rCloud Help

USER MANUAL

Introduction to Retrotec rCloud

1 Introduction to Retrotec rCloud

1.1 About rCloud

The Future of Testing

Retrotec has released rCloud, the most powerful automated testing app.

rCloud geolocates the test location, automatically performs blower door or duct tests to common standards and creates secure compliance reports that can be shared immediately and viewed from anywhere.

How it works

Setup your equipment. Open rCloud on your smartphone or tablet, enter the address and select the type of test - rCloud does the rest.

rCloud allows anyone with a mobile device to perform a fully automated blower door or duct test. The rCloud app provides secure and accurate data that includes the location where the test was performed, local weather, set-up conditions, photos and the calibration date of the gauge. In some markets, rCloud will provide existing housing data.

The rCloud app connects directly to the DM32 WiFi smart gauge to perform your test. The data and images are stored on a remote secure server. The account can have multiple users and the reports can be viewed in the app or online.

Security and privacy

Data is collected securely, time/date-stamped, geo-tagged, and uploaded to a cloud storage. While the data is stored in the device it is encrypted and cannot be altered. The data is uploaded when an internet connection is available. Data storage is secured through Microsoft Azure.

The data is secure the moment the test is completed.

Quality Assurance

The rCloud app provides quality assurance for the user and entire team. It assures the tests were performed in compliance with the testing standards and the data was collected directly from the gauge. No more pencil and paper or lost test results.

Testing Standards

The rCloud app currently includes testing standards for International Energy Conservation Code 2009, 2012 and 2015, RESNET and California Title 24 standards.

This includes duct testing and single and multipoint blower door tests. We are currently implementing RESNET/ANSI standard 380 and European test standards.

Additional testing standards will be added.

Data management

One of the most powerful benefits of rCloud is the ability to see all the test locations on a map. Select any location and see all the test performed at that location then select a test to see and share the compliance report.

Integration

The release of rCloud completes an eight-year evolution that includes the DM32, the world's first WiFi touchscreen smart gauge, the most accurate blower door systems, and the easiest-to-use duct testing system.

The rCloud is compatible with all of Retrotec's fans and TEC fans with the DM32 and Speed Control Adapter.

Future

Retrotec has never stopped providing innovation. We believe that automated secure data is the future of our industry. Join us as we provide the Future of Testing to everyone.

1.2 About Retrotec

Colin Genge and Brendan Reid founded Retrotec in 1980. The company began as a blower door manufacturer in Ottawa, Canada. But, by 1984, they grew to include offices in the US. Retrotec soon expanded their services to include instruction for home performance and whole house diagnostics professionals. Since that time Retrotec has evolved into the world's leading manufacturer of building diagnostic tools, software and manufacturer's certification.

Retrotec blower doors and duct testers were specifically geared towards for-profit contractors. The target was professionals that build and retrofit high performance houses that don't qualify for government subsidies. The not-for-profit sector developed overtime into a driving force for technological innovation and grew the expertise of its workforce. Now, Retrotec designs and delivers equipment and applications for testers and researchers in both sectors.

Retrotec worked closely with HVAC, window, and insulation contractors for decades to pioneer a wide range of profitable applications. This collaboration advanced the "sales-diagnostic" procedure with great success. That success eventually led to the creation of the Comfort Institute (CI), which became a separate company in 1999.

Retrotec has become known for its total dedication to innovation and improvement. Its equipment and applications have been re-engineered gradually to maintain professional appearance and performance standards. But, with the aid of an all injection molded product and manufacturing efficiencies, they still compete with less advanced products on the market.

Retrotec now has over two dozen employees in the US and exports to over 50 countries making it the largest blower door/duct tester manufacturer in the world by a factor of two.

Timeline of significant events:

1985: Retrotec wrote the first standard for testing fire suppressant containment for NFPA which was soon followed with an ISO version. Retrotec is considered the world's leading expert in this field.

DM32W
1st touchscreen WiFi gauge

1989: Retrotec developed the first duct tester for Canadian Mortgage and Housing Corporation.

1990: Retrotec finished moving 100% of its manufacturing to Washington State, USA.

2011: Retrotec was the prime developer of the large building airtightness testing Protocol for the U.S. Army Corp of Engineers.

2013: Retrotec released the first Touch Screen WiFi gauge leaving behind all competing gauges.

2015: Retrotec produces 5 test fans, 5 door panel systems and custom software. New applications now complied with every residential, commercial building and duct testing standard in the world. It redefines the market by programming the DM32 to control every manufacturer's test devices.

