TF3303W

WIFI Borescope

USER'S MANUAL

INTRODUCTION

This Wifi iSNAKESCOPE is a unique instrument that can wirelessly stream high-quality video from a camera at the tip of a long probe to the screen of a nearby iPhone® or iPad® or Android™ smartphone or tablet computer.

Application Possibility include inspections of hard-to-reach or hard-to-see areas like crowded engine compartments, equipment enclosures or HVAC ductwork.

To receive the video, the smartphone or the tablet computer must install and run a free app ("iSNAKESCOPE"), downloadable from the iTunes® App Store., or from the Google Play Store.

Soft buttons on each app allow the user to record inspection video clips and take snapshots of the video stream and store them on the iPhone, iPad or Android device. A saved clip or snapshot can be shared immediately by attaching it to a text message, or shared later via e-mail or Skype™. All transfers between iSNAKESCOPE and the iPhone/iPad or Android device are wireless, via an ad hoc WiFi hot spot (without Internet access) generated by the instrument.
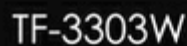
PRODUCT OVERVIEW

Fig. 1 shows the controls, indicators and physical features of the iSNAKESCOPE instrument.

Fig. 2 shows the unit's standard accessories. Familiarize yourself with the names and functions of all components before moving on to the Setup Instructions and Operating Instructions.

Fig. 1. iSNAKESCOPE **physical features, indicators, controls.**

1. WiFi status light: Green light on = No signal , Green light slow flash=signal sent ,but connection failed, Green light quick flash=signal sent and connected, Green and red light on both= low battery
2. Power switch/brightness adjustment thumbwheel, for camera and LEDs
3. Battery room
4. Camera and LEDs
5. Magnetic pickup
6. 45° mirror
7. Pickup hook

Fig. 2. iSNAKESCOPE**'s standard accessories**

Installation

Please install the batteries before using the product, choose the accessory according to the actual situation. Steps of installation as following:

To Install Batteries

1. Remove the cover. (Fig3)
2. Remove battery compartment (Fig4) and insert 4 new AA (1.5 V) batteries into the proper slots in the battery compartment. Proper battery orientation is indicated on the battery compartment.
3. Reinstall battery compartment and battery cover.(Fig5)
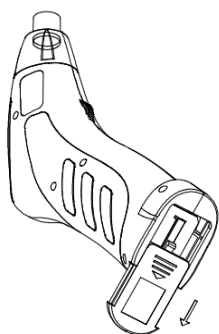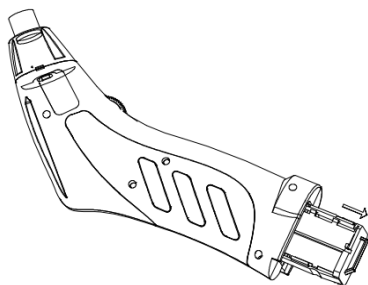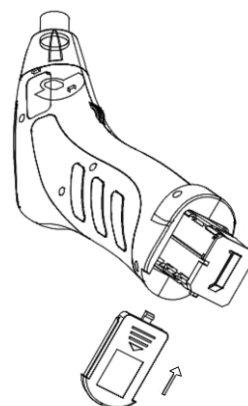
Fig3   Fig4   Fig5

DOWNLOAD THE APP (APPLE iOS AND ANDROID DEVICES)

➢ To download the free Apple app that enables iSNAKESCOPE (the instrument):

First, make sure that your iPhone or iPad is connected to the Internet. Then touch the App Store icon to visit the Apple App Store. Then enter "iSNAKESCOPE" in the Search box. When iSNAKESCOPE's landing page appears, touch the Free App link at the upper left of the page.

You will be prompted to sign in to the iTunes Store using your Apple ID and password. If you do not have an Apple ID, you can create one now.

Before downloading the app, you will be shown Apple's Privacy Policy page. Select the box indicating that "I have read and agree to these terms and conditions." Then touch Agree. Doing so will return you to the landing page of the iSNAKESCOPE app and begin downloading it.

