

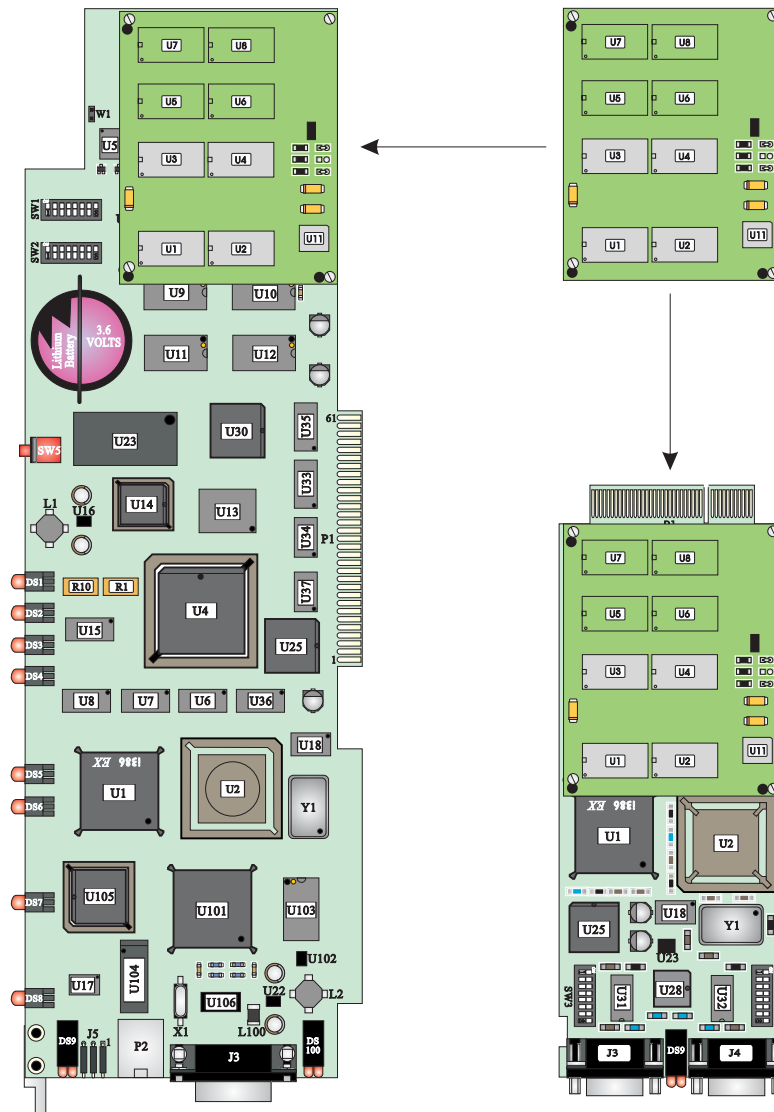
Product Information Package

No. PIP-33XXEMB

Issue: 09/01

REPLACEMENT PROCEDURE For DPC 3330 & DPC 3335 CPU EXPANDED MEMORY BOARD Series 392937-XX-X & 400003-XX-X

For BBI Instruction Manuals CI-3330 & CI-3335



Bristol Babcock

NOTICE
Copyright Notice

The information in this document is subject to change without notice. Every effort has been made to supply complete and accurate information. However, Bristol Babcock assumes no responsibility for any errors that may appear in this document.

Request for Additional Instructions

Additional copies of instruction manuals may be ordered from the address below per attention of the Sales Order Processing Department. List the instruction book numbers or give complete model number, serial or software version number. Furnish a return address that includes the name of the person who will receive the material. Billing for extra copies will be according to current pricing schedules.

Copyright© 2001 Bristol Babcock, 1100 Buckingham St., Watertown, CT 06795. No part of this manual may be reproduced in any form without the express written permission of Bristol Babcock.

IMPORTANT! READ INSTRUCTIONS BEFORE STARTING!

Be sure that these instructions are carefully read and understood before any operation is attempted. Improper use of this device in some applications may result in damage or injury. The user is urged to keep this book filed in a convenient location for future reference.

These instructions may not cover all details or variations in equipment or cover every possible situation to be met in connection with installation, operation or maintenance. Should problems arise that are not covered sufficiently in the text, the purchaser is advised to contact Bristol Babcock for further information.

