INSTRUCTION SHEET

KEPCO An ISO 9001 Company.

BOP MODIFICATION KIT

KIT 219-0537

1. DESCRIPTION

This kit is used to modify a standard BOP 20-10M-232 power supply to a BOP 20-10M-232-26896 to allow the unit to work with capacitive loads (up to 30uF) in Voltage mode, either with or without the BIT 232 card installed. When using local sensing, install links between Power Terminals and corresponding Sense Terminals where the Load is connected (either front panel or back panel, not both). When using remote sensing: 1) remove all local links (front and back) between power and sense terminals, 2) connect the Sense Terminals (at the front or back, where the Load is connected) to the load and 3) connect a 10μF/50V ceramic capacitor between front panel OUTPUT and OUT SENSE terminals.

2. MATERIAL SUPPLIED (SEE TABLE 1.)

Table 1 lists the contents of this kit and a description of each component.

TABLE 1. MATERIAL SUPPLIED

ITEM	DESCRIPTION	KEPCO PART NO.	QUANTITY
Capacitor, 1UF 200V, 10%	A1C1A added to A1 board	117-0207	1
Capacitor, 3300pF 100V, 10%	Replaces A1C14 and A1C25.	117-1123	2
Capacitor, 0.022UF 200V, 10%	Replaces A1C22.	117-0377	1
Capacitor, 0.01UF 200V, 10%	Replaces A1C21.	117-0353	1
Sleeving	Insulates component leads (cut as required).	197-0121	4 in.
Nameplate overlay	Goes over existing nameplate to show that unit has been modified.	188-2905	1
Instruction Sheet	Contains instructions for installing KIT 219-0537 components.	228-1649	1

3. INSTALLATION

1. Disconnect unit from power source and remove wrap-around cover by removing 11 screws (see Figure 1): five screws from each side and one at the top. Be careful not to damage ground strap attached to cover. For convenience the ground strap can be removed from the cover.
2. Tag and disconnect wires/cables from A1 board.
3. Remove six screws and remove A1 board from the chassis.
4. Refer to Figure 2 and remove capacitor C35.
5. Remove capacitors C14 and C25. Replace with replacement component, part, part number 117-1123 from Kit.
6. Remove capacitor C22. Replace with replacement component, part number 117-0377 from Kit.
7. Remove capacitor C21. Replace with replacement component, part number 117-0353 from Kit.
8. Install sleeving over leads of Capacitor C1A, part number 117-0207 from Kit. Add C1A at solder side of PCB as shown in Figure 2, from point A to point B. Secure capacitor C1A to PCB using a drop of RTV or similar adhesive.
9. Restore wires/cables disconnected in step 2 and attach A1 board to chassis using six screws removed during disassembly.
10. If previously disconnected, restore ground strap connection. Reinstall wraparound cover using 11 screws removed during disassembly.
11. Install new nameplate supplied in Kit over existing nameplate at rear panel, or over Model Identification (BOP 20-10M) on the front panel.

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4. MODIFIED BOP SPECIFICATIONS

Bandwidth (DC to f-3dB, Nominal Resistive Load)
Voltage Mode: 3.4 KHz Current Mode: 2.3 KHz

Rise/Fall time (10%-90%, Nominal Resistive Load)
Voltage Mode: 74μS Current Mode: 106μS

Slew Rate
Voltage Mode: 0.54V/μS Current Mode: 0.21A/μS

Recovery at Step Load
Voltage Mode: 110μS(No Load - Nominal Load)
Current Mode: 110μS (Short-circuit - Nominal Load)

