KEPCO®
THE POWER SUPPLIER™

MODIFICATION OF STANDARD

KEPCO MODEL BOP 20-20MC
KEPCO MODEL BOP 20-20DC

The Kepco Models BOP 20-20MC and BOP 20-20DC have been modified from standard Kepco Models BOP 20-20M and BOP 20-20D, respectively, to be stable handling capacitive loads up to 10 mF.

INSTRUCTION MANUAL CORRECTIONS:

This modification makes the BOP more suitable for a wide variety of applications such as solar cell/ solar panel testing, piezoelectric device driving/ testing, capacitor testing, capacitive transducer driving/testing and powering industrial or lab-type applications for capacitive or capacitive-resistive loads.

Static specifications representing the unit's accuracy in Voltage mode are identical to the standard BOP models, while the ripple and noise specifications are better (approximately 50% lower) for MC and DC models than standard BOP models.

Specifications listed in Table 1 are for BOP 20-20MC and BOP 20-20DC in Voltage Mode.

TABLE 1. BOP 20-20MC AND BOP 20-20DC SPECIFICATIONS

Bandwidth (DC to f-3dB)		Rise/Fall Time (3)	Recovery at Step Load (4)
Resistive Load, Nominal(1)	Capacitive Load, 10μF(2)		
4.8 KHz	5.3 KHz	75 μS	225 μS

NOTES:
(1) Bandwidth for this model with resistive load is larger than for standard BOP with resistive load.
(2) Nonuniformities of the frequency response for the standard 10μF load create a larger 3-dB bandwidth than for the resistive load.
(3) 10% to 90%, with nominal resistive load.
(4) Load between infinity and nominal resistive load values.

In voltage mode the bandwidth of the BOP 20-20MC and DC models is higher than the standard BOP. Nonuniformities of the frequency response can be nearly eliminated by reducing the bandwidth in Voltage mode. Bandwidth can be reduced in a predictable manner by increasing the internal compensation capacitance by placing an external capacitor in parallel with C21 of Assembly A1 (see Table 2 and Figure 1).

TABLE 2. BANDWIDTH CORRECTION

	EXTERNAL CAPACITOR (ACROSS A1C21, SEE FIGURE 1)						
	1 nF	2.2 nF	4.7 nF	15 nF	33 nF	47 nF	100 nF
CORRECTED BANDWIDTH	4.6 KHz	4.4 KHz	3.2 KHz	1.3 KHz	0.7KHz	0.6 KHz	0.5 KHz

NOTE: Listed bandwidth correction values are for Voltage mode, nominal resistive load.

KEPCO, INC. ● 131-38 SANFORD AVENUE ● FLUSHING, NY. 11355 U.S.A. ● TEL (718) 461-7000 ● FAX (718) 767-1102
email: hq@kepcopower.com ● World Wide Web: http://www.kepcopower.com

In Current Mode the dynamic specifications are almost identical for all BOP MC and DC models: 3-dB bandwidth of 4.9kHz and rise/ fall time of 72μs (lower bandwidth and higher rise/ fall time than standard BOP M and D models).

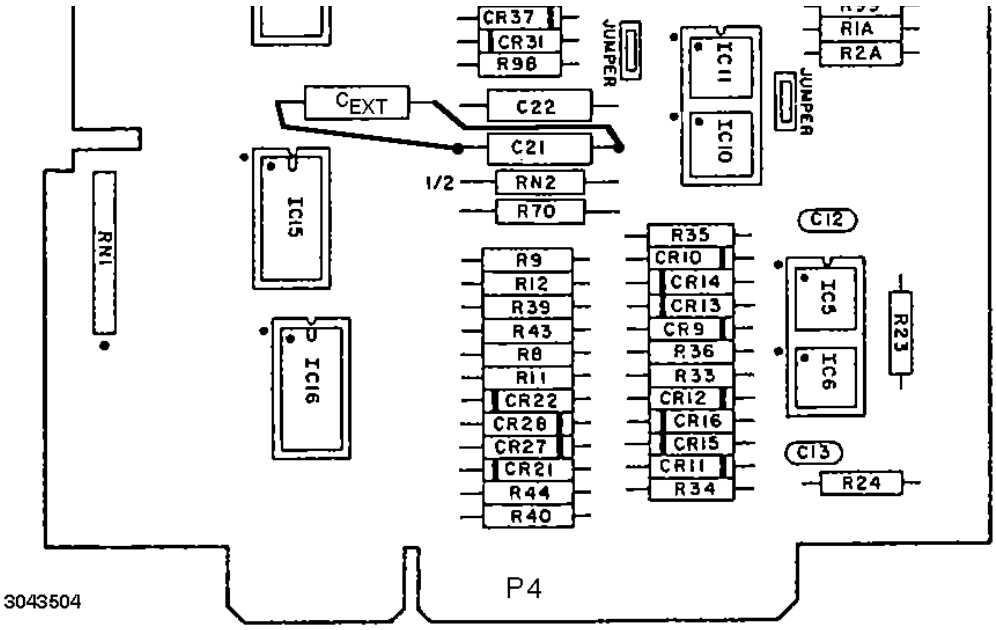

FIGURE 1. ASSEMBLY A1, EXTERNAL BANDWIDTH CORRECTION CAPACITOR LOCATIONS