



# BURNER SPEC & DATA SHEET

## **SERIES LC™ & SERIES LCE™** **POWER FLAME MODEL “C” BURNER** **FOR GAS, LIGHT OIL, AND GAS/LIGHT OIL**

### STANDARD EQUIPMENT

1. Burner mounted control panel including on/off control switch, power-on, main fuel lights, and terminal strip.
2. Spark ignited gas pilot on gas and gas/oil burners. Direct spark ignition on oil.
3. Air flow safety switch on gas and gas/oil burners. Optional on oil.
4. Manual fuel changeover switch on gas/oil burners.

### OPTIONAL EQUIPMENT

1. Proven low fire start for L-H-O and L-H-L control systems.
2. Automatic fuel changeover on gas/oil burners.
3. Air flow safety switch on oil burners.
4. Step-down control circuit transformer and control circuit fuse.
5. Controls to comply with FM, IRI and other codes. Contact your local Peerless® Representative or PB Heat, LLC for availability.
6. Various combustion controls. Contact your local Peerless® Representative or PB Heat, LLC for availability.
7. Burner motor voltages: 120/60/1, 230/60/1, 208/60/3, 230/60/3, 460/60/3.

#### **Standard Control Systems:**

- O-O - On-off operation with one position air. (LC-04 thru LC-08)  
LC-07 & LC-08, when firing oil, is on-off operation with low fire start and one position air.
- L-H-O - Low-high-off operation with low fire start and two position air. (LC-09 thru LCE-24)

#### **Optional Control Systems:**

- L-H-O - Low-high-off operation with low fire start and two position air. (LC-04 thru LC-08)
- L-H-L - Low-high-low operation with low fire start and two position air. Requires SPST controller.  
(LC-04 thru LCE-24)
- MOD - Full modulation with proven low fire start. Requires proportional controller. (LC-04 thru LCE-24)

**POWER FLAME MODEL "C" BURNER FOR GAS, LIGHT OIL, AND GAS/LIGHT OIL**

BOILER MODEL	I=B=R INPUT (1)		OVERFIRE PRESSURE IN. W.C. (2)	STANDARD BURNER MODEL		
	GAS MBH	OIL GPH		GAS	OIL	GAS/OIL
LC-04	686	4.75	+0.22	C1-G-10	C1-O	C1-GO-10
LC-05R	808	5.60	+0.22	C1-G-12	C1-O	C1-GO-12
LC-05	881	6.10	+0.24	C1-G-12	C1-O	C1-GO-12
LC-06	1,077	7.50	+0.26	C1-G-12	C1-O	C1-GO-12
LC-07	1,273	8.80	+0.27	C1-G-12	C1-O	C1-GO-12
LC-08	1,469	10.20	+0.28	C2-G-15	C2-OA	C2-GO-15
LC-09	1,664	11.60	+0.29	C2-G-15	C2-OA	C2-GO-15
LC-10	1,860	12.80	+0.30	C2-G-15	C2-OA	C2-GO-15
LC-11	2,056	14.20	+0.31	C2-G-15	C2-OA	C2-GO-15
LC-12	2,252	15.60	+0.32	C2-G-20A	C2-OA	C2-GO-20A
LCE-13	2,464	17.00	+0.24	C2-G-20A	C2-OB	C2-GO-20A
LCE-14	2,657	18.40	+0.25	C2-G-20B	C2-OB	C2-GO-20B
LCE-15	2,850	19.80	+0.26	C2-G-20B	C2-OB	C2-GO-20B
LCE-16	3,043	21.00	+0.27	C3-G-20	C3-O	C3-GO-20
LCE-17	3,236	22.50	+0.28	C3-G-20	C3-O	C3-GO-20
LCE-18	3,429	24.00	+0.29	C3-G-20	C3-O	C3-GO-20
LCE-19	3,622	25.00	+0.30	C3-G-20	C3-O	C3-GO-20
LCE-20	3,815	26.50	+0.31	C3-G-25	C3-O	C3-GO-25
LCE-21	4,027	28.00	+0.31	C3-G-25	C3-O	C3-GO-25
LCE-22	4,239	29.50	+0.31	C3-G-25	C3-O	C3-GO-25
LCE-23	4,451	31.00	+0.32	C3-G-25	C3-O	C3-GO-25
LCE-24	4,663	32.50	+0.32	C3-G-25	C3-O	C3-GO-25

(1) Based on No. 2 fuel oil with a heating value of 140,000 BTU/gal. and Natural Gas with a heating value of 1000 BTU per cu. ft., 0.60 specific gravity at a maximum altitude of 2000 ft. Consult factory for higher altitudes.

