REMOTE STORAGE INSTALLATION

When you create programs using the VRO 300, you can save them on the VRO 300’s internal storage space, or on the hard disk drive of a PC using the remote storage feature.

The Remote storage feature enables you to free up the VRO 300’s internal storage space. Your PC is the ideal place to backup important files and organize them in one convenient location.

**Equipment**

To set up the remote storage program, you will need the following items:

- VRO 300
- IBM-compatible PC
- Serial cable
- Remote Storage installation disk

**Choosing a Serial Cable**

Before the VRO 300 and your PC can communicate with each other, they need to be connected with a serial cable. The graphic below illustrates how the cable’s wires must be attached to the end connectors for successful transmission. Check that the cable you purchase matches this wiring diagram:

---

**Diagram:**

[Diagram showing the wiring diagram for a serial cable, with labels for each wire and connector.]
Connecting the VRO 300 to a PC

Before you can save programs remotely, you need to connect the VRO 300 to your PC.

CAUTION
To avoid the possibility of electrical shock, power down both the VRO 300 and the PC before connecting the serial cable.

- Connect one end of the cable into the serial port located on the rear of the VRO 300. Connect the opposite end of the cable into an available COM port on the back of your PC.

- Note that the COM port must be available—that is, not already assigned a piece of hardware by the PC. You cannot simply disconnect a piece of hardware and connect the cable. If there’s no COM port recognized as being available by the PC, then you will need to make one accessible (consult your PC owner’s manual).
Installing the Remote Storage Program

You can install the Remote Storage program on your PC using either Microsoft® Windows® 95 or DOS® operating systems. Choose the system you will use, then follow the applicable steps below.

For Windows 95:
1. Boot up the PC.
2. Insert the “Remote Storage” disk into the PC’s floppy disk drive.
3. Click on “Start”.
4. Click on “Run”, type a:install then click on “OK”. This copies all of the files from the disk into a folder on the PC’s hard disk drive.
5. Instructions on how to use the Remote Storage will be displayed on the screen.

For DOS:
1. Boot up the PC.
2. Insert the “Remote Storage” installation disk into the PC’s floppy disk drive.
3. At the C:\ prompt, type a: then press ENTER.
4. After the A:> prompt, type install, and press ENTER again. This command tells the PC to copy all of the files from the disk into a folder on the PC’s hard disk drive.
5. At the next prompt, type c: to switch to the PC’s hard disk drive.
6. After C:\ appears, type ed remtstor and press ENTER.
7. C:\REMTSTOR\> will appear. Type remtstor and press ENTER.

The PC should now display the Remote Storage Utility screen.
Setting the PC’s COM Port and Baud Rates

After the Remote Storage software has been installed, the following screen will appear on your PC:

Now you need to identify your COM port and set the baud rate.

- **COM Port** – COM (short for “communication”) port 1 is the program’s default setting. You can switch to COM port 2 by pressing the F1 key on your PC’s keyboard. Remember that the COM port setting must be available, and it must correspond with the PC port that you connected the serial cable to.

- **Baud Rate** – Set the baud rate by pressing the F2 key on the PC’s keyboard and scrolling through the pre-set rates until the correct value appears. Use the same rate you entered on the VRO 300 SERIAL PORT screen. (Refer to Remote Storage Program Operation.)

After the COM port has been identified and the baud rate has been selected, you can begin storing VRO 300 programs on your PC. (For more information about creating, saving and deleting programs, refer to the Remote Storage Program Operation section.)
Error Messages

If the communication lines between the **VRO 300** and the PC are disrupted, an error message will appear on the **VRO 300** screen. Settings that do not match and a faulty serial cable connection are the most common problems and are easiest to correct.

<table>
<thead>
<tr>
<th>Error</th>
<th>Cause</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baud rate error</td>
<td>VRO 300 and PC baud rate settings do not match.</td>
<td>Change one of the settings so that the <strong>VRO 300</strong> and the PC baud rates are the same.</td>
</tr>
<tr>
<td>Checksum error</td>
<td>VRO 300 and PC baud rate settings do not match.</td>
<td>Change one of the settings so that the <strong>VRO 300</strong> and the PC baud rates are the same.</td>
</tr>
<tr>
<td></td>
<td>Baud rate is too slow.</td>
<td>Increase the baud rates on both the <strong>VRO 300</strong> and the PC.</td>
</tr>
</tbody>
</table>
| No response from PC | Serial cable connection and COM port setting do not match. | If the COM port setting (1 or 2) on the PC screen does not correspond with the port the serial cable is connected into:  
  a) Change the setting; or  
  b) Disconnect the cable from the COM port that it is connected to and connect it to a different COM port. |
|                | Incorrect serial cable                                              | Verify that you are using a serial cable and that it is not a NULL modem cable. Replace the cable, if necessary. |
|                | VRO 300 and PC baud rate settings do not match.                     | Change one of the settings so that the **VRO 300** and the PC baud rates are the same. |
|                | The selected COM port is disabled.                                  | a) Change the PC’s COM port setting and connect the serial cable into the appropriate port  
  b) Exit the remote storage program on the PC, then refer to your Microsoft® Windows® and PC operator’s manuals for instructions on how to enable a COM port. |
| Timeout error  | Loose serial cable                                                  | Check that each end of the serial cable fits snugly into the **VRO 300** serial port and the PC COM port |
REMOTE PROGRAM STORAGE OPERATION

