



# How to Use Color-Navi

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Metallic-CCM



**KCC** Corporation

# Color-Navi (Metallic-CCM for BAROMATCH)





**Set up & Preparation**



**Making Formula using Color-Navi**



**Color DB**

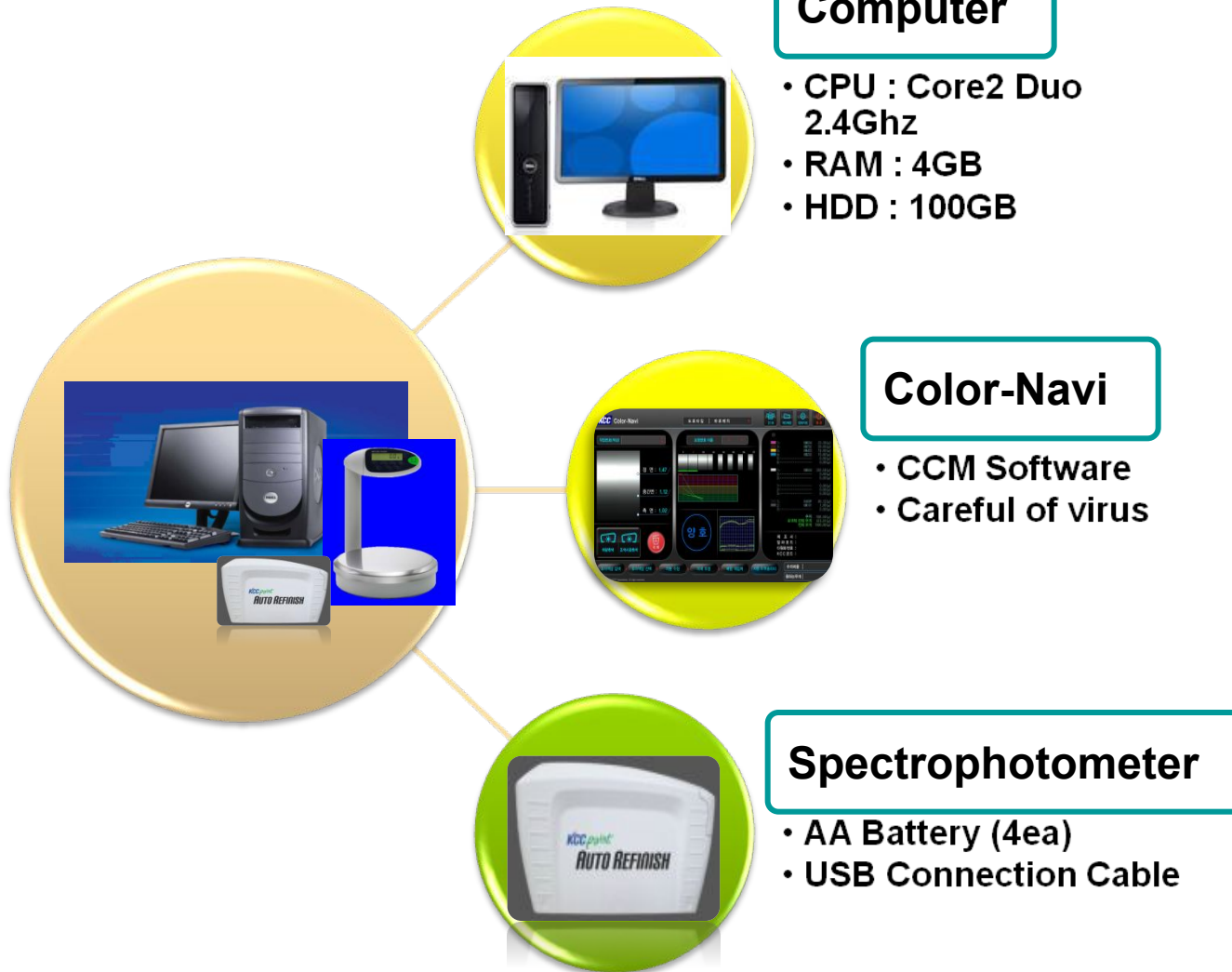


