

Mobius™

**Model CCRF-5020-10-WW
IEEE 802.11b Access Port**

Hardware Installation Guide

Pre-Release

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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.

4,460,120; 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; 5,216,232;
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; 5,321,246; 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; 5,557,093; 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; 5,850,078;
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; 6,047,892; 6,050,491; 6,053,413; 6,056,200; 6,065,678; 6,067,297;
6,068,190; 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; 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

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 81/0938; Italy
1,138,713

Symbol Technologies, Inc.
One Symbol Plaza Holtsville, N.Y. 11742-1300
Telephone: (800)SCAN234, (516) 738-2400
Telex: 6711519
<http://www.symbol.com>

About this Document

Audience

This guide is intended for the technician responsible for installing the Mobius Wireless LAN Switch. It is also assumed that the technician is familiar with Ethernet LAN-based networking concepts.

Purpose

The purpose of this document is to provide specifications, features and guidelines for the installer to use during installation. This document does not give site-specific installation instructions. Refer to site-specific documentation, derived from site survey and site network analysis, for detailed installations.

Document Conventions

Before working on any equipment, be aware of the hazards associated with its installation and use. Also, become familiar with standard practices for preventing accidents.

Note: Indicates tips, hints and special requirements that the reader should take note.

Caution! *Indicates that care is required. Disregarding cautions can result in data loss or equipment damage.*

WARNING! *Indicates a potentially dangerous condition or procedure that only Symbol-trained personnel should attempt to correct or perform.*

Warnings

WARNING! *Only trained and qualified personnel are allowed to install this equipment.*

WARNING! *Read all installation instructions and site survey reports, and verify correct equipment installation before connecting the system to its power source.*

WARNING! *Remove any jewelry (rings, watches, necklaces, etc.) while installing this equipment.*

WARNING! *Verify that any device connected to this unit is properly wired and grounded.*

WARNING! *Verify connecting power circuits have appropriate overload protection.*

WARNING! *Attached only approved cables to this device.*

WARNING! *Verify adequate ventilation around the device, and that ambient temperatures meet equipment operation specifications.*

WARNING! *Verify uninterruptible power sources, if equipment is carrying emergency traffic.*

WARNING! *Install unit in plenum-rated ceilings only.*

WARNING! *Do not include the surface assembly for plenum-rated ceiling mounting.*

Introduction

The Mobius Access Port provides area coverage to 802.11b wireless network devices. The Access Port includes different installing options, allowing best placement for the operate with its optimum range.

The standard mounting base allows the unit to get secured to most surfaces by the use of two screws. The ceiling mounting option allows the unit to attach to ceiling by a single screw

The Access Port receives power and transfers data through the same (CAT-5) cable.

Technical Specifications

Operating Voltage	48 vdc (typical) 36 vdc to 57 vdc (range)
Operating Current	10 mA to 150 mA
Peak Current	250 mA
Operating Temperature	-20°C to 50°C
Operating Humidity	5% to 95%
Storage Temperature	-40° to 70°C
Altitude	2.4 km (operating max) 4.6 km (storage max)

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Drop	.8 meter (to concrete)
MTBF	27,000 hrs
Electrostatic Discharge	+/-15 kV (air discharge) +/-8 kV (contact discharge) +/-2 kV (pin discharge)

Preparing for Site Installation

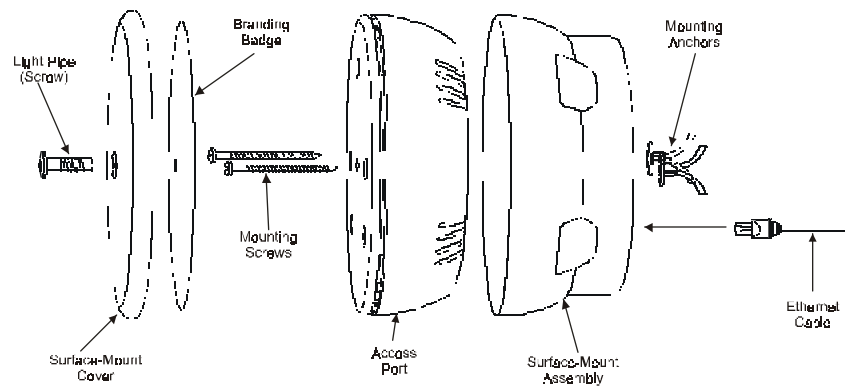
Verify that the contents of the box include the following:

- Access Port Assembly
- Surface-Mount Assembly
 - Mounting Anchors
 - Mounting Screws
- Surface-Mount Badge
- Surface-Mount Cover
- Surface-Mount Light Pipe Screw
 - Ceiling-Mount Grommet
 - Ceiling-Mount Badge
- Ceiling-Mount Light Pipe Screw
 - Installation Guide

Review Site survey and network analysis reports to determine the method for Access Port installation.

