LIBRA-02 HD

HEAVY DUTY 3-AXIS COPY ROUTER

USER'S MANUAL

CONTENTS

1. GENERAL INFORMATION

1.1. Introduction

The user's manual given by the manufacturer contains necessary information about the machine parts. Each machine operator should read these instructions carefully, and the machine should be operated after fully understanding them.

Safe and efficient use of the machine for long term depends on understanding and following the instructions contained in this manual. The technical drawings and details contained in this manual constitute a guide for the operator.

1.2. Service Information-General Distributor

In case of any technical problem please contact your nearest ATECH dealer, or ATECH head office at:

ATech Machine, Inc.
309 Ridgemont Ave., Rockville, MD 20850 - USA
Phone: +1-240-505-1967 Fax: +1-301-560-6627
Website: www.ATechMachinery.com E-mail: info@ATechMachinery.com

Technical labels with the model description of the machine are fixed onto the front side of each machine.

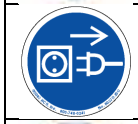
The machine's serial number and manufacturing year are stipulated on the technical label.

Average life usage of production is 10 years. If you have any further failure and complaint, please inform to our below mentioned technical service by verbal or written

To minimize documentation it is necessary to mention below details at the agreements signed with suppliers and dealers of the purchased machines	
• Machine model	• Voltage and frequency
• Machine's serial number	• Date of purchase
• Description of the machine fault	• Name of dealer where machine was purchased
• Average daily operation period	

2. SAFETY

2.1. Safety Symbols and Their Meanings

	Read the user guide		Ensure safe working position, always keep your balance.
	Wear ear protectors		Elektrical excitation
	Wear safety goggles		Don’t place your hands between parts in motion..
	If the power cable should be damaged during operation, don't touch and unplug it. Never use damaged power cables.		High temperature warning
	During saw blade change operations, use protective gloves		Keep your fingers clear of the movable parts of the glide arm.
	The above symbol **DANGER WARNING**, warns you against specific dangers, and you have definitely to read them..		The **IMPORTANT** symbol above is one telling to apply special care and to be careful at carrying out the specified operation

2.2. Accidents Prevention

2.2.1 Our machines are manufactured in accordance with CE, UL, CSA, which cover national and international safety directives.

2.2.2 It is the task of the employer to warn his staff against accident risks, to train them on prevention of accidents, to provide for necessary safety equipment and devices for the operator’s safety.

2.2.3 It is the task of the employer to warn his staff against accident risks, to train them on prevention of accidents, to provide for necessary safety equipment and devices for the operator’s safety.

2.2.4 Machine should be operated only by staff members, who have read and understood the contents of this manual.

2.2.5 All directives, recommendations and general safety rules contained in this manual have to be observed fully. The machine cannot be operated in any way for purposes other than those described herein. Otherwise, the manufacturer shall not be deemed responsible for any damages or injuries. And such circumstances would lead to the termination of the warranty

2.3. General Safety Information

2.3.1 The power cable should be led in such a way that nobody can step on it or nothing can be placed on it. Special care has to be taken regarding the inlet and outlet sockets

2.3.2 Don't overload machines for drilling and cutting. Your machine will operate more safely with power supply in accordance with the stipulated values.

2.3.3 Use correct illumination for the safety of the operator. (ISO 8995-89 Standard The lighting of indoor work system)

2.3.4 Do not leave any things on the machine.

2.3.5 Don't use any materials other than those recommended by the manufacturer for cutting operations on the machine.

2.3.6 Ensure that the work piece is clamped appropriately by the machine's clamp or vice

2.3.7 Ensure safe working position, always keep your balance.

2.3.8 Keep your machine always clean for safe operation. Follow the instructions at maintenance and replacement of accessories. Check the plug and cable regularly. If damaged, let it replace by a qualified electrician. Keep handles and grips free of any oil and grease.

2.3.9 Unplug first, before conducting and maintenance works.

2.3.10 Ensure that any keys or adjustment tools have been removed before operating the machine..

2.3.11 If you are required to operate the machine outside, use only appropriate extension cables.

2.3.12 Repairs should be carried out by qualified technicians only. Otherwise, accidents may occur.

2.3.13 Before starting a new operation, check the appropriate function of protective devices and tools, ensure that they work properly. All conditions have to be fulfilled in order to ensure proper operation of your machine. Damaged protective parts and equipment have to be replaced or repaired properly (by the manufacturer or dealer).

2.3.14 Don't use machines with improper functioning buttons and switches

2.3.15 Don't keep flammable, combustive liquids and materials next to the machine and electric connections.

3. MACHINE'S DESCRIPTION

Copy router machines designed to open lock, handle, hinge and window fastening slots onto PVC and Aluminum profiles.

- Channels in different dimensions can be opened independently from copying.
- Pneumatic clamps.
- Pneumatic braking
- Pneumatic table positioning.

STANDARD ACCESSORIES	OPTIONAL ACCESSORIES
Mill Tip (Ø8mm Special 120mm)	Mill Tip (Ø8mm Special 120mm)
Air Gun	Digital Angle Measuring System
Profile Support (Right- Left Conveyor)	Clipper (5)
User's instruction manual	Clipper (8)
Service tool (24 mm)	Clipper (10)
Clipper tool	Special patterns
Cooling system	
Copying pattern	
LED lighting system	

4. TRANSPORT OF THE MACHINE

IMPORTANT **4.1. The transport should be done by qualified personnel only.**

4.2. The machine should be transported by lifting with proper equipment (not touching the ground during the transport).

4.3. Unless customer requests the contrary, the machine will be delivered with wooden packaging.
4.4. Movable parts on the machine should be fixed before carrying out the transport.