**Question**

# 1. Set up

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## Components



## Semi-Booth (for Trial pannels)



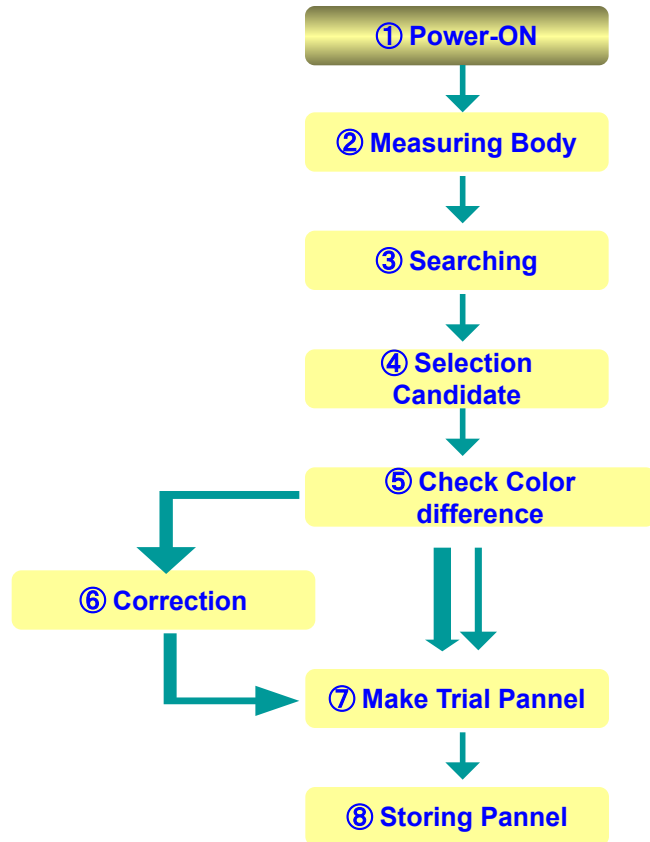
## Baromatch



## 2. How to use CCM (Metallic)

1

Power On



Computer  
On



Connecting  
Spectrophotometer

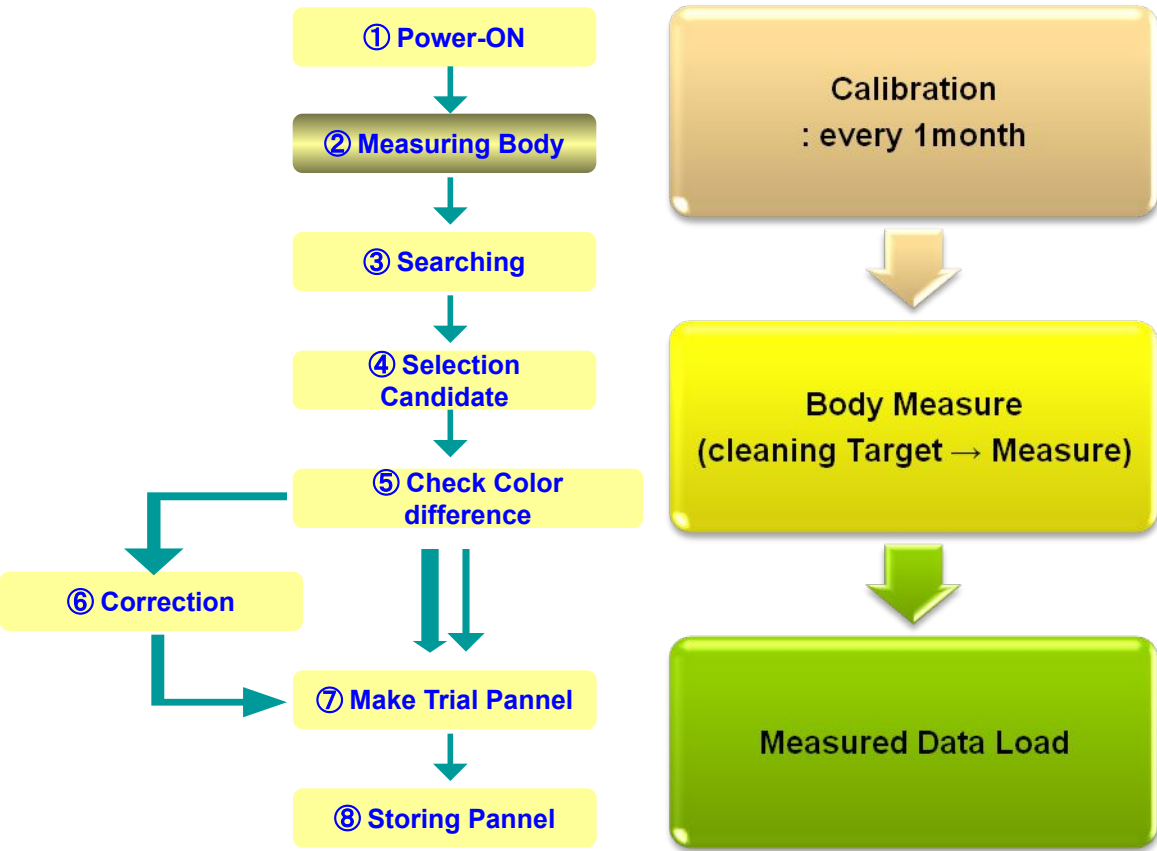


Run Program  
(Color-Navi)



