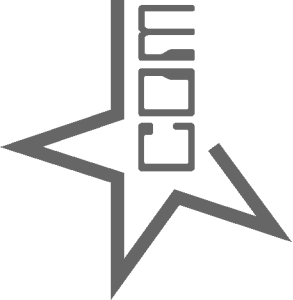


Starcom Incorporated



**CD10**

**PBX REMOTE OUTBOUND  
DIALER**

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### ***Description***

The CD10 is associated with a PBX (Private Branch Exchange) to provide trunk to trunk call forwarding. If the PBX is equipped with inward toll free 800 numbers, employees at remote locations can place all calls through the PBX with all billing to the home office. It provides voice response and password protection. The CD10 connects to a PBX analog station line. Since the PBX is used as the transfer medium, the CD10 is ready to receive another call as soon as the transfer completes. If the PBX is equipped with digital facilities, there is no transmission loss as compared to call diverters that bridge 2 lines.

All password and call processing is accomplished using touch tones. Trunk access codes that are always dialed can be globally set to automatically precede the dial sequence.

Local and toll call access have separate passwords. A caller that has been given the local password can only make local calls from the PBX location. A caller that has been given the toll password can make local or toll calls from the PBX location. Passwords and numbers must be entered within 30 seconds. A "\*" in the dial string causes a 1 second delay.

### ***Limitations***

The CD10 does not work on Partner systems. The station line for the CD10 must be able to draw 2nd dial tone, and support 3-way calling.

### ***Operation***

A caller dials the CD10. The CD10 responds with "please enter password". The caller enters the password, ending with a "#". The CD10 responds with "please enter number to call". The caller enters the desired telephone number, ending with a "#". The CD10 responds with "please wait" and flashes its switch-hook for second dial tone. The number entered is then dialed. A few seconds after the CD10 completes dialing it disconnects. The caller hears ringing from the number that has just been dialed. The CD10 is idle, waiting for another call.

**Setup**

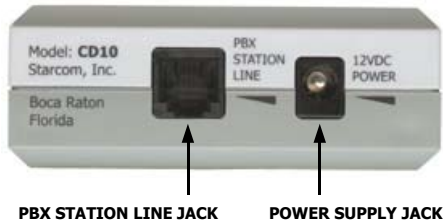
Setting up the CD10 requires:

- 1- Connecting the CD10 to the PBX.
- 2- Programming the CD10's passwords, messages, and dialing characteristics.

**Connecting to the PBX**

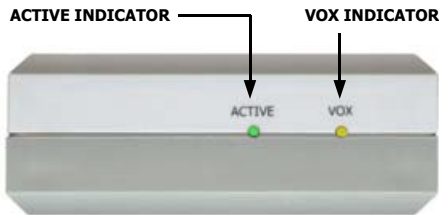
Connect the power supply to the 12VDC POWER jack on the CD10. Plug the power supply into a 110v wall outlet. The green ACTIVE LED on the CD10 blinks continuously.

REAR VIEW OF THE CD10.



The station line jack accepts a standard RJ-11 type cable. Connect one end of the cable to the CD10 and the other end to an analog station port on the PBX.

FRONT VIEW OF THE CD10.



**Programming**

All programming for the CD10 is done by accessing the maintenance mode and entering touch tones from a voice terminal.

**Maintenance**

To enter the maintenance mode, place a call to the CD10. When prompted, enter the maintenance password. After entering the maintenance password, a voice prompt will say "maintenance routine". Enter the feature code number followed by the digits required for the feature, and end the entry with a "#". Refer to the following table for the feature codes:

<b>CODE</b>	<b>DESCRIPTION</b>	<b>EXAMPLE</b>
1	Change the local and toll calls password	1 24680 # - sets the local and toll password to 24680.
2	Change the local calls password	2 13579 # - sets the local only password to 13579.
3	Change maintenance password	3 12345 # - sets the maintenance password to 12345.
8	Play any voice message	8 3 # - plays message number 3.
9	Record any voice message	9 2 # - records your voice for message number 2.
0	Enter the 8 dialing variables	0 3 **9 0 1 3 3 # - sets the dialing variables A,B,C,D,E,F,G,H.

**Passwords**

To change a password, first enter the maintenance mode. Next, enter the code of the password to change, followed by the new password, then end the entry with a "#".

The format is: {[code] [new password] [#]}.

Passwords can be up to 20 digits. All digits must be entered within 30 seconds. They should be periodically changed for security reasons. If the maintenance password is forgotten it must be reset to the default password by the CD10 manufacturer, Starcom Inc. The passwords are voice prompted after the CD10 answers a call. Three passwords are stored in memory to provide toll, local and maintenance access. These are factory set to the following:

- 1- Toll and local calls - 24680
- 2- Local calls only - 13579
- 3- Maintenance access - 12345

If an entry sequence does not match any stored password, the CD10 allows a second try. If the entry exceeds 20 digits, the CD10 disconnects the call.

