SMART/SMART-E Interface

OPTION, HEW 8" DRIVE

UNPACKING AND INSTALLATION CHECKLIST

This checklist is provided to aid you in unpacking and installing the PRIAM SMART/SMART-E Interface on a HEW 1070 8" Winchester disc drive. Please follow these instructions carefully and check off the operations in the order they appear on the sheet. It is important for protection of your warranty that these instructions be followed exactly.

UNPACKING AND HANDLING

☐ 1.   Inspect the exterior of the shipping container for obvious signs of shipping damage. If there are indications that the container is damaged, NOTIFY THE CARRIER AT ONCE.

☐ 2.   If no damage is apparent, open the shipping container and remove documentation, mounting hardware, and cables.

☐ 3.   Check materials received in option package. They should include:

PART NUMBER	DESCRIPTION	UNIT OF MEAS	300107 QTY-01	QTY-03
101081	TIE, CABLE SELF LOCKING	EA	3	3
101134	BUMPER, SELF STICKING	EA	2	2
101322	SUPPORT, 3/4 PCBA	EA	6	6
200108	ASM, SMART INTFC	EA	1	-
200109	SCH, SMART INTFC	EA	1	-
200133	ASM, TERMINATOR PRIAM	EA	1	1
200203	ASM, SMART E INTFC	EA	-	1
200204	SCH, SMART E INTFC	EA	-	1
330420-03	ASM, CABLE FLAT 50 COND 6 IN.	EA	1	1
330421-02	ASM, CABLE POWER (2 PIN) 10 IN.	EA	1	1

Notify PRIAM of any discrepancies.

INSTALLING THE SMART/SMART-E INTERFACE

☐ 1.   Insure drive is sequenced down.

☐ 2.   Disconnect power to 8" drive.

NOTE: The following explanation will reference Figure 4.

☐ 3.   Remove 6 mounting screws that hold the HEW MAIN PRINTED CIRCUIT BOARD ASSEMBLY (PCBA) to frame.

☐ 4.   Connect one end of the 50 pin flat cable P/N 330420-03, to connector J1 on the HEW MAIN PCBA. Insure that Pin 1 of connector J1 on the PCBA connects to Pin 1 of flat cable.

☐ 5.   Secure HEW MAIN PCBA to the frame using six 3/4" PCBA supports, P/N 101322. Refer to Figure 4.

1A

/☐/ 6. Install PRIAM terminator, P/N 200133, into J2 on the HEW MAIN PCBA, if drive is last in string or only drive. Insure that Pin 1 of terminator is inserted into Pin 1 of J2.

/☐/ 7. Set the sector switches on the HEW MAIN PCBA at location V8 as desired. Refer to Figure 1.

Sector Format Summary - 1070

Logical Size (Bytes)	Physical Size (Bytes)	Sectors Per Track	Switch Setting (Location V8)
256	324	44	3, 2 ON; 4, 1 OFF
512	648	22	4, 2 ON; 3, 1 OFF
1024	1296	11	4, 3 ON; 2, 1 OFF

/☐/ 8. Set drive select switches on the HEW MAIN PCBA at location X59 for the required physical address. Refer to Figure 1.

Switch X59 - 1 ON
Switch X59 - 2, 3, 4 OFF

This selects a drive address of one.

/☐/ 9. Set write Head ENABLE switches on the HEW MAIN PCBA at location N40 to ENABLE writing by setting:

Switch N40 1-4 ON. See Figure 1.

/☐/ 10. Set switch on the HEW MAIN PCBA to DISABLE writing in the skip defect area by setting:

Switch V8-1 OFF
See Figure 1

/☐/ 11. Fold and route loose end of 50 pin flat cable from J1 of the HEW MAIN PCBA to J1 of SMART or SMART-E PCBA and insure that Pin 1 of J1 connects to Pin 1 of flat cable. Refer to Figure 4. Locate the (2) rubber bumpers approximately as shown on folded cable.

/☐/ 12. Mount the SMART or SMART-E onto 3/4" PCBA supports. Press firmly until the supports come through mounting holes and lock. Orientation of the SMART or SMART-E PCBA should be as shown in Figure 4, with J1 of the SMART or SMART-E over J1 of the HEW MAIN PCBA.

/☐/ 13. Insure that all SMART or SMART-E jumpers are in place according to the following list.

2A

A. Jumpers for SMART Interface, refer to Figure 2

1. W1

   This jumper should not be in place. If it is in the A position, PROM 12K is connected as a 2732 (this jumper is selected by a PCBA trace).

2. W2, W3, W4

   These jumpers should be in place. When they are in, the PRIAM closed loop write clock or B level interface is selected.

3. W5

   This jumper should be in place. This jumper enables the Head 4 line, used on the DISKOS 3450 and the DISKOS 7050.

