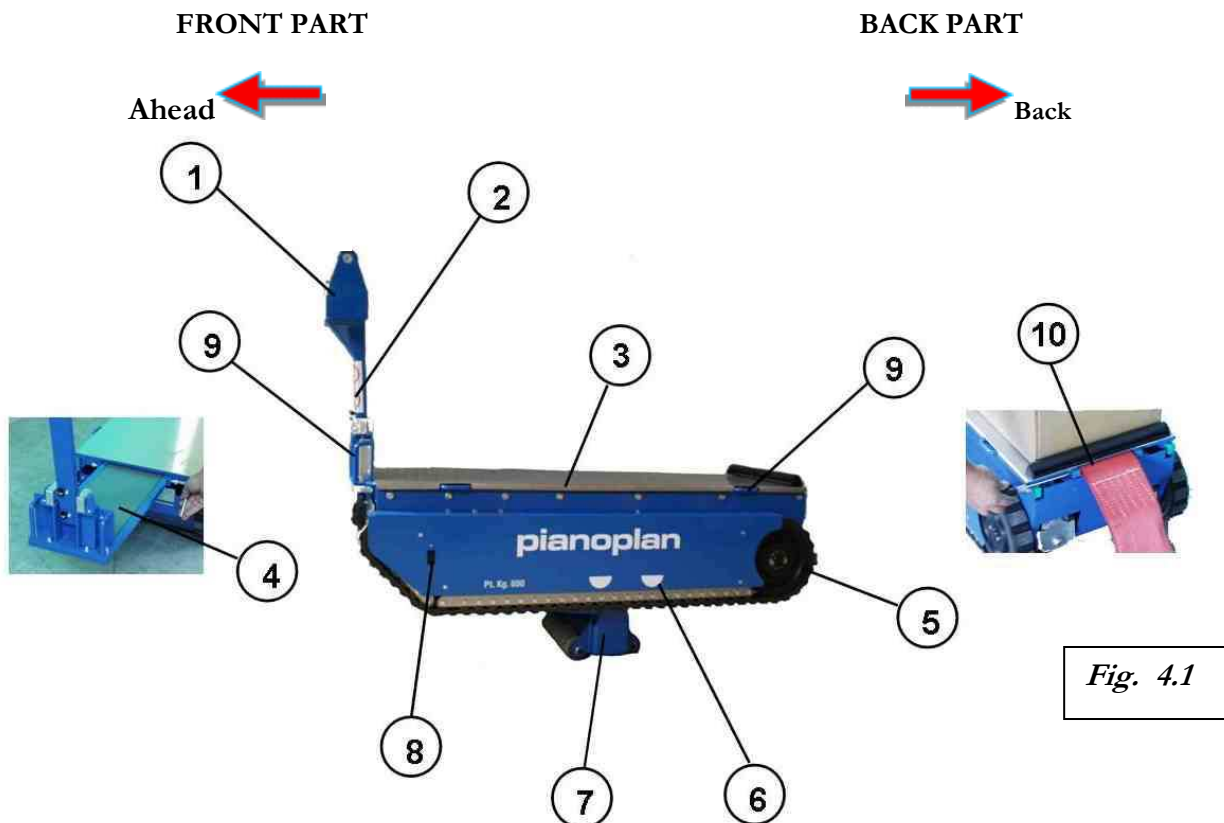


Fig. 4.1

1. Control box
2. Steering bar
3. Loading platform
4. Extending small platform
5. Rubber track
6. Roller lifting system decals
7. Roller lifting system
8. Outlet for battery charger
9. Strap securing loops/anchor points
10. Primary strap securing position

4.2. Controls and movements description



1 PROPORTIONAL DRIVING CONTROL (MANIPULATOR)

With this control you can proportionally move the pianoplan: ahead, back, to the left, to the right

It is also possible to rotate it on itself (one chain track moves ahead while the other one moves back).

2 EMERGENCY STOP BUTTON

When the button is pressed, all Pianoplan operations are disabled.

3 RED LED ROLLER LIFTING SYSTEM

This LED switches on when the Pianoplan is lifted on the roller lifting system. In this case, if you drive, a buzzer sounds advising that the manoeuvre is not correct.

4 KEY SELECTOR

On the ON position, the Pianoplan is switched on.

On the OFF position, the Pianoplan is switched off.

5 WHITE LED STARTING

This led informs you if the machine is ON. It lights on when the key selector is on the ON position.

6 CONTROL BUTTON FOR THE ROLLER LIFTING SYSTEM

This button enables the roller lifting system control only for the lifting manoeuvre.

7 HOUR COUNTER

This instrument counts the hours during which the machine is ON (key selector on ON).

8 DRIVE SPEED SELECTOR

This button selects the drive speed: slow/fast

9 PILOT LIGHT FOR DRIVING SPEED AND ALARM

Green = slow speed

Orange = fast speed

Red = error

10 PILOT LIGHT FOR BATTERIES CHARGER

Green = 100 % charged

Orange = 50% charged

Red = discharged

11 DRIVE CONTROL LIGHT

With this button you enable the driving control.

If the machine is not used for more than 1 minute, this control will automatically switch off.

12 CONTROL BUTTON FOR THE PLATFORM MOVEMENT

“Ahead” Pushing the button “ahead”, the platform moves forward.

“Back” Pushing the button “rearward”, the platform retracts.

13 CONTROL BUTTON FOR THE ROLLER LIFTING SYSTEM

Pushing the button “rearward”, the roller lifting system goes down and the Pianoplan lifts up.

Note: this manoeuvre can be done with button position 6.

Pushing the button “ahead”, the roller lifting system lifts up and the Pianoplan goes down.

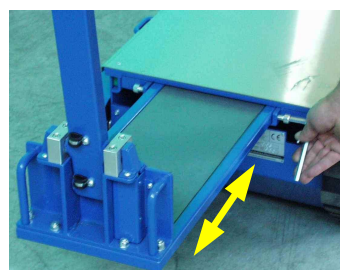
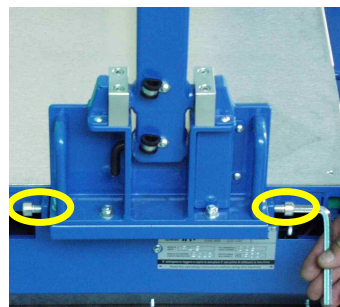
5. MACHINE OPERATION

5.1. Extension of the loading platform

The loading platform has an extending front part which allows you to transport different dimension loads.

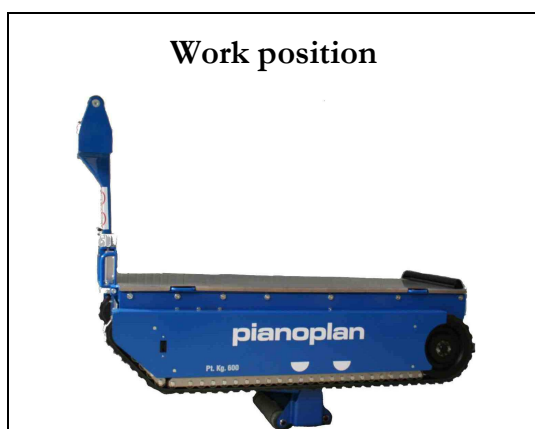
To extend the platform:

- Loosen both the bolts with the hexagonal key put on the steering bar, as indicated on the photo;
- Extract the small extending platform until you obtain the correct length, tighten the bolts with the hexagonal key and replace it on the steering bar.

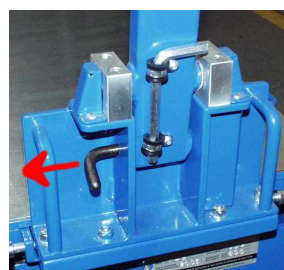


5.2. Steering bar positions

According to your requirements, the steering bar can have 2 positions.



- You can do this operation by removing the bolt situated on the inferior part of the steering bar, inclining the steering bar and replacing the bolt.



5.3. Position of the load to transport



DANGER: IT IS PROHIBITED TO transport more than **600 Kg.**



ATTENTION: pay attention when you lift the load and use appropriate loading systems, put the load on the loading platform.

This operation must be carried out with the maximum possible attention, taking into consideration the physical characteristics of the load (dimensions and weight) and where it has to be located, putting carefully the centre point of the load in the middle of the loading platform in order to have the maximum stability during movement.

To verify the above-mentioned condition, it is sufficient to lift the roller lifting system (*Fig. 4.2 Pos. 7*) some centimetres and to check the effective stability of the load on the platform plate.



ATTENTION: if necessary, reset the load to gain the best point of balance position.



ATTENTION: if you note that the load has overhangs (wheels, support legs, knobs, etc.) be careful that these overhangs do not go under the traction table because when it moves (ahead – back) it could damage the load or touch the fixed parts under the machine.

In this case, it is necessary to use shims (wood/rubber) to be put between the platform and the load.

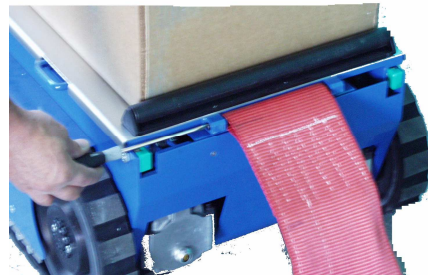
5.4. Instructions to fasten the load



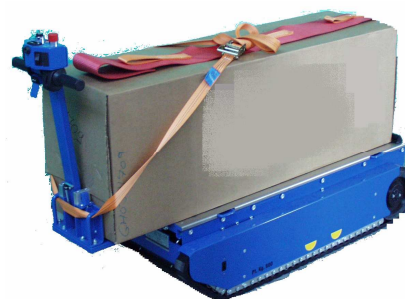
ATTENTIN: lay flat the Pianoplan and put it stowed position before executing this operation. (Key on OFF position – rollers fully retracted and tracks in contact with the “ground”).

The load is fixed with the large strap you received with the Pianoplan, placed in the back of the Pianoplan and the tension system (ratchet strap) of the band, placed in the front part.

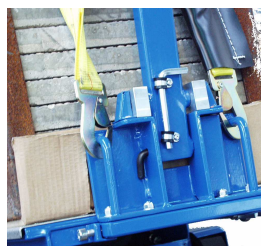
- Fix the red strap on the back part of the platform passing the pin inside the strap ring and tightening the pin with a screwdriver.



- Pass the strap over the load.
- Pass the tensioning system of the strap through the foreseen loops fixed on the basement of the steering bar.



- Fix carefully the load passing the strap through the anchoring loop on the machine and then through the tension system strap.
- Apply tension until you have correctly secured the load.
- For even greater security, it may be necessary to use additional straps.






DANGER: IT IS OBLIGATORY TO CORRECTLY AND SAFELY SECURE THE LOAD BEFORE MOVING THE PIANOPLAN.

