



CONTINUOUS BELT IR FURNACE

Model LA-309

Owner's Manual

Revision 3



MODEL: LA-309
SERIAL NUMBER: 1303091001
FACTORY ORDER NUMBER: 10-004

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Continuous Belt IR Furnace

Owner's Manual

Rev. 3

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TABLE OF REVISIONS

Rev	Sections	Description	Date
0	All	Initial Release	10/7/2010
1	Tables, 2.2.3, 2.4.10, 3.52, 3.7	Controller battery, Starting, Restarting the Furnace, Table 3.2	12/8/2010
2	2.1, 2.4, 3.6	Main Furnace Power, Furnace Shut Down – Cool Down section, Troubleshooting Procedures	12/8/2010
3	Revised Section 1	Installation	12/10/2019

WHAT IS IN THIS MANUAL

This Owner's Manual contains your product information and warranty as well as installation, startup, operating instructions specific to the equipment purchased. The Owner's Manual is to be used in conjunction with the Continuous Belt IR Furnace Reference Manual and Dell Computer Product Information Guide to assure the equipment is installed and operated according to manufacturer's instructions.

Note that throughout this Owner's Manual and the furnace Reference Manual the equipment is generally referred to as a furnace. A dryer is a furnace with only the top lamp elements installed.

EQUIPMENT LIST

Verify that the following equipment was received.

Qty	Unit	Description	Part Number
(1)	ea	LA-309 Furnace	10-004-LA-309
(1)	ea	Monitor, Dell P170 17" LCD Professional Flat Panel	
(1)	Length	Belt segment with splice wire	-
(1)	ea	Latch and Key, Flowmeter (alt to installed twist latch)	-
(1)	ea	Mouse, USB Optical	2MOUSEU2L

In addition verify that you received the following, shipped separately.

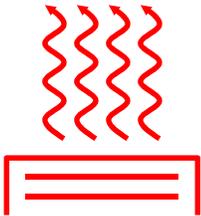
Qty	Unit	Description	Part Number
(2)	ea	Manual, Owner's, 3-Ring Bound	10-004-676-110000-02
(2)	ea	Manual, Reference, Perfect Bound	675-110000-02
(1)	ea	CD Media, Reinstallation, ProControl™ Furnace software, including - Owner's Manual, P/N 10-004-676-110000-01 - Reference Manual, P/N 675-110000-01	10-004-677-110000-01
(1)	ea	CD Media, Reinstallation, WindowsXP™ SP2 operating system	SERVICE TAG 7SC2FN1 XP KEY: 38PMC-CKXJJ- DGMMY-66PBX-3V69F
(1)	ea	CD, Drivers and Utilities, Dell Optiplex 780	
(1)	ea	CD, Dell Professional series LCD Monitor drivers and user Documentation	
(1)	ea	CD, Linksys, User Guide and Drivers, 10/100/1000 Gigabit Network Adapter v3.0	EG1032

GENERAL SAFETY GUIDELINES

The following set of guidelines is intended to create awareness of potential health and safety hazards.

Normal Good Laboratory Practice

Normal good laboratory practices apply to the operation of IR furnaces. Do not use the space above the furnace as storage. Do not block the cabinet doors preventing the cooling of the electronic equipment inside. Do not operate with side covers off as this will prevent normal cooling of the electronic equipment thus voiding the warranty. Tuck electrical cords out of the way. Do not store flammables in the vicinity of the furnace and especially while operating the furnace with an oxygen atmosphere.



HIGH TEMPERATURES. In general, the operation of any furnace may expose operators or maintenance technicians to the risk of burns. After being processed in a FurnacePros furnace, customer product may still be dangerous to handle. Each owner is responsible for providing a safe work environment and proper training in the handling of material being processed in a furnace.



ELECTRICAL SHOCK HAZARD. IR furnaces operate at high voltages. Operation with side covers off constitutes a safety hazard. Ensure that main power is off while side covers are removed.

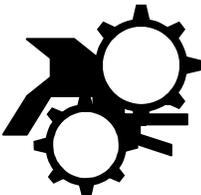
Electrical shock hazards exist for those technicians who service the furnace. High voltages are required to operate the furnace and precautions must be taken to reduce the exposure to these elements. Again, it is the responsibility of the furnace owner to assure that only properly trained service technicians, familiar with high voltage operations be allowed to service the equipment



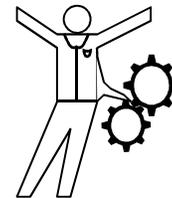
EXPLOSION Explosive dangers may exist in the high temperature process environment of the furnace. If the furnace operates with process gas containing hydrogen, measures must be taken to avoid the dangers of explosion. Furthermore, improper gas flow balance may draw oxygen rich air into the furnace, mixing with effluent gases and material from products, also creating a hazardous environment.



