

SCP Control Panel Machine Data Manual



GENERAL INFORMATION

- This material may be used only by the Customers to whom the manual was supplied, only for the purpose of using and programming the machine to which the manual refers. Therefore, this manual is intended for all operators who, for whatever reason, participate in those phases of the machine's service life.
- The contents of this manual do not replace the experience and capability of qualified, trained users and programmers.
- Keep this manual throughout the machine's service life and easily available. If the machine is re-sold, it must be accompanied by this manual and all its attachments.
- The operations described in the following procedures should never be carried out individually. In order to achieve the security levels ensured by the Manufacturer, they should be carried out only within the contexts described.
- For additional information on using the machine, please refer to the attached User's Manual, which should be considered an integral part of this manual.
- **Information copyrights:** This manual contains proprietary information and cannot be photocopied or reproduced, in whole or in part, without the prior written consent of the Manufacturer. To obtain additional copies of the manual, contact the Manufacturer.
- **Changes to equipment or documentation:** The Manufacturer declares that the information contained in this manual is congruent with the technical and security specifications of the equipment to which the Manufacturer refers. The Manufacturer declines any responsibility for any direct or indirect damages to person, to the equipment and/or to other objects or animals, that may result from the use of this documentary material or of the equipment in conditions other than those provided. The Manufacturer reserves the right to make changes or improvements without prior notice to this documentary material and to the equipment (if necessary also to equipment sold under the same model name to which this manual refers, but with different serial numbers) without entailing the obligation to update the previous machines and manuals. The information contained in this manual refer to: See nameplate.
- **Manufacturer's Data:**

RoboLine S.r.l.
Via Lombardia, 30
20060 Vignate (MI) Italia
Tel.: +39 02.95.93.98.1 +39 02.95.36.04.81
Fax.: +39 02.95.02.1275
info@sytrama.it www.sytrama.it
VAT No. and Tax Code 03735090965
Part of Sacmi Imola S.C. Group

In all cases not covered in this manual or in cases where it is not possible to understand the exact nature of the problem or how to solve it, please contact our Technical Assistance Service.

- **Technical Assistance:** In order to support users and programmers, the Manufacturer has set up a Technical Assistance Service that can provide technical information (by phone or by mail) and/or technical repairs and/or informative and training courses.
- **Note:** When requesting technical assistance, always specify the machine's model, serial number and year of construction (shown on the nameplate).

Contents

GENERAL INFORMATION	2
ROBOT MACHINE DATA	4
1. General parameters configuration	4
1.1. Group of pages - General.....	4
1.1.1 set date and time.....	5
1.1.2 program selection.....	5
1.1.3 Input - output names	6
1.1.4 password	7
1.1.5 axes configuration.....	8
1.1.6 language selection.....	8
1.1.7 robot configuration.....	9
1.1.7.1 “LUBRICATION” WARNING message muting	13
1.1.7.2 input – output configuration	14
1.2. Service parameters (only for expert users).....	18
1.2.1 ip address	18
2. Service data (for installERS ONLY)	19
2.1. Service pages group.....	19
2.1.1 Machine data axes - working area configuration	20
2.1.2 axes configuration.....	24
2.1.3 SCP code motors selection.....	25

ROBOT MACHINE DATA

WARNING: The parameters described in this manual are essential for the proper operation of the robot and the system.

These parameters may be changed only by qualified personnel. For any questions please contact our customer service.

This manual describes data that allows to customize the machine's control functions and is intended only for the use of qualified personnel doing plant maintenance or service. The information is divided into two main groups, **General** and **Service**. To access the machine data main menu, **LogIN** by entering the Username and Password assigned for the two levels.

The passwords are provided by the installer at set-up.

Note: Pages are enabled according to the access level.

1. GENERAL PARAMETERS CONFIGURATION

LogIN with the general level password. The following main menu appears (Fig. 1).

Press **Dati macch. (Machine Data)** to access the machine data main menu shown in Fig. 2.



Fig. 1

1.1. GROUP OF PAGES - GENERAL

Machine Data → General to display the "General" page buttons

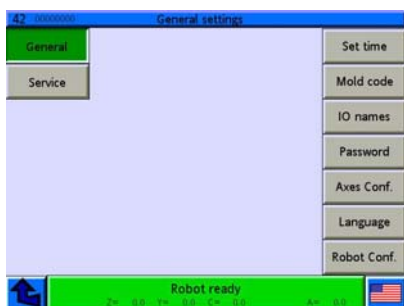


Fig. 2

1.1.1 SET DATE AND TIME

Machine Data → General → Set Date/Time

- Press on the field you want to modify.
- Using the keypad, enter the new number and confirm with ✓.
- Press **Set date** or **Set time** to confirm.



Fig. 3

1.1.2 PROGRAM SELECTION

Machine data → General → Program selection

The option **Stamp ID** or **Gripper ID** allows to activate a work cycle using a code generated by inputs from the gripping hand or from the line machine (see Fig. 4).