B. Jumpers for SMART-E Interface, refer to Figure 3

1. W1

   If jumper W1 is in the A to B position, the SMART-E Interface becomes compatible with the SMART Interface with respect to the operation of the DTREQ/, HRD/, and HWR/ lines. This configuration does not support Direct Mode data transfers.

   If jumper W1 is in the B to C position, the SMART-E Interface will support Direct Mode data transfers. However, in this configuration, the SMART-E Interface is not compatible with the SMART Interface with respect to the DTREQ/, HRD/, and HWR/ lines. Position B to C is the recommended position.

   NOTE: For a more detailed explanation refer to SMART/SMART-E specification.

2. W2

   This jumper should not be in place. Reserved for future use.

3. W3

   This jumper should be in place. This jumper enables the Head 4 line, used on the DISKOS 3450 and the DISKOS 7050.

4. W4, W5, W6

   These jumpers should be in place. When they are in, the PRIAM closed loop write clock or B level interface is selected.

3A

5. W7

    If jumper W7 is in the A to B position, parity is disabled on the
    host interface bus. If jumper W7 is in the B to C position, even
    parity is enabled on the host interface bus.

6. W8

    This jumper must be in the B to C position.

/_/ 14. Remove current power cable and insert it into the corresponding
         connector P2 of P/N 330421-02. Refer to Figure 4. Connect other end
         of power cable, P/N 330421-02, to J3 of HEW MAIN PCBA.

/_/ 15. Route and secure the power cable, using tie wraps, as shown in Figure
         4.

/_/ 16. Connect the 2 pin power connector to J3 of SMART or SMART-E PCBA.
         Refer to Figure 2 and 3. IMPORTANT. Insure that lip of connector is
         facing up and locks with J3 receptacle. INCORRECT ORIENTATION WILL
         RESULT IN DAMAGE TO PCBA.

/_/ 17. Connect host (40 Pin) flat cable to J2 of SMART or SMART-E Interface.

