"PULSE*120" – SG-1A

ELECTRONIC PRIVATE AUTOMATIC BRANCH EXCHANGE

TELEPHONE CONSOLES

QCN100- AND QCN102-TYPE

DESCRIPTION AND FEATURES

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1. GENERAL

1.01 This section identifies the QCN100- and QCN102-Type telephone consoles, and describes the features available on the consoles.

1.02 The QCN102-Type console (Fig. 2) differs from the QCN100-Type console (Fig. 1) in that it has a busy-lamp field mounted at the rear, a modified upper housing to accommodate the busy lamp field, and a removable lamp cover over the busy lamp field.

1.03 Both consoles are an attendant operating position for the PULSE 120 Electronic Private Automatic Branch Exchange (EPABX).

REASON FOR REISSUE

1.04 This section is reissued to add information on QCN100B and QCN102-Type console.

2. DESCRIPTION

2.01 Both consoles consist of an aluminum frame on which the components (including the busy lamp field in the QCN102-Type) are mounted. The console is encased in a 2-piece high-impact plastic cover with a removable faceplate (with a removable lamp cover over the busy-lamp field in the QCN102-Type).

2.02 The same faceplate layout (Fig. 3), is used for both consoles. It accomodates a 12-key pushbutton dial pad, two rows of 10 nonlocking loop and control keys, which are self-illuminating as required, and two banks of 20 indicator lamps.

2.03 A tone ringer ON-OFF volume control is located on the right side of the console, and a nonlocking 2-way slide switch is mounted in the recess on the underside of the console.

2.04 Either a headset or a handset may be used with the console. These are not included and must be ordered separately. If the handset is used, a cradle is available for installation on the left side of the console. Two sets of headset jacks, one on the right side and one on the left side, are used for operation and supervision.

2.05 On the QCN100-Type console, an 8-foot 120-conductor mounting cord, terminating

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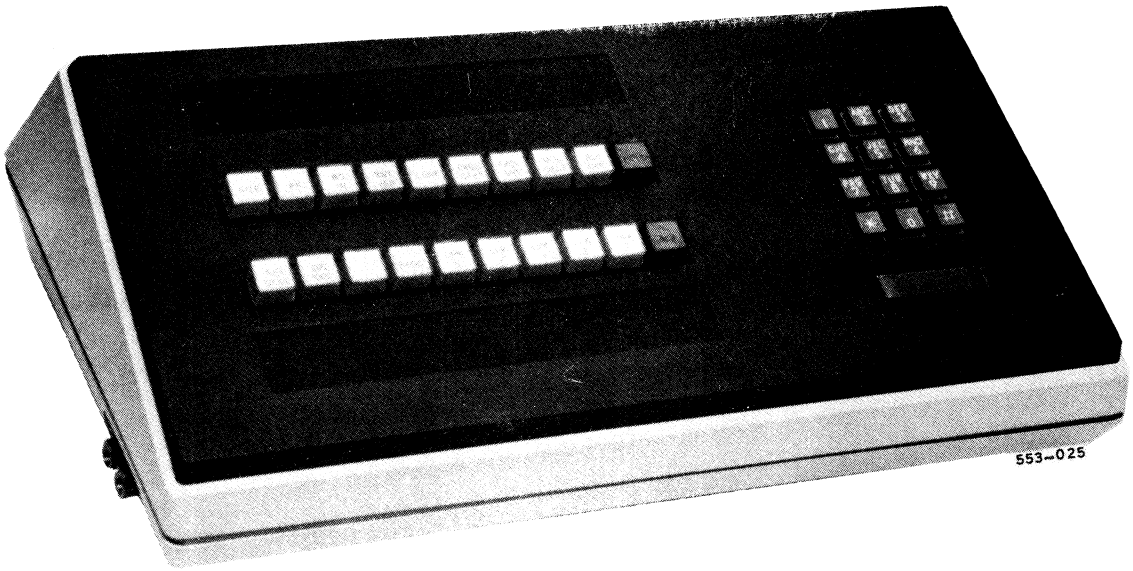


