

Addendum

Title: Excalibur® T-1 CSU Addendum
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Supplement to: Excalibur T-1 CSU Installation and Operation Manual
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Introduction

This addendum describes the Trunk Conditioning feature provided by the T-1 CSU when operating with an Excalibur ASET-1. Trunk conditioning is defined as the action of placing the signaling bits associated with a DS0 in a predictable state when an Out of Frame (OOF), Loss of Signal (LOS), or Yellow alarm is detected in the T-1 trunk. The particular actions for trunk conditioning are specified in Bell System Technical Reference PUB43801, "Digital Channel Bank Requirements and Objectives," November, 1982. This feature can be defined from the Excalibur Card Carrier control panel or from a CMS 400 system console for single or contiguous DS0 channels.

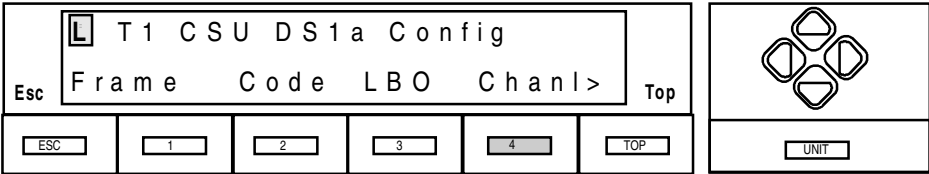
Control Panel Configuration

The Trunk Conditioning parameter defines the DS0 signaling bit state after the local or remote unit detects a T-1 failure. Three options are available:

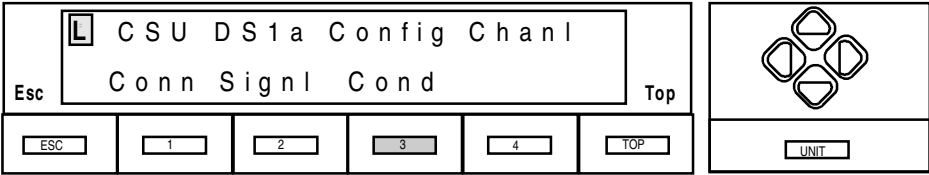
- **None** - the signaling bits are not placed in any particular state.
- **On-Hook** - the signaling bits are placed in an on-hook state.
- **Off-Hook** - the signaling bits are placed in an on-hook state for 2 seconds followed by a continuous off-hook state.

To define the signaling bit state from the control panel, follow these steps, starting from the DS1a Configuration submenu:

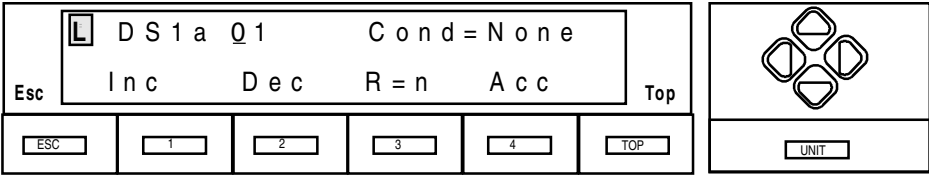
1. Press the button beneath Chan1.



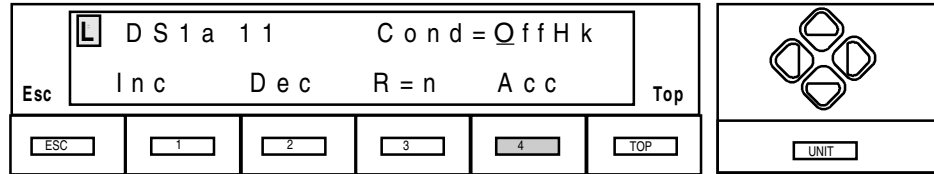
2. Press the button beneath Cond. To define the signaling bit state for a single channel, follow Steps 3 and 4. To define the signaling bit state for a range of channels, skip to Step 5.