# 2. How to use CCM (Metallic)

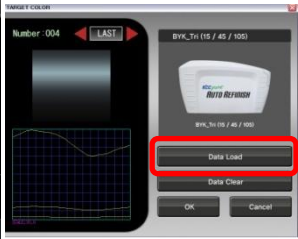
## 2 Measuring Body



Calibration  
: every 1month

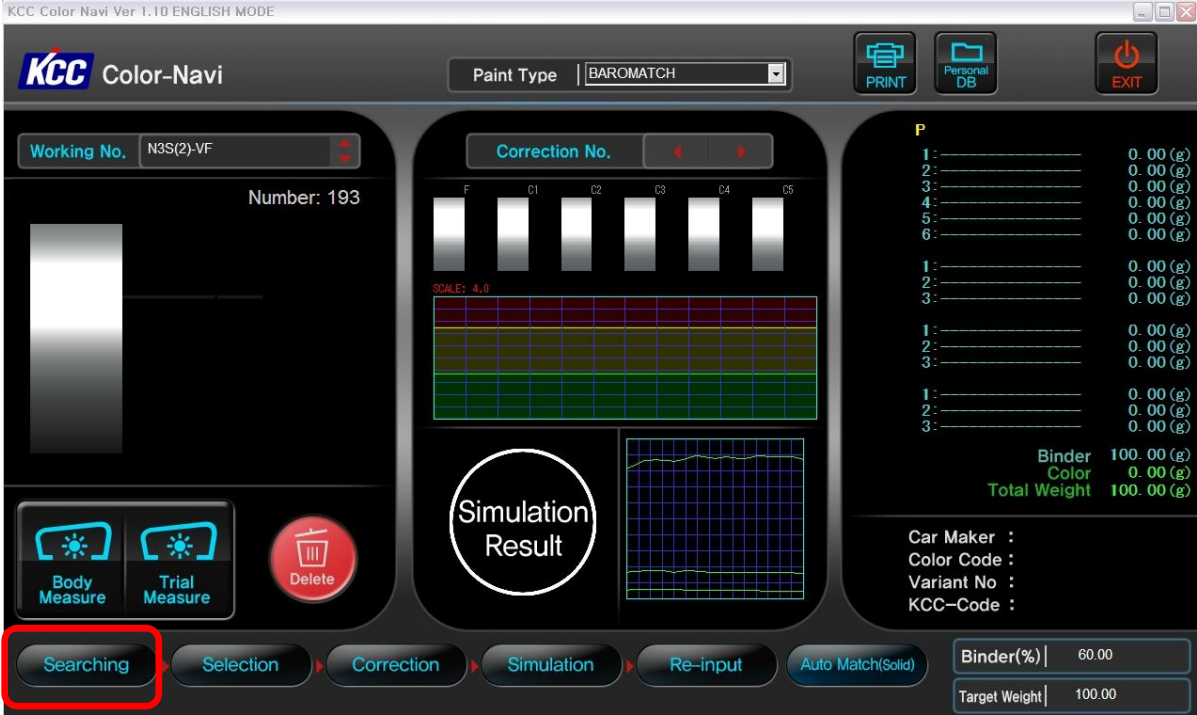
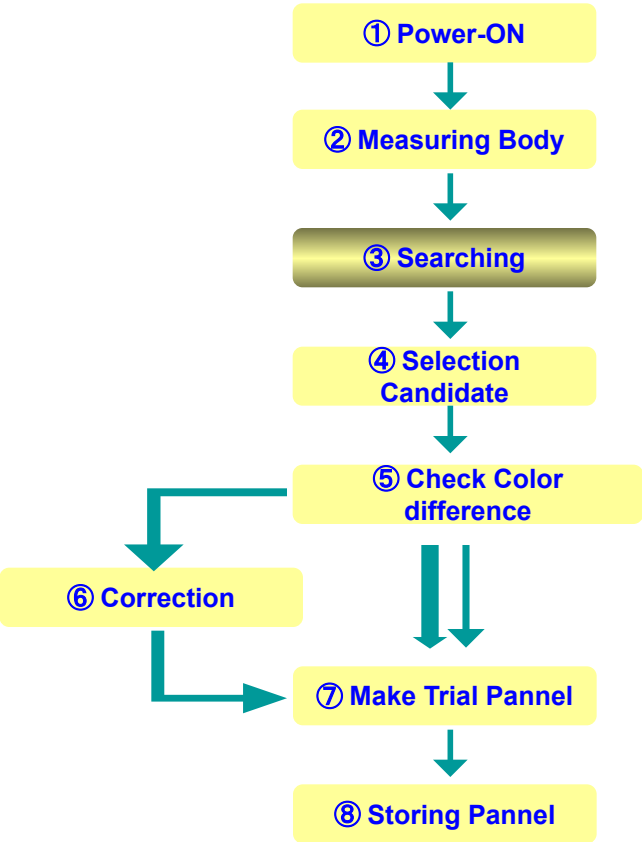
Body Measure  
(cleaning Target → Measure)