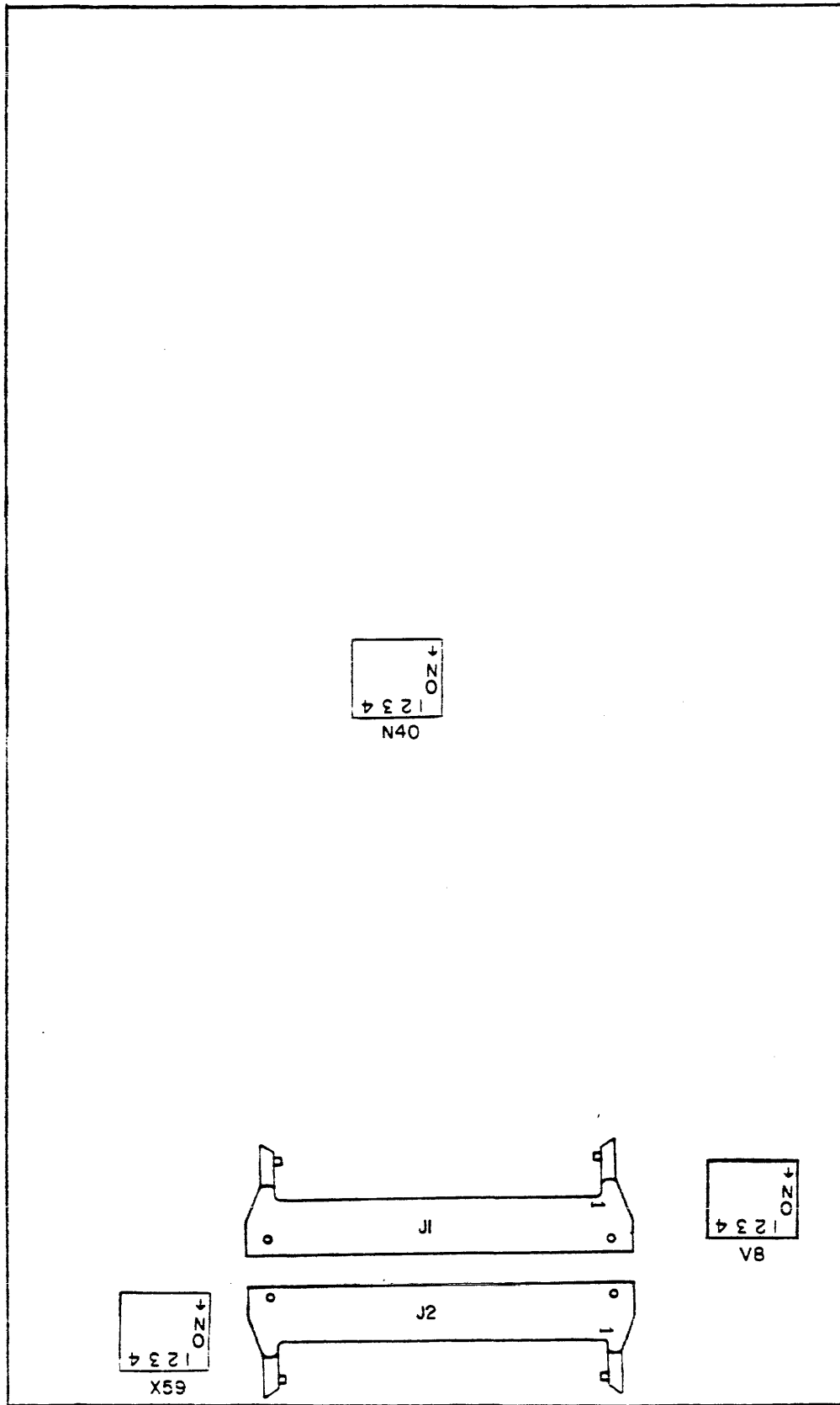/_/ 18. Connect main drive power to operate.
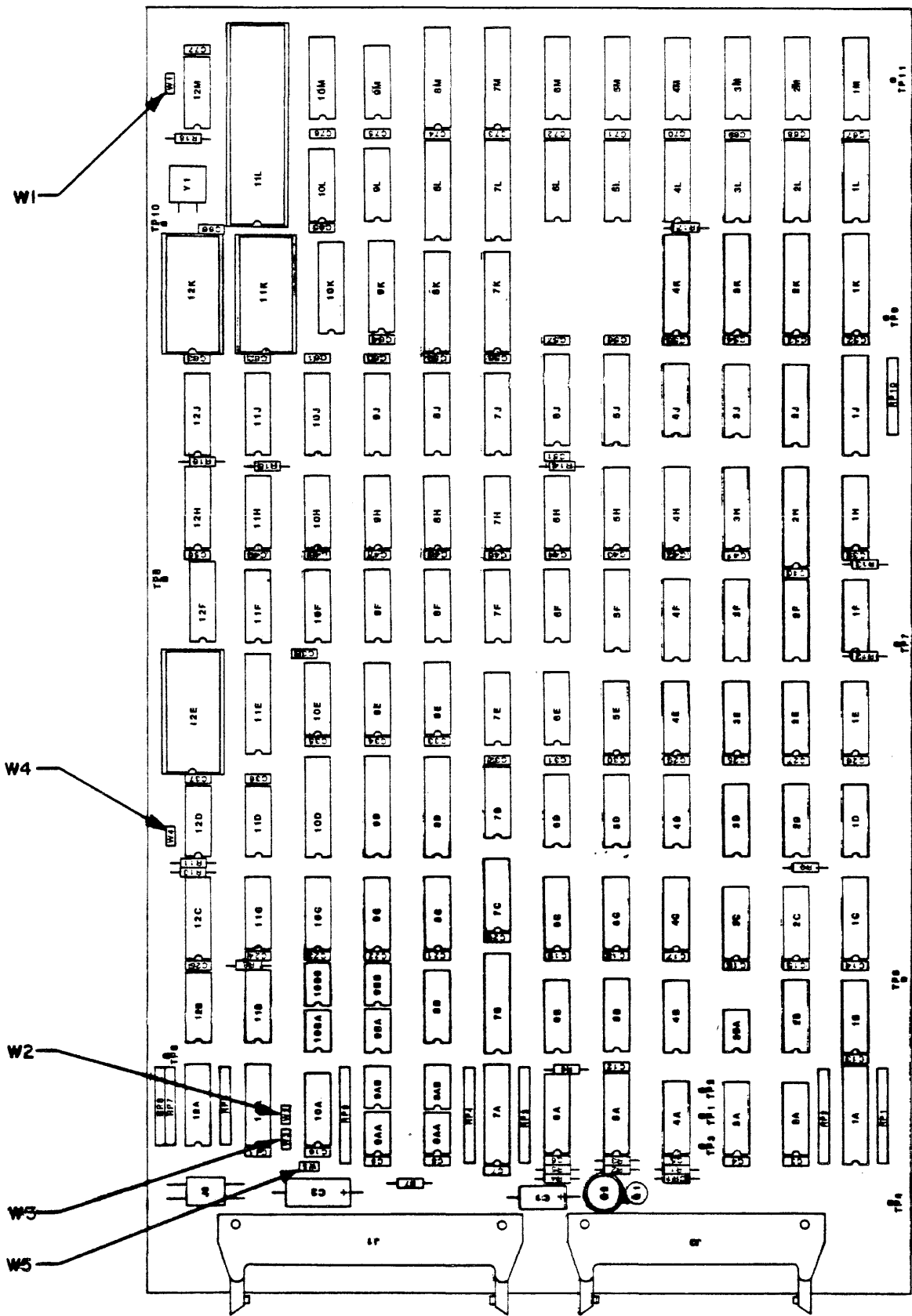

