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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; 5,900,617; 5,902,989; 5,907,146; 5,912,450; 5,914,478; 5,917,173; 5,920,059; 5,923,025; 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. rev. 7/99

Overview

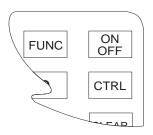
The VRC 3910 is a weather-resistant, vehicle-mount or fixed-site data collection device that helps you gather information quickly, easily, and accurately. Data can be scanned in by using a scanner connected to the terminal or entered through the keyboard. The VRC 3910 uses radio signals to transfer information to a base station. On receiving data, the base station transmits the information to a host computer. The host computer can also send information through the base station to the terminal.

About This Guide

This guide is written for the terminal operator. It does not address system administration subjects. For more details, see the *VRC 3910 System Administration Manual* (61068-00-90).

Power On and Off

To turn the 3910 on or off, press the ON/OFF key near the top right of the keyboard.



Forcing Power Off

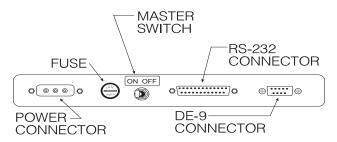
If pressing the ON/OFF key does not turn the terminal off, you should force the power off. This reduces battery drain and preserves your data.

To force power off, press and hold the **ON/OFF** key for 15 seconds, until the terminal powers down. DO NOT attempt to turn on and continue using the terminal. Return the terminal to your system administrator to recover the data and correct the problem.

Quick Reference

Bottom Panel

The VRC 3910 terminal's bottom panel contains cable connectors, the fuse, and the master power switch.



Master On-Off Switch

The master on-off switch is located on the bottom of the terminal.

If your vehicle will not be used for a day or more, turn the unit off at the master switch to reduce battery drain.

Note: Turning off the master switch is especially important if your unit uses a heating blanket.

Back-Up Battery

A five-cell NiCad battery pack, located inside the terminal, provides back up power to maintain your data when the main power source is missing or fails. It will protect your data for approximately 300 hours. The backup battery is automatically recharged through the vehicle's main power source.

Caution: Do not attempt to replace the VRC 3910 backup battery pack. Only an authorized Symbol representative may do so.

Display Brightness

The VRC 3910 display can be brightened and darkened in eight increments to help you achieve the best brightness level.

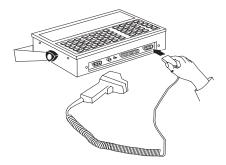
- Press FUNC J to brighten the display.
- Press FUNC I to darken the display.

Quick Reference

Attaching a Scanner

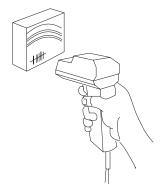
- 1. Turn the terminal off using the ON/OFF key on the keyboard.
- 2. Connect the DE-9 connector on the scanner to the DE-9 plug on the bottom of the terminal.

Note: The RS-232 connector is for loading software only.



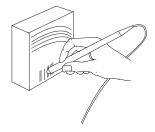
Using a Laser Scanner

- 1. Pull the scanner trigger to power on the terminal and scanner.
- 2. Point the laser scanner at the bar code. Pull the trigger and adjust the aim so the red laser beam covers the entire bar code.

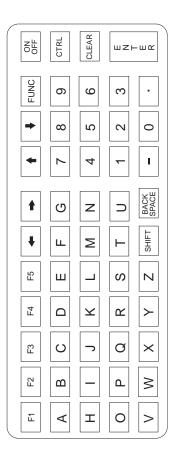


Using a Contact Wand Scanner

1. Press the ON/OFF key to power on the terminal.



- 2. Holding the wand at a 90- to 45-degree angle, lightly touch the tip of the wand to the bar code.
- 3. Draw the scanner smoothly and at a moderate speed across the entire bar code.



The Keyboard

The VRC 3910 keyboard lets you enter data and perform other tasks. Since it is programmable, your keyboard layout and functions will depend on the application you use. The following general information will help you make the most effective use of your terminal.

- Press only one key at a time. Pressing two or more keys at the same time causes an error.
- Modifier keys can be used to add functions to the keyboard. The modifier keys are **SHIFT**, **FUNC**, and **CTRL**. Added modifiers can be achieved by using the FUNC key with another key.

<u>To use</u>	Press
CAPS LOCK	FUNC L
NUM LOCK	FUNC N
ALT	FUNC CTRL

- When key sequences are listed for your application, press the keys one at a time sequentially.
- Your application can enable the auto-repeat feature of the keyboard. If it is enabled, when you press and hold a key, the key is repeated until you release the key.
- Note: The application you use may change the keyboard's operation. Refer to the documentation for your application for specific information.

Troubleshooting

Message or Symptom	Possible Cause	Suggested Action	
Double Key Error	Two or more keys were pressed at the same time.	Press keys in sequence.	
Power Fault	The last terminal power off was caused by a terminal power failure. This occurs if the vehicle battery is removed with the terminal on or if the battery fails suddenly.	Replace the vehicle bat- tery as soon as possible.	
Terminal will not turn on.	The master switch is off.	Turn on the master switch.	
	The vehicle battery is dead.	Recharge or replace the vehicle battery as soon as possible.	
	The fuse is blown.	Replace fuse (P/N 51091- 23-00). If the fuse contin- ues to fail, send the termi- nal in for repair.	
Terminal does not respond when keys are pressed.	Application is malfunctioning.	Return terminal to system administrator to download the program again.	
Scanner does not operate.	Scanning head needs cleaning.	Refer to the scanner guide for cleaning instructions.	
	Bar codes are not legible.	Scan another label or en- ter data manually.	
Low NiCad	NiCad backup battery is low.	Keep main power to the unit on for at least 24 hours to allow the NiCad battery to recharge.	

