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**Datacolor ColorReader**

**Model DC10-2**

**User Guide**



## Datacolor ColorReader™ User Guide

Rev E, January 2020

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## Contact Us

Please contact our service department by telephone or email for questions or problems.

<http://goto.datacolor.com/colorreadersupport>

In urgent cases you can contact us by phone:

Europe: 00800 700 800 70

USA: 800-438-2585

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# Datacolor ColorReader

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## Introduction

Datacolor ColorReader Model DC10-2 is an accurate color reader designed to measure an inspiration color and report the nearest reference color from a proprietary color system.

You can use Datacolor ColorReader to quickly and accurately measure samples, and find the closest color matches in a fan deck collection stored on the mobile application. Then you can make final color selections *on the spot*.



Bluetooth connectivity works with the Datacolor ColorReader mobile application when installed on portable devices including cell phones and tablets. Using this mobile application, you can easily store, recall, and examine project color information in real time.

## About this Guide

This guide covers the following:

- Datacolor ColorReader device set up and operation
- Features and operation of the Datacolor ColorReader mobile application

### *Manufactured:*

At Datacolor location DS001

Datacolor Suzhou

288 Shengpu Road

Suzhou, Jiangsa

P.R. China 215201

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# Datacolor ColorReader General Information

## Power Source

Datacolor ColorReader Model DC10-2 has a rechargeable lithium battery. The battery is charged using the micro USB cable included in the package.

## Operation

This product is to be used only as specified by the manufacturer, and according to the instructions for operation and maintenance provided herein.

## Wireless Communication Capability

Datacolor ColorReader is Bluetooth®-capable (4.0 or higher)

## Optical Configuration

45°/0° type

## Colorimetric Data

1976 CIE L\*a\*b\* coordinates; Illuminant D65; 10° Standard Observer

## Replacement Parts

White calibration cap

## Device Markings

Several markings on the inside of the unit cap includes the following information:

- Instrument Model
- Ratings
- Compliance and certification information



## Serial Number

The serial number is programmed into Datacolor ColorReader and is displayed on the bottom of the box and in the mobile application under the device tab.

## Instrument Maintenance

There are no user-serviceable parts for this equipment.

## Safety Warnings

### Caution

If any of the following conditions exist, disconnect the USB cable:

- The USB cable is damaged.
- The device is exposed to water or other excess moisture.
- The device is dropped or damaged.
- The device needs service.

The protection of the device may be impaired if used in a manner not specified by the manufacturer.

To insure operational safety:

- Keep the device away from sources of liquids such as sinks, tubs, showers, etc.
- Protect the device from excess moisture.
- Follow all instructions and warnings provided with the unit.
- Read all instructions carefully before connecting the device to charge.

## Mobile Application Requirements

The requirements to run Datacolor ColorReader mobile application include:

Device	Operating System
iPhone®	IOS® v. 9.3 or higher
iPad®	IOS v. 9.3 or higher
iPod Touch®	IOS v. 9.3 or higher
Android©	6.0 or higher
Bluetooth®	v. 4.0 or higher

# Getting Started

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## What's in the Box?

The product includes the measuring device with calibration cap and micro-USB charging cable.

### Accessories

USB charging cable



Calibration Cap

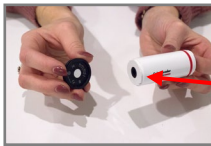
(can be attached to either end of the device)



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## Instrument Controls and Indicators

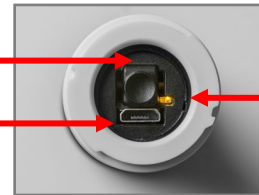
This section identifies all controls and indicators on the device.



Aperture

On/Off Button

USB Port



LED

### On/Off Button

- Press the button to activate the device.
- To turn off the device, press and hold the button until the LED light turns off.



## Battery Information and LED Indicator

Datacolor ColorReader is equipped with a rechargeable lithium battery. A micro-USB cable is provided to charge the unit. When fully charged, the charge is good for 300 measurements.

An LED indicator displays the current state of the device. See [Status LED](#) for details.



## Cable Connections and Instrument Charging

Datacolor ColorReader has a micro USB port and a micro USB cable for charging

To charge:

- Plug the small end of the USB cable into the device.
- Plug the other end into a USB port on a computer or adapter.



## Status LED

An LED indicator identifies the current state of the unit. Below is a list of possible instrument states:

LED Color	Instrument State
Off	<ul style="list-style-type: none"><li>• Device is not powered and is not charging</li></ul>
Green	<b>Solid</b> <ul style="list-style-type: none"><li>• Device is <b>On</b> and battery life is <i>greater than 10%</i></li><li>• Device is charging</li></ul>
Amber	<b>Slow blink</b> <ul style="list-style-type: none"><li>• Device is not being charged and battery life is <i>less than 10%</i></li></ul>

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## Sleep Mode

Datacolor ColorReader will go to sleep when it is inactive for more than 5 minutes.



When the device is in sleep mode and you try to access it through the mobile application, it will ask you to wake the unit.

- Press the button on the top of the device.

