

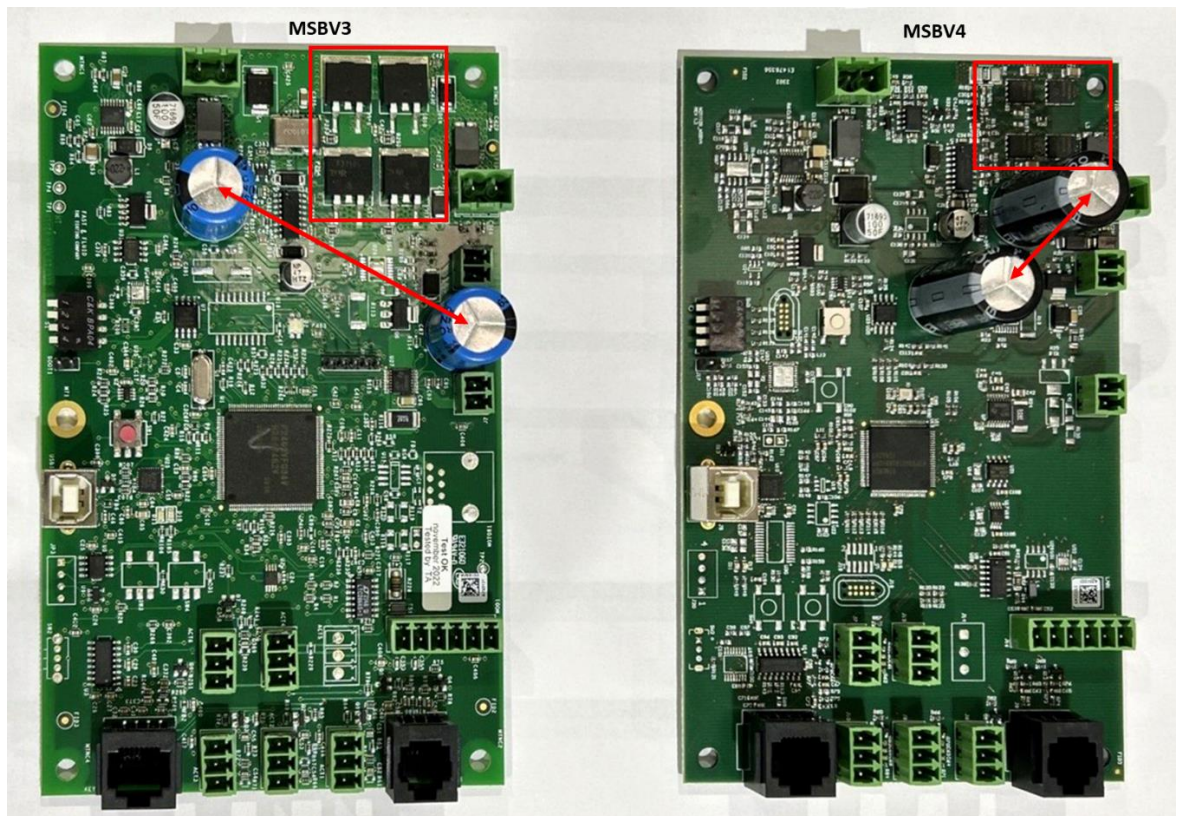


# **GX300**

# **Software Manual**

The GX300 has received a new PCB MixerShakerBoardVersion4.

!!! The new MSBV4 runs only on firmware V4xx.x !!!  
 !!! The old MSBV3 runs only on firmware V3xx.x !!!



The version of the PCB can be identified by taking reference of above shown picture of the Mixerboard.

Do not try to update a board from V3xx.x to V4xx.x or vice-versa. This will damage your board!!!

The GX300 has received a different inverter due to supply chain issues. The new inverter requires firmware version V330.4 or higher. Below you will find the serial numbers and production dates when the new inverter was introduced into the machine.

	From Serial number	From Production Date
GX300 with Nidec inverter	36000001-3003665	11th of May 2022

Doc revisions:

V1.0	first version
V1.1	second version
V1.2	16-3-2023 updated screenshots & error 45
V1.3	28-3-2024 updated clampforce limit parameter for V4 boards & added V3 & V4 warning.

