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PRELIMINARY

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Technical Reference

PRIVATE LINE INTERCONNECTION

OPERATIONAL FEATURES OF BELL SYSTEM SWITCH TERMINATIONS

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PRELIMINARY

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1. GENERAL

1.01 A composite communications configuration derived from a customer or OCC provided communications channel and Bell supplied private line services may terminate in Bell switch terminations located at either the customer's premises or a Bell central office (Fig. 1). Certain features of these terminations must be known in order that the options provided at both the near and far end switch are compatible and therefore ensure proper circuit operation. It is the responsibility of the customer to inform the local Bell Company as to the proper choice of these features. To aid the customer in this selection, compatibility checklists will be issued to the customer, by the Bell Company, upon receipt of an order request for the provision of a private line service to be used for the connection of a Bell provided switch termination to a channel of a communications system.

1.02 The compatibility checklists supply to a customer information concerning certain characteristics of the Bell provided switch termination. This information lists the status of various features such as outpulsing control and address signaling. The customer, after having obtained checklists from the near and distant ends of the composite communications configuration will compare the capabilities of each termination, make the appropriate choice of features, and return the checklist to the appropriate Bell Company. The Bell Company can then option the switch termination as directed by the customer through the entries on the compatibility checklist.

1.03 The customer may choose to have the Bell Company ensure the compatibility of the remote terminations through the compatibility consultation service. If this option is selected the Bell Company, upon receipt from the customer of the checklist associated with the remote termination, will assume responsibility for the choice of the proper features at the terminations.

1.04 This technical reference describes the technical content of the various Compatibility Checklists used in the provision of a private line service which is connected to a channel of a communications system, and provides information to aid the customer in the preparation of the checklist.

1.05 Five checklists are presently provided, each associated with a specific type of termination. Table I lists the types of terminations which require the use of a checklist.

2. DEFINITIONS

2.01 Outgoing Dial Repeating Tie Trunk - The tie trunk repeats the dial address signals to the interface on an outgoing call.

2.02 Outgoing Automatic Tie Trunk - The tie trunk automatically signals toward the interface upon seizure.

2.03 Incoming Dial Repeating Tie Trunk - The tie trunk repeats the dial address signals at the interface to the local dial equipment on an incoming call.

2.04 Incoming Automatic Tie Trunk - The tie trunk automatically signals the local attendant upon seizure from the interface.

2.05 Two-Way Dial Repeating Tie Trunk - Dial address signals are repeated by the tie trunk to the associated dial equipment on incoming calls and to the interface on outgoing calls.

2.06 Automatic Out, Dial Repeating In Tie Trunk - Outgoing calls automatically signal the distant end and are completed through assistance of the far end attendant. The dial address signals from the interface on incoming calls will be repeated by the tie trunk to the local dial equipment.

2.07 Two-Way Automatic Tie Trunk - The tie trunk functions to automati cally signal toward the interface upon seizure from the local dial equipment. Incoming seizure from the interface will automatically signal the local attendant. The attendant will function to complete the call.

2.08 Non Cut - Through (Senderized) Tie Trunk Operation - The local dial equipment receives and stores all dial address signals of the user and will automatically process the call to completion.

2.09 Cut-Through (Non-Senderized) Tie Trunk Operation - The local dial equipment will cut through an outgoing call upon receipt of a proper user request (access code). The call is completed by dial address signals passed directly from the user to the distant end dial equipment or by operator assistance at the distant end. Station user will hear subsequent dial tones.

2.10 Incoming Dial Pulse Dial Address - Dial Pulse signals are expected at the interface from the channel.

2.11 Incoming TOUCHTONE Dial Address - TOUCHTONE dial address signals are expected on the voice path at the interface from the channel.

2.12 Outgoing Dial Pulse Dial Address - Dial pulse signals are expected at the interface from the local dial equipment.

2.13 Outgoing TOUCHTONE Dial Address - TOUCHTONE address signals are expected at the interface from the local dial equipment.