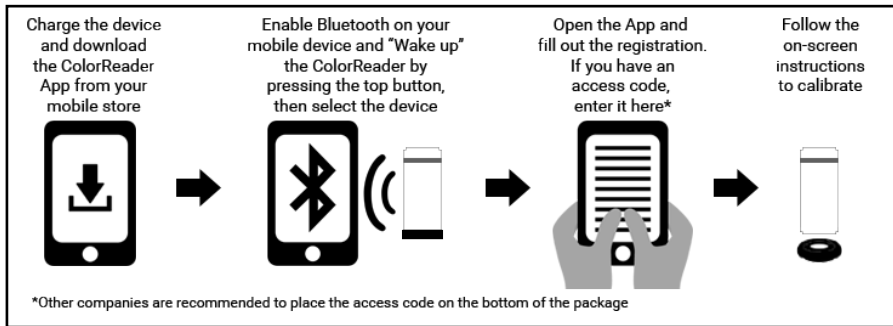
# Mobile Application

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## Getting Started

To install the Datacolor ColorReader mobile application:

- Install the ColorReader mobile application from the Apple App Store or Google Play Store.
- Plug in your device to charge, then Wake the unit by pressing the on/off button at the top.
- Launch mobile application.
  - Do not manually pair ColorReader through your device's Bluetooth settings menu, the application will do this.
- Register. You **must** register the product to use it.



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## Application Installation Information

Please visit <http://www.datacolor.com/getcolorreader> for more installation information.

# Device Registration

When you connect your charged Datacolor ColorReader to the mobile application for the first time, the software guides you through a registration process. You must register the Datacolor ColorReader to use it.

1. Launch the Datacolor ColorReader mobile application.

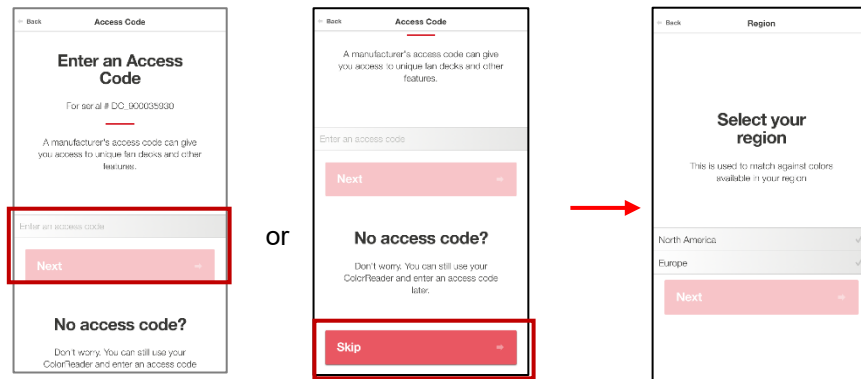


The program will prompt you to identify your device.

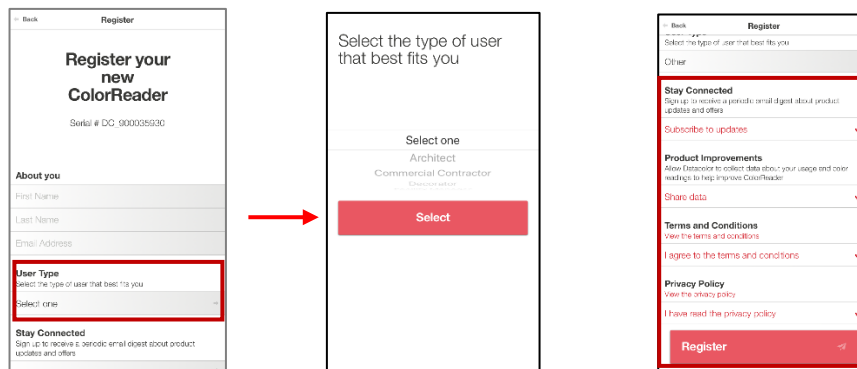


2. Tap on the device you are using. The program will display a registration screen.

3. Enter your access code or skip if you do not have one. If you do not have an access code, you will need to select the region that applies to you to access your color collections. You can add or change your access code later through the [Device](#) tab.



4. Enter your contact information and user type, scroll to the bottom of the screen to choose whether you would like to subscribe for updates and share data, and click to agree to the *Terms and Conditions* and *Privacy Policy*. Tap **Register**.



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## Main Screen

Below is the Datacolor ColorReader main screen. You can access the application features from the icons at the bottom of the screen.



[Device](#)

[History](#)

[Read](#)

[Colors](#)

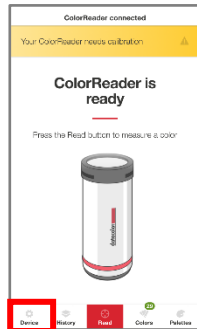
[Palettes](#)

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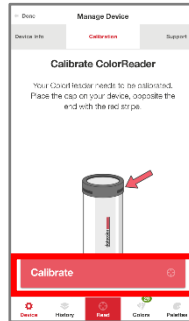
## Calibration

Calibrate the device every 8 hours to account for any changes in the device over time. This ensures that the measurements remain consistent over time. The Datacolor ColorReader mobile application will remind you when calibration is required. Use the mobile application to calibrate the unit.

1. After connecting, tap **Device** in bottom left corner



You will see the *Manage Device* screen.



