

## Appendix F

# Replacing the Array Accelerator

The Smart Array 3100ES has a removable 64-MB Array Accelerator. The Array Accelerator is mounted on a removable daughter board so that it can be easily replaced if necessary. The Smart Array 3100ES is not operable without the Array Accelerator.

The Smart Array 3100ES Array Accelerator has several unique features:

- It accelerates data storage by temporarily caching the data at high internal bus rates while transferring the data to the drives at their slower write speeds.
- It uses its own batteries to keep the data alive without board power, even if the Array Accelerator is removed from Smart Array 3100ES.
- The memory is Error Checking and Correcting (ECC), providing error detection and correction reliability.
- In a single Smart Array 3100ES configuration, it can be moved to another Smart Array 3100ES to complete the data transfer should the original Smart Array 3100ES fail.
- In a redundant Smart Array 3100ES configuration, it is not necessary to move the Array Accelerator in the event of a single controller failure. The posted-write data is automatically synchronized between the two Smart Array 3100ES controllers.

## Removing the Array Accelerator

To remove the optional Array Accelerator from the controller board:

1. Use a Torx T-10 screwdriver to remove the two screws from the top of the Array Accelerator board.

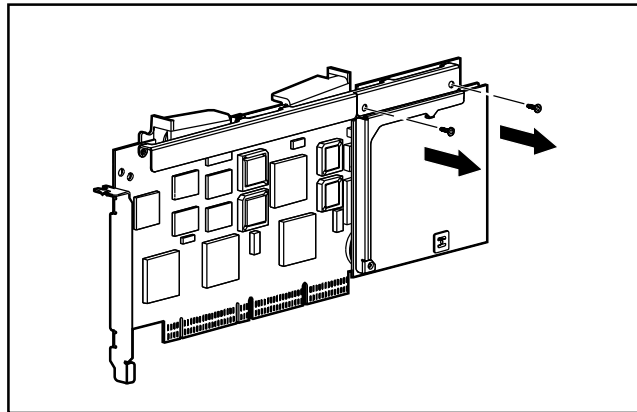


Figure F-1. Removing the two screws from the Array Accelerator board

2. Turn the Smart Array 3100ES Controller board over and remove the five screws that secure the stiffener bracket to the Smart Array 3100ES Controller.

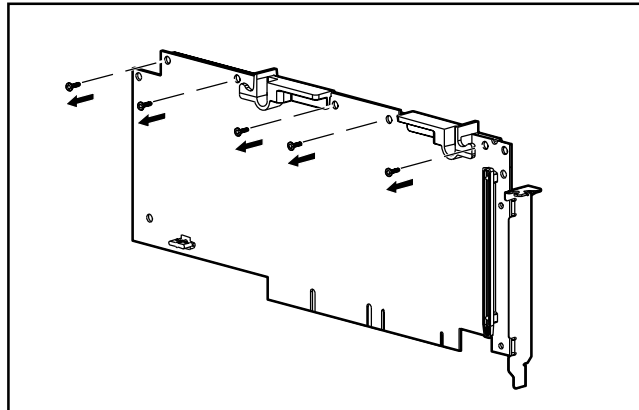


Figure F-2. Removing the five stiffener bracket screws

3. Remove the stiffener bracket.

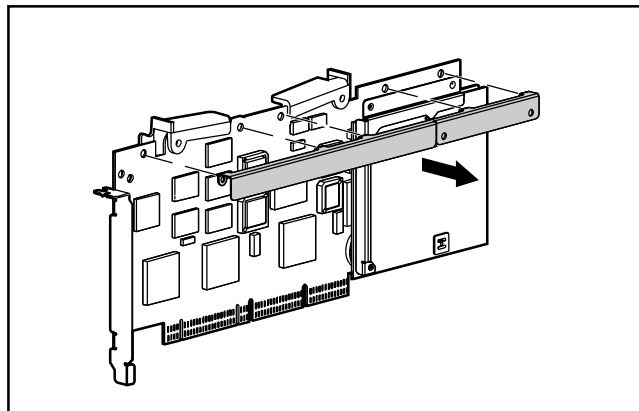


Figure F-3. Removing the stiffener bracket

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4. Remove the remaining screw from the accelerator board bracket.