➤ To download the free Android app that enables iSNAKESCOPE (the instrument):

Make sure that your device is connected to the Internet.

Go to the Google Play Store and enter "iSNAKESCOPE" in the Search box at the top of the store's home page.

On the APPS screen that appears next, touch the iSNAKESCOPE icon.

On the iSNAKESCOPE app's landing page that appears next, touch the Install button at upper right.

On the next screen, touch the "Accept & download" button.

While the app downloads, on the following screen check the "Allow automatic updating" box

The installation should take less than a minute. Installation is complete when you receive a notification that "iSNAKESCOPE" [has been] "Successfully installed."

To activate the iSNAKESCOPE app and begin displaying inspection video on your Apple iOS or Android device, you must disconnect from the Internet and establish connectivity between your device and iSNAKESCOPE 's ad hoc WiFi network by following the Operating Instructions for your platform in the next section.

OPERATING   INSTRUCTIONS

APPLE iOS PLATFORM VIEWING VIDEO

1. Turn on iSNAKESCOPE by rolling the power switch/brightness adjustment thumbwheel (Fig. 1, Callout 2) to the right until you hear a click. The WiFi status light on top of the unit will glow slow flashing for 30 seconds while iSNAKESCOPE prepares to generate an ad hoc hot spot (without Internet connectivity).

2. When the light turns slow flashing, power on your device and touch the **Settings** icon (Fig. 6 the top button at the right side)to open your Settings screen(Fig. 7).

3. Touch the WiFi row to enter the WiFi Networks screen. The iSNAKESCOPE hot spot should appear in the list of available networks. Touching the iSNAKESCOPE row connects the instrument to the network, enabling wireless transmission of probe video to a nearby iPhone or iPad running the iSNAKESCOPE app. Be aware that while you are connected to the ad hoc iSNAKESCOPE WiFi network, your iPhone/iPad will not have Internet connectivity.

4. The first time you try to connect to the hot spot, you will be prompted to enter the app's password (the default password is 12345678). Thereafter, you will not be asked for a password; the iSNAKESCOPE line will already have a check mark.

5. Touch the button on your iPhone/iPad to back out of the Settings screen., choose iSNAKESCOPE and then the WiFi status light on top will glow quick flashing. The connection has been established , and all of the functions can be used now.

Fig6

Fig. 7

Fig. 8

6.   Let's go ahead to learn the   five   soft buttons at the right side   of the iSNAKESCOPE app. The second

button can turn the image upside down(Fig. 9),and the icon of the button will change(Fig. 10) ,too.
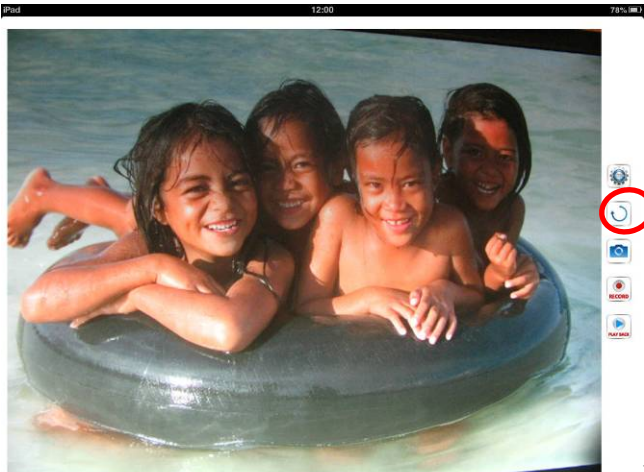

