ALS70D Signaling

This chapter describes the ALS70D outgoing and incoming call states and procedures under normal signaling conditions. Table 2-1 shows which features the ALS70D software supports.

Table 2-1 E1-ALS70D Features

Feature	Supported		
DDI with tone detection	Yes		
Dial-pulsing	No		
Non-DDI calls	No		

Incoming Call States

Table 2-2 provides PCM signaling information for incoming call states for the E1 card as it applies specifically to the Netherlands public switched telephone network.

Table 2-2 PCM Signaling Codes—Incoming

Incoming Call State	Sent Code (a _b b _b)	Received Code (a _f b _f)			
		00	01	10	11
Idle	10	Seizure Acknowledge	Fault	No Change	Blocked Out
Seizure Acknowledged	11	No Change	Fault	Clear Forward	Fault
Send Number	01	No Change	Fault	Clear Forward	Fault
Number Sent	11	No Change	Fault	Clear Forward	Fault
Answered	01	No Change	Fault	Clear Forward	Fault
Clear Forward	01 or 11	Fault	Fault	No Change	Fault
Clear Back	11	No Change	Fault	Clear Forward	Fault
Clear to Idle	10	Seizure Acknowledged	Fault	No Change	Blocked Out

Table 2-2 PCM Signaling Codes—Incoming (continued)

Incoming Call State	Sent Code (a _b b _b)	Received Code (a _f b _f)			
		00	01	10	11
Blocked In	11	Abnormal Seizure	Fault	No Change	Blocking Collision
Blocked to Idle	10	Seizure Acknowledge	Fault	No Change	Blocked Out

Outgoing Call States

Table 2-2 provides signaling information for outgoing call states for the E1 card as it applies specifically to the Netherlands public switched telephone network.

Table 2-3 PCM Signaling Codes—Outgoing

	Forward Signals		Backward Signals		
Outgoing Call State	Send Code (a _f b _f)	Send Signal	Received Code (a _b b _b)	Received Signal	Next State
Idle	10	Idle	10	Idle	NC
Seized	00	Seizure	10 11	Idle Seizure Acknowledged	NC Seizure Acknowledged
Seizure Acknowledge	00	Seizure	11	Seizure Acknowledged	Dial Tone: Send Number
Send Number	Not Supported	Seizure	11 01	Seizure Acknowledged Number Sent	NC ¹ Number Sent
Number Sent	00	Seizure	00 pulse 01 11	Metering Number Sent Clear Back	Answered ² Clear Back
Answered	00	Seizure	01 00 pulse 11	Number Sent Metering Clear Back	NC NC Clear Back
Clear Forward	10	Clear Forward	01 10	Number Sent Idle	NC Clear to Idle
Clear Back	00	Seizure	10 11	Clear Forward Clear Back	Clear Forward NC
Clear to Idle	10	Clear to Idle	10	Idle	Idle

^{1.} Transition to Send Number state is controlled by dial tone detection.

^{2.} Call completion is controlled by progress tone detection.

ALS70D Typical Conversation

Typical ALS70D conversations on the VCO are illustrated in the following two sections. Commands to the E1 card are generated either from rule processing or host commands. The terms "incoming" and "outgoing" are relative to the VCO. For example, incoming conversation means incoming to the VCO.

Incoming Conversation

Figure 2-1 shows a typical incoming conversation.

Outgoing side Incoming side (to network) (to VCO) SEIZE (00) SEIZEBACK (11) ➤ SEIZE report SEND NUMBER (01) WINK command Send digits NUMBER SENT (01) WINK command Progress tone ANSWERED (01) SEIZE command Conversation IDLE (10) Forward ➤ RELEASE report IDLE (10) Or ABANDON command CLEAR (11) IDLE (10) ➤ RELEASE report IDLE (10)

Figure 2-1 Typical Incoming Conversation—PTT Telecom ALS70D Protocol

Outgoing Conversation

Figure 2-2 show a typical outgoing conversation.

Figure 2-2 Typical Outgoing Conversation—PTT Telecom ALS70D Protocol