- 1) Make sure the circuit is designed to interface the PLC input to the gripping device or to the machine.
- 2) In the configuration page, combine **Machine data > General > Robot Config. > In/Output >>>** the inputs that generate the program number code (see Fig. 5). Note: Select the page associated with the code coming from the gripping device or the line machine.
- 3) The number of ON inputs creates the work cycle activation code, e.g.:
Gripper 1 code ON + Gripper 2 code ON + Gripper 4 code ON >> 1+2+4=7 Cycle no. 7 will be activated
- 4) Name the work cycle using the following syntax: **# 7 # program name**

Note: Use the correct syntax, otherwise the program will not be recognized.

Search and activation of the work cycle is performed every time you switch from manual to automatic mode. An input state change that does not occur during the automatic cycle does not activate a new cycle

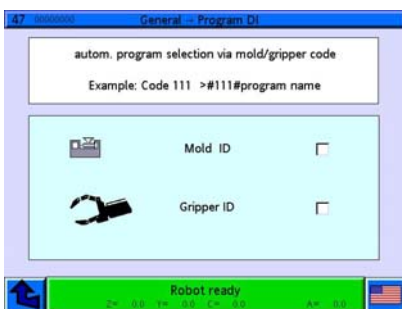


Fig. 4

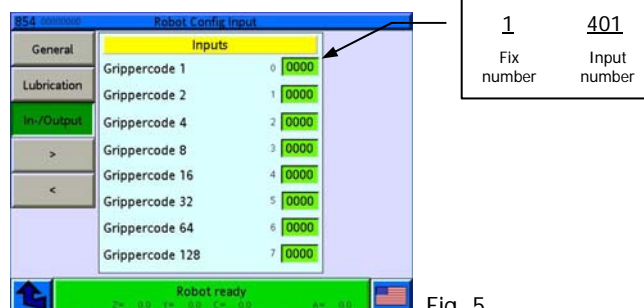


Fig. 5

1.1.3 INPUT - OUTPUT NAMES

Machine data → **General** → **I/O Names** Allows to change or update the text for the Input/Outputs and functions. Fig. 6

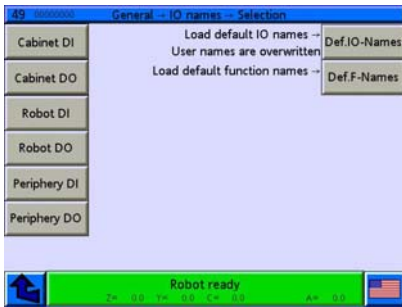


Fig. 6

- To change the input/output text, select the relative group (Cabinet - Robots - Peripheral) and the I/O address to change. (Fig. 7a).
- Press on the text to be modified to display the keyboard (Fig 7b). Edit the text and confirm with ✓.
- The new text will be available in the whole programming environment

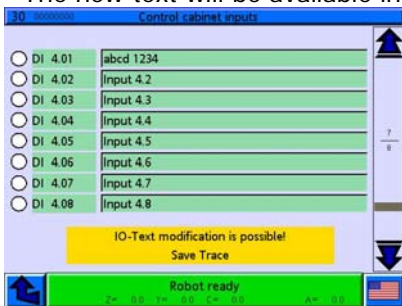


Fig. 7a



Fig. 7b

- The **Default I/O** button uploads the default Input/Output texts or the new ones.
Warning: Pressing the Default I/O button will cause the loss of any manual changes to the Input/Output texts.
- The **Default F** button updates the software with new features received from the software service.
Warning: Updates must be made in all the languages supported

1.1.4 PASSWORD

Machine Data → General → Password

Up to 30 users can be configured, associated to 4 different levels of use



Level allows you to associate one of the 4 levels (MASTER, SERVICE, EXPERT, USER) to the pages with the corresponding functions (see Fig. 8).

The DEFAULT level is the menu that appears if a password is not entered.

For each level, select the pages Jog, Variables, Program, Diagnosis..... and enable ✓ or disable the functions.

Warning: For safety reasons the Jog function should always be password-protected to prevent involuntary movements by non-expert users, and therefore should not be selected in the DEFAULT level

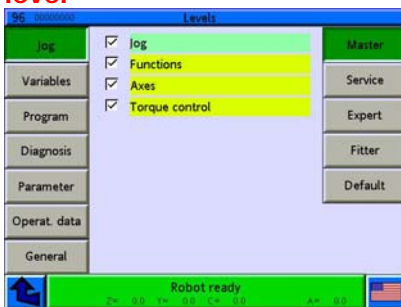


Fig. 8

User allows to create new users (see example in Fig. 9).

- Select an empty field.
- Enter name and password.
- Associate the MASTER, SERVICE, EXPERT, USER level.



Fig. 9

- Confirm saving the password when you exit the function.

Note: The high-level service password is always active and allows you to enter the password management menu to reorder any lost passwords.

1.1.5 AXES CONFIGURATION

Machine Data → General → Axis Conf.