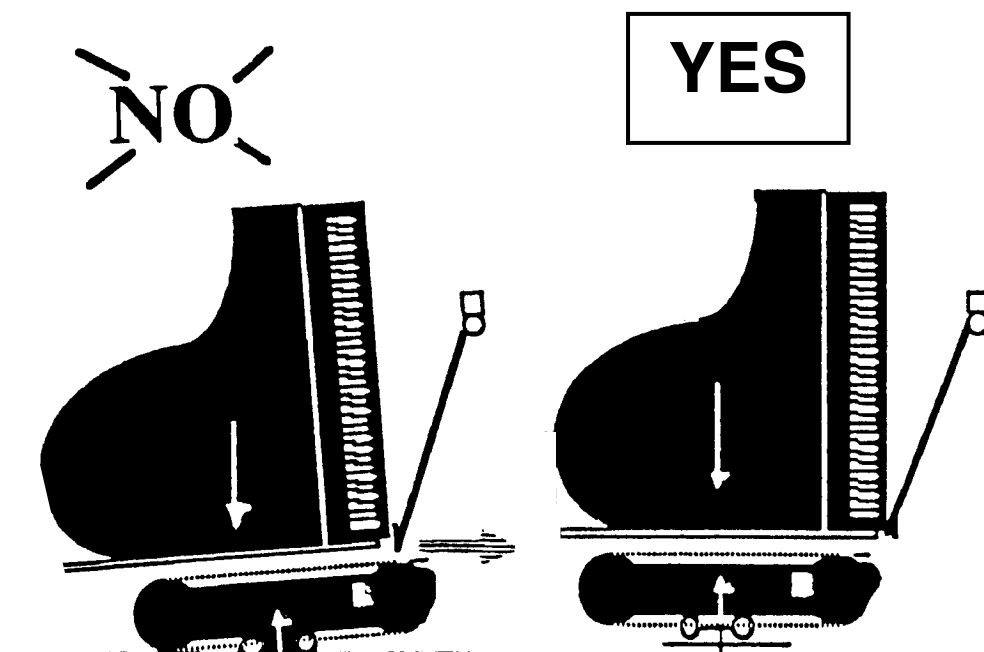
5.5. Use of the loading platform

In order to have maximum stability when you transport a load, it is necessary that the centre of gravity of the load is as close as possible in the middle of the machine.

To obtain these conditions, you must operate as follow:

- Gently press the control button for the roller lifting system  (Fig. 4.2 Pos. 13), lifting the Pianoplan a few centimetres off the floor;
- In case of load imbalance, press with short pulses the button placed on the steering bar  "ahead" if the load weights on the back position of the Pianoplan,  "back" if the load weights on the front part, until you obtain the balancing of the load.

This facility gives you the possibility to maximise the inherent manoeuvrability of the Pianoplan.



ATTENTION: if the load is found unstable when lifting the "machine", and the operator wishes to move the unit on its rollers, it is necessary to re-position the load.

6. TRANSPORT OF THE LOAD



ATTENTION: the use of this machine is only permitted to persons who are instructed and trained.

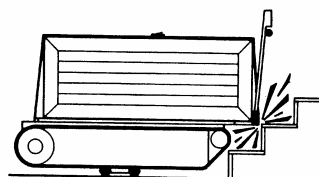
ATTENTION: check that the load is correctly placed and anchored to the Pianoplan according to the procedure written in the previous chapters.

ATTENTION: before starting the transport make a trial without load.




6.1. Manoeuvre of stairs climbing

Before climbing the stairs, CHECK:


- that the tracks are dry. If they are wet, blot them with a towel because you could slip up the steps and cause an unavoidable damage;
- that the ground is not slippery and that the steps of the stair are not broken or wrap-around.;
- that the front part of the traction board (with the steering bar) does not touch the step of the stair.



To facilitate the manoeuvre of the Pianoplan, we advise you to climb the stairs nearest the handrail in order to have more space to manoeuvre when reaching the landing.

- Lift the Pianoplan some centimetres with the control button for the roller lifting system  (Fig. 4.2 Pos. 13).
- Put the front tracks near the handrail (the operator's back must be upstream).
- Retract completely the roller lifting system  (Fig. 4.2 Pos. 13) until the red light (Fig. 4.2 Pos. 3) is switched off.
- Using the driving control (Fig. 4.2 Pos. 1), lift the Pianoplan up the stairs moving ahead the proportional manipulator (Fig. 4.2 Pos. 1), stopping the movement before the complete uncoupling of the track from the starting point floor.
- Now push the control button for the platform movement  (Fig. 4.2 Pos. 12), move on the platform (about 20/30 cm) to reset the centre of gravity of the Pianoplan during the climbing phase.
- Slowly activate on the driving proportional control (Fig. 4.2 Pos. 1) and go upstairs with the Pianoplan until the complete uncoupling of the track from the landing.

Check the new position (barycentre load) and be sure that the Pianoplan **DOESN'T** upset backwards.

Correct the position with the platform movement button  (Fig. 4.2 Pos. 12).

- Go on with the upstairs manoeuvre until you arrive on the landing.

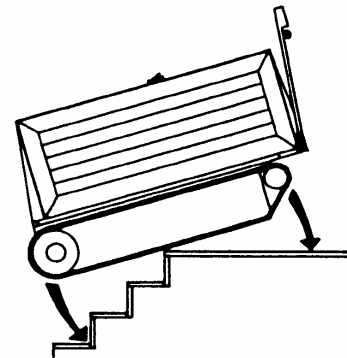


ATTENTION: Moving on surfaces that do not give proper grip to the tracks may cause the Pianoplan slip.


6.2. Arriving on the landing

When you arrive on the landing, some parameters of mass can be modified, because when you change the inclination you also change the position of the centre of gravity of the Pianoplan and of the load. You have a sudden lowering down of the Pianoplan itself.

This will happen when the edge of the tread works as fulcrum for the Pianoplan (see illustration opposite)



Therefore, when you arrive at the last step, check this situation, using the following precautions:

- Arrive to the equilibrium (balance) point moving with small pulses through the proportional control (Fig. 4.2 Pos. 1).
- Take a firm grip of the steering bar and apply a small amount of downward force “to lay the tracks and the Pianoplan flat, and carefully put down the Pianoplan on the landing.
- You obtain the same result by pushing gently the platform movement button “ahead”  (Fig. 4.2 Pos. 12) and leaving the Pianoplan balanced on the fulcrum point (the corner of the step), in order to counterbalance the sudden falling down. The operator can do this last manoeuvre only if he is familiar with the machine.

6.3. Manoeuvre on the landings

When you make a landing manoeuvre, you must consider the space of the area: if it is wide or narrow.



Wide space:

It is the best condition to manoeuvre.

- When you arrive on the landing, check that the “semi circular” symbols placed on the side of the Pianoplan, which represent the rollers of the lifting system, are completely on the landing.



ATTENTION: otherwise the Pianoplan could turn over.

- Lift slowly the Pianoplan pushing the control button for the roller lifting system  (Fig. 4.2 Pos. 13).
- Check the correct balance of the load.
- Lift again the Pianoplan some centimetres pushing the control button for the roller lifting system  (Fig. 4.2 Pos. 13) and bring it up flush to the next step.
- Proceed as indicated in the paragraph ***“Manoeuvre of stairs climbing”*** Par. 6.1.

Narrow space:

These are the most difficult and delicate conditions. You must control different factors taking into consideration the ratio between the area where you have to manoeuvre and the load being transported.



Considering these factors, you will avoid damage from contact of the load or by the Pianoplan hitting the landing wall.

To that end, you must work following this procedure:

- Be sure that the dimensions of the landing are sufficient to make the necessary manoeuvres, making good use of the characteristic of the machine.



ATTENTION: in these conditions, during the manoeuvre, you must continuously check the location of the wheels of the lifting system (the semicircular decals which are placed on the side of the machine), and be sure that these wheels are completely on the landing. Otherwise, the machine could fall down the top stair, with serious consequences.

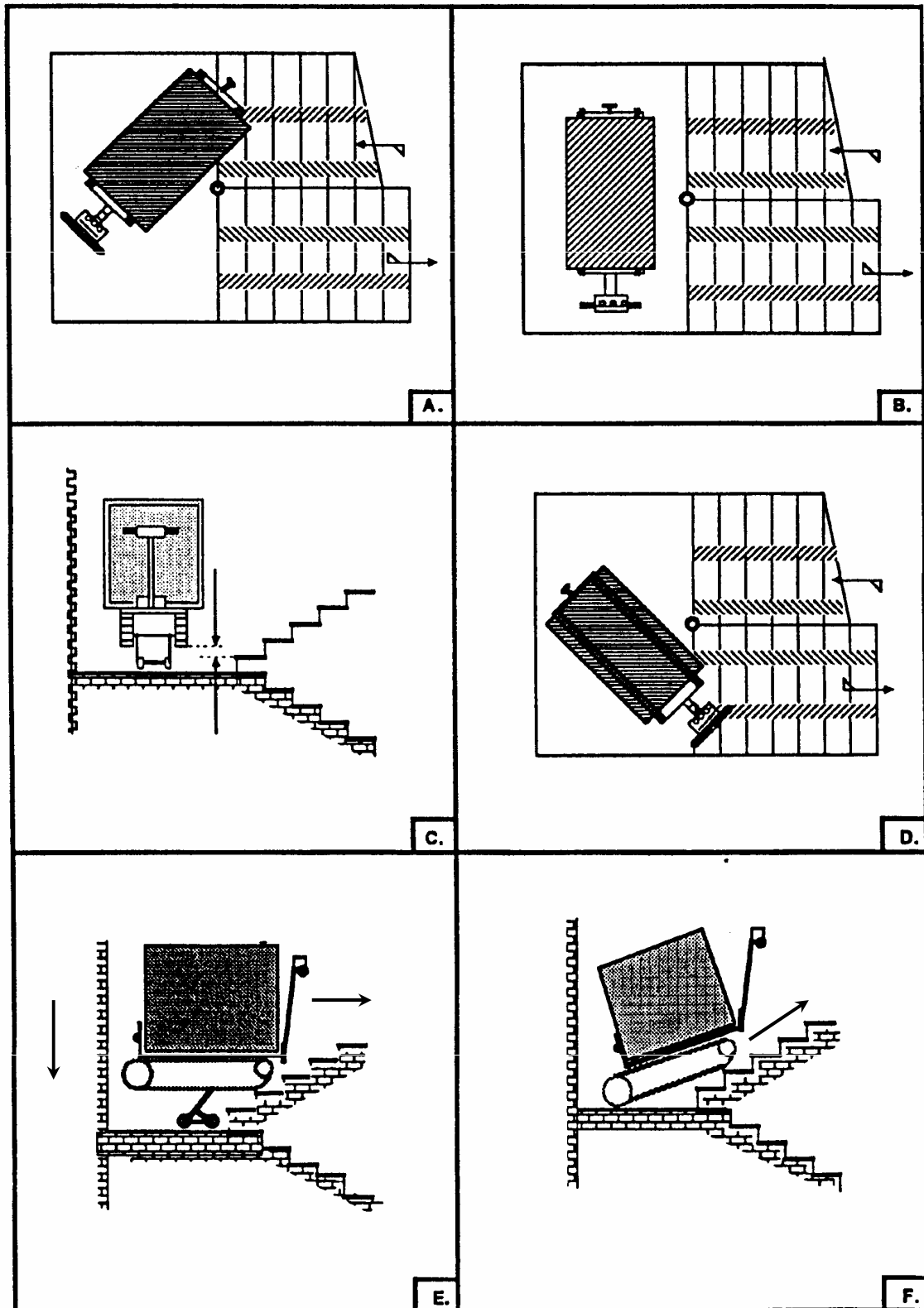
- Lift the Pianoplan some centimetres moving the control button for the roller lifting system  (Fig. 4.2 Pos. 13) enough to put it obliquely close to the first steps, putting down the tracks (Fig. 6.3 Pos. c-d).
- Put the Pianoplan perpendicular to the stairs and slowly retract the lifting system  (Fig. 4.2 Pos. 13). Move the proportional control (Fig. 4.2 Pos. 1) to execute the climbing of the stair.



ATTENTION: when you work in this condition, it is very important to check that the load is not damaged against the wall of the stairs.

- Complete the climbing manoeuvre following the same procedures as in the previous points.



Manoeuvre procedure on narrow landings Figure 6.3



6.4. Going down the stairs



ATTENTION: in this manoeuvre, the rear part of the Pianoplan goes down first. The steering bar and the operator must be upstream the stair during the descent.