Measured Data Load



# 2. How to use CCM (Metallic)

## 3 Searching

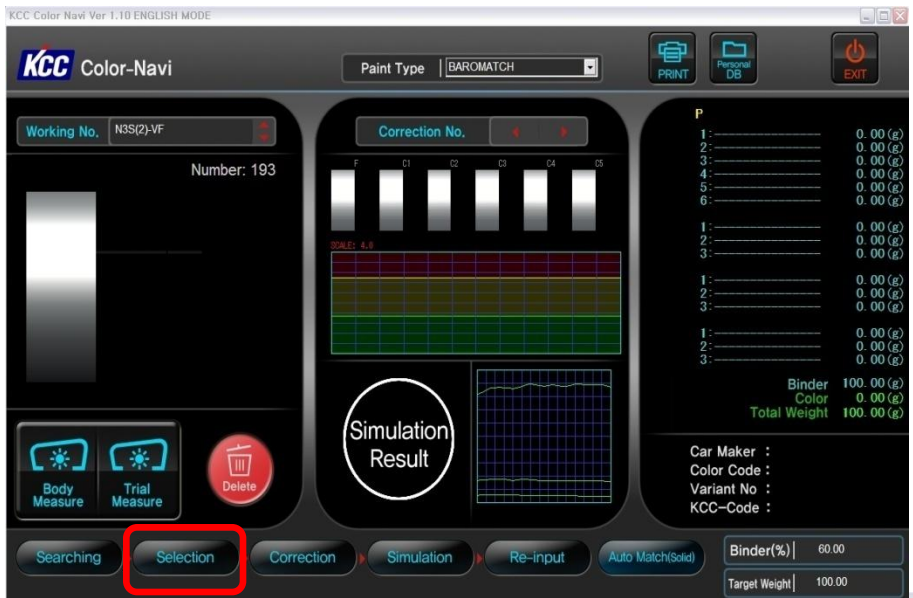
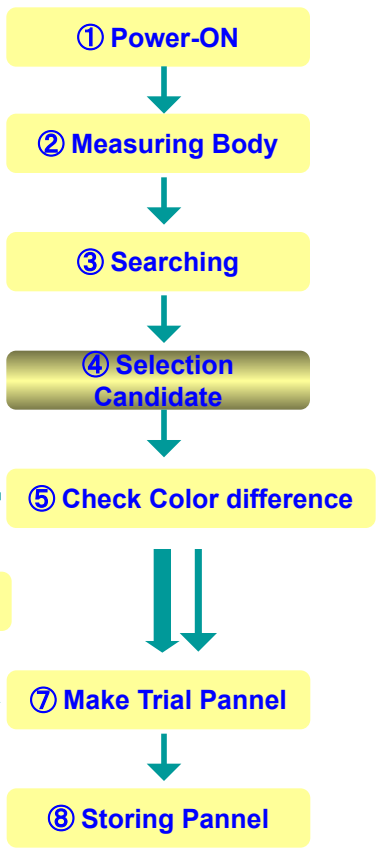




# 2. How to use CCM (Metallic)

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Selection Candidate



**Tip :**

- ① Considering about Sparkling, the KCC code can be helpful.
- ② Also, it can be a good choice that has similar shape of R-Curve.