4.5. The machine size and weight measurements, given the technical specification sheet.

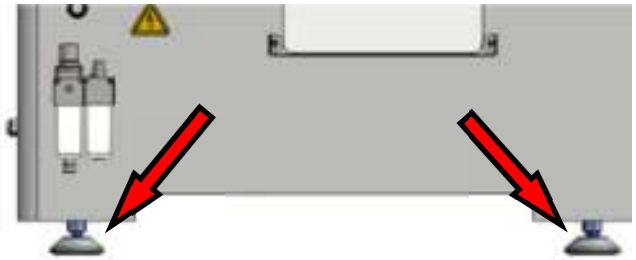
5. INSTALLATION OF THE MACHINE

5.1 Preparation

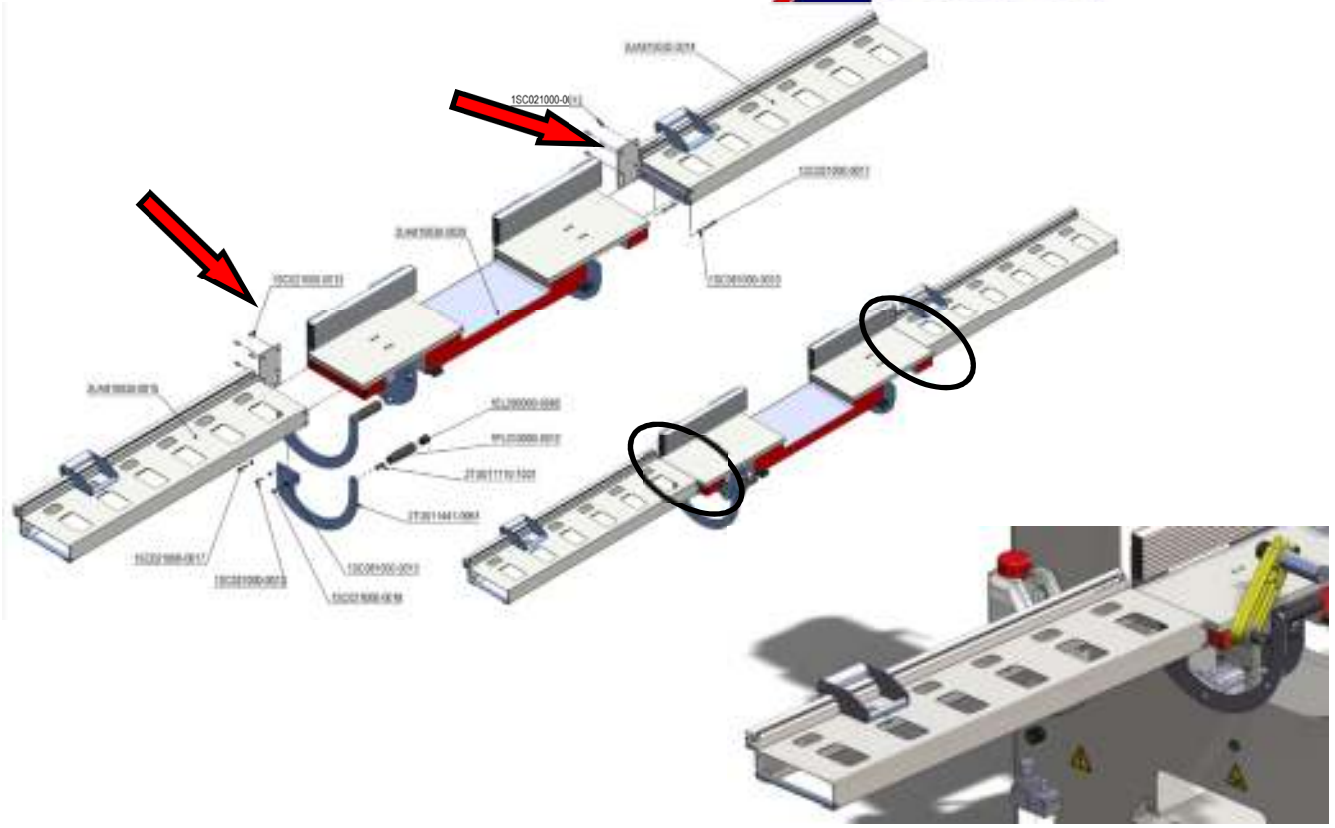
5.1.1 The machine size and weight measurements, given the technical specification sheet.The ground, where the machine will be placed, should be even, solid enough to bear the weight of the machine.

5.1.2 The machine should be located approx. 50 cm away from the rear wall. The power connection plug of the machine is located on the rear side of the machine.

5.1.3 You can provide the balance of the machine with adjustable counterforts in the bottom part.



5.1.4 Profile fitting parts (FIGURE 6-7) are delivered disassembled. Assemble profile fitting parts on the Table (3UA810030-0020) as it is seen in the figure.



5.2 Connecting to Power Source

5.2.1 Electrical connection must be made by a licensed electrician

5.2.2 The power outlet socket on the machine should be available.

5.2.3 Plug the machine to a grounded socket.

5.2.4 Check the supply voltage. **The source voltage must be in accordance with the data on the machine's label.**

5.2.5 After electrical connection is made, machine must be operated in idle running and it must be controlled whether rotation directions of cutting tools are correct or not and if the rotation direction is wrong, appropriate connection must be made.

6. MACHINE'S SAFETY INFORMATION

6.1 Lifting, installation, electric maintenance of the machine should be carried out by qualified personnel only.

6.2 Routine maintenance and scheduled maintenance should be carried out by qualified personnel after unplugging the machine first.

