

Programming Lift and Speed Limits



MCFA Document: 000013-14C

Issue Date: 6/9/2014

Model And Serial Number(s):

EC22N2-EC30LN2

ATB30-00011-up ATB31-30001-up

ATB30-50001-up ATB31-50001-up

ATB31-00011-up ATB32-00011-up



Programming Lift and Speed Limits

Subject:

Programming lift and speed limits.

Cause:

Some dealers may not know how to program lift or speed limits.

Resolution:

Use the following instructions to program lift or speed limits.

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- Refer to Service Manual and Operation and Maintenance Manual (OMM) for safety guidelines prior to working on equipment.
- Make all repairs with the lift truck parked on a level, hard surface. Block the lift truck so it does not roll while working on or under the lift truck.
- Ensure enforcement of company policy for proper lockout/tag out procedure.

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The screenshot shows the 'E4500-6500 LOGICS->LOGICS - [Setup Option]' window. The left sidebar has 'Set-up Option' highlighted. The main area shows a 'Load/Read/Save' menu with 'Group 2 #11-#20' selected. Below this is a 'Set-up Option' table with various parameters and their values (all '???').

Set-up Option	Value
#11 Aux input lift / drive speed 1	???
#12 Auxiliary Maximum Travel Speed Setting 1	???
#13 Aux power reduction rate 1 [%]	???
#14 Aux input lift / drive speed 2	???
#15 Auxiliary Maximum Travel Speed Setting 2	???
reduction rate 2 [%]	???

Annotations:

- 1) Select set-up options (points to the 'Set-up Option' menu item)
- 2) Select group 2 (points to 'Group 2 #11-#20' in the Load/Read/Save menu)

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The screenshot shows the 'E4500-6500 LOGICS->LOGICS - [Setup Option]' window. The interface includes a menu bar (File, View, Tools, Communication, Language, Help), a toolbar with 'Write' and 'Cancel' buttons, and a navigation pane on the left with options like 'Input Monitor', 'Output Monitor', 'Custom Monitor', 'Truck Status', 'Truck History', 'Troubleshooting ...', 'Set-up Option', 'Oscilloscope', 'Connection Chan...', 'Firmware Update', 'Change Model', 'Hour Meter Moni...', and 'Self Diagnose'. The main area displays 'Set-up Option' settings for three groups: Group 1 (#11-#10), Group 2 (#11-#20), and Group 3 (#40-#47). The settings for Group 1 are highlighted with green boxes and red arrows pointing to a central text box that says 'Multiple aux inputs are available.' The settings for Group 1 are: #11 Aux input lift / drive speed 1, #12 Auxiliary Maximum Travel Speed Setting 1, and #13 Aux power reduction rate 1 [%]. The settings for Group 2 are: #14 Aux input lift / drive speed 2, #15 Auxiliary Maximum Travel Speed Setting 2, and #16 Aux power reduction rate 2 [%]. The settings for Group 3 are: #17 Aux input lift / drive speed 3, #18 Auxiliary Maximum Travel Speed Setting 3, and #19 Aux power reduction rate 3 [%]. A #20 Stall Timer setting is also visible. The right side of the window shows a list of settings with values '???' and up/down arrows. The bottom of the window shows a Windows taskbar with various application icons and a system tray with the time 10:32 AM and date 10/15/2013.

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The screenshot shows the 'E4500-6500 LOGICS -> LOGICS - [Setup Option]' window. The interface includes a menu bar (File, View, Tools, Communication, Language, Help) and a sidebar with navigation options like 'Input Monitor', 'Output Monitor', 'Custom Monitor', 'Truck Status', 'Truck History', 'Troubleshooting...', 'Set-up Option', 'Oscilloscope', 'Connection Chan...', 'Firmware Update', 'Change Model', 'Hour Meter Moni...', and 'Self Diagnose'. The main area is titled 'THE DIAGNOZER' and contains a 'Write' and 'Cancel' button. Below these are tabs for 'Load/Read/Save', 'Group 1 #1-#10', 'Group 2 #11-#20', 'Group 3 #40-#47', 'PasswordNo.1 - No.8', 'PasswordNo.9 - No.18', 'PasswordNo.19 - No.28', and 'PasswordNo.29 - No.32'. The 'Set-up Option' section lists parameters #11 through #20. Parameters #11-13, #14-16, and #17-19 are grouped into three sets, each highlighted with a green box. A callout box with the text 'Each input has 3 settings.' has red arrows pointing to the first three settings of each group. The right side of the screen shows a list of values, all currently set to '???'.

