SYSTEM CENTURY®
DIGITAL CENTRAL OFFICE

FLOPPY DISK

ADMINISTRATIVE PROCEDURES

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1. INTRODUCTION

1.01 This section provides information related to the handling, storage, and administration of floppy disks used in DCO central office switching systems.

1.02 This section is reissued to revise information in paragraph 7.

2. RELATED INFORMATION

2.01 General.

A Sales and Instructional Literature Index of latest available publications can be obtained from your Stromberg-Carlson sales representative or from Publications Services, Stromberg-Carlson Corporation, 400 Rinehart Road, Lake Mary, Florida 32746.

2.02 Related Sections.

The following sections are recommended for use with this document:

23-002-52	DCO Preventive Maintenance Guide
23-002-97	System Operators Manual

3. PURPOSE AND USE

3.01 The floppy disk (diskette) is a mass-storage device used to provide storage for the maintenance diagnostic programs and to provide backup memory storage for the call processing programs and the call processing data base.

3.02 Each DCO switching system uses two diskettes and two disk drives. The diskettes are identified by a label containing the site name, diskette number, contents, and release number. The drives are identified by the number 0 or 1 located on the front of each drive.

CAUTION. Diskette 0 must be inserted in drive 0 only. Diskette 1 must be inserted in drive 1 only.

3.03 Diskette 0 contains the maintenance diagnostic programs which are used by the system to detect and isolate faults. These programs can be automatically called up by the system or requested manually by maintenance personnel, depending on the level of fault diagnostics required.

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3.04 Diskette 1 contains:

a. The call processing programs which provide the functions necessary for the processing of a call through the system.

b. The call processing data base, which contains all system-peculiar information, such as directory number to equipment number assignments, class-of-service assignments, trunk group assignments, etc.

4. HANDLING AND STORAGE PRECAUTIONS

4.01 Handling.

In order to prevent unnecessary loss of data or interruption of system operation, the following handling precautions *must* be followed:

a. Do not write on the diskette envelope. Write any information on a label before putting it on the permanent envelope.

b. Do not use paper clips or staples on the diskette.

c. Do not use writing instruments that leave flakes, such as lead or grease pencils, on the removable jacket. use felt-tipped pens only.

d. Do not touch any of the exposed diskette surfaces.

e. Do not attempt to clean the diskette; the disk drive head, however, can be cleaned according to instructions provided in the section titled *Preventive Maintenance Guide*, referenced in paragraph 2.02.

f. Keep the diskette away from magnets, magnetic sources, or tools that may have become magnetized. Any diskette exposed to a magnetic field can lose information.

g. Do not expose the diskette to direct sunlight or any heat source.

h. If a diskette has been exposed to temperatures outside of the operating range of 59 °F to 85 °F (15 °C to 30 °C), allow 5 minutes for temperature stabilization before use. The diskette should be removed from the jacket during this time.

i. To protect the diskette from dust and dirt, always return it to the removable jacket supplied.

j. Protect the diskette from liquids, dust, and metallic materials.

k. Do not place heavy objects on the diskette.

l. Do not store the diskette on top of frames or in places where it can be subjected to dirt being blown by fans.

4.02 Short-Term Storage.

When a diskette is to be stored for a short period of time (available for immediate use), the following precautions *must* be observed:

a. Store the diskette in its jacket.

b. Store horizontally. If vertical storage is necessary, the diskette should be supported so that it does not lean or sag.

c. Store in an environment similar to that of the central office.

4.03 Long-Term Storage.

When a diskette does not need to be available for immediate use, it should be stored in its original shipping container within the nonoperating temperature range of −30 °F to +125 °F (-35 °C to +52 °C). Storage in an area maintained at or near the normal operating temperature range is preferred.

5. ADMINISTRATION

5.01 Three sets of floppy disks are provided with the system. One set must be in the disk drive unit at all times, and the others should be kept in a secure location.

