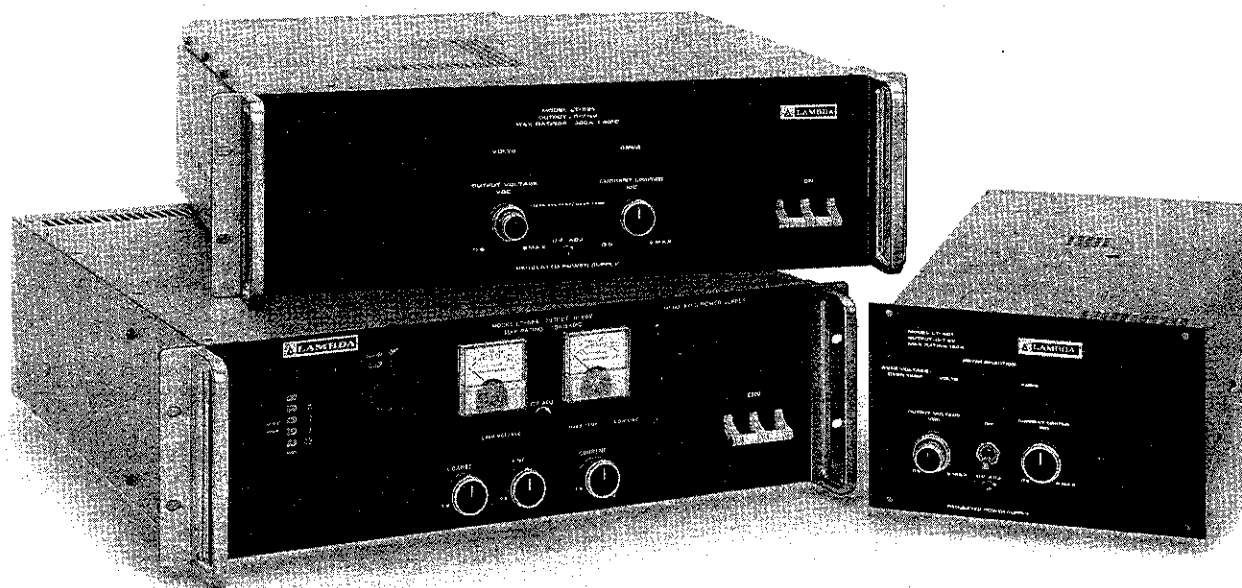


PART III—TEST, SYSTEMS AND LABORATORY POWER SUPPLIES

LAMBDA'S LT SERIES



UP TO 500A FOR TEST, BURN-IN AND ATE SYSTEMS APPLICATIONS

- Now including the LT-860-GPIB, LT-880-GPIB, and LT-890-GPIB Series stand-alone IEEE-488 Power Supplies.
- 80% less weight, 35% less volume than equivalent models.
- Constant voltage/constant current operation.
- Adjustable overvoltage protection.
- Operating temperature from 0–71°C.
- Up to 60VDC, up to 500A.
- IEEE-488 compatible.
- Ideal for burn-in, laboratory, test and ATE applications.
- New LT-880 340VAC–455VAC input and LT-890 430–530VAC input, 4Kw output units.
- Grade 1 design.

PART III — TEST, SYSTEMS AND LABORATORY POWER SUPPLIES

LAMBDA'S LT SERIES

DC OUTPUT

Voltage range shown in table.

REGULATED VOLTAGE CONSTANT

regulation, line	0.02% + 2mV for line variations from 187 to 242VAC (205 to 265VAC on "V1" option) for LT-800 Series. 187 to 229VAC (207 to 253VAC on "V1" option) for LT-820 Series. 0.05% for line variations from 187 to 265VAC for LT-860 and LT-860-GPIB Series. 0.05% for line variations from 340 to 455VAC on LT-880 and LT-880-GPIB Series. 0.05% for line variations from 430 to 530VAC on LT-890 and LT-890-GPIB Series.
regulation, load	0.02% + 2mV on LT-801, 802, 821, 822. 0.02% + 4mV on LT-803, 804, 823, 824. 0.05% on LT-860, LT-860-GPIB, LT-880, LT-880-GPIB, LT-890 and LT-890-GPIB Series for load variations from 0 to full load.
remote programming resistance	200Ω/volt nominal.
remote programming voltage	Volt per volt.
ripple and noise (20MHz Bandwidth)	10mV RMS, 50mV pk-pk for LT-801, 821. 15mV RMS, 100mV pk-pk for LT-802, 803, 804, 822, 823, 824. 20mV RMS, for LT-860, LT-860-GPIB, LT-880, LT-880-GPIB, LT-890 and LT-890-GPIB Series.
temperature coefficient	(0.02% + 50μV)/°C.