2. Screw the calibration cap securely in place on top of the aperture end of the device.



3. Tap **Calibrate**.
4. The application will report that the device is calibrated. Tap **Done** in the top left corner to return to the main screen.



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## Sample Measurement



1. Place the instrument aperture over the sample to be measured.

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 **NOTE**

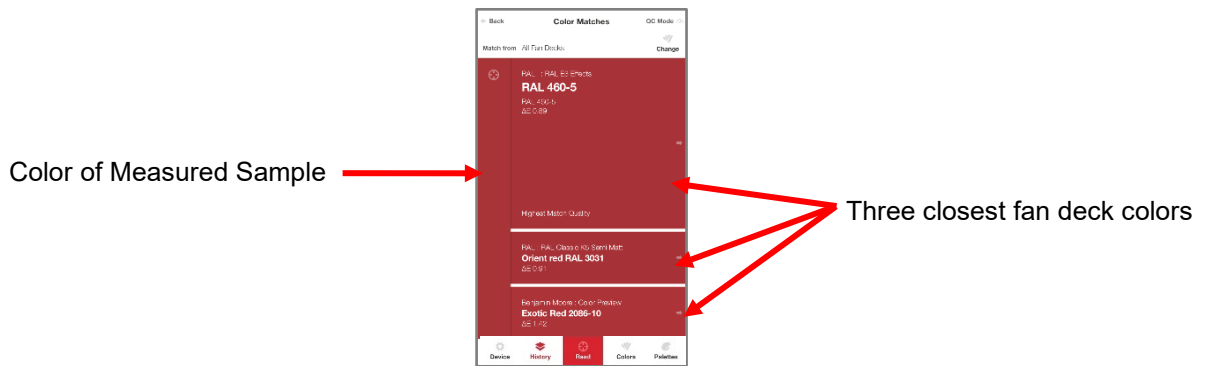
Make sure the aperture is flat to the surface and the color completely fills the aperture opening.

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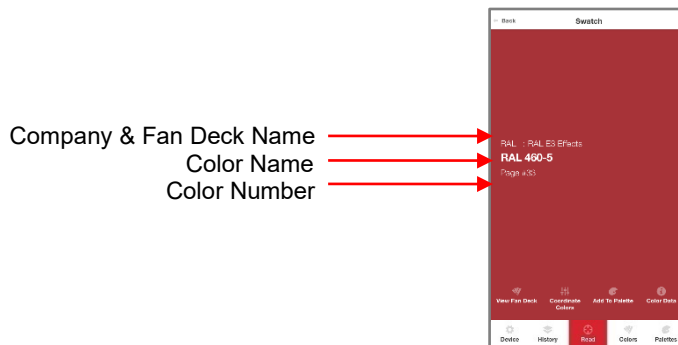
2. Press the 'Read' button on the bottom of the mobile application screen. The mobile application screen immediately displays the results.
- 

## Search Results

When you measure a sample, Datacolor ColorReader mobile application finds the closest matches stored in its fan deck database. It automatically displays the 3 closest matches on the portable device.



1. Tap one of the matches. The screen displays details about the selected color.



See [View Fan Deck](#) for details to view the color identified in a visual atlas.

See [Coordinate Colors](#) for details to view suggested color schemes.

See [Add to Palette](#) for details to select a color and assign it to a palette.

See [Color Data](#) for details to view CIE L\*a\*b\*, LCH, RGB, CMYK, HEX, and LRV values for the selected fan deck color.

## History, Colors, and Palettes options

See [History](#) for additional information.

See [Colors](#) for additional information.

See [Palettes](#) for additional information.

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## Device

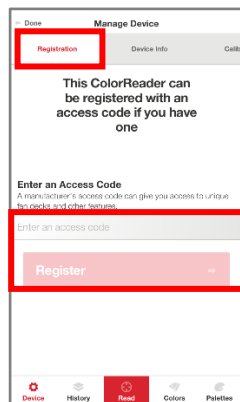
This option gives you access to *Registration*, *Device Info*, *Calibration*, and *Support* options.



## Registration

Use this option if you are given an access code after you have registered your device.

1. Tap **Device, Registration**. Enter the access code you were provided.

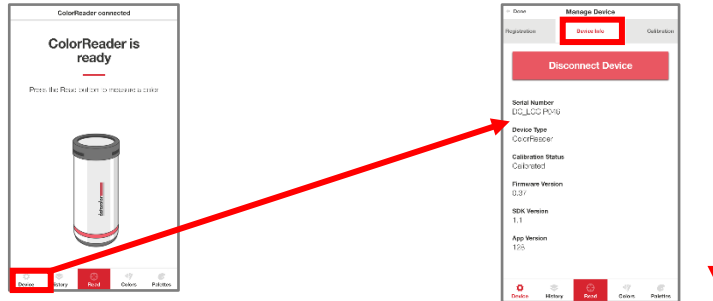


2. Tap **Register**.

## Device Info

Use this option to disconnect Datacolor ColorReader from the mobile application, and to confirm technical information about the unit.

1. Tap **Device**, **Device Info**. Scroll down to view all of the information.



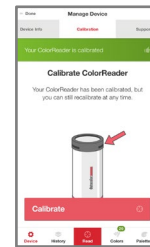
### **Disconnect Device**

To disconnect:

- Tap **Device**, **Device Info**, **Disconnect Device**.