- Push the Pianoplan, lightly lifted on the rollers, until you arrive at the stair (do not pass the threshold of the landing with the rear part).
- Put down the Pianoplan pushing the control button for the roller lifting system  (Fig. 4.2 Pos. 13) until the indicator light is off (Fig. 4.2 Pos. 3).
- Using the manipulator (Fig. 4.2 Pos.1) move the machine until it slowly goes towards the stair (with a light pressure of the hands on the steering bar grip it should be possible to maintain the Pianoplan in the horizontal position.).
- Keeping steady hand pressure on the steering handle, keep the machine balanced, drive the platform very slowly using the platform movement button  (Fig. 4.2 Pos. 12) proportionally to the operator direction. In this way, the pressure to exercise reduces and it is possible to easily put down the Pianoplan until it lies on the stair. Stop the traction operation when you have found the new balance point for the descent of the stair.
- Through the proportional control (Fig. 4.2 Pos. 1), go down the stairs till the next landing.



ATTENZIONE: moving on surfaces that do not give proper grip to the tracks may cause the Pianoplan slip.

6.5. Arriving to the landing

When the rear part of the machine with the track is in contact with the landing, proceed as follow:

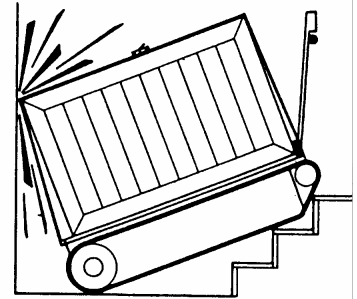
- Alternately, make the descent operation through the proportional control, (Fig. 4.2 Pos. 1) and the retracted operation of the platform pushing the platform control button  (Fig. 4.2 Pos. 12). In this way, the barycentre is correctly distributed and the machine can horizontally stay on the landing.
- In the horizontal position, lift lightly the Pianoplan moving the control button for the roller lifting system  (Fig. 4.2 Pos. 13), check the stability and go to the next stair.







ATTENTION: to manoeuvre on narrow landings, it could be necessary to lift the Pianoplan exploiting the maximum lift of the platform. Check that the drawing of the rollers placed on the sides of the machine stays completely on the landing.



ATTENTION: when you are working in very restricted areas, check that the load does not hit and damage the wall of the staircase (see figure)



Narrow landings

- Lift the Pianoplan with the roller lifting system control  (Fig. 4.2 Pos. 13) until the wheels of the platform do not touch the floor.
- Retract the platform moving the platform control button  (Fig. 4.2 Pos. 12) until balancing the load.
- If the machine is perfectly balanced, lift it a bit moving the control button for the roller lifting system  (Fig. 4.2 Pos. 13) and slowly bring it till the next stair.
- Completely lower down the Pianoplan with the roller lifting system control  (Fig. 4.2 Pos. 13) and proceed as indicated in paragraph “going down the stairs”.



ATTENTION: in these conditions, during the manoeuvre, check continuously the “Semi circular” drawing of the lifting platform rollers placed on the sides of the machine. Also check that these rollers stay completely on the landing. If not, the machine could fall down with very heavy consequences.

6.6. Manoeuvre of independent steering

By using the proportional control (*Fig.4.2 Pos.1*), it is possible to correct the direction of the Pianoplan during the climbing or the descent on the stairs: you only have to move the button on the right or on the left, and the Pianoplan moves in the required direction.

You can also use this operation on large landings. When you manoeuvre to go onto the next stair it is not necessary to lift the platform and manoeuvre the Pianoplan, but only to push the above mentioned button and the accelerator during the movement on the floor.



NOTE: we advise you not to make the manoeuvre of independent steering on full load and on grip surfaces (ex. asphalt, rubber, etc.) because the tracks could detach.

6.7. Manoeuvre on flat surfaces



DANGER: before moving the Pianoplan, check that the route is clear without obstacles, obstructions or holes and be sure that nobody is within the working area.

The movement of the Pianoplan on flat surfaces can be done:

- with the Pianoplan controls, moving the proportional manipulator (*Fig. 4.2 Pos. 1*), moving the machine ahead, back, on the right and on the left;
- lifting the Pianoplan of some centimetres by moving the control button for the roller lifting system  (*Fig.4.2 Pos.13*) and pulling or pushing the Pianoplan along the route. At the desired point, put down the Pianoplan again using the control button for the roller lifting system  (*Fig. 4.2 Pos. 13*).

Turning the Pianoplan when it is lifted off the floor on the roller lifting mechanism does the steering manoeuvre.

7. INSTRUCTIONS TO CHARGE THE BATTERIES



ATTENTION: it is obligatory to charge the batteries after each use of the machine. If you do not use the machine for a long time, it is, in any case, necessary to charge the batteries every 14 days or 2 weeks.

It is prohibited to charge the batteries with a battery charger with a different voltage or amperage other than that supplied by the manufacturer. **The use of this machine is only allowed to duly instructed and trained personnel.**

Use an appropriate AC input tension as the one indicated on the battery charger.

Use only batteries and battery chargers authorized by CTE. These instructions refer to the battery charger provided with the Pianoplan.

Do not use the battery charger if it is damaged or if you are not sure of its integrity and safety.

If you use extensions leads, they must have plugs and sockets according to the law, suitable section cables to the voltage and the absorption of the battery charger. The extension must be taut. Put the battery charger in a stable, dry and ventilated area. Pay attention that the battery charger and the cables are not in contact with liquids or wet objects.

CHARGING the BATTERIES

There are different models of battery charger. For the one provided with your machine, please follow the relative instructions.



ATTENTION: be sure that the key switch of the Pianoplan (*Fig. 4.2 Pos. 4*) is on the "SWITCH OFF" position and that the red emergency button "emergency stop" (*Fig. 4.2 Pos. 2*) is pushed.



ATTENTION: DO NOT USE THE PIANOPLAN WITH THE BATTERY CHARGER CONNECTED

We advise you to charge the Pianoplan after each use. Do not discharge the batteries to exhaustion; otherwise it is necessary to use an alternative battery charger to trickle charge it.



ATTENTION: the batteries installed on the machine are hermetic batteries and it is not necessary to overhaul them.
For the battery recharge, please follow the following instructions.

Battery charger FIAMM-GS E-CHARGER

Be sure that the key switch of the Pianoplan (*Fig. 4.2 Pos. 4*) is on the "SWITCH OFF" position and that the red emergency button "emergency stop" (*Fig. 4.2 Pos. 2*) is pushed in.

Connect the plug for the recharge of the batteries (*Fig. 7.3 Pos. 1*) in the socket placed on the side of the Pianoplan (*Fig. 4.1 Pos.8*).

Connect the electrical plug of the battery charger (*Fig. 7.3 Pos. 2*) into the outlet of the mains supply, which must be provided with earth connection and protected by a magnetothermic and differential switch.

When it is correctly connected, the red LED on the battery charger will switch on (*Fig. 7.3 Pos. 4*).

Note: if all the Red, Green and Yellow LED's (*Fig. 7.3 Pos. 4-5-6*) flash intermittently, the battery is unrecoverable and it is not recharging.

When you are recharging, the LED's switch on one after the other, the first one is the Red LED (*Fig. 7.3 Pos. 4*), the second is the Yellow LED (*Fig. 7.3 Pos. 5*) and finally the Green LED which indicates that the recharge is finished (*Fig. 7.3 Pos. 6*), (end of the recharge). Unplug the battery charger from the Pianoplan and disconnect from the mains supply.

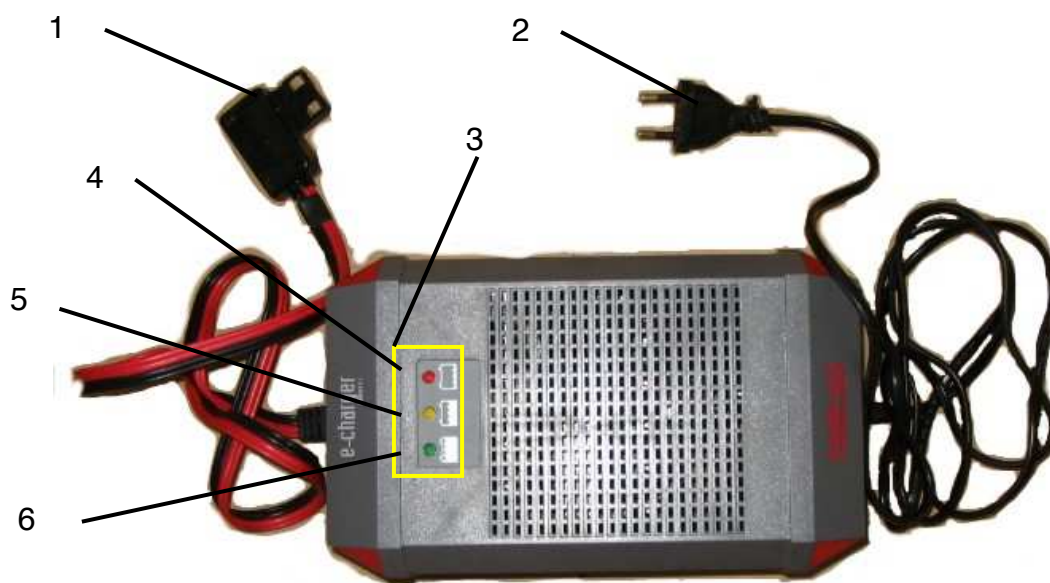


Fig. 7.3

NOTE:

The approximate time for the recharge is 8 hours.



ATTENTION: do not use the Pianoplan with the battery charger connected.



ATTENTION: be sure that the electrical supply is correct for the specific battery charger.



ATTENTION: for further information on the battery charger, consult the operator's manual provided with the battery charger or contact the manufacturer mentioning the part number.

8. TRANSPORT OF THE EQUIPMENT

The vehicle used to transport the Pianoplan must be parked on a levelled surface and must be braked to avoid any movement during the loading of the Pianoplan.

Be sure that the load capacity of the vehicle, the load surface, the chains or the fastenings are able to support the weight of the Pianoplan.

The weight of the Pianoplan is **300 kg**.

Be sure that the temperature during the transport is not more than + 50°C and not less than -15°C.

Load and unload:

To load and unload the Pianoplan from a vehicle, use a suitable ramp in order to support the weight of the machine and use the controls to go up or down the stairs as written in the previous paragraphs.



ATTENTION: only in an emergency is it possible to lift or move the Pianoplan using the anchor loops used to fasten the load. In any case, we advise you to sling it with belts before lifting it.

9. DISMANTLING

For the dismantling of the Pianoplan, take it to a specialist company as the Pianoplan is composed of hydraulic and electrical components.

If necessary, you can contact the manufacturer who will provide further information.

10. MAINTENANCE

To keep the equipment in perfect working condition and to guarantee safe operation, it is obligatory to follow the maintenance schedule.

The operations listed in the summary table must be performed at the indicated time intervals and according to the manual instructions.

Before using the machine, be sure that scheduled maintenance has been performed and make the inspection checks listed in the column marked "before each use".

Completion of the three monthly, annual and 2-yearly inspections must be noted in the appropriate maintenance register that is supplied with the machine.



ATTENTION: only the maintenance related in this chapter can be done by the user or by his technicians.

Any maintenance operations not listed in this chapter must only be performed by the CTE After-Sales Dept. or by qualified personnel and authorized by CTE to overhaul this machine.

For more details, contact our After-sales Dept.:

CTE S.p.A. After-Sales Dept.

☎ see chapter 1.4. page 7 "After-sales and spare parts dept."