(2) With + 0.10" W.C. at flue outlet when firing at I=B=R Input.

**POWER FLAME MODEL "C" BURNER FOR GAS, LIGHT OIL, AND GAS/LIGHT OIL**

BOILER MODEL	SIDE ORIFICE DRILL SIZE INCHES	GAS CONTROL TRAIN			INITIAL AIR SETTINGS (4)	
		INCHES IPS (3)	PRESSURE - IN. W.C.		TOP	BOTTOM
			MIN.	MAX.		
LC-04	17/32	1.00	4.1	14	1 1/8"	Closed
LC-05R	5/8	1.00	4.5	14	1 1/8"	Closed
LC-05	11/16	1.00	4.7	14	1 1/8"	Closed
LC-06	11/16	1.00	4.9	14	7/8"	1/4"
LC-07	1 1/16	1.00	5.5	14	1 1/4"	1/4"
LC-08	13/16	1.25/1.00	6.3	14	1/2"	1/2"
LC-09	1 1/8	1.25/1.00	6.7	14	Closed	3/8"
LC-10	N/A	1.25	5.7	14	Closed	1/4"
LC-11	N/A	1.50/1.25	6.1	14	Closed	1/4"
LC-12	N/A	1.50	6.9	14	Closed	1/4"
LCE-13	N/A	1.50/1.25	5.9	14	1/8"	1/8"
LCE-14	1 7/8	2.00/1.50	5.4	14	1/8"	1/8"
LCE-15	1 3/4	2.00/1.50	6.2	14	1/8"	1/8"
LCE-16	1 5/8	2.00/1.50	5.5	14	1/4"	1/4"
LCE-17	1 7/8	2.00/1.50	6.0	14	1/4"	1/4"
LCE-18	2 1/4	2.00/1.50	6.5	14	1/4"	1/4"
LCE-19	N/A	2.00/1.50	7.0	14	1/4"	1/4"
LCE-20	1 1/2	2.00/1.50	5.5	14	1/4"	1/4"
LCE-21	1 3/8	2.50	5.8	14	1/4"	1/4"
LCE-22	1 3/8	2.50	6.3	14	1/4"	1/4"
LCE-23	1 1/2	2.50	6.8	14	1/4"	1/4"
LCE-24	1 5/8	2.50	6.9	14	1/4"	1/4"

(3) On dual size gas trains, first number is main gas valve, auxiliary gas valve and leakage test cock. Second number is gas pressure regulator and main shutoff cock.

(4) Start-up settings only. Final settings must be determined using combustion test equipment.

