DEVELOPMENT STANDARD

QIC-147
Revision C
13 Dec 95

CLEANING CARTRIDGE RECOGNITION

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(See important notices on following page)

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REVISION HISTORY

Revision A	11 Jun 93	Initial development standard for recoginition in DC 600 type drives.
Revision B	1 Sep 93	Recognition pattern for DC 2000 type drives. (QIC-93-60)
Revision C	13 Dec 95	Operating conditions for DC 600 and DC 2000 type drives. (QIC-95-72)

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1.0 INTRODUCTION

The objective of QIC Development Standard 147 is to establish criteria such that QIC tape drive manufacturers can utilize operating conditions that will control speed, head position, duration and use frequency of a cleaning cartridge.

2.0 APPLICABLE FORMATS

This development standard is for cleaning cartridge recognition in:

Minicartridge	Data Cartridge
QIC-80	QIC-1000-DC
QIC-3010-MC	QIC-2GB-DC
QIC-3020-MC	QIC-2100-DC
QIC-3040-MC	QIC-5GB-DC
QIC-3050-MC	QIC-5010-DC
QIC-3080-MC	All future standards
QIC-3095-MC	
QIC-3210-MC	
QIC-3230-MC	
All future standards	

3.0 RECOGNITION METHOD

The preferred method of recognition is by utilizing the write enable/file protect switch and the cartridge recognition switch areas for 5.25" form factor drives. The preferred method of recognition for 3.5" form factor drives is by utilizing the write enable/file protect and the cartridge recognition switch or light emission/detection sequence.

3.1 SWITCH POSITION SEQUENCES AND RESULTS

By utilizing the write enable/file protect and cartridge recognition switches in various combinations there are four possible results in 5.25" form factor drives. When both switch areas are open the result is the program firmware recognizing the absence of a cartridge of any kind. When both switch areas are closed, the program firmware result is a "Write Enable" mode. A combination of a closed Cartridge Identification switch and an open File Protect switch results in a "File Protect" mode. **Cleaner Cartridge "recognition" is achieved by having the Cartridge Identification switch in it's open position while the File Protect switch is in a closed position.**

The preferred method of recognition for 3.5" form factor drives is by utilizing the write enable/file protect and the cartridge recognition switch or light emission/detection sequence. **Cleaner Minicartridge "recognition" is achieved by creating a no cartridge in place and write enable condition.**

4.0 OPERATION CONDITIONS

The following Operating Conditions will be performed when the drive recognizes the cartridge as a cleaning cartridge.

4.1 Drive controls movement of head cleaning element.
Data Cartridge drive speed of 53 ips.
Minicartridge drive variable between 12-22 ips.

4.2 Drive steps head up and down during the cleaning element motion.

4.3 Drive controls cleaning process duration.
Data Cartridge drive duration of 5 seconds.
Minicartridge drive duration of 5 seconds.

4.4 Drive signals end user that cleaning is in process.
Data Cartridge drive LED flashes at a rate of 2 cycles per second
Minicartridge drive LED flashes at a rate of 2 cycles per second.

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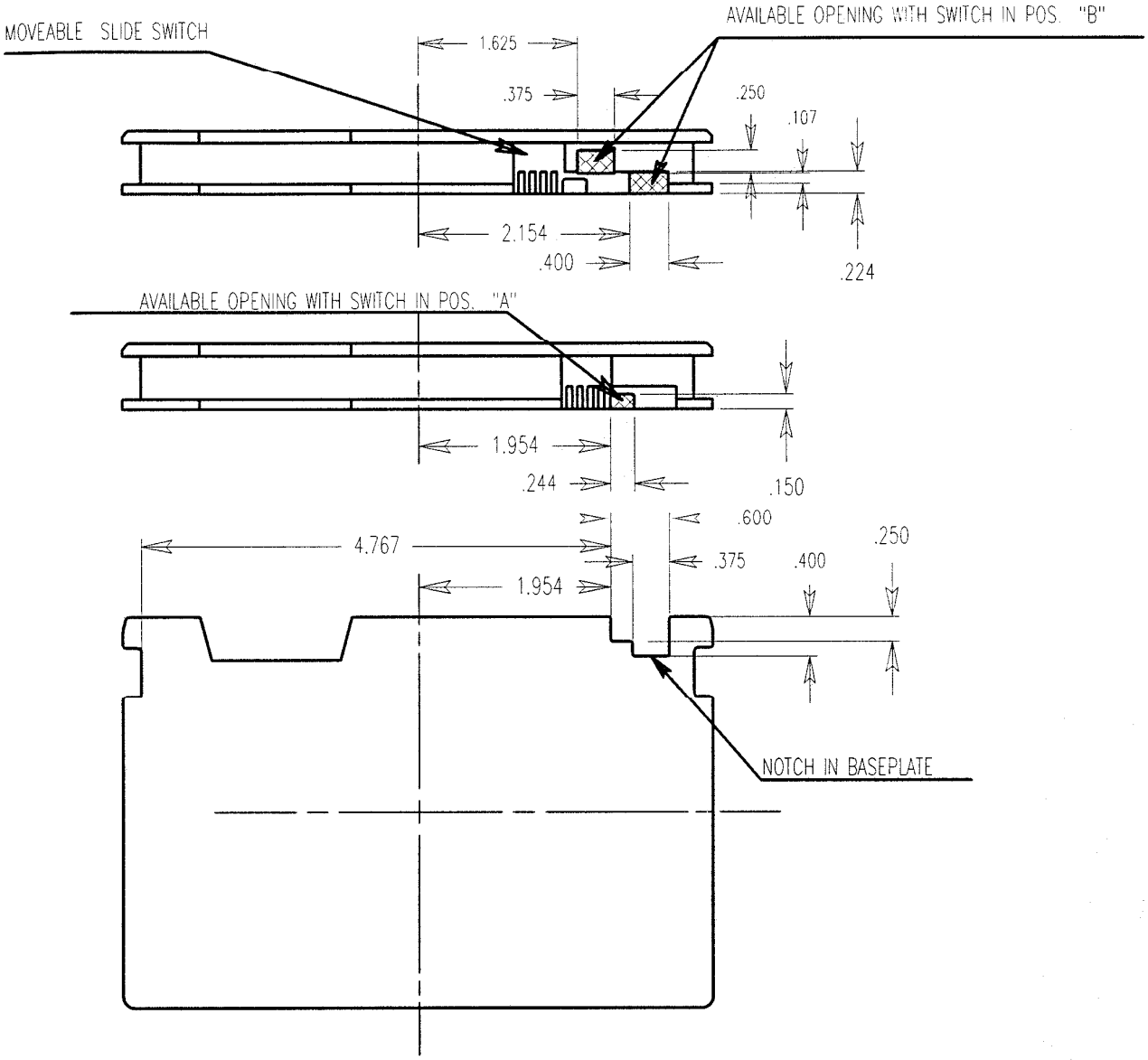
5.0 QIC DATA CLEANING CARTRIDGE ILLUSTRATION



AVAILABLE RECOGNITION AREAS FOR DC-600 TYPE CLEANING CARTRIDGE

ALLSOP INC. 5-12-93, (DC600) E. CLAUSEN
REVISED: 6-7-93, E.CLAUSEN
REVISED: 6-10-93, E.CLAUSEN

OPENING IN COVER TO ACHIEVE A "NO CARTRIDGE PRESENT" CONDITION

CLEAR AREA TO ALLOW UNINTERUPTED LIGHT TRANSMISSION