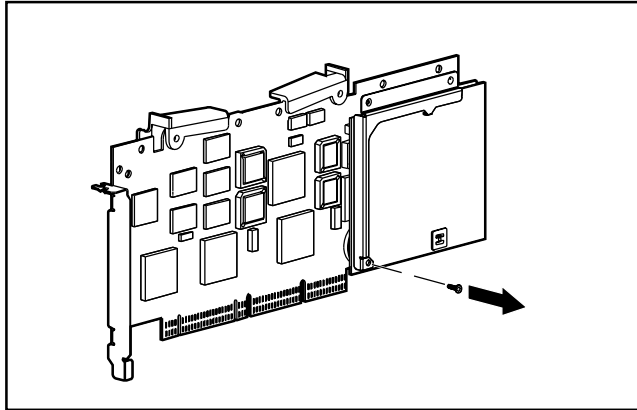


Figure F-4. Removing the Accelerator board bracket screw

5. Remove the Accelerator board bracket.

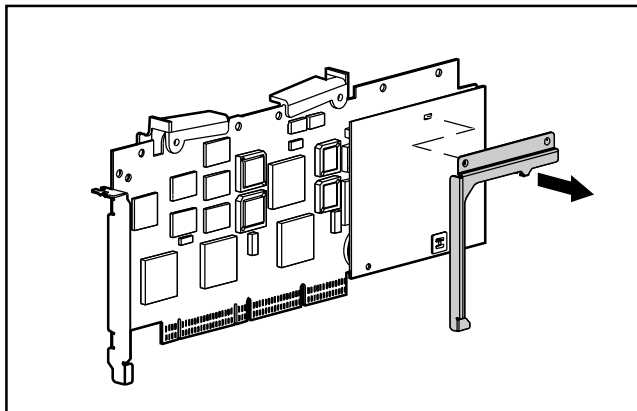


Figure F-5. Removing the Accelerator board bracket.



**WARNING:** Do not abuse, recharge, disassemble, dispose of in fire or heat above 90°C, incinerate, or expose batteries to water or fire. Dispose of the batteries or Array Accelerator module in compliance with local regulations or return them to Compaq Computer Corporation by established parts return methods.

6. Turn the board over and twist the latch 90 degrees to release the Array Accelerator board from the Smart Array 3100ES Controller.

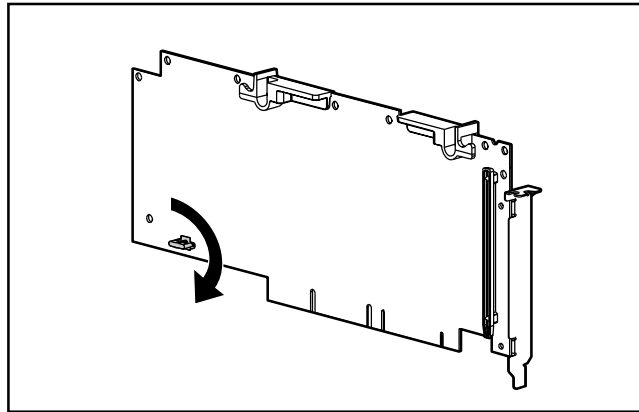


Figure F-6. Twisting the latch 90 degrees.

## F-6 Replacing the Array Accelerator

7. Lift the Array Accelerator board gently, near the top of the board, to separate it from the signal connectors on the Smart Array 3100ES Controller.



**CAUTION:** Do not lift the Array Accelerator board from the bottom end of the board. This will bend the pins or break the connector on the Smart Array 3100ES Controller

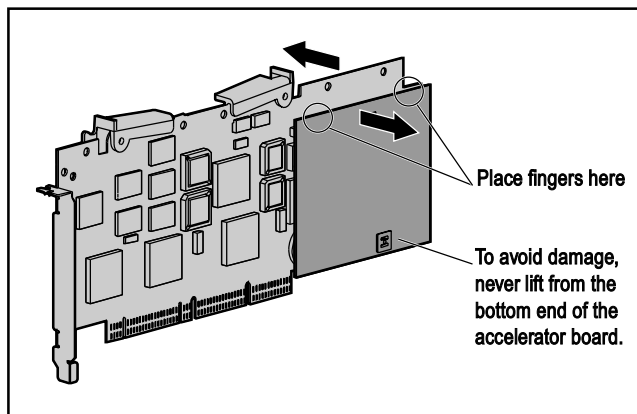


Figure F-7. Removing the Array Accelerator from the Smart Array 3100ES

## Array Accelerator Installation

To install the Array Accelerator board on the Smart Array 3100ES Controller, reverse the removal steps.