

USE OF DIALS AND KEYSETS

1. **Dialing.** The dialing operation consists of three steps,—preparation, dialing, releasing. Preparation depends upon the dialing method provided on your position; dialing is uniform for all methods, except for the number of digits dialed; the release of the dial from the circuit also depends upon the dialing method.

a. Dial Key Method.

- (1) As one hand is plugging the front cord into the selected trunk after testing the jack, operate the dial key on the cord pair involved and then restore the listening key with the other hand. If you are to listen for dial tone, do so before operating the dial key or, if you are to observe the start dialing signal, do so immediately after operating the dial key and just before you start dialing. If convenient, use the right hand to plug into the trunk, so that it can be returning to the dial while the keys are being set.

Note: When team keys are provided, if the cord pair involved is on an adjacent position, operate the team key of that pair to the dial position instead of operating the dial key.

- (2) In dialing, use the index or middle finger to operate the dial, with the thumb used as a brace for it and other fingers folded so they will not obstruct the view nor interfere with the operation of the dial. Bend the finger so that it hooks slightly downward and hold the hand above the dial but to the right of your line of vision to the dial face. Insert the finger firmly in the hole selected so that the end of your finger is almost perpendicular to the face of the dial and move the dial quickly around to the finger stop. Do not remove your finger until the dial has come to rest with your finger against this stop. While the dial is returning to normal, select the next digit and observe the start dialing signal if provided, but do not touch the dial until it has stopped rotating and the start dialing signal is lighted.

The movement of the dial may be accomplished in either of two ways depending upon your personal preference.

- (a) With the finger and wrist rigid, supply the movement from your shoulder by a slight motion of the elbow forward and back.
- (b) With the two outer joints of the finger rigid, supply the movement by an outward sweep of the wrist and a simultaneous sideward motion of the finger from the large joint at its base, with almost no motion of the arm.

While certain items of work may be overlapped with dialing, you should always be careful not to allow anything that you are doing to interfere with your dialing accuracy. This is particularly important with regard to obtaining the number on another call.

- (3) After the dial has returned to normal after the last pull, restore the dial key with the hand that is most accessible to it. Operate the listening key again at the same time if any other work on the call requires cutting in at once; otherwise operate the listening key on the next cord pair to be used if you are ready to take a new call.

b. Listening Key Method.

- (1) If convenient select the trunk and plug in with the left hand, meanwhile bringing your right hand to the dial. If you are to listen for dial tone or if you are to observe the front supervisory signal, do so before dialing.
- (2) Dial as in "a(2)."

USE OF DIALS AND KEYSETS—Continued

1. Continued

- (3) As soon as you have taken your finger off the dial on the last pull, operate the dial release key with the right hand.
You may cut out of the connection at any time after you have started to dial.

c. Automatic Association Method.

- (1) If convenient select the trunk and plug in with the left hand, meanwhile bringing your right hand to the dial. If you are to listen for dial tone or if you are to observe the front supervisory signal, do so before dialing.
- (2) Dial as in "a(2)."
- (3) As soon as the dial returns to normal after the last pull, cut out.

d. Dial Cord Method.

- (1) Preparation to dial takes place along one of two lines.
 - (a) Convenient to Take the Trunk with Left Hand. As you are testing and plugging into the trunk jack of the trunk selected, pick up the dial cord with the right hand. Plug the dial cord into the associated dial jack, using the right hand but transferring to the left if necessary, and while completing this step, bring the hand not in use back to restore the listening key. If you are to listen for dial tone do so before plugging into the dial jack, or if you are to observe the start dialing signal do so just before you start to dial, then or meanwhile bringing the right hand to the dial.
 - (b) Inconvenient to Take the Trunk with Left Hand. The plugging of the front cord and the dialing cord into their respective jacks must be done with the right hand in that order, while the left is restoring the listening key and doing other work and you are listening for dial tone or observing the start dialing signal where required. As soon as possible bring the right hand to the dial.
- (2) Dial as in "a(2)."
- (3) As soon as the dial returns to normal after the last pull, disconnect the dial cord with the hand that is most convenient.