CONSTANT CURRENT

(Current regulated line and load) Automatic Crossover.

voltage range	As shown in Table.
current range	5% to full load current.
regulation, line	0.3% of I _o (max) for line variations from 187 to 242VAC (205 to 265VAC on "V1" option) for LT-800 Series. 0.3% of I _o (max) for line variations from 187 to 229VAC (207 to 253VAC on "V1" option) for LT-820 Series. 0.3% of I _o (max) for line variations from 187 to 265VAC on LT-860 and LT-860-GPIB Series. 0.3% of I _o (max) for line variations from 430 to 530VAC on LT-890 and LT-890-GPIB Series. 0.3% of I _o (max) for line variations from 340 to 455VAC on LT-880 and LT-880-GPIB Series.
regulation, load	0.3% of I _o (max) for load variations from 5% to rated DC voltage.

AC INPUT

line	LT-800 Series: 187 to 242VAC (205 to 265VAC on "V1" option), 47-63Hz. (Derate all ratings by 10% at 47-53Hz) LT-820 Series: 187 to 229VAC, 3 phase ± 10% max phase imbalance, 4 wire, 47-63Hz (207 to 253VAC on "V1" option). (Derate 40°C ratings by 10% at 47-53Hz.) LT-860 and LT-860-GPIB Series: 187 to 265VAC, 3 phase ± 10% max phase imbalance, 4 wire, 47-63Hz. LT-880 and LT-880-GPIB Series: 340 to 455VAC, 3 phase, 4 wire 47-63Hz. LT-890 and LT-890-GPIB Series: 430 to 530VAC, 3 phase, 4 wire, 47-63Hz.
power	LT-800 Series: 1985 watts maximum. LT-820 Series: 4000 watts maximum. LT-860, LT-860-GPIB, LT-880, LT-880-GPIB, LT-890, LT-890-GPIB Series: 5000 watts maximum.

EFFICIENCY

Minimum 65% at maximum output voltage for LT-800 Series, 70% for LT-820 Series, 78% for LT-860, LT-860-GPIB, LT-880, LT-880-GPIB, LT-890 and LT-890-GPIB Series.

INPUT CURRENT

18A RMS max on LT-800 Series, 17A RMS max per phase on LT-820 Series, LT-860 and LT-860-GPIB Series. 12A max per phase on LT-880 and LT-880-GPIB Series. 9.5A max per phase on LT-890 and LT-890-GPIB Series.

OPERATING TEMPERATURE RANGE

Continuous duty from 0°C to 71°C with appropriate deratings from 40°C to 71°C.

STORAGE TEMPERATURE RANGE

-55°C to +85°C.

OVERLOAD PROTECTION

THERMAL

Thermostat protects unit from excessive ambient temperature as well as inadequate air velocity. AC power must be momentarily removed from unit after thermal shutdown in order to restore operation.

ELECTRICAL

External overload protection — adjustable, automatic electronic current-limiting circuit limits output current to preset value. Current-limiting setability to 105% of rated current via front panel adjust.

OVERVOLTAGE PROTECTION

Built-in, adjustable overvoltage protection is standard on all sets. When preset voltage is exceeded, the overvoltage protector crowbars the output and removes the inverter drive. AC power must be momentarily removed from unit after overvoltage shutdown in order to restore operation.