Fig. 9

Fig. 10

7.Enabling live video activates you can just touch the button , the button will change(Fig. 11)when you need to stop, you can press button to stop it.,
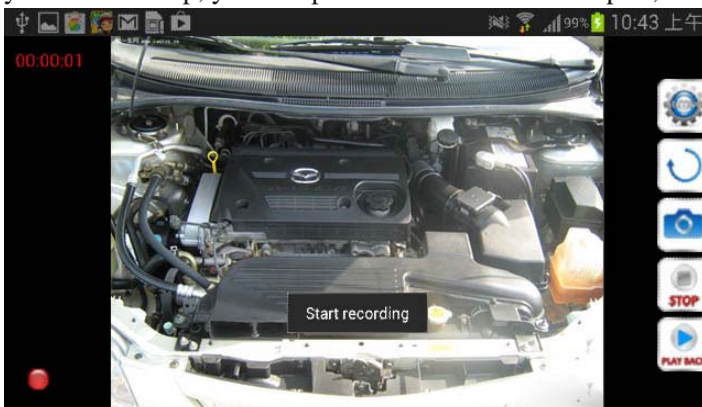

Fig. 11

8.To save a still image (also called a screen grab) of live video or paused video, touch the **SNAP SHOT** soft button at the side   of the app. The familiar sound of a camera shutter confirms that a picture was taken. Pictures are stored as .jpg files within the Photos folder of your iPhone/iPad.

9.To view your movies or pictures, touch the button ,and the results   will   list on the   screen for you to choose .(Fig. 12) If   the result is not what you need ,you just can delete it .(Fig. 13)
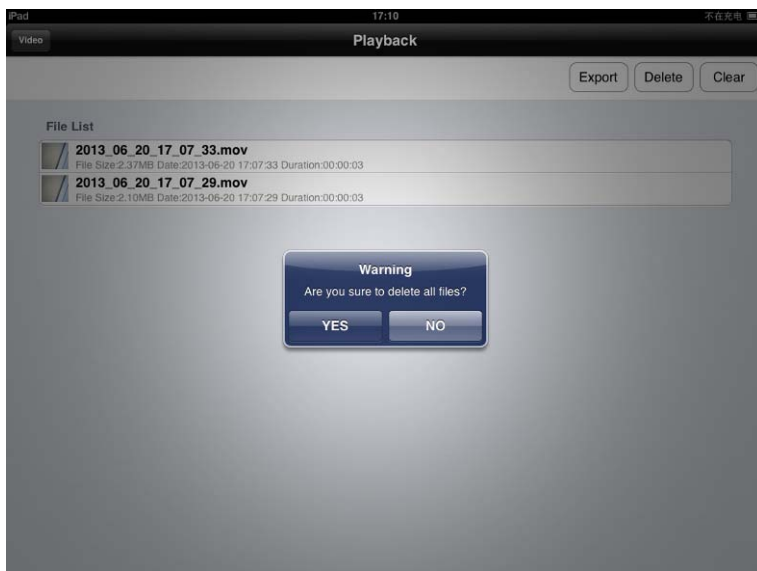
 Fig. 12

 Fig. 13

While your iPhone/iPad is connected to iSNAKESCOPE ad hoc WiFi network, your mobile device will not have Internet access. So if you want to share any snapshots immediately, you must do so by attaching them to text messages you send over your cellular network. After you have disconnected your device from the iSNAKESCOPE network, you can connect to another WiFi network with Internet access and share your pictures using e-mail or Skype.

ADVANCED SETTINGS

To open the iSNAKESCOPE app's advanced settings screen (shown at right), touch the **Setting** button at upper right.

As the screen shot shows, you can change iSNAKESCOPE WiFi Service Set Identifier (SSID) or password or adjust its video settings while watching live video in the window in the middle of the screen.(Fig. 8)

The default WiFi SSID for the unit is iSNAKESCOPE. The default WiFi password is 12345678.

You can change either value to any combination of letters and numbers that is at least eight digits long.