BOILER MODEL	STANDARD COMBUSTION CONTROL			STANDARD CONTROL SYSTEM	3450 RPM MOTOR HP		STANDARD MOTOR VOLTAGE (5)
	GAS	OIL	GAS/OIL		GAS	OIL, GAS/OIL	
LC-04	RM7897A	R7184P	RM7897C	O-O	1/3	1/2	115/60/1
LC-05R	RM7897A	R7184P	RM7897C	O-O	1/3	1/2	115/60/1
LC-05	RM7897A	R7184P	RM7897C	O-O	1/3	1/2	115/60/1
LC-06	RM7897A	R7184P	RM7897C	O-O	1/2	1/2	115/60/1
LC-07	RM7897A	R7184P	RM7897C	O-O	1/2	1/2	115/60/1
LC-08	RM7897A	R7184P	RM7897C	O-O	3/4	1	See Note
LC-09	RM7897A	R7184P	RM7897C	L-H-O	3/4	1	See Note
LC-10	RM7897A	R7184P	RM7897C	L-H-O	3/4	1	See Note
LC-11	RM7897A	R7184P	RM7897C	L-H-O	3/4	1	See Note
LC-12	RM7897A	R7184P	RM7897C	L-H-O	3/4	1	230/60/1
LCE-13	RM7897A	R7184P	RM7897C	L-H-O	3/4	1	230/60/1
LCE-14	RM7897C	R7184P	RM7897C	L-H-O	1	1 1/2	230/60/1
LCE-15	RM7897C	R7184P	RM7897C	L-H-O	1	1 1/2	230/60/1
LCE-16	RM7897C	RM7897C	RM7897C	L-H-O	1 1/2	2	3 Phase
LCE-17	RM7897C	RM7897C	RM7897C	L-H-O	1 1/2	2	3 Phase
LCE-18	RM7897C	RM7897C	RM7897C	L-H-O	1 1/2	2	3 Phase
LCE-19	RM7897C	RM7897C	RM7897C	L-H-O	1 1/2	2	3 Phase
LCE-20	RM7840L	RM7840L	RM7840L	L-H-O	2	3	3 Phase
LCE-21	RM7840L	RM7840L	RM7840L	L-H-O	2	3	3 Phase
LCE-22	RM7840L	RM7840L	RM7840L	L-H-O	2	3	3 Phase
LCE-23	RM7840L	RM7840L	RM7840L	L-H-O	3	3	3 Phase
LCE-24	RM7840L	RM7840L	RM7840L	L-H-O	3	3	3 Phase

(5) For 3 phase, specify 208/60/3, 230/60/3 or 460/60/3.

Note: Standard voltage for Gas is 115/60/1, Oil and Gas/Oil is 230/60/1.

BOILER MODEL	NOZZLES - DELAVAN			OIL PRESSURE - PSIG		STANDARD FUEL UNIT	
	QTY	GPH	PATTERN	LOW FIRE	HIGH FIRE	SUNTEC (WEBSTER)	GEARSET GPH (6)
LC-04	1	2.75	90 B	100-150	300	B2TA-8249	21
LC-05R	1	3.25	90 B	100-150	300	B2TA-8249	21
LC-05	1	4.00	90 B	100-150	280	B2TA-8249	21
LC-06	1	4.50	80 B	100-150	290	B2TA-8249	21
LC-07	1	5.50	80 B	100-150	280	B2TA-8249	21
LC-08	1	6.00	80 B	100-150	295	B2TA-8852	39
LC-09	1	7.00	80 B	100-150	280	B2TA-8852	39
LC-10	1	7.50	80 B	100-150	290	B2TA-8852	39
LC-11	1	8.50	80 B	100-150	290	B2TA-8852	39
LC-12	1	9.00	80 B	100-150	300	B2TA-8852	39
LCE-13	1	10.00	80 B	100-150	295	B2GA-8852	39
LCE-14	1	11.00	80 B	100-150	290	B2GA-8852	39
LCE-15	1	12.00	80 B	100-150	280	B2GA-8852	39
LCE-16	1	14.00	80 Variflo	N/A	290	(22R322D)	105
LCE-17	1	14.00	80 Variflo	N/A	280	(22R322D)	105
LCE-18	1	14.00	80 Variflo	N/A	290	(22R322D)	105
LCE-19	1	16.00	80 Variflo	N/A	275	(22R322D)	105
LCE-20	1	16.00	80 Variflo	N/A	290	(22R322D)	105
LCE-21	1	18.00	80 Variflo	N/A	275	(22R623D)	135
LCE-22	1	18.00	80 Variflo	N/A	280	(22R623D)	135
LCE-23	1	18.00	80 Variflo	N/A	290	(22R623D)	135
LCE-24	1	20.00	80 Variflo	N/A	275	(22R623D)	135

(6) For sizing filters, piping and remote pump sets. Not a U.L. nozzle rating.

**PB HEAT, LLC**

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