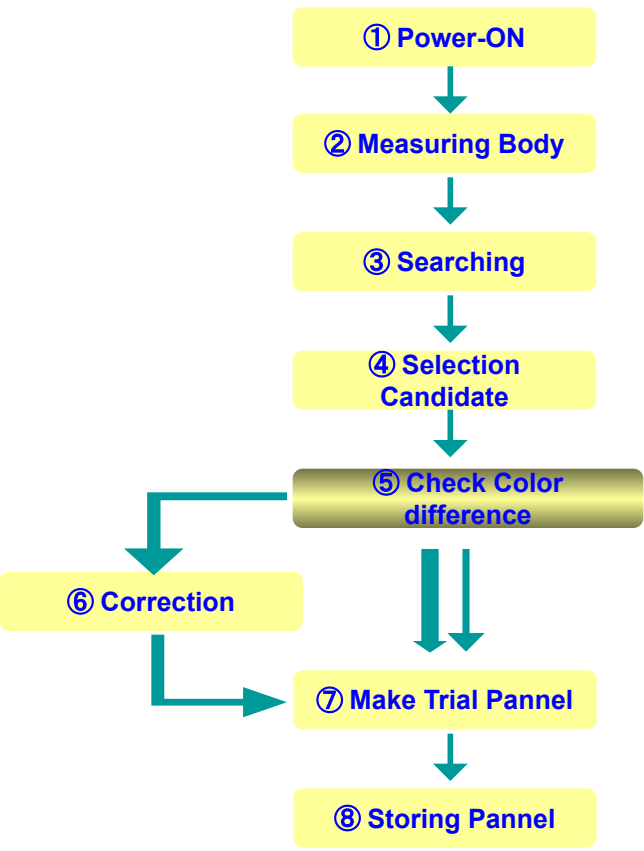




# 2. How to use CCM (Metallic)

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Check how different



KCC Color Navi Ver 1.10 ENGLISH MODE

**KCC** Color-Navi

Paint Type | BAROMATCH

PRINT Personal DB EXIT

Working No. GAR

Number: 198

Correction No.

Highlight: 1.31

Face: 0.36

Shade: 0.45

SCALE: 4.0

Good

Body Measure Trial Measure Delete

Searching Selection Correction Simulation Re-input Auto Match(Solid)

**C1**

1:	KM702	14.73 (g)
2:	KM700	2.05 (g)
3:	KM204	3.40 (g)
4:	KM203	0.65 (g)
5:	KM300	0.40 (g)
6:	KM605	0.72 (g)
1:	KM807	2.82 (g)
2:		0.00 (g)
3:		0.00 (g)
1:	KM907	0.91 (g)
2:	KM904	0.73 (g)
3:		0.00 (g)
1:	KA69F	5.41 (g)
2:	KM101	0.11 (g)
3:		0.00 (g)
Binder		66.71 (g)
Color		31.93 (g)
Total Weight		98.64 (g)

Car Maker : GM-DAEWOO

Color Code : 273000

Variant No : GAR

KCC-Code : KB0105. A7

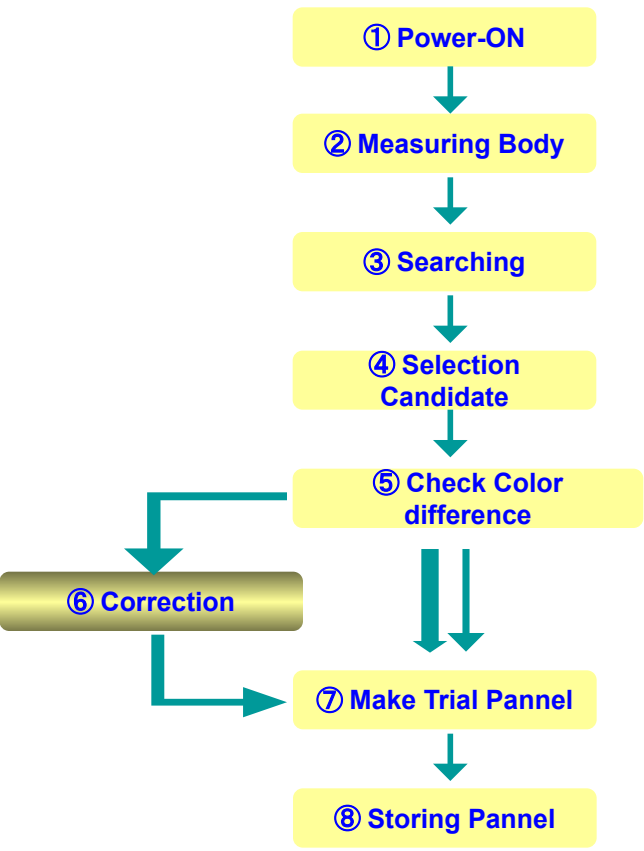
Binder(%) | 67.63

Target Weight | 100.00

# 2. How to use CCM (Metallic)

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Auto-correction / Manual Simulation