HAZARDOUS MATERIALS. Persons performing maintenance tasks such as replacement of lamps may become exposed to silica fiber compounds. Such tasks should be performed by qualified persons wearing gloves, eye protection and a facemask to prevent inhalation of particulates.



ROTATING EQUIPMENT. Roller dangers exist when working around the conveyor belt of the furnace. Care should be taken not to place hands on or near the belt drive mechanisms when the conveyor system is operating as roller crush may occur. Operators should avoid walking near the open ends of the conveyor belt. Those who must be near the moving parts should wear close fitting clothing.



LIMITED WARRANTY

PURCHASER: OMS Ratto S.p.A

MODEL: LA-309

SHIPMENT DATE: 07/29/2010

SERIAL NUMBER: 1303091001

STARTUP DATE: 10/15/2010

EQUIPMENT	WARRANTY PERIOD
IR Continuous Belt Furnaces & Dryers	Checkout/Startup by FurnacePros: Twelve months (12) months from date of initial startup, in no event exceeding 18 months from date of shipment.
Refurbished Equipment & Controls Upgrades	Checkout/Statup by others: Twelve months (12) months from date of shipment.
Aftermarket Parts	Sixty (60) days from date of shipment.

FurnacePros warrants that the Equipment conforms to its specifications and is free from defects in workmanship and material under normal use and service, excluding chemical attack, wear and tear from abrasion or corrosion. During the Warranty Period FurnacePros will at its option, repair or replace the defective part provided (1) PURCHASER promptly notifies FurnacePros of any claimed defect, (2) PURCHASER receives return authorization and returns the product to FurnacePros for inspection, and (3) the Product is determined by FurnacePros to be defective and the remedy the responsibility of FurnacePros. Minor deviations from the specifications shall not constitute defects or non-conformance. Consumables such as fuses, filters, lamps, thermocouples and lubricants are expressly excluded from this warranty.

No parts shall be received by FurnacePros without FurnacePros' prior written authorization. If FurnacePros determines that the warranty does not apply, PURCHASER will be responsible for any repair or replacement costs and all associated freight charges.

FURNACEPROS' LIABILITY IS LIMITED TO THE REPAIR OR REPLACEMENT OF THE EQUIPMENT FOUND TO BE DEFECTIVE AT SUCH LOCATION AS MAY BE DETERMINED IN THE SOLE DISCRETION OF FURNACEPROS. ALL WORK UNDER THIS WARRANTY SHALL BE PERFORMED DURING NORMAL WORKING HOURS. ALL REPLACEMENT PARTS, WHETHER NEW OR REMANUFACTURED, ASSUME AS THEIR WARRANTY PERIOD ONLY THE REMAINING TIME PERIOD OF THIS WARRANTY.

PURCHASER shall bear the cost of return of any materials, components and equipment to FurnacePros. FurnacePros shall bear the cost of non-expedited shipping to PURCHASER of parts and materials replaced under this warranty. When a FurnacePros representative visits PURCHASER's facility for warranty work, PURCHASER shall only reimburse related normal and customary travel and lodging expenses.

Unless otherwise specifically authorized in advance, payment of charges incurred by others shall not be borne by FurnacePros. In any event, approved charges shall be limited to the cost FurnacePros would have reasonably incurred had the equipment been returned to its plant for correction. FurnacePros will not accept any backcharges for field corrections made without its prior written approval and instructions.

These warranties will not apply if the equipment or any components thereof have been subject to:

- (1) operation, maintenance, overhaul, installation, storage or use which is improper or not in accordance with FurnacePros' instructions;
- (2) any alteration modification, or repair by anyone other than FurnacePros or its authorized representative;
- (3) any accident, misuse, neglect, or negligence after shipment; or
- (4) damage due to uncontrollable external events or acts of God.

All payments must be made according to the agreement terms to activate this warranty. Warranties will commence for the remainder of the Warranty Period upon payment of any balance due FurnacePros.

THE EXPRESS WARRANTIES MADE HEREIN ARE EXCLUSIVE AND ALL OTHER WARRANTIES, EXPRESS, STATUTORY OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL LOCHABER CORNWALL, INC. OR ANY OF ITS SUBSIDERARIES BE LIABLE FOR ANY CONSEQUENTIAL DAMAGES (SUCH AS SPECIAL OR INDIRECT) NOR FOR ANY LOSS OF PRODUCTION OR OTHER LOSSES arising out of, resulting from, or in any way connected with its work, the performance of the Equipment, any failure of the Equipment or any breach of the agreement.