- Allows to configure the axes' Jog and automatic operation
- Select an axis to display the relative machine data

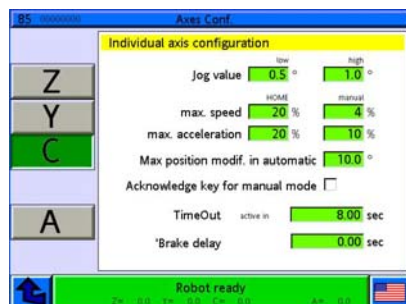


Fig. 10

Machine Data	Description (Fig. 10)
Min/Max shift value	Impulse shift in JOG mode (high when F1 pressed).
Max. Home/Manual speed	Home = Home program execution speed. Manual = Jog speed. WARNING: The percentage must be calculated so that the Jog speed does not exceed 250 mm/s as a regulatory limit. The percentage refers to the maximum axis speed. E.g.: if the maximum axis speed is 1000 mm/s the setting must be 25%.
Max. Home/Manual acceleration	Home = Home program execution acceleration. Manual = Jog acceleration.
Maximum change in automatic	Maximum value in mm, changeable in the position variables during automatic cycle.
Manual Panic button	Always enabled in the electric axes during jog movements. Selectable for pneumatic axes.
Time Out	Only for pneumatic axes. Max. positioning time. Signal for pneumatic cylinder in position after which an alarm is generated.
Brake delay	Reserved for special applications

1.1.6 LANGUAGE SELECTION

Machine Data → General → Language

Select the two languages to enable for immediate language change by means of the flag icon.



Fig. 11

Note: Disable one language to be able to select the other.

1.1.7 ROBOT CONFIGURATION

Machine Data → General → Robot Config.

Robot functions configuration parameters

Press the arrows ➤ ➡ to turn pages. See tables 2÷4 for detailed description.

Page 1



Fig. 12

Machine Data	Description (Fig. 12)
Automatic for IMM	After a home cycle the robot runs automatically only if the press is on automatic. If there is no automatic press signal, the robot switches to manual mode.
Economy mode	Turn off the engines after the set time is up to save energy. Adjustment range 20-254 minutes To disable economy mode set the value at 255 minutes
Horiz. pick up	Reserved for side entry applications.
Safety door	Enables the "open protection" message. Warning: The hardware protection circuit is and must be left operational at all times.
Master/Slave	Reserved for special applications. Two robots on one press.
User Level	Enables the password and levels configuration page.
Work spaces	Number of active working areas (min. 4, max. 8).
Move home with start key	If enabled, the Start button must be held during the entire robot Homing stage.
Serial number (can not be changed by user)	Robot serial number.

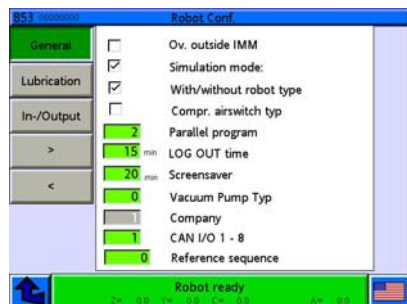


Fig. 13

Machine Data	Description (Fig. 13)
Speed reduction out of press	Enables speed reduction out of the press to reduce energy consumption and mechanical wear.
Simulation mode	Enables the keyboard in simulation mode for use without robot (for office use only).
With/without robot type	Without flag: Press closing approval is given when the robot is out of the working area 1 (in press). With flag: Approval given only at the end of Homing cycle.
Compr. air-switch status	Reverses the air-switch input type. With flag=NO; without flag=NC
Parallel program	Enables the level of use of the parallel program 0= parallel program not enable; 1= parallel program enabled only for I/O; 2= parallel program enabled for I/O and electric axes. Note: Macro functions are always disabled in parallel program
LOG OUT time	Logout time after entering password.
Screensaver	Delay time for screensaver to start.
Vacuum pump type	Sets the vacuum pump operating mode: 0= vacuum pump output always remains active after the first activation of the Vacuum command; 1= vacuum pump output turns on/off with the activation/deactivation of the vacuum command.
Company (cannot be changed by user)	Private
CAN I/O 1-8 (cannot be changed by user)	Set the CanBus I/O nodes number.
zero research on axes sequence	Allows to configure the axis zero search pattern at start-up. 0 = automatic mode: If on the press controls the high vertical axis (2) and then performs search for axes 312 If on the unload 213 231456= always runs the zero search following set axes sequence 999999= allows to set the zero sequence directly in the homing program using the counter variables 45-50 "Axis xx Reference" Example: Set the variable as required 45 axis reference 1 =0 zero search not performed 45 axis reference 1 =1 zero search performed 45 axis reference 1 =2 performs the zero search if not yet performed (variable=0) 45 axis reference 1 =3 always performs zero search

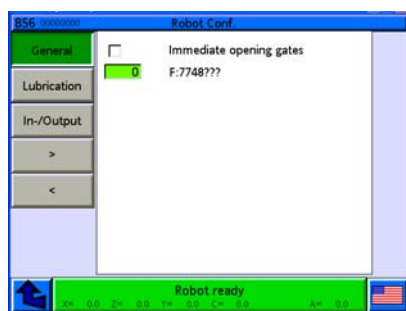


Fig. 14

Machine Data	Description (Fig. 14)
Immediate opening gates	Without flag: when gate opening is requested (see 1.1.7.2) the manipulator runs the end of cycle and enables gate opening With flag: when gate opening is requested (see 1.1.7.2) the manipulator immediately stops and enables gate opening.
Enable I/O expansion modules	Enter the number of I/O expansion modules added to the standard configuration 1= 1 Input expansion module 2= 1 Input expansion module + 1 Output expansion module



