A Spectrum24® Wireless LAN Solution

NetVision®
Data Phone
User Guide
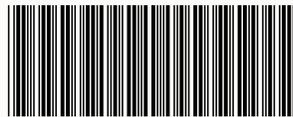
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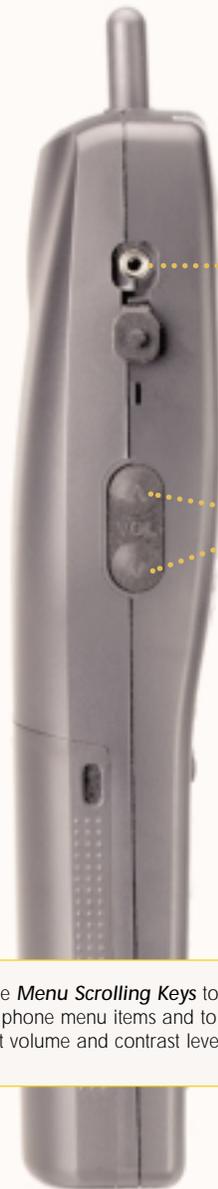
Call Indicator

Mini-Headset Jack
For hands-free use.

Volume Buttons
Adjusts the current call volume.

Previous/Next Keys
Tabs between application fields.

END Key
Refuses or ends a call.
Powers off the phone.
Returns to a previous menu.
Ends data collection.

FCT Key
Accesses additional Data Phone features.

Use the **Menu Scrolling Keys** to select
phone menu items and to
set volume and contrast levels.

Menu Scrolling Keys

CLR Key
Removes the last digit entered from
the keypad.

Mouthpiece

NetVision® Data Phone Feature Overview

ot stare
scanner!

Laser Scanner

High Gain Antenna.
The antenna does not extend.

Earpiece

Data Phone Display
Displays phone status, menu options, messages and application prompts.

Serial Port Connector
For network administration use.

Scan Key
Activates the scanner for data collection.

SND Key
Powers on the phone.
Accepts or activates a call.
Sends data.
Selects menu items.

HOLD Key
Places a call on hold.

NAME Key
Displays names from the call list.

RCL Key
Recalls the last number dialed, and accesses the speed-dial directory.

MENU Key
Displays the phone user menu.

STO Key
Stores a number in the speed-dial directory.

Battery Charging

The NetVision Data Phone Battery Charger can recharge two batteries, attached to and detached from the Data Phone. When charging the battery attached to the phone, turn off the phone before inserting it into the charger. Place the battery into the rear charger slot or battery and phone combination into the front charger slot. The indicators for each slot on the charger indicate the following status:

GREEN   battery is fully charged and ready for use.

RED   battery is charging; wait until the status indicator changes to GREEN before using battery. Fully charge the battery before using the NetVision Data Phone.

AMBER   charger is charging the other battery. The charger begins the charging cycle for the first device inserted; the charging cycle for the other device begins after the first cycle finishes.

> To prevent injury or burns, do not short-circuit the battery terminals with metal objects. Use only approved batteries and charging accessories with the NetVision Data Phone. Do not charge the battery in a charger other than a Symbol NetVision Data Phone Charger.

Battery Swapping

NetVision Data Phone users can swap the battery during data operations when the phone is idle. The Data Phone beeps to warn that the battery has reached a level that cannot support phone functions. Remove the battery without first powering off the phone and install a fully charged battery. Install a fresh battery within three minutes to retain user configuration.

After installing the new battery, press **SND** to connect and log into the network.

Battery Attaching/Detaching

1. Attach the battery to the phone by aligning the feet on the battery with the notches on the phone. Push the battery top into the phone until the latch clicks.
2. Detach the battery by depressing the latch and pulling the battery top away from the phone.

Technical Data

Battery: 7.2 volts rechargeable; Lithium ion
Battery Life: 150 minutes (2.5 hours) talk time, 24 hours standby operation per charge.
Frequency Range: 2.4 - 2.485 GHz
Wireless Output Power: 100 mW
Light Source: Visible Laser Diode at 650 nm
Laser Class: CDRH Class II, IEC 825 Class 2
Drop Specification: 3.3 ft./1 meter to tile
Temperature: -30°C to 60°C/-22°F to 140°F

Operating the Phone

Press **SND** to power on the Data Phone and activate a network connection. After the initial message, the phone displays `Idle` status.