2015: Retrotec becomes the best low cost applications as well as the leader for high end diagnostic tools.

rCloud- automated performance
for blower door & duct testing

2015: Retrotec becomes the ONLY blower door manufacturer to achieve the internationally recognized "ISO 17025 accreditation" for both pressure and flow. Allowing Calibrations

performed by Retrotec to be accepted by every government and industry organization, body and standard.

2016: Retrotec releases rCloud. This is the only automated testing app that geolocates test location, automatically performs blower door or duct tests to common standards and creates secure compliance reports that can be shared immediately and viewed from anywhere.

1.3 Contact Retrotec

Sales and Support e-mails will be answered by the end of the next business day.

Call for immediate assistance.

For a list of our worldwide resellers, please click see retrotec.com

Retrotec
1060 East Pole Road, Everson, WA, 98247, USA

Main: +1 (360) 738-9835
Fax: +1 (360) 647-7724
Hours: 8:00 to 16:00 PDT (11:00 to 19:00 EDT)

Sales:
sales@retrotec.com
Toll-Free: 1 (855) 738-7683
Outside North America: +1 (360) 738-9835

Support:
support@retrotec.com
Toll-Free: 1 (888) 330-1345 for USA
Outside North America: +1 (360) 738-9835

Connecting to the DM32 Gauge

2   Connecting to the DM32 Gauge

2.1   Overview

There are three basic ways to connect rCloud on your device to Retrotec's DM32 gauge.

Connection Methods:

1. The device connects directly to the DM32 gauge WiFi hotspot.
2. The DM32 gauge connects to the device WiFi hotspot.
3. The DM32 gauge and device are connected to the same WiFi network.

Each operating system has different setup steps and requirements.

2.2   DM32 Configurator Software

The user can run the DM32 Configurator on any computer, laptop or tablet running a full version of Windows (XP SP2 or later). The DM32 Configurator program discovers one or more gauges in the Retrotec DM32 family of gauges connected to the computer with a USB cable.

Once the user selects a gauge from list of discovered gauges, the software can:

1. Read and update the Network settings on the selected gauge.
2. Read and change some settings on the gauge for which there is no user interface on the gauge.
3. Update the gauge with new firmware when new features are released by the manufacturer.

The DM32 Configurator lets the user set up networking parameters and download them to the gauge, so that the gauge can then join secure or non-secure WiFi or wired networks.

a) If you are connecting your gauge to a Wired network, parameters for wired networking can be set up directly on gauge using [Settings]>>[Network], or with the DM32 Configurator.
b) If you want your gauge to connect to a WiFi network which requires a password, the password for the secure WiFi network can ONLY be set up with the DM32 Configurator.
c) If you want your gauge to connect to a WiFi network without a password, parameters for the non-secure WiFi network can be set up directly on the gauge using [Settings] >>[Network], or with the DM32 Configurator.

2.3 iOS Devices

There are three ways to connect an iOS Device to a DM32 Gauge:

1. You can connect an iOS Device to a DM32 Gauge WiFi Hotspot

2. You can connect a DM32 Gauge to an iOS Device Hotspot

3. You can connect an iOS Device and DM32 Gauge to a Local WiFi Network

2.3.1   **Connect To DM32 Hotspot**

Prerequisite: Your DM32 Gauge must be enabled for WiFi. if it is not, please contact Retrotec to purchase the WiFi upgrade.

Configuring the DM32 Gauge

1. Power your DM32 Gauge on.
2. Click the Settings button in the lower right hand corner.
3. Click the More button (...) in the lower right corner until you see Network option.
4. Click on the Network option.
5. Click on the Status option until it read WiFi Create.
6. Wait a few seconds for the hotspot to be created then make a note of the network name.

Configuring the iOS Device

1. Open up the Settings app on your device.
2. Find the WiFi option and select it.
3. From the list of available connections, select the network name you noted above.
4. Wait a few seconds until the device completes its connection.
5. You are now connected to the gauge and can run tests in rCloud.

Configuring the iOS Device to use LTE

If you are using a device that has a cellular data plan, it is possible to connect to the DM32 Gauge WiFi hotspot and still access the internet via your cellular data plan. Please be aware that any data transmission would count against your cellular data plan. We have seen in the newest iOS devices that the following steps may not be needed, however more than likely you will need to do the following steps.