It is prohibited to modify or alter the Pianoplan as you could compromise safety. The same rules apply for the assembly and the adjustment of safety systems and valves, as well as any welded areas on machine structure.

Before starting work with the Pianoplan, you must read the safety regulations indicated in chapter 2 "General information for the safe use of the machine".



ATTENTION: a damaged or broken machine must immediately be taken out of service.

Repair all damages and/or breakdowns before putting it back into service.

Cracked components must be replaced. It is prohibited to reweld.

Essential features :

Regular cleaning and maintenance must only be performed by instructed, trained persons and authorized by the user. These persons must be informed about the possible dangers.

Only CTE After sale personnel must perform the maintenance to the hydraulic system, except certain described measures.

When you use greases, oils, fuel oil and other substances, you must observe and comply with the current appropriate requirements of the law and the Health & Safety instructions for the products regarding storage, handling, use and disposal.



You must provide for the safe disposal with regard to the environment for all the substances necessary for the lifting system as well as the disposable materials and the replaced parts.

10.1. Maintenance program

The following is a service program which is a plan to carry out routine maintenance. You will also find the respective due dates for the inspections. In addition to the servicing program, you will find the measures and relative points regarding lubrication, filters and levels.

The work carried out must be noted in the inspection register. This register must be conformed to the enclose document I of the Directive 98/37/CE.

10.2. Summary table of maintenance

Normal intervals of maintenance	Before each use	Every 3 months	Every year	Every 2 years	REFERENCES
Operator's and maintenance manual control	●				
Legibility of plates and decals	●				
Checks for any damage and missing, loosened or detached parts and possible structural damages	●				
Working test and limit switch operation	●				
Emergency stop check	●				
Tracks check	●				
Electromagnetic working brake test and tracks holding	●				
Hydraulic fluid leak check	●				
Anchor belts and straps for the load strapping	●				
Control and registration, in the inspection register, of the anchor belts and straps for the load		●			
Hydraulic oil level tank		●			
Electrical system functions			●		
Driving belt integrity			●		
CTE authorised service centre control				● ●	
Driving belt replacement				● ●	
Hydraulic oil replacement of all the system and of the reduction gears				● ●	

● ● Maintenance must only be performed by the CTE After-sales Dept.

Note the maintenance operations performed in the maintenance register.

Every year or every 2 years the lifting system needs checking by an expert or by the CTE After-Sales Dept.

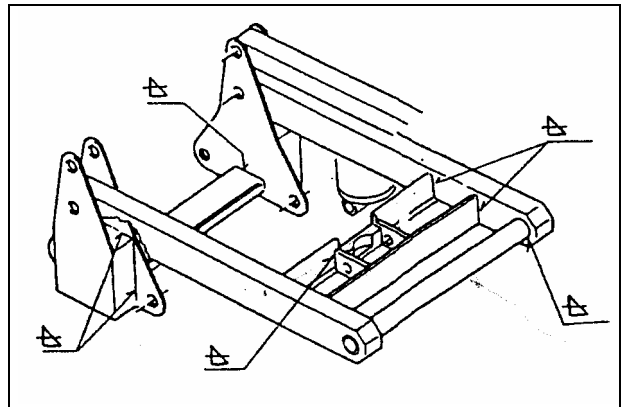
The results of this check must be noted, with the date and the signature of the expert, in the maintenance register.

10.3. Checks to do before using the machine

1. Check that the operator's and maintenance manual is available, complete and legible. In case of loss or damage ask the CTE After-sales Dept. for a new copy.
2. Check the state of the plates and decals for indications, requirements and danger; they must be intact, legible and correctly placed.
For the positioning see paragraph 10.5.

3. Check the general condition of the machine, if there are missing parts and, particularly, the state of the structure. Also check if there are warped or crack components in relation to welded areas.

Check carefully the welding of the foot as indicated on the figure, lifting the Pianoplan.



Check the anchor points of the belts and straps.



4. Check that the tracks are not worn, torn, cut and have not been in contact with oil, soaps or other material. Turn the track and check its internal and external parts. In case of damage, immediately stop the machine and contact the CTE After-sales Dept.
If the track is greasy or wet, clean and dry it carefully.



DANGER: it is prohibited to climb the stairs, if they are wet, if there is ice or if the tracks are wet.

5. Carry out some tests activating all the controls: moving the platform ahead and back, lifting the Pianoplan, moving the tracks forwards and backwards, etc.
6. Check the functioning of the emergency stop.
Do again the tests activating all the controls and stop the movements pushing the emergency stop button. Pushing this button, the machine must stop immediately. In case of anomalies, call the CTE After-sales Dept.
7. Check that there are no oil leaks from hoses, joints, cylinders, motor-driven pump and block valve. If you see some leaks, call the CTE After-sales Dept.



ATTENTION: if there is an oil leak, and the oil is in contact with the track, there could be a loss of grip with dangerous consequences.

8. Check the correct working of the electromagnetic brake and the good state of the tracks, leaving the Pianoplan for some minutes on the stair. The Pianoplan must not move. If it does, call the CTE After-sales Dept.
9. Check the anchor belts and straps of the load.
Confirm the good state of the belts and straps, especially near the stitching. If they are frayed or crushed, replace them immediately. Check also the tension and all the parts of the belt that must be mechanically intact, complete and efficient.



ATTENTION: it is prohibited to use greased or wet belts and bands, or belts which are not authorized by the manufacturer.

10.4. Three-month checks

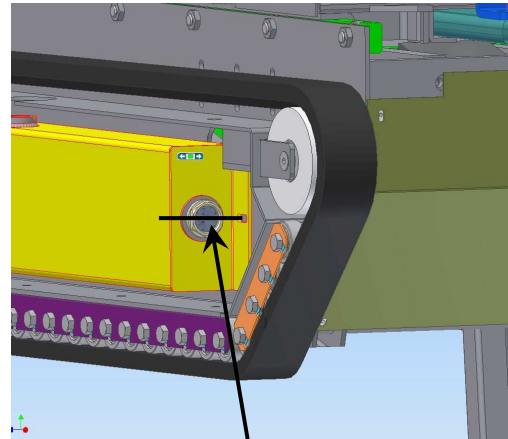
1. Oil tank level control

Normally, if there are no oil leaks, the oil in the tank is neither topped up nor changed.

However, we advise you to check the level using the transparent indicator glass, after having let the PIANOPLAN stand on a perfectly horizontal



floor.



Normal oil level
Oil refill

2. Check and registration in the control register of the anchor belts and straps of the load

Confirm the good state of the belts and straps, especially near the stitching. If they are frayed or crushed, replace them immediately. Check also the tension and all the parts of the belt that must be mechanically intact, complete and efficient.



ATTENTION: it is prohibited to use greased or wet belts and bands, or belts which are not authorized by the manufacturer.

10.5. Annual checks

1. Electrical system check

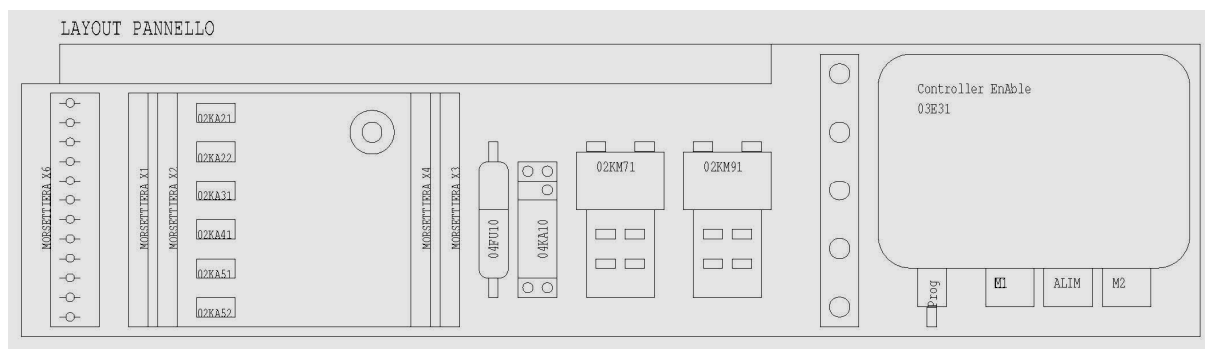
Remove the side casing by unscrewing the screws encircled on the figure.



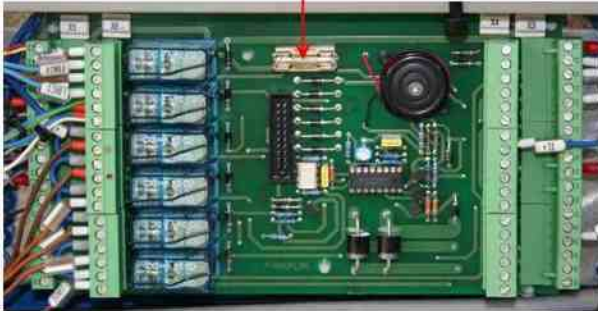
Check the integrity of all the electrical cables, verify that these are pushed fully in and retained in the respective terminal board and that the wire terminals are correctly connected. If you see a breakage or a peeling, repair it immediately or, if necessary, call the After-sales Dept.

In the event that you have to change fuses, you can identify them by looking at the following photos.

ELECTRICAL BOARD



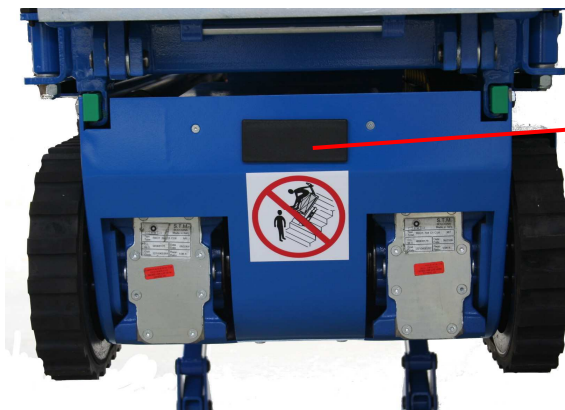
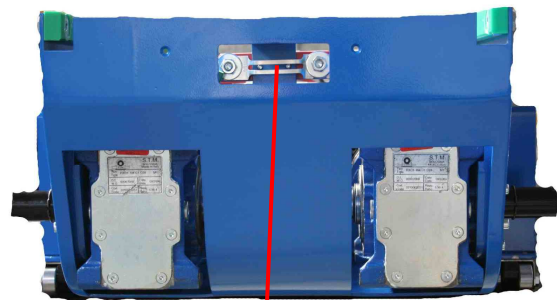
Fusibile scheda
02FU12 4AT



Fusibile scheda
04FU10 4AT



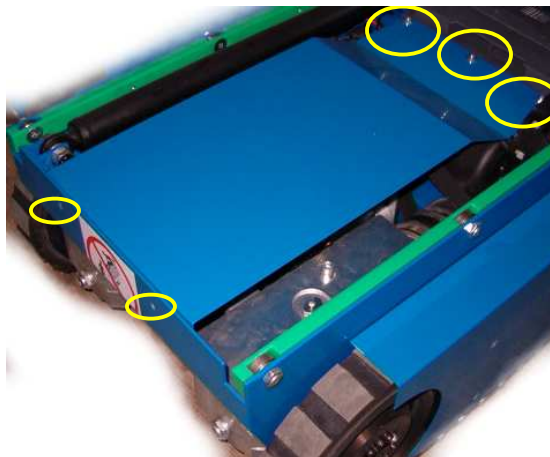
Inside the Pianoplan, in the rearward a general 100 A. fuse is mounted. To replace it, take away the protection cover and using a 13 mm socket spanner unloose the nuts and change the fuse. Screw tight the nuts and reset the plastic cover, it is pressure mounted.