3433B/105A

FIGURE 1 - HEW MAIN PCBA

FIGURE 2 - SMART JUMPER LOCATIONS

FIGURE 3 - SMART-E JUMPER LOCATIONS

JI OF HEW MAIN PCBA

JI OF ADAPTER OPTION

50 CONDUCTOR CABLE

POWER CONNECTOR LOCATION
FOR ADAPTER OPTION

SELF STICKING BUMPER
(2X)

ADAPTER OPTION
PCBA

HEW MAIN
PCBA

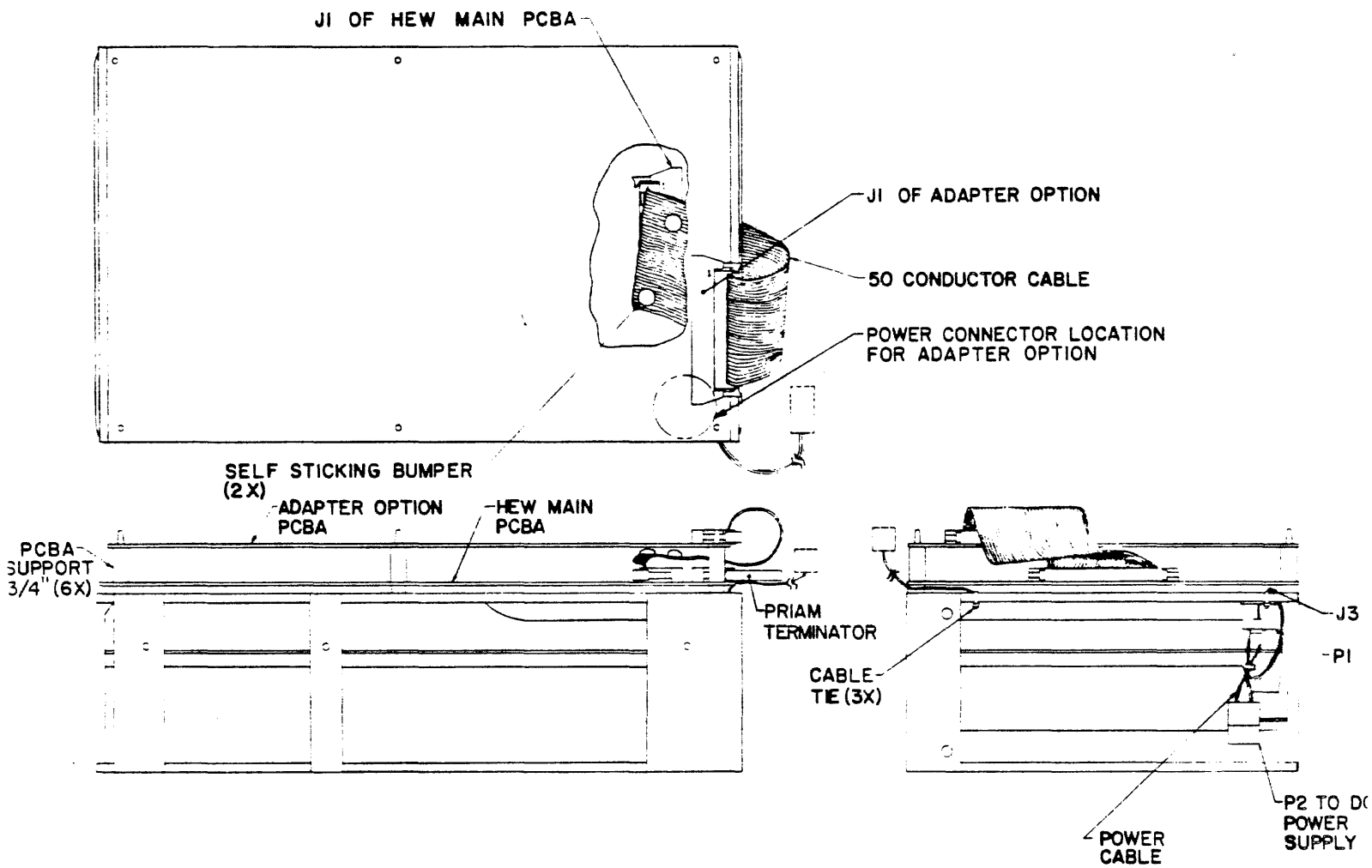PCBA
SUPPORT
3/4"(6X)

PRIAM
TERMINATOR

CABLE
TIE(3X)

J3

PI

P2 TO DC
POWER
SUPPLY

POWER
CABLE

FIGURE 4 - SMART/SMART E INSTALLATION

8A