

CUSTOMER SERVICE BULLETIN

Radio Shack® CUSTOMER SERVICE BULLETIN

400 Atrium—One Tandy Center, Fort Worth, Texas 76102

Bulletin No.	4910-4
Description	TRSDOS CRC Errors
Model	Model II
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Problem

CRC errors during disk I/O operation.

Solution

CRC stands for Cyclical Redundancy Check. It is a means by which to verify that a bit stream is accurately transmitted from one media to another. The process involves using an algebraic formula ($X^{16}+X^{12}+X^5+1$) to verify the validity of the data transfer. During a disk write operation, for each sector that is written, the formula is computed and also written onto the sector. Upon doing a disk read operation, the formula is again computed and compared to the value stored on the sector. If the values do not match, a CRC Error is returned. Since any type of hardware media is subject to many types of hazards (i.e. dust, magnetic fields, manufacturing imperfections, wear, etc.) it is safe to say that probably 90% of all CRC Errors are due to media fault. If one encounters a CRC Error, the best course of action would be to copy all data and program files on the affected diskette to another diskette. This will not fix the problem for the particular sector on which the error occurred, but it will reduce the chance of the error occurring on another sector of the diskette.