Radio Signal Strength Indicator (RSSI)

`Login`
`Idle`

User name

Network and phone status

Phone line and APPS icon

Battery status icon
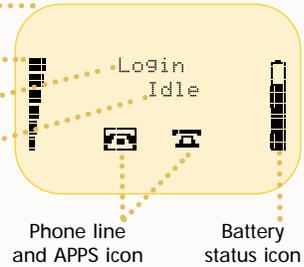
Connecting to the Network

The quality of Data Phone communication and data collection depends on the network radio reception. Large objects and other radiating devices can affect network reception. Use the Radio Signal Strength Indicator on the display to monitor reception quality. The NetVision Data Phone can also cause radio-frequency interference to other devices. Use the Data Phone only in areas designated by the network administrator.

If the phone cannot connect to the network, the phone displays `No Network`. The phone cannot make or receive calls, receive paged messages or perform data collection when disconnected from the network.

The NetVision Data Phone ships with basic defaults for immediate use. The network administrator preloads each Data Phone with configuration data to enable the advanced features and access other system-related applications. The network administrator configures NetVision Data Phones in one of two ways:

- As a shared phone, the system administrator preloads the Data Phone with a list of user profiles. This allows you to pick up and use any Data Phone.
- As a personal phone, the system administrator preloads the Data Phone for one user.

The Setup user profile is reserved for the network administrator. Support and Symbol user profiles are reserved for Symbol Technologies support personnel.

Logging on to a NetVision Data Phone

Users log onto the network to operate the NetVision Data Phone. Obtain a user name and password (PIN) from the network administrator.

1. Press **FCT**, **NAME** to log on to the network.
2. Select the user name from the list.
3. Press **SND** to select the user name.
4. Enter the PIN for the user name and press **SND** to complete the network log in.

`Bob`
`Setup`
`Support`
`Symbol`

Receiving Calls with the NetVision Data Phone

The NetVision Data Phone provides user-configurable features to determine how a call is answered. The caller ID feature allows you to identify callers before answering the call. You can select from three answering modes:

```
Call From

Phil
```

- *Auto-Answering:* automatically answers the call after the first ring.
- *Single-Key Answering:* requires you to press **SND** to initiate the call.
- *Any-Key Answering:* requires you to press any key or button to answer the incoming call. **END**, **SCAN** and **HOLD** retain their call-refusing and data collection features.
1. Press **MENU**.
2. Select `User Options` and press **SND**.
3. Select `Phone Answr` and press **SND**.
4. Select the desired mode and press **SND**, press **END** to cancel.

When the NetVision Data Phone receives a call, and Auto-Answering is not selected, it rings until the caller ends the call, the call is refused or the call transfers to voice mail when available.

```
Phone Answr

Any Key
```

- To refuse a call, press **END**.
- To terminate a call, press **END**.
- To stop participating in an intercom call, press **END**.
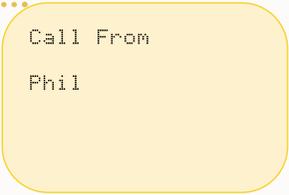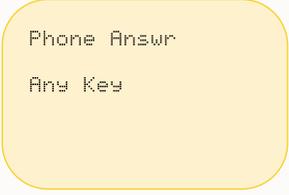
Setting the Call Volume

To permanently adjust the earpiece volume during a phone call:

1. Press **FCT**, **9**.
2. Use the scroll controls to adjust the volume.
3. Press **SND** to set the volume.
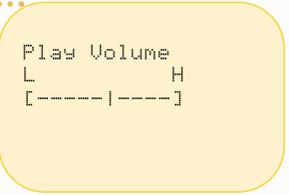
```
Play Volume
L          H
[------|-----]
```

Microphone Muting

To mute the microphone on the phone during a call:

- Press **FCT**, **CLR** to activate the muting feature.
- Press **FCT**, **CLR** again to continue talking.