Parameter	Value
#11 Aux input lift / drive speed 1	???
#12 Auxiliary Maximum Travel Speed Setting 1	???
#13 Aux power reduction rate 1 [%]	???
#14 Aux input lift / drive speed 2	???
#15 Auxiliary Maximum Travel Speed Setting 2	???
#16 Aux power reduction rate 2 [%]	???
#17 Aux input lift / drive speed 3	???
#18 Auxiliary Maximum Travel Speed Setting 3	???
#19 Aux power reduction rate 3 [%]	???
#20 Stall Timer	???

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The screenshot shows the 'E4500-6500 LOGICS -> LOGICS - [Setup Option]' window. The interface includes a menu bar (File, View, Tools, Communication, Language, Help), a sidebar with navigation options (Input Monitor, Output Monitor, Custom Monitor, Truck Status, Truck History, Troubleshooting, Set-up Option, Oscilloscope, Connection Chan..., Firmware Update, Change Model, Hour Meter Moni..., Self Diagnose), and a main area titled 'THE DIAGNOZER'. The main area contains a 'Load/Read/Save' section with group and password options, and a 'Set-up Option' table. The table lists various settings, with '#11 Aux input lift / drive speed 1' highlighted by a green box. A blue callout box points to this row with the text: 'Aux Input defines function of each aux switch.'

Set-up Option	Value	Direction
#11 Aux input lift / drive speed 1	???	↕
#12 Auxiliary Maximum Travel Speed Setting 1	???	↕
#13 Aux power reduction rate 1 [%]	???	↕
#14 Aux input lift / drive speed 2	???	↕
#15 Auxiliary Maximum Travel Speed Setting 2	???	↕
#16 Aux power reduction rate 2 [%]	???	↕
#17 Aux input lift / drive speed 3	???	↕
#18 Auxiliary Maximum Travel Speed Setting 3	???	↕
#19 Aux power reduction rate 3 [%]	???	↕
#20 Stall Timer	???	↕

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- Use this chart to find the correct value to define the function of the switch that is being installed.

Value	Lift	Travel
0	-	-
1	Stop lift *1 (switch closed)	-
2	-	Speed limit (switch opened)
3	-	Power reduction (switch closed)
4	Stop lift *1 (switch opened)	-
5	-	Speed limit (switch opened)
6	-	Power reduction (switch closed)

7.3 Details of Setup Options (Group-2)

#11 Auxiliary input for lift and drive speed 1 (Harness pin No. 40)

This setting defines the function of "Auxiliary 1" switch. This value has an effect on #12 and #13 when 2, 3, 5, or 6 is selected.

#12 Auxiliary travel speed limit 1 (Harness pin No. 40)

This setting defines maximum speed when the "Auxiliary 1" switch is closed.
The setting range is 5 to 18 [km/h]. Effective when the data of #11 is 2, 3, 5, or 6.

#13 Auxiliary power reduction rate 1 (Harness pin No. 40)

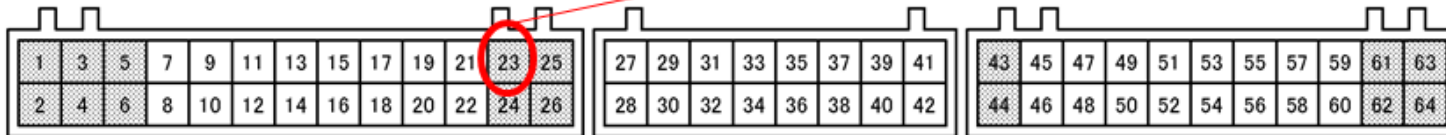
This setting defines traction power reduction when the "Auxiliary 1" switch is closed or opened.
The setting range is 0 to 100 [%]. Effective when the data of #11 is 3 or 6.