In addition to WIFI ,there are Resolution and Brightness two kind of setting.. (Fig. 14) ,touch the button and flow the leading ,you can choose the appropriate one, And if you need to return the beginning setting, just touch the "restore factory setting " button(Fig. 12) and answer yes ,you can turn back the beginning setting.
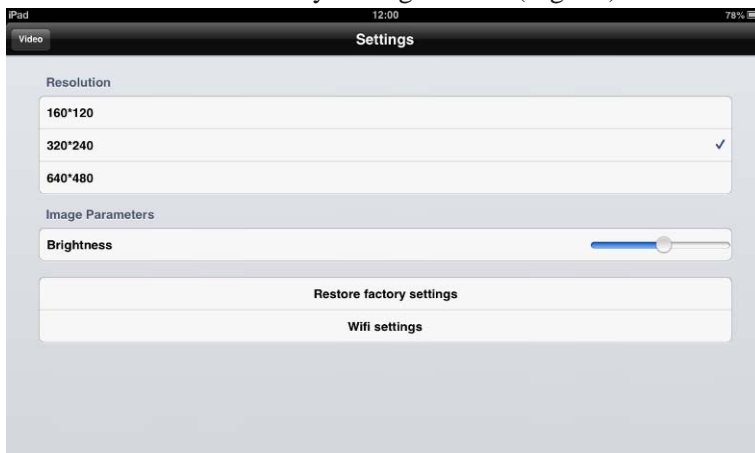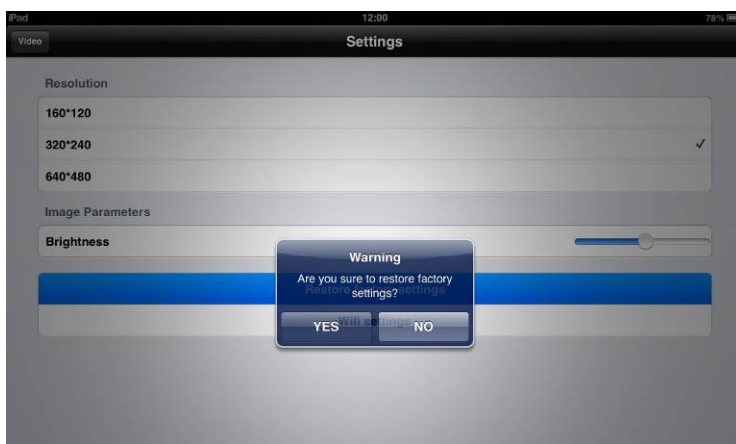

Fig. 14

Fig. 15

ANDROID PLATFORM VIEWING VIDEO
1) Turn on iSNAKESCOPE by rolling the power switch/brightness adjustment thumbwheel (Fig. 1, Callout 2 to the right until you hear a click. The WiFi status light on top of the unit will glow red for 30 seconds while iSNAKESCOPE prepares to generate an ad hoc hot spot (without Internet connectivity).
2) When the light turn slow flashing, power on your device and touch the ▤ (Menu) button at lower left, followed by the System Settings line.
3) Touch the ON soft button on the right side of the Wi-Fi row to enable WiFi connectivity.
4) Touch the left side of the Wi-Fi row to enter the Wi-Fi Networks screen. iSNAKESCOPE's hot spot should appear in the list of available networks. Touch the iSNAKESCOPE row, and then the Connect soft button at the right of the next screen. When "Connected" appears in the iSNAKESCOPE row, your Android device is ready to receive wifi (Fig. 16) transmissions of probe video. Be aware that while you are connected to the ad hoc iSNAKESCOPE WiFi network, your device will not have Internet connectivity.
5) The first time you try to connect to the hot spot, you may be prompted to enter the app's password (the default password is 12345678). Thereafter, you will not be asked for a password; the iSNAKESCOPE row will already have a check mark(Fig. 17). Touch the button on your ANDROID device to back out of the Settings screen., choose iSNAKESCOPE and then the WiFi status light on top will glow quick flashing. The connection has been established , and all of the functions can be used now

Fig. 16

Fig. 17

6) Touch the Home ⬚ or ⬚ button on your device to exit the Wi-Fi networks screen.
7) Locate the iSNAKESCOPE icon among your apps and touch it. The screen at right will appear, with live video in the main viewing area.