6.3 Ensure that the machine has been cleaned, tested and maintained before starting to operate it.

6.4 Check the safety devices, power cable and moving parts regularly. Don't operate the machine before having replaced defective safety devices or faulty parts.

6.5 Never replace the cutting tools before unplugging first.

6.6 Keep foreign materials away from the working area of the machine, keep away from the machine's moving parts.

6.7 Do not work on the machine by removing the protective parts

IMPORTANT **The safety data have been defined above. In order to prevent physical damage or damage to the equipment, please read the safety information carefully and keep the manual always in an easy accessible place.**

7. OPERATION

7.1 Preparation

7.1.1 Degrease and dry the machine table. Especially ensure that the holding grips and handles are clean and dry

7.1.2 Clean all surfaces of the machine from chip and foreign particles. Use eye glasses for protection.

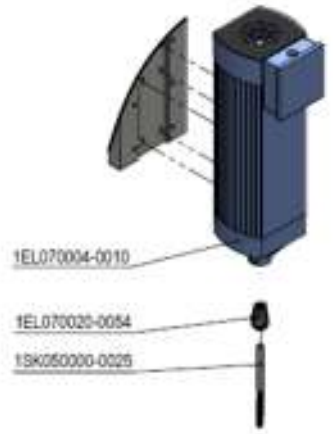
7.1.3 Copy router machines can process on products manufactured from rigid plastic and aluminum materials that don't include iron alloy.

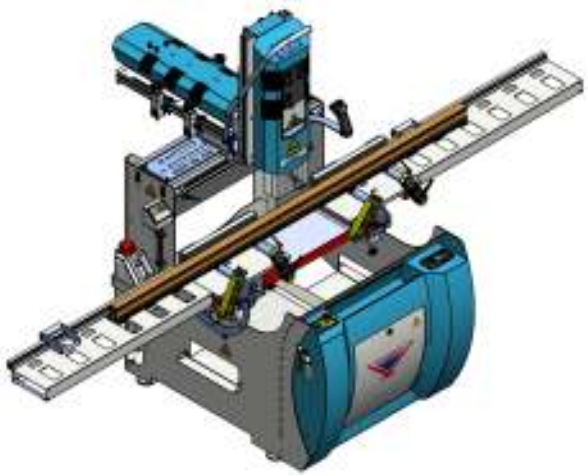
7.1.4 Control whether cutting tools (FIGURE 2 NO.78) are inserted safely to their places.

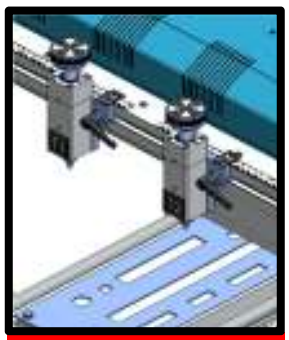
7.1.5 Control cutting tools against corrosion, distortion and fractions. If cutting tools are damaged, change them.

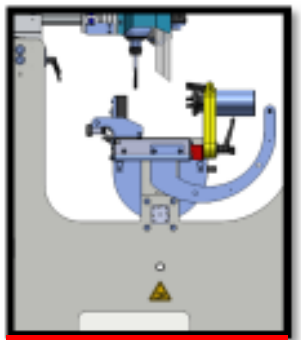
7.1.6 Cutting tool must process on the part after machine is operated and cycled.

7.1.7 **Do not process the profile before clamping the work piece properly.**






FOLLOWING PINS

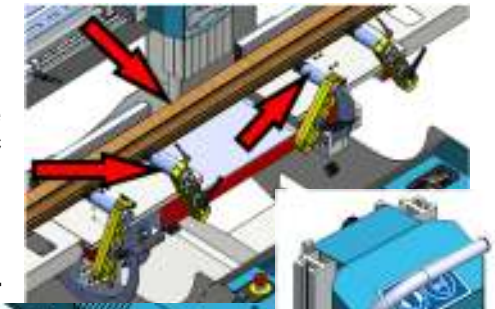

0° ROTATING TABLE


-90° ROTATING TABLE


+90° ROTATING TABLE

7.2 Operation

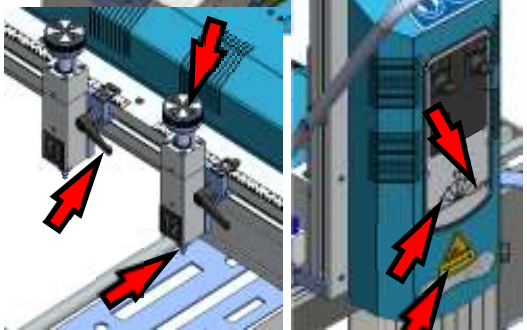
7.2.1 Place PVC or aluminum profile that you are going to process on to (FIGURE 3 NO.24) on the table.



the table (FIGURE 3 NO.88). Fix it with clamps

7.2.2 The forward/ backward and upward/ downward position of the tools (FIGURE 3 NO.3UA040030-0002). The control of pneumatic clamps can be adjusted by special squeezing clamp is provided by the button on the chassis

7.2.3 Mark the locations of lock, door handle, hinge etc on the pattern over the machine. Place automatically the spring pin (FIGURE 2 processed on the pattern by rotating the related button **(T1 – T2 –** (FIGURE 2 NO.2TU011441-0965) which is NO.3UA810030-0017) to the hole to be **T3)**.