The remote storage feature is used to download and upload part programs using a serial port. It works in conjunction with dedicated software running on a host computer. The following information describes the new VRO 300 operations needed to support remote storage.

Configuring the VRO 300 Serial Port

Serial port configuration is done from Installation Setup. The form below is used to set up the function and protocol of the serial port.

The serial port can be disabled or configured to operate as a printer port, a bi-directional link to a computer, or a remote storage port. As a REMOTE STORAGE port, the VRO 300 will interact with the remote storage software running the host computer to transfer part programs.

Pressing the DONE softkey returns you to Installation Setup accepting all changes to the serial port configuration. Pressing the CANCEL softkey returns you to Installation Setup without accepting any changes to the serial port configuration.
Loading a Program using Remote Storage

Begin by pressing the PROGRAM FUNCTIONS softkey, then press the LOAD softkey. A list of programs stored in the VRO 300 will appear. This box is used to select the program to be loaded and initially shows all of the programs in internal storage.

If the REMOTE STORAGE softkey is pressed, the list box shows the programs which exist on the host computer. If the softkey is released, the list shows the programs which exist in the VRO 300. If no programs exist at the source, the list will be empty.

Note: The REMOTE STORAGE softkey is only available if the serial port is configured for remote storage.

The arrow keys are used to cursor up or down.

Pressing the LOAD softkey (or ENTER key) loads the highlighted program into memory. If a program is currently in memory, the operator is required to confirm this operation.

While the program is being downloaded from the host computer, the operator may press the CANCEL softkey to stop the program from being downloaded.

If the download procedure is canceled, the system will return to the PGM view and the message “LOAD PROGRAM CANCELED.” will be displayed on the prompt bar.

If the download procedure fails, the system will return to the PGM view and a message explaining the error will be displayed on the prompt bar. Program memory will be cleared.

If the download is successful, the system will return to the PGM view with the new program in memory.
Saving a Program using Remote Storage

Begin by pressing the PROGRAM FUNCTIONS softkey, then press the SAVE softkey to save programs using the Remote Storage feature. A form will appear which will enable you to enter a name for the part program. The program will be saved to the internal storage of the VRO 300.

If the REMOTE STORAGE softkey is pressed, the program will be uploaded to the host computer. If the softkey is released, the program will be saved in the VRO 300.

Note: The REMOTE STORAGE softkey is only available if the serial port is configured for remote storage.

The Program Name field defaults to the name shown in the program listing. A program name is comprised of numbers or letters (press the alphabet softkey) and is limited to 8 digits/characters.

Pressing the SAVE softkey (or ENTER key) saves the program on the host computer. If a program with that name already exists, the operator will be asked if it is OK to overwrite what already exists.

While the program is being uploaded to the host computer, the operator may cancel the save procedure by pressing the CANCEL softkey.

If the upload is canceled, the system will return to the PGM view and the message “SAVE PROGRAM CANCELED.” will be displayed on the prompt bar.

If the upload fails, the system will return to the PGM view and a message explaining the error will be displayed on the prompt bar.

If the upload is successful, the system will return to the PGM view.
Deleting a Program using Remote Storage

Begin by pressing the PROGRAM FUNCTIONS softkey, then press the DELETE softkey. A list of programs stored in the VRO 300 will appear.

If the REMOTE STORAGE softkey is pressed, the list shows the programs which exist on the host computer. If the softkey is released, the list shows the programs which exist in the VRO 300’s internal storage. If no programs exist at the source, the list will be empty.

Note: The REMOTE STORAGE softkey is only available if the serial port is configured for remote storage.

<table>
<thead>
<tr>
<th>PICK A PROGRAM TO DELETE:</th>
<th>DELETE PROGRAM</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>REMOTE STORAGE</td>
<td>ALPHABET</td>
<td>CANCEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>09-30-96</td>
<td>387900-1</td>
<td>PROTO -01</td>
</tr>
<tr>
<td>1 OF 3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The arrow keys are used to cursor up or down.

Pressing the DELETE softkey (or ENTER key) deletes the highlighted program. You will be asked to confirm this operation.

If the operation fails, the system will return to the PGM view and a message explaining the error will be displayed on the prompt bar.

If the operation is successful, the system will return to the PGM view.