Fig. 15

Machine Data	Description (Fig. 15)
Stacking/Unstacking	0000 = in the offset field of the pallet program a positive or negative value moves the vertical axis always upward (-) Stacking 0001 = in the offset field of the pallet program a positive value moves the vertical axis downward (+) Unstacking A negative value moves the vertical axis upward (-) Stacking
Workspace 4 outside IMM (-)	0000 = to unload on operator side (see Fig. 15a). 0001 = to unload on side opposite operator (see Fig. 15b).
Minimum speed move via	Minimum speed or acceleration, which activates the function "move on" or "next step after" Default value 90
AUTO OFF Window	Window of permitted movement for electric axes during the gate opening stage when the robot is in automatic cycle. If you stop the automatic cycle to work in an area protected by gates, the axes are disabled for safety reasons. If the robot is accidentally moved out of the permitted movement window, automatic mode is exited because continuing the cycle could be dangerous. Value expressed in tenths of millimetres; e.g.: 50 = +/-5 mm respect to the position where the cycle stopped. Max. value 2000 = +/-200 mm We recommend stopping the cycle with the STOP button before opening the gates.
Parameter	Free
Parameter	Free
Gates status	Select the gates signal status when they are open, to adapt to various types of safety microswitches available on the market. Note: This is only the signal for the PLC that generates the message of gates open or gates not open, of the hardware safety signals handled by the security module.
NC/NO Lubrication status	Select the signal type for low grease/oil warning message

Unload operator side

Unload operator opposite side

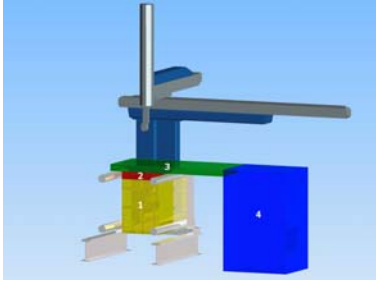


Fig. 15a

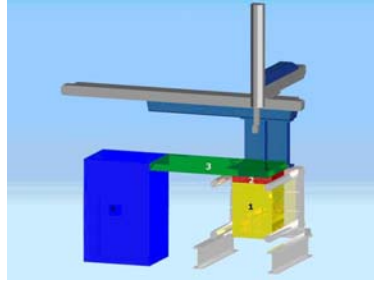


Fig. 15b

1.1.7.1 "LUBRICATION" WARNING MESSAGE MUTING

Machine Data → General → Robot Config. → Lubrication

- In the following page you can set the lubrication management data

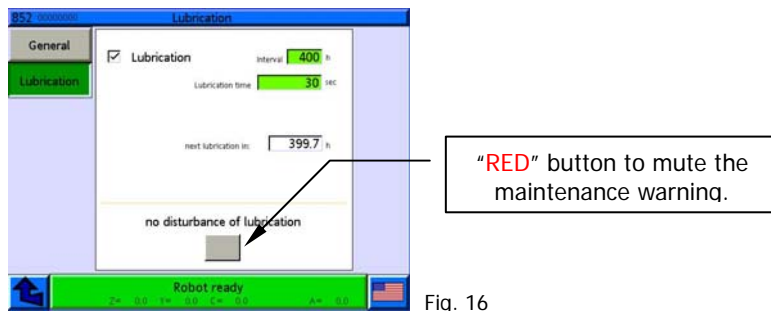


Fig. 16

Machine Data	Description (Fig. 16)
Lubrication	Enables the lubrication message function
Interval	Set working hours for the next maintenance message.
Lubrication time	Seconds of lubrication pump activation. Min. settable value=10
Next lubrication	Hours to next lubrication

WARNING: The robot is not stopped when the maintenance time is up and continuous the production cycle. It is up to the department head to make sure that maintenance is done.

Note: For maintenance operations, refer to the User's Manual.

1.1.7.2 INPUT – OUTPUT CONFIGURATION

Machine Data → General → Robot Config. → In-/Output

- The inputs and outputs available in the robot switchboard can be associated to the pre-programmed functions.
- Enter the Input/Output address given in the circuit diagram in the function field
- Follow the syntax, entering the number 1 before the address. E.g. input 4.01 = 1401
- Press the ► or ◀ buttons to display the following tables 6÷12 for the functions' description

Page 1

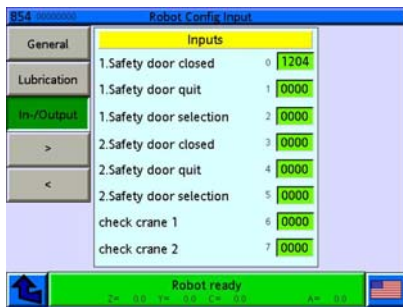


Fig. 17

Machine Data	Input Description (Fig. 17)
Gate 1 closed	Gate Input closed.
Gate 1 reset	Input gate reset after opening and closing. The robot restarts from the stage at which it stopped if it did not go beyond the allowed movement window (see "AUTO OFF window" parameter 1.1.7 tab. 4)
Gate 1 opening request	Gate opening request input, the robot stops and activates the exit assigned to Gate 1 blocked .
Gate 2 closed	As above but for Gate 2.
Gate 2 reset	
Gate 2 opening request	
Check crane 1 presence	Crane presence check input: If Input=0 area occupied, robot movements are NOT allowed. If Input=1 area free, robot movements are allowed. In automatic working cycle, if the input goes to 0 (area occupied by Crane), the robot stops immediately and the message "Cranes in the robot field" appears; when the input returns to 1 (area free from Crane) by pressing the START button the robot restarts. WARNING: This is a software function and therefore an appropriate level of security to protect the machine is not guaranteed. We recommended to connect the crane's safety circuit to the robot's emergency circuit and use the input for a warning message
Check crane 2 presence	As above but for crane 2.

