

MANUAL

Operating instructions for

ERGO CONTROL

300-3000 E3

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POWER CONNECTION

The incoming power lines are, via the top of the electrical cabinet, connected to the terminal strip marked L1, L2, L3 and ground (PE).

Start the machine by activate the main switch and then turn the "RESET"- button (S1) to the right..

MANUAL DRIVING

Set the key selector switch to **PROG** and drive the positioner by pressing the foot pedal and the motion buttons: **-X/+X** , **-Y/+Y**.

ZERO CALIBRATION

Before programming the positioner it must be zeroed (calibrated).

Zeroing must also be performed each time the main power has been switched off since the machine control system counts the number of pulses from the "zero point" of each axis.

Make sure that the key selector is in position: **PROG**.

Move each axis to it's zero point (scribe mark), the **X**-axis to it's upper mechanical stop, the **Y**- and **Z**-axis to the known mark.

All axes operated by foot pedal and **-X/+X**, **-Y/+Y**, **-Z/+Z**.

Once all axes are in their "zero points" the system can be set to zero by pressing the **P** -button.

(THE ZEROSETTING IS CONFIRMED
BY "CAL" ON THE DISPLAY)

PROGRAMMING

1. Set the key selector switch to **PROG**.
 2. Select a free blocknumber with the buttons:
+1 och **>** eller **<** och **-1**.
 3. Move each axis to the desired position by pressing the driving buttons (or foot pedal) and the motion buttons:
-X, +X, -Y, +Y, -Z, +Z.
 4. Select F-function="START" by pressing **-F** or **+F**
(ses F-functions)
 - 5a. Select speed during operation by holding down
-Y or **+Y** and at the same time pressing **Ū** or **Ū**.
Same routine for Z-axis.
- Speed is shown on display on each axis in %.
- 5b. During stand still select speed in by holding down **Ū**
and stepping up or down with **-Y/+Y/+Z/+Z**.

6. To store the position press button **P**.
(The display will show block number for a second and then turn to the next sequence number).
7. Select a new position as shown in step 3-6 above.
Just change the F-function for the following positions to "**NEXT** " instead of "**START**".
Remember to press **P**.
8. When you arrive at the last position in your routine select F="END" with **-F/+F**.
Press **P**.

YOUR PROGRAM IS READY !

PROGRAM MODIFICATION

- To modify a particular program block

1. Turn the key selector switch to **PROG**.
2. Use the driving buttons and the buttons; **+1** and **>** or **<** and **-1** to locate the desired program block.
3. Adjust the position of the arm to the desired location and press **P**.

NOTE : Check that you have the right F-code before pressing the **P**-button.

Remember to turn the key selector switch to **AUTO** when you are ready.

TO OPERATE THE ERGO CONTROL IN AUTOMATIC MODE

1. Turn the key selector switch to **PROG**.
2. Use the buttons **.+1** and **>** or **<** and **-1** to find the first block number in the desired program.
3. Turn the key selector switch to **AUTO** and press the foot pedal.
The machine goes to first position in the program.
4. Each time the foot pedal is pressed, the program will move one block (position) forward.

PROGRAM SELECTOR

STORAGE OF NEW PROGRAM

1. Turn the selector to any desired program number.
2. Turn the key selector switch to **PROG**.
3. Search for the FIRST block in your program with **+1** and **>** or **<** and **-1**.
4. Turn the key selector switch to **AUTO**.
5. Press the **P**-button and at the same time press the **"START"** button (The positioner start to move).
The first block in your selected program is now stored in for immediate operation.

CHECK!

Make sure that the first block number has F-function=**"START"**.