EQUIPMENT APPLICATION WARNING

The customer should note that a failure of this instrument or system, for whatever reason, may leave an operating process without protection. Depending upon the application, this could result in possible damage to property or injury to persons. It is suggested that the purchaser review the need for additional backup equipment or provide alternate means of protection such as alarm devices, output limiting, fail-safe valves, relief valves, emergency shutoffs, emergency switches, etc. If additional information is required, the purchaser is advised to contact Bristol Babcock.

RETURNED EQUIPMENT WARNING

When returning any equipment to Bristol Babcock for repairs or evaluation, please note the following: The party sending such materials is responsible to ensure that the materials returned to Bristol Babcock are clean to safe levels, as such levels are defined and/or determined by applicable federal, state and/or local law regulations or codes. Such party agrees to indemnify Bristol Babcock and save Bristol Babcock harmless from any liability or damage which Bristol Babcock may incur or suffer due to such party's failure to so act.

ELECTRICAL GROUNDING

Metal enclosures and exposed metal parts of electrical instruments must be grounded in accordance with OSHA rules and regulations pertaining to "Design Safety Standards for Electrical Systems," 29 CFR, Part 1910, Subpart S, dated: April 16, 1981 (OSHA rulings are in agreement with the National Electrical Code).

The grounding requirement is also applicable to mechanical or pneumatic instruments that include electrically-operated devices such as lights, switches, relays, alarms, or chart drives.

EQUIPMENT DAMAGE FROM ELECTROSTATIC DISCHARGE VOLTAGE

This product contains sensitive electronic components that can be damaged by exposure to an electrostatic discharge (ESD) voltage. Depending on the magnitude and duration of the ESD, this can result in erratic operation or complete failure of the equipment. Read supplemental document S14006 for proper care and handling of ESD-sensitive components.

Bristol Babcock 1100 Buckingham Street, Watertown, CT 06795
Telephone (860) 945-2200

WARRANTY

- A. Bristol warrants that goods described herein and manufactured by Bristol are free from defects in material and workmanship for one year from the date of shipment unless otherwise agreed to by Bristol in writing.
- B. Bristol warrants that goods repaired by it pursuant to the warranty are free from defects in material and workmanship for a period to the end of the original warranty or ninety (90) days from the date of delivery of repaired goods, whichever is longer.
- C. Warranties on goods sold by, but not manufactured by Bristol are expressly limited to the terms of the warranties given by the manufacturer of such goods.
- D. All warranties are terminated in the event that the goods or systems or any part thereof are (i) misused, abused or otherwise damaged, (ii) repaired, altered or modified without Bristol's consent, (iii) not installed, maintained and operated in strict compliance with instructions furnished by Bristol, or (iv) worn, injured or damaged from abnormal or abusive use in service time.
- E. THESE WARRANTIES ARE EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES EXPRESS OR IMPLIED (INCLUDING WITHOUT LIMITATION WARRANTIES AS TO MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE), AND NO WARRANTIES, EXPRESS OR IMPLIED, NOR ANY REPRESENTATIONS, PROMISES, OR STATEMENTS HAVE BEEN MADE BY BRISTOL UNLESS ENDORSED HEREIN IN WRITING. FURTHER, THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE DESCRIPTION OF THE FACE HEREOF.
- F. No agent of Bristol is authorized to assume any liability for it or to make any written or oral warranties beyond those set forth herein.

REMEDIES

- A. Buyer's sole remedy for breach of any warranty is limited exclusively to repair or replacement without cost to Buyer of any goods or parts found by Seller to be defective if Buyer notifies Bristol in writing of the alleged defect within ten (10) days of discovery of the alleged defect and within the warranty period stated above, and if the Buyer returns such goods to Bristol's Watertown office, unless Bristol's Watertown office designates a different location, transportation prepaid, within thirty (30) days of the sending of such notification and which upon examination by Bristol proves to be defective in material and workmanship. Bristol is not responsible for any costs of removal, dismantling or reinstallation of allegedly defective or defective goods. If a Buyer does not wish to ship the product back to Bristol, the Buyer can arrange to have a Bristol service person come to the site. The Service person's transportation time and expenses will be for the account of the Buyer. However, labor for warranty work during normal working hours is not chargeable.
- B. Under no circumstances will Bristol be liable for incidental or consequential damages resulting from breach of any agreement relating to items included in this quotation from use of the information herein or from the purchase or use by Buyer, its employees or other parties of goods sold under said agreement.