## Calibration

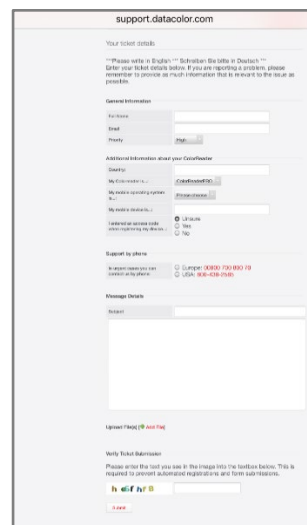
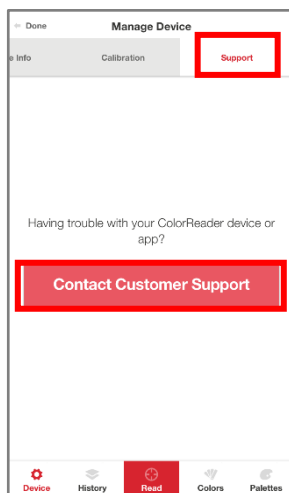
Use this option to see the current calibration status and to run a calibration. See [Calibration](#) for instructions.



## Support

Use this option to be sent directly to our Datacolor ColorReader online support site where you can submit a ticket or call our representatives for any issues you may be experiencing.

1. Tap **Device**, then **Support**. Click **Contact Customer Support** to open the support site in a internet browser window.



# Manage Project Colors

Datacolor ColorReader mobile application includes three data management options: [History](#), [Colors](#) and [Palettes](#).

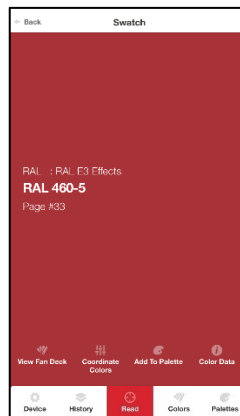
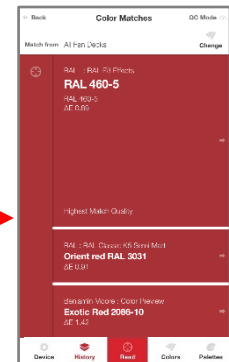
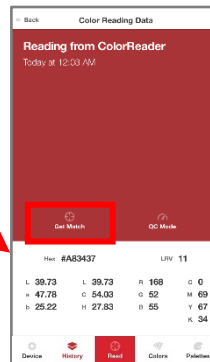
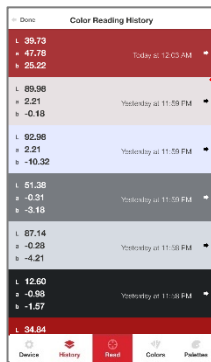
- **History.** Displays the colors measured using Datacolor ColorReader
- **Colors.** Displays the fan decks included in the database
- **Palettes.** Displays the colors selected for each project you are running



## History Management

Use the **History** option to display the color, color coordinates, and fan deck suggestions for each of the colors you measure.

1. Tap **History** to see a list of all measured samples.
2. Tap one of the **color readings** to view the CIE  $L^*a^*b^*$ , LCH, RGB, CMYK, HEX, and LRV values for the color.
3. Tap **Get Match** to view the 3 closest matches in the fan deck database. Tap the closest match you want to further evaluate.

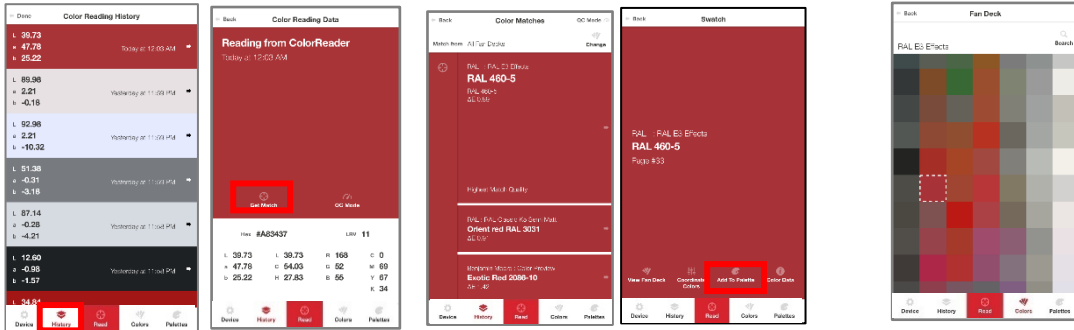




## View Fan Deck

This option displays a visual atlas of the colors in the fan deck. It displays the portion of the atlas that contains the color you have selected. See [Colors](#) for more information.

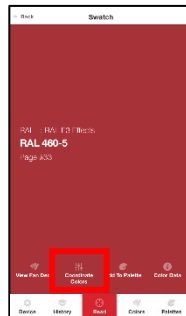
1. Tap **History**, select a color, and **Get Match**; or measure a color.
2. Tap one of the color suggestions.
3. Tap **View Fan Deck**.



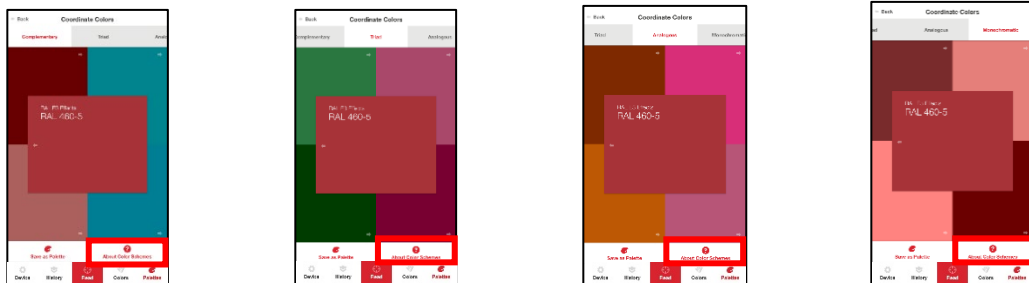
## Coordinate Colors

Use this option to view suggested color schemes for your swatch.

1. Tap **History**, select the color you want to coordinate, select the closest match you want to use, and tap **Coordinate Colors**.



2. You have the option to view suggested color schemes for *Complimentary*, *Triad*, *Analogous*, and *Monochromatic*. You can learn more about these types of color schemes by selecting *About Color Schemes* in the bottom right corner.



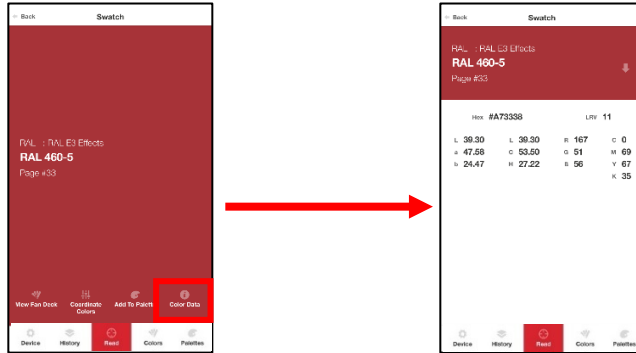
3. You can view a particular color suggested by tapping it to see the color information, other suggested close matches, or change the fan deck(s) to search close matches from. See [Fan Deck Search Selection](#) for instructions.
4. Once you have decided on your coordinated colors, you can tap **Save as Palette**. See [Palette Management](#) for instructions.

## Add to Palette

Use this option to store one of the color choices in a palette. See [Add to Palette for instructions](#).

## Color Data

This option allows you to view the CIE L\*a\*b\*, LCH, RGB, CMYK, HEX, and LRV values for the color and any notes the manufacturer may have added.

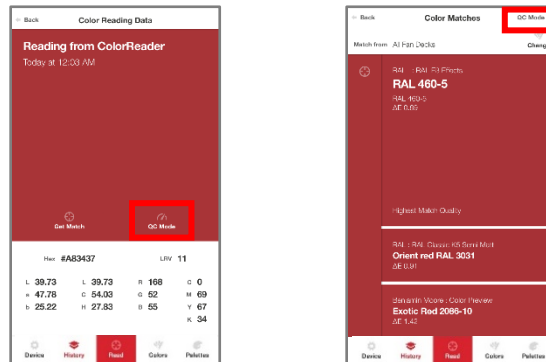


**NOTE**  
The L\*a\*b\* values are valid for D65/10° Illuminant/Observer

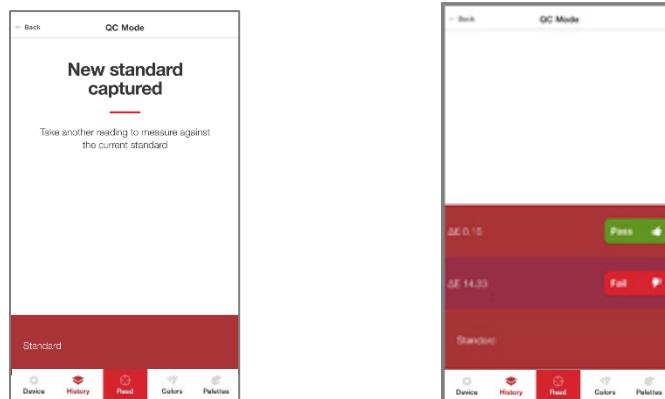
## QC Mode

This option allows you to set a standard to compare readings and determine a pass or fail match.

1. Tap a previous Reading, or take a new Reading to set as your standard, then tap **QC Mode**.



2. You can now take readings and see if the new measurements are within an acceptable deltaE specified by the manufacturer (1 deltaE is recommended) of the original measurement that was set as your standard with easy to read *Pass/Fail* indicators.



# Colors Management

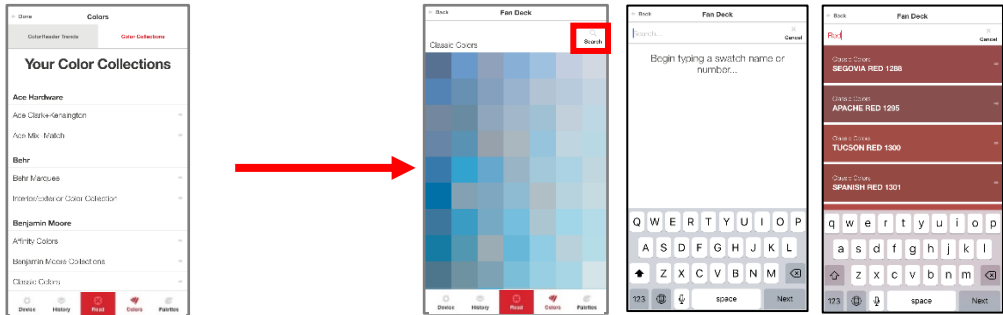
Colors Management lets you view and search colors in the collections you have access to, and activate/deactivate fan decks included in your color search.

- **Color Collections.** The *Color Collections* option displays the fan deck colors in a visual color atlas with an added search function.
- **Fan Deck Selection.** You can enable/disable fan decks stored in the database to be used for color searches on the mobile application.

## Color Collections

This option displays a visual atlas of the fan deck colors with an added search function.

1. Tap on **Colors** at the bottom of the screen, then the **Color Collections** tab at the top, and select one of the fan decks.
2. Tap on one of the colors on the screen or click **Search** in the top right corner and select a color.



You will see the details of the color you selected. You can add this color to a palette.

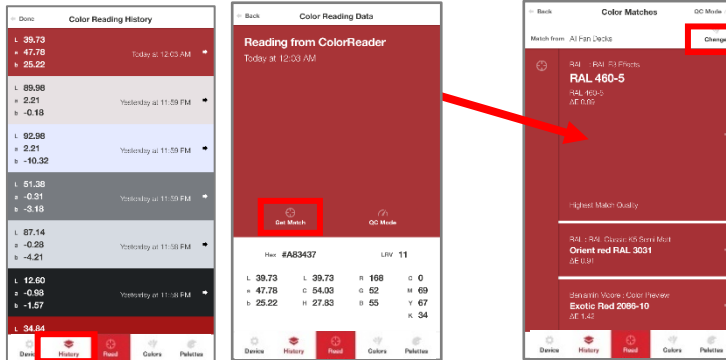
See [Add to Palette](#) for instructions.



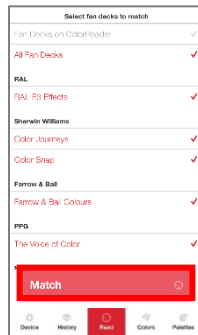
## Fan Deck Search Selection

You can activate/deactivate individual fan decks used for color searches on the mobile application. To add or change the selection:

1. Tap **History**, select a color, and **Get Match**; or measure a color.
2. Tap **Change**.



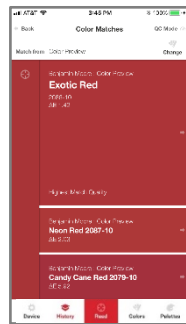
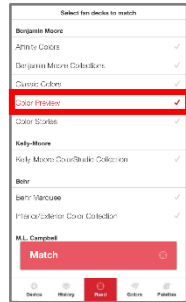
3. You will see a list of all the fan decks on the device.
4. Tap on an individual fan deck to activate or deactivate for the search. Tap **Match**.



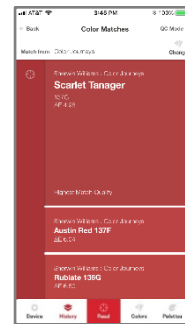
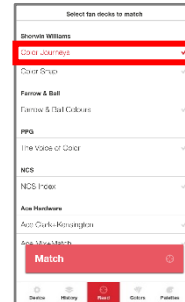
- Red: Activated
- Gray: Deactivated

- When you change the fan deck selection, the color suggestions change. The results on the left below are from the *Color Preview* deck. When the *Color Preview* selection was disabled, and *Color Journeys* was activated, the results were immediately updated:

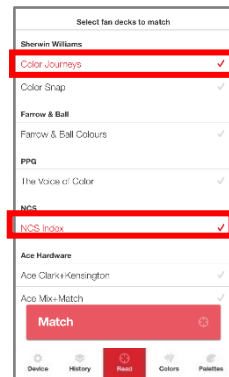
### Color Preview Matches



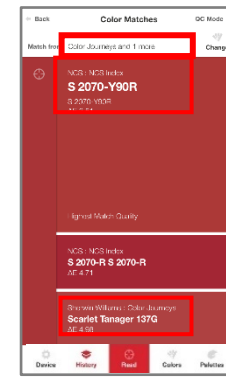
### Color Journeys Matches



- You can select multiple fan decks for the search.



- The application will find the best matches from *all fan decks selected*.



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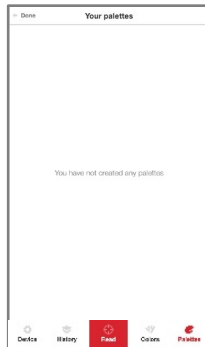
## Palette Management

Using the Datacolor ColorReader mobile application, you measure samples and find the closest color matches in your database. When you make a final color selection, you can store it in a palette. Palettes are collections of the colors you select *for a specific project*. For example, all of the paint colors selected for a particular customer or a particular room would be included in a single palette.

The mobile application includes options to create palettes, edit and delete information for individual colors in a palette, and share palettes.

Tap on the *Palettes* option at the bottom of the screen to access all of the palette management options.

### First-Time Use



When you receive your Datacolor ColorReader and tap **Palettes**, it will not include any palettes.

# Create Palette

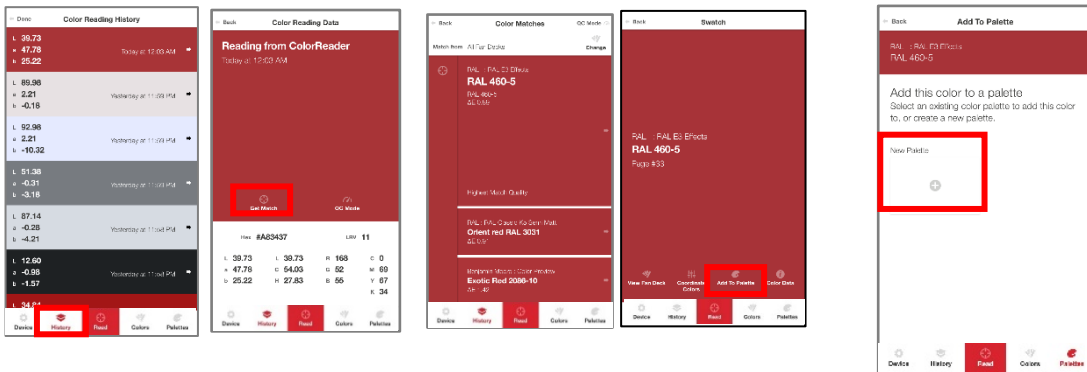
To create a palette, you must measure or select a color from one of the closest matches of your *History* list.



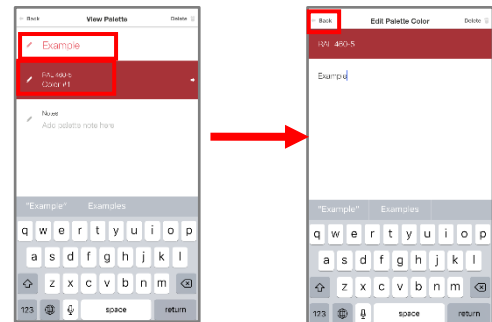
## NOTE

You can create a new palette only when you are adding a color to a palette. You can add, edit, or delete palette information at any time. See also [Edit Palette Colors options](#).

1. Tap **History**, select a color, and **Get Match**; or measure a color.
2. Tap one of the color suggestions.
3. Tap **New Palette**.



4. Tap in the *default palette name* field (Palette #1) to display a keyboard. Replace the default palette name with one of your choice.
5. Tap in the *default color label* field and enter a label as needed.
6. Tap **Back**.



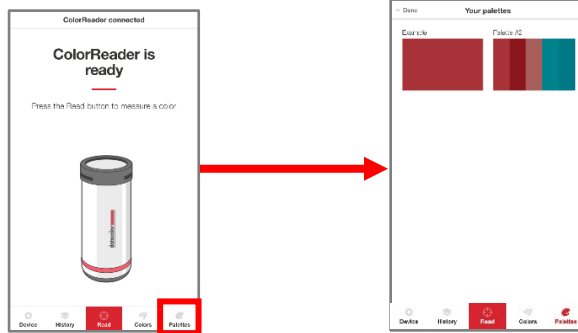
The color you added displays in the palette on the *Palettes List*.



## View Palettes

You can view the individual colors in a palette at any time.

1. Tap **Palettes** at the bottom of the screen to view the palettes in your system.
2. Tap one of the palettes to see the contents:



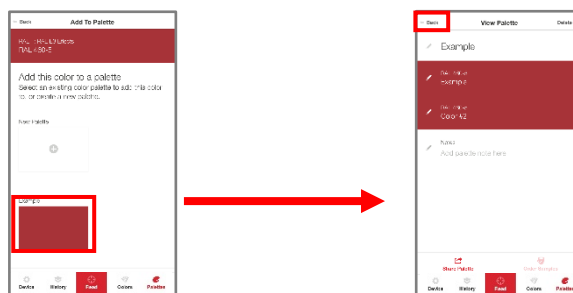
## Add To Palette

To add colors to an existing palette:

1. Tap **History**, select a color, and **Get Match**; or measure a color.
2. You will see three color choices. Tap one to display the details.
3. Tap **Add to Palette**.



4. Tap to select one of the palettes.
5. *View Palette* displays. Tap **Back**.

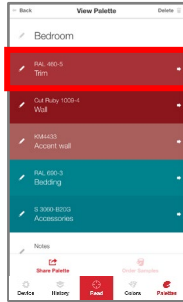
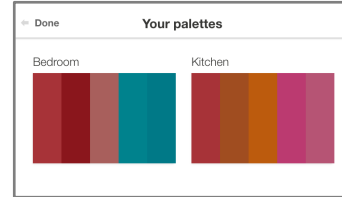


You can add a label to the color as an additional reference. See [Edit Palette Colors](#) for instructions.



 **NOTE**

There are no sub-folders within a particular palette. For example, if the project includes painting several rooms in a house, you may want to create a palette for each room if you are working with a large number of colors, or with similar color schemes in different rooms.



