

# F-20

## Instruction Manual



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## **DECLARATION OF CONFORMITY WITH FCC RULES FOR ELECTROMAGNETIC COMPATIBILITY**

We, AnMo Electronics Corporation, of 5F-1, No. 76, Sec. 2, Tung-Da Rd., Hsinchu 300, Taiwan, declare under our sole responsibility the product,

### **WF-20**

to which this declaration relates, complies with Part 15 of the FCC Rules. 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.

## **FCC Radiation Exposure Statement**

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. End user must follow the specific operating instructions for satisfying RF exposure compliance.

## **Federal Communication Commission Notice**

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. 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 and correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the distance 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.

## **FCC Caution:**

- Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.
- For product available in the USA/Canada market, only channel 1~11 can be operated. Selection of other channels is not possible.

# Introduction

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The WF-20 is a Wi-Fi streamer, as well as a wireless router, to use combinedly with Dino-Lite Edge AF series for viewing and sharing observation without wire. With high quality image transmission and long battery life, the WF-20 is well suited for field applications.

## System Requirement

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**Mobile device or computer with operating system:**

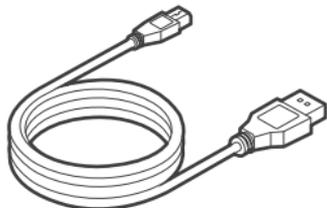
- iOS 10.X or later
- Android 6.0 or later
- Windows XP (SP3)/Vista/7/8/10

**Compatible Dino-Lite Digital microscope:**

- Dino-Lite Edge AF series

## Package Contents

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Mini USB charging cable

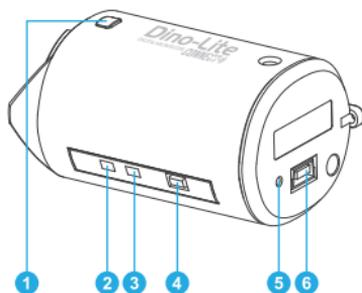


Rubber lid



Dino-Lite WF-20  
Wi-Fi streamer

# Overview and Function

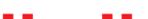
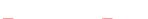


- 1 Interface release button
- 2 Wi-Fi signal LED indicator
- 3 Battery LED indicator
- 4 On / Off power button
- 5 Reset pinhole button
- 6 Mini USB port (for charging purpose)

## Button usage and description:

Buttons	Description
On / Off power button	Press and hold for 1.5 seconds to turn on/off
Reset pinhole button	Press and hold the pinhole button for 3 seconds to restore factory settings

## LED status and description:

Indicator	Status
Green LED (Wi-Fi signal)	 Blinking Data transferring
Red LED (battery level)	 3 flashes per cycle Battery remains >70%
	 2 flashes per cycle Battery remains <70%
	 1 flash per cycle Battery remains <40%
	 Solid Battery full charged
	 Blinking repetitively Battery under charging

# Getting Started

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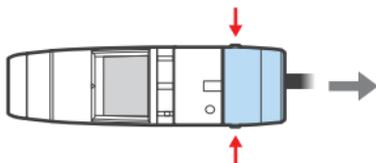
## Charging the Batter

Charge the WF-20 by connecting to a computer or a USB charger using the Mini USB charging cable.

## Assembling the Device

The WF-20 needs to be used with Dino-Lite AF series. The assemble procedure is as described below.

1. Pressing the two interface release buttons at the same time to remove the USB interface adapter cap.



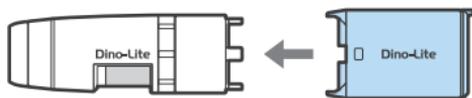
### Notice:

Do not bend the join part anytime especially when releasing the USB adapter cap or WF-20. Doing so may cause damage on the devices.

2. Remove the rubber lid from the WF-20. Suggest to cover the rubber lid onto the USB adapter cap for preventing dust build-up inside.



3. Attach the WF-20 onto AF series with the Dino-Lite logos facing the same side.



## Downloading the APP or software

### iOS/Android

Download and install DinoConnect from the Apple© App Store© or Google Play□.

### Windows

Install DinoCapture 2.0 version 1.5.30 or above via CD. The latest version of DinoCapture can also be downloaded from <https://www.dino-lite.com/download01.php>.

## Powering on

Press the power button for 1.5 seconds to power on. The startup process may take about half minute until the Dino-Lite□ LED lit up.

### To power off

Press the power button again for 1.5 seconds.

## Setting the Network

### iOS/Android

1. Go to settings of your iOS/Android device.
2. Turn on Wi-Fi.
3. Select WF-20□ SSID (default: □Dino-Lite WF-20□), and input password (default: □12345678□).
4. Launch DinoConnect for using Dino-Lite.
5. (Optional) When multiple WF-20 are using nearby, be advised to change WF-20□ SSID and password in DinoConnect settings □ for distinguishing purpose.



## Windows PC/laptop

1. Turn on Wi-Fi of your computer, and select the Network by clicking  or  icon in the notification area.
2. Select WF-20's SSID (default: "Dino-Lite WF-20"), and click the **Connect** button.
3. Enter the security key (default: "12345678"), and click **Net** to connect.
4. Launch DinoCapture 2.0 for using Dino-Lite.

## Joining Wireless Network

You may further setup the WF-20 as a router to build connection between your mobile and a wireless network.

1. Open DinoConnect settings .
2. Tap "Choose a network".
3. Choose a network, then enter password.

Now your device is able to connect with the chosen network via the WF-20. The device will remember the last connected wireless network.