How to return material for Repair or Exchange

Before a product can be returned to Bristol Babcock for repair, upgrade, exchange, or to verify proper operation, form (GBU 13.01) must be completed in order to obtain a RA (Return Authorization) number and thus ensure an optimal lead time. Completing the form is very important since the information permits the Bristol Babcock Repair Dept. to effectively and efficiently process the repair order.

You can easily obtain a RA number by:

A. FAX

Completing the form (GBU 13.01) and faxing it to (860) 945-3875. A BBI Repair Dept. representative will return call (or other requested method) with a RA number.

B. E-MAIL

Accessing the form (GBU 13.01) via the Bristol Babcock Web site (www.bristolbabcock.com) and sending it via E-Mail to brepair@bristolbabcock.com. A BBI Repair Dept. representative will return E-Mail (or other requested method) with a RA number.

C. Mail

Mail the form (GBU 13.01) to

Bristol Babcock Inc.
Repair Dept.
1100 Buckingham Street
Watertown, CT 06795

A BBI Repair Dept. representative will return call (or other requested method) with a RA number.

D. Phone

Calling the BBI Repair Department at (860) 945-2442. A BBI Repair Department representative will record a RA number on the form and complete Part I, then send the form to the Customer via fax (or other requested method) for Customer completion of Parts II & III.

A copy of the completed Repair Authorization Form with issued RA number should be included with the product being returned. This will allow us to quickly track, repair, and return your product to you.

Bristol Babcock Inc. Repair Authorization Form

(Providing this information will permit BBI to effectively and efficiently process your return. Completion is required to receive optimal lead time. Lack of information may result in increased lead times.)

Date _____ RA # _____ SH _____ Line No. _____

Standard Repair Practice is as follows: Variations to this is practice may be requested in the "Special Requests" section.

- Evaluate / Test / Verify Discrepancy
- Repair / Replace / etc. in accordance with this form
- Return to Customer

Please be aware of the Non warranty standard charge:

- There is a \$100 minimum evaluation charge, which is applied to the repair if applicable (✓ in "returned" B,C, or D of part III below)

Part I Please complete the following information for single unit or multiple unit returns

Address No. _____ (office use only) Address No. _____ (office use only)

Bill to : _____ Ship to: _____

Purchase Order: _____ Contact Name: _____

Phone: _____ Fax: _____ E-Mail: _____

Part II Please complete Parts II & III for each unit returned

Model No./Part No. _____ Description _____

Range/Calibration _____ S/N _____

Reason for return : Failure Upgrade Verify Operation Other _____

1. Describe the conditions of the failure (Frequency/Intermittent, Physical Damage, Environmental Conditions, Communication, CPU watchdog, etc.)

_____ (Attach a separate sheet if necessary)

2. Comm. interface used: Standalone RS-485 Ethernet Modem (PLM (2W or 4W) or SNW) Other: _____

3. What is the **Firmware** revision? _____ What is the **Software** & version? _____

Part III If checking "replaced" for any question below, check an alternate option if replacement is not available

A. If product is within the warranty time period but is excluded due to BBI's warranty clause, would you like the product: repaired returned replaced scrapped?

B. If product were found to exceed the warranty period, would you like the product: repaired returned replaced scrapped?

C. If product is deemed not repairable would you like your product: returned replaced scrapped?

D. If BBI is unable to verify the discrepancy, would you like the product: returned replaced *see below?

* Continue investigating by contacting the customer to learn more about the problem experienced? The person to contact that has the most knowledge of the problem is: _____ phone _____

If we are unable to contact this person the backup person is: _____ phone _____

Special Requests: _____

Ship prepaid to: Bristol Babcock Inc., Repair Dept., 1100 Buckingham Street, Watertown, CT 06795