2.14 Outpulsing Control (Start Dial) Signaling - An outpulsing control signal is the supervision transmitted from a given termination indicating that the termination is ready to accept address signaling. The type outpulsing control that a termination can generate as an outgoing signal and recognize as an incoming signal must therefore be specified. This can take the form of wink or delay dial-start dial, both of which can be used in the senderized operation of common control switchers, dial tone, often used in cut-thru operation, or no signal at all, as in the case of automatic tie trunks or certain dial repeating tie trunks involving step by step switchers.

2.15 Wink - In wink start outpulsing control, no signal is transmitted from the called to calling end until the register is attached and the switch is ready to receive address signaling. At this time, a timed off-hook on-hook pulse of about 200 ms. (the wink) is transmitted. A wink start signal is shown in Fig. 2.

2.16 Delay Dial - Upon incoming seizure, the local dial equipment will return off-hook supervision and maintain that condition until a register is attached and it is ready to receive dial address information. At this time an on-hook, or start dial signal is transmitted. Fig. 2 also shows a delay dial-start dial signal.

2.17 Dial Tone - A dial tone signal is transmitted to the interface by the local equipment when it is ready to receive dial address signals.

2.18 Stop - Go - The "stop - go" signal is used to stop and restart incoming dial address signals. When the far end dial equipment requests a "stop," off-hook supervision will be transmitted to the interface. Upon receipt of the "stop" signal, the local dial equipment will cease transmission of dial address information and wait for a "go" signal. The "go" signal will be the return of on-hook supervision. The local dial equipment will accept only one stop - go signal per call.

2.19 Second Dial Tone Local Access Code - The local dial equipment will provide a second dial tone to the user after he dials the tie trunk access code. This is an indication to the user that dialing of the desired address may be continued.

2.20 Open Interval Protection - This feature protects against possible momentary open switching interval conditions and cutoff due to removal of holding battery during changes in call stage by the No. 1 ESS switching machine. Some station equipment will cutoff when on hold if battery is momentarily removed by the switching machine.

2.21 Open End, Closed End - The open end of a service is the end which provides dial tone or from which the ringing signal is provided. The closed end of a service is the end from which address signals are transmitted or which receives ringing signals.

3. DESCRIPTION

3.01 Upon receipt of an order request for a private line service that requires generation of a checklist, the Bell Company will select the appropriate form and indicate thereon the status of the various features of the termination. The status of such features is indicated by certain entries which reflect the capability of the associated termination to provide those features. It should be noted that although the listing of features on the checklists implies capability, there are possible configurations of the various terminations which cannot support certain features without significant change. The status of features indicated by an entry of capable, not capable, existing, or preferred, enables the customer to coordinate the features of the near and remote end terminations of its composite communication configuration. The checklist provides no information concerning the amount of time required by the Bell Company to provide the listed feature. Generation of the checklist does not involve interval determination, does not require the knowledge or verification of the availability of spare equipment, and should not result in any reservation of equipment.*

3.02 The status of features is indicated by one of the following entries:

(a) Capable (C) - Capable indicates that the termination, in its present configuration, is capable of providing the feature.

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*Interval determination and reservations of equipment occur after receipt of customer completed checklist.

(b) Not Capable (NC) - Not capable is used to inform the customer that the termination, in its present configuration, is not capable of supporting the listed feature.

In order to provide this feature a significant equipment and/or wiring change would be required.

(c) Existing (E) - When a customer chooses to replace a service previously provided to him by Bell or by an OCC with a composite configuration, the termination may be reused intact. Existing is used when a feature exists on a Bell or other OCC provided service and the termination is being reused intact by the customer. In the case of a reuse of the termination, the checklist is forwarded to the customer for information only. Since no choice by the customer is involved, the checklist need not be returned, but is used to determine the proper options of the remote termination.

(d) Preferred (P) - Preferred is used to indicate that a Bell Company preference for a particular feature exists. This preference may be generated by operational, administrative, or economic reasons.

3.03 Since the Bell Company has no information concerning the type termination provided for the customer at the remote end of its service, or which features the customer requires, the status of all listed features must be indicated with one of the above entries.

3.04 After receiving the properly completed checklist from the Bell Company, the customer indicates the choice of features thereon and returns the checklist to the issuing Bell Company. The customer may select a feature whose status is listed as "Not Capable" (NC). This choice will involve further contacts between the Bell marketing representative and the customer and will normally result in significantly longer intervals.