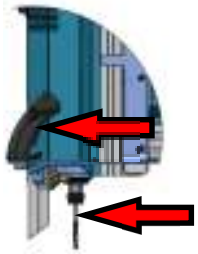


7.2.4 By rotating the head to right and/or left, spring pin can be (FIGURE 4 NO.2TU011210-1007). adjusted as Ø5, Ø8 and Ø10mm follower pin

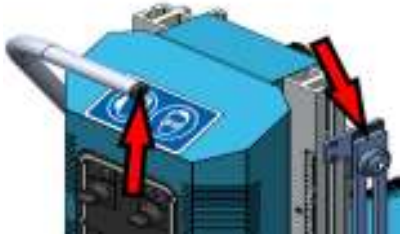
7.2.5 Forward and backward motion of spring system (FIGURE 2 NO.3UA810030-0017) can be adjusted by special squeezing part (FIGURE 4-5 NO. 3UA040030-0003).

7.2.6 Enable Turn the system start switch to “ON” position.

7.2.6 Run the engine and rotate the cutting tool (FIGURE 8 NO.0KT010200-1611) by pressing the button marked in (FIGURE 2 NO.1EL090000-0500) continuously.



7.2.8 By the help of joystick arm (FIGURE 2 NO.1EL090000-0500) on the head, move the head and execute a process on profile. In order to reach requested depth, use up and down motion control arm (FIGURE 2 NO.2TU011510-0081).



7.2.9 When the button on the joystick arm is pressed, cooling water is sprayed from the valve which is shown right. Spraying is stopped by pressing the same button again. If wanted, the amount of spray is adjusted by using the turning bar on the valve.

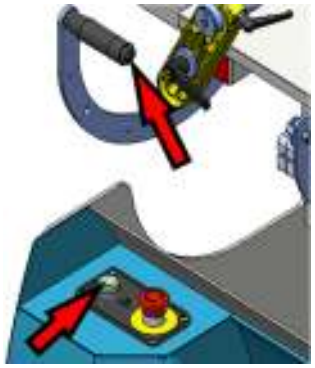
7.2.10 In order to down the arm, brake should be released by pressing on the button over the arm. For security reasons, cutting tool does not operate when arm is most upward position.

7.2.11 Remove the suspension pin from the socket on the template in order to process free from the t...

7.2.12 You can adjust the movement area of the head with locking parts (FIGURE 2 NO.2TU012210-1258-3UA040030-0008) when making free processes.

7.2.13 Leave the button after the process finishes. Cutting tool stops after rotating nearly 10 seconds out of gear.

7.2.14 Table is able to rotate when right and left hand buttons are pressed simultaneously. It is not allowed to rotate table by pressing only one button. After rotating the table, be sure that support pin (FIGURE 8 NO.2TU014010-0233) is in forward position.



7.2.15 Temperature can be seen easily on the digital display. Temperature can be adjusted by using the button shown in Figure.

7.2.16 Remove the part by opening the clamps.

8 MAINTENANCE, SERVICE AND REPAIR

8.1 Maintenance

8.1.1 Cut the electric and pneumatic (if any) power connections of the machine.

8.1.2 Clean all surfaces of the machine from burs, chips and foreign substances. If the machine will not be used for a long time, lubricate undyed parts with oil that prevents rusting.

8.1.3 When cleaning the machine, do not use materials that may damage the dye.

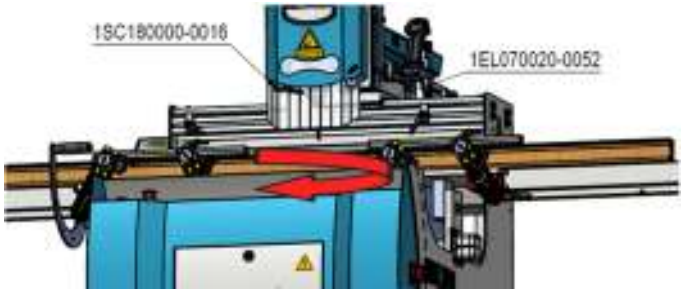
8.1.4 Control cutting tools against corrosion, distortion and fractions. If cutting tools are damaged, change them.

8.1.5 Before using cutting tool, operate the machine out of gear and control whether it is inserted correctly, it is without flexure and it is inserted appropriately. Do not use cutting tools that are damaged or lost its functionality.

8.2 Changing the cutting tool

8.2.1 Cut the electric connection of the machine.

8.2.2 Clipper tool supplied with machine (NO.0KT050000-0500) by turning it counter clockwise with the help of 24 (NO.0FS020000-0224) wrenches that are given with the machine. Remove cutting tool (FIGURE 8 NO. 0KT050000-0514) from retainer pliers. Tighten the pliers nut by inserting the new cutting tool to the pliers socket and making the opposite of the processes made in the removal.



8.2.3 Before using cutting tool, operate the machine out of gear and control whether it is inserted correctly, it is without flexure and it is inserted appropriately. Do not use cutting tools that are damaged or lost its functionality.

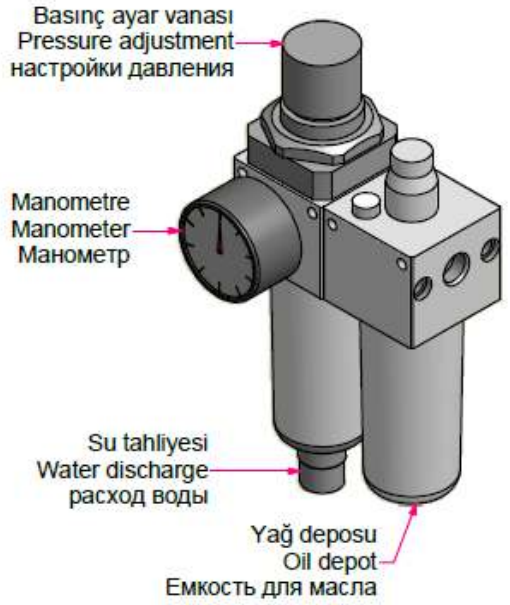
8.3 Adjust the air pressure (pneumatic systems)

8.3.1 Pull up pressure adjustment valve. Set adjustment valve clockwise or counter clockwise. Then lock the valve by to the desired value on manometer by turning it pressing it down.