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# 1 Changing parameters & test function

This chapter describes how parameters can be changed on the machine display/keyboard.

To change enter the service menu press and hold the lower-right button (STOP/UP) and the lower left button P at the same time. First you will parameter number 1, P01

Change the parameter number with **T1/-** and **T3/+**.

To change a parameter value press **T2/E**. The value will be shown.

Change the value of the parameter with **T1/-** and **T3/+**.

Use **T2/E** key to save the changed value.

Use **STOP/UP** key to leave parameter without saving.

To leave the parameter menu press the **STOP/UP** key.

Following parameters can be changed:

Displ.	Parameter	default value	min	max
P 01	StandbyTime	10 (minutes)	1	60

*When standby time is elapsed, machine will switch to low power, lock door and show logo.*

P 02	ReadyBeep	1 (=on)	0(off)	1(on)
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*Set to 0, no beep will sound when mixing is ready.*

P 03	ClampForce	600 (no-unit)	25	900
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*Clampforce used to clamp the can.*

*The max on V3 boards and V4 boards with firmware V4.40.5 and older was 625.*

## Function

F 04	Clamptest
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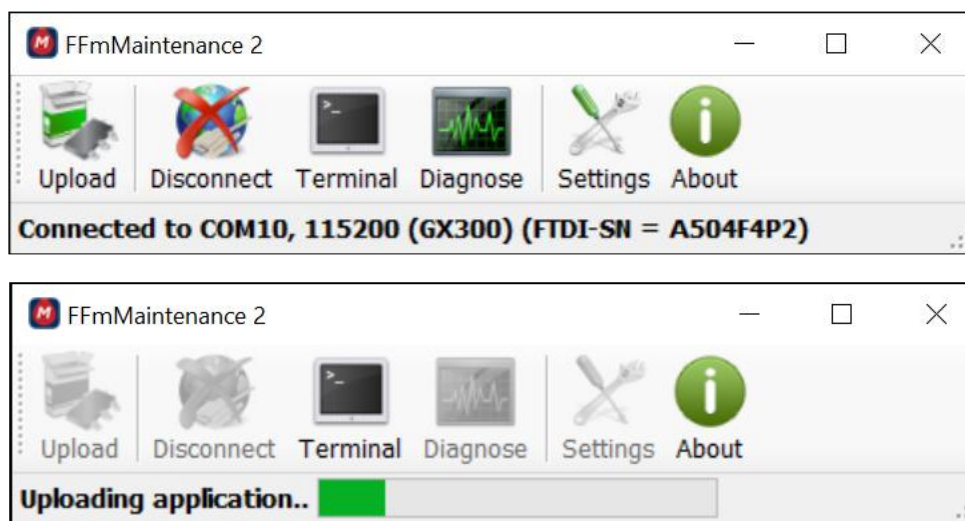
*To clamp without mixing enter this function and press T3 to clamp and T1 to unclamp.*