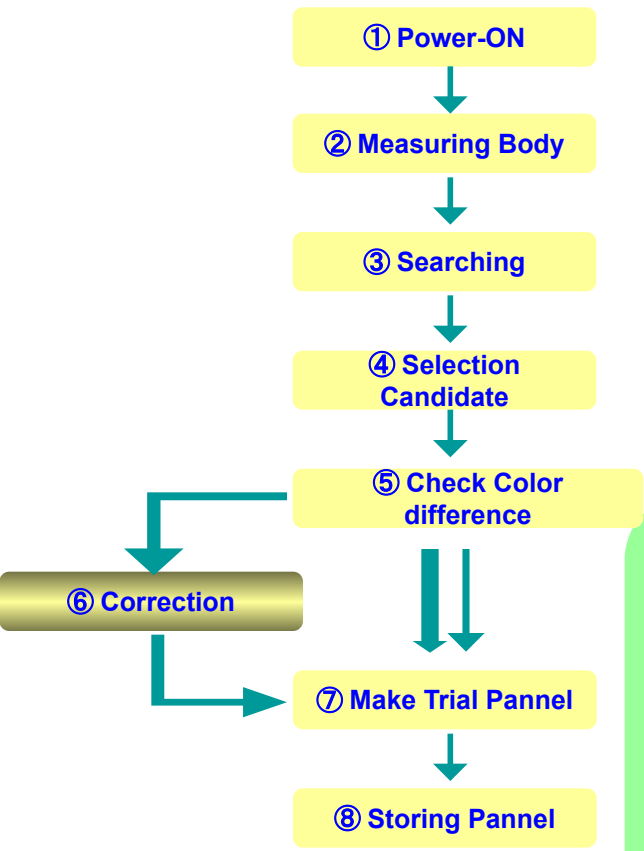
① Move to next step.  
(Now you are C1, after click here, then you'll be C2)

② After move next step, please click here, then you can get a corrected formula.

# 2. How to use CCM (Metallic)

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Auto-Correction / Manual Simulation



**Tip :**

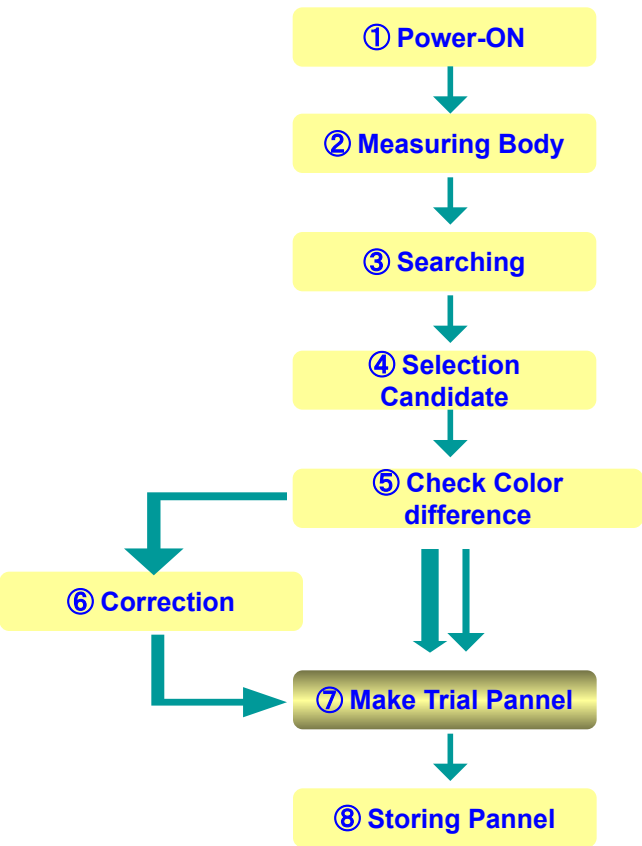
- ① You can make manual formula which has smaller dE at specific degree.
- ② You can also make formula which will be close to actual viewing, even though that formula drive to bigger dE.



