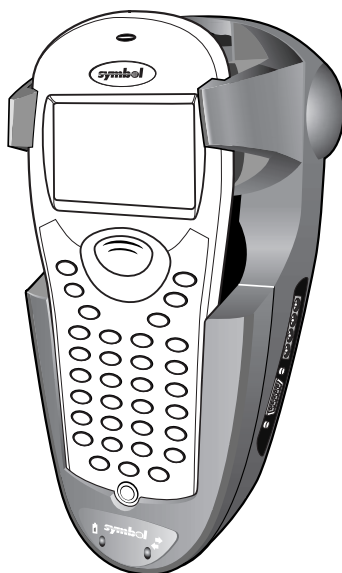


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symbol®



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Symbol Technologies, Inc.
One Symbol Plaza
Holtsville, N.Y. 11742-1300
<http://www.symbol.com>

Patents

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

U.S. Patent No. 4,593,186; 4,603,262; 4,607,156; 4,652,750; 4,673,805; 4,736,095;
4,758,717; 4,760,248; 4,806,742; 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; 5,216,232; 5,229,591; 5,230,088; 5,235,167; 5,243,655; 5,247,162; 5,250,791;
5,250,792; 5,260,553; 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; 5,324,924; 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; 5,557,093; 5,578,810; 5,581,070; 5,589,679;
5,589,680; 5,608,202; 5,612,531; 5,619,028; 5,627,359; 5,637,852; 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;
5,742,043; 5,745,794; 5,754,587; 5,762,516; 5,763,863; 5,767,500; 5,789,728; 5,789,731;
5,808,287; 5,811,785; 5,811,787; 5,815,811; 5,821,519; 5,821,520; 5,823,812; 5,828,050;
5,848,064; 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; 5,929,420; 5,945,658; 5,945,659;
5,946,194; 5,959,285; 6,002,918; 6,021,947; 6,029,894; 6,031,830; 6,036,098; 6,047,892;
6,050,491; 6,053,413; 6,056,200; 6,065,678; 6,067,297; 6,082,621; 6,084,528; 6,088,482;
6,092,725; 6,101,483; 6,102,293; 6,104,620; 6,114,712; 6,115,678; 6,119,944; 6,123,265;
6,131,814; 6,138,180; 6,142,379; 6,172,478; 6,176,428; 6,178,426; 6,186,400; 6,188,681;
6,209,788; 6,209,789; 6,216,951; 6,220,514; 6,243,447; 6,244,513; 6,247,647; 6,308,061;
6,250,551; 6,295,031; 6,308,061; 6,308,892; 6,321,990; 6,328,213; 6,330,244; 6,336,587;
6,340,114; 6,340,115; 6,340,119; 6,348,773; 6,380,949; 6,394,355; D305,885; D341,584;
D344,501; D359,483; D362,453; D363,700; D363,918; D370,478; D383,124; D391,250;
D405,077; D406,581; D414,171; D414,172; D418,500; D419,548; D423,468; D424,035;
D430,158; D430,159; D431,562; D436,104.
Invention No. 55,358; 62,539; 69,060; 69,187, NI-068564 (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. 06/02

Introduction

This guide presents information on the installation and use of the VCD 7500 vehicle cradle, used with Symbol's PDT 7500 terminals.

