CLEANING CARTRIDGE RECOGNITION
WITH LIGHT PRISM

(See important notices on the following page)
This document is a development standard adopted by Quarter-Inch Cartridge Drive Standards, Inc. (QIC). This document may be revised several times during the development cycle. It is intended solely as a guide for companies interested in developing products which can be compatible with other products developed using this document. QIC makes no representation or warranty regarding this document, and any company using this document shall do so at its sole risk, including specifically the risks that a product developed will not be compatible with any other product or that any particular performance will not be achieved. QIC shall not be liable for any exemplary, incidental, proximate or consequential damages or expenses arising from the use of this document. This development standard defines only one approach to the product. Other approaches may be available in the industry.

This development standard is an authorized and approved publication of QIC. The underlying information and materials contained herein are the exclusive property of QIC but may be referred to and utilized by the general public for any legitimate purpose, particularly in the design and development of quarter-inch tape cartridge drive subsystems. This development standard may be copied in whole or in part provided that no revisions, alterations or changes of any kind are made to the materials contained herein. Only QIC has the right and authority to revise or change the material contained in this development standard, and any revisions by any party other than QIC are totally unauthorized and specifically prohibited.

Compliance with this development standard may require use of one or more features covered by proprietary rights (such as features which are the subject of a patent, patent application, copyright, mask work right or trade secret right). By publication of this development standard, no position is taken by QIC with respect to the validity or infringement of any patent or other proprietary right, whether owned by a Member or Associate of QIC, or otherwise. QIC hereby expressly disclaims any liability for infringement of intellectual property rights of others by virtue of the use of this development standard. QIC has not and does not investigate any notices or allegations of infringement prompted by publication of any QIC development standard, nor does QIC undertake a duty to advise users or potential users of QIC development standards of such notices or allegations. QIC hereby expressly advises all users or potential users of this development standard to investigate and analyze any potential infringement situation, seek the advice of intellectual property counsel, and, if indicated, obtain a license under any applicable intellectual property right or take the necessary steps to avoid infringement of any intellectual property right by virtue of the evolution, adoption, or publication of any QIC development standard.
UNIVERSAL MINI CLEANING CARTRIDGE

AND

UNIVERSAL DATA CLEANING CARTRIDGE

BACKGROUND

Cleaning cartridge spec QIC 147-C has been adapted for a dry ribbon cleaner. There is a recognition switch scheme built into the cleaning cartridge that triggers a tape drive firmware controlled cleaning routine. This firmware controlled cleaning routine is incompatible with existing wet cleaners. A second method recognizing a different type of cleaning cartridge is needed. The scope of this proposal is to detail the mechanical requirements for recognition of a second cleaning cartridge. We are also including recommended firmware support specifications.

1.0 Mini Cleaning Cartridge specifications:

1.1 Cartridge conforms to Minicartridge QIC 143
   Including all optical sensing features of a standard recording Minicartridge.

2.0 Mechanical recognition specifications:

2.1 Mechanical cut out on front of the cartridge that will create the following conditions:
   No cartridge present
   Write enabled
   Constant tape sensor LED ON

3.0 Firmware response to Cleaning Cartridge recognition:

The tape drive will recognize that it has a TYPE 11 cleaning cartridge present. Upon recognition the tape drive will automatically initiate the cleaning cycle utilizing one of the recommended Drive Speeds and Time Out responses.

3.1 Drive Speed  |  Cleaning Cycle Time Out
    40 - 60 IPS  |  40 Seconds
    60 - 100 IPS |  30 Seconds
    100 - 200 IPS |  20 Seconds
3.2 Head Steps
3.3 Two flashing LED pulses per second

4.0 Data Cleaning Cartridge specifications:

4.1 Cartridge conforms to Data Cartridge ANSI Spec X3.55-1982
   Including all optical sensing features of a standard recording Data Cartridge.

5.0 Mechanical recognition specifications:

5.1 Mechanical cut out on front of the cartridge that will create the following conditions
   No cartridge present
   Write enabled
   Constant tape sensor LED ON

6.0 Firmware response to Cleaning Cartridge recognition:

The tape drive will recognize that it has a TYPE II cleaning cartridge present. Upon recognition the
tape drive will automatically initiate the cleaning cycle utilizing one of the recommend Drive
Speed and Time Out responses.

6.1 Drive Speed                        Cleaning Cycle Time Out
   40 - 60 IPS                  40 Seconds
   60 - 100 IPS                 30 Seconds
   100 - 120 IPS                20 Seconds

6.2 Head Steps
6.3 Two flashing LED pulses per second

7-0 Technical cartridge drawing attached

Proposal by
Allsop, Inc                      MicroClean, Inc                      TexWlpe, Corp.
Scott Stroup                     Jim Taylor                           Mark Almond