OVERVOLTAGE PROTECTION ADJUSTABLE RANGES

Model	Vov(Min)	Vov(Max)
LT-801/821/861/861-GPIB/881/881-GPIB/891/891-GPIB	3.5V	10V
LT-802/822/862/862-GPIB/882/882-GPIB/892/892-GPIB	6V	24V
LT-803/823/863/863-GPIB/883/883-GPIB/893/893-GPIB	9V	47V
LT-804/824/864/864-GPIB/884/884-GPIB/894/894-GPIB	12V	70V

IN-RUSH LIMITING CIRCUIT

Limits in-rush current at turn-on to 200% of full load peak current, 30A on LT-880 and LT-880-GPIB Series.

COOLING

Fan cooled. Forced air cooling utilizing all metal, shaded pole, ball bearing, long life fan. (No lubrication needed). Leave adequate clearance at all air intakes and exhausts. Exhaust is at rear of unit.

CONTROLS

DC OUTPUT CONTROLS

Coarse and fine voltage adjust and single current adjust on front panel.

OVERVOLTAGE PROTECTION

Overvoltage trip point set by screwdriver adjust on front panel.

POWER

On-off switch on front panel of LT-800 Series. On-off circuit breaker on front panel of LT-820, LT-860, LT-860-GPIB, LT-880, LT-880-GPIB, LT-890 and LT-890-GPIB Series.

INPUT AND OUTPUT CONNECTIONS

Heavy duty barrier strips for AC input, ground and sensing. DC output via bus bar at rear of chassis.

METERS

Digital panel meter standard on LT-800, 820 Series. Monitors output voltage/current by means of a volt/amp selector switch on LT-800 Series. Separate digital panel meters on LT-820 Series allow simultaneous monitoring of output voltage and current. Separate analog meters on LT-860, LT-860-GPIB, LT-880 and LT-880-GPIB Series provide for simultaneous monitoring of output voltage and current. Additional LED on front panel of LT-860-GPIB, LT-880-GPIB and LT-890-GPIB indicates auto/manual operation.

LED STATUS INDICATORS

An overvoltage/overtemperature indicator lamp will light to notify the user of the occurrence of either an overvoltage or overtemperature shutdown condition. AC power must be removed from the unit to reset the power supply and the light. A line fault indicator with automatic reset indicates power loss or loss of a phase on LT-860 and LT-860-GPIB Series.

REMOTE SENSING

Provision is made for remote sensing to eliminate effect of power output lead resistance on DC regulation.

REMOTE ON/OFF

Isolated terminals on LT-860 and LT-860-GPIB Series allow for these remote functions: Turn-on — Logic zero, short circuit or open circuit; Turn-off — provide 5mA into ± R terminals. Terminals on LT-880, LT-880-GPIB, LT-890, LT-890-GPIB Series allow for those remote functions. TTL compatible high will shut down the set. TTL low, short or open will turn on the set.

EMI

Conducted EMI conforms to FCC 20780 class A on LT-800 and LT-820 Series.

PHYSICAL DATA

Package Model	Lbs.	Lbs.	Size
	Net	Ship	Inches
LT-800 Series	30	37	5 ³ / ₁₆ × 8 ³ / ₁₆ × 19 ³ / ₁₆
LT-820 Series	70	82	5 ³ / ₁₆ × 19 × 16 ¹ / ₂
LT-860, LT-860-GPIB Series	60	72	5 ³ / ₁₆ × 19 × 17 ¹ / ₂
LT-880, LT-880-GPIB, LT-890, LT-890-GPIB Series	62	74	5 ³ / ₁₆ × 19 × 17 ¹ / ₂

OPTIONS

AC INPUT

Series Model	Add Suffix	For Operation at:	Price
LT-800	-V1	205 to 265VAC 47-63Hz	12%
LT-820	-V1	207 to 253VAC 47-63Hz	12%

ACCESSORIES

For rack adapters and other accessories see Part IV of this catalog.

GUARANTEED FOR 5 YEARS

5 year guarantee includes labor as well as parts. Guarantee applies to operation at full published specifications at end of 5 years.

PART III—TEST, SYSTEMS AND LABORATORY POWER SUPPLIES

LABORATORY AND TEST SELECTOR GUIDE

LT Series.