Check the service manual for set-up option # and corresponding pin location on logics connector.

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Use pin 23 as output to switch



23	GND
24	+5V
25	GND
26	+5V

Logic card pins
0584203540 (small)
0584204610 (large)

MCFA requires wiring limit switches as normally open / held closed. Broken wire = limited performance.

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THE DIAGNOZER

Write Cancel

Load/Read/Save | Group 1 #1-#10 | Group 2 #11-#20 | Group 2 #21-#32 | Group 3 #40-#47 | PasswordNo.1 - No.8 | PasswordNo.9 - No.18 | PasswordNo.19 - No.28 | PasswordNo.29 - No.32

Set-up Option

#11 Aux input lift / drive speed 1	???
#12 Auxiliary Maximum Travel Speed Setting 1	???
#13 Aux power reduction rate 1 [%]	???
#14 Aux input lift / drive speed 2	???
#15 Auxiliary Maximum Travel Speed Setting 2	???
#16 Aux power reduction rate 2 [%]	???
#17 Aux input lift / drive speed 3	???
#18 Auxiliary Maximum Travel Speed Setting 3	???
#19 Aux power reduction rate 3 [%]	???
#20 Stall Timer	???

Communication Error

10:32 AM
10/15/2013

If input is set to 1 or 4, lift will be cut out when switch is activated.

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THE DIAGNOZER

Write Cancel

Load/Read/Save | Group 1 #1-#10 | Group 2 #11-#20 | Group 2 #21-#32 | Group 3 #40-#47 | PasswordNo.1 - No.8 | PasswordNo.9 - No.18 | PasswordNo.19 - No.28 | PasswordNo.29 - No.32

Set-up Option

#11 Aux input lift / drive speed 1	???
#12 Auxiliary Maximum Travel Speed Setting 1	???
#13 Aux power reduction rate 1 [%]	???
#14 Aux input lift / drive speed 2	???
#15 Auxiliary Maximum Travel Speed Setting 2	???
#16 Aux power reduction rate 2 [%]	???
#17 Aux input lift / drive speed 3	???
#18 Auxiliary Maximum Travel Speed Setting 3	???
#19 Aux power reduction rate 3 [%]	???
#20 Stall Timer	???

Communication Error

10:32 AM
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If input is set to 2 or 5, set the top travel speed here.

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THE DIAGNOZER

Write Cancel

Load/Read/Save | Group 1 #1-#10 | Group 2 #11-#20 | Group 2 #21-#32 | Group 3 #40-#47 | PasswordNo.1 - No.8 | PasswordNo.9 - No.18 | PasswordNo.19 - No.28 | PasswordNo.29 - No.32

Set-up Option

#11 Aux input lift / drive speed 1	???
#12 Auxiliary Maximum Travel Speed Setting 1	???
#13 Aux power reduction rate 1 [%]	???
#14 Aux input lift / drive speed 2	???
#15 Auxiliary Maximum Travel Speed Setting 2	???
#16 Aux power reduction rate 2 [%]	???
#17 Aux input lift / drive speed 3	???
#18 Auxiliary Maximum Travel Speed Setting 3	???
#19 Aux power reduction rate 3 [%]	???
#20 Stall Timer	???

Communication Error

10:32 AM
10/15/2013

If input is set to 3 or 6, set the traction motor power reduction here.

- Aux power reduction value is adjustable 0-100%.
- Use aux power reduction if more precise control of traction motor is required than what is available in application presets, IE: tires slipping on wet floors.
- Define input as switch open, power reduction.
- Do not install a switch, torque to traction motor will always be limited.