4. CHECKLIST PREPARATION

101 ESS - TIE TRUNK Information (Fig. 3)

4.01 The use of this checklist is required when a customer's request for a private line service involves a tie trunk terminated in a 101 ESS.

4.02 The type outgoing outpulsing control signal transmitted by the 101 is dependent upon the remote end termination. If the 101 ESS terminates a senderized tie trunk, a delay dial signal is generated. If cut through operation is employed a dial tone is used to indicate the attachment of a register. No signal is necessary if the tie trunk is designed for automatic operation.

4.03 The incoming signal associated with an outgoing call could be a delay dial transmitted from a common control PBX, CENTREX, or CCSA switch. If the 101 ESS is employed in a tandem connection, it may be set up to use extended interdigital interval (EII). With this method the 101 ESS sender outpulses digits using a longer than normal interdigital interval to allow for the register attachment delay inherent in an incoming call at a distant PBX. The length of the interdigital interval and the point in the outpulsing train at which the EII occurs is variable. The 101 ESS may operate without any incoming outpulsing control signal. In this instance the 101 ESS times for a 2 second interval after seizure and then outpulses.

4.04 The 101 ESS can accept either dial pulse or TOUCHTONE addressing on an incoming call, but since it only operates senderized, can outpulse only dial pulses.

PBX or CENTREX CU - Tie Trunk (Fig. 4)

4.05 This checklist will be sent to a customer when the order for private line service requests a tie trunk terminated in a PBX or CENTREX-CU.

4.06 When the remote termination is a common control switch using senderized operation, the outgoing outpulsing control signal generated by the PBX or CENTREX-CU on an incoming call is delay dial. When addressing from the distant termination is under the control of the user (cut-through), the outpulsing control signal transmitted is dial tone. No signal is required on an automatic tie trunk, or when the distant termination is a 101 ESS that cannot utilize a delay dial.

4.07 On an outgoing call all PBXs expect a dial tone as the incoming control signal unless the tie trunk uses automatic operation or the distant end is a step-by-step switcher that is ready to receive addressing immediately after seizure and therefore returns no outpulsing control. Delay dial is only required if the PBX is a senderized system such as a non cut-through No. 1 ESS or No. 5 CSBR or a 101 ESS.

4.08 Incoming address signaling may consist of either dial pulse or TOUCHTONE signals. TOUCHTONE signaling can be used provided the PBX is equipped with TOUCHTONE receivers and the transmitted TOUCHTONE signals are within the operating range of the TOUCHTONE receivers. Outgoing addressing is dial pulse if senderized operation is used or dial pulse or TOUCHTONE if address signal is under the control of the user.

CENTREX-CO, No. 1 ESS - Tie Trunks (Figs. 5,6)

4.09 The use of this checklist is required when the customer's order for private line service requests a tie trunk terminated in a CENTREX-CO and the serving vehicle is a No. 1 ESS. The ESS may operate senderized, where outgoing address signals are under the control of a sender, or cut-through in which addressing is totally under user control.

A. Senderized Operation

4.10 The outgoing outpulsing control signal transmitted by a senderized ESS on an incoming call is delay dial or wink when the distant end is common control with senderized address signaling. Dial tone is generated if the far end is operating cut-through, and no outpulsing control is returned if the incoming call terminates at the CENTREX in the attendant's position.

4.11 The ESS can recognize either a wink or delay dial from the distant common control switch as an indication on an outgoing call that a register at the distant end is attached and that the ESS sender can outpulse its address signals. No incoming outpulsing control is provided if the call terminates in either a step-by-step switcher or in an attendant position at the distant end.

4.12 Incoming address signals are dial pulse if transmitted from a previous sender, or dial pulse or TOUCHTONE if outpulsed directly from a station. No address signals are transmitted on an automatic trunk that terminates directly to the attendant.

4.13 Outgoing address signals from the senderized ESS are dial pulse. No signals are transmitted if the tie trunk uses automatic operation and terminates in the attendant at the distant end.

4.14 The stop/go and delay dial signals are physically the same but differ slightly in function. The stop/go signal is used in tandem connections to suspend pulsing from a senderized termination after it has begun. This is necessary when the calling and called terminations are separated by a tandem PBX and the attachment of the incoming register at the called termination occurs after address signaling has started. The No. 1 ESS can accept and utilize one and only one stop/go signal.