This feature is only available during an active call.
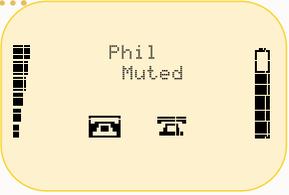
```
       Phil
       Muted
```

Call Blocking

The NetVision Data Phone can block incoming calls. This feature is set to off, allowing calls to come through each time the phone powers on. To block incoming calls:

```
Calls Unblocked

Block?
```

1. Press **FCT**, **8**.
2. Press **SND** to block, press **END** to cancel.
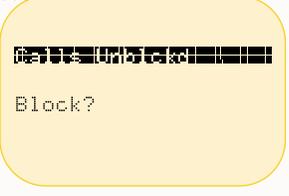
To unblock all incoming calls, press **FCT**, **8**, **SND**.

Calling to a blocked NetVision Data Phone causes a `Call Declined` message to appear.

Extension and Outside Number Dialing

If the network is configured, the Data Phone can make calls to other Data Phones and wired phones on the network, and can send and receive outside phone calls.

- To call to an extension, dial the extension number and press **SND**.
- To call an outside number, dial the network-specific code to access the outside line, then dial the number along with required long distance access codes. The dialing function allows 31 digits maximum. See the network administrator for details for using access codes.

Name Dialing

The NetVision Data Phone can contain a list of up to 25 users set up by the network administrator.

```
Calling
            Phil
```

1. Press volume buttons or **NAME** to activate the name list.
2. Select the desired name and press **SND** to initiate the call.

Use alphanumeric keys to jump to specific names when the list is long.

1. Press **NAME**.
2. Press the alphanumeric key with the character corresponding to the letter of the user name. If a letter has no entries, the phone displays `No entries for #`.
   Use the scroll keys for smaller cursor movements through the list.
3. Press **SND** to initiate the call to the selected user.

Call Redialing

The NetVision Data Phone stores the last eight calls, including intercom calls and calls made from the NetVision Data Phone. The NetVision Data Phone does not store the numbers for external calls.

1. Press **RCL** to display the last call. Press **RCL** to scroll through the list. Do not use the scroll keys.
2. Press **SND** to initiate the call.

Speed-Dialing

Depending on the network configuration, you can speed-dial to other NetVision phones, local extensions or outside phone numbers programmed into the speed-dial directory.

```
Store:
```

1. Press **RCL** to activate the speed-dial list.
2. Key in the speed-dial reference number (00-99) or use the scroll keys to select the listed number.
3. Press **SND** to activate the call.

To add or replace a number in the speed-dial list:

1. Key in the desired number and press **STO**.
2. Enter the two-digit number referencing the location to add or replace the number on the list.
   The phone stores the number in the list, and returns to the status display.

Clearing the Speed-Dial List

To clear existing numbers from the speed-dial list:

1. Press **MENU** to display the Main menu.
2. Select `User Options` and press **SND**.
3. Select `Clear SD` from the User options Menu.
4. Press **SND** to clear the speed-dial list.

Intercom Calling

This feature allows NetVision Phone users to connect to users of a group. NetVision Data Phone users can belong to as many as 10 intercom groups. The network administrator manages access levels to the intercom groups. You can communicate with only one intercom group at a time. The NetVision Data Phone automatically answers an intercom call if a call is not currently active. If a call is active, a three-beep alert indicates that a call is waiting. The Data Phone enters the intercom call when you end or place the current call on hold.

```
Enter Channl

                    #
```

1. Press #.
2. Enter the intercom group number (0-9) and Press **SND**.

The NetVision Data Phone dials the intercom group, and occupies the channel until the call terminates.
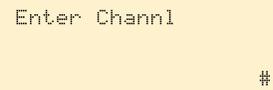
Message Paging

This feature allows the NetVision Data Phone to receive messages similar to most pagers. Depending on the configuration, the network administrator can arrange for other network users to send messages to the NetVision Data Phone. The Data Phone alerts you to new messages with a special tone.

```
        Bob      M
        Idle
```

To view messages:

1. Press **FCT**, **RCL**.
2. Press **SND** to view the last new message received.
3. Press **SND** repeatedly to scroll through messages or type in the number corresponding to a specific message.

```
15 Messages
   Waiting
```

Press **RCL** repeatedly to scroll through the Subject, Sender and Recipient fields.