F 05	Endurance test
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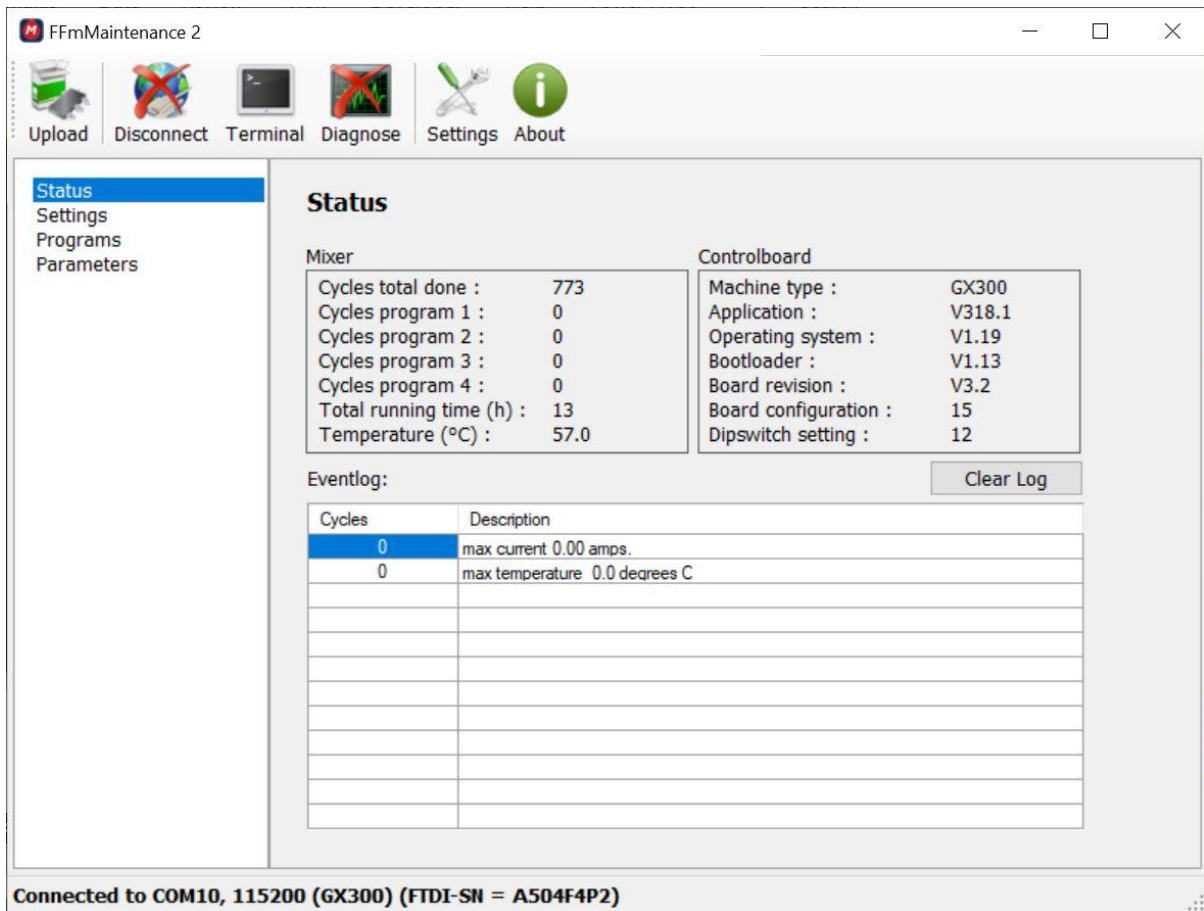
*When entering this function the endurance test starts with program1 and 30 wait time in between. The endurance test can be stopped with the UP key.*

## 2 Upload new firmware

- 1 - Switch off the machine
- 2 - Connect your PC to the USB connector on the mainboard
- 3 - Switch on the machine.
- 4 - Double-Click the \*.ffp file you want to upload.
- 5 - In FFmMaintenance under SETTINGS choose the right comport and press Upload.
- 6 - When programming is finished, you should see the software version number on the display when the machine is starting.



### 3 FFmMaintenance



The first tab shows the *Status* of the machine, cycle counters, firmware versions, inverter running time and temperature and error log.  
Button *Clear Log* will clear the eventlog.

FFmMaintenance 2

Upload Disconnect Terminal Diagnose Settings About

Status  
Settings  
Programs  
Parameters

### Settings

View and change settings

	Name	Value	Default	Unit
▶	SERIAL NUMBER			No unit
	CLAMP TORQUE	620	600	No unit
	STANDBY TIME	10		Minutes
	READY BEEP	1		0=Off/...
	HOLDCURRENT	0		Percen...
	SERVICE COUNTDOWN	0		Cycles

