#84034 - Trinity Lx Commercial Controller Replacement Instructions

WARNING The commercial controller (part number 84034) is configured specifically for use with Trinity Lx Commercial series boilers only, Lx500-800 inclusive. This controller shall NOT be used with non Lx Commercial-series boilers. Use of this controller on boiler models other than Trinity Lx Commercial-series will override some saftey features and may lead to unsafe operation resulting in fire, explosion, property damage or death.

NOTICE

Check the contents of the parts received to ensure the controller is labeled "84034 Sola,Lx Comm. Cfg.", signifying that it is for use with Lx Commercial-series Trinity boilers; see

illustration below. If the controller is not labeled, or has a different label, it is not intended for use with a Trinity Lx Commercial-series boiler. Note: all commercial Sola controllers have a blue case, if the controller case is not blue return to NTI.



Controller Replacement Instructions

WARNING The instuctions provided in this document are a supplement to the Installation and Operating Instructions may result in fire, explosion, property damage or loss of life.

These instructions describe the steps necessary to replace a controller from any model of the Trinity Lx Commercial series, sizes 500 to 800 inclusive, with a "generic" controller. Be sure to thoroughly read and understand these instructions before attempting a controller replacement.

Note: Before replacing an existing controller, record (if possible) the settings specific to the particular installation from the old controller, so they may be transferred to the new replacement controller.

Replace the Trinity Lx Commercial controller:

- 1) Turn off power to the appliance via the circuit breaker, remote switch or local On/Off switch.
- 2) For Lx500-600 units remove the top panel. For Lx700-800 units, remove the top rear panel.
- 3) Remove the control panel cover.
- 4) Unplug all electrical connections from the controller. All wiring is connected to the controller by means of quickconnect plugs, each of which is uniquely keyed to its mating receptacle to prevent incorrect electrical connections.
- 5) Remove the old controller from the panel. The controller is secured to the panel by four screws, $\#8 \text{ w}/\frac{1}{4}$ " hex drive.
- 6) Installation procedure is in reverse order.
- 7) Use the display to adjust the control parameter settings to the values specific to the boiler model (see instructions below).

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Control Settings Verification and Adjustments:

 <u>Control Configuration Verification</u> – From the "Configuration" menu, select "System Identification and Access". Check to ensure the control is equipped with the correct configuration – see illustration below. Replacement controllers intended for use on Lx Commercial-series boilers will begin with "NTI LxCGen". At this time the installer may choose to modify the "Boiler name" to reflect the boiler model the control is installed on, i.e. Lx500.



 <u>Modulation Rate Adjustments</u> – Since the replacement control is generic to all Lx Commercial boiler models, the minimum and maximum modulation rates must be set to the applicable values. Select "Modulation Configuration" from the "Configuration" menu and adjust the settings according to the following table:

Parameter	Description	Settings
CH max. modulation rate	Maximum permissible blower speed during CH demand. Setting is model dependent.	Lx500 = 6400 rpm Lx600 = 4350 rpm Lx700 = 4300 rpm Lx800 = 5300 rpm
DHW max. modulation rate	Maximum permissible blower speed during DHW demand. Setting is model dependent.	
Minimum modulation rate	Minimum permissible blower speed. Setting is model dependent.	Lx500 = 1400 rpm Lx600 = 1050 rpm Lx700 = 1250 rpm Lx800 = 1250 rpm



Failure to set the modulation rates appropriate to your specific boiler model according the table above may result in fire, explosion, property damage or loss of life.

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3) **Pulses Per Revolution Adjustment** – Since the replacement control is generic to all Lx Commercial boiler models, the blower tachometer feedback "Pulses per revolution" setting must be set to the appropriate value for the specific boiler. Select "Fan Configuration" from the "Configuration" menu and adjust the settings according to the following table (see the illustration below):

Parameter	Description	Settings
Pulses per revolution	Number of feedback pulses produced for each revolution of the combustion blower impeller.	Lx500 = 2 Lx600 = 3 Lx700 = 3 Lx800 = 3

	Lx Comm Generic Fan Configuration	9
	Pulses per revolution 3	
Logir		