TAKING AND VIEWING PHOTOS

To save a still image (also called a screen grab) of live video or paused video, touch the SNAP SHOT soft button at the right side of the app. The familiar sound of a camera shutter confirms that a picture was taken. All photos you take are immediately and permanently stored as .jpg files in a dedicated "iSNAKESCOPE" subfolder of the "SD card" folder of your Android device. Any photos you take will be saved to this folder even if no SD card is installed in your device, or an SD card is installed and it is full. If an SD card is missing or full, when you touch the SNAP SHOT button an on-screen prompt will advise "Image Saved in Album!"

To view your pictures, touch the ⬚ button on your device to exit the iSNAKESCOPE app. Locate your iSNAKESCOPE subfolder and open it. The files of all of the photos you have taken on that phone using the iSNAKESCOPE app are stored as tiles. Touch any tile to view the corresponding photo(Fig. 18).
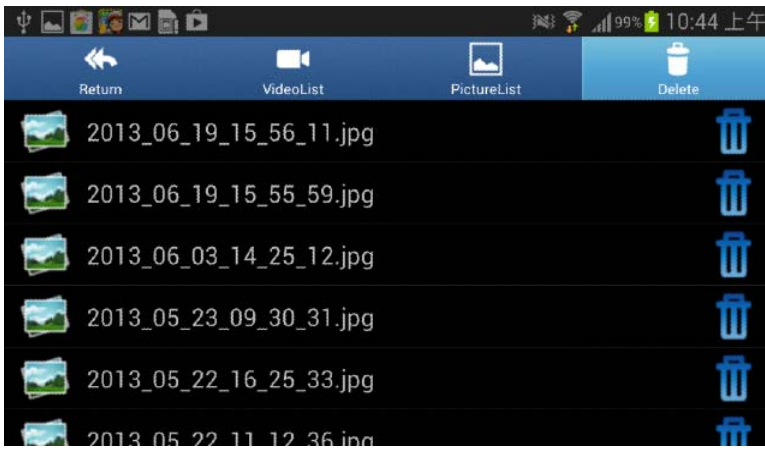
Fig. 18

RECORDING AND PLAYING BACK VIDEOS

➢ To record a clip of live probe video appearing on the screen of your Android device, touch the soft RECORD (RECORD) button on the right side of the app window. causes a red button to appear in the lower left corner of the screen, 2) superimposes the message, Video Recording starts. on the display(Fig. 19) starts a running clock indicating the clip's duration so far in the upper left corner of the window, and 3) begins storing an .mov video clip in the RecordVideo subfolder of the sdcard folder of your Android device (even if no SD card is installed in your device, or an SD card is installed and it is full.)

Fig. 19

➢ To stop recording the video clip, touch the STOP (STOP) button on the right side of the app window.

➢ To prepare to play back a video clip, touch the soft PLAY BACK (PLAY BACK) button at the bottom right of the app window. This will cause the screen at right to appear(Fig. 20):
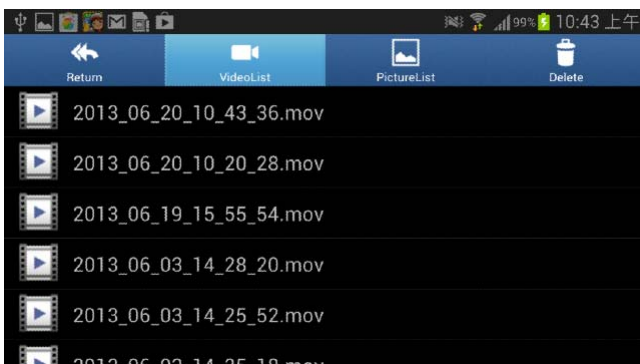

Fig. 20

➢ To play back a video clip, touch its row. This will cause the video to begin playing, superimpose the message Video Playback starts. on the display(Fig. 18), start a running clock indicating the playback position in the upper left corner of the app window.

