

measureQuick Guide:

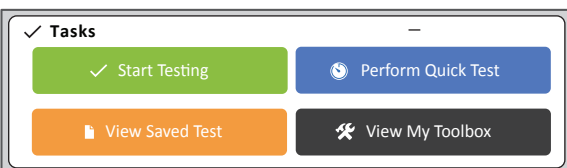
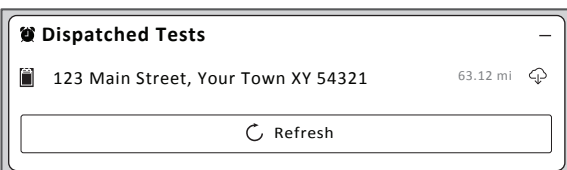
This Quick Start Guide provides the basics to begin using measureQuick. This guide includes Start a project, Test Options, Save and Exit and the Start Screen.

Start a Cooling Project

There are 3 methods to start a project.

1- Dispatch a Project from:

ServiceTitan, HouseCall Pro or mQ Virtuoso



3- Select pin from the Equipment map

Requires: Having previously tested existing equipment with mQ and being at the location.

Tap pin Tap Select A/C or Heat Pump Service

= Location of Equipment
 = Location of Technician



Select a Cooling Test Type

Option A – New Installation / Retrocommissioning.
System has never been serviced with mQ.

Option A

Cooling Tests
 A/C or Heat Pump Installation / Retrocommissioning
System has never been serviced by mQ

Option B

A/C or Heat Pump Service
System has previously been serviced with mQ
 Non-Invasive A/C or Heat Pump Service
Test without pressure gauges

Option B – A/C or Heat Pump Service.
System has previously been serviced with mQ

Projects

This Quick Start Guide provides the basics to begin using mQ, this is 1 of 3 separate guides. This guide is focused on starting a project, test options, and save and exiting a test.

Notes

Common terms

Test: a snapshot of measurement data captured during a project to quantify performance and diagnostics. Generating a report creates a snapshot at the moment of the measurements.

Project: Service performed by a technician during initial startup, retrocommissioning, or general service work.

Site: Location of equipment where Tests are performed for specific Projects.

Equipment: Package or Split HVAC equipment located on a Site where specific Projects are assigned or performed resulting in Tests and tests results.

Projects

Test Options

Create New Site will generate a new Site and start with new equipment.

If Section is BOLD, mQ knows there is Equipment

Add/Select Equipment will open option to select existing equipment at this Site.

Premier Features



Site is Unlocked



Site is Locked

Create a New Test

Test Type: A/C System Test

Cancel

Create New Site

Add/Select Equipment

Equipment Select

Goodman - Main House Goodman - VS-130811 1909062419	0.01 mi
Goodman - Addition Goodman - VS-141589 1981245823	0.01 mi

REFRESH LOCATION

- OR -

ADD SYSTEM TO LOCAL SITE

CREATE NEW SITE & SYSTEM

 Save and Exit a Test

Save at top left corner

Save and **Exit** are at the top and bottom of the Workflow section.



Exit



Gauge



Stream



Save

Exit & Delete = results not updated & not saved. Test results are not deleted from the cloud.

Exit & Save to Device = no Internet,
the results are stored on the device

Exit & Save to Cloud = data is stored on mQ Cloud and on the device.

Exit Test?

This test will be deactivated.

Cancel

Exit & Delete

Exit & Save to Device

Exit & Sync to Cloud

Start Screen

The screenshot displays the MeasureQuick mobile application. At the top, the app's logo 'measureQuick' is visible, with 'measure' in grey and 'Quick' in green. Below the logo, a location card shows '7619 First St., Your Town XY 54321' and a distance of '0.01 mi'. A green button with a white checkmark and the text 'CONTINUE' is present. Below this, a 'Dispatched Tests' section shows '123 Main Street, Your Town XY 54321' with a distance of '63.12 mi'. At the bottom, a navigation bar contains three items: 'Tasks', 'Equipment Map', and 'Test Tracker', each with a plus icon. The 'measureQuick Cloud' option is at the very bottom.

Active Test is displayed at the top of the Start Screen. There can only be one active test.

Your order may be different.

NOTE: Some sections in mQ may be reduced. Tap “-” “+” to hide and unhide each section.