To delete a message, press **CLR** while viewing the message.

Press **END** to return to phone operations.
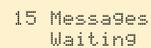
The NetVision Data Phone can collect data for many different applications. The type of data collected depends on the network configuration. You can enter data by keypad entry or using the built-in, bar code scanner. To scan a bar code:

1. Aim the top of the NetVision Data Phone towards the bar code. Adjust the distance to the bar code. Hold the Data Phone farther away for larger bar codes. Optimum distance is approximately six to ten inches (15 to 25 cm).
2. Press **SCAN** to switch to the data collection application. Observe that the scan beam crosses all the bars of the bar code. The call indicator turns green and the Data Phone beeps after successfully reading the bar code.

The scanning success depends on the quality, size of the bar code, and the scan distance and angle of the scanner.
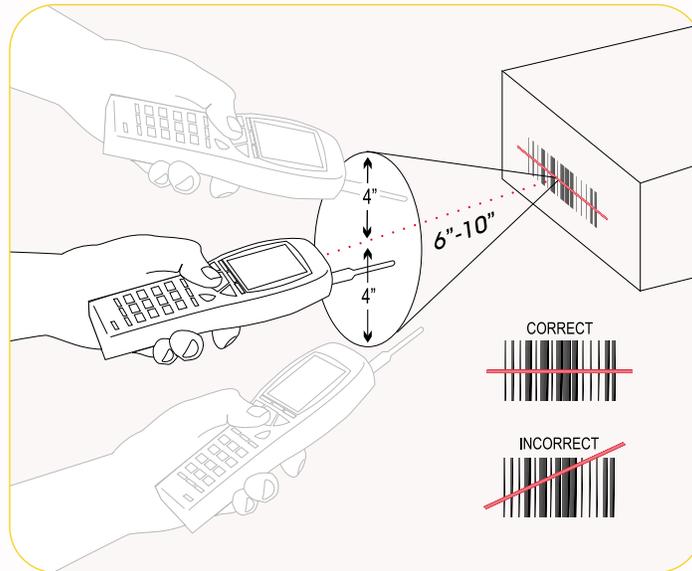
Do not stare into laser aperture.

Manually Entering Data

The NetVision Data Phone performs data entry best using the scanner. However, you can enter alphanumeric characters using the keypad. To enter alphanumeric characters, press and hold FCT, then press a keypad key to display a list of characters associated with that key.

```
1 2 3 4 5 6 7 8 9 0 * #
. / | : _ + - = ? < >
```

Navigating through Data Collection Applications

This feature maps the Data Phone keypad to functions different than when operating during a call.

Press Key	Key Function	Status Indicator
NAME	Application help	B
STO	Scroll keys	S
RCL	Edit keys	E

Application Control Keys

Press and hold **NAME** and press any of the following keys to access application features:

- <   Moves backward through application screens.
- >   Moves forward through application screens.
- 1   Hides/shows an application field.
- 2   Moves to the current application Home screen.
- 3   Stops the current application.
- 4   Reloads the current application.

```
< go backward
> go forward
1 hide/show URL
2 go home
3 stop
4 reload
```

Application Scroll Keys

Press and hold **STO** and press any of the following keys to move through a page:

- <   Scrolls the page towards the left margin.
- >   Scrolls the page towards the right margin.
- 8   Scrolls the page towards the top margin.
- 0   Scrolls the page towards the bottom margin.
- 4   Scrolls the page one column towards the left margin.
- 6   Scrolls the page one column towards the right margin.
- 2   Scrolls the page one line towards the top margin.
- 5   Scrolls the page one line towards the bottom margin.
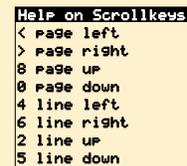
```
Help on Scrollkeys
< page left
> page right
8 page up
0 page down
4 line left
6 line right
2 line up
5 line down
```

Application Edit Keys

Press and hold **RCL** and press any of the following keys edit data:

- <   Moves the cursor over the previoous character.
- >   Moves the cursor over the next character.
- 1   Moves cursor to beginning of a field.
- 2   Moves cursor to end of a field.
- 3   Deletes a character.
- 4   Backspaces over a character.
- 8   In a multi-line field moves cursor up one line.
- 0   In a multi-line field moves cursor down one line.

```
Help on Editkeys
< cursor left
> cursor right
1 cursor home
2 cursor end
3 delete
4 backspace
8 cursor up
0 cursor down
```

Data Phone Ring Styles

This feature allows NetVision Data Phone users to select different rings to announce incoming phone and intercom calls. You can also add the vibrator to the ring selection.

Tone 1	One-second beep
Tone 2	Two short beeps
Tone 3	A half-second beep
Tone 4	A two-second beep
Tone 5	One short beep
Tone 6	Five short beeps
LED-only	Repeated LED flashes
Vibrator	Repeated brief vibrations

To set the ring styles:

1. Press **MENU**.
2. Select User Options and press **SND**.
3. Select Phone Ring and Press **SND**.
4. Select a ring style from the menu and press SND. The phone rings once using the selected tone. Press **END** to cancel.

Adding Vibration to Ring Style

1. Press **MENU**.
2. Select User Options. Press **SND**.
3. Select Ring Vibrate and press **SND**.
4. Select Enable or Disabled and press **SND** to set. Press **END** to cancel.

Data Phone Ring Volume

This feature allows you to adjust the ring volume for incoming calls.

1. Press **MENU**.
2. Select User Options and press **SND**.
3. Select Ring Volume and press **SND**.
4. Set the ring volume level and press **SND**. Press **END** to cancel.
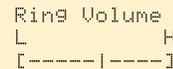
```
Ring Volume
L          H
[-------|-----]
```

Key Locking

This feature allows you to lock the keypad to prevent accidental Data Phone operation and unnecessary battery power consumption. Any incoming call automatically unlocks the keypad.

1. Press **MENU**.
2. Select User Options and press **SND**.
3. Select Keypad Lock and press **SND**.
4. Select Enable or Disabled and press **SND**. Press **END** to cancel.

To unlock the keypad before initiating a call or other phone function, press and hold **SND** until the phone status changes to Idle.

Controlling LCD Contrast

You can configure the NetVision Data Phone display contrast levels for readibility in different environments.

1. Press **MENU**.
2. Select User Options and press **SND**.
3. Select Contrast and press **SND**.
4. Select the contrast level and press **SND**. Press **END** to cancel.

Regulatory Compliance

To comply with U.S. and international regulatory requirements, the following information has been included. The document applies to the complete line of Symbol products. Some of the labels shown, and statements applicable to other devices might not apply to all products.

Radio Frequency Interference Requirements

This device has been tested and found to comply with the limits for a Class A digital device pursuant to Part 15 of the Federal Communications Commissions Rules and Regulation. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

However, there is no guarantee that interference will not occur in a particular installation. If the equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.

- Increase the separation between the equipment and receiver.

Connect the equipment into an outlet on a circuit different from that which the receiver is connected.

Consult the dealer or an experienced radio/TV technician for help.

Radio Frequency Interference Requirements - Canada

This Class A digital apparatus meets the requirements of the Canadian Interference-Causing Equipment Regulations.

CE Marking & European Union Compliance

Products intended for sale within the European Union are marked with the CEMark which indicates compliance to applicable Directives and European Normes (EN), as follows. Amendments to these Directives or ENs are included: Normes (EN), as follows.

