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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. 4,593,186; 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 810/3938; Italy
1,138,713
rev. 06/02

Introduction

The PL 370/470 RF cradle acts as a stand, host communication interface, and a charger for the Phaser RF scanner. It can sit on a desktop or be wall-mounted - whichever is more convenient.

The cradle receives data from the scanner via radio frequency (RF) transmissions through the antenna, then transmits that data to the host device through an attached cable. The cradle also charges the scanner's battery pack (in the scanner).

There are two versions of the cradle:

- PL 470 Cradle: radio retail version
- PL 370 Cradle: radio industrial version.

This *Quick Reference Guide* provides basic instruction on the set up and use of the cradle. Unless otherwise noted, the term PhaserLink refers to all versions of the cradle.

Equipment Supplied

The following equipment is supplied with your cradle:

- Two screws (for wall mounting, see page 11)
- One velcro strip (for desk mounting)
- Four rubber feet (for desk mounting)
- Cradle.

Save the shipping container for storing or shipping. Inspect all your equipment for damage. If anything is damaged or missing, call your authorized Customer Support Representative immediately.

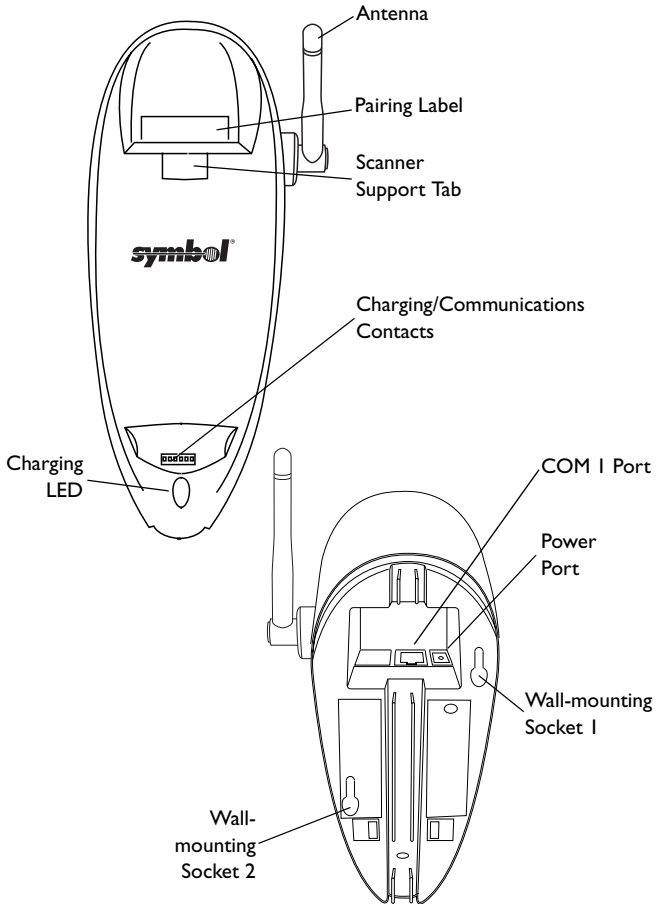
Related Documentation

P 370/470 RF Scanner Product Reference Guide,
p/n 72-38495-xx

P 370/470 RF Scanner Quick Reference Guide,
p/n 72-38493-xx



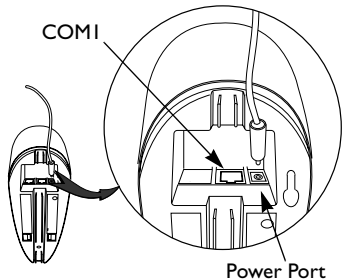
Parts of the Cradle



Connecting to the Host

To connect the cradle to a host:

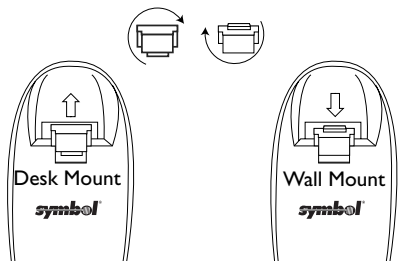
1. Insert the appropriate interface cable from the host computer into the COM1 port.
2. Connect the power connector of the power supply (p/n 50-19000-101) into the cradle's power port (the cradle cannot be powered by the host computer).
3. Connect the appropriate line cord to the power supply and the other end to an AC power source.



Wall Mounting

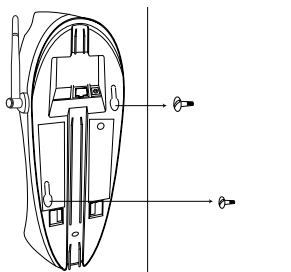
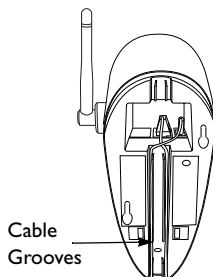
Before wall-mounting the cradle, the scanner support tab must be changed from the desk-mount position to the wall-mount position.

1. Lift the scanner support tab out of the top part of the cradle and replace it in the wall-mount position.



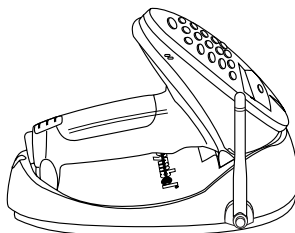


2. Seat the cables from the bottom of the cradle in the grooves along the length of it so that the bottom of the cradle is smooth.
3. Fasten the two screws provided into the wall where the cradle will hang, leaving about 1/8" (0.3 cm) of the screw outside the wall for the cradle's wall mounting sockets (A template is provided for you on page 11).
4. Place the cradle over the screw heads and slide down until it fits into place. Slight pressure upwards should not move the cradle.
5. Position the antenna vertically (pointing toward the ceiling).
6. Place the scanner in the cradle.