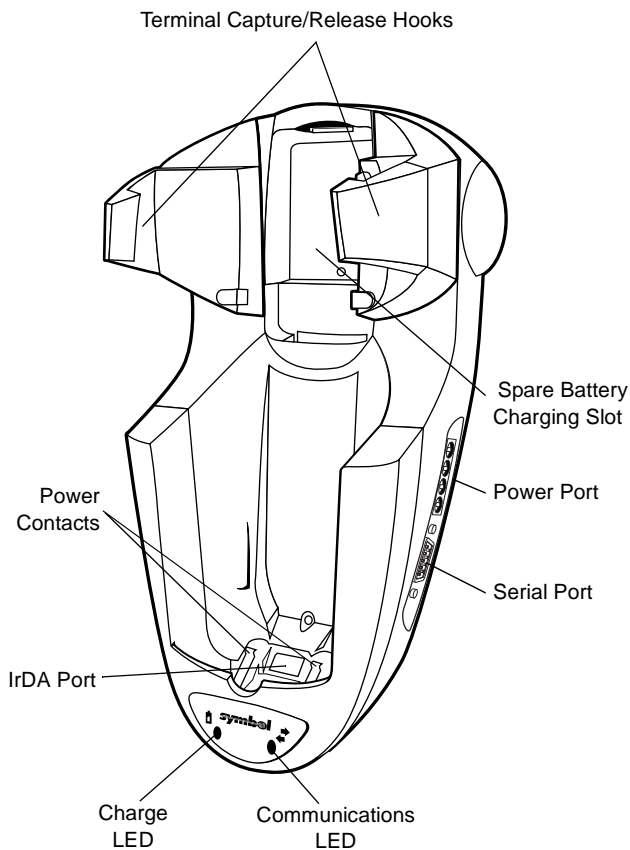
The VCD 7500 supports floor or dash installation in a truck. Each cradle includes a vehicle power supply capable of power conditioning in an operating range of 10 - 48 volts.

About This Guide

This guide provides information on the following:

- *Parts of the VCD 7500* on page 2
- *Setting Up the VCD 7500* on page 3
- *Cradle Self Test* on page 4
- *Inserting the Terminal in the Cradle* on page 5
- *Battery Charging* on page 6
- *Charging A Spare Battery* on page 7
- *Data Communications* on page 8
- *LED Indications* on page 9
- *Troubleshooting* on page 10.

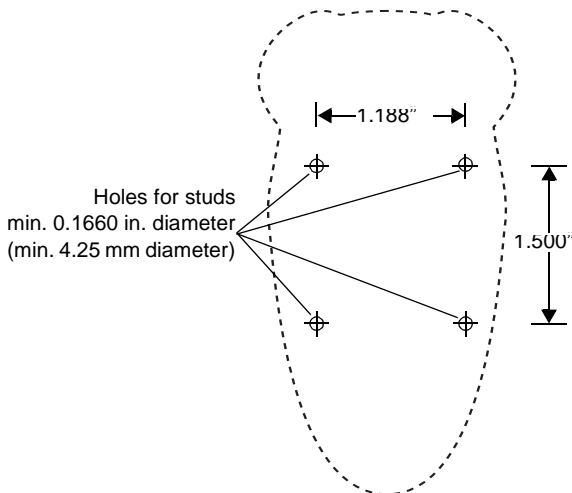
Parts of the VCD 7500



Setting Up the VCD 7500

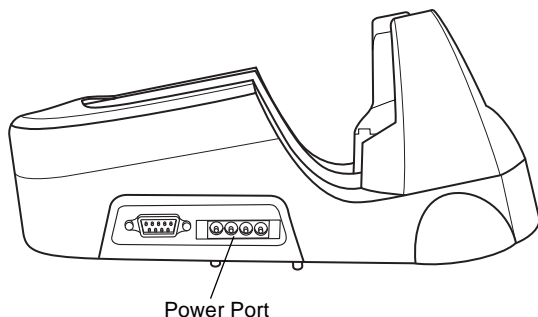
To install the vehicle cradle:

1. Prepare the mounting surface to accept four #8-32 studs in the pattern shown below.



2. Install the cradle on the mounting surface.
 - a. Position the cradle on the mounting surface.
 - b. Fasten using the hardware supplied.
3. Connect the red and black power supply input leads to a fuse panel. A qualified installer must perform the installation.