Page 2



Fig. 18

Machine Data	Input Description (Fig. 18)
Gate 1 blocked	Output to unlock microswitch with gate 1 interlock (Max. 0.5 A).
Gate 1 opening request	Output for gate 1 opening request warning light (Max. 0.5A).
Gate 2 blocked	As above but for Gate 2.
Gate 2 opening request	
Output	Free
Output	Free
Output	Free
Output	Free



Fig. 19

Machine Data	Input Description (Fig. 19)
Conveyor 1 movement	Input for external conveyor start button
Conveyor 1 area free	Photocell for free unloading area. Input = 0 with area free
Conveyor 1 in accumulation	Photocell conveyor in accumulation. Input = 1 conveyor free
Conveyor 2 movement	As above but for conveyor 2
Conveyor 2 area free	
Conveyor 2 in accumulation	
Grease level	Input for automatic lubrication grease level in (see fig. 15 for lubrication status)
Quality check	Input for setting the Counter variable "5 piece control" to 1" Works only in automatic mode. When passing to manual mode the variable is reset. Can be used to store with a button the request to perform a different step of the cycle (e.g. unload in a certain position for quality control). The working schedule should be changed as needed. Note: When planning, remember to set the variable back to 0 after the execution of a cycle.

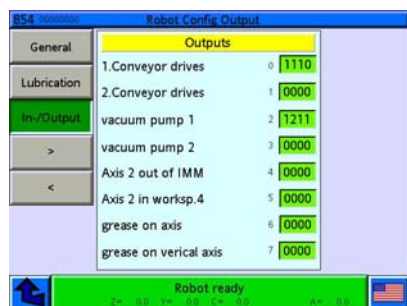


Fig. 20

Machine Data	Description (Fig. 20)
Conveyor 1 progress	Conveyor 1 progress consent Output
Conveyor 2 progress	Conveyor 2 progress consent Output
Vacuum pump 1	Vacuum pump 1 activation Output
Vacuum pump 2	Vacuum pump 2 activation Output
Axis 2 out of IMM	Function disabled. Reserved for special applications
Axis 2 in area 4	Function disabled. Reserved for special applications
Grease on axis	Lubricator Output (see also I/O).
Grease on vertical axis	Lubrication device Output, only active when the vertical axis moves upwards (-) to optimize the lubrication of the rack.

Page 5



Fig. 21

Machine Data	Description (Fig. 21)
Gripper 1 code	Input to set for code 1
Gripper 2 code	Input to set for code 2
Gripper 4 code	Input to set for code 4
Gripper 8 code	Input to set for code 8
Gripper 16 code	Input to set for code 16
Gripper 32 code	Input to set for code 32
Gripper 64 code	Input to set for code 64
Gripper 128 code	Input to set for code 128

Note: for its use see Par. "1.1.2 PROGRAM SELECTION".

Page 6



Fig. 22

Machine Data	Description (Fig. 22)
Press 1 code	Input to set for code 1
Press 2 code	Input to set for code 2
Press 4 code	Input to set for code 4
Press 8 code	Input to set for code 8
Press 16 code	Input to set for code 16
Press 32 code	Input to set for code 32
Press 64 code	Input to set for code 64
Press 128 code	Input to set for code 128

Note: for its use see Par. "1.1.2 PROGRAM SELECTION".

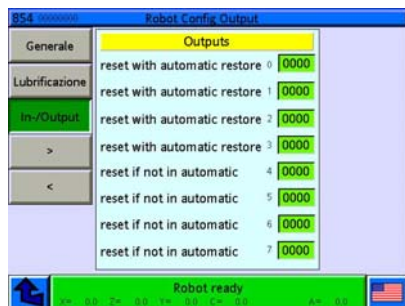


Fig. 23

Machine Data	Description (Fig. 23)
Set AUTO button to OFF	Enter the outputs that in case of cycle stop must be reset. The outputs will reactivate when the alarm is muted. Utilization example: deactivating a blast to avoid wasting air waste if the robot is stopped
Set AUTO button to OFF	
Set AUTO button to OFF	
Set AUTO button to OFF	
Manual reset	Enter the outputs that in case of cycle stop must be reset. The outputs will reactivate only when recalled from the work cycle
Manual reset	
Manual reset	
Manual reset	

WARNING: This is not a safety function

1.2. SERVICE PARAMETERS (ONLY FOR EXPERT USERS)

From the main menu, press in sequence the buttons **Machine Data**. → **Service**, the 2nd group of data buttons will appear.