B. Cut-Through (Non-senderized) Operation

4.15 A cut-through No. 1 ESS can transmit a wink or delay dial to a senderized termination to indicate it is ready to accept dial pulses. When the far end termination also uses cut-through operation, a dial tone will most probably be returned to the distant end. No outgoing outpulsing control signal is returned on an incoming call on a tie trunk arranged for automatic operation.

4.16 The incoming outpulsing control signal received by the cut-through ESS CENTREX-CO on an outgoing call may be wink or delay dial. Upon recognition of this signal the ESS machine generates a local dial tone to indicate to the user that addressing can continue. In most instances however, under cut-through operation, the incoming outpulsing control signal is the actual dial tone transmitted directly from the distant termination.

4.17 Incoming address signaling may be in the form of dial pulses or TOUCHTONE signals. However, since ESS cut-through operation uses a sender to outpulse digits one at a time as they are received, outgoing address signaling is only dial pulse.

CENTREX-CO, No. 5 CSBR - Tie Trunk (Figs. 7,8)

4.18 The use of this checklist is required when the customer's request for private line service involves a tie trunk terminated in a CENTREX-CO and the serving vehicle is a No. 5 CSBR.

A. Senderized Operation

4.19 The No. 5 CSBR machine can generate either a wink or a delay dial, as an outgoing outpulsing control signal, if required by the distant end. If the far end address signaling is under the control of the user (cut-through), dial tone is returned when the No. 5 CSBR is ready to receive addressing. No outpulsing control is transmitted if the tie trunk is arranged for automatic operation.

4.20 On an outgoing call, the No. 5 CSBR CENTREX will recognize either a wink or delay dial as the indication that the sender can outpulse. No incoming outpulsing control is expected when an automatic trunk is involved.

4.21 Incoming dial address signals are dial pulses transmitted from a distant sender or dial pulses or TOUCHTONE signals generated directly from a distant station. No address signaling is necessary on an automatic tie trunk.

4.22 The sender of the No. 5 CSBR machine transmits dial pulses on a dial repeating tie trunk. No address signaling is transmitted if the trunk is arranged for automatic operation.

4.23 As in the case of No. 1 ESS the senderized No. 5 CSBR machine will suspend pulsing upon recognition of stop/go signal. This is necessary if a call originated by the No. 5 CSBR is routed through a tandem cut-through switcher. The No. 5 CSBR can also utilize only one stop/go signal.

B. Cut-Through (Non-Senderized) Operation

4.24 The No. 5 CSBR arranged for cut-through operation can return a delay dial to a distant senderized machine, as an outgoing outpulsing control signal on an incoming call. If the distant end is also cut-through, a dial tone will be transmitted as the outpulsing control. No signal is required on an automatic trunk.

4.25 Dial tone is the only incoming signal that the No. 5 CSBR will recognize as an indication to outpulse addressing on an outgoing call.

4.26 Dial pulses or TOUCHTONE signals are acceptable as incoming address signals to the cut-through No. 5 CSBR. Since the No. 5 CSBR operates true cut-through, addressing is totally under the control of the user and may therefore be either dial pulse or TOUCHTONE.

CCSA Switch Termination - No. 5 CSBR or No. 1 ESS (Figs. 9,10)
Access Lines

4.27 This checklist will be sent to the customer upon request for a private line service that terminates in a CCSA switch and is used as an access line.

4.28 On an outgoing call transmitted over an access line the incoming outpulsing control signal utilized by the CCSA switch can be either wink or delay dial. If the distant termination of an access line is a step-by-step, no signal is expected since address signaling in SXS can be received immediately after seizure.

4.29 Incoming address signaling may be either dial pulses transmitted by a distant sender, or dial pulse or TOUCHTONE signals generated directly from a distant station. The outgoing addressing produced by the senderized CCSA switch is dial pulse.

4.30 The capability of the CCSA switch to outpulse a selected number of digits on a given facility must be specified. This will enable the customer to ensure proper completion of a call at the remote termination. Up to 5 digits may be required to call a station over an access line.

