

Wireless Interface	TW-522: Dual radio; 802.11a/b/g/n/ac; 2.4GHz and 5GHz TW-524: Single radio; 802.11a/b/g/n; 2.4GHz and 5GHz
LAN Ethernet port	2 x IEEE 802.3 10/100/1000MB auto-sensing via RJ45
Uplink UTP	1 x VDSL2 via RJ11
Pass through phone port	Filtered RJ11 port
Medium	DSSS, OFDM, MIMO
Network Standards	802.11a/b/g/n, 802.11i, 802.11-2007, 802.11ac (TW-522 only)
Data rates	802.11a: 1, 2, 5.5, 11Mbps 802.11g: 6, 9, 12, 18, 24, 36, 48, 54Mbps 802.11n: MCS 0-15, up to 300Mbps 802.11ac: MCS 0-9, up to 400Mbps (TW-522 only)
Operating frequencies*	2.4GHz: 2400 to 2483.5MHz 5GHz: 5150 to 5250MHz, 5725 to 5850MHz
Transmit power settings*	1 to 20dBm in 1dBm increments
Antenna configuration	Two internal omni-directional, 1x2 or 2x2 MIMO operation 4dBi peak @ 2.4GHz, 5dBi @ 5GHz

*Operating frequencies and transmit power settings depend on national regulatory limits.

TS-524 and TW-5xx Specifications

Installing In-line Filters

The TW-5xx Wallplate features a built-in *Plain Old Telephone Service (POTS)* and Line Power filter for the desk phone. Install an in-line filter on all other phone jacks that will have a phone connected.

The terminated filter has a clipped RJ11 connector. This is purposely done to comply with EN60950 requirements. Use a small flat blade screwdriver to lift the tab if attempting to remove the filter.



If installing a filter on a bathroom phone, use the unterminated filter. Remove the bathroom wall plate and terminate the filter in the wall box using wire beans.



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- This equipment should only be installed by qualified professional installers.
 - Read all installation instructions and site survey reports, and verify correct equipment installation before installing this equipment.
 - Remove jewelry and watches before installing this equipment.
 - Verify proper wiring and grounding for each installation location.
 - Verify there is adequate ventilation around the device, and that ambient temperatures meet equipment operation specifications (0° to 40°C / 32° to 104°F except TW-522 which is 0° to 35°C / 32° to 95°F).

Warnings



WARNING! Indicates a condition or procedure that could result in personal injury or equipment damage.



CAUTION Care is required. Disregarding a caution can result in data loss or equipment malfunction.



NOTE Tips, hints, or special requirements that you should take note of.

The following graphical alerts are in this document to indicate notable situations:

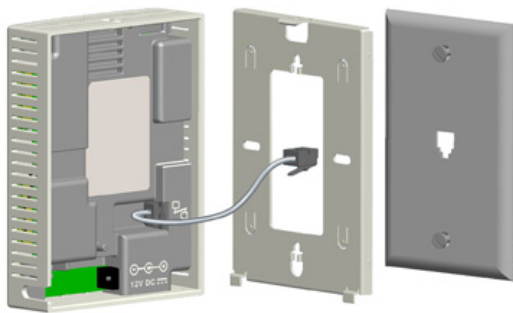
Document Conventions

This installation guide applies to TS-524 (P/N TS-0524-WR), TW-522 (P/N TW-0522-67030-US, -EU, -WR), TW-511 (P/N TW-0511-60010-US, -EU, -WR), and TW-510 (P/N TW-0510-WR). The TW-5xx Series Wired/Wireless WallPlate is designed for multi-tenant buildings such as hotels, healthcare facilities, apartments, and dormitory housing. The TW-5xx is designed to leverage the in-building telephone wiring to deploy Ethernet and wireless LAN networks without the effort and expense of re-wiring with structured cabling.

Introduction

Installing the TW-5xx WallPlate

1. Loosen the screws on the existing wall plate to create a gap of 6mm (1/4 in).
2. Attach the mounting adapter using the keyhole slots.



3. Tighten the screws until the mounting adapter is securely attached.



CAUTION Do not over tighten.

4. Connect the supplied 10cm cable between the TW-5xx bottom mounted RJ11 jack and the existing RJ11 jack.
5. Hook the bottom tabs on the mounting adapter to the TW-5xx. Rotate and snap the TW-5xx onto the adapter.

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Installation Guide

TS-524 Switch and TW-5xx WallPlate

Network Configuration (TS-524)

The following will enable all ports and configure one wireless LAN:

Serial Console Connection	Default IP Address
Speed: 19200 Data Bits: 8 Parity: None Stop Bit: 1 Flow Control: None	192.168.1.3

Log in to the system using Telnet, SSH, HTTP, or Serial Console using the default username and password:

Username: **admin**
Password: **admin123**

Enter the following commands:

```
config
password admin <enter your new password>
country-code <xx = your country>
hostname <enter your hostname>
interface vlan1 ip-address 192.168.1.1/24
wlan Guest
exit
int dsl1-24 no shutdown
int radio1-24.1
channel 6
power 18
wlan Guest
no shutdown
exit
```

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Enabling Line Power

Line power should be enabled after the filters and TW-5xx WallPlate have been installed. Line power is safe for use with telephony equipment but it will ring the phones if the filters are not installed first.

To enable line power, enter the following commands into the CLI:

```
interface dsl1-24 line-power
write memory
```

Regulatory Information

This guide applies to Model Numbers: TS-524, TW-510, TW-511, and TW-522.

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

Local language translations are available at the following website:

www.zebra.com/support

Any changes or modifications to Zebra equipment, not expressly approved by Zebra, could void the user's authority to operate the equipment. When Zebra devices are professionally installed, the Radio Frequency Output Power will not exceed the maximum allowable limit for the country of operation.

Antennas: Use only the supplied or an approved replacement antenna. Unauthorized antennas, modifications, or attachments could cause damage and may violate regulations.

Radio Modules

The **TW-511** contains an approved radio module. This module is identified below:

802.11 a/b/g/n WLAN, Type: TW-5

Wireless Device Country Approvals (TW-511 and TW-522 Only)

Regulatory markings, subject to certification, are applied to the device signifying the radio(s) is/are approved for use in the following countries: United States, Canada, Japan, China, S. Korea, Australia, and Europe.

Please refer to the *Declaration of Conformity (DoC)* for details of other country markings. This is available at www.zebra.com/doc.

Note: Europe includes, Austria, Belgium, Bulgaria, Czech Republic, Cyprus, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovak Republic, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.



Operation of the device without regulatory approval is illegal.

Country Selection

Select only the country in which you are using the device. Any other selection will make the operation of this device illegal. The US version of the Access Point will operate only if US country code is selected. The US version will be sold / used in the US protectorates: American Samoa, Guam, Northern Marianas, Puerto Rico, US Virgin Islands.

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