4. Insert the power connector from the power supply in the power port on the side of the cradle.



Cradle Self Test

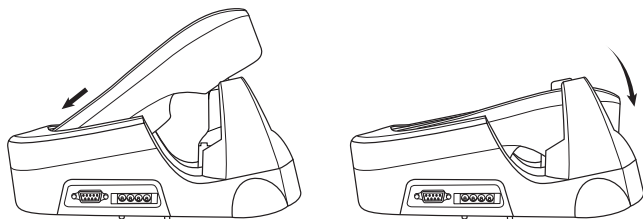
On power up, the vehicle cradle performs a self-test which checks the RAM and ROM. The Communications LED flashes during the self-test. The vehicle cradle's Communications LED reveals the status as follows:

Communications LED Condition	Status
Power up/Self-Test (7 flashes -> off)	No error in RAM or ROM
LED flashing (8 flashes/second)	RAM test failure
LED flashing slowly (4 flashes/second)	ROM (CRC on flash) failure

If the cradle fails self-test (RAM or ROM failure), power the cradle down, then power on again. If the self-test fails again, call the Symbol Support Center for assistance.

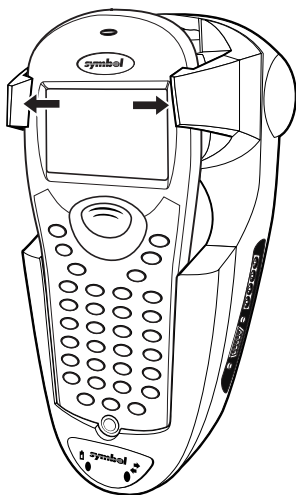
Inserting the Terminal in the Cradle

Insert the bottom of the terminal into the cradle slot and rest the terminal on the hooks, then press the top of the terminal into the cradle until the hooks snap into place.



Removing the Terminal from the Cradle

Press the left or right hook with your thumb until the terminal disengages, and lift the terminal from the cradle.





Battery Charging

Charging the Terminal's Battery

- The lithium-ion (Li-Ion) battery is automatically recharged whenever the terminal is properly inserted in the cradle. The terminal may be on or off.
- The terminal's charge LED turns yellow while the terminal's battery pack is charging. Once charging is complete, the terminal's charge LED turns green. If the terminal's charge LED is off, the terminal is not seated properly in the cradle. If the terminal's charge LED is blinking yellow, a faulty battery is installed in the terminal.
- The terminal must be left in the cradle 2 hours to recharge a fully discharged battery.

Caution: The temperature range for charging the battery is 0°C-50°C. Do not operate battery charger outside these temperatures.

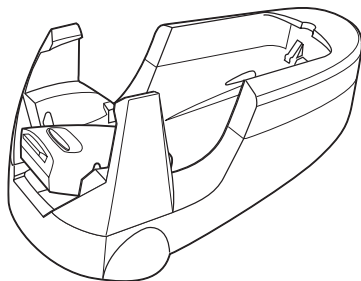
- To remove the terminal from the VCD 7500, press the left or right hook with your thumb until the terminal disengages, and lift the terminal from the cradle.

Caution: Removing the terminal while the cradle's yellow communications LED is on or flashing disrupts communication between the host and the terminal.

Charging A Spare Battery

To charge a spare battery, place the battery into the spare battery charging slot by inserting the bottom of the battery into the slot first, then snapping the top in.

Note: Spare batteries can only be inserted and removed when the terminal is not in the VCD 7500 cradle.



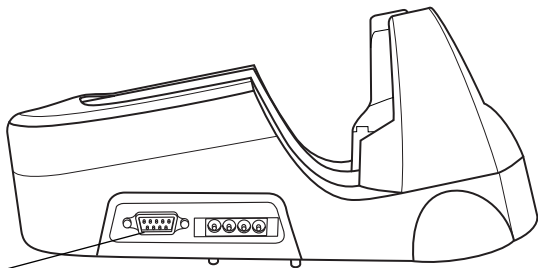
The cradle's charge LED remains off when no battery is present in the battery slot. During charging of a battery, the cradle's charge LED turns solid yellow. The battery requires up to 5 hours to fully charge. Once charging is complete, the cradle's charge LED turns solid green. The charge LED flickers for approximately one second every ten minutes that a fully charged battery is present in the spare battery slot, while the charger performs a self-check.