Note: You do not need internet connectivity to run rCloud. You can run tests on your device without internet connectivity. However, you do need internet connectivity to upload the tests to the cloud which will allow you to view and share the test results. But you can upload tests at a later time when you are able to connect to a WiFi network (for example, when you return home or to the office). Once you connect to the WiFi network, bring up the rCloud app and the tests will be automatically uploaded.

1. Complete all the above steps.
2. Open up the Settings app on your device.
3. Find the Cellular Data option and select it.
4. Ensure that your Cellular Data is turned on.

5. Wait a few seconds and see if the LTE option is visible in the top status bar of your device. If it is, you have internet connectivity through your data plan and do not need to do the following steps.
6. Find the WiFi option and select it.
7. Click in the information button beside the DM32 network name (blue i).
8. Select the Static option.
9. Click in IP Address and type in: 192.168.0.2
10.Click in Subnet Mask and type in: 255.255.255.0
11.Ensure the Route option is blank.
12.Click in DNS and type in: 192.168.1.1
13.Ensure the Search Domain is blank.
14.Click the < WiFi option at the top of the screen.
15.Wait a few second and the LTE option should now be visible in the top status bar.
16.You can verify you have connectivity by going to Safari and browsing your favorite web page.
17.The changes will be remembered, you will only have to do the above steps once.

2.3.2   **Connect To Device Hotspot**

Prerequisite: Your cellular data plan must allow for hotspot creation. Not all data plans allow this, check with your provider. Your device must also be capable of creating a WiFi hotspot.

Prerequisite: You must download and install the DM32 Configurator software on to a Windows computer.

Configuring the iOS Device

1. Open up the Settings app on your device.
2. Find the General option and select it.
3. In the General option sub-menu find the About option and select it.
4. In the About option sub-menu find the Name option and select it.
5. Change the name to a very simple text consisting of only letters and numbers. Do NOT use apostrophes, spaces, commas or any other punctuation. By default, Apple inserts an apostrophe into the name.
6. Make a note of the name you choose to go with.
7. In the main Settings Menu, find the Personal Hotspot option.
8. In the Personal Hotspot option sub-menu find the WiFi Password option and select it.
9. Change the password to a very simple text consisting of only letters and numbers. DO NOT use apostrophes, spaces, commas or any other punctuation. For your security, DO NOT leave it blank otherwise other people will be able to connect and use your hotspot and you will incur the charges on your cellular data plan.
10.Make a note of the password you choose to go with.
11.Turn the hotspot ON. This will deactivate your WiFi connection.

Configuring the DM32 Gauge

1. Install Retrotec's DM32 Configurator software on to a Windows personal computer.
2. Using a USB cable, connect the the DM32 gauge to the PC.
3. On the left side, highlight your gauge if it is not already highlighted.
4. Select the Network option at the bottom.
5. Change status to WiFi Join.
6. Set the Network name (SSID) to the name of your device that you noted above (Step #6).
7. Set the Password to the password you set above (Step #10).
8. Click the Save to gauge button.
9. Disconnect the gauge from the PC.
10.Restart the gauge.
11.At this point you are ready to connect to the device hotspot and it should happen automatically.

Tips and Tricks

Some devices seem to create their hotspots better than others. If it appears to not be working we have found this procedure produces the best results:

1. Ensure you have typed the network name and password precisely.
2. In Settings, shut off both the WiFi and Personal Hotspot option on the device.
3. Make sure Cellular Data is turned on.
4. Power down the DM32 Gauge.
5. Turn on the Personal Hotspot on the device.
6. Turn on the DM32 gauge. It will try to connect to your device's hotspot.

2.3.3   **Connect To WiFi Network**

Prerequisite: You must download and install the DM32 Configurator software on to a Windows computer.

Configuring the iOS Device

1. Open up the Settings app on your device.
2. Find the WiFi option and select it.
3. From the list of available connections, select your WiFi network.
4. Wait a few seconds until the device completed its connection.

Configuring the DM32 Gauge

1. Install Retrotec's DM32 Configurator software on to a Windows personal computer.
2. Using a USB cable, connect the the DM32 gauge to the PC.
3. On the left side, highlight hour gauge if it is not already highlighted.
4. Select the Network option at the bottom.
5. Change status to Wifi Join.
6. Set the Network name (SSID) to the name of network.
7. Set the Password to the password for your network if it is secured.
8. Click the Save to gauge button.
9. Disconnect the gauge from the PC.

2.4 Android Devices

Coming soon.

2.5   Windows Devices

Coming soon.