Addendum

The following sections are added to the HF Data Modem 9002 User Guide, Codan part number 15-04041 Issue 2, March 1996. They provide details on the following:

- using a 9002 with an NGT

- the features and commands of the new HF Modem Software (v3.20 or later) that has been fitted in the 9002

Connecting the 9002 to the NGT

Use cable (Codan part number 08-05712-001/2) to connect the 9002 to the NGT.

Configuring the NGT to operate with the 9002

The 15-way serial port of the NGT and the networks used by the NGT *must* be configured to operate with the 9002.

Configuring the 15-way serial port of the NGT using the handset

1. Log in as an administrator and set locks off (see *Chapter 9*, *Managing lists* in the *NGT AR, SR and VR Transceiver Reference Manual*, Codan part number 15-04099-EN).

2. From the Main Menu scroll to Control and select it by pressing the ✓ key.

    The Control List is opened.

3. Scroll to the RS232 15way Mode entry and *hold* the ✓ key to edit the setting.

    There are a large number of entries in the Control List. You can use the Find option to find this specific entry (see Chapter 4, Getting started in the NGT AR, SR or VR Transceiver User Guides, Codan part numbers 15-04118-EN, 15-04096-EN or 15-04117-EN respectively).

4. To set the 15way Mode, scroll to 9001/9002 Modem then press the ✓ key.

    You are returned to the entry level.

5. Scroll to the RS232 15way Speed entry and *hold* the ✓ key to edit the setting.

6. To set the 15way baud rate, scroll to 9600 then press the ✓ key.

   You are returned to the entry level.

7. Press the × key to return to the Main Menu.

8. For the settings to take effect, switch the transceiver off then on again.

Configuring the 15-way serial port of the NGT using the NGT System Programmer

1. Load the profile from the transceiver (see *Chapter 4*, *Working with profiles* in the *NGT System Programmer User Guide*, Codan part number 15-04105-EN).

2. From the View menu select Preferences and set the access rights so the admin hidden and locked settings are shown (see *Chapter 15*, *Preferences* in the *NGT System Programmer User Guide*).

3. From the View menu select Controls.

   The Control List is displayed.

4. Find the RS232 15way Mode setting, click on the down arrow and select 9001/9002 Modem.

5. Find the RS232 15way Speed setting (it is directly below the RS232 15way Mode setting), click on the down arrow and select 9600 bps.

6. To keep a record of the profile, from the File menu select Save As....

7. Program the profile to the transceiver (see *Chapter 4*, *Working with profiles* in the *NGT System Programmer User Guide*).

8. For the settings to take effect, switch the transceiver off then on again.

Configuring an NGT network to operate with the 9002

The settings for a network operating with a 9002 vary depending on the call system selected (see Table 1). These settings ensure that the NGT scans each channel long enough for a 9002 to detect incoming signals. To program a network with these settings see *Chapter 4*, *Programming a network* in the *NGT AR, SR and VR Transceiver Reference Manual*.

Table 1: The settings for ALE/CALM, Codan Selcall and Voice Only networks operating with a 9002

Call system	Scan setting	Call detect time
ALE/CALM*	Set to 'Scan'	Do one of the following: • If using the NGT handset, select the '<default>' setting. • If using the NGT System Programmer, leave the Detect Time field blank.
Codan Selcall or Voice Only	Set to 'Scan'	Do one of the following: • If using the NGT handset, select 0.5 seconds. • If using the NGT System Programmer, in the Detect Time field enter 0.5 seconds.

*If you use a 9002 in an ALE/CALM network, scanning will be quicker than in other types of networks because the NGT establishes the channel for the modem.

If you are using an NGT with a 9002 in networks that consist of stations using different call systems, two networks must be configured: one for ALE/CALM and the other for Selcall or Voice Only (see Table 1).

Before using a 9002 to send data to stations not using ALE/CALM, use the ▬ key on the handset to switch scanning off in the NGT.

Using the HF Modem Software (v3.20 or later)

HF Modem Software (v3.20 or later) affects operators who want to use a PC to control channel usage on their transceiver.

Setting up your transceiver

To make use of these channel control features from your PC, you must setup your transceiver RS-232 settings (refer to the Reference Manual for your transceiver). Set the RS-232 option to **Computer** and the baud rate to **9600**.

No extra cables or connections are required from the standard installation.

New features

The new software allows you to select a pre-programmed channel on your transceiver using a PC attached to the data modem. The channel is selected using one of the following methods:

- the AT (ATtention) command set of the HF modem software

- an addition to the station address

- automatic channel selection from a predefined list of channels

These changes to the software allow an automated approach to sending data. If you use propagation prediction software to determine the best available channel, then the new HF modem software can provide you with the facility for selecting the predicted channel.

The automatic channel selection allows up to 5 channels to be programmed into the data modem. The first channel to be tried is the channel on which the last successful call was made. If the call is unsuccessful, the next channel in the list is used.

New commands

The following commands are now available for your use when operating the data modem through a PC.

Valid channel numbers range from 1 to 9999.

Command	Result
AT&C=n	Transceiver changes to channel "n" immediately. After sending a call, the transceiver remains on channel "n".
	If automatic scanning is enabled in the transceiver, scanning will resume after the timeout period.
AT&C=0	Channel control by the computer is cancelled. This allows the transceiver to scan.
AT&C=a,b,c,d,e	The data modem sets up the list of channels a, b, c, d and e. When an "ATD" command is sent to the data modem, it uses this list to establish a call. Up to 5 channels can be specified.
	If you want to save this list of channels for future use, you must send an "AT&W" command to the data modem (refer to *Using the 9002*, page 4-19).
ATDaddr!n	The data modem overrides any previous channel setup on the transceiver, then sends a call to "addr" on channel "n" only. The transceiver reverts to the previous setup after this call.

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