If a fault condition is encountered, charging stops and the charge LED blinks yellow approximately twice per second. The fault may be due to a faulty battery, or it may be caused by any momentary loss of contact between the battery and the cradle. Within approximately ten minutes of encountering a fault, the cradle performs a self-check. If the battery is not faulty, charging will resume as above. If the battery is faulty, the charge LED may turn yellow as if charging, but will eventually blink yellow again. For a faulty battery, this cycle will repeat until the battery is removed from the spare battery slot.

Data Communications

Connecting the Serial Cable to Symbol Mobile Gateway (SMG), a Host Computer, Printer, or Modem

1. Plug a 9-pin serial cable into the communication port located next to the power port on the side of the cradle.



Serial
Communication Port

2. Connect the other end of the cable to the serial (COM) port of SMG, the host computer, printer, or modem.

Sending Data

To begin communication:

1. Insert the terminal in the cradle.
2. As determined by your specific application, press the appropriate key(s) on the terminal to initiate communication.

The cradle's Communications LED blinks yellow when communication begins.

Caution: Removing the terminal while the cradle's Communications LED is on or flashing yellow disrupts communication between the host and the terminal.

LED Indications

The following table describes the LED indications.

Condition	LED State
Battery Charging LED	
Off	Spare battery absent, no charge power, or outside temperature range required for charging battery.
Steady yellow	Spare battery is charging.
Steady green	Spare battery is charged.
Flashing yellow	Abnormal battery.
Communications LED	
Off	Terminal is not trying to communicate.
On (yellow)	Terminal is able to send and receive data.

Troubleshooting

Symptom	Possible Cause	Action
Yellow indicators do not flash 7 times when the cradle is plugged in.	Cradle is not receiving power.	Make sure power cable is securely connected and wall outlet is supplying power.
Cradle charge LED does not light when spare battery is inserted in cradle.	Spare battery is not seated firmly in cradle.	Replace spare battery in cradle; contacts snap into place when battery is properly inserted.
		Check for damaged contacts in cradle spare battery slot.
Spare battery not fully charged.	Battery was removed from cradle too soon.	Replace battery in cradle spare battery slot. Approximately 5 hours are needed to recharge a completely dead battery in the spare battery slot.
Li-Ion battery in terminal did not recharge.	Terminal was removed from cradle too soon.	Replace terminal in cradle; about 2 hours are needed to recharge a completely dead battery.
	Battery failed.	Replace battery.
No data was transmitted to the host or printer, or the data transmitted to host or printer was incomplete.	Terminal was removed from cradle while yellow Communications LED was blinking.	Replace terminal in cradle and retransmit.
	Null modem was not used.	Null modem is required for communication to DTE devices. Retransmit using appropriate null modem.
	Incorrect null modem configuration.	See your system administrator.

Q u i c k R e f e r e n c e

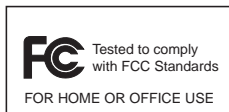


Regulatory Information

All Symbol devices are designed to be compliant with rules and regulations in locations they are sold and will be labeled as required.

Any changes or modifications to Symbol Technologies equipment, not expressly approved by Symbol Technologies, could void the user's authority to operate the equipment.

Radio Frequency Interference Requirements



Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However there is no guarantee that interference will not occur in a particular installation. If this 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 to which the receiver is connected
- Consult the dealer or an experienced radio/TV technician for help.

Radio Frequency Interference Requirements - Canada

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.



Marking and European Economic Area (EEA)

Statement of Compliance

Symbol Technologies, Inc., hereby declares that this device is in compliance with all the applicable Directives, 89/336/EEC, 73/23/EEC. A Declaration of Conformity may be obtained from <http://www2.symbol.com/doc/>.