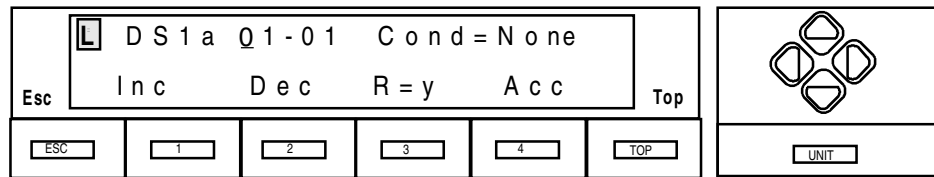
3. The screen displays the channel signaling bit state parameters with the cursor located under the leftmost digit. (To set single channels, you must have R=n displayed on the bottom line. If R=y is displayed, press the 3 button to change the setting and display the single channel signaling bit state parameters.) The first field indicates the channel number. The available options are 01 through 24. To increase the first digit, press the 1 button; to decrease it, press the 2 button. Press the < and > buttons to move from space to space.



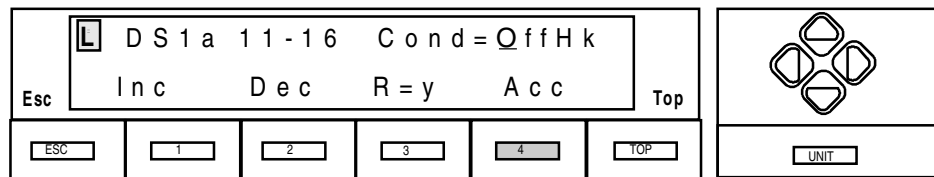
4. When the desired options are displayed, press the button beneath Acc.



5. The screen displays the channel signaling bit state parameters with the cursor located under the leftmost digit. (To set a range of channels, you must have R=y displayed on the bottom line. If R=n is displayed, press the **3** button to change the setting and display the signaling bit state parameters for a range of channels.) The first field indicates the initial channel number in the range. The second field indicates the final channel number in the range. The available options for both first and second fields are 01 through 24. To increase the first digit, press the **1** button; to decrease it, press the **2** button. Press the < and > buttons to move from space to space.



6. When the desired options are displayed, press the button beneath Acc.



Application Notes

If trunk conditioning is performed as the result of a locally detected failure (Red alarm), the conditioning is executed when the Red alarm is declared. This coincides with transmission of the Yellow alarm. Whether the signal remains in the on-hook state or returns to the off-hook state for the duration of the alarm is user-selectable from the CMS 400 system console or from the control panel as described in the previous section. Trunk conditioning is released after the Red alarm is cleared. See Figure 1.

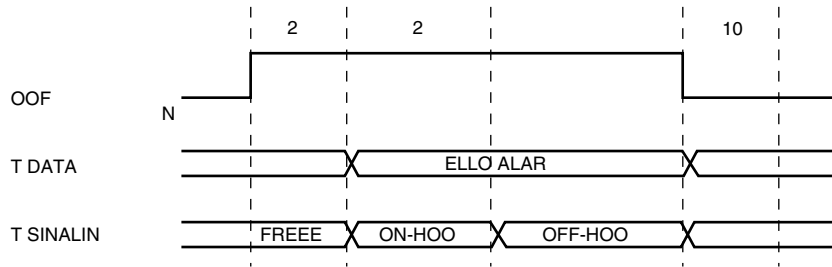


Figure 1. Locally Detected Failure in Seconds

If trunk conditioning is performed as the result of a remotely detected failure (receiving a Yellow alarm), the conditioning is executed within 500 milliseconds after the alarm condition occurs. Whether the signal remains in the on-hook state or returns to the off-hook state for the duration of the alarm is user-selectable from the CMS 400 system console or from the control panel as described in the previous section. Trunk conditioning is released 20 to 1000 milliseconds after the removal of the Yellow alarm. See Figure 2.

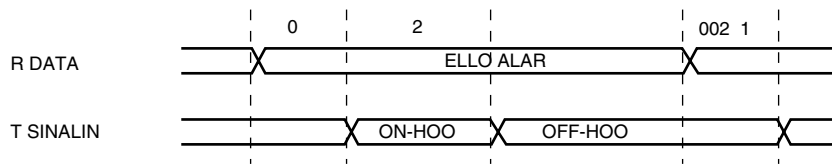


Figure 2. Remotely Detected Failure in Seconds