2.0 The Proposed Solution

The proposed solution is to define a new Command Code: 00h, the No Operation (NOP) command. If the Host must write the Drive/Head register as 16-bits, it would write this command code instead of the real command, along with the Drive/Head value. This ensures the drive doesn't execute the intended command before the Host has checked the selected drive for proper status. After finding the correct status the Host writes the Drive/Head and Command registers with the proper values.

The drive's response to the No Operation command is the same response to an unknown Command Code. The reason for defining this code in the specification is to add a statement requiring the drive not to change any of the Control Block registers after the No Operation command has been received.

3.0 Changes to ATA Rev 3.0

The following are the proposed changes to the ATA specification for the addition of the No Operation command.

3.1 TABLE 8-2: REGISTER CONTENTS
Add No Operation (NOP) command to table.
Add "V" to the following columns: ABRT, DRDY, DWF, DSC, ERR

3.2 TABLE 9-1: COMMAND CODE AND PARAMETERS - Part 1 of 2

1	No Operation (NOP)	M	00

3.3 Section 9. Command Descriptions: Nop Operation (NOP)
This command allows Hosts that are restricted to 16-bit only operations to select the drive by writing to the Command register along with Drive/Head register. This command will not perform any drive operation except to post Aborted command status back to the Host. The drive will not modify any of the Control Block registers (except the Error and Status registers).

The drive shall respond to the command as follows:

a) Set ABRT (Error register)
b) Set ERR (Status register)
c) Clear BSY (Status register)
d) Assert INTRQ

Note: This command is not needed for single-drive implementations, or if the drive select has not changed from the last command issued to the drive.