- ☞ *Passwords can have a maximum if 20 digits, including any "\*" entries.*
- ☞ *Every entry sequence must end with a "#".*
- ☞ *All passwords can be changed after entering the maintenance routine.*

## **Messages**

Six voice messages are used to prompt number and password entries. You may record any message you like. The factory default messages are:

- 1- "please enter your password"
- 2- "dial the number you are calling "
- 3- "please re-enter"
- 4- "please wait"
- 5- "you have accessed the maintenance routine"
- 6- "accepted"

Voice messages can be from 1 to 6 seconds long. After entering the proper codes for voice recording the CD10 waits for speech to start. As soon as it detects audio, it starts recording. 500ms after it no longer detects audio or if 6 seconds has elapsed, it stops recording.

To change a voice message, place a station to station call from a quiet location to the CD10. Enter the maintenance password. Dial "9" followed by the message number ending with a "#". The recorder is waiting for you to speak. Speak the words followed by silence.

The format is: {[9] [message number] [#] "message"}.

Play back the recorded messages. Wait a couple of seconds then dial "8" followed by the message number ending with a "#".

The format is: {[8] [message number] [#]}.

The voice message is played back. The message should sound soft and clear. Re-record as necessary.

Disconnect the CD10 by entering a single "#".

**Dialing Variables**

Dialing variables are the global system settings. They set the dialing speed, disconnect timing and trunk access codes. They also define the number of digits for a local call.

There are 8 dialing variables. They are defined as A, BCD, E, F, G, H. The format is: { [0] [ABCDEFGH] [#] }.

<b>DIALING VARIABLES</b>			
<b>CODE</b>	<b>FUNCTION</b>	<b>VALUE</b>	<b>EXAMPLES</b>
<b>A</b>	Multiplier for dialing speed-40ms plus 10ms per digit. Therefore the span is from 50ms to 140ms.	1 to 9, or 0 for 10 [(A*10)+40]=dialing speed	A=3 for 70ms dialing: (3*10)+40=70ms
<b>BCD</b>	Global access digits. These are 1 or 2 digit codes to gain access to an outside line. A "*" after the code causes a 1 second wait after the code is dialed. A "*" before the code omits the wait.	0-99. For single digit codes, place a "*" before the digit.	BCD="****" for no code and no wait. BCD="**9": always dial nine first, no wait. BCD="*9": always dial 9 first, then wait 1 second. BCD="*88" always dial 88 first, no wait.
<b>E</b>	Number of digits for a local call, no leading "1" allowed.	1 to 9, or 0 for 10	E=7: up to 7 digits. E=0: up to 10 digits.
<b>F</b>	Dialing terminator.	0=no terminator 1= terminate with "#"	F=0: leave out "#" at end of dialing. F=1: ends dialing string with "#".
<b>G</b>	Dialer disconnect time for local calls, in seconds.	1 to 9, or 0 for 10 Setting is 1 to 10 seconds.	G=3 for dialer to disconnect after 3 seconds.
<b>H</b>	Dialer disconnect time for toll calls, in seconds.	1 to 9, or 0 for 10 Setting is 1 to 10 seconds.	H=3 for dialer to disconnect after 3 seconds.

## **Factory default settings**

This is a complete list of the factory settings and the input formats. You must enter the maintenance mode to change any of the following settings. You may change any or all of the settings without exiting the maintenance mode. Once you have completed your changes, press the “#” key to end your maintenance session and disconnect.

We suggest you do not attempt to change the maintenance access password until you are familiar with the operation of the CD10. If you miss-dial or forget this entry, you will no longer be able to change any of the features or messages.

### **PASSWORDS**

```
Toll and local calls ..... [1] [1-20 digit password] #
Local calls only ..... [2] [1-20 digit password] #
Maintenance access ..... [3] [1-20 digit password] #
1 ..... 24680
2 ..... 13579
3 ..... 12345
```

### **VOICE MESSAGES**

```
Record ..... [9] [message number 1-6] #
Playback ..... [8] [message number 1-6] #
1 ..... "please enter your password"
2 ..... "dial the number you are calling"
3 ..... "please re-enter"
4 ..... "please wait"
5 ..... "you have accessed the maintenance routine"
6 ..... "accepted"
```

```
DIALING CODES ..... [0] [A,B,C,D,E,F,G,H] #
A,B,C,D,E,F,G,H ..... 3**90133
```

Sets the CD10 for: 70ms dialing, dials 9 first with no wait, 10 digit local call, ends dialing string with #, 3 second local disconnect time, 3 second toll disconnect time.

***Specifications***

Size ..... 1" x 4" x 6"  
Weight ..... 20oz  
Input power ..... 12vdc at 50ma  
Touch tone receive level ..... 0db to -32db  
Touch tone send level ..... -6db  
Touch tone digit length ..... 50 to 140ms  
Max touch tone digits ..... 20  
Voice message length ..... 1 to 6 seconds  
Voice recording response time ..... 10ms max  
Voice output level ..... -25vu



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