Fig. 1 – QCN100-Type Telephone Console

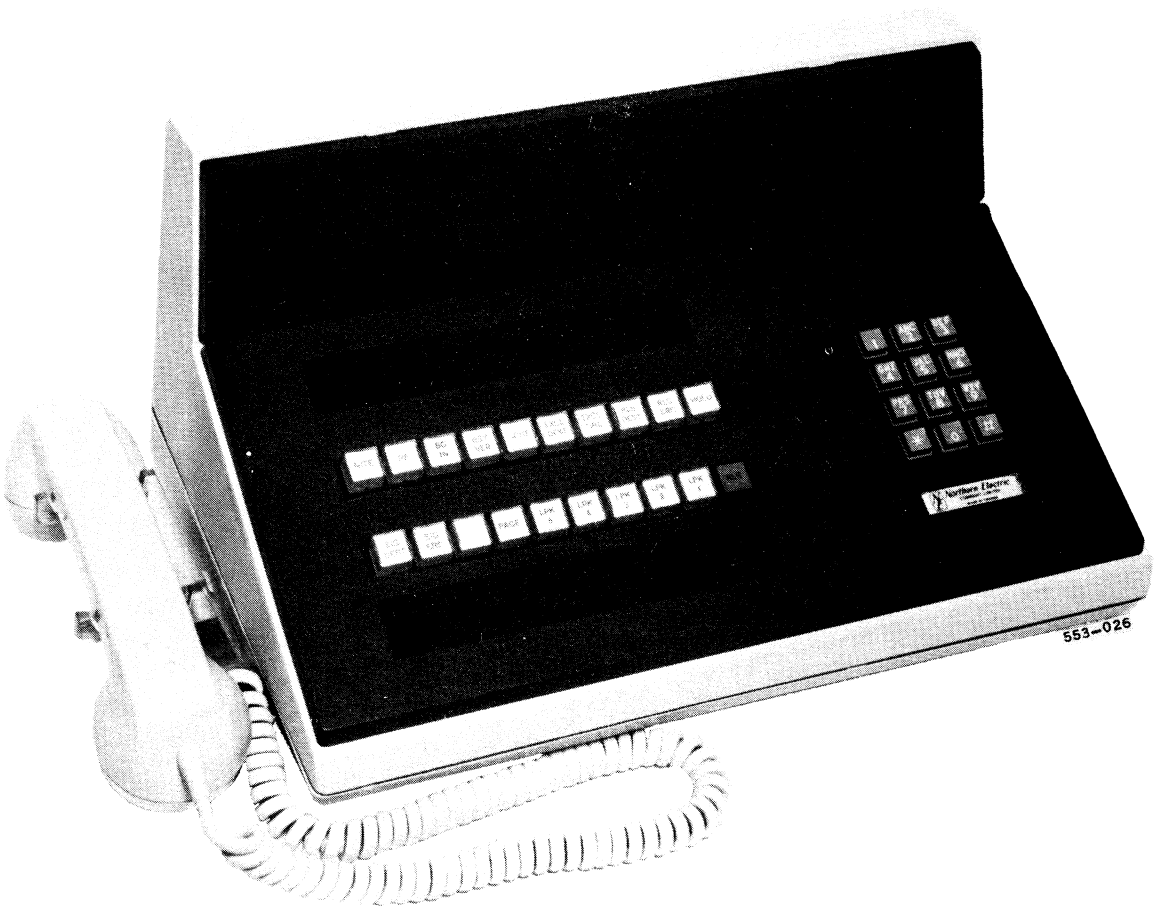
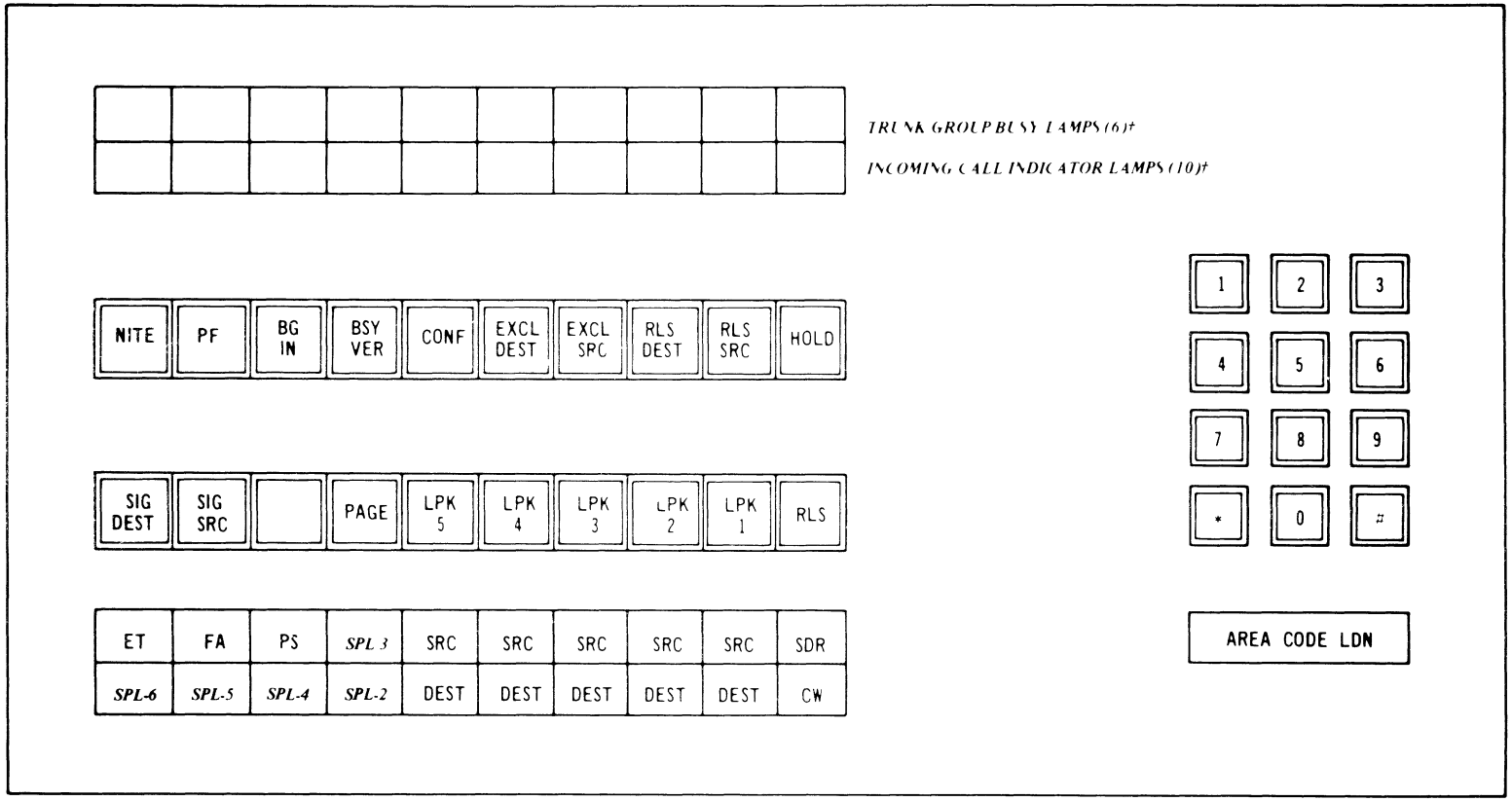


Fig. 2 – QCN102-Type Telephone Console



† ASSIGNED IN ACCORDANCE WITH CUSTOMER REQUIREMENTS

NOTE: SPARE LAMPS (SPL-2 THROUGH -6) ARE WIRED TO CONNECTORS ON THE QCN100B AND QCN102-TYPE CONSOLE ONLY.

Fig. 3 — Layout of Attendant Console

in three 50-pin cable connectors, mates with the cable from the cross-connection terminal. On the QCN102-Type console, the mounting cord is also 8 feet, but contains 270 conductors terminated in six 50-pin cable connectors.

3. FEATURES

3.01 The features of the PULSE 120 attendant consoles, and the functions of the lamps and pushbuttons shown in Fig. 3 are:

(a) ***Loop Pickup Keys (LPK-1 Through 5).*** The five loop pickup keys are nonlocking, self-illuminating pushbuttons. The attendant can pick up a loop by pressing a pushbutton, dial a talking connection, go on "hold", pick up another loop, etc. A talking connection picked up on a loop is indicated by a steady light; a light "winking" indicates a "hold" condition.

(b) ***Source Lamp (SRC).*** A source lamp associated with each loop key indicates, when illuminated, that a station line or trunk is connected to that loop. The lamp will be illuminated by an incoming call, or when the attendant sets up a call between two stations from the console.

(c) ***Destination Lamp (DEST).*** A destination lamp associated with each loop key indicates, when illuminated, that a station line or trunk is connected to that loop. The lamp will be illuminated when the attendant dials a station line number from the console. If the attendant dials a second station line number to establish a call between two stations, the DEST light will go out and the SRC light will come on when dialing begins. When the ringing and subsequent talking connections are made, both the SRC and the DEST lamps will be illuminated.

(d) ***Hold Pushbutton (HOLD).*** This nonlocking, nonilluminating pushbutton is depressed to place a loop connection on hold.

(e) ***Release Pushbutton (RLS).*** This nonlocking self-illuminating pushbutton is depressed to release a picked-up loop.

(f) ***Release Destination Pushbutton (RLS DEST).*** This nonlocking, nonilluminating pushbutton is depressed when, on a picked-up loop with the DEST lamp illuminated, it is desired to release the destination (terminating) station line or trunk from the loop, causing the DEST lamp to go out but retaining the active loop. The attendant may then dial another station on the loop.

(g) ***Release Source Pushbutton (RLS SRC).*** This nonlocking, nonilluminating pushbutton is depressed when, on a picked-up loop with the SRC lamp illuminated, it is desired to release the source (calling) station line or trunk from the loop, thus causing the SRC lamp to go out but retaining the active loop. The attendant may then dial another station as described in (c).

(h) ***Exclude Source Pushbutton (EXCL SRC).*** This nonlocking, self-illuminating pushbutton is depressed to exclude the source station on a picked-up loop from a conversation between the attendant and the destination station.

(i) ***Exclude Destination Pushbutton (EXCL DEST).*** This nonlocking, self-illuminating pushbutton is depressed to exclude the destination station on a picked-up loop from a conversation between the attendant and the source station.

(j) ***Conference Pushbutton (CONF).*** This nonlocking, self-illuminating pushbutton is depressed to permit the attendant to establish a conference call. Up to five station lines or trunks may be dialed by the attendant to take part in a conference call. When the attendant is a party to the conference, the CONF pushbutton is illuminated with a "wink". When a conference call is in progress but the attendant is not a party to it, the pushbutton lamp is steadily illuminated to indicate that the conference trunk is busy. When the attendant is being recalled by a party to the conference, the pushbutton lamp flashes at 120 ipm.

(k) ***Busy Verification Pushbutton (BSY VER).*** This nonlocking, self-illuminating

pushbutton is depressed to permit the attendant dial entry to a busy station line to verify that it is actually busy. A warning tone is given to the busy parties indicating that the attendant is entering the connection.

(l) ***Barge-In Pushbutton (BG IN).*** This nonlocking, self-illuminating pushbutton is depressed to permit the attendant dial entry to a busy trunk or special service line to verify that it is actually busy. A warning tone is given to the busy parties indicating that the attendant is entering the connection.

(m) ***Power Fail Pushbutton (PF).*** This is a nonlocking, nonilluminating pushbutton. When depressed it activates a reset sequence, which will restore normal power supply operation in the event that the condition which caused the power fail transfer no longer exists.

(n) ***Night Service Pushbutton (NITE).*** This is a nonlocking, self-illuminating pushbutton. When depressed, to permit the attendant to set up, by dialing, night service assignments between station lines and trunks, the button is illuminated. It remains illuminated, indicating that the system is in the night service mode, until the button is depressed again to clear the night service connections. The attendant headset or handset must be plugged into the jacks before the NITE pushbutton will operate.

(o) ***Signal Destination Pushbutton (SIG DEST).*** This nonlocking, nonilluminating pushbutton is depressed to ring an on-hook station, or to flash a recallable toll operator connected to the destination side of the loop.

(p) ***Signal Source Pushbutton (SIG SRC).*** This nonlocking, nonilluminating pushbutton is despressed to ring an on-hook station, or to flash a recallable toll operator connected to the source side of the loop.

(q) ***Paging Pushbutton (PAGE).*** This nonlocking, self-illuminating pushbutton is depressed to give the attendant a preemptive connection to a paging trunk. A connection which is preempted by the attendant is reconnected when the pushbutton is released. The lamp is illuminated steadily whenever the trunk is busy.

(r) ***Trunk Group Busy Lamps (6).*** Of the ten lamp covers in this row, the six on the right may be inscribed with the abbreviated designation of an individual trunk, e.g., Wide Area Telephone Service (WATS) trunk, or a group of trunks. A lighted lamp indicates that all circuits associated with that lamp are busy. Three lamps are associated with each trunk shelf. The four lamp locations on the left are unused although they are terminated at the cross-connection terminal.

(s) ***Incoming Call Indicator Lamps (10).*** Each of the lamp covers in this row may be inscribed, as required, with the abbreviated designation of a type of incoming call. The control signals which route calls to the attendant console cause the appropriate lamps to light, identifying the type of call and permitting the attendant to answer with the appropriate response. The seven possible call designations are:

1. Attendant Intercept
2. Fully Restricted Line Dial "0"
3. Unrestricted Line Dial "0"
4. Recall
5. Central Office (CO) Group 1
6. CO or DID Group 2
7. Universal Trunks

(t) ***Emergency Transfer Lamp (ET).*** This lamp lights when ac power is restored to the system after power fail transfer has occurred, and when a major internal power supply failure occurs.