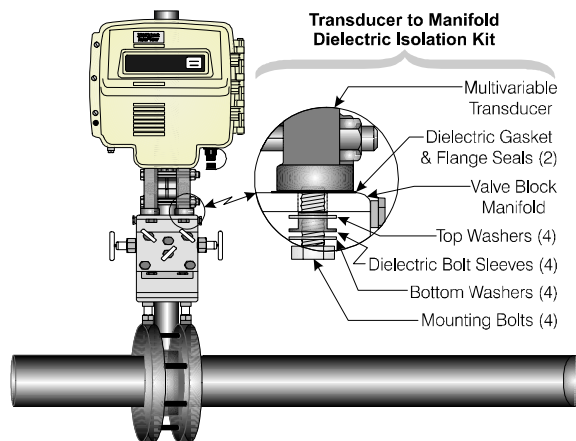
Phone: 860-945-2442 Fax: 860-945-3875

Bristol Babcock *Training*

GET THE MOST FROM YOUR BRISTOL BABCOCK INSTRUMENT OR SYSTEM



- Avoid Delays and problems in getting your system on-line
- Minimize installation, start-up and maintenance costs.
- Make the most effective use of our hardware and software.
- Know your system.



As you know, a well-trained staff is essential to your operation. Bristol Babcock offers a full schedule of classes conducted by full-time, professional instructors. Classes are offered throughout the year at four locations: Houston, Birmingham, Orlando and our Watertown, CT headquarters. By participating in our training, your personnel can learn how to install, calibrate, configure, program and maintain any and all Bristol Babcock products and realize the full potential of your system.

For information or to enroll in any class, contact our training department in Watertown at (860) 945-2269. For Houston classes, you can also contact our Houston office, at (713) 685-6200.

A Few Words About Bristol Babcock

For over 100 years, Bristol[®] has been providing innovative solutions for the measurement and control industry. Our product lines range from simple analog chart recorders, to sophisticated digital remote process controllers and flow computers, all the way to turnkey SCADA systems. Over the years, we have become a leading supplier to the electronic gas measurement, water purification, and wastewater treatment industries.

On off-shore oil platforms, on natural gas pipelines, and maybe even at your local water company, there are Bristol Babcock instruments, controllers, and systems running year-in and year-out to provide accurate and timely data to our customers.

Getting Additional Information

In addition to the information contained in this manual, you may receive additional assistance in using this product from the following sources:

Contacting Bristol Babcock Directly

Bristol Babcock's world headquarters are located at 1100 Buckingham Street, Watertown, Connecticut 06795, U.S.A.

Our main phone numbers are:

(860) 945-2200
(860) 945-2213 (FAX)

Regular office hours are Monday through Friday, 8:00AM to 4:30PM Eastern Time, excluding holidays and scheduled factory shutdowns. During other hours, callers may leave messages using Bristol's voice mail system.

Telephone Support - Technical Questions

During regular business hours, Bristol Babcock's Application Support Group can provide telephone support for your technical questions.

For technical questions about TeleFlow[™] products call (860) 945-8604.

For technical questions about **ControlWave** call (860) 945-2244 or (860) 945-2286.

For technical questions regarding Bristol's **OpenEnterprise** product, call (860) 945-2501 or e-mail: **openenterprise@bristolbabcock.com**

For technical questions regarding **ACCOL** products, **Open BSI Utilities**, as well as Bristol's **Enterprise Server[®]/Enterprise Workstation[®]** products, call (860) 945-2286.

For technical questions about **Network 3000** hardware, call (860) 945-2502.

You can e-mail the Application Support Group at: **bsupport@bristolbabcock.com**

The Application Support Group also maintains a service area within our main web site. Technical information, as well as software updates are available in this area. To access our web site, go to: bristolbabcock.com/services/techsupport/

For assistance in interfacing Bristol Babcock hardware to radios, contact Communication Technologies in Orlando, FL at (407) 629-9463 or (407) 629-9464.

Telephone Support - Non-Technical Questions, Product Orders, etc.

Questions of a non-technical nature (product orders, literature requests, price and delivery information, etc.) should be directed to the nearest sales office (listed below) or to your Bristol-authorized sales representative.

Major U.S. Sales Offices

Watertown, CT (860) 945-2262
Birmingham, AL (205) 980-2010
Ontario, CA (909) 923-8488
Farmington, NM (505) 327-3271
Houston, TX (713) 685-6200
Richardson, TX (972) 238-8935

Major International Sales Offices:

Bristol Babcock Ltd (UK): (441) 562-820-001
Bristol of Canada: (416) 675-3820
Bristol Babcock Asia Pacific 61 8-9455-9955
BBI, S.A. de C.V. (Mexico) (525) 254-2131

Please call the main Bristol Babcock number (860-945-2200) if you are unsure which office covers your particular area.

