MASTER TIMING CIRCUIT SD-94811-01
RESETTING TIME, DAYLIGHT SAVING TIME, AND LEAP YEAR CHANGES
NO. 5 CROSSBAR OFFICES ARRANGED FOR MAGNETIC TAPE RECORDING

1. GENERAL

1.01 This section covers the procedures to be followed in changing the time setting of the master timing circuit SD-94811-01 in offices arranged with magnetic tape recording for automatic message accounting (AMA) when the timers are more than ⧫6 seconds out of synchronization with the precise time source, or out of synchronization with each other, due to a motor timer stop or electronic timer failure.◀ This section also explains how to comply with the legal time change from standard time to daylight saving time (and vice versa), and to arrange the circuit to count 29 days for February in a leap year.

1.02 This section is reissued for the reasons listed below. Revision arrows are used to emphasize the more significant changes. This reissue does not affect the Equipment Test Lists.

(a) To include procedures to be followed in changing the time setting of the master timing circuit where the KS-20268-L2 electronic timer is provided.

(b) To make minor changes as required.

1.03 In this section, procedures outlined for daylight saving time changes should be performed at a time period in accordance with local instructions.

1.04 When any time changes are made, the electronic data processing center must be notified in accordance with local instructions.

2. INITIAL SETTING AND DAYLIGHT SAVING TIME CHANGES

Note: It is important that all of the procedures through 2.49 are completed before the time selected for the timer setting to prevent incorrect information from being recorded on the tapes.

2.01 Determine which timer is on standby by observing the EVEN OL and ODD OL lamps. If the EVEN OL lamp is lighted, the odd timer is on standby; if the ODD OL lamp is lighted, the even timer is on standby.

2.02 Assuming the EVEN OL lamp is lighted, operate the MBO key. The MBO lamp is lighted.

2.03 Operate the MSPO key to stop the synchronous motor of the odd timer. This lights the MSPO lamp. The MSTO lamp flashes in one second intervals.

2.04 Operate the SEC key. This key controls leads to the readout lamps T0 through T5 and U0 through U9. The T0 through T5 lamps are read on a 1 out of 6 basis. The U0 through U9 lamps are read on a 1 out of 10 basis. The SEC lamp is lighted.

Time Choice for Resetting

2.05 Select a convenient time to start the timer. For example, if the time is 1042 (10:42 a.m.), a convenient timer setting to start the timer is 1100 (11:00 a.m.)

Time Choice for Daylight Saving Time

2.06 Select a convenient time prior to 0200 (2:00 a.m.) to which the timer is to be set. For example, if the time is 2245 (10:45 p.m.) a convenient timer setting is 0000 (12:00 a.m.) if the time change is from standard to daylight saving time; or a convenient timer setting is 2200 (10:00 p.m.) if the time change is from daylight saving time to standard time.

Resetting Time and Daylight Saving Time Procedures.

▶If Motor Timers are Provided, Perform Step 2.07. If Electronic-Timers Provided, Proceed to Step 2.08.◀

Caution: Do not turn the motor in a counterclockwise direction, as this will damage motor.

2.07 Using the knurled knob on the side of the motor with the interrupter, rotate the cam of the odd synchronous motor in a clockwise direction until the TM1 contact of the TM0 interrupter ***just closes*** to operate the 1P relay in the odd timer.

2.08 Momentarily operate the ISR key until all of the main and auxiliary counting relays are released.

2.09 Release the SEC key. Operate the MIN key. The SEC lamp is extinguished and the MIN lamp is lighted. The T0 through T5 and U0 through U9 lamps now indicate the minutes registered in the timer.

2.10 Set the RSSO switch to MU.

2.11 Operate and release the PR key until the desired minute units digit is indicated by the U_ lamp lighted.

2.12 Set the RSSO switch to MT.

2.13 Operate and release the PR key until the desired minute tens digit is indicated by the T_ lamp lighted.

2.14 Release the MIN key. Operate the HR key. The MIN lamp is extinguished and the HR lamp is lighted. The T0 through T2 and U0 through U9 lamps now indicate the hours registered in the timer.

2.15 Set the RSSO switch to HU.

2.16 Operate and release the PR key until the desired hour units digit is indicated by the U_ lamp lighted.

2.17 Set the RSSO switch to HT.

2.18 Operate and release the PR key until the desired hour tens digit is indicated by the T_ lamp lighted.

2.19 Release the HR key. Operate the DAY key. The HR lamp is extinguished and the DAY lamp is lighted. The T0 through T3 and U0 through U9 lamps now indicate the days registered in the timer.

2.20 Set the RSSO switch to DU.

2.21 Operate and release the PR key until the desired day unit digit is indicated by the U_ lamp lighted.

2.22 Set the RSSO switch to DT.

2.23 Operate and release the PR key until the desired day tens digit is indicated by the T_ lamp lighted.

2.24 Release the DAY key. Operate the MTH key. The DAY lamp is extinguished and the MTH lamp is lighted. The T0, T1, and UO through U9 lamps now indicate the months registered in the timer.