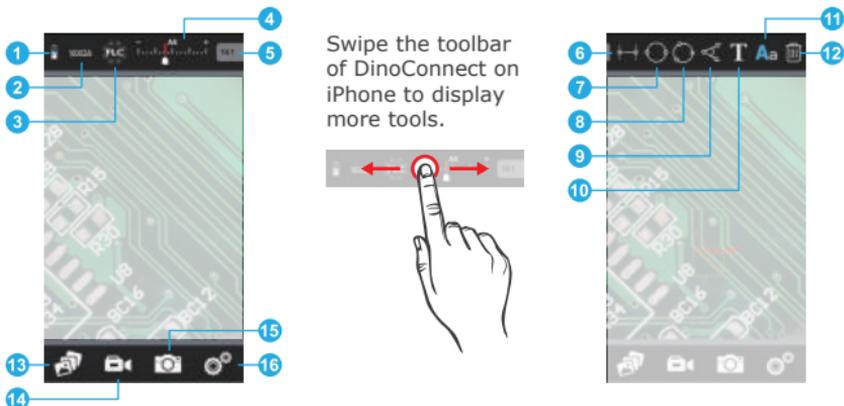


### Note:

The WF-20 can be possibly connected up to 10 mobile devices at the same time, but it is recommended to keep less than 5 connections for retaining image fluency.

# DinoConnect APP Overview

## DinoConnect on iOS



No.	Function	Description
1	Battery indicator	Battery level of the WF-20.
2	Resolution setting *	To choose resolutions.
3	LED switch *	To control Dino-Lite's LED lighting.
4	Exposure control *	To adjust exposure.
5	Magnification display box	To input magnification. (Doesn't required with AMR models.)
6	Line measurement	To measure linear distance between two endpoints.
7	Diameter circle	To measure the circumference, area, and radius of a circle that passes two endpoints of the diameter.
8	Three points circle	To measure the circumference, area, and radius of a circle that passes three endpoints.
9	Three points angle	To measure the angle between three endpoints.
10	Text	To write texts on the image.

11	Text color/size	To change text color and size.
12	Trash bin	To delete measurement and text on the image.
13	Gallery	To view captured images or recorded videos of Dino-Lite.
14	Record button	To start or stop video capture.
15	Shutter button	To capture an image.
16	Settings *	To change settings of connections, MicroTouch, etc.

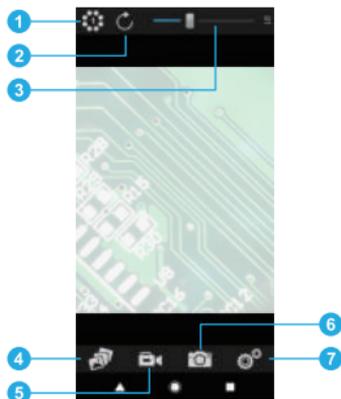
**Note\*:**

Only the first connected PC/mobile device has the exclusive control right on WF-20.

### How to do measurement on iOS

1. Select the measurement function on the toolbar.
2. Input the magnification.  
(Doesn't required with AMR models.)
3. Tap on the image to define an endpoint.
4. To fine adjust the endpoint's position, use swipe gesture to control the endpoint's movement.
5. Repeat step.2 and 3 to define other endpoints required by the measurement.
6. Tap anywhere to complete the measurement.

## DinoConnect on Android



No.	Function	Description
1	LED switch *	To control Dino-Lite's LED light.
2	Refresh button	To refresh preview image.
3	Exposure control *	To adjust the exposure.
4	Gallery	To view captured images or recorded videos of Dino-Lite.
5	Record button	To start or stop video recording.
6	Shutter button	To capture an image.
7	Settings *	To change settings of resolution, connections, MicroTouch, etc.

### Note\*:

Only the first connected PC/mobile device has the exclusive control right on WF-20.

## Batter Information

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The built-in battery of WF-20 has a limited lifespan and may eventually need to be serviced. Do not repair or replace the built-in battery of WF-20. Please contact your local dealer and they will help to send back to the manufacturer for replacing the battery, which is not covered under warranty.

The WF-20 was designed to have more than 2.5 hours battery life, but may vary with different Dino-Lite model and the way of using. Charging the WF-20 may take 3-4 hours by a USB charger or a power bank. The WF-20 can still be used while charging, but be noted that extra heat will be generated and may affect circuit performance under poor ventilation.

The battery of WF-20 retains average 80% of its original capacity after 500 charge cycles. The following tips may help to prolong battery lifespan:

- Avoid draining the battery all the way to 0%.
- Prevent exposing or charging the WF-20 at temperature above 30°C (86°F).
- Charge the WF-20 to 50% for long-term storage.
- Store the WF-20 at 15~25°C (59~77°F).

For extending battery life, you may consider to reduce Dino-Lite's LED brightness in APP or software.

# Specifications

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Product name	WF-20
Support protocol	Wi-Fi IEEE802.11b / g / n
Antenna	2.4GHz Wi-Fi FPCB antenna
Frequency	2.412GHz~2.485GHz
SSID (default)	Dino-Lite WF-20
Battery	1600mAh
Power consumption	2.5W
Battery continuous operation time	2.5 hours (tested by using with AF4915)
Operation temperature	10~45℃ (50~113℉)
Dimensions	58mm x 36.5mm x 32mm
Weight	approx. 57g (with battery)