Restore Save

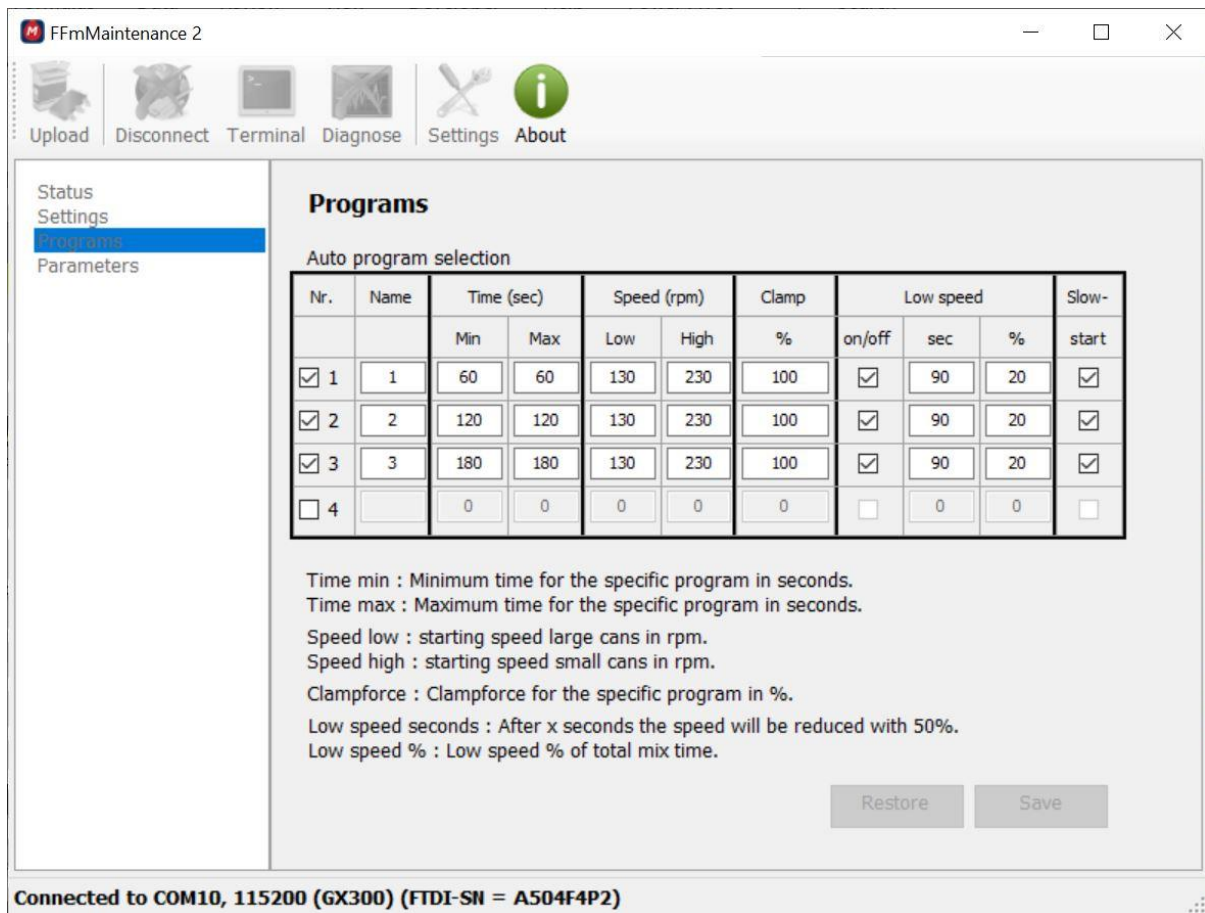
Connected to COM10, 115200 (GX300) (FTDI-SN = A504F4P2)



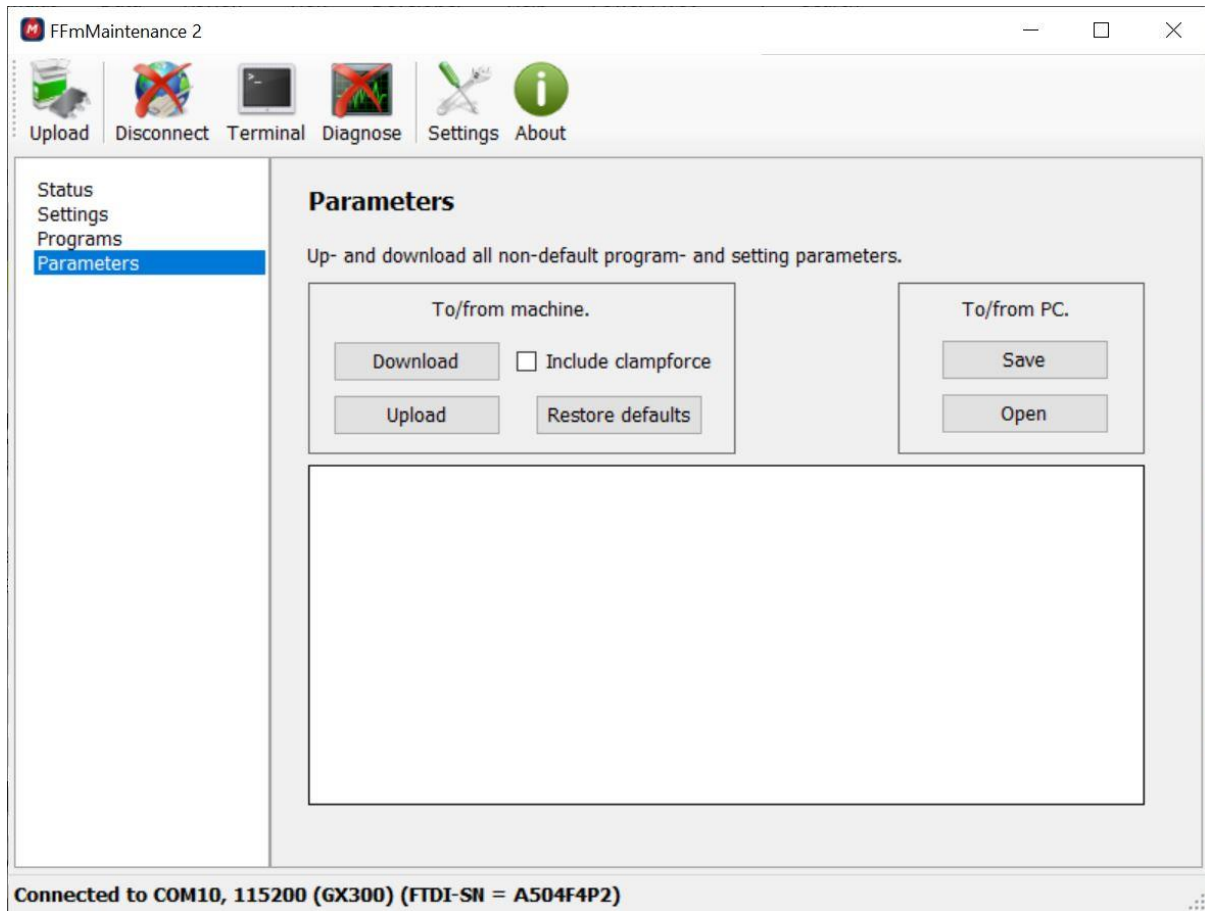
On the 2nd tab *Settings* can be changed. If a setting is changed, the default value will be shown next to it.

After a setting is changed it can be saved to the board with the *Save* button. When a setting is not saved it will be back to default after a machine restart.

Default settings can be restored with the *Restore* button.



On the 3rd tab the *Program* settings can be changed.  
 After a program is changed it can be saved to the board with the *Save* button. When a program is not saved it will be back to default after a machine restart.  
 Default programs can be restored with the *Restore* button.



This can be used to retrieve all non-default parameters from the machine and save them to the PC. This file can then be opened and uploaded to another PC.

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## 4 Error codes

**01 - ERROR\_DOOR\_OPEN**

*Door is open, close door before any action.*

**05 - ERROR\_CRADLE\_RELEASE**

*Error during cradle release. Reset machine. If the problem persists, call service.*

**06 - ERROR\_CRADLE\_LOCK**

*Error during cradle lock. Reset machine. If the problem persists, call service.*

**08 - ERROR\_EMERGENCYSWITCH**

*Emergency switch pressed. Release emergency switch.*

**11 - ERROR\_NO\_CAN\_FOUND**

*No can found during clamping. Place can.*

**37 - ERROR\_CLAMPCURRENT\_OVERLOAD**

*Current to clampmotor is too high. Check clamp mechanism, motor & cable connection.*

**38 - ERROR\_NO\_ENCODER**

*No encoder pulses during (un)clamping. Check encoder & cable connection.*

**39 - ERROR\_NO\_CLAMPCURRENT**

*No clampcurrent measured during (un)clamping. Check clampmotor & cable connection.*