Service Information

Before you use the unit, it must be configured to operate in your facility's network and run your applications.

If you have a problem running your unit or using your equipment, contact your facility's Technical or Systems Support. If there is a problem with the equipment, they will contact the Symbol Support Center:

United States	1-800-653-5350	Canada	905-629-7226
United Kingdom	0800 328 2424	Asia/Pacific	337-6588
Australia	1-800-672-906	Austria	1-505-5794
Denmark	7020-1718	Finland	9 5407 580
France	01-40-96-52-21	Germany	6074-49020
Italy	2-484441	Mexico	5-520-1835
Netherlands	315-271700	Norway	66810600
South Africa	11-4405668	Spain	9-1-320-39-09
Sweden	84452900		
Latin America Sales Support		1-800-347-0178 Inside US	
		+1-561-483-12	275 Outside US
Europe/Mid-East Distributor Operations		Contact local distributor or call +44 118 945 7360	

Warranty

Symbol Technologies, Inc. ("Symbol") manufactures its hardware products in accordance with industry-standard practices. Symbol warrants that for a period of twelve (12) months from date of shipment, products will be free from defects in materials and workmanship.

This warranty is provided to the original owner only and is not transferable to any third party. It shall not apply to any product (i) which has been repaired or altered unless done or approved by Symbol, (ii) which has not been maintained in accordance with any operating or handling instructions supplied by Symbol, (iii) which has been subjected to unusual physical or electrical stress, misuse, abuse, power shortage, negligence or accident or (iv) which has been used other than in accordance with the product operating and handling instructions. Preventive maintenance is the responsibility of customer and is not covered under this warranty.

Wear items and accessories having a Symbol serial number, will carry a 90-day limited warranty. Non-serialized items will carry a 30-day limited warranty.

Warranty Coverage and Procedure

During the warranty period, Symbol will repair or replace defective products returned to Symbol's manufacturing plant in the US. For warranty service in North America, call the Symbol Support Center at 1-800-653-5350. International customers should contact the local Symbol office or support center. If warranty service is required, Symbol will issue a Return Material Authorization Number. Products must be shipped in the original or comparable packaging, shipping and insurance charges prepaid. Symbol will ship the repaired or replacement product freight and insurance prepaid in North America. Shipments from the US or other locations will be made F.O.B. Symbol's manufacturing plant.

Symbol will use new or refurbished parts at its discretion and will own all parts removed from repaired products. Customer will pay for the replacement product in case it does not return the replaced product to Symbol within 3 days of receipt of the replacement product. The process for return and customer's charges will be in accordance with Symbol's Exchange Policy in effect at the time of the exchange.

Customer accepts full responsibility for its software and data including the appropriate backup thereof.

Repair or replacement of a product during warranty will not extend the original warranty term.

Symbol's Customer Service organization offers an array of service plans, such as onsite, depot, or phone support, that can be implemented to meet customer's special operational requirements and are available at a substantial discount during warranty period.

General

Except for the warranties stated above, Symbol disclaims all warranties, express or implied, on products furnished hereunder, including without limitation implied warranties of merchantability and fitness for a particular purpose. The stated express warranties are in lieu of all obligations or liabilities on part of Symbol for damages, including without limitation, special, indirect, or consequential damages arising out of or in connection with the use or performance of the product.

Seller's liability for damages to buyer or others resulting from the use of any product, shall in no way exceed the purchase price of said product, except in instances of injury to persons or property.

Some states (or jurisdictions) do not allow the exclusion or limitation of incidental or consequential damages, so the proceeding exclusion or limitation may not apply to you.

Ergonomic Recommendations

Caution: In order to avoid or minimize the potential risk of ergonomic injury follow the recommendations below. Consult with your local Health & Safety Manager to ensure that you are meeting with your company's safety programs to prevent employee injury.

- · Reduce or eliminate repetitive motion
- · Maintain a natural position
- · Reduce or eliminate excessive force
- · Keep objects that are used frequently within easy reach
- · Perform tasks at correct heights
- Reduce or eliminate vibration
- · Reduce or eliminate direct pressure
- Provide adjustable workstations
- · Provide adequate clearance
- · Provide a suitable working environment
- · Improve work procedures.

Regulatory Information

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:

- · Re-orient 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.

This device complies with FCC Part 15. Operation is subject to the following two conditions: (1) this device may not cause harmful interference and (2) this device must accept any interference received, including interference that may cause undesired operation.

Quick Reference

Radio Frequency Interference Requirements - Canada

This device complies with RSS 210 of Industry & Science Canada. Operation is subject to the following two conditions: (1) this device may not cause harmful interference and (2) this device must accept any interference received, including interference that may cause undesired operation.

This Class A digital apparatus complies with Industry Canada Standard ICES-003.

Cet appareil numérique de la classe A est conform à la norme NMB-003 d'Industrie Canada.

RF Devices

Symbol's 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's 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 the user's authority to operate the equipment.



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