COMMON SYSTEMS ANNOUNCEMENT TRUNK CIRCUIT FROM PANEL, CROSSBAR NO. 1 OR 5 OR CROSSBAR TANDEM OFFICE FOR USE WITH OPERATOR CLASS CODE ANNOUNCEMENT SYSTEM NO. 9A

SECTION I - GENERAL DESCRIPTION

1. PURPOSE OF CIRCUIT

1.1 This circuit gives the subscriber access to a Variable Cycle Announcement Machine arranged to broadcast announcements such as weather.

SECTION II - DETAILED DESCRIPTION

1. SEIZURE

When this trunk is seized the outgoing announcement trunk in the No. 5 Crossbar Office or the sender in the Panel or Crossbar No. 1 office applies a momentary bridge across the tip and ring to make a trunk guard test. Relay A operates and releases during this interval. Thermistor A makes relay B slow to operate and therefore relay B will not operate until after the trunk guard test is completed.

Relay B operated:

(a) Applies ringing tone to the originating end.

(b) Closes lead CT from the Distributing Circuit to the winding of relay CT.

(c) Prepares in part a path for the future shunt down of relay CT.

(d) Operates relay BA, if provided, to the ground on the ALM lead.

(e) Closes in part a ground to lock relay W.

(f) Removes ground from lead PB to the register circuit.

(g) Closes ground to the ST lead of the Distributing Circuit.

When the trunk is to cut in immediately on the portion of the announcement being transmitted over the tip and ring from the Distributing Circuit Option Z is furnished. When Option Y is furnished this circuit will cut through only at the beginning of an announcement cycle. Relay BA will operate from a ground on lead ALM. Under trouble conditions ground will be removed from lead ALM.

Relay BA operated:

(a) Removes the audible ringing tone.

(b) Closes the tip and ring to the Distributing Circuit.

(c) Reverses battery and ground to the originating end as a charge condition.

(d) Disconnects its winding from lead ALM.

(e) Removes ground from the TT lead to Totalizer.

2. COUNTING CIRCUIT

For counting two announcements the W-Z relays are used. At the beginning of the announcement cycle a ground pulse is received on lead CT. This operates relay CT and keeps relay TO shunted down until the pulse is removed.

Relay CT operated:

(a) Opens its own operating path from lead CT.

(b) Operates relay TO.

(c) Closes in part a path to shunt itself down.

(d) Closes in part a path to lock relay W.

Relay TO operated:

(a) Closes a shunt down path for relay CT.

(b) Closes a shunt down path for relay CT to the CT lead.

(c) Opens the operate path of relay BA and locks this relay to relay CT operated.

(d) Opens an additional path for the ringing tone.

At the beginning of each announcement a short pulse is applied to lead CT. These pulses are used to walk the W-Z relays, if 2 announcements are to be given. At the end of the proper count the CT relay is released in the following manner:

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1 Announcement:

The CT pulse through the operated contacts of relays CT, TO and B.

2 Announcements:

Relays CT, TO and Z operated, relay W released.

When the CT relay releases, the BA relay will release.

Relay BA released:

(a) Reverses battery and ground to the originating end to begin a time out if the subscriber does not disconnect.

(b) Opens the tip and ring to the Distributing Circuit to terminate the announcement.

3. DISCONNECT

When the originating end disconnects relay A releases, releasing relay B. Relay B released places ground on lead PC or GR to the register for the release time of relay TO.

Relay B released:

(a) Releases relay TO.

(b) Releases the W-Z relays if operated.

The circuit is now normal.

SECTION III - REFERENCE DATA

1. WORKING LIMITS

	Relay A
Max. Ext. Ckt. Loop	5,000Ω
Min. Ins. Res.	30,000Ω

2. FUNCTIONS

2.01 Provides battery and ground and a delay between seizure and cut-through for making trunk guard test by the connecting circuit.

2.02 Supplies start ground to the announcement system to indicate that a call is waiting.

2.03 Gives ringing tone between seizure and cut-through of the trunk.

2.04 Removes ringing tone upon cut-through to the announcement machine.

2.05 Places a charge condition on the trunk upon cut-through.

2.06 Provides from one or two announcements on an optional basis.

2.07 Provides for cut-through immediately after seizure of the trunk or cut-through at the beginning of the announcement.

2.08 Provides for automatic cut-off of the announcement after a predetermined number of announcements.

2.09 Provides a barrier in the talking path to reduce corsstalk or other disturbances between the telephone connected to the system.

2.10 Restores to normal when the calling subscriber disconnects.

2.11 Provides for traffic registers.

3. CONNECTING CIRCUITS

When this circuit is listed on a keysheet the connecting information thereon is to be followed.

3.1 Office Selector (3 wire) - Panel - ES-240252 (typical).

3.2 District Selector - Panel - SD-21630-01 (typical).

3.3 Traffic Register Circuit - SD-25317-01 (typical).

3.4 Office Link and Connector Ckt. - (Crossbar and Crossbar Tandem) - SD-25033-01.

3.5 Announcement System No. 9A Distributing Circuit - SD95854-01, SD-95855-01, SD-95856-01, SD-95857-01.

3.6 No. 5 Crossbar Outgoing Announcement Trunk Ckt. SD-25690-01 and SD-25689-01

3.7 Totalizer Ckt. SD-95965-01

SECTION IV - REASONS FOR REISSUE

CHANGES

D. DESCRIPTION OF CIRCUIT CHANGES

D.1 To provide for connection to the Totalizer Circuit on trunks arranged for immediate cut-through. "S" option is added.

D.2 CAD1 is modified and CAD5 is added to accommodate connection to the totalizer.