5.02 The call processing data base contained on floppy disk 1 must be updated periodically so that the information on the disk is satisfactorily current. A schedule for updating the floppy disks should be established based on the following procedure:

a. Label the floppy disk sets *A*, *B*, and *C*.

b. Initially, set *A* should be mounted in the disk drive units. This set should be updated on a daily basis when any changes to the administrative data base are made. Set *B* should be kept in a secure location in the central office.

c. Set *C* should be maintained in a secure location other than the central office, such as a district office.

d. Once a week, sets *A* and *B* should be exchanged so that both sets are used equally.

e. Once a month, set *C* should be updated and returned to its original location.

5.03 Before removing a diskette from the drive, the command $UTL/DMO DISK0 or $UTL/DMO DISK1 (followed by a carriage return) must be entered on the system teleprinter (TTY) or CRT. This command prevents the system from attempting to use the disk..

5.04 After a diskette has been replaced in the drive, the command $UTL/MOU DISK0 or $UTL/MOU DISK1 (followed by a carriage return) must be entered to allow the system access to the disk, as required.

5.05 Copies of current service orders should be maintained in the central office, convenient to the TTY operator, until the diskette is updated and contains the same current information as the system. The service orders can then be filed in the usual manner per operating company established procedures.

5.06 A record should be maintained of all floppy-disk updates so that, in the event of complete memory loss due to a power interruption, etc., the exact status of the data can be determined and the necessary manual entries made to update the system with the most recent information.

6. UPDATE PROCEDURE

6.01 Complete instructions for updating the floppy disk are described in the section titled, *System Operators Manual*, referenced in paragraph 2.02.

6.02 The operator must enter one of the following commands at the TTY, or CRT terminal, in order to update the floppy disk (refer to schedule referenced in paragraph 5):

NOTE. All commands must be followed by a carriage return.

a. $COPY OFF DB – This command causes the system to copy the data from the off-line call processor when the system is out of sync. When the system is in sync, this command is aborted.

b. $COPY ONL DB – This command causes the system to copy the data from the on-line, or both, call processors, if in sync. This command and $COPY OFF DB can be used when the information is different in both call processors, such as preparation for a cutover, and when a backup of the data on either, or both, call processors is required.

6.03 The following is an example of system response to the commands. This indicates that the system has received the command and is acting on it:

10:04:06 05/16/77 COPY START EXECUTION

6.04 The following indicates that the operation is complete:

10:06:42 COPY END EXECUTION

7. FLOPPY DISK REPLACEMENT

7.01 The floppy disks used in the system have an average rated life of 300,000 sector accesses. A software counter is provided in the maintenance processor to maintain a running count of all sector accesses to the diskettes.

7.02 The software counter is accessed by entering the command STIME U, followed by a carriage return. This counter should initially be read on a daily basis until the average number of daily sector accesses can be determined; use the data in table 1 to determine the replacement cycle for diskettes. The counter is reset to zero by the command STIME R.

NOTE. The contents of this counter are not maintained on the diskette. Whenever the maintenance processor is rebooted, the counter is reset to zero.

7.03 For planning purposes, before the actual system replacement cycle is determined, a two-week replacement cycle should be established. Both diskettes should be replaced at the same time.

7.04 Use the copy diskette procedure in the section titled *System Operators Manual*, referenced in paragraph 2.02, as required to copy the contents of the old diskettes onto new diskettes. After the procedure is done for both diskettes, insert the new diskettes in the appropriate drives and destroy the old, used diskettes.

Table 1. Floppy Disk Replacement Period

AVERAGE NO. OF ACCESSES PER DAY	*REPLACEMENT PERIOD IN DAYS*
1,000	332
2,000	166
3,000	110
4,000	83
5,000	66
6,000	55
7,000	47
8,000	41
9,000	36
10,000	33
20,000	16
30,000	11
40,000	8
50,000	6