Visit our Site on the World Wide Web

For general information about Bristol Babcock and its products, please visit our site on the World Wide Web at: **www.bristolbabcock.com**

Replacement Procedure For DPC 3330/3335 CPU Expanded Memory Board 392937-XX-X or 400003-XX-X

Removal Procedure

1. Shut down the DPC in question. If necessary, place any critical processes under manual control.
2. Remove the CPU Assembly from the DPC.
3. Remove the four (4) #2-56 x ¼” screws that secure the Expanded Memory Board (EMB) to the CPU Board (see Figures 1 & 2).
4. Align the replacement EMB’s interface connector P1 with the CPU’s connector J1 and install the EMB onto the CPU Board.
5. Secure the EMB to the CPU Board using the #2-56 x ¼” screws removed in step 3.
6. Install the CPU Assembly into the DPC and reapply power.

Removing the Expanded Memory Board from the CPU Board - WARNING

Any real-time or archive data stored in the Expanded Memory Board will be lost! This could lead to unpredictable behavior. It is possible for the Protected Mode CPU Board to appear to lock up (the Idle, Watchdog and all Status LEDs will be ON). The unit will not run self-test. This is because the memory that was being used when the unit was powered down will not be there upon startup.

To prevent this problem or correct it after it has occurred, shut off power to the unit, remove the CPU Board (from the SIB) and remove the Expanded Memory Board (if still installed), then set SW1-1 (on the 3330’s CPU Board - see Figure 1 or 3335’s Memory & Peripheral Board - see Figure 3) to its OFF position. Re-install the CPU Assembly and apply power. This will put the CPU Board into the FLASH download mode. Shut off power to the unit and set SW1-1 on the CPU Assembly to its ON position and then reapply power to the unit. The CPU should now work properly. Aside from entering FLASH download mode, all memory size information will also have been cleared. This will be restored the next time the CPU goes through self-test.