**40 - ERROR\_FIND\_HOME**

*Error during finding cradle homeposition. Reset machine. If the problem persists, call service.*

**41 - ERROR\_INIT\_CLAMPPLATES**

*Error during init clampplates. Reset machine. If the problem persists, call service.*

**42 - ERROR\_CLAMPPLATES\_UP**

*Error during unclamping. Reset machine. If the problem persists, call service.*

**43 - ERROR\_CLAMPING**

*Error during clamping. Reset machine. If the problem persists, call service.*

**45 - ERROR\_LOST\_HOME**

*Lost home position of cradle. Remove loose can, reset machine. If the problem persists, call service.*

**46 - ERROR\_CLAMPCURRENT\_NOT\_REACHED**

*Error during clamping. Lower the clamp torque setting.*

**48 - ERROR\_MIXMOTOR\_BLOCKED**

*Mixmotor blocked. Make sure sliding plate is properly locked. If the problem persists, call service.*

**49 - ERROR\_CLAMP\_TIMEOUT**

*Error during clamping. Reset machine. If the problem persists, call service.*

**50 - ERROR\_INVERTER**

*Inverter is in error mode. Reset machine. If the problem persists, call service.*

**51 - ERROR\_INVERTER\_INIT**

*Failed to initialize inverter. Reset machine. If the problem persists, call service.*

**52 - ERROR\_INVERTER\_COMMUNICATION**

*Failed communication between mainboard and inverter. Reset machine. If the problem persists, call service.*

**53 - ERROR\_INVERTER\_GET\_STATUS**

*Failed communication between mainboard and inverter. Reset machine. If the problem persists, call service.*

**54 - ERROR\_INVERTER\_FORWARD**

*Failed to run the mixer motor forward. Reset machine. If the problem persists, call service.*

**55 - ERROR\_INVERTER\_BACKWARD**

*Failed to run the mixer motor backward. Reset machine. If the problem persists, call service.*

**56 - ERROR\_INVERTER\_STOP**

*Failed to stop the mixer motor. Reset machine. If the problem persists, call service.*

**57 - ERROR\_INVERTER\_BRAKE**

*Failed to brake the mixer motor. Reset machine. If the problem persists, call service.*

**58 - ERROR\_INVERTER\_BRAKE\_RELEASE**

*Failed to stop braking the mixer motor. Reset machine. If the problem persists, call service.*

**59 - ERROR\_INVERTER\_OVERHEATED**

*Inverter overheated. Wait 15 minutes to cool down the inverter. Reset machine. If the problem persists, call service.*

**60 - ERROR\_INVERTER\_SEND\_PARAMETER**

*Failed to send parameter to inverter. Reset machine. If the problem persists, call service.*

**61 - ERROR\_INVERTER\_HOME**

*Failed to send home command to inverter. Reset machine. If the problem persists, call service.*

**62 - ERROR\_INVERTER\_EMERGENCY**

*Emergency circuit of inverter is activated. Check the door switches and the emergency switch. Reset machine. If the problem persists, call service.*

**63 - ERROR\_INVERTER\_ALARM**

*Inverter is in alarm state. Reset machine. If the problem persists, call service.*

**96 - ERROR\_INVERTER\_GET\_TEMP**

*Error getting temperature from the inverter. Reset machine. If the problem persists, call service.*

**96 - ERROR\_INVERTER\_GET\_VALUE**

*Error getting parameter value from the inverter. Reset machine. If the problem persists, call service.*

**E96 - ERROR\_INVERTER\_GET\_SPEED**

*Error getting speed from the inverter. Reset machine. If the problem persists, call service.*

**E96 - ERROR\_PARAMETER\_NOT\_AVAILABLE**

*Error getting parameter from the inverter. Reset machine. If the problem persists, call service.*

**F00 - ERROR\_PARAMETER\_NOT\_AVAILABLE**

*Software error, Reset machine. If the problem persists, call service.*

**F54 - ERROR\_INVALID\_STATE\_VALUE**

*Software error, Reset machine. If the problem persists, call service.*