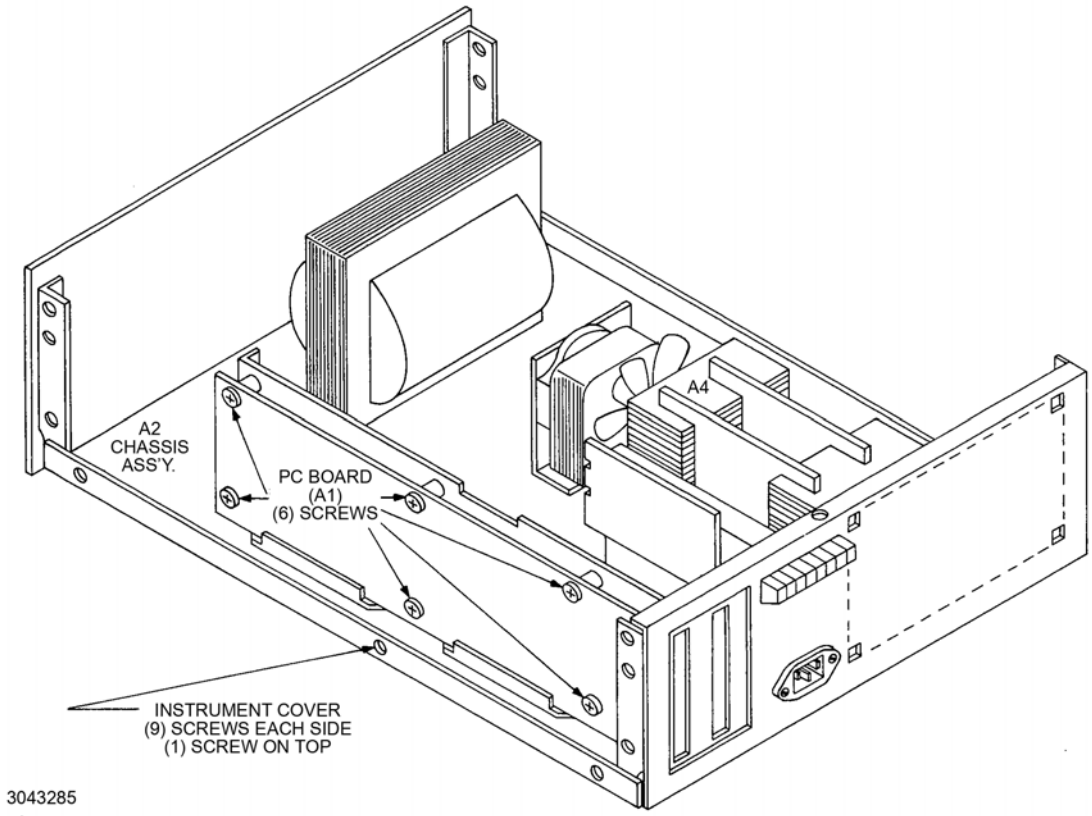

FIGURE 1. BOP DISASSEMBLY

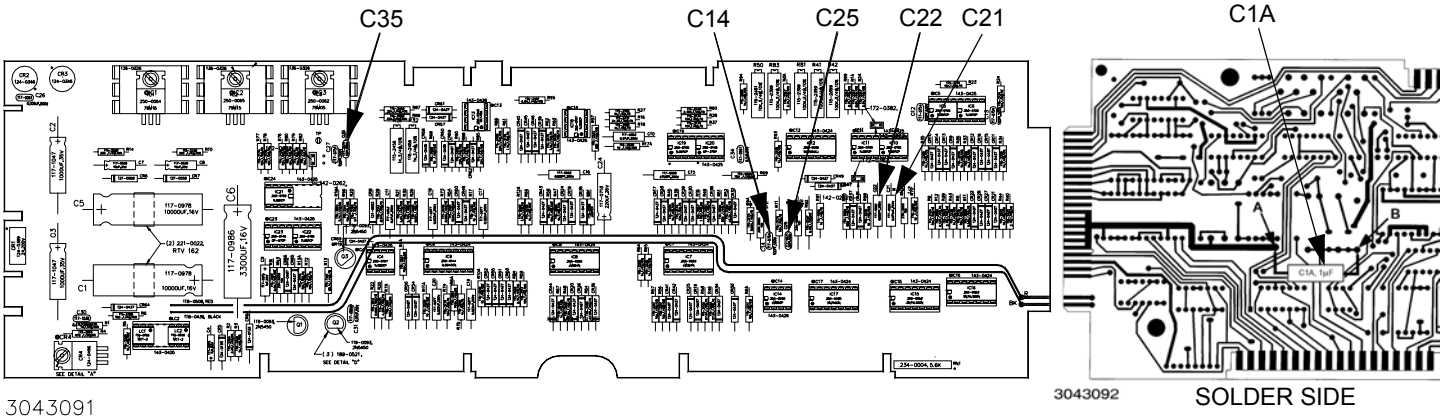

FIGURE 2. A1 BOARD COMPONENT LOCATION