To change the order select Customize Start Screen at the bottom

Notes

Indoor Visual Inspection

- 1- Inspect Equipment
- 2- Document Issues
- 3- Deploy Probes

Equipment condition/issues photos

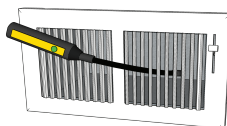
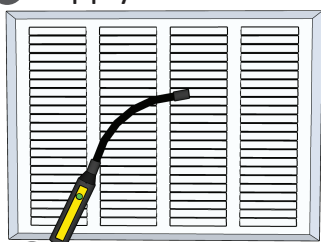
- 📷 Thermostat/Control System
- 📷 Air distribution system/ducting
- 📷 Condensate disposal system
- 📷 Indoor equipment
 - 📷 Blower assembly
 - 📷 Indoor Coil
 - 📷 Wiring

Photos
Quick
Access



Deploy Indoor Probes

- 1 Return air at closest grill
- 2 Supply air at closest grill

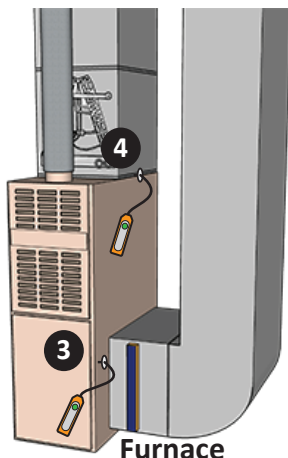


- 2 Supply air probe must be inside the register

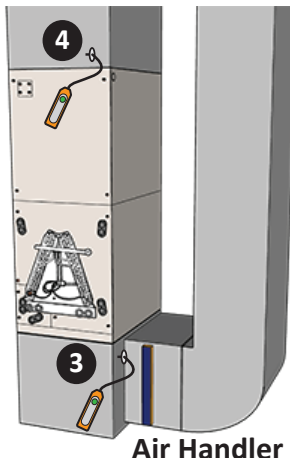
Zero Static Pressure Probes Before Placing Probes In the Unit.



- 3 Return Ext. Static Pressure after the filter
- 4 Supply Ext. Static Pressure (furnace = before coil or air handler = after coil)



Furnace



Air Handler

This Quick Start Guide provides the basics to begin using mQ, this is 1 of 3 separate guides. This guide is focused on visual inspection, deploying probes and how to Zero the manometers.

Notes

Indoor Probes

Zero Manometers



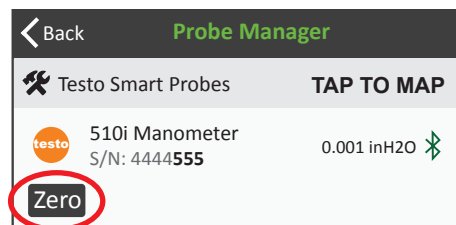
Fieldpiece JL3KM2

Tap On/Off button once and it flashes **BLUE** Probe is now at Zero



Testo 510i

Zero in the Probe Manager



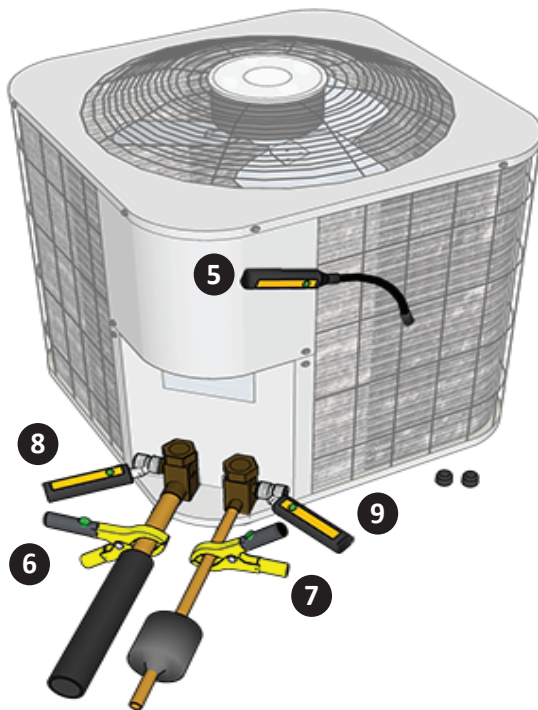
Outdoor Visual Inspection

Equipment photos

- 📷 Outdoor Coil condition (condenser)
 - 📷 Drain holes
 - 📷 Clearance and level
- Electrical System
 - 📷 Service disconnect
 - 📷 Wiring and Controls

