

Performance extension to the high-resolution 4 axes servo and stepper motor controller

LNC express



for your existing Impala 400

The LNC express makes it possible:

- ▶ higher Speed
- ▶ better acceleration
- ▶ more flexibility and higher comfort when operating the machine

The standard conversion package includes the following components:

- ▶ Replace the existing controller with LNC express
- ▶ Replace the existing control panel with new control elements
- ▶ Replace the existing PC's and monitor with new IPC and touch screen
- ▶ Replace the motors and connecting cables
- ▶ If necessary, replace limit switches and connecting cables
- ▶ Replace existing spindle generator with new spindle generator SD2S
- ▶ New manual control unit with hand-wheel encoder and jog mode
- ▶ Replace the existing power electronics with a new floor-standing switch cabinet (EMC interference-free design)
- ▶ Latest output software Ldriver in 64bit version

The new control equipment is a 4-axis servo and stepper motor control in the switch cabinet housing. It offers 32 digital inputs and outputs as well as encoder evaluation in all axes. A user-friendly, clear and logically structured touch control panel with "Windows 10" user interface, a manual control unit with hand-wheel encoder and jog mode function provide the user with considerably more convenience. This intuitive user guidance helps to lower manufacturing costs, shorten throughput times and thus increase profitability.

A further plus is the complete safety concept with speed monitoring, standstill monitoring and spindle standstill monitoring. The EMERGENCY STOP button on the operating panel and manual control unit protect the machine and its components from damage, as well as the operator himself.

The spindle speed potentiometer (with ± 50 override) can be used to set the spindle speed within the specified limits. Further features are the key switch, release button, spray button, tool changer and the manual control unit.



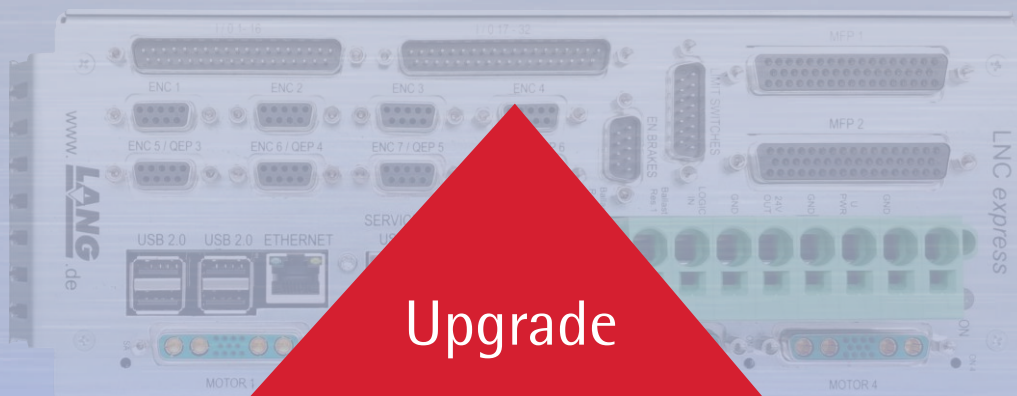
Technical data using the Impala range as an example:

Comparison	MCG	LNC	LNC express Upgrade of an 400S
Resolution in stepper motor mode	~ 1µm	~ 0,1µm	~ 0,003µm
Resolution in servo mode	-	-	~ 0,0004µm
Feed max. speed in m/min	2,6	6	9
Rapid traverse max. speed in m/min	2,6	6	9
Acceleration max. acceleration mm/s ²	180	500	1700

Important notes:

- ▶ With the retrofitting, the existing control system and the operating unit become the property of LANG GmbH & Co. KG. A professional disposal of the components no longer required is guaranteed by LANG.
- ▶ The commissioning must be carried out by a LANG technician.
- ▶ The manual control unit with hand-wheel encoder and key-tip operation replaces the old joystick function.
- ▶ Additional installation costs may arise for the replacement of the motors in the current version.
- ▶ Only spindle generators of the type SD2S are supported, a conversion of old generators is therefore not possible.
- ▶ For existing round engraving devices (RGV), please contact LANG.
- ▶ The footprint of the machine is increased by the dimensions of the switch cabinet (height 1800mm x width 800mm x depth 500mm). The switch cabinet is placed to the right of the machine and can be attached to the machine at the customer's request.
- ▶ If it turns out during retrofitting that further machine components have to be replaced (e.g. worn mechanical components) to ensure trouble-free, optimum operation, these components and their installation result in additional charges.

The warranty on the replaced components is six months.



Upgrade

LNC express