CONTENTS

WHAT IS IN THIS MANUAL	iii
EQUIPMENT LIST	iii
GENERAL SAFETY GUIDELINES	iv
WARRANTY	v
CONTENTS	vii
Section 1	1-1
INSTALLATION	1-1
1.1 Unpacking the Equipment	1-1
1.2 Installation Requirements.....	1-1
1.3 Machine Label.....	1-6
1.4 Startup	1-7
Section 2	2-1
EQUIPMENT OPERATION	2-1
2.1 Power Controls and Indicators	2-1
2.2 Starting the Furnace.....	2-4
2.3 Furnace Operation (Process Screen).....	2-7
2.4 Furnace Shut Down	2-9
2.5 Recipe Screen (Off Line Edit).....	2-13
2.6 Recipe Modification.....	2-14
2.7 Alarm Status (All Access Levels).....	2-16
2.8 Data Log/Alarms and Alerts	2-16
2.9 Over Temperature Alarm Operation (option not included)	2-18
2.10 Remote Access.....	2-19
2.11 View Alternate Programs	2-19
2.12 Element Monitors	2-20
Section 3	3-1
SERVICE & TROUBLESHOOTING	3-1
3.1 Routine Maintenance	3-1
3.2 Service and Maintenance Access	3-1
3.3 Daily Maintenance	3-1
3.4 Monthly Maintenance	3-2
3.5 Other Scheduled Maintenance.....	3-2
3.6 Troubleshooting	3-6
3.7 Hardware Communication and Software Troubleshooting.....	3-9
3.8 Remote Diagnostics.....	3-10
3.9 Process Problems.....	3-12
3.10 Abnormal sensor behavior	3-12
3.11 Transport Belt Replacement.....	3-13
3.12 Heating Element Test Procedure	3-14
3.13 Lamp Replacement.....	3-14

Contents

3.14	IPS Alarm Bypass	3-15
3.15	Controller Installation.....	3-16
3.16	Ethernet Installation and Troubleshooting.....	3-17
3.17	Calibration	3-24
3.18	Over Temperature Alarm Setpoints	3-26
Section 4		4-1
SPECIFICATIONS		4-1
4.1	Furnace Specifications	4-1
4.2	Furnace Equipment and Options	4-1
4.3	Computer Equipment.....	4-1
4.4	Specification 77184 Controlled Atmosphere Infrared Dryer	4-1
Section 5		5-1
ENGINEERING		5-1
5.1	Power and Current	5-1
5.2	Fuses	5-1
5.3	TB1 Overview.....	5-1
5.4	TB2 Overview.....	5-1
5.5	TB3 Overview.....	5-1
5.6	Process Gas Flow	5-1
5.7	Channel Assignments.....	5-1
Section 6		6-1
DRAWINGS & SCHEMATICS		6-1
Section 7		7-1
MATERIAL SAFETY DATA SHEETS		7-1
7.1	FURNACE MSDS.....	7-1
Section 8		8-1
APPENDIX A		8-1
8.1	TEC10 INTERFACE MODULE - CALIBRATION	8-1
8.2	675-110001 FURNACE DRIVE MOTOR AND CONTROL.....	8-1
Section 9		9-1
APPENDIX B		9-1
9.1	EC913 CALIBRATION REPORT	9-1
9.2	SERIES EC900 OXYGEN ANALYZERS	9-1