TABLE I

CHECKLISTS

I. CUSTOMER PREMISES TERMINATIONS

A. TIE TRUNKS

1. PBX OR CENTREX-CU *

2. 101 ESS *

II. CENTREX-CO TERMINATIONS

A. TIE TRUNKS

1. NO. 1 ESS *

a. SENDERIZED OPERATION

b. CUT-THROUGH OPERATION

2. NO. 5 CSBR *

a. SENDERIZED OPERATION

b. CUT-THROUGH OPERATION

III. CCSA SWITCH TERMINATIONS

A. ACCESS LINES

1. NO. 5 CSBR OR NO. 1 ESS *

* Indicates Checklist Title

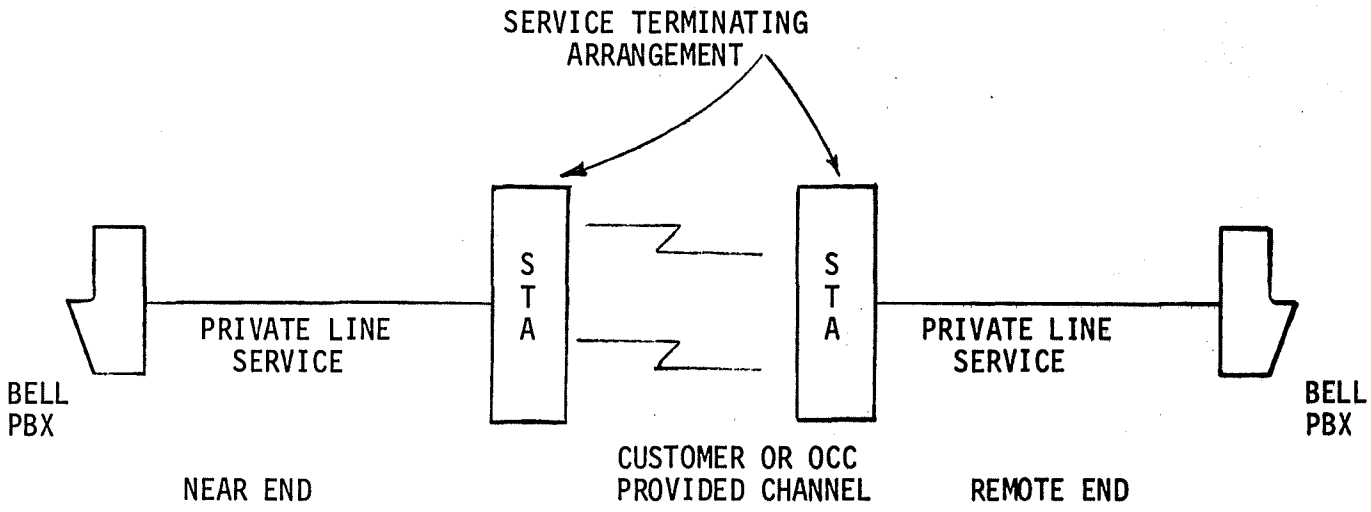

FIG. 1 - TYPICAL CONFIGURATION OF PRIVATE LINE SERVICE USED FOR CONNECTION TO A CHANNEL OF A COMPOSITE COMMUNICATIONS CONFIGURATION

COMPATIBILITY CHECKLISTS REQUIRED AT BOTH NEAR AND REMOTE ENDS.