Deploy Outdoor Probes

- 📏 5 Outdoor Air Temperature ODA
Not in direct sun
- 🔧 6 Suction Line Temperature SLT (larger line)
- 🔧 7 Liquid Line Temperature LLT (smaller line)
- 📏 8 Suction Line - Low Pressure LP
- 📏 9 Liquid Line - High Pressure HP



Make sure the copper is clean, use sandpaper to clean if needed

Optional- Discharge Line Temperature probe not included

9 probes are REQUIRED for the Vitals Score and Report

Notes

Outdoor Probes

mQ Hot Button

Corrective Actions

Performance Calculations

Gauge Screen

+ mQ Hot Button

Photos

Toolbox / Probes

Settings

Support

?

⚙️

+

Start the System

Important: skipping the visual assessment can impact the system and measurements and prevent proper diagnostics

Premier Features

UNLOCK

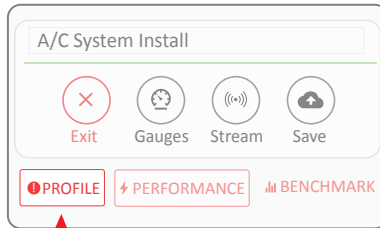
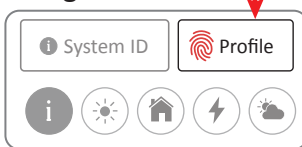
🔒 Premier Features Locked **UNLOCK**

Add QBi ts to your account to unlock premier features.

Premier Features are available for 1 year

Profile the System **REQUIRED**

Gauge screen



Workflow screen

×

System Profile

✓

General Information

a

System Configuration

Split ▾

b

Compressor Type

Scroll ▾

Cooling Profile - Not Benchmarked

c

Year Installed

2022 ▾

d

Nominal Tonnage

1 (12,000 Btu... ▾

e

Refrigerant

R410A 🚫

f

SEER

13-16 ⚡

g

Metering Device

TXV ✕

h

Superheat (°F)

10.0

i

Subcooling (°F)

10.0

j

Total Ext. Static Pres.
(inH₂O)

0.50

Wait for the System to Stabilize

i System Status —
Waiting for system stability...

measureQuick Guide:

Workflow

This Quick Start Guide provides the basics to begin using mQ, this is 1 of 3 separate guides. This guide is focused on Premier Features, Profiling the system generate the Vitals Report and the Workflow requirements.

Notes

Premier Features

Profile System

NOTE: System Profile Inputs

Year installed/manufactured is critical for Vitals Scoring.

The profile has typical equipment defaults for:

- Nominal Tonnage
- Refrigerant type
- SEER
- Metering device type
- Superheat and Subcooling
- Static pressure

These settings are typical and will work for many systems but ideally should be set to the manufacturer's design criteria as found on the equipment labels or in the installation instructions.

Once system is stable or 10 minutes has elapsed

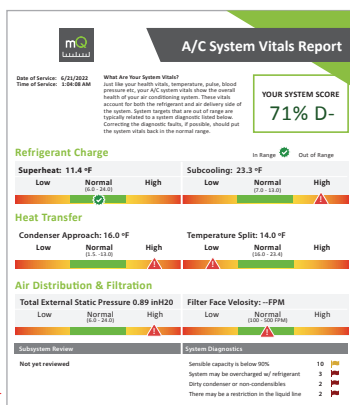
Get Vitals Score & Generate Report

Vitals Scoring

System Score **71% D-**

- Age & Efficiency Losses 0
- Temp Split Losses -6
- Static Losses -10
- Approach Losses -4
- Refrigerant Charge Losses -6

Generate Vitals Report



Generating the Vitals Report is also the **Test In**

Review Diagnostics

Diagnostics

Select **i** to learn about the fault

- i** Sensible capacity is below 90%
- i** System may be overcharged w/ refrigerant
- i** Dirty condenser or non-condensibles
- i** There may be a restriction in the liquid line

Note: When diagnostics flags are presented to the technician it is their responsibility to investigate and determine if a system fault needs to be corrected. Clearing system faults in measureQuick does not correct detected faults in the system. Do not clear faults until it is determined that the underlying symptoms are not the root cause of the problem

Black Flag: Critical problems detected that could lead to system or compressor failure if left unresolved. Symptoms that flag black need to be addressed as soon as possible to prevent catastrophic failure. Detected.

Red Flag: A combination of minor faults that, in aggregate, indicate a potential larger system-wide issue

Yellow Flag: Minor faults that are contributing factors to major faults.

Green Checkered Flag: No faults detected.

Caution Triangle: System service alert. These types of faults occur when the system is not stable, or when a condenser is possibly still wet after cleaning.

Document issues and/or corrections:

- Photo section comments*
- Corrective Actions*
- Notes & Historical Data

* Included in some mQ reports

measureQuick Guide:

Workflow

Notes

Vitals Score & Report

Diagnostics

Just-In-Time Education™

i These icons are located throughout the app.

Tap it learn more on:

- Targets and actual measurements
- Definitions
- Faults and probable causes
- Recommended actions in order of priority

Workflow

Job Site

Notes

Equipment

Filter

Complete Workflow requirements

! Workflow Requirements

✗ Incomplete
✓ Complete

✗ Job Site

- a** Move map pin as needed. Address will appear in center and below map as Site Name

● = where technician is located

✗ Equipment Information & System Profile

Enter details about the system

- b** Move map pin to location of Equipment
c Enter Equipment Name or Identification

✗ Filter Information

Enter air filter details

Required for Vitals Report

Install New Filter?

Change date. (also button at bottom)

✓ INSTALLED NEW FILTERS

Select filter type MERV / FRP / MPR

Select filter size from dropdown

Add additional Returns and filters as needed

mQ Hot Button

Corrective Actions

Performance Calculations

Gauge Screen

+ mQ Hot Button Photos

Toolbox / Probes

Settings

Support

Workflow

Repair, clean, adjust airflow and/or adjust refrigerant charge as needed.

- Photo section comments*
 - Corrective Actions*
 - Notes & Historical Data
- * Included in some mQ reports

No issues, Go To Generate Reports

Benchmark the System

❗ Profile

Profile
Incomplete

⚡ Performance

Performance
missing probes

📊 Benchmark

Not ready for
Benchmark

☰ Profile

Profile
Complete

⚡ Performance

Performance
Ready

📊 Benchmark

Ready for
Benchmark

Benchmark Successful

Benchmark Under Duress
when system has faults not corrected

📊 Benchmark

📊 Benchmark

Save Test Out or Generate Report(s)

Clear **TEST IN** only if a new a Vitals report is generated.

SAVE TEST OUT documents current conditions.

Select which report to generate. Saved to the mQ Cloud or Share it

See generated reports.

Workflow Actions

CLEAR TEST IN

SAVE TEST OUT

GENERATE REPORTS

VIEW SAVED TESTS

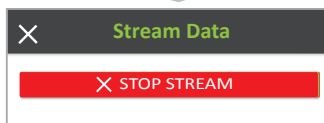
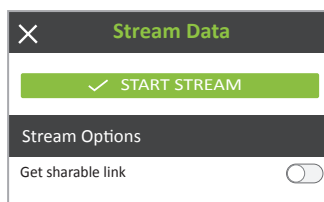
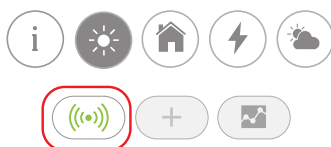
Stream Live Measurements to Anyone



Select "Stream" at top or bottom of Workflow screen

OR

Select "Stream" at bottom of Gauge screen



Notes

Benchmarking

Test In Test Out

Streaming

Technical Challenges

- 1- Restart the mQ app
- 2- Update mQ. Go to the Start Screen, upper left corner is the User icon. Middle of screen is "Check For Updates"
- 3- Restart the device
- 4- Make sure the Operating System (OS/iOS) of the device is up-to-date
- 5- Check if device has adequate memory, 30%+ of the total should be available. Storage of excessive photos/videos can cause the device to run slowly.