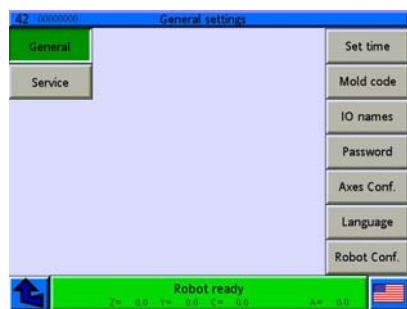


Fig. 24

1.2.1 IP ADDRESS

Machine Data → Service → IP Address

Enter the IP address to connect the control to a PC or to an Ethernet network.

In case of more than one robot connected to the network a different address must be given to each.

To save a changed IP address, turn off and restart the control.



Fig. 25

2. SERVICE DATA (FOR INSTALLERS ONLY)

WARNING: The parameters described in this manual are essential for the proper operation of the robot and the system.

Parameters may be changed only by qualified personnel. For any questions please contact our customer service.

User **LogIN** with Service level, the following main menu will appear.

Press the **Machine Data** to access the Machine data main menu.

Note: In addition to the Service pages described below, access is also given to the General configuration pages.



Fig. 26

2.1. SERVICE PAGES GROUP

- Press buttons **Machine Data** → **Service** to display the page of the 2nd data group (see Fig. 27).

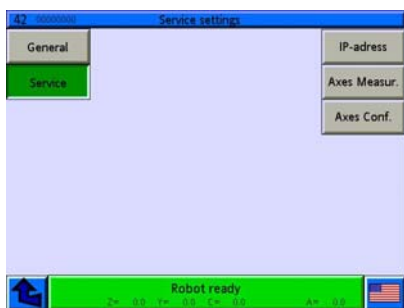


Fig. 27

2.1.1 MACHINE DATA AXES - WORKING AREA CONFIGURATION

Machine Data → Service → Axes measures

Axes parameters configuration page

Select each axis and press the button ► to display the following pages. See tables 13÷18 for the parameters' description.

To confirm the changes, press **Accept** before changing page.

Page 1

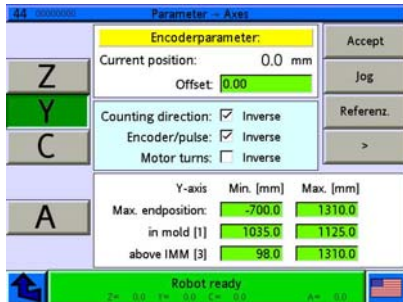




Fig. 28

Machine Data	Description (Fig. 28)
Offset	Set the movement in mm after 0 encoder research. A positive value corresponds to a correction of the axis movement toward the negative. Viceversa setting a negative value
Counting direction	Determines axis direction. Must be set according to the mechanical design. Warning: the reference cam search is always towards the negative.
Encoder/Pulses	Determines 0 search above or outside the reference cam
Engines revolutions (rpm)	Private
Working area parameter configuration	
Max endposition:	Maximum value of the axis' positive and negative software endposition. We recommend setting a stop value of 10-30 mm before the axis' mechanical stop
In mold [1]	Min. and Max value of the working area software inside the mold.
Above IMM [3]	Min. and Max value of the working area software inside the press. In this area the descent of the vertical axis is limited for security reasons
	Click on the attached symbol if using the pdf format 
	Click on the Excel spread sheet to activate the working area configurator. Only from Word file  Working area SCP_rev4.xls

Page 2

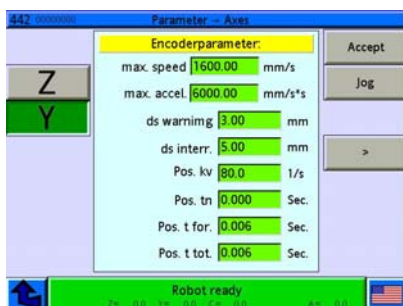


Fig. 29

Machine Data	Description (Fig. 29)
Max speed (mm/s)	Max axis speed.
Max. accel. (mm/s ²)	Max axis acceleration.
Ds Warning	Lag error: Tagging error, warning threshold.
Ds Interruption	Lag error: Tagging error, axis movement interruption threshold.
Pos. kv	KV engine gain See manual TM450TRE.25-ENG.pdf
Pos. tn	Engine integral action time See manual TM450TRE.25-ENG.pdf

Pos. t avan.	t_predict	See manual TM450TRE.25-ENG.pdf
Pos. t tot.	t_total	See manual TM450TRE.25-ENG.pdf

Page 3



Fig. 30

Machine Data	Description (Fig. 30)
Pos. p max.	kv limit positioning ring See manual TM450TRE.25-ENG.pdf
Pos. i max.	tn limit positioning ring See manual TM450TRE.25-ENG.pdf
kv speed	Positioning ring gain See manual TM450TRE.25-ENG.pdf
tn speed	Positioning ring integral action time See manual TM450TRE.25-ENG.pdf
T ramp s 1	t-Joilt filter that helps to reduce sudden axes movements during acceleration and deceleration (max 0.200).
T ramp s 2	Not Active
T in pos	Delay time of axis in position. Reduces the passage from one movement and the next
Current	Current supplied to the engine in "Torque Control" function to help the axis movement (e.g. axis 1 motion pushed by extractor). Useful for avoiding vertical axis overload. Not applicable to vertical axes