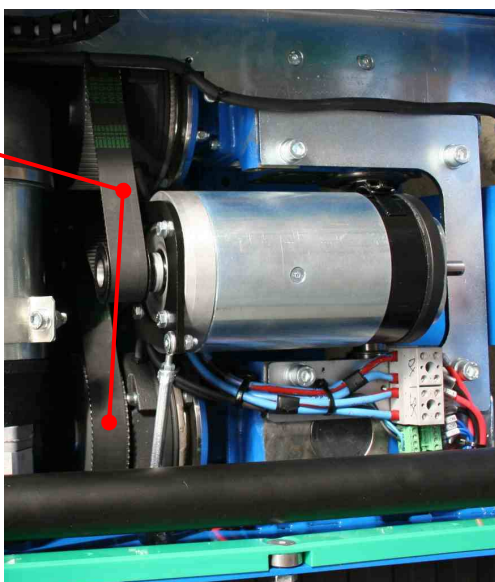
General fuse 100 A
02FU01

2. Driving belt control

To check the toothed driving belts, it is necessary to move forward the sliding platform without lifting the Pianoplan. Then remove the protection cover plate by unscrewing the screws indicated in the figure.



Toothed
belts



DANGER: this check must be carefully carried out because there are mechanical moving parts. Do not put your hands near or into these electrical elements. There is a danger of catching or dragging.



ATTENTION: this is only a visual check.



ATTENTION: immediately after inspection, replace all the protective cover plates.

Move very slowly the proportional traction control. The belt will turn and the operator can see any possible damage or wear points. The most likely detectable damage on the teeth are:

- irregular wear of the tooth or the side;
- tooth laceration;
- breaks or cracks of the belt back;
- break of the resistant insert.



ATTENTION: in all these cases, immediately stop the machine and contact the CTE After-sales Dept.

Every 2 years:

- change the hydraulic oil throughout the all system;
- change the traction reducers synthetic hydraulic oil
- change the driving belts.



ATTENTION: for these operations it is necessary to take the Pianoplan to a CTE After-sales Dept. or to contact it.

10.6. Placement of decals and plates

In this chapter, we inform you about the importance of the correct position of decals and plates.

It is very important to check each time before using the machine if the decals regarding the controls and the safety are perfectly legible and correctly placed.



These decals are symmetrical on both sides of the Pianoplan

10.7. Repairs



The repairs must only be done by specialist and trained personnel who have the knowledge of the Pianoplan and ideally under the supervision of a CTE engineer. These arguments are not discussed in this manual.

For repairs and assistance, please contact the Customers After-sales Dept.:

CTE S.p.A.

Via Caproni, 7

38068 Rovereto (TN) - ITALY

Tel. +39 0464 485050 Fax +39 0464 485099

CTE UK LIMITED

Unit L – Feldspar Close – W.P

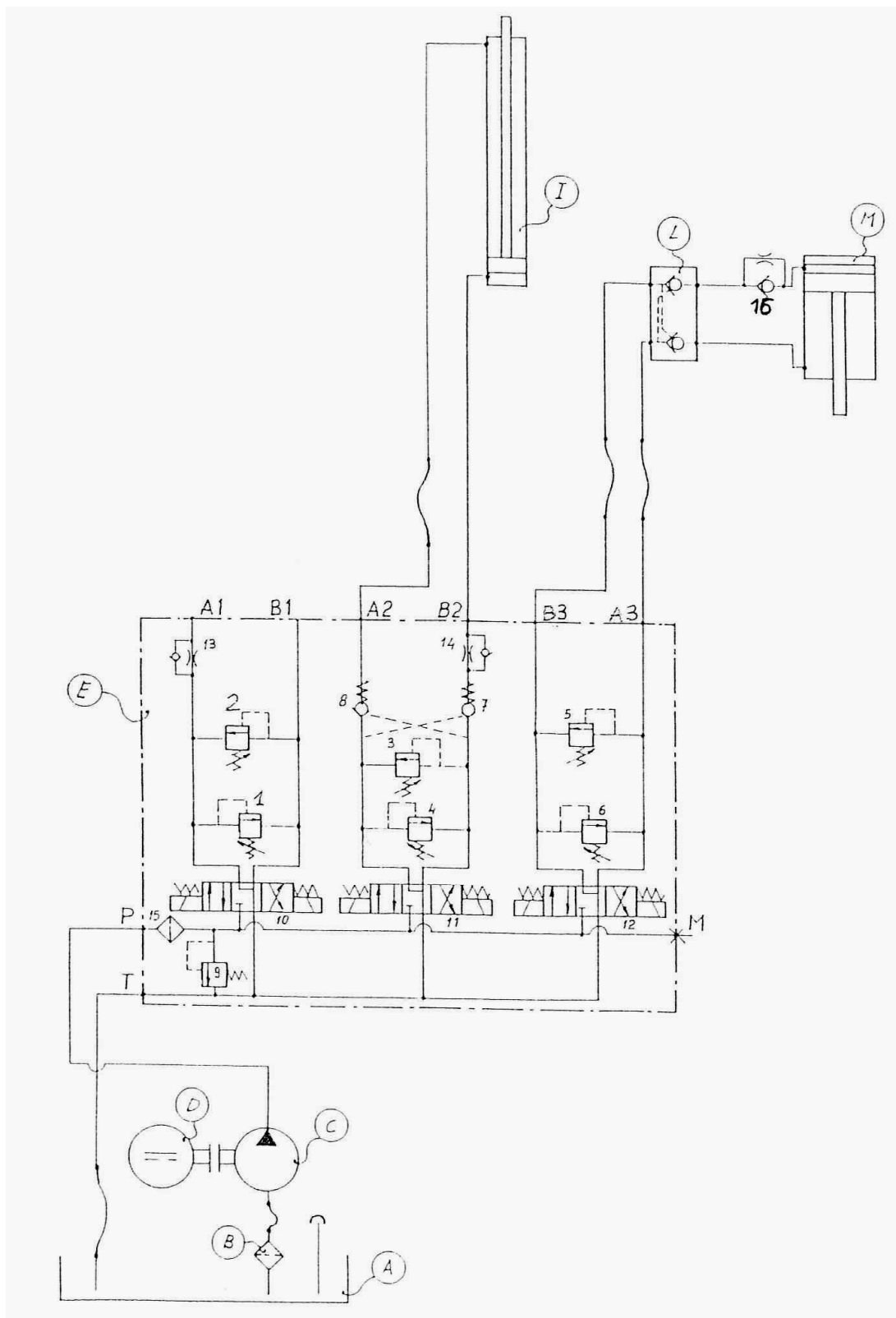
LE19 4SD – ENDERBY LEICESTERSHIRE

UK

Tel +44 116 286 6743 Fax +44 116 286 3015

or the nearest authorized workshop.

