FurnacePros Division of Lochaber Cornwall, Inc.

**Field Instruction** 

## INSTALLING LCM4 CONTROLLER FIRMWARE

DOC NBR: TEC-506

APRVD: JC 09 JUL 14

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# 1.0 Application

Applies to installation of new firmware on furnace all LCI and RTC infrared furnaces equipped with an LCM4 furnace controller.

## 1.1 Equipment

Firmware o44slcR4.1e (1 file)

OptoTerm.exe utility (3 files).

LCM4 controller with Ethernet connection

## 1.2 Preparation

Download version 4.1b or later of OptoTerm to C:\Opto22\Util\.

Copy firmware 4.3e to jumpdrive or obtain Opto22 Controller Programming Kit R6.0a

Turn OFF LCM4 controller.

Remove jumper X1.

Turn ON LCM4 controller.

### 1.3 Installation

Open OptoTerm.exe. (click on OptoTerm.exe or go to Start\Programs\Opto22\Optoterm), Fig 1-1.

Select File\Download Controller Kernel. Fig 1-2

Go to drive\directory where firmware is located.

Select firmware (o44slcR4.1e) see fig 1-3.

Click OK. Firmware download should start.

### 1.4 Reset Controller

Turn OFF LCM4 controller

Replace X1 jumper

Turn ON LCM4 controller

Press Download icon on furnace computer to redownload furnace program to controller.

Start Furnace program.



Figure 1-1 Open OptoTerm.exe

File	Tools	Configure	View	Help	
	Downlo	ad Controlle	r Kernel	l	
	Downlo	ad Controlle	r Down	load File	
	Downlo	ad Controlle	r Forth	File	
	Upload Strategy Archive				
	Clear C	ontroller RAN	M		
	Clear O	ptoDisplay V	Vords		
	Exit	Al	t+F4		

#### Figure 1-2 select Download Controller Kernel

File to Downlo	ad:	
D:\OptoConti	rol Firmware\o44slcR4.1e	Brow
ОК	Cancel	

Figure 1-3 Select firmeware file

# **1.5 Inspecting Controller**

In the OptoTerm main window, double-click the name of the controller (FC) to view controller installed version and status.

_	Controller Toron	CNAD LONA (consideration)	
	Loader Version:	SNAP-LUM4 (expanded riash) B4 fia	
	Firmware Version	: OptoKernel R4.1e	
	Revision Time:	10:06:12 6 November 2007	
	Available RAM:	3.33 MB free	
	Controller Time:	15:41:21 9 July 2014	Sync time to PC
	Error Queue:	0	View Errors
Strateg	y		
Name:	Furnace		
Time:	15:15:38 9 Ju	ly 2014	
Status:	: Running		Run Stop
Archiv	e: (NOT AVAILA	BLE )	
Commu	inication		
Loop .	Time: 15 msec		
Errors:	No Error		
	1		

Figure 1-4 Inspect Controller