Inserting Phaser in the Cradle

Place the scanner in the cradle so that the top of the scanner sits in the larger part of the cradle and the metal contacts on the bottom of the scanner touch the contacts on the cradle.



Pairing

The wireless "connection" between the scanner and cradle is the low power radio transmission through RF transceivers in both the scanner and cradle. Communication consists of bidirectional message packets.

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However, the scanner and cradle must be paired for this communication to work.

Note: After a new host is installed at the cradle, re-scan the pairing bar code. This allows the cradle to notify the scanner of the change in the host device.

To pair the scanner with the cradle:

1. Scan the pairing bar code on the top of the cradle. A duplicate pairing bar code is located in the well on the bottom of the cradle.
2. Insert the scanner into the cradle (recommended but not required). Note that you cannot scan data until this linking is complete.
3. At that time there is an exchange of information between the scanner and the cradle. This occurs in a few seconds if the scanner is in the cradle or over a minute if not in the cradle.
4. After the exchange is complete, the scanner and cradle are paired. Successful pairing is indicated by a warble beep; failure, or unsuccessful link, is indicated by a Lo Hi beep.

Sending Data to Host Computer

The cradle receives data from the scanner and transmits it to the host computer via the interface cable.

Recharging the Battery in the Scanner

To charge the scanner's battery, place the scanner in the cradle, ensuring the metal contacts on the bottom of the scanner touch the contacts on the cradle. A complete charge takes up to 4 hours, depending upon the remaining charge in the battery.



Charging LED

Once the scanner is placed in the cradle, it waits 15 minutes to start charging the battery in the scanner. The LED indicates the charging status as follows:

Off	Scanner is not in cradle
Slow Blink	Scanner is in cradle, not charging
Fast Blink	Scanner is in cradle, charging
On	Scanner is in cradle, charge cycle is complete

Troubleshooting

If the cradle does not work after you've followed these operating instructions:

- Check the system power.
- Check for loose cable connections.
- Check that the scanner is sitting properly in the cradle.

Cleaning

Wipe the cradle periodically with a lens tissue or other material suitable for cleaning optical material, such as eyeglasses.

Caution: Do not pour, spray or spill any liquid on the cradle.

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.

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 adhering to 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.

Power Supply

Note: Use only a Symbol-approved power supply 50-14000-101 output rated 9 Vdc and minimum 1 A. The power supply is certified to EN60950 with SELV outputs.

Hinweis: Benutzen Sie nur eine Symbol Technologies genehmigt Stromversorgung 50-14000-101 in den Ausgabe: 9 Vdc und



minimum 1 A. Die Stromversorgung ist bescheinigt nach EN60950 mit SELV Ausgaben



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 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 B digital apparatus complies with Canadian ICES-003.

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

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Label Marking: The Term "IC:" before the radio certification only signifies that Industry Canada technical specifications were met.



Marking and European Economic Area (EEA)

2.4GHz devices for use through the EEA have the following restrictions:

- Maximum radiated transmit power of 10 mW EIRP in the frequency range 2.400 -2.4835 GHz
- France, equipment is restricted to 2.446 -2.454 GHz frequency range
- Italy requires a user license for outside usage.

Statement of Compliance

Symbol Technologies, Inc., hereby, declares that this device is in compliance with the essential requirements and other relevant provisions of Directives 1999/5/EC, 89/336/EEC and 73/23/EEC. Declaration of Conformities may be obtained from <http://www2.symbol.com/doc/>

Other Countries

Mexico - Restrict Frequency Range to: 2.450 - 2.4835 GHz.

Israel - Restrict Frequency Range to: 2.418 - 2.457 GHz.

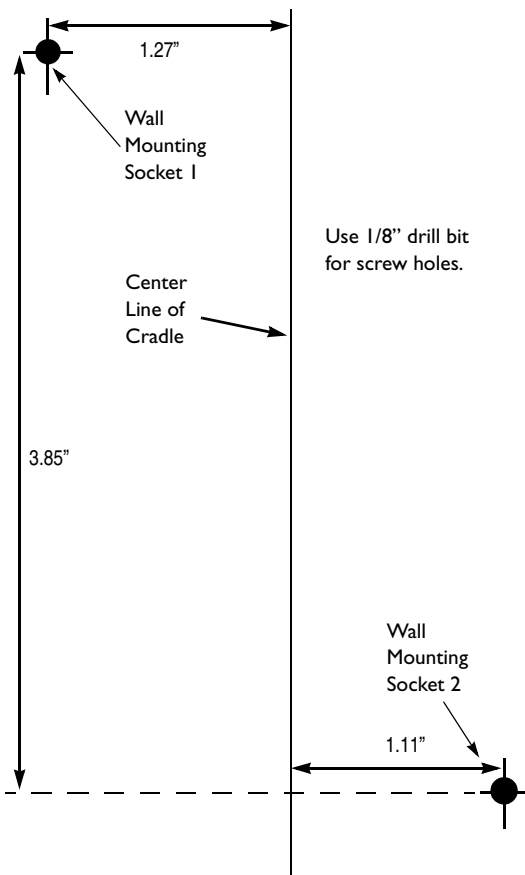
Sri Lanka-Restrict Frequency Range to: 2.400 - 2.430 GHz.



Warranty

(A) Seller's hardware Products are warranted against defects in workmanship and materials for a period of twelve (12) 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.

Wall Mounting Template



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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	337-6588
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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