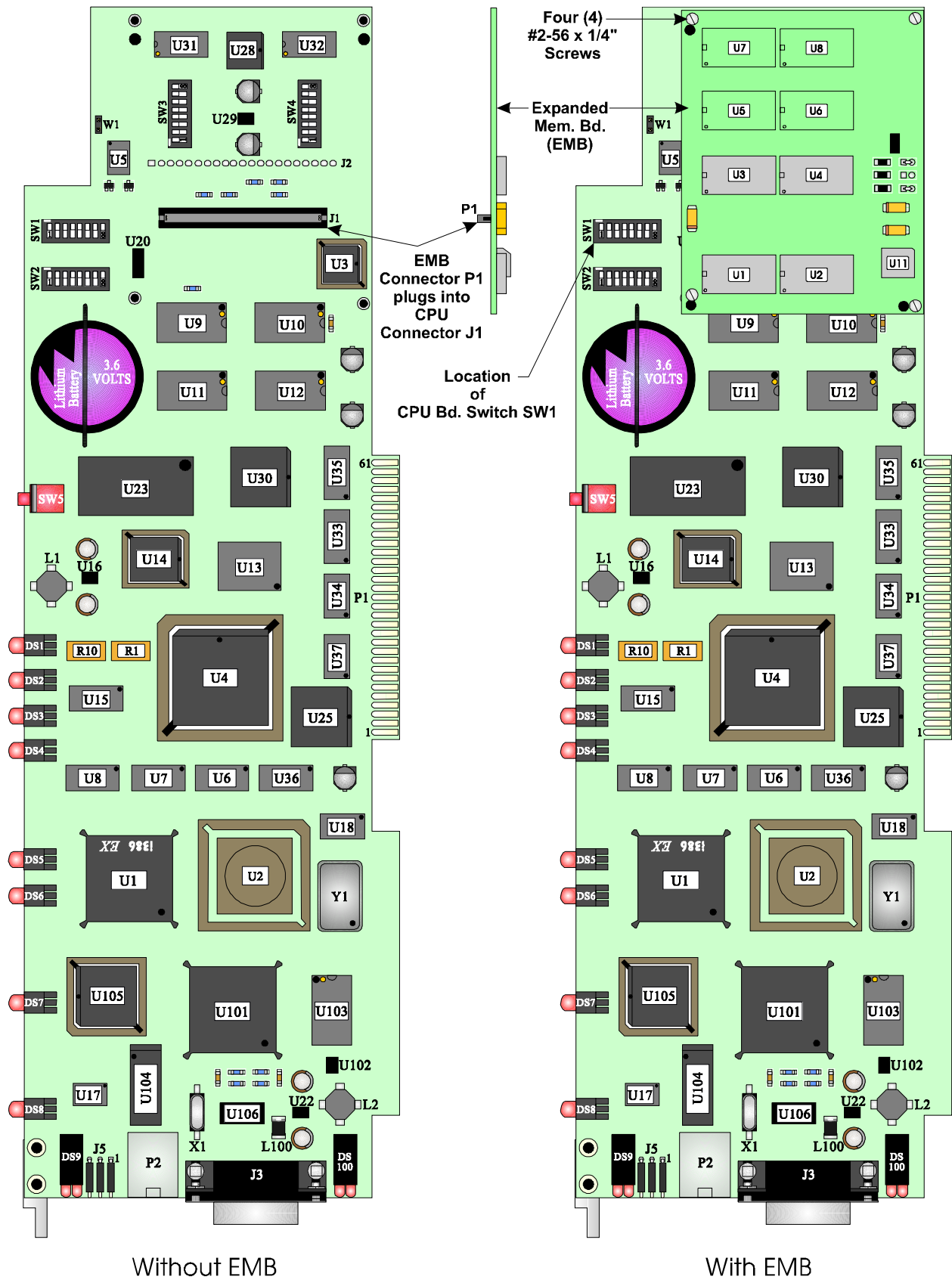


Figure 1 - DPC 3330 Ethernet CPU Assembly (with & without EMB)