11. HYDRAULIC SYSTEM

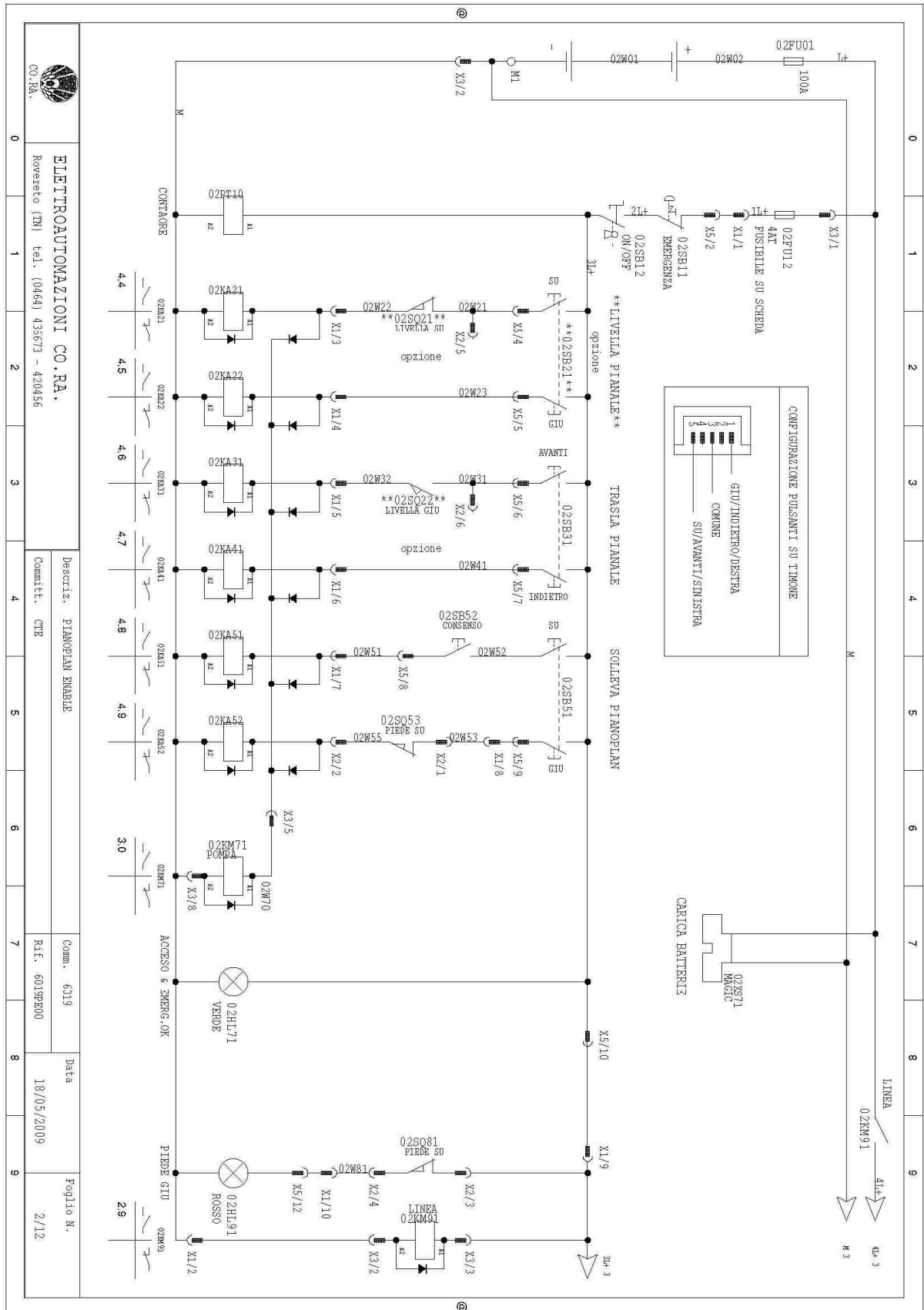


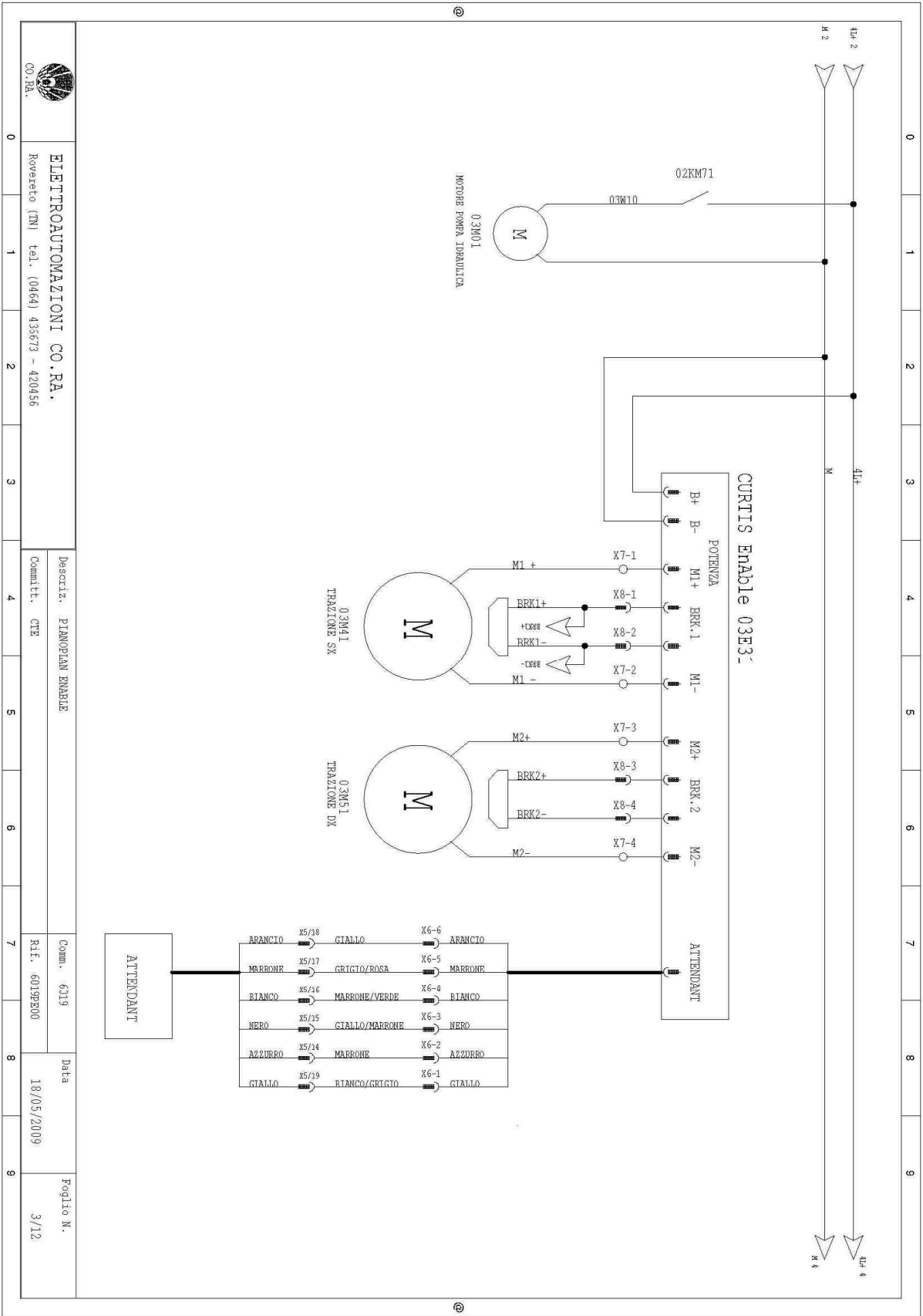
Hydraulic system list

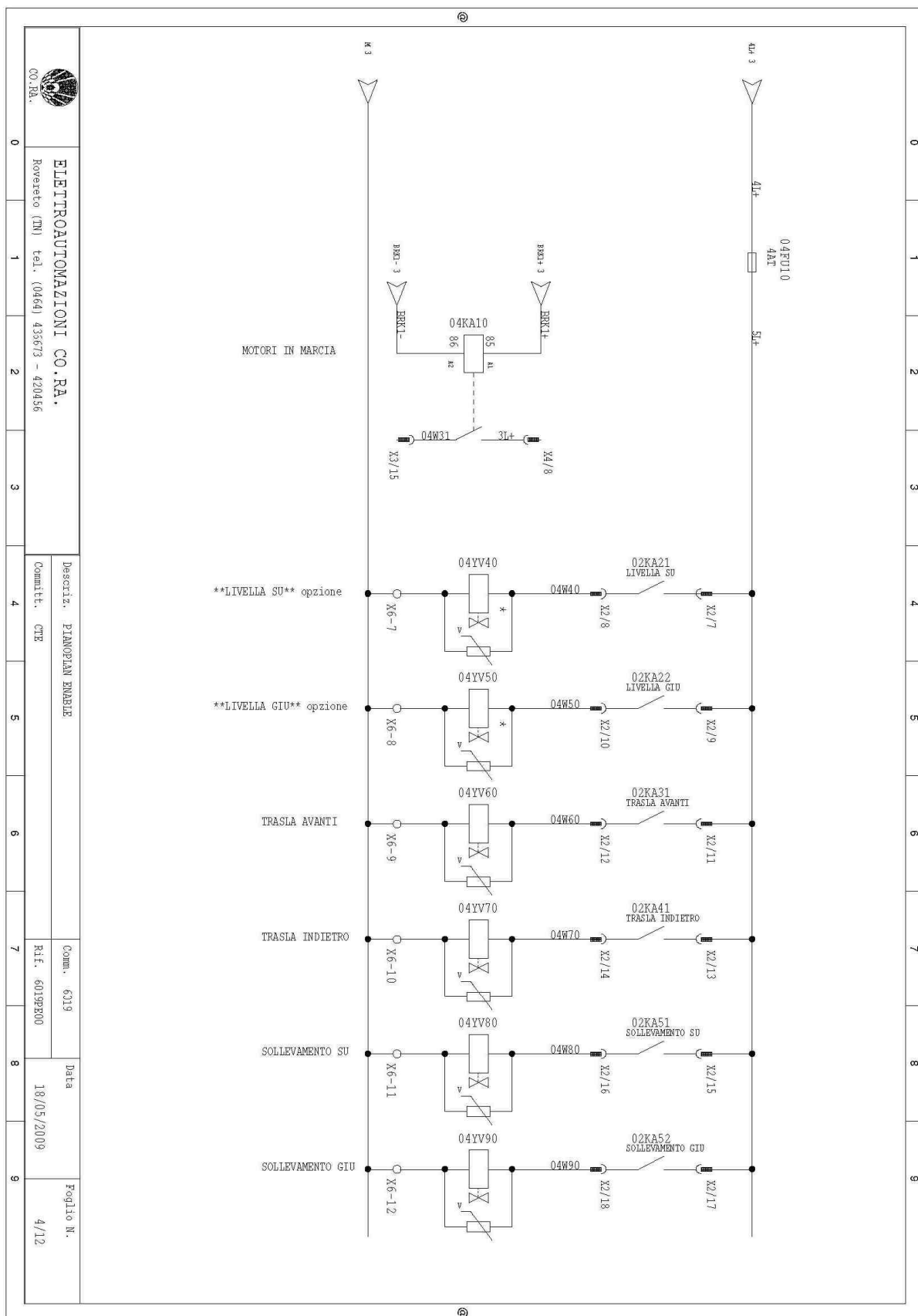
POSITION	DESCRIPTION
A	Tank, reservoir
B	Filter in aspiration
C	Pump
D	Engine
E	Valves group
F	Stop valve
H	
I	Platform translation cylinder
L	Stop valve
M	Lifting cylinder
1	Maximum valve
2	Maximum valve
3	Maximum valve
4	Maximum valve
5	Maximum valve
6	Maximum valve
7	Stop valve
8	Stop valve
9	Stop valve
10	Electro valve
11	Electro valve
12	Electro valve
13	Flux control
14	Flux control
15	Filter high pressure
16	Flux control