Page 4

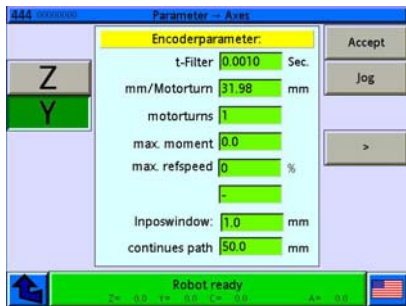
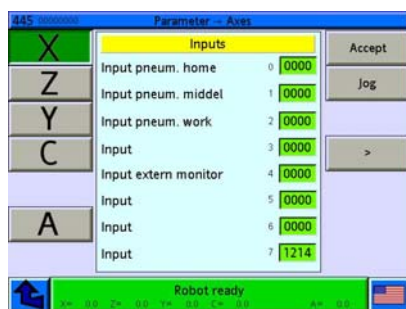


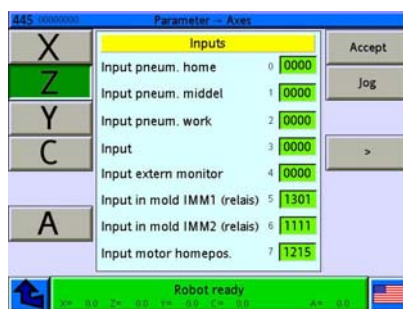
Fig. 31

Machine Data	Description (Fig. 31)
T-Filter	Speed ring filter. Helps to reduce engine resonance. See manual TM450TRE.25-ENG.pdf
mm/Engine Revolutions	Displacement in mm for every engine revolution.
Engines revolutions (rpm)	Reduction ratio, if not used in the mm/rpm formula.
Max Torque	Engine torque limit (0=no limit).
Max. refspeed	Axis speed percentage limit during 0 search (generally used for axes A-B-C).
-	-
Position Window:	Axis positioning tolerance to move to the next step (max 1 mm)
Move via...	mm of axis anticipation for moving to the work cycle's next step

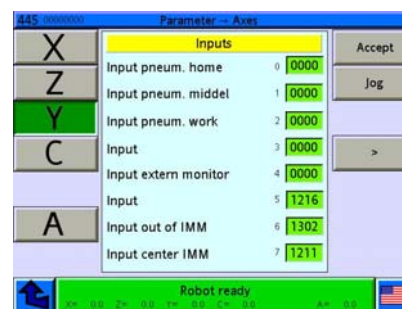
Page 5a - Fig. 32



Page 5b - Fig. 33



Page 5c - Fig. 34



Machine Data	Description (Fig. 32)
Input no. Off (0°)	Rotation sensor initial position. Only for pneumatic axes.
Input no. On (90°/180°)	Rotation sensor final position. Only for pneumatic axes.
Input no. Centre (45°/90°)	Rotation sensor intermediate position. Only for pneumatic axes.
Input	Free
Forward block input	Input that limits axis movement if the signal is = 0.
Input	Free
Input	Free
Input	Free

Machine Data	Description (Fig. 33)
Input no. Off (0°)	Rotation sensor initial position. Only for pneumatic axes.
Input no. On (90°/180°)	Rotation sensor final position. Only for pneumatic axes.
Input no. Centre (45°/90°)	Rotation sensor intermediate position. Only for pneumatic axes.
Input	Free
Forward block input	Input that limits axis movement if the signal is = 0.
Input in mold IMM1 relay	Input vertical axis sensor robot out of press 1
Input in mold IMM2 relay	Input vertical axis sensor robot out of press 2
Input motor axis homepos.	Input high vertical axis. The signal comes from the operation.

Machine Data	Description (Fig. 34)
Input no. Off (0°)	Rotation sensor initial position. Only for pneumatic axes.
Input no. On (90°/180°)	Rotation sensor final position. Only for pneumatic axes.
Input no. Centre (45°/90°)	Rotation sensor intermediate position. Only for pneumatic axes.
Input	Free
Forward block input	Input that limits axis movement if the signal is = 0.
Input	Free
Input outside IMM	Input for sensor robot on empty.
Input centre IMM	Input for sensor robot in centre press.

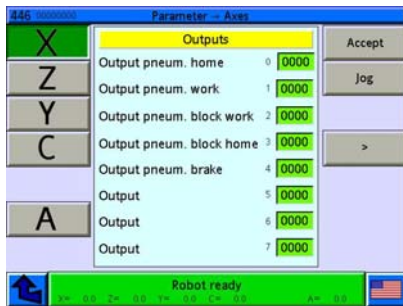


Fig. 35

Machine Data	Description (Fig. 35)
Output no. Off (0°)	Only for pneumatic axes: output for axis/actuator valve in Off position
Output no. On (90°/180°)	Only for pneumatic axes: output for axis/actuator valve in On position
Output no. forward block	Reserved for special pneumatic axes/actuators applications.
Output no. rear block	Reserved for special pneumatic axes/actuators applications.
Output no. brake	Reserved for special pneumatic axes/actuators applications.
Output	Free
Output	Free
Output	Free

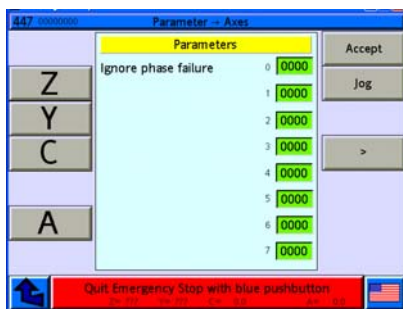


Fig.36

Machine Data	Description (Fig. 36)
Ignore phase failure	Set at 0001 to ignore short power gaps of Acopos operations that generate alarms, such as: 7210: DC bus: Voltage unstable 7215: DC bus: At least one phase of the power line failed The "Lag error" position error control, which blocks the axes if the power supply is not enough to ensure proper operations, remains active. Default value 0000 (operating energy supply control 380-480 Vac active)

2.1.2 AXES CONFIGURATION

Machine Data → Service → Axis Conf.