 Fig. 21

ADVANCED SETTINGS

To change the iSNAKESCOPE Android app's advanced settings(Fig. 21), touch the top (SETTING) button at the upper right of the app. The following screen will appear.

 Fig. 22

Touching the Wi-Fi Setting row produces the following screen(Fig. 23).

Fig. 23

Using this screen, you can change either the default WiFi Service Set Identifier (SSID) of iSNAKESCOPE or password of 12345678 to any string of at least eight letters from A to Z and numbers from 0 to 9. If you make a change, remember to touch the OK button to save the setting. (Fig. 24).

Fig. 24

USING THE PROBE

If you are unfamiliar with video borescopes, be aware that professional users like contractors and technicians typically insert a borescope probe into an orifice (a hole in a wall or an engine's cylinder, for example) or into an inaccessible or hazardous area (the back or an equipment rack or an engine compartment, for example) to view components or environments that would otherwise be invisible. Use the brightness adjustment thumbwheel (Fig. 1, Callout 2) to match the intensity of camera lighting to the application environment.

In practice, professionals usually insert flexible-obedient probes like the one that comes with iSNAKESCOPE head-on into an orifice or area as a first step. They then pull the probe out and adjust its bend one or more times until the camera in the tip is pointing directly at the target or area of interest. With the probe inserted, you can twirl it until video appears right-side up, but in many cases you cannot change the probe's angle of approach very much.

INSTALLING ACCESSORIES

iSNAKESCOPE comes with three accessories (see left photo below) in a Ziploc bag that attach to the camera-tipped end of the probe. Each accessory has a specific purpose:

• The 45° mirror lets the probe see around corners.

• The pickup hook lets you retrieve otherwise inaccessible items seen by the probe—for example, a wedding ring accidentally dropped down a sink drain.

• The magnetic hook lets you retrieve lost or dropped metal objects—nuts and bolts, for example—located by the probe.

Fig. 25

To attach an accessory:(Fig. 25)

1. Hold its metal stem with your thumb and index finger.

2. Slide the accessory—plastic clasp first—past the camera head at the probe tip until the clasp is in the channel 1/4 in. from the end of the probe.

3. Squeeze the clasp until you hear a click (see right photos on previous page), indicating that the two halves have joined.

To detach an accessory:

1. Use the nail of your index finger to unhook the clasp, opening it up.

2. Hold the accessory's metal stem with your thumb and index finger and slide the accessory and clasp past the camera head.

3. Put the accessory back in the Ziploc bag it came in.

SPECIFICATIONS

Image Sensor	1/9" VGA CMOS
Video Resolution	640 x 480 pixels (VGA)
Frame Rate	30fps
Video Streaming Format	MJPG
Operation Temperature	0 ~ 45℃
Mobile Surveillance	iPad / iPad2 / iPhone3/iPad Mini / iPhone4 / iPhone 4S / iPhone5/Android Smart Phones
Security	(WiFi) Password Setup
WiFi Range	60 ft. (18m), max (unobstructed)
Camera Lighting	4 white LEDs
Camera Head Diameter	8.0 mm (Optional Camera Head Diameter available)
Gooseneck Length	70 ± 2 cm
Min. bending radius	45mm
Dust & Water Resistance Rating	IP67 (Probe & Camera Head only)
,Operating Humidity	15-85% RH
Operating Voltage	6V
Storage Temperature	-10-50 °C
Life of full battery	approx 2.5 fours
Power Supply	4*1.5V AA battery(not included)
Accessories	hook, magnet & mirror attachments.

FCC NOTE：
This device 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.

THE MANUFACTURER IS NOT RESPONSIBLE FOR ANY RADIO OR TV
INTERFERENCE CAUSED BY UNAUTHORIZED MODIFICATIONS OR
CHANGE
TO THIS EQUIPMENT. SUCH MODIFICATIONS OR CHANGE COULD
VOID AND
CHANGE ANNTENA WHICH THE MANUFACTURER PROVIDES.
IT IS THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT.