SUBSEQUENT CDC'S WILL BE PRINTED AS THE FIRST REMAIN SELECTED

Selective Calling Without Using The Zero Code Bar

In normal selective calling procedures, the zero code bar is shifted to the left ("select" condition) in response to the end-of-message (EOM) code. The function bars in the call-directing-code (CDC) mechanisms are coded to respond only in the select condition. After the CDC's of the desired stations have been sent, the end-of-address code (EOA, usually "carriage return") is sent to shift the zero code bar to the right ("non-select" condition). In the nonselect condition an uncalled station will not shift into "print" if its CDC's are inadvertently sent in the message traffic. The EOM restores all stations to nonprint/select condition.

In some cases the zero code bar is not available for this logic. Such cases might be:

1. Use of the zero code bar for automatic carriage return and line feed.

2. Use of the zero code bar in 6- or 8-level machines to interpret the zero level from the selector assembly.

3. Use of the zero code bar to obtain a "third shift" feature for specialized switching logic.

In these cases the logic normally performed by the zero code bar must be performed wholly within the stunt box. The total number of consecutively numbered slots required is given by the relation:

$$N = X + 3$$

where N = Total number of slots required
X = Number of characters in the CDC

The printing may be suppressed either electrically or mechanically. In the electrical mode, the printing is controlled by a solenoid on the left side of the printer. A stunt box contact over the selective calling mechanisms controls a relay which turns the solenoid on or off.

In the mechanical mode, the type box clutch is controlled by the suppressor code bar through a chain of parts. When the suppressor code bar is to the left (marking), printing is disabled. When the suppressor code bar is to the right (spacing), the machine prints normally. The suppressor code bar is normally spring-biased to the marking (nonprint) position. When the station is called, a fork shift mechanism on the stunt box moves the suppressor code bar from marking to spacing and the machine begins to print.

When the mechanical option is used, the group of N consecutively numbered slots must be positioned so that the highest numbered slot is one of the following:

Slot 9, 12, 15, 18, 21, 24, 27, 30, 33 or 36

When the electrical option is used, the group of N consecutively numbered slots may be positioned anywhere in the stunt box with the condition that the highest numbered slot be Slot 8 or higher.

Parts required for a two character CDC are as follows:

Slot A (lowest numbered)	153440	Uncoded Function Bar (to be field coded for EOA character)
	152653	Function Pawl
	153670	Function Lever
	152660	Spring Plate
	162299	Latch Release Stud
	119649	Retaining Ring
	4703	Function Bar Spring
	90517	Function Lever Spring
	157240	Function Pawl Spring
	72522	Wick
Slot B	153440	Uncoded Function Bar (to be field coded for EOM character)
	152653	Function Pawl
	152121	Function Lever
	152089	Long Latch
	4703	Function Bar Spring
	90517	Function Lever Spring
	157240	Function Pawl Spring
	72522	Wick
Slot C	153440	Uncoded Function Bar (to be field coded for CDC No. 1)
	153915	Sequential Function Mechanism Set of Parts
Slot D	153440	Uncoded Function Bar (to be field coded for CDC No. 2)
	152653	Function Pawl
	152121	Function Lever
	152089	Long Latch
	4703	Function Bar Spring
	90517	Function Lever Spring
	157240	Function Pawl Spring
	72522	Wick
	162013	Shift Mechanism (mechanical option)
		OR
	172527	Switch Assembly (electrical option) Position the 157887 Switch Lever in the assembly so that it is located over Slot D

Slot E (highest numbered)	153440	Uncoded Function Bar (to be field coded for EOM character)
	152653	Function Pawl
	153670	Function Lever
	152660	Spring Plate
	162299	Latch Release Stud
	119649	Retaining Ring
	4703	Function Bar Spring
	90517	Function Lever Spring
	157240	Function Pawl Spring
	72522	Wick

Theory of Operation:

Character Received	Result
EOM	Slot B operates and latches on long latch. If Slot D has been previously selected and latched, Slot E operates and unlatches Slot D, thus returning the printer to NONPRINT. If Slot D is unlatched, Slot E will not operate because it is blocked by 152121 Lever in Slot D.
RUBOUT	This is a time buffer which is required at 100 words-per-minute to allow a previously selected machine to fully return to NONPRINT.
CDC No. 1	Slot C operates and latches on a short latch. This conditions Slot D to operate.
CDC No. 2	Slot D operates and latches on a long latch. The function lever pulls the suppressor shift slide (mechanical option) or operates a contact (electrical option). The printer is now in the PRINT condition. Slot C unlatches and returns to the unoperated condition.
EOA	Slot A operates and the 162299 Stud unlatches Slot B which returns to the unoperated condition. If the station has not been called, the 152121 Lever in Slot B will now block the Slot C Function Bar and prevent its operation if the CDC's of the station are inadvertently sent in the text.
TEXT	All called stations copy the traffic. Uncalled stations are locked out.
EOM	Same as above.

If a single character CDC is used, delete Slot C. If the CDC consists of three or more characters, increase the Slot C configuration of parts as required.

A simplified case exists when single character broadcast CDC is used. If the restriction that the broadcast selective calling format be EOM-CDC (broadcast) -TEXT-EOM finds no objection in the system, then only the parts for Slots C, D and E are required. Slots C and E are coded for EOM, and Slot D is coded for the broadcast CDC. If the above broadcast selective calling format cannot be adhered to due to system requirements and operation procedures, then the broadcast mechanism will be the same as that required for regular selective calling.

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