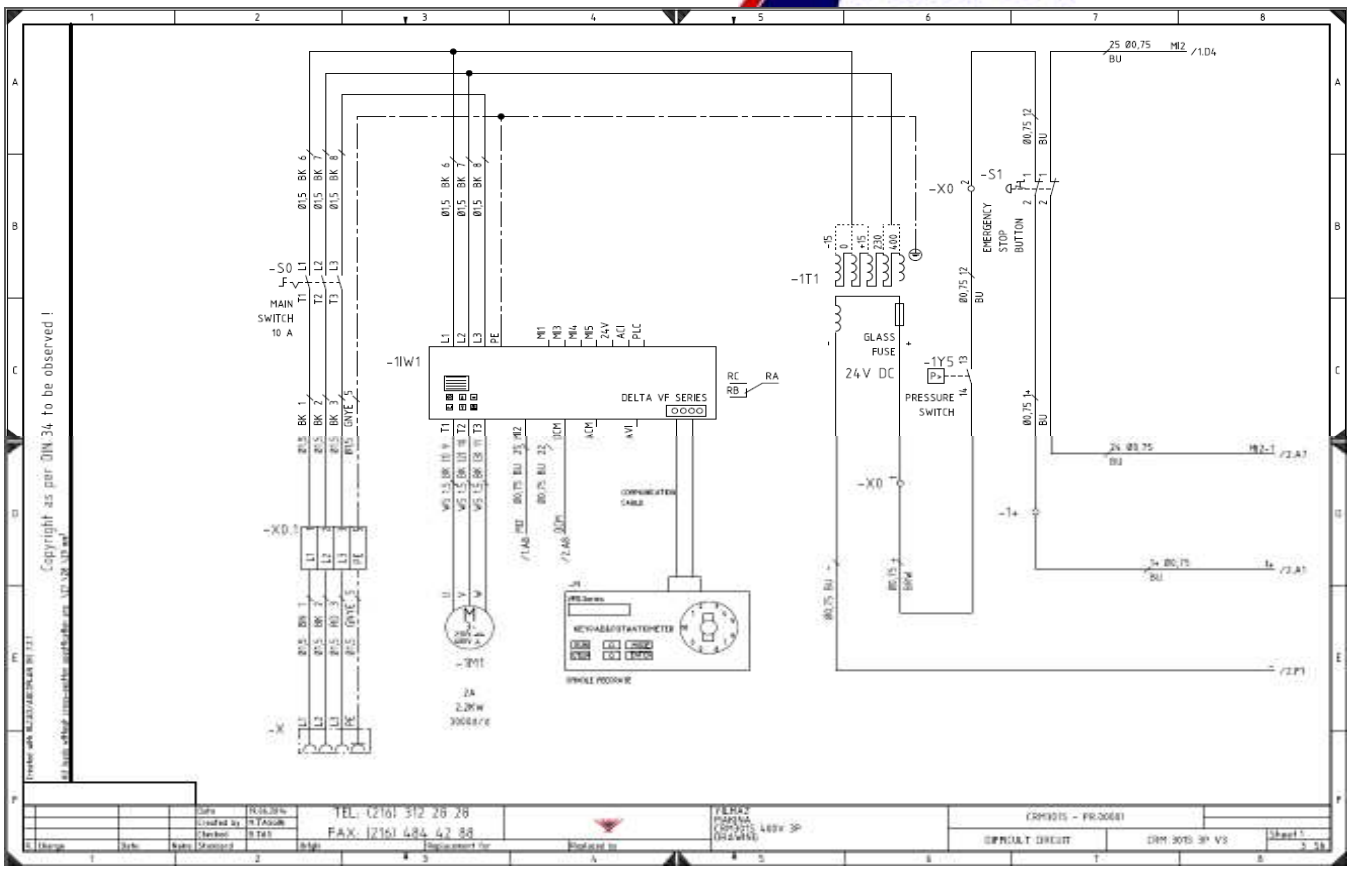
8.3.2 Set the air pressure between 6 and 8 BAR. If air pressure drops below the stated values, accessories operating with pneumatic power do not work.

8.3.3 Conditioner unit accumulates the water in the air in the pneumatic components. At the end of the working day, discharge valve under the collection container. collection container so that it won't damage empty the accumulated water by opening water