(u) ***Fuse Alarm Lamp (FA).*** This lamp lights to indicate a distribution fuse failure.

(v) ***Permanent Signal Lamp (PS).*** This lamp lights to indicate that an off-hook condition has existed for more than 30 seconds without a valid call procedure being completed.

(w) ***Call Waiting Lamp (CW).*** This lamp lights to indicate that there is a queue of calls waiting to be answered.

(x) ***Sender Lamp (SDR).*** This lamp is lit when the attendant console sender is set for digit sending over CO or tie trunks.

(y) ***Attendant Dial.*** DC key pulse dialing is employed on the console. On outgoing calls from the console, the pushbutton dial controls a dial pulse (or optionally a DIGITONE*) sender in the EPABX. Dial pulse sender release is automatic on completion of outpulsing. The DIGITONE sender is released by depressing the octothorpe (#) key on completion of outpulsing.

3.02 The following features of the console are not shown in Fig. 3.

(a) ***Headset Jacks.*** There are two sets of headset jacks, the set at the left-hand side for operation, and the set on the right for supervision. Plug-ended G-type handsets or operator telephone headsets may be used. Removing the headset(s) or handset(s) from the operator jacks inhibits operation of the console.

(b) ***Master Reset/Power Fail Transfer Switch.*** This nonlocking 2-way slide switch, which is located in a recess on the underside of the console, is pushed towards OPERATION RESET to reset the system logic and memory circuits and clear the system of all call processing information. Since operation of the master reset breaks all call connections in the system, it should be used with extreme caution, and only when other remedies have been exhausted, e.g., if a logic malfunction should cause a lock-up of the system inhibiting system operation. When the switch is pushed towards the EMERGENCY SERVICE position the system is placed in the power fail transfer mode.

(c) ***Tone Ringer Control.*** On the right side of the console is the tone ringer control, which gives the attendant an ON/OFF volume control for the console tone ringer.

(d) ***Busy Lamp Field.*** This provides an illuminated numeric display of all busy station lines.

4. DESIGNATIONS

A. Lamp

4.01 The upper and lower row of lamps are designated by strips located underneath the console faceplate. The strips are accessible by:

(1) grasping the upper corners of the faceplate with the fingertips,

(2) lifting firmly away from the body of the console until the zipper material, which secures the faceplate to the console, separates,

(3) removing the faceplate.

The designation strips are then removed by lifting them off the lamp socket.

4.02 The designation strips are replaced by:

(1) placing the strips on the lamp socket,

(2) placing the faceplate in position,

(3) pressing firmly on the sides of the faceplate to bond the zipper material.

B. Key

4.03 Each key has a designation card located underneath the key cap. The card is accessible by grasping the cap firmly between thumb and forefinger and lifting the cap off with a

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tipping motion. The card is then removed from the key.

4.04 A key designation card is replaced by positioning the card and cap on the key, and pressing down firmly on the cap.

C. Directory Number

4.05 A directory number designation card, covered by a window, is located on the faceplate below the dial key-pad.

The card is accessible by:

(1) inserting the releaser (NE-KS16750-L3) into the hole at one end of the window,

(2) bowing the window upwards until it can be grasped by thumb and forefinger,

(3) lifting window from the console-faceplate assembly.

The designation card is then removed from the faceplate.

4.06 A directory number designation card is replaced by:

(1) placing the card in position on the faceplate

(2) bowing the window upwards with thumb and fingers,

(3) locating both ends of the window in the slots provided on the console-faceplate assembly,

(4) releasing the window and pressing firmly into position.

D. Busy Lamp Field

4.07 The QCN102-Type console is supplied with a 3-digit number-sheet on the busy-lamp field. When the optional 2-digit numbering plan is required, this number-sheet may be changed by:

(1) Removing the console faceplate assembly (4.01).

(2) Grasping the upper edge of the busy-lamp field panel approximately 3 inches from the ends, with the finger tips.

(3) Pressing down and pulling away from the upper housing until the faceplate releases at the top.

(4) Removing the panel and four number-sheet retaining plates.

(5) Substituting the P0525874 3-digit number-sheet with the P0535397 2-digit number-sheet.

(6) Replacing the retaining plates, busy lamp field, and console faceplates.