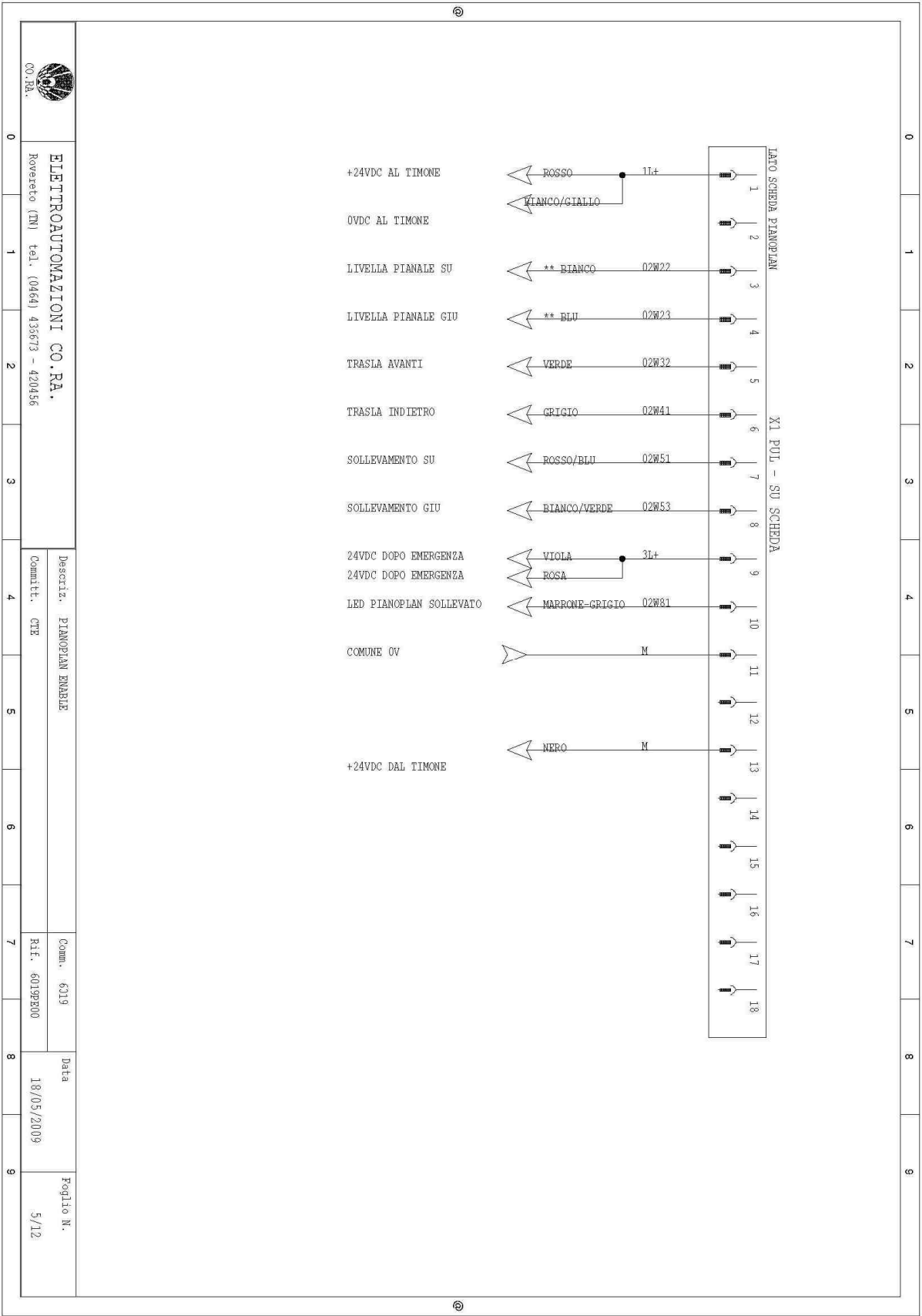
12. ELECTRICAL SYSTEM

0	1	2	3	4	5	6	7	8	9																																												
RIMANDI DI PAGINA			SEZIONI DEI CONDUTTORI			SIGLE DEI COMPONENTI																																															
<p>N° FID XXX 000 FID DI ORIGINE DEL FID XXX FID DI DESTINAZIONE DEL FID XXX 000</p>			<table><tr><td>CONDUTTORE</td><td>A</td><td>6</td><td>8</td><td>10</td><td>12</td><td>16</td><td>20</td><td>25</td><td>32</td><td>40</td></tr><tr><td>SEZIONE</td><td>mmq</td><td>1,5</td><td>1,5</td><td>2,5</td><td>2,5</td><td>4</td><td>6</td><td>6</td><td>6</td><td>10</td></tr></table> <table><tr><td>CONDUTTORE</td><td>A</td><td>53</td><td>67</td><td>83</td><td>104</td><td>123</td><td>155</td><td>192</td><td>250</td><td></td></tr><tr><td>SEZIONE</td><td>mmq</td><td>16</td><td>25</td><td>35</td><td>50</td><td>70</td><td>95</td><td>120</td><td>185</td><td></td></tr></table>			CONDUTTORE	A	6	8	10	12	16	20	25	32	40	SEZIONE	mmq	1,5	1,5	2,5	2,5	4	6	6	6	10	CONDUTTORE	A	53	67	83	104	123	155	192	250		SEZIONE	mmq	16	25	35	50	70	95	120	185		<p>C = CONDENSATORE DE = ELECCALIZZATORE EV = VENTILATORE FA = INTERROTORE AUTOMATICO CIRCUITI AUSILIARI FO = FUSIBILE GB = BATTERIA DI ACCUMULATORI GS = ALIMENTATORE HL = LAMPADA SPILA KA = RELÉ AUSILIARIO RM = CONTATTORE XT = TEMPORIZZATORE M = MOTORE PA = APPARECCHIO / CONTAPPEZZI PC = CONTAPPEZZI / CONTAPPEZZI PV = VOLTPETRO PT = CONTATTORE QF = INTERROTORE AUTOMATICO DI POTENZA GS = SELEZIONATORE GENERALE SA = SELETORE SOTTIVO SB = PULSANTE SL = SENSORE DI LIVELLO / GALLEGGIANTE SP = SENSORE DI PRESSIONE / PULSOSTATO / PRESSOSTATO ST = SENSORE DI TEMPERATURA / TERMISTATO TA = TRASDUTTORE AEROMETRICO TC = TRASDUTTORE PER ASSISTIANI TV = TRASDUTTORE DI TENSIONE PER LAMPAD W = FID W-C = CAVO X = MONTATO / MONTATTORE</p>			
CONDUTTORE	A	6	8	10	12	16	20	25	32	40																																											
SEZIONE	mmq	1,5	1,5	2,5	2,5	4	6	6	6	10																																											
CONDUTTORE	A	53	67	83	104	123	155	192	250																																												
SEZIONE	mmq	16	25	35	50	70	95	120	185																																												
NUMERAZIONE DEI COMPONENTI			CODICE COLORI PER PUSANTI																																																		
<p>SIGLA: xxxyyk xx - N°M. FID DOVE E' POSIZIONATO IL COMPONENTE yy - IDENTIFICAZIONE DEL COMPONENTE z - N°M. COLUMNA DEL FID DOVE E' POSIZIONATO IL COMPONENTE k - N°M. PROGRESSIVO DEL COMPONENTE ALL'INTERNO DELLA COLUMNA</p>			<p>ROSSO - ENERGIA / STOP GIALLO - NORMALE / ELECCALIZZAZIONE VERDE - SICUREZZA / PRONTO MARCIA / MARCIA BLU - ORBITAZIONE / DOME PRESENTE BIANCO - AVVIO / MARCIA CELESTIO - MANUALE NERO - ARRESTO / STOP</p>																																																		
NUMERAZIONE DEI FIDI			CODICE COLORI PER INDICATORI LUMINOSI																																																		
<p>SIGLA: xxyyz xx - N°M. FID DOVE E' POSIZIONATO IL FID y - SIGLA CHE IDENTIFICA UN FID z - N°M. COLUMNA DOVE E' POSIZIONATO IL FID 2 - N°M. PROGRESSIVO DEL FID ALL'INTERNO DELLA COLUMNA</p>			<p>ROSSO - ENERGIA / TENDICI / ALLARME GIALLO - CONDIZIONE PERICOLOSA / ENERGIA / TENDICI / RISULT VERDE - CONDIZIONE NORMALE / MARCIA BLU - ORBITAZIONE / MANUALE BIANCO - AVVIO / CONTROLLO</p>																																																		
CODICE COLORI PER CONDUTTORI			POSIZIONAMENTO MONTATTORE																																																		
<p>NERO - FASE POTENZA BLU - RETTO POTENZA ROSSO - RETTO POTENZA BLU - ASSISTIANI IN ALTERNATA BLU - ASSISTIANI IN CONTINUA ARANCIO - PROVVISORIA DA ALTRI QUADRI (NON SEZIONABILE DA INTERROTORE GENERALE)</p>			<p><input type="checkbox"/> IN BASSO <input type="checkbox"/> IN ALTO <input checked="" type="checkbox"/> VERTICALE A SINISTRA <input type="checkbox"/> VERTICALE A DESTRA</p>																																																		
Elettroautomazioni CO. RA. Rovereto (TN) tel. (0464) 435673 - 420456			Progettista: CLAUDIO			Comm. 6019																																															
0			1			2																																															
3			4			5																																															
6			7			8																																															
9			0			1																																															
2			3			4																																															
5			6			7																																															
8			9			0																																															
1			2			3																																															
4			5			6																																															
7			8			9																																															
9			0			1																																															
1			2			3																																															
2			3			4																																															
3			4			5																																															
4			5			6																																															
5			6			7																																															
6			7			8																																															
7			8			9																																															
8			9			0																																															
9			0			1																																															
0			1			2																																															
1			2			3																																															
2			3			4																																															
3			4			5																																															
4			5			6																																															
5			6			7																																															
6			7			8																																															
7			8			9																																															
8			9			0																																															
9			0			1																																															
0			1			2																																															
1			2			3																																															
2			3			4																																															
3			4			5																																															
4			5			6																																															
5			6			7																																															
6			7			8																																															
7			8			9																																															
8			9			0																																															
9			0			1																																															
0			1			2																																															
1			2			3																																															
2			3			4																																															
3			4			5																																															
4			5			6																																															
5			6			7																																															
6			7			8																																															
7			8			9																																															
8			9			0																																															
9			0			1																																															
0			1			2																																															
1			2			3																																															
2			3			4																																															
3			4			5																																															
4			5			6																																															
5			6			7																																															
6			7			8																																															
7			8			9																																															
8			9			0																																															
9			0			1																																															
0			1			2																																															
1			2			3																																															
2			3			4																																															
3			4			5																																															
4			5			6																																															
5			6			7																																															
6			7			8																																															
7			8			9																																															
8			9			0																																															
9			0			1																																															
0			1			2																																															
1			2			3																																															
2			3			4																																															
3			4			5																																															
4			5			6																																															
5			6			7																																															
6			7			8																																															
7			8			9																																															
8			9			0																																															
9			0			1																																															
0			1			2																																															
1			2			3																																															
2			3			4																																															
3			4			5																																															
4			5			6																																															
5			6			7																																															
6			7			8																																															
7			8			9																																															
8			9			0																																															
9			0			1																																															
0			1			2																																															
1			2			3																																															
2			3			4																																															
3			4			5																																															
4			5			6																																															
5			6			7																																															
6			7			8																																															
7			8			9																																															
8			9			0																																															
9			0			1																																															
0			1			2																																															
1			2			3																																															
2			3			4																																															
3			4			5																																															
4			5			6																																															
5			6			7																																															
6			7			8																																															
7			8			9																																															
8			9			0																																															
9			0			1																																															
0			1			2																																															
1			2			3																																															
2			3			4																																															
3			4			5																																															
4			5			6																																															
5			6			7																																															
6			7			8																																															
7			8			9																																															
8			9			0																																															
9			0			1																																															
0			1			2																																															
1			2			3																																															
2			3			4																																															
3			4			5																																															
4			5			6																																															
5			6			7																																															
6			7			8																																															
7			8			9																																															
8			9			0																																															
9			0			1																																															
0			1			2																																															
1			2			3																																															
2			3			4																																															
3			4			5																																															
4			5			6																																															
5			6			7																																															
6			7			8																																															
7			8			9																																															
8			9			0																																															
9			0			1																																															
0			1			2																																															
1			2			3																																															
2			3			4																																															
3			4			5																																															
4			5			6																																															
5			6			7																																															
6			7			8																																															
7			8			9																																															
8			9			0																																															
9			0			1																																															
0			1			2																																															
1			2			3																																															
2			3			4																																															
3			4			5																																															
4			5			6																																															
5			6			7																																															
6			7			8																																															
7			8			9																																															
8			9			0																																															
9			0			1																																															
0			1			2																																															
1			2			3																																															
2			3			4																																															
3			4			5																																															
4			5			6																																															
5			6			7																																															
6			7			8																																															
7			8			9																																															
8			9			0																																															
9			0			1																																															
0			1			2																																															
1			2			3																																															
2			3			4																																															
3			4			5																																															
4			5			6																																															
5			6			7																																															
6			7			8																																															
7			8			9																																															
8			9			0																																															
9			0			1																																															
0			1			2																																															
1			2			3																																															
2			3			4																																															
3			4			5																																															
4			5			6																																															
5			6			7																																															
6			7			8																																															
7			8			9																																															
8			9			0																																															
9			0			1																																															
0			1			2																																															
1			2			3																																															
2			3			4																																															
3			4			5																																															
4			5			6																																															
5			6			7																																															
6			7			8																																															
7			8			9																																															
8			9			0																																															
9			0			1																																															
0			1			2																																															
1			2			3																																															
2			3			4																																															
3			4			5																																															
4			5			6																																															
5			6			7																																															
6			7			8																																															
7			8			9																																															
8			9			0																																															
9			0			1																																															
0			1			2																																															
1			2			3																																															
2			3			4																																															
3			4			5																																															
4			5			6																																															
5			6			7																																															
6			7			8																																															
7			8			9																																															
8			9			0																																															
9			0			1																																															
0			1			2																																															
1			2			3																																															
2			3			4																																															
3			4			5																																															
4			5			6																																															
5			6			7																																															
6			7			8																																															
7			8			9																																															
8			9			0																																															
9			0			1																																															
0			1			2																																															
1			2			3																																															
2			3			4																																															
3			4			5																																															
4			5			6																																															
5			6			7																																															
6			7			8																																															
7			8			9																																															
8			9			0																																															
9			0			1																																															
0			1			2																																															
1			2			3																																															
2			3			4																																															
3			4			5																																															
4			5			6																																															
5			6			7																																															
6			7			8																																															
7			8			9																																															
8			9			0																																															
9			0			1																																															
0			1			2																																															
1			2			3																																															
2			3			4																																															
3			4			5																																															
4			5			6																																															
5			6			7																																															
6			7			8																																															
7			8			9																																															
8			9			0																																															
9			0			1																																															
0			1			2																																															
1			2			3																																															
2			3			4																																															
3			4			5																																															
4			5			6																																															
5			6			7																																															
6			7			8																																															
7			8			9																																															
8			9			0																																															
9			0			1																																															
0			1			2																																															
1			2			3																																															
2			3			4																																															
3			4			5																																															
4			5			6																																															
5			6			7																																															
6			7			8																																															
7			8			9																																															
8			9			0																																															
9			0			1																																															
0			1			2																																															
1			2			3																																															
2			3			4																																															
3			4			5																																															
4			5			6																																															
5			6			7																																															
6			7			8																																															
7			8			9																																															
8			9			0																																															
9			0			1																																															
0			1			2																																															
1			2			3																																															
2			3			4																																															
3			4			5																																															
4			5			6																																															
5			6			7																																															
6			7			8																																															
7			8			9																																															
8			9			0																																															
9			0			1																																															
0			1			2																																															
1			2			3																																															
2			3			4																																															
3			4			5																																															
4			5			6																																															
5			6			7																																															
6			7			8																																															
7			8			9																																															
8			9			0																																															
9			0			1																																															
0			1			2																																															
1			2			3																																															
2			3			4																																															
3			4			5																																															
4			5			6																																															
5			6			7																																															
6			7			8																																															
7			8			9																																															
8			9			0																																															
9			0			1																																															
0			1			2																																															
1			2			3																																															
2			3			4																																															
3			4			5																																															
4			5			6																																															
5			6			7																																															
6			7			8																																															
7			8			9																																															
8			9			0																																															
9			0			1																																															
0			1			2																																															
1			2			3																																															
2			3			4																																															
3			4			5																																															
4			5			6																																															
5			6			7																																															
6			7			8																																															
7			8			9																																															
8			9			0																																															
9			0			1																																															
0			1			2																																															
1			2</																																																		