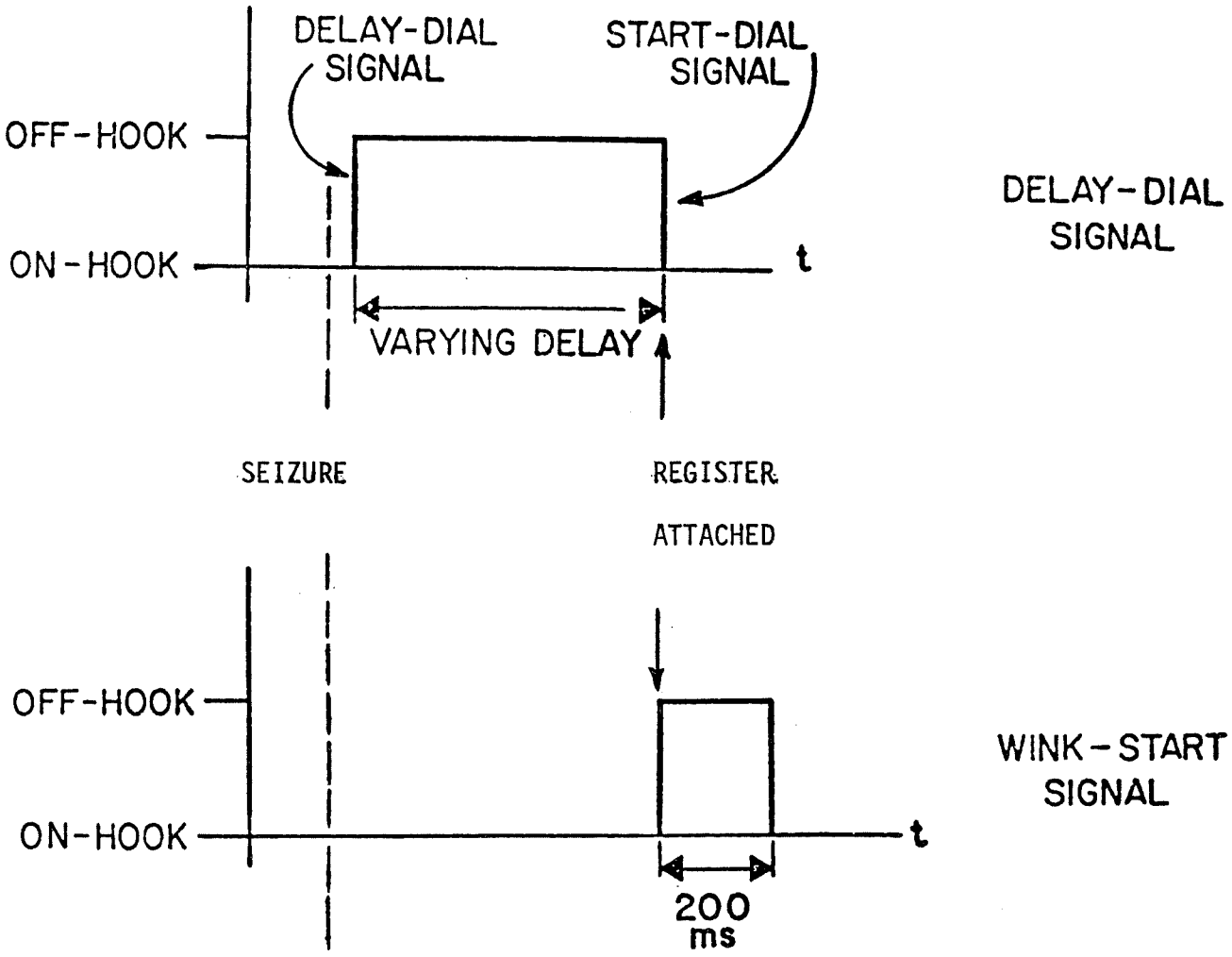
DELAY-DIAL SIGNAL
START-DIAL SIGNAL
OFF-HOOK
ON-HOOK
t
VARYING DELAY
DELAY-DIAL SIGNAL
SEIZURE
REGISTER ATTACHED
OFF-HOOK
ON-HOOK
t
200 ms
WINK-START SIGNAL

FIG 2

COMPATIBILITY CHECKLIST
SERVING VEHICLE-101 ESS
TERMINATION-TIE TRUNK

To:_____ Tel. _____ From_____ TelCo.

_____ Tel. _____

Ord._____

Ckt ID_____ Term. Ord. #_____ Ckt. ID _____

Patron_____

Termination Type_____ Reuse Existing Termination ☐

	Telco Selection*	Customer Selection (Yes or No)
A. Type Start Dial Signal		
1. Incoming Call, Outgoing Signal		
a. Delay Dial		
b. Dial Tone		
c. None		
2. Outgoing Call, Incoming Signal		
a. Delay Dial		
b. Extended Interdigital Interval		
c. None		
B. Dial Address		
1. Incoming		
a. Dial Pulse		
b. TOUCH-TONE® Calling		
2. Outgoing		
a. Dial Pulse		

C. Comment: Telco to provide second dial tone after local access code. Has 16 digit capacity including access code.

D. Other Information

* Telco Legend
(C) Capable
(E) Existing
(NC) Not Capable
(P) Preferred

Fig. 3 - Compatibility Checklist, Serving Vehicle -- 101 ESS, Termination -- Tie Trunk

COMPATIBILITY CHECKLIST
SERVING VEHICLE - PBX OR CENTREX CU
TERMINATION - TIE TRUNK

To:_____ Tel. _____ From_____ TelCo.