Warranty

(A) Seller's hardware Products are warranted against defects in workmanship and materials for a period of three (3) months from the date of shipment, provided the Product remains unmodified and is operated under normal and proper conditions. Warranty provisions and durations on software, integrated installed systems, Product modified or designed to meet specific customer specifications ("Custom Products"), remanufactured products, and reconditioned or upgraded products, shall be as provided in the applicable Product specification in effect at the time of purchase or in the accompanying software license. (B) Products may be serviced or manufactured with parts, components, or subassemblies that originate from returned products and that have been tested as meeting applicable specifications for equivalent new material and Products. The sole obligation of Seller for defective hardware Products is limited to repair or replacement (at Seller's option) on a "return to service depot" basis with prior Seller authorization. Shipment to and from Seller will be at Seller's expense, unless no defect is found. No charge will be made to Buyer for replacement parts for warranty repairs. Seller is not responsible for any damage to or loss of any software programs, data or removable data storage media, or the restoration or reinstallation of any software programs or data other than the software, if any, installed by Seller during manufacture of the Product. The aforementioned provisions do not extend the original warranty period of any Product that had either been repaired or replaced by Seller. (C) The above warranty provisions shall not apply to any Product (i) which has been repaired, tampered with, altered or modified, except by Seller's authorized service personnel; (ii) in which the defects or damage to the Product result from normal wear and tear, misuse, negligence, improper storage, water or other liquids, battery leakage or failure to perform operator handling and scheduled maintenance instructions supplied by Seller; (iii) which has been subjected to unusual physical or electrical stress, abuse, or accident, or forces or exposure beyond normal use within the specified operational and environmental parameters set forth in the applicable Product specification; nor shall the above warranty provisions apply to any expendable or consumable items, such as batteries, supplied with the Product. EXCEPT FOR THE WARRANTY OF TITLE AND THE EXPRESS WARRANTIES STATED ABOVE, SELLER DISCLAIMS ALL WARRANTIES ON PRODUCTS FURNISHED HERUNDER INCLUDING ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR USE. ANY IMPLIED WARRANTIES THAT MAY BE IMPOSED BY LAW ARE LIMITED IN DURATION TO THE LIMITED WARRANTY PERIOD. SOME STATES OR COUNTRIES DO NOT ALLOW A LIMITATION ON HOW LONG AN IMPLIED WARRANTY LASTS OR THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES FOR CONSUMER PRODUCTS. IN SUCH STATES OR COUNTRIES, FOR SUCH PRODUCTS, SOME EXCLUSIONS OR LIMITATIONS OF THIS LIMITED WARRANTY MAY NOT APPLY. The stated express warranties are in lieu of all obligations or liabilities on the part of Seller for damages, including but not limited to, special, indirect or consequential damages arising out of or in connection with the use or performance of the Product or service. Seller's liability for damages to Buyer or others resulting from the use of any Product or service furnished hereunder shall in no way exceed the purchase price of said Product or the fair market value of said service, except in instances of injury to persons or property

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	1-800-653-5350 1-631-738-2400	Canada	905-629-7226
United Kingdom	0800 328 2424	Asia/Pacific	+65-6796-9600
Australia	1-800-672-906	Austria/Österreich	1-505-5794-0
Denmark/Danmark	7020-1718	Finland/Suomi	9 5407 580
France	01-40-96-52-21	Germany/Deutschland	6074-49020
Italy/Italia	2-484441	Mexico/México	5-520-1835
Netherlands/Nederland	315-271700	Norway/Norge	+47 2232 4375
South Africa	11-8095311	Spain/España	91 324 40 00 Inside Spain
Sweden/Sverige	84452900		+34 91 324 40 00 Outside Spain
Latin America Sales Support	1-800-347-0178 Inside US +1-561-483-1275 Outside US		
Europe/Mid-East Distributor Operations	Contact local distributor or call +44 118 945 7360		

¹Customer support is available 24 hours a day, 7 days a week.

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<http://www.symbol.com/manuals>.



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