You can also use the color label to provide more detail about each color in a palette. For example, you can assign a label such as “trim” to quickly identify the application for each color selected.

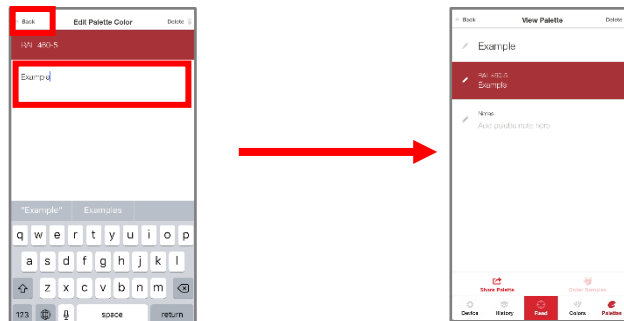
## Edit Palette Colors

When you store a color, it is assigned a color label in the palette. You can customize this color label with information to help you manage the palette.

1. Tap on **Palettes**, select a palette and select the *pencil icon* next to the individual color to be edited.



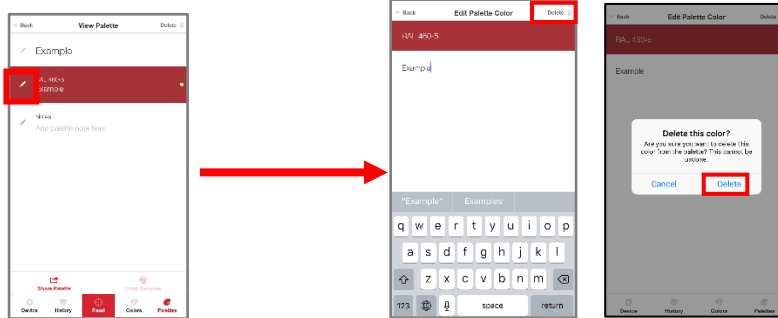
2. Tap in the *color label* field to display the keyboard. Enter the label. Click **Back**.



## Delete Palette Colors

You can delete individual palette colors at any time.

1. Tap the *pencil icon* to the left of the color you wish to delete.
2. Press **Delete** in the top right corner of the screen and confirm.



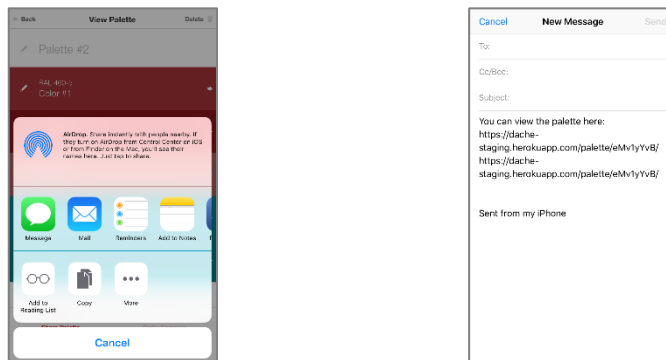
## Share Palette Colors

You can share your color palettes quickly and easily to anyone through any messaging platform you have available on your mobile device.

1. Tap on **Palettes**, then select the palette you want to share.
2. Tap **Share Palette** option in the bottom left corner of the screen.



3. Choose the application you would like to use to share. A link will be created and added to the message section of your chosen platform.



# Appendix

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## Instrument Specifications

<b>Measuring Geometry</b>	Proprietary
<b>Warm-Up Time</b>	None
<b>Measurement Time</b>	<3 second
<b>Interface</b>	Bluetooth LE
<b>Aperture Size</b>	6 mm
<b>Number of Sensors</b>	1
<b>Battery</b>	Rechargeable lithium, 300 measurements per charge
<b>Power Requirements</b>	5V DC, 400 mA, charged via mini USB connector plugged into personal computer
<b>Dimensions</b>	Width: 28.9 mm Length: 69 mm Weight: 0.10 lbs / 1.6 oz
<b>Environmental Requirements</b>	Operating Temperature: +5°- +40° C Relative Humidity (Non-condensing): 85% Maximum Altitude: 2,000 meters
<b>Agency Compliance</b>	SGS, CSA, C-Tick, CE

## Compliance Statements

### FCC Compliance Statement

#### **WARNING**

Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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 when the equipment is operated in a residential environment. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with these instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning equipment off and on, the user is encouraged to try and correct the interferences by one or more of the following measures:

- Re-orient or relocate the receiving antenna.
- Increase the separation between the equipment and the 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.

Pursuant to Part 15.21 of the FCC rules, any changes or modifications to this equipment not expressly approved by Datacolor may cause harmful interference and void the FCC authorization to operate this equipment.

See also the following Federal Communications Commission publication, available from the U.S. Government Printing Office, Washington, D.C., 20402:

How to Identify and Resolve Radio/TV Interference Problems

Stock No: 004-000-00345-4.

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### Japan Radio Law Compliance Statement



[R] 202-SMF099

Certification has been granted to this product for compliance with the technical standards specified in Article 38 Clause 24 Paragraph 1 of the Japan Radio Law.

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### Anatel Homologation Compliance Statement



00248-18-10688

DC10-2 (ColorReader) Contains ANATEL approved module # 00248-18-10688

**Specifications are subject to change without notice**