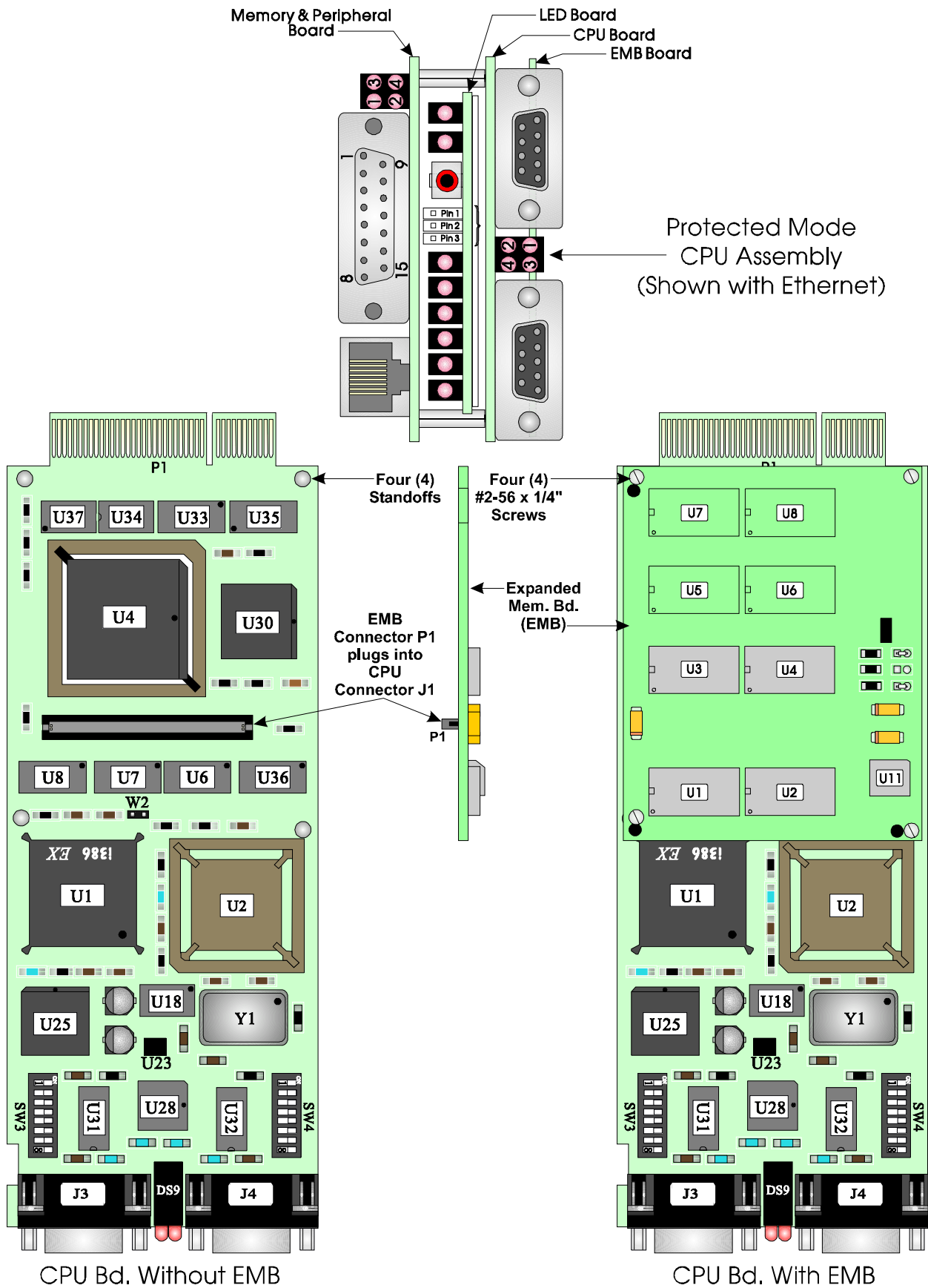


Figure 2 - DPC 3335 Ethernet CPU & CPU Assembly (with & without EMB)

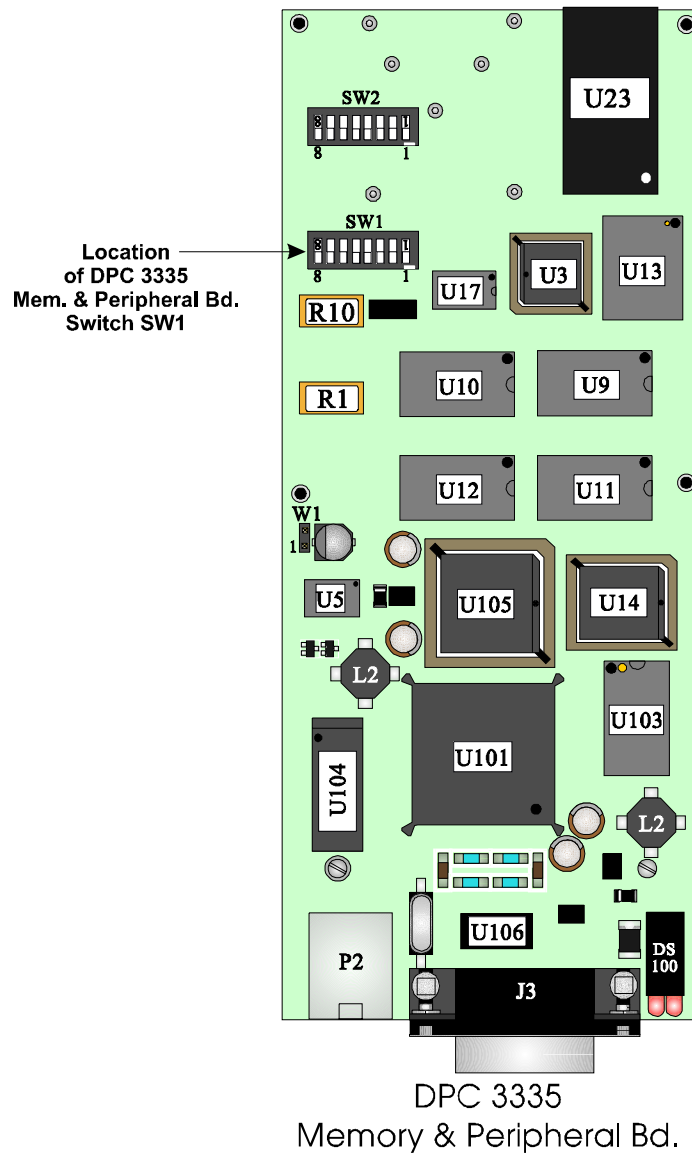


Figure 3 - DPC 3335 Memory & Peripheral Board (Shown with Ethernet)

Bristol Babcock Inc.
an FKI company

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Watertown, CT 06795
Telephone: (860) 945-2200

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