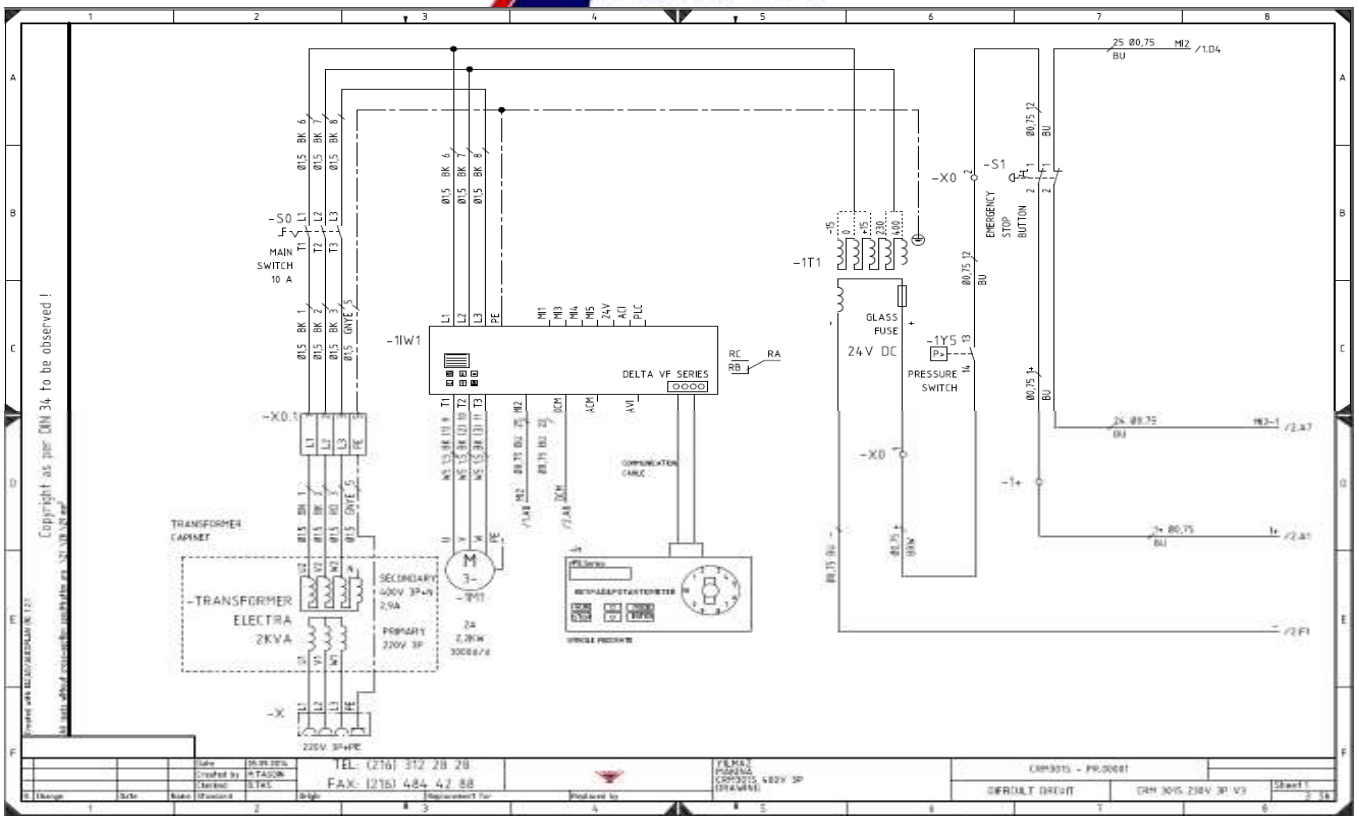
8.3.4 In order to put oil to the oil tank, remove the reservoir by turning. Oils recommended by the manufacturer are; TELLUS C10 / BP ENERGOL HLP 10 / MOBIL DTE LIGHT / PETROL OFİSİ SPINDURA 10.