Applicable Directives:

Electromagnetic Compatibility Directive 89/336/EEC

Low Voltage Directive 73/23/EEC

Applicable Standards:

EN 55 022 - Limits and Methods of Measurement of Radio Interference Characteristics of Information Technology Equipment

EN 50 082-1 - Electromagnetic Compatibility - Generic Immunity Standard, Part 1: Residential, commercial, Light Industry

IEC 801.2 - Electromagnetic Compatibility for Industrial Process Measurement and Control Equipment Part 2: Electrostatic Discharge Requirements

IEC 801.3 - Electromagnetic Compatibility for Industrial Process Measurement and Control Equipment Part 3: Radiated Electromagnetic Field Requirements

IEC 801.4 - Electromagnetic Compatibility for Industrial Process Measurement and Control Equipment Part 4: Electrical Fast Transients Requirements

EN 60 950 + Amd 1 + Amd 2 - Safety of Information Technology Equipment Including Electrical Business Equipment

EN 60 825-1 (EN 60 825) - Safety of Devices Containing Lasers

RF Devices

Symbol RF products are designed to be compliant with the rules and regulations in the locations into which they are sold and will be labeled as required. The majority of Symbol RF devices are type approved and do not require the user to obtain license or authorization before using the equipment. Any changes or modifications to Symbol Technologies equipment not expressly approved by Symbol Technologies could void user authority to operate the equipment.

Laser Devices

Symbol products using lasers comply with US 21CFR1040.10, Subchapter J and IEC825/EN 60 825 (or IEC825-1/EN 60 825-1, depending on the date of manufacture). The laser classification is marked one of the labels on the product.

Class 1 Laser devices are not considered to be hazardous when used for their intended purpose. The following statement is required to comply with US and international regulations:

Use of controls, adjustments or performance of procedures other than those specified herein may result in hazardous visible or invisible laser light exposure.

Class 2 Laser scanners use a low power, visible light diode. As with any very bright light source, such as the sun, the user should avoid staring directly into the light beam. Momentary exposure to a Class 2 laser is not known to be harmful.

Patents

This product is covered by one or more of the following U.S. and foreign Patents:

U.S. Patent No.

4,360,798; 4,369,361; 4,387,297; 4,460,120; 4,496,831; 4,593,186; 4,603,262; 4,607,156; 4,652,750; 4,673,805; 4,736,095; 4,758,717; 4,816,660; 4,845,350; 4,896,026; 4,897,532; 4,923,281; 4,933,538; 4,992,717; 5,015,833; 5,017,765; 5,021,641; 5,029,183; 5,047,617; 5,103,461; 5,113,445; 5,130,520; 5,140,144; 5,142,550; 5,149,950; 5,157,687; 5,168,148; 5,168,149; 5,180,904; 5,229,591; 5,230,088; 5,235,167; 5,243,655; 5,247,162; 5,250,791; 5,250,792; 5,262,627; 5,262,628; 5,266,787; 5,278,398; 5,280,162; 5,280,163; 5,280,164; 5,280,498; 5,304,786; 5,304,788; 5,306,900; 5,321,246; 5,324,924; 5,337,361; 5,367,151; 5,373,148; 5,378,882; 5,396,053; 5,396,055; 5,399,846; 5,408,081; 5,410,139; 5,410,140; 5,412,198; 5,418,812; 5,420,411; 5,436,440; 5,444,231; 5,449,891; 5,449,893; 5,468,949; 5,471,042; 5,478,998; 5,479,000; 5,479,002; 5,479,441; 5,504,322; 5,519,577; 5,528,621; 5,532,469; 5,543,610; 5,545,889; 5,552,592; 5,578,810; 5,581,070; 5,589,679; 5,589,680; 5,608,202; 5,612,531; 5,619,028; 5,664,229; 5,668,803; 5,675,139; 5,693,929; 5,698,835; 5,705,800; 5,714,746; 5,723,851; 5,734,152; 5,734,153; 5,745,794; 5,754,587; 5,762,516; 5,763,863; 5,767,500; 5,789,728; 5,808,287; 5,811,785; 5,811,787; 5,815,811; 5,821,519; 5,821,520; 5,823,812; 5,828,050; 5,850,078; 5,861,615; 5,874,720; 5,875,415; D305,885; D341,584; D344,501; D359,483; D362,453; D363,700; D363,918; D370,478; D383,124; D391,250; D405,077; D406,581

Invention No. 55,358; 62,539; 69,060; 69,187 (Taiwan); No. 1,601,796; 1,907,875; 1,955,269 (Japan); European Patent 367,299; 414,281; 367,300; 367,298; UK 2,072,832; France 81/03938; Italy 1,138,713