2. Key pulsing—"A" positions. The key pulsing operation consists of three steps; preparation, setting up the number, releasing.

- a. If convenient, select the trunk and plug in with the left hand, operate the key pulsing key with the right hand as soon as the trunk is connected, and observe the sender signal as the right hand is moving to the keyset.
- b. In setting up the number, use the index finger of the right hand with the thumb bracing it and the other fingers folded so they will not obstruct your view of the keyset, or if you prefer you may use the middle finger instead of the index finger. Bend the finger slightly, hold the wrist well up so that the back of the hand slopes slightly downward toward the switchboard. With the index finger rather stiff and wrist rigid, depress the required digits in proper order, using a motion that comes almost entirely from the elbow. Be careful not to touch any other key than the one you wish to operate. It is generally helpful to pause slightly between the office code and first digit of the line number and again between the second and third digits of the line number. Be sure that you feel the bottom of the stroke on each key, that you permit each key to restore by raising the hand vertically from it, and that you remove your hand entirely from the keyset between digits, especially when depressing the same digit again.
- c. As soon as you have set up the last digit, operate the start key unless you are directed not to use it. You may cut out any time after the key pulsing signal lights.

May 1, 1940.

USE OF DIALS AND KEYSETS—Continued

3. **Key indicator.** Key indicator operation consists of two steps,—securing a trunk and setting up the called number. The two steps overlap in time and the operations may not be in the same sequence on successive calls. The following is the usual sequence.

- a. Depress the proper office key with the left hand, at the same time observing that the sender signal lights and bringing the right hand to the keyset.
- b. As soon as the sender signal goes out, set up the four digits of the line number as in "2b." While awaiting this sender signal, pick up the front cord with the left hand.
- c. When your eyes are free from the keyset, glance at the indicator to read the trunk number displayed, meanwhile starting toward the trunk group with the cord to be connected. Change from the left hand if more convenient as you approach the trunk assigned, meanwhile looking up to the trunk group and sighting the designated trunk. Plug in without testing, meanwhile restoring the listening key with your other hand.

4. **Dial system call distributing "B" positions.** The operation of setting up a number consists merely in depressing the keys quickly and accurately. Use either hand. As you hear the order tone and while you are listening to the order, bring the hand you plan to use up over the keyset in position to start setting up the number. As soon as the sender signal goes out and you are sure of the first two digits, set up the digits as in "2b."

5. **Dial system key listening "B" positions.**

- a. As you are receiving the order, bring the hands into position over the thousands and hundreds columns, index fingers pointed down and both hands held as in "2b." As soon as you understand the first two digits, you may start setting up the number. The four keys are generally depressed in two movements, the left index finger depressing the thousands digit as the right index finger simultaneously depresses the hundreds digit, then both fingers moving to the right and repeating the operation on the tens and units digits.
- b. An alternate method of more continuous motion may be used, as follows.
 - Step 1. Left hand depresses thousands digit while right hand is moving to hundreds digit.
 - Step 2. Right hand depresses hundreds digit while left hand is moving to tens digit.
 - Step 3. Left hand depresses tens digit while right hand is moving to units digit.
 - Step 4. Right hand depresses units digit.

6. **Panel or crossbar tandem positions.** Both hands are used as in "5" but the generally accepted sequence is given below. As soon as you are sure of the office name, set up the number in the following steps.

- Step 1. Left and right hands respectively depress first and second digits of office code simultaneously.
- Step 2. Right hand depresses third digit of office code or office numeral.
- Step 3. Left and right hands respectively depress thousands and hundreds digits simultaneously.
- Step 4. Left and right hands respectively depress tens and units digits simultaneously.
- Step 5. Right hand depresses start key or party line letter key.

If you are to look up the code for the called office name, you may, however, set up the numerical part of the order first, then the code, and then the start key.