In the following page you can:

- Assign axes names (see Figure 36 and table at the side for axes assignment);
- Set axes types: pneumatic, electric or engine-driven type (see Table 21).

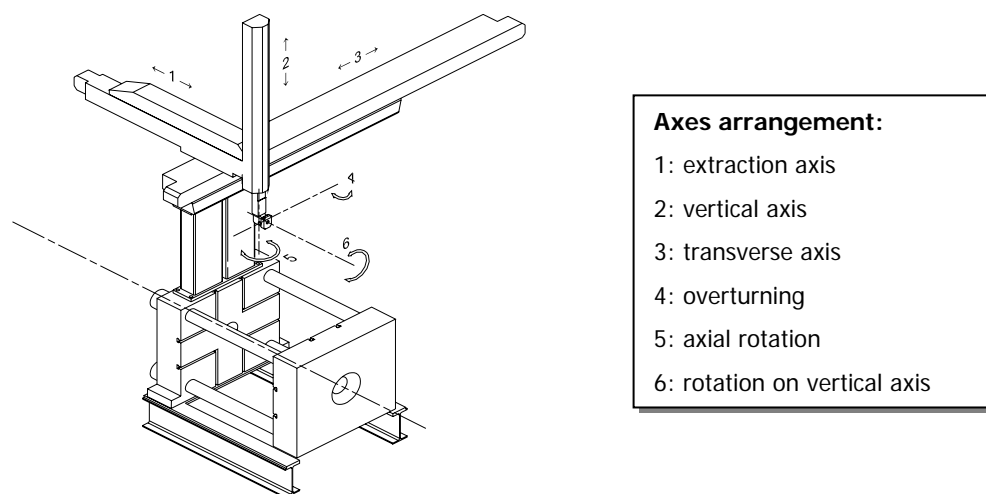


Fig. 36

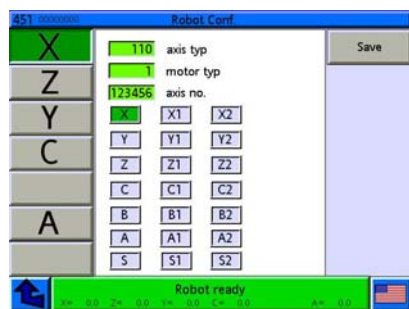


Fig. 37

Machine Data	Description (Fig. 37)
Axis type	Identifies the axis type: - 0 = no enabled axis - 110 = engine with resolver; - 100 = engine with absolute encoder; - 1 = pneumatic.
Engine type	Identifies the type of engine or the type of pneumatic circuit to activate. See table " SCP code motors selection " on next page
Axis number	Private

WARNING: We recommend to rename the axes at the first start-up. After renaming the axes check the working cycle to make sure that axis variables are correctly associated to the axes' names.

2.1.3 SCP CODE MOTORS SELECTION

SCP code	Code in automation studio project	Motor Type	Supplier
1	26_60	8LSA26.R0060D000-0	B&R
2	36_30	8LSA36.R0060D000-0	B&R
3	44_30	8LSA44.R0030D000-0	B&R
4	44_45	8LSA45.R0060D200-0	B&R
5	46_30	8LSA46.R0030D200-0 brake	B&R
6	tpm004	TPM 004 600 V 15 / 91 brake	Alpha
7	fha_14c1	FHA-11C-100-D200	Harmonic Drive
8	tpm010	TPM 010 600 V 15 / 91 brake	Alpha
9	54_45	8LSA54.R0045D000-0	B&R
10	56_30	8LSA56.R0030D200-0 brake	B&R
11	34_30	8LSA34.R0030D200-0 brake	B&R
12	35_30b	8LSA35.R0030D200-0 brake	B&R
13	m50b25	m50b25 Linear Motor	Sytama
14	g50b25	g50b25 Linear Motor	Sytama
15	tpm004E	TPM 004 091M brake Endat	Alpha
16	g100b50	g100b50 Linear Motor	Sytama
17	tpm025	TPM 025S 91R brake	Alpha
18	m50a25	m50a25 Linear Motor	Sytama
19	m50b35	m50b25 Linear Motor	Sytama
20	frm60	frm60 linear induction motor	Sytama
21	smb60_05	smb60 0,55Nm 6000rpm 400V	Parker
22			
23			
24			
25			
26			
27			
28			
29			
30	fn313we0	1FN3 100-3WE00-0AA1 Phasing: Mode 0	Siemens
31			
32	fn313we2	1FN3 100-3WE00-0AA1 Phasing: Mode 2	Siemens
33	24_60b	8LSA24.R0060D200-0 brake	B&R
34			
35			