_____ Tel. _____

Ord._____

Ckt ID_____ Term. Ord. #_____ Ckt. ID _____

Patron_____

Termination Type_____ Reuse Existing Termination ☐

	Telco Selection*	Customer Selection (Yes or No)
A. Type Start Dial Signal		
1. Incoming Call, Outgoing Signal		
a. Delay Dial		
b. Dial Tone		
c. None		
2. Outgoing Call, Incoming Signal		
a. Delay Dial		
b. Dial Tone		
c. None		
B. Dial Address		
1. Incoming		
a. Dial Pulse		
b. TOUCH-TONE® Calling		
2. Outgoing		
a. Dial Pulse		
b. TOUCH-TONE® Calling		
C. Other Information		

* Telco Legend
(C) Capable
(E) Existing
(NC) Not Capable
(P) Preferred

Fig. 4 - Compatibility Checklist, Serving Vehicle -- PBX or CENTREX CU, Termination -- Tie Trunk

COMPATIBILITY CHECKLIST
SERVING VEHICLE - CENTREX CO - NO. 5 CSBR
TERMINATION - TIE TRUNK

Page 1 of 2

To:_____ Tel. _____ From_____ TelCo.

Ord._____ _____ Tel. _____

Ckt ID_____ Term. Ord. #_____ Ckt. ID _____

Patron_____

Termination Type_____ Reuse Existing Termination ☐

	Telco Selection*	Customer Selection (Yes or No)
A. Non Cut-Through (Senderized)		
Tie Line Operation		
1. Type Start Dial Signal		
a. Incoming Call, Outgoing Signal		
(1) Wink		
(2) Delay Dial		
(3) Dial Tone		
(4) Not Required (Automatic)		
b. Outgoing Call, Incoming Signal		
(1) Wink		
(2) Delay Dial		
(3) None		
2. Dial Address		
a. Incoming		
(1) Dial Pulse		
(2) TOUCH-TONE®		
(3) None		
b. Outgoing		
(1) Dial Pulse		
(2) None		
3. One Stop – Go		
4. Maximum Allowed Outpulse Digits		
a. (9)		
b. (10)		
c. (11)		
d. (12)		
e. (13)		

Fig. 5 - Compatibility Checklist, Serving Vehicle -- CENTREX CO -- No. 5 CSBR, Termination -- Tie Trunk

COMPATIBILITY CHECKLIST
SERVING VEHICLE - CENTREX CO - NO. 5 CSBR
TERMINATION - TIE TRUNK

	Telco Selection *	Customer Selection (Yes or No)
B. Cut-Through (nonsenderized)		
Tie-Line Operation		
1. Type Start Dial Signal		
a. Incoming Call, Outgoing Signal		
(1) Delay Dial		
(2) Dial Tone		
(3) Not Required (Automatic)		
b. Outgoing Call, Incoming Signal		
(1) Dial Tone		
2. Dial Address		
a. Incoming		
(1) Dial Pulse		
(2) TOUCH-TONE®		
b. Outgoing		
(1) Dial Pulse		
(2) TOUCH-TONE®		
3. Maximum Allowed Outpulse Digits		
a. (13)		
b. (22)		
c. Unlimited		

Comments on nonsenderized operation: Can outpulse up to 13 or 22 digits of TT or DP converter is used. Will accept unlimited digits if DP is used In outgoing calls receives second dial tone after local access code.

* Telco Legend
(C) Capable
(E) Existing
(NC) Not Capable
(P) Preferred

Fig. 6 - Compatibility Checklist, Serving Vehicle -- CENTREX CO -- NO. 5 CSBR, Termination -- Tie Trunk

COMPATIBILITY CHECKLIST
SERVING VEHICLE - CENTREX CO - NO. 1 ESS
TERMINATION - TIE TRUNK

To:_____ Tel. _____ From_____ TelCo.