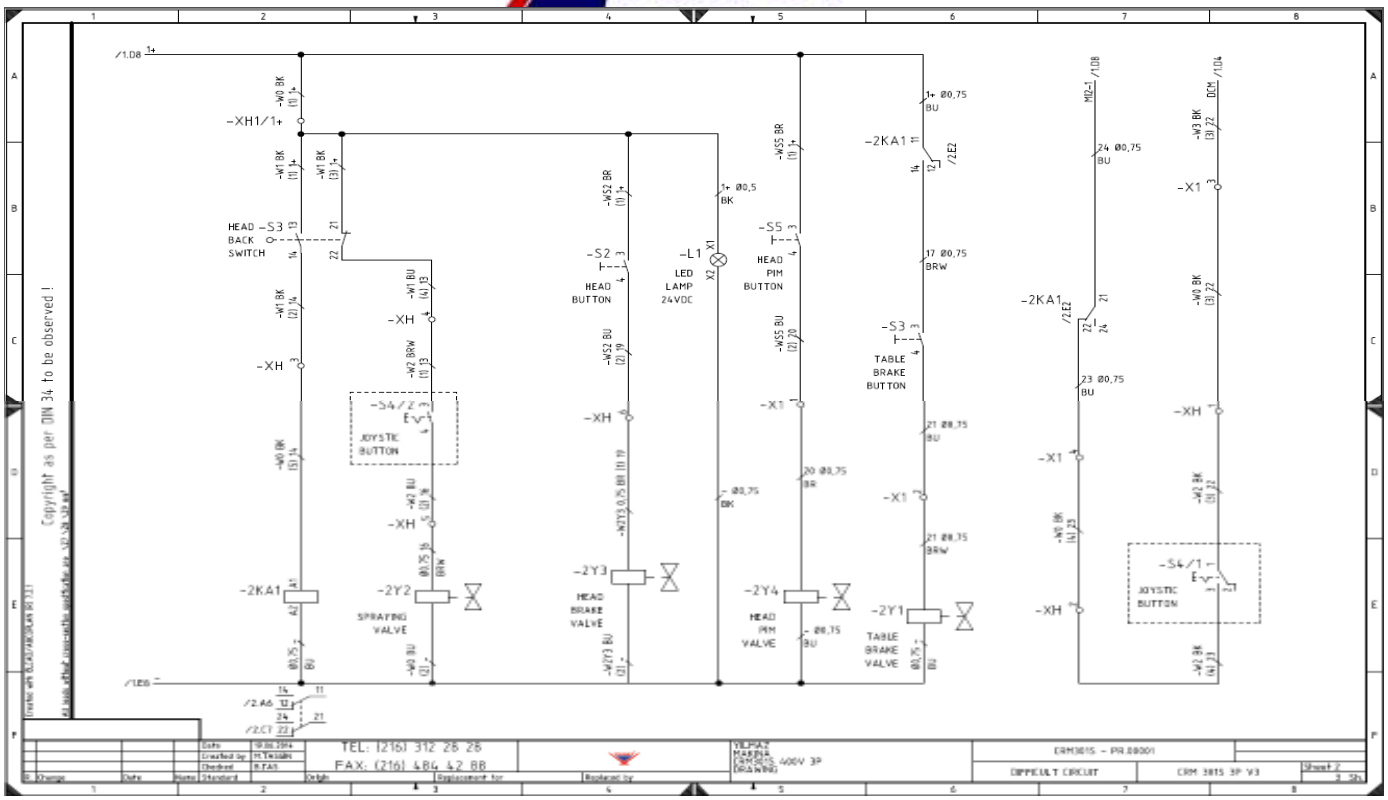
ELECTRIC & PNEUMATIC SCHEMES



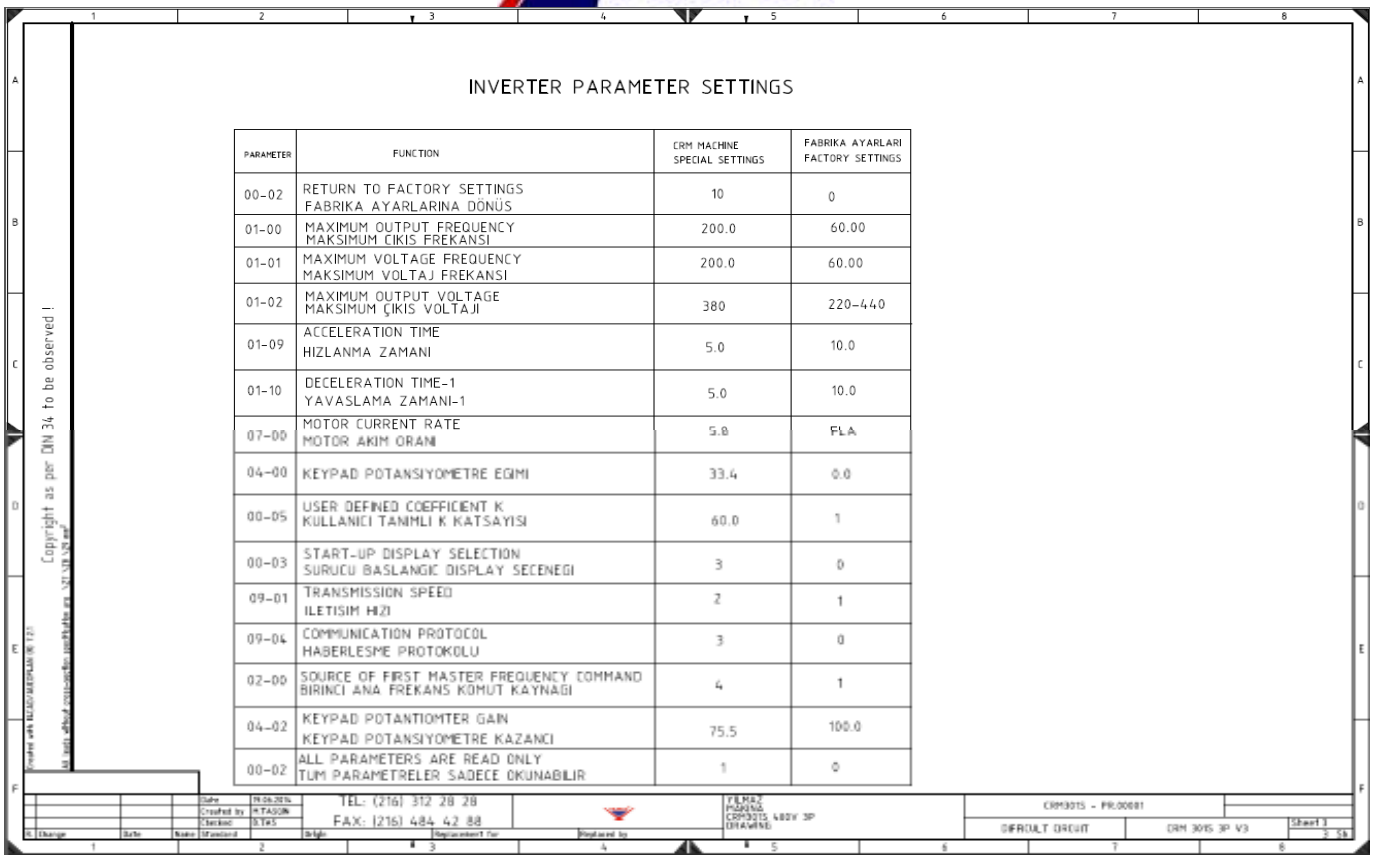
CRM 301 400V 3 PHASE ELECTRICAL DIAGRAM(POWER) SHEET 1