FIGURES

Figure 1.2.1 Leveling Feet	1-2
Figure 1.2.2 Leveling Chamber Supports	1-2
Figure 1.2.3 Shipping Brackets	1-2
Figure 1.2.4 Power Port and Elapsed Time Meter	1-3
Figure 1.2.5 Disconnect Switch Location	1-3
Figure 1.2.6 Elapsed Time Meter and Nameplate	1-3
Figure 1.2.7 Disconnect Switch Enclosure	1-3
Figure 1.2.8 Enclosure Cover Removed	1-3
Figure 1.2.9 Disconnect Switch and Power Connection Terminal Blocks	1-3
Figure 1.2.10 Air Connection	1-4
Figure 1.2.11 Exhaust Connection	1-4
Figure 1.2.12 Exhaust Connection Detail	1-4
Figure 1.2.13 Water Connections and Air Purge	1-5
Figure 1.2.14 Belt Splice	1-5
Figure 1.2.15 Shipping Brackets	1-5
Figure 1.2.16 Computer “Unswitched”	1-6
Figure 1.3.1 Name Plate”	1-6
Figure 2.1.1 Control Panel showing Furnace Power ON and OFF and Indicator Lights	2-1
Figure 2.1.2 Control Panel, Rear showing monitor and USB ports.	2-1
Figure 2.1.3 Control Panel	2-1
Figure 2.2.1 Screen Button Menu	2-5
Figure 2.2.2 Security Screen, Log-on	2-5
Figure 2.2.3 Gas Flow Screen	2-6
Figure 2.3.1 Process Screen	2-7
Figure 2.3.2 Temperature Deviation Screen	2-7
Figure 2.4.1 FURNACE ON and FURNACE OFF buttons	2-10
Figure 2.5.1 Recipe Screen	2-13
Figure 2.6.1 Zone Tuning Recipe Screen	2-14
Figure 2.8.1 Event Logging	2-16
Figure 2.8.2 IPS Inlet Pressure Switch	2-17
Figure 2.9.1 Event Logging	2-18
Figure 2.12.1 Element Monitor screen	2-20

Contents

Figure 3.11.1 Belt Installation	3-13
Figure 3.11.2 Inserting the Belt Splice	3-13
Figure 3.14.1 IPS Inlet Pressure Switch	3-15
Figure 3.17.1 Enable Low Pressure Alarm switch	3-25
Figure 3.17.2 Air Pressure sensor	3-25

TABLES

Table 2-1 Main Furnace Power	2-2
Table 2-2 Starting the Furnace	2-4
Table 2-3 Gas Supply Pressure	2-6
Table 2-4 Restarting the Furnace after Auto Shut Down	2-11
Table 2-5 PID Initial Settings	2-14
Table 2-6 Initial Alarm Settings	2-17
Table 3-1 Recommended Maintenance & Frequency	3-2
Table 3-2 PLC Opto22 Troubleshooting Guide	3-10

 DIVISION OF LOCHABER CORNWALL, INC.	DOCUMENT LIST	DOC NBR: 10-004 802-101000 R 0	
		MODEL: LA-309	DATE 10/06/10
CUSTOMER OSM RATTO		S/N: 1303091001	APVL JCLARK 12/17/09
		SIZE: A PRNT 10/06/10	SHT 1 of 1

Job/Master	Drawing Nbr.	Title	Location
STD	675-110000-02	REFERENCE MANUAL	-
10-004	676-110000-01	OWNER'S MANUAL, CD	-
10-004	802-101000-01	DOCUMENT LIST (THIS LIST)	-
10-004	802-101401	EQUIPMENT SPECIFICATIONS	Section 4
10-004	802-101410-01	STANDARD EQUIPMENT AND OPTIONS	Section 4
10-004	802-101420	EQUIPMENT LIST, COMPUTER	Section 4
STD	780	COMPUTER PRODUCT SPECIFICATION	Section 4
10-004	802-101500	POWER AND CURRENT	Section 5
10-004	802-101521	FUSE SIZES	Section 5
10-004	802-101522	TB1 OVERVIEW	Section 5
10-004	802-101523	TB2 OVERVIEW	Section 5
10-004	802-101524	TB3 OVERVIEW	Section 5
10-004	802-101560	GAS FLOW	Section 5
10-004	802-101520	CHANNEL ASSIGNMENTS	Section 5
10-004	803-091734	FURNACE ARRANGEMENT, LA-309	Section 6
10-004	803-091734-1	INTERFACE ROLLER LOCATION	Section 6
STD	803-10100	PRODUCT CLEARANCE	Section 6
10-004	802-101701	PLC CONFIGURATION	Section 6
STD	802-101770-01	POWER CONTROL SCHEMATIC	Section 6
STD	802-101771	FRAME WIRING	Section 6
STD	802-101772	SIGNAL CONTROL WIRING	Section 6
STD	802-101773	MA/O2 ANALYZER WIRING	Section 6
STD	802-101774	CONTROL CONSOLE	Section 6
STD	802-101777	HANDSHAKE	Section 6
10-004	802-101814	ELEMENT WIRING	Section 6
10-004	802-101888	ELEMENT MONITOR WIRING	Section 6
	131309OMS01	FURNACE PRODUCT SPECIFICATION	Section 8
STD	675-110001	FURNACE DRIVE MOTOR AND CONTROL	Section 8
STD		O2 ANALYZER	Section 9