Ord._____ _____ Tel. _____

Ckt ID_____ Term. Ord. #_____ Ckt. ID _____

Patron_____

Termination Type_____ Reuse Existing Termination ☐

	Telco Selection*	Customer Selection (Yes or No)
A. Non Cut-Through (Senderized)		
Tie Line Operation		
1. Type Start Dial Signal		
a. Incoming Call, Outgoing Signal		
(1) Wink		
(2) Delay Dial		
(3) Dial Tone		
(4) Not Required (Automatic)		
b. Outgoing Call, Incoming Signal		
(1) Wink		
(2) Delay Dial		
(3) None		
2. Dial Address		
a. Incoming		
(1) Dial Pulse		
(2) TOUCH-TONE®		
(3) None		
b. Outgoing		
(1) Dial Pulse		
(2) None		
3. One Stop – Go		
4. Maximum Allowed Outpulse Digits		
a. (12)		
b. (13)		
c. (14)		

Fig. 7 - Compatibility Checklist, Serving Vehicle -- CENTREX CO -- No. 1 ESS, Termination -- Tie Trunk

COMPATIBILITY CHECKLIST
SERVING VEHICLE - CENTREX CO - NO. 1 ESS
TERMINATION - TIE TRUNK

	Telco Selection*	Customer Selection (Yes or No)
B. Cut-Through (nonsenderized)		
Tie Line Operation		
1. Type Start Dial Signal		
a. Incoming Call, Outgoing Signal		
(1) Wink		
(2) Delay Dial		
(3) Dial Tone		
(4) Not Required (Automatic)		
b. Outgoing Call, Incoming Signal		
(1) Wink		
(2) Delay Dial		
(3) Dial Tone		
2. Dial Address		
a. Incoming		
(1) Dial Pulse		
(2) TOUCH-TONE®		
b. Outgoing		
(1) Dial Pulse		

Comments on nonsenderized operation: On outgoing calls, receive second dial tone after local access codes. Can outpulse unlimited digits, and will accept unlimited number of dial tones.

C. Other Information

* Telco Legend
(C) Capable
(E) Existing
(NC) Not Capable
(P) Preferred

Fig. 8 - Compatibility Checklist, Serving Vehicle -- CENTREX CO -- No. 1 ESS, Termination -- Tie Trunk

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COMPATIBILITY CHECKLIST
SERVING VEHICLE - CCSA SWITCH - NO. 5 CSBR OR NO. 1 ESS
TERMINATION - CCSA ACCESS LINE

To:_____ Tel. _____ From_____ TelCo.

_____ Tel. _____

Ord._____

Ckt ID_____ Term. Ord. #_____ Ckt. ID _____

Patron_____

Termination Type_____ Reuse Existing Termination ☐

	Telco Selection*	Customer Selection (Yes or No)
A. Type Start Dial Signal		
1. Incoming Call, Outgoing Signal		
a. Wink		
b. Delay Dial		
c. Dial Tone		
d. Not Required (Automatic)		
2. Outgoing Call, Incoming Signal		
a. Wink		
b. Delay Dial		
c. None		
3. Dial Address		
a. Incoming		
(1) Dial Pulse		
(2) TOUCH-TONE®		
b. Outgoing		
(1) Dial Pulse		

Fig. 9 - Compatibility Checklist, Serving Vehicle -- CCSA Switch -- No. 5 CSBR or No. 1 ESS, Termination -- CCSA Access Line

COMPATIBILITY CHECKLIST
SERVING VEHICLE - CCSA SWITCH - NO. 5 CSBR OR NO. 1 ESS
TERMINATION - CCSA ACCESS LINE

B. Access Line

Distant End Digit Requirements

1. Access Line

   a. 2 digits

   b. 3 digits

   c. 4 digits

   d. 5 digits

Telco Selection*	Customer Selection (Yes or No)

D. Other Information

* Telco Legend
(C) Capable
(E) Existing
(NC) Not Capable
(P) Preferred

Fig. 10 - Compatibility Checklist, Serving Vehicle -- CCSA Switch -- No. 5 CSBR or No. 1 ESS, Termination -- CCSA Access Line