MAX. CURRENT AT AMBIENT OF (AMPS)				COMPLETE ELEC. SPEC. PG.	COMPLETE MECH. SPEC. PG.	DIMENSIONS (inches)	QTY. 1	PRICE QTY. 10	QTY. 25	MODEL
40°C	50°C	60°C	71°C							
0-7.5 VOLTS										
150.0	135.0	115.0	89.0	127	192	5 ³ / ₁₆ × 8 ³ / ₈ × 19 ³ / ₁₆	\$2141	\$2039	\$1957	LT-801
300.0	266.0	218.0	160.0	127	192	5 ³ / ₁₆ × 19 × 16 ¹ / ₂	3396	3235	3105	LT-821
500.0	450.0	400.0	325.0	127	191	5 ³ / ₁₆ × 19 × 17 ¹ / ₂	3589	3413	3236	LT-861
500.0	450.0	400.0	—	127	191	5 ³ / ₁₆ × 19 × 17 ¹ / ₂	4141	3933	3745	LT-861-GPIB
500.0	450.0	400.0	285.0	127	191	5 ³ / ₁₆ × 19 × 17 ¹ / ₂	3797	3615	3428	LT-881
500.0	450.0	400.0	—	127	191	5 ³ / ₁₆ × 19 × 17 ¹ / ₂	4349	4136	3938	LT-881-GPIB
500.0	450.0	400.0	285.0	127	191	5 ³ / ₁₆ × 19 × 17 ¹ / ₂	3797	3615	3428	LT-891
500.0	450.0	400.0	—	127	191	5 ³ / ₁₆ × 19 × 17 ¹ / ₂	4349	4136	3938	LT-891-GPIB
0-18 VOLTS										
70.0	61.0	52.0	40.0	127	192	5 ³ / ₁₆ × 8 ³ / ₈ × 19 ³ / ₁₆	2141	2039	1957	LT-802
150.0	133.0	109.0	80.0	127	192	5 ³ / ₁₆ × 19 × 16 ¹ / ₂	3396	3235	3105	LT-822
225.0	205.0	180.0	145.0	127	191	5 ³ / ₁₆ × 19 × 17 ¹ / ₂	3589	3413	3236	LT-862
225.0	205.0	180.0	—	127	191	5 ³ / ₁₆ × 19 × 17 ¹ / ₂	4141	3933	3745	LT-862-GPIB
225.0	205.0	180.0	128.0	127	191	5 ³ / ₁₆ × 19 × 17 ¹ / ₂	3797	3615	3428	LT-882
225.0	205.0	180.0	—	127	191	5 ³ / ₁₆ × 19 × 17 ¹ / ₂	4349	4136	3938	LT-882-GPIB
225.0	205.0	180.0	128.0	127	191	5 ³ / ₁₆ × 19 × 17 ¹ / ₂	3797	3615	3428	LT-892
225.0	205.0	180.0	—	127	191	5 ³ / ₁₆ × 19 × 17 ¹ / ₂	4349	4136	3938	LT-892-GPIB
0-36 VOLTS										
34.5	30.5	26.0	20.0	127	192	5 ³ / ₁₆ × 8 ³ / ₈ × 19 ³ / ₁₆	2141	2039	1957	LT-803
80.0	71.0	58.0	42.0	127	192	5 ³ / ₁₆ × 19 × 16 ¹ / ₂	3396	3235	3105	LT-823
115.0	104.0	92.0	75.0	127	191	5 ³ / ₁₆ × 19 × 17 ¹ / ₂	3589	3413	3236	LT-863
115.0	104.0	92.0	—	127	191	5 ³ / ₁₆ × 19 × 17 ¹ / ₂	4141	3933	3745	LT-863-GPIB
115.0	104.0	92.0	65.0	127	191	5 ³ / ₁₆ × 19 × 17 ¹ / ₂	3797	3615	3428	LT-883
115.0	104.0	92.0	—	127	191	5 ³ / ₁₆ × 19 × 17 ¹ / ₂	4349	4136	3938	LT-883-GPIB
115.0	104.0	92.0	65.0	127	191	5 ³ / ₁₆ × 19 × 17 ¹ / ₂	3797	3615	3428	LT-893
115.0	104.0	92.0	—	127	191	5 ³ / ₁₆ × 19 × 17 ¹ / ₂	4349	4136	3938	LT-893-GPIB
0-60 VOLTS										
21.5	19.0	16.0	12.5	127	192	5 ³ / ₁₆ × 8 ³ / ₈ × 19 ³ / ₁₆	2141	2039	1957	LT-804
50.0	43.0	35.0	25.0	127	192	5 ³ / ₁₆ × 19 × 16 ¹ / ₂	3396	3235	3105	LT-824
70.0	63.0	56.0	45.0	127	191	5 ³ / ₁₆ × 19 × 17 ¹ / ₂	3589	3413	3236	LT-864
70.0	63.0	56.0	—	127	191	5 ³ / ₁₆ × 19 × 17 ¹ / ₂	4141	3933	3745	LT-864-GPIB
70.0	63.0	56.0	40.0	127	191	5 ³ / ₁₆ × 19 × 17 ¹ / ₂	3797	3615	3428	LT-884
70.0	63.0	56.0	—	127	191	5 ³ / ₁₆ × 19 × 17 ¹ / ₂	4349	4136	3938	LT-884-GPIB
70.0	63.0	56.0	40.0	127	191	5 ³ / ₁₆ × 19 × 17 ¹ / ₂	3797	3615	3428	LT-894
70.0	63.0	56.0	—	127	191	5 ³ / ₁₆ × 19 × 17 ¹ / ₂	4349	4136	3938	LT-894-GPIB