CRM 301 230V 3 PHASE ELECTRICAL DIAGRAM(POWER) SHEET 1



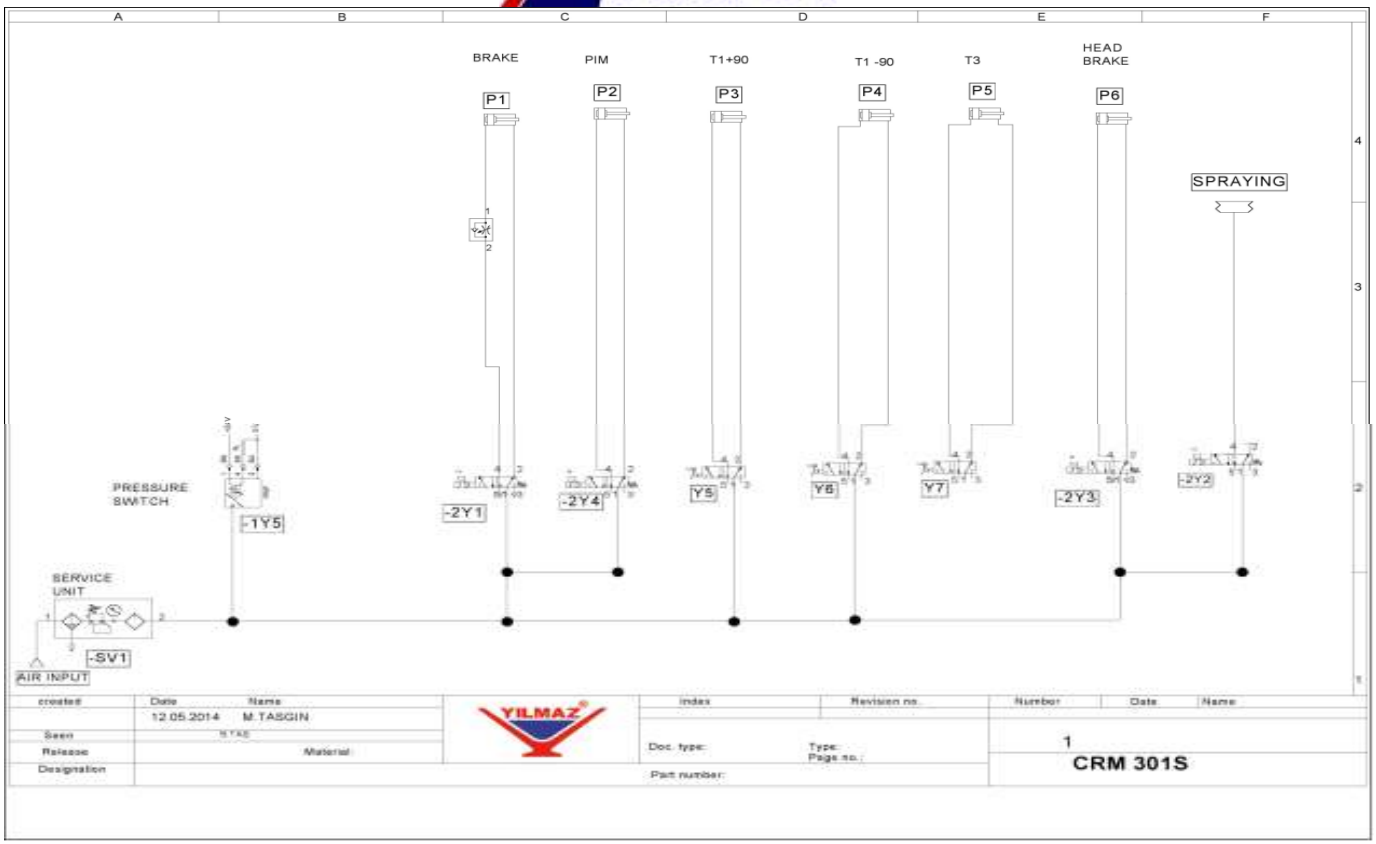
CRM 301 400V 3 PHASE ELECTRICAL DIAGRAM SHEET 2



INVERTER PARAMETER SETTINGS

PARAMETER	FUNCTION	CRM MACHINE SPECIAL SETTINGS	FABRIKA AYARLARI FACTORY SETTINGS
00-02	RETURN TO FACTORY SETTINGS FABRIKA AYARLARINA DÖNÜS	10	0
01-00	MAXIMUM OUTPUT FREQUENCY MAKSIMUM CIKIS FREKANSI	200.0	60.00
01-01	MAXIMUM VOLTAGE FREQUENCY MAKSIMUM VOLTAJ FREKANSI	200.0	60.00
01-02	MAXIMUM OUTPUT VOLTAGE MAKSIMUM ÇIKIS VOLTAJI	380	220-440
01-09	ACCELERATION TIME HIZLANMA ZAMANI	5.0	10.0
01-10	DECELERATION TIME-1 YAVASLAMA ZAMANI-1	5.0	10.0
07-00	MOTOR CURRENT RATE MOTOR AKIM ORANI	5.8	FLA
04-00	KEYPAD POTANSIYOMETRE EGIMI	33.4	0.0
00-05	USER DEFINED COEFFICIENT K KULLANICI TANIMLI K KATSAYISI	60.0	1
00-03	START-UP DISPLAY SELECTION SURUCU BASLANGIC DISPLAY SECENEGI	3	0
09-01	TRANSMISSION SPEED ILETISIM HIZI	2	1
09-04	COMMUNICATION PROTOCOL HABERLESME PROTOKOLU	3	0
02-00	SOURCE OF FIRST MASTER FREQUENCY COMMAND BIRINCI ANA FREKANS KOMUT KAYNAGI	4	1
04-02	KEYPAD POTANTIOMTER GAIN KEYPAD POTANSIYOMETRE KAZANCI	75.5	100.0
00-02	ALL PARAMETERS ARE READ ONLY TUM PARAMETRELER SADECE OKUNABILIR	1	0

CRM 301 400V 3 PHASE ELECTRICAL DIAGRAM SHEET 3



CRM 301S PNEUMATIC DIAGRAM SHEET 1