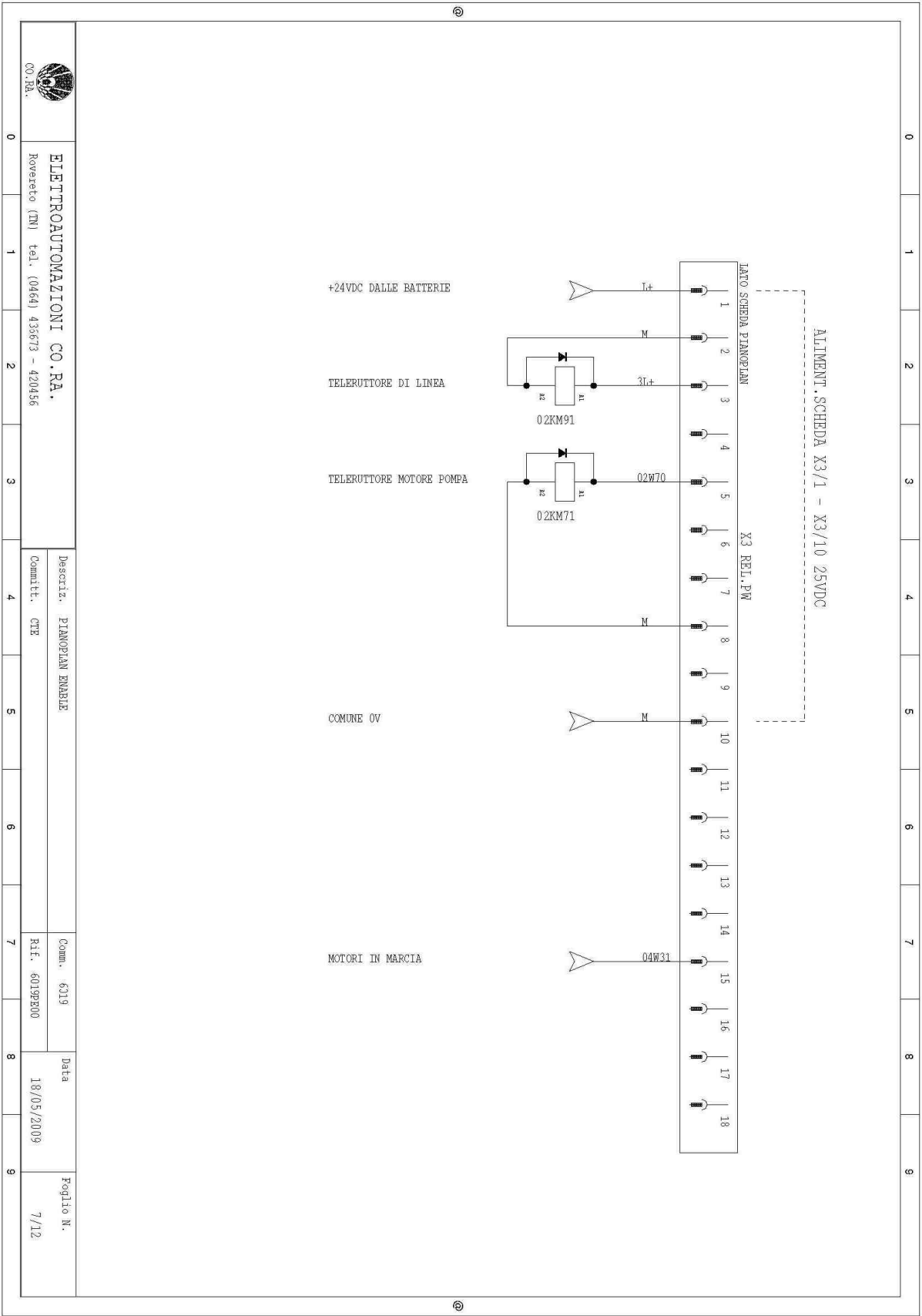



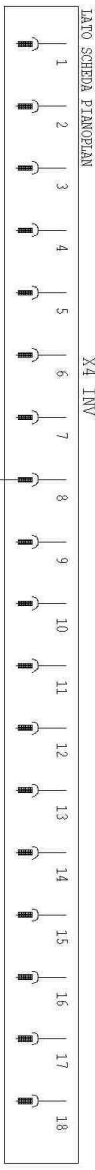


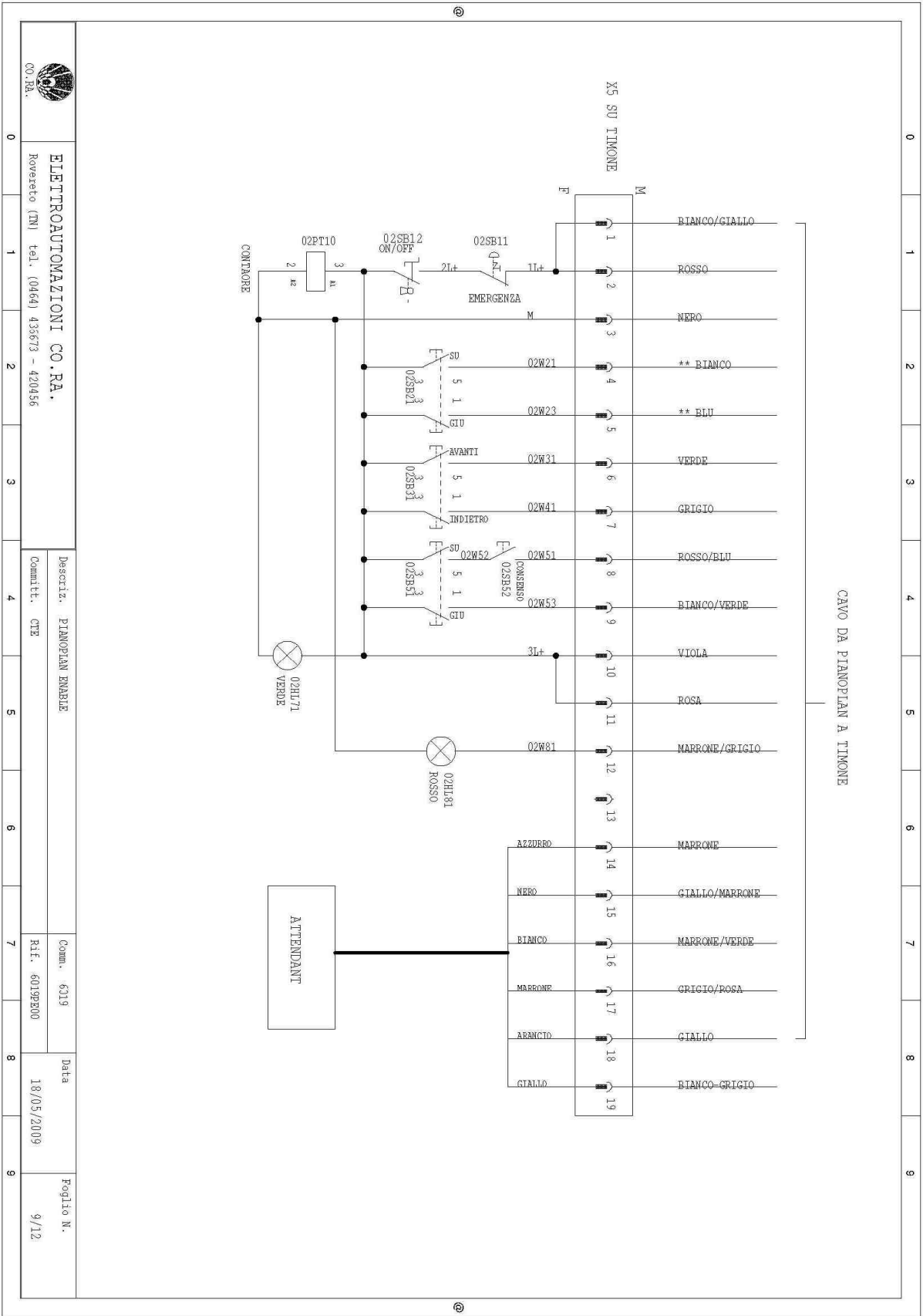





56



0	1	2	3	4	5	6	7	8	9						
<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="width: 20%;">  <p>ELETTROAUTOMAZIONI CO. R.A. Rovereto (TN) tel. (0464) 436673 - 420456</p> </div> <div style="width: 60%; text-align: center;"> <p>DA CONTATTO RELE' 04KA10 MOT. IN MARCIA</p> </div> <div style="width: 15%;"> <p>LATO SCHEDE PIANOPAN</p>  </div> </div>															
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Descriz. PIANOPAN ENABLE</td> <td style="width: 50%;">Comm. 6319</td> </tr> <tr> <td>Comitt. CTE</td> <td>Data 18/05/2009</td> </tr> <tr> <td>Rif. 6019PE00</td> <td>Foglio N. 8/12</td> </tr> </table>										Descriz. PIANOPAN ENABLE	Comm. 6319	Comitt. CTE	Data 18/05/2009	Rif. 6019PE00	Foglio N. 8/12
Descriz. PIANOPAN ENABLE	Comm. 6319														
Comitt. CTE	Data 18/05/2009														
Rif. 6019PE00	Foglio N. 8/12														



0	1	2	3	4	5	6	7	8	9
<div style="display: flex; justify-content: space-between;"> <div style="width: 15%;">  <p>CO. RA.</p> </div> <div style="width: 60%;"> <p>ELETTROAUTOMAZIONI CO. RA.</p> <p>Rovereto (TN) tel. (0464) 436673 - 420456</p> </div> <div style="width: 20%;"> <p>Descriz. PIANOPAN ENABLE</p> <p>Committ. CTE</p> </div> </div>									
<div style="display: flex; justify-content: space-between;"> <div style="width: 15%;"> <p>Comm. 6319</p> </div> <div style="width: 60%;"> <p>RAI. 6019PED00</p> </div> <div style="width: 20%;"> <p>Data 18/05/2009</p> </div> </div>									
<div style="display: flex; justify-content: space-between;"> <div style="width: 15%;"> <p>Foglio N. 10/12</p> </div> </div>									
<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>TRAZIONE SX</p> <p>TRAZIONE DX</p> </div> <div style="width: 10%; text-align: center;"> <p>BORDO MACCHINA</p> <p>1</p> <p>2</p> <p>3</p> <p>4</p> <p>X7</p> </div> <div style="width: 45%;"> <p>FRENO SX</p> <p>FRENO DX</p> </div> <div style="width: 10%; text-align: center;"> <p>BORDO MACCHINA</p> <p>1</p> <p>2</p> <p>3</p> <p>4</p> <p>X8</p> </div> </div>									