PROGRAM SELECTOR

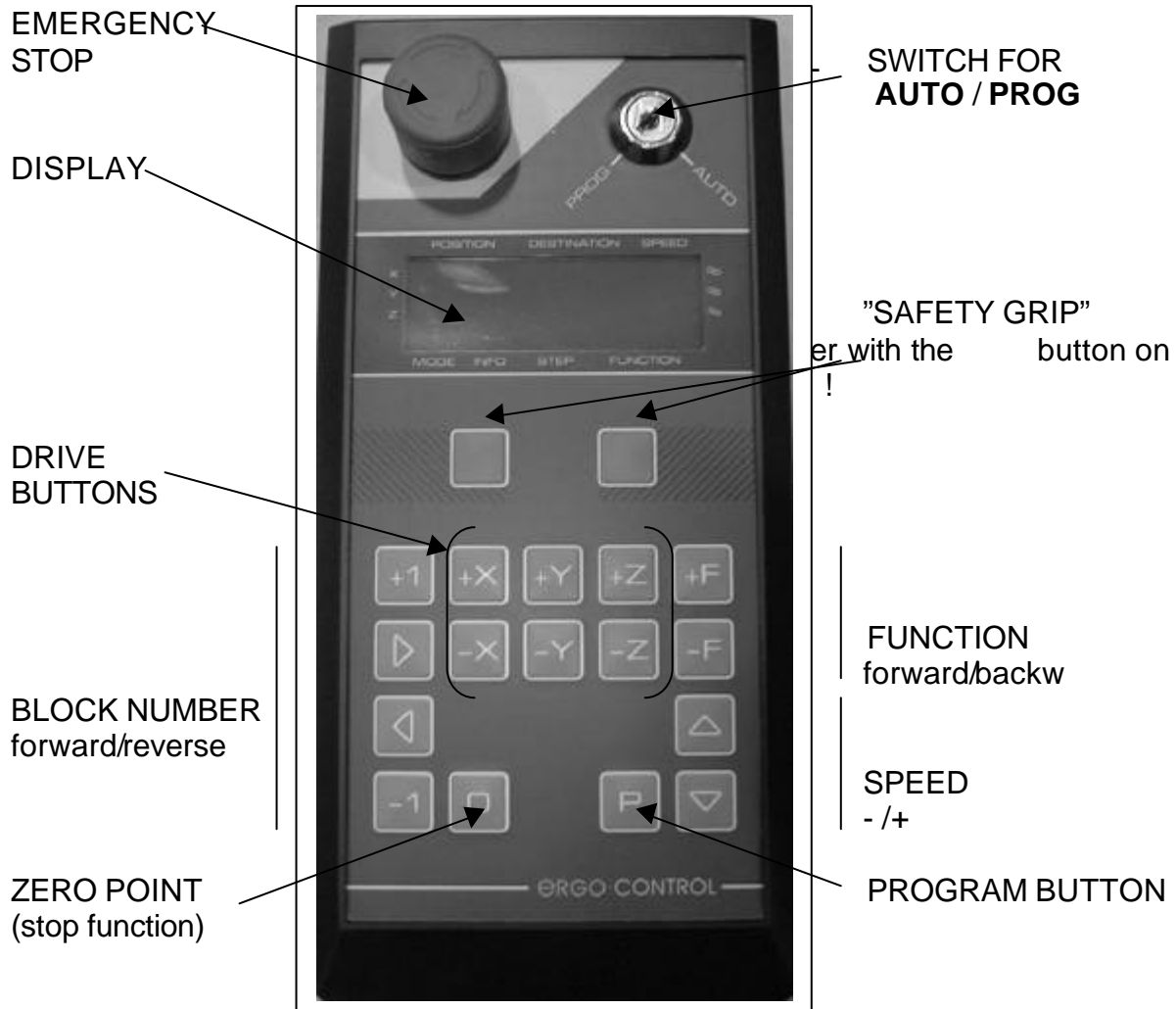
SELECTION OF STORED PROGRAM

1. Turn the key selector switch to **AUTO**.
2. Turn the selector to any desired program number.
3. Press the foot pedal.
(The positioner start to move).

NOTE!

To assure a safe and controlled operation when changing between the programs, ALWAYS make sure that the starting position for each program is approx. the same.

CONTROL PANEL



Functions:

NOP	= no operation
START	= first block
NEXT	= next block
END	= last block
A-START	= auto.start
A-NEXT	= auto.next block
A-END	= auto.last block
NEXT +Z	= rot. clockwise Z
NEXT -Z	= rot.counter clockwise Z
ANXT +Z	= auto.rot. clockwise Z
ANXT -Z	= auto.rot. counter clockwise Z
EXT-POS	= external input

SAFETY GRIP

ON CONTROL PANEL

Instead of foot pedal the machine can be operated by the control panel with the safety grip (see description on page 13).

When the buttons are activated the positioner moves, but as soon as the operator drops the control panel the positioner stops.

Place the control panel in its holder when no programming is under operation.

Do not manipulate or place (self made holder) the control panel in a way that may cause failure of the safety grip function.

START, STOP, EMERGENCY STOP AND RESTART

For start- and stopfunktionen see page 8 and forward.

EMERGENCY STOP

Placed on the control panel.

If activated **OFF** is shown in the display.

RESTART

To restart after emergency stop first turn the emergency stop button to the right.

Then turn the "RESET"- button (S1), on the side of the electrical cabinet.