2.25 Set the RSSO switch to MOU.

2.26 Operate and release the PR key until the desired month units digit is indicated by the U_ lamp lighted.

2.27 Set the RSSO switch to MOT.

2.28 Operate and release the PR key until the desired month tens digit is indicated by the T_ lamp lighted.

2.29 Release the MTH key. The MTH lamp is extinguished.

2.30 Set the RSSO switch to DW.

2.31 Operate and release the PR key until the desired day of the week is indicated by the SUN-SAT lamp lighted.

2.32 Operate the ARO key to release the SMR, SMRA relays.

2.33 ▶Operate the SEC key. The SEC lamp is lighted.◀

2.34 When the precise time source indicates the preselected time setting, operate the MSTO key when the MSTO lamp is lighted, to start the odd synchronous timer. The MSTO lamp still flashes in one second intervals.

2.35 After the synchronous timer has started, release the MSPO key. The MSPO lamp is extinguished. The MSTO lamp lights steady.

2.36 Release the MSTO key. The MSTO lamp is extinguished.

2.37 Release the MBO key. Observe the following:

(a) MBO lamp extinguished.

(b) After 4 to 7 seconds—major alarm sounds. SMHS and/or DMSF lamps lighted. ALM lamp lighted.

(c) TRLE and TRLO lamps lighted.

2.38 Momentarily operate the TRE key. The TRS lamp is lighted. This places the odd timer on the line and the even timer on standby.

2.39 Operate the MBE key. The MBE lamp is lighted.

2.40 Momentarily operate the SEO key. The main and auxiliary counting relays will release and reoperate until in agreement with the odd timer.

2.41 ▶If electronic timers are provided, observe the odd and even second units lamps and determine if the even lamp is lighting before or after the odd lamp. Either depress the ADV (advance) or RTD (retard) button on the even electronic timer to cause the even second units lamp to walk into synchronization with the odd seconds unit lamp.

Note: A ratio exists such that the advance or retard buttons must be depressed a full minute to advance or retard the normal output pulse by one second.◀

2.42 Momentarily operate ARE key. The TRLE lamp is extinguished.

2.43 Momentarily operate the ARC key. The SMHS and/or DMSF lamps extinguished.

2.44 ▶Release the SEC key. The SEC lamp is extinguished.◀

2.45 Operate the MIN key. The T_ and U_ lamps are lighted. When U_ lamps are updated, the TRLO lamp is extinguished.

2.46 Momentarily operate ARC key. ALM lamp is extinguished.

2.47 Operate TRR-AR key. Major alarm is silenced.

2.48 Restore the MBE key. The MBE lamp is extinguished and the even timer is now on standby.

2.49 Restore the MIN key. The T_ and U_ lamps are extinguished.

Note: If the ODD OL lamp was lighted in 2.01, the test is made by using keys and switches associated with the even timer in 2.02 through 2.37 and by using keys, buttons, and switches associated with the odd timer in 2.39 through 2.48.

3. LEAP YEAR CHANGES

3.01 To arrange the master timing circuits to count 29 days for February of leap year, perform the following operations at some time before 2300 (11:00 p.m.) on February 28 of the leap year.

3.02 Determine which timer is on standby by observing the EVEN OL and ODD OL lamps. If the EVEL OL lamp is lighted, the odd timer is on standby. If the ODD OL lamp is lighted, the even timer is on standby. Operate the MB_ key for timer on standby. MB_ lamp lighted.

3.03 On terminal strip B of the entry control unit for the timer on standby, remove the cross-connection between terminal 18 (FEB) and terminal 28 (28) and place a cross-connection from terminal 18 (FEB) to terminal 38 (29). Restore MB_ key for timer on standby. MB_ lamp extinguished.

3.04 Momentarily operate the TRE key. Major alarm sounds, the TRS lamp is lighted. Momentarily operate the ARC key to extinguish the TRS lamp. Operate TRR-AR key. Major alarm is silenced. The other timer is now on standby. Operate the MB_ key for timer on standby. MB_ lamp lighted.

3.05 On terminal strip B of the entry control unit for the timer on standby, remove the cross-connection between terminal 18 (FEB) and terminal 28 (28) and place a cross-connection from 18 (FEB) to terminal 38 (29). Restore MB_ key for timer on standby. MB_ lamp extinguished.

3.06 As soon as practicable after (0000) (12:00 a.m.) of February 29, operate the DAY key. The T2 and U9 lamps are lighted for both timers.

3.07 Release the DAY key.

3.08 Operate the MTH key. The T0 and U2 lamps are lighted for both timers.

3.09 Release the MTH key.

3.10 After 0330 (3:30 a.m.) of March 1 of a leap year, repeat 3.06 through 3.09 and check the readout lamps for the March 1 date. (DAY, T0, U1 lamps lighted.) Operate the MB_ key for timer on standby. MB_ lamp lighted.

3.11 On terminal strip B of the entry control unit for the timer on standby, remove the cross-connection between terminal 18 (FEB) and terminal 38 (29) and place a cross-connection from terminal 18 (FEB) to terminal 28 (28). Restore the MB_ key for timer on standby. MB_ lamp extinguished.

3.12 Momentarily operate the TRE key. Major alarm sounds, the TRS lamp is lighted. Momentarily operate the ARC key to extinguish the TRS lamp. Operate the TRR-AR key. Major alarm silenced. The other timer is now on standby. Operate the MB_ key for timer on standby. MB_ lamp lighted.

3.13 On terminal strip B of the entry control unit for the timer on standby, remove the cross-connection between terminal 18 (FEB) and terminal 38 (29) and place a cross-connection from terminal 18 (FEB) to terminal 28 (28). Resotre MB_ key for timer on standby. MB_ lamp extinguished.