# 2. How to use CCM (Metallic)

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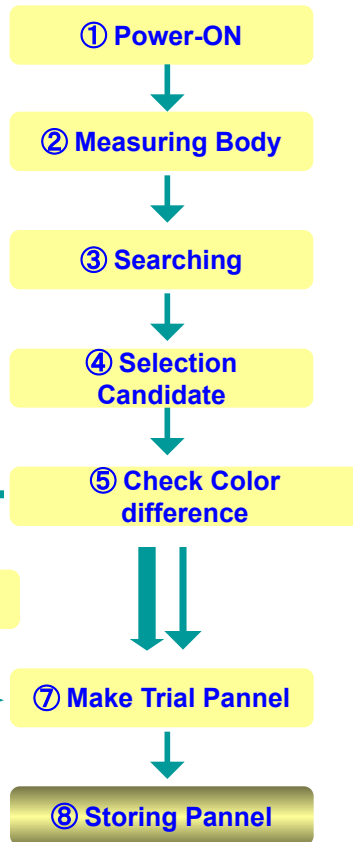
Make Trial Pannel



## 2. How to use CCM (Metallic)

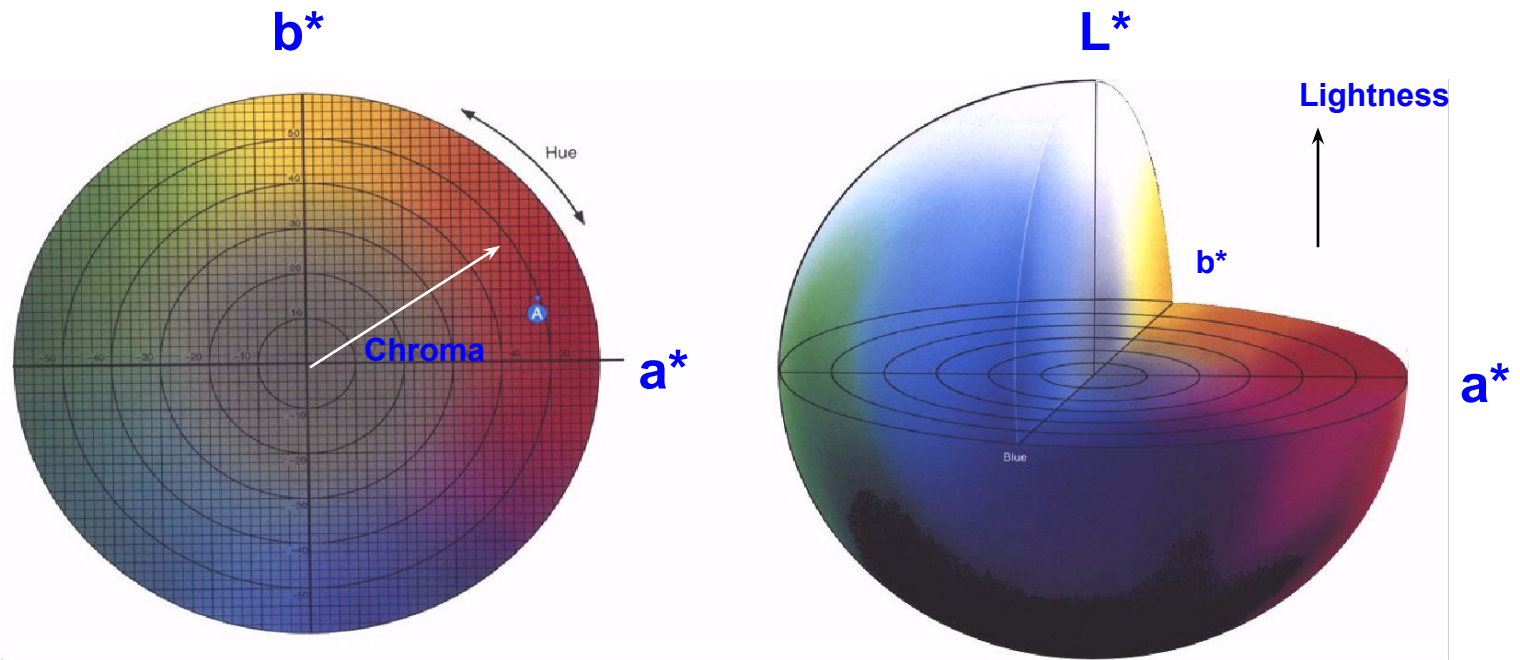
8

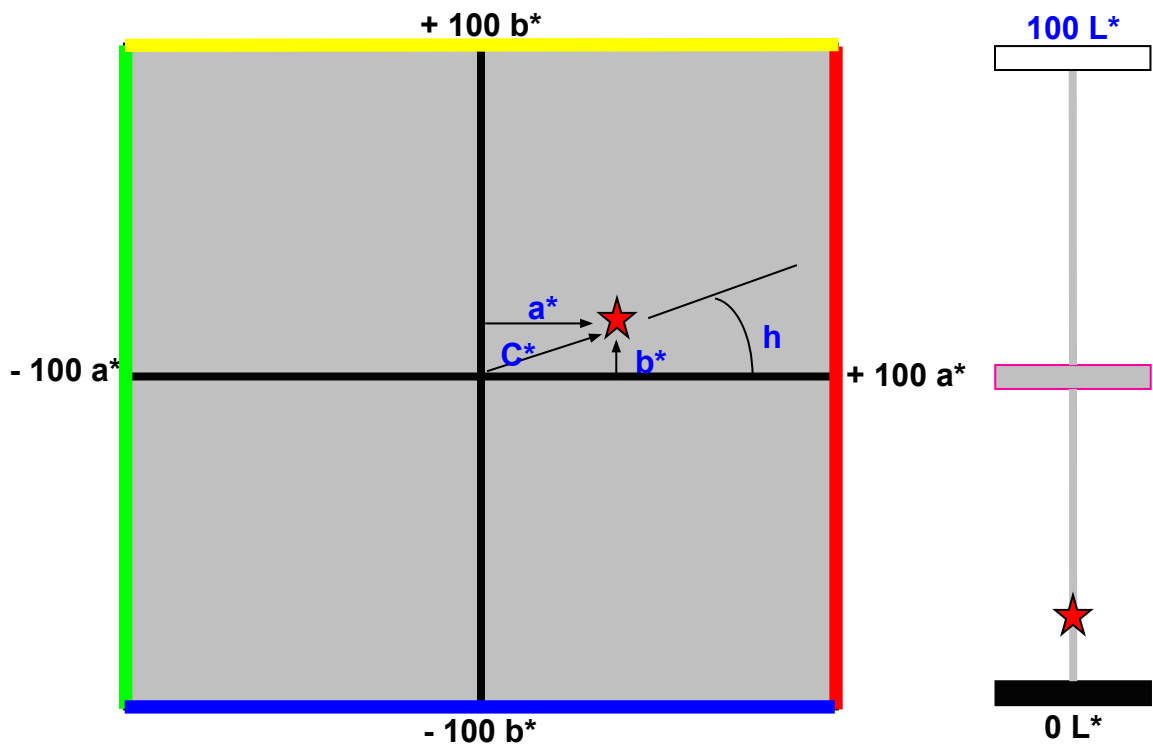
### Storing Pannel





# **CIELab** UCS (Uniform Color Space)

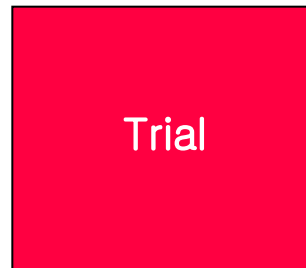
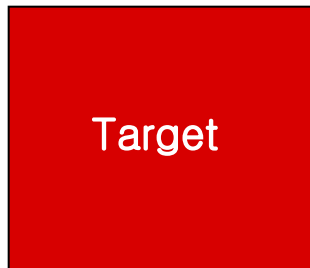




	Illum	$L^*$	$a^*$	$b^*$
	BARN RED 4X D65	30.86	44.04	18.50



# Color difference



=  
*Trial is ..*  
Lighter  
Redder  
More Yellowish

$L^* = 30.86$

$a^* = 44.04$

$b^* = 18.50$

$L^* = 32.91$

$a^* = 46.66$

$b^* = 19.54$

$DL^* = 2.05$

$Da^* = 2.62$

$Db^* = 1.04$

- CIELab
  - +DL\*      Lighter
  - DL\*      Darker
  - +Da\*      Redder (or) less Green
  - Da\*      more Greenish (or) less Red
  - +Db\*      more Yellowish (or) less Blue
  - Db\*      more Bluish (or) less Yellow

$$\Delta E^*_{ab} = \left[ (\Delta L^*)^2 + (\Delta a^*)^2 + (\Delta b^*)^2 \right]^{1/2}$$