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What is Corazon

Corazon software and a HART® compatible modem provide an easy to use set of tools to configure, calibrate, and test HART protocol devices. Calibration functions include 4-20ma Trim, Voltage Trim, Sensor Trim, as well as Zero and Span. Database utilities allow the device configuration to be edited off-line. When connected, the data in the database is compared to the data in the device to check for necessary updates.

Corazon for DOS provides the basic HART protocol command set providing most of the tools the professional instrumentation technician needs in the field and in the lab. Device specific modules can be added to allow full HART protocol manipulation.

This manual was kept simple to keep the cost low while providing powerful easy to use software.

- *Easy to learn using familiar drop down menus, pop-up windows and online context sensitive help.*
- *DOS program on one diskette, does not require Windows or powerful computers with huge hard disk drives.*
- *View dynamic variables in real-time.*
- *Simple calibrations and device testing.*
- *Database saves configurations and provides off-line configuration changes.*

System Requirements

- ✓ IBM AT computer or compatible
- ✓ 2 Megabytes of RAM
- ✓ MS-DOS or PC-DOS, Version 6.0 or greater
- ✓ Hard Disk drive with 2 Megabytes of free space
- ✓ One 1.44 Megabyte diskette drive to install the software

Making Copies

Corazon for DOS is released on one 3.5" (1.44MB) diskette. Make a copy of the diskette before you install Corazon. You may use the backup to replace the original diskette if it becomes damaged. When you finish, use the copy to install the program. Store the original in a safe place.

Installing the Software

When you install Corazon, an install program guides you with on-screen directions. The install program transfers files from the diskette to a directory that it creates on the computer's hard disk.

Before using the install program, you should understand the general operation of your computer and have a working knowledge of the Disk Operating System (DOS). See your computer and DOS manuals for more information.

The files on the diskette are in a compressed format. The install program must be used to setup Corazon.

To install Corazon...

1. Insert the diskette in the disk drive.
2. Type **A:↵** (or **B:↵**) to log onto the drive.
3. Type **INSTALL↵** to run the install program.
4. Follow the instructions on the screen to complete the installation.

Starting Corazon

To run Corazon, switch to the directory where the software is installed. This is C:\CORAZON if you used the install defaults. Type **CORAZON** to run the program.

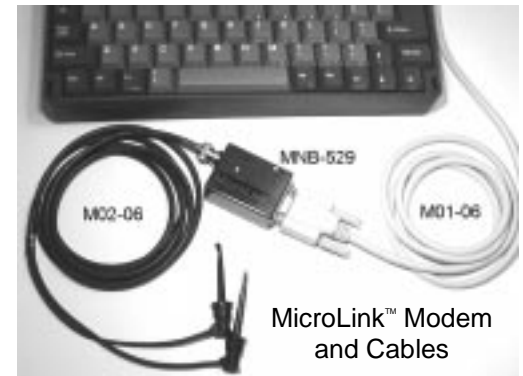
Before you connect to a device the first time, the Serial Port Configuration needs to be set. Press **Alt-S** to activate the *Serial* pull down menu. Then press **C** for *Config*. Choose either the *COMM 1* or *COMM 2* serial port for HART communications. The *Start Up (ms)* is the time allowed for the modem to initialize after activating DTR. Some modems use DTR to turn them ON and OFF between commands to conserve power. If your modem has this feature, experiment with this setting to find the fastest, (lowest number), that maintains error free communications. If you are getting communications errors, try increasing this value. For the MicroLink modem, set this to 50. The Tail End (ms) is how long DTR remains active, keeping the modem ON after a command has been received. For the MicroLink Modem set this value to 50. Press Enter when you are finished making your changes to save them.



Connecting to a Device

Corazon requires a HART compatible modem connected to the serial port. The MicroLink™ smart modem available from Microflex works well with Corazon. The MicroLink uses a 9 pin serial cable to connect the modem to the PC serial port. Connect the BNC to mini-clip cable to the modem and clip the mini-clips to the device loop or the communications terminals of the HART device. The MicroLink modem provides galvanic isolation and is not polarity sensitive.

Make sure you connect to the same serial port selected in the Serial Config. Dialog box.



Press **Alt-P** to connect to a single transmitter (point to point) at address 0. Press **Alt-C** to open the *Connect* pull down menu. The *Device Address* option allows you to poll for a transmitter address or connect to 1 of 15 addresses. After connecting to the transmitter, registers are read and compared to the database registers. After the registers have been downloaded into Corazon, a pop-up window will display the device parameters. Press **Enter** to close the window. The device status bar at the bottom of the screen will show the ID, Tag, Description and Message for the device you are connected to.



Test, Trim and Configure

After you connect to a device, the Corazon menu will add the *Transmitter* option. Press **Alt-T** to pull down the Transmitter menu. Corazon contains a powerful set of Trim and Configuration functions for HART devices. **IT IS RECOMMENDED THAT YOU EXPERIMENT WITH THESE FUNCTIONS ON A TEST BENCH WITH THE DEVICE YOU WILL BE WORKING WITH BEFORE USING THEM IN THE FIELD.** Each function includes on-screen prompts to guide you through the process. Press **F1** at any time for additional help.

Database Functions

The database functions add tremendous power to the configuration capabilities of Corazon. The database is a list of all of the device configurations that Corazon has either downloaded from devices or configured off-line. A configuration in the database can be downloaded to any device. This allows the technician to quickly re-configure a device to the proper setup when it is replaced in the field.

To open a database configuration for editing or downloading, select the device using the *Off-Line Edit* menu function under the *DB* pull down menu or create a new record using *Add*. The active configuration information will be displayed on the device status bar at the bottom of the screen. The active record can be edited now using the *Transmitter* pull down menu function. To send the configuration to the transmitter, press **Alt-D** to activate the *DB* pull down menu, then press **C** to *Connect This Device*. The configuration will be downloaded to the transmitter.

Additional Help

Corazon has additional help for all of its functions. Press **F1** to get help on the active control.

Warranty

Microflex warrants the Software media to be free from defects in workmanship for a period of ninety days from the date of shipment. Microflex will replace at no cost any such media returned to Microflex, postage prepaid. This service is Microflex's sole liability under this warranty.

A Return Authorization (RA) number must be obtained from Microflex and clearly marked on the outside of the package before equipment will be accepted for warranty work.

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