Note: Maximum output current applies over entire voltage range.

PART V—MECHANICAL DRAWINGS

LT-860/860-GPIB Series

LT-860/860-GPIB Series
LT-880/880-GPIB Series
LT-890/890-GPIB Series

MOUNTING HOLES PROVIDED FOR CHASSIS SLIDES
—LAMBDA SLIDES NO. KMT-34-012
OUTPUT TERMINALS INCLUDE BOLTS, NUTS &
LOC. WASHERS (SCREW SIZE 3/8" x 3/4" L.O.)

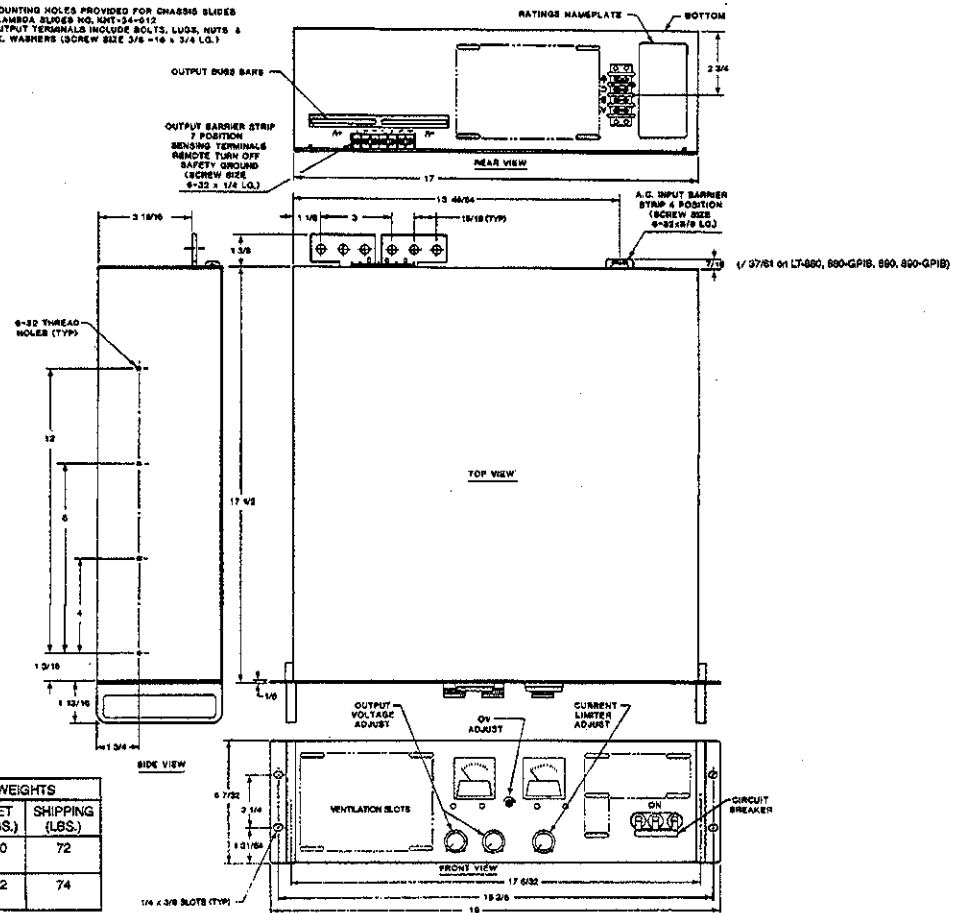
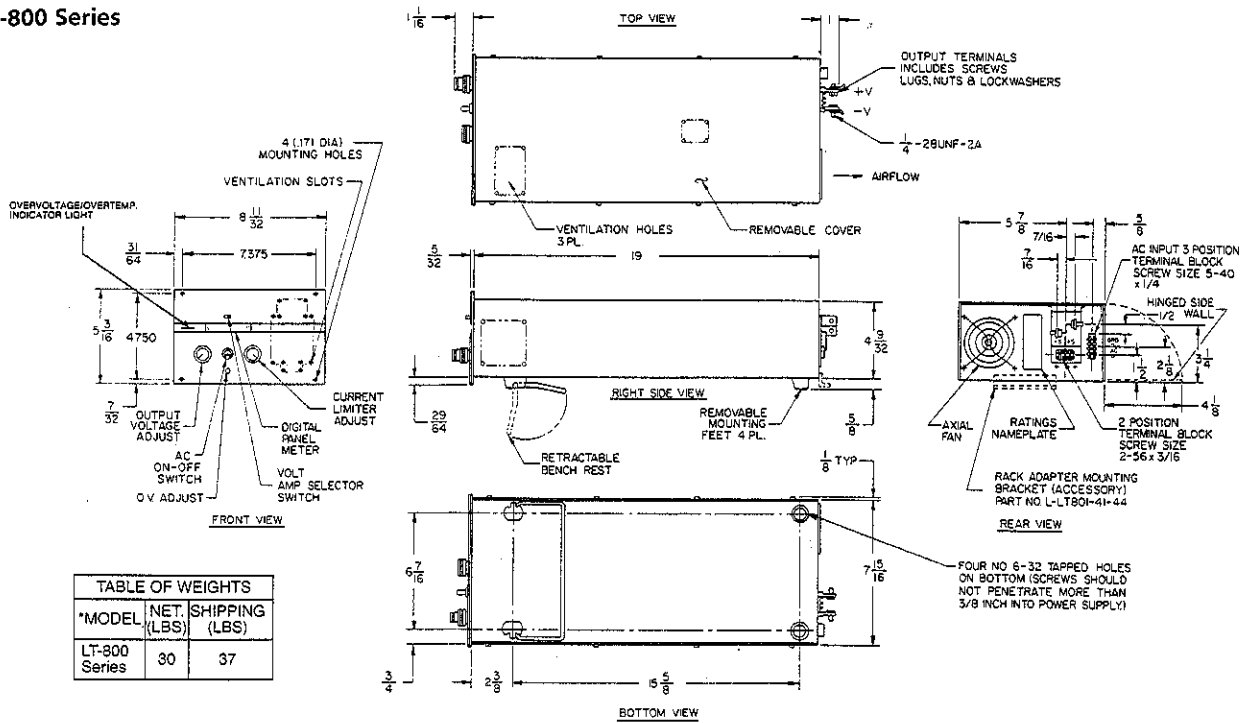


TABLE OF WEIGHTS		
MODEL	NET (LBS.)	SHIPPING (LBS.)
LT-860	60	72
LT-880	62	74

LT-800 AND LT-820 SERIES

LT-800 Series



LT-820 Series