Surface Mounting

Mobius Access Ports mount to any surface, using the surface mounting screws. Use the mounting mask to determine the proper placement for the unit and the mounting screws.



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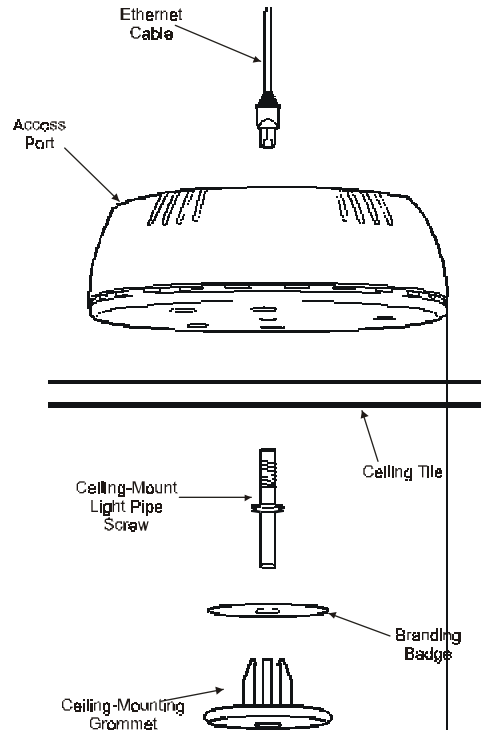
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Ceiling Mounting

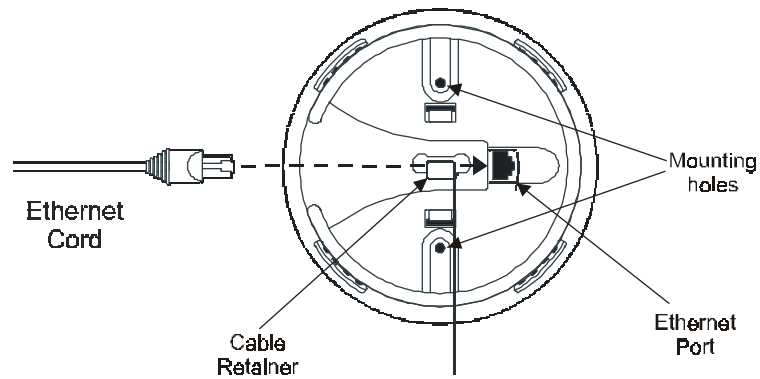
Some installations require Access Port mounting above the ceiling tile. The type of installation hides the unit and cable away from visual access.

Note: Use this installation in plenum-rated ceiling configurations. Verify that the attaching Ethernet cable is also plenum rated.

Caution! Use care when pulling cables attached to a mounted unit.



Power/Data (RJ-45) Connection



The Access Port receives power from the Ethernet cable. It supports the following Symbol-branded Power-Over-Ethernet devices.

Mobius 1-Port Power Port (Model)

Mobius 12-Port Power Port (Model)

Note: Review installation plans to determine device placement and cable routing.

Customer Support

Symbol Technologies provides its customers with prompt and accurate customer support. Use the Symbol Support Center as the primary contact for any technical problem, question or support issue involving Symbol products.

If the Symbol Customer Support specialists cannot solve a problem, access to all technical disciplines within Symbol becomes available for further assistance and support. Symbol Customer Support responds to calls by email, telephone or fax within the time limits set forth in individual contractual agreements.

When contacting Symbol Customer Support, please provide the following information:

- serial number of unit
- model number or product name
- software type and version number.

North American Contacts

Inside North America, contact Symbol by:

- **Symbol Technologies, Inc.**
One Symbol Plaza
Holtsville, New York 11742-1300
Telephone: 1-516-738-2400/1-800-SCAN 234
Fax: 1-516-738-5990
- **Symbol Support Center**
telephone: 1-800-653-5350
fax: (516) 563-5410
Email: support@symbol.com

International Contacts

Outside North America, contact Symbol by:

- **Symbol Technologies, Inc.**
Symbol Place
Winnersh Triangle, Berkshire, RG41 5TP
United Kingdom
0800-328-2424 (Inside UK)
+44 118 945 7529 (Outside UK)

Symbol Developer Program Web Site

<http://software.symbol.com/devzone>

Symbol Knowledge Base

<http://kb.symbol.com/register.asp>

Additional Information

Obtain additional information by contacting Symbol at:

- 1-800-722-6234, inside North America
- +1-516-738-5200, in/outside North America
- <http://www.symbol.com/>

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