




Colour Center Training

MASTER INTRODUCTION & ROLL OUT
Barbados: March 2022

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What to expect in this training document

-  Some information **Repeated** from the last training:
-  Some information **Refreshed** from the last training:
-  Some information **New** from the last training:

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Defining Tint Accuracy



COLOUR ACCURACY

Colour prediction is based on a mathematical formula

No mathematical formula is perfect:

- Good colour systems achieve an accuracy of 85% in tinted shades
- Better colour systems achieve 90%
- Exceptional colour systems achieve 95% or more

How is this achieved?

Controlling Variables:

- Bases
- Tinting Machines
- Fandecks
- Spectrophotometer
- Colourants
- Operator



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Bases, Equipment and Colourants

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Harris Products – What's Tintable

Harris produces a diverse range of tintable products for almost every application requirement. Colours can be chosen from the Ulttima Plus fan deck, or any of the 59,000 colours available in the software for most of these products.

Decorative Coatings

- New Era U+ - 1 base - **MASTER**
- Ulttima Plus – 4 bases (Pastel / Intermediate / Deep / Accent)
- Pro Speed Cover – 3 bases (Pastel / Intermediate / Accent)
- Perma – 2 bases (Pastel / Intermediate) (BH ONLY)
- Boss / Excel – 1 base (White) (BH ONLY)

Specialty Coatings

- Rust Chem Super Gloss Enamel – 4 bases

Wood Care

- Duraglaze Quick Drying Wood Stain – 1 base (Natural)

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Know your Bases

Each Ulttima Plus product base has a different short fill and maximum colourant loading. This is important to know when visually inspecting bases prior to tinting, or when correcting or adjusting a formula. Surpassing these recommended ratios will affect the quality of the product and may result in product failure.

Ulttima Plus Base	Short Fill (Per gallon can)	Max Colourant (Per gallon can)
Pastel	122 oz	4 oz
Intermediate	120 oz	6 oz
Deep	118 oz	8 oz
Accent	110 oz	16 oz
Master	110 oz	16 oz

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Harris Products – Master Base

Harris Paints is the first in the Caribbean to produce a single base tinting system which will reduce required stock on hand while simplifying the tinting process. This will initially be available in Ultima Plus Exterior New Era Flat Emulsion, Satin Emulsion and Porch & Patio Acrylic Enamel.

How it works:

- Work with only one neutral paint called Master for each product
- Dispense the minimum and optimized amount of Titanium in the form of slurry
- Dispense the minimum and optimized amount of colorants
- Reach 100% top off



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Harris Products – Master Base



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HARRIS

ULTIMA+

A NEW ERA IN PAINT

OUR NEW REVOLUTIONARY TECHNOLOGY THAT GUARANTEES YOUR BEST EVER RESULTS!

BOLDEST, BRIGHTEST COLOUR | **FAST + EASY COVERAGE** | **LONGEST LASTING COLOUR**

CONTRACTOR RECOMMENDED
★★★★★
www.harrispaints.com/newera

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Tinting Equipment - Corob

Harris currently uses equipment primarily from COROB, who is one of the largest manufacturers of Tinting equipment in the world. Depending on your location, you would have been using one of these shown below.

FIRST70

BANCO

TATO

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Tinting Equipment - ALFA

In 2019, Harris launched a new partnership with ALFA, who will not only bring new equipment to the market but a revolutionary method of tinting paint. Over the next year these new dispensers will be rolled out across the Caribbean. These Alfa dispensers can tint the Traditional Ultima Plus products and also the Master base products.



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Tinting Equipment - ALFA



- ✓ Don't require calibration
- ✓ Designed for zero VOC colourants
- ✓ Patented pumps dispense precision micro dot
- ✓ Remote diagnostics

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Dispenser Care

Daily Dispenser Maintenance To be done by all tint operators

- Purge the dispenser and ensure all colorants are dispensed.
- Clean and moisten the sponge to ensure adequate moisture and to avoid premature drying of nozzle tips. Please call a Harris service technician to have the sponge replaced if it is damaged or missing.
- Inspect and clean nozzle tips with warm water and a q-tip or paper towel to dislodge build-up around nozzle tips if necessary. Take care not to push the nozzle tips up while cleaning.
- Please ensure the capping mechanism is operational and properly seals the nozzle tips when it returns to original position.

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Dispenser Care

Daily Dispenser Maintenance

- Keep lids closed – avoid large gaps between lid and container. Lids should sit firmly onto canister.
- Physically check the colorant levels in the canisters. Ensure the colorant shows no signs of thickening. Verify levels on the computer with the actual canister levels.
 - DO NOT overfill canister.
- Ensure dispenser top is kept clean. Clean up spills as soon as they happen.
 - Consult a Harris service technician if you encounter an issue.

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Dispenser Care

BAD



Cleanliness:

GOOD



Overfilling of canisters and not cleaning up after spills will result in contaminated colourant, clogged mechanisms and mistiness.

Missing a humidifier sponge and/or not moistening it every day will cause significant customer dissatisfaction. Humidifier sponges and caps should be checked and cleaned on a DAILY basis.

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Dispenser Care

BAD



Cleanliness:

GOOD



Even though it is not seen, overfilling can cause substantial damage to the internal electrical components of the dispenser, causing the dispenser to malfunction and resulting down time.

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Colorants: Introduction

- One of the major benefits in the Ultima Plus line of paints is the use of the only Zero VOC colorant system in the Caribbean.
- Our system uses a unique 10 colourant system plus a new, stronger White Slurry (WS) and a Neutral Colourant (NC). Neutral Lite (NL) will also be available in Jamaica for the EXCEL and Perma product lines.
- 2 New colourants are being added to improve fade resistance and colour accuracy.

		U+ Organics	U+ Exteriors
Attributes	Coverage	5	4
	Fade Resistance	4	5
	Tint Strength	5	3
	Eco-Friendly	5	5
	Cost	2	4
*Rank of 1 to 5 with 5 being high and 1 being low			



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Colorants: Brighter & Bolder

- One of the major improvements in the Ultima Plus New Era line of paints is the use of the only Zero VOC colorant system in the Caribbean.
- We have added Orange (ORE) and High Strength Red (REE)

Current Colourant Set		ALFA Colourant Set	
Code	Colourant	Code	Colourant
AXX	Organic Yellow	AXX	Organic Yellow
B	Lamp Black	B	Lamp Black
C	Yellow Oxide	C	Yellow Oxide
D	Phthalo Green	D	Phthalo Green
E	Phthalo Blue	E	Phthalo Blue
F	Red Oxide	F	Red Oxide
KX	White	V	Magenta
R	Organic Red	AN	Exterior Yellow
V	Magenta	ORE	High Strength Orange
AN	Exterior Yellow	REE	High Strength Red
RN	Exterior Red	WS	White Slurry
		NC	Neutral Colourant



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New Red & Orange Colourants

- Popularity of hot colours which are prone to fade (UV action)
- New high strength pigments hide well and have excellent fade resistance.
- Red replaces previous with improved performance
- Orange is a new addition – delivers brighter bolder colour and over time will fade evenly



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Colourants: Rotating Stock

For Best Results:

- Ultima Plus Colourant should be stored in a cool dry location. Between 10 - 45 degrees Celsius.
- To prevent sedimentation during extended storage, Ultima Plus Colourants can be stored inverted.
- Ultima Plus Colourant should be used within two years of its manufacture date. This does not mean it is expired however periodic testing ensures the colourants are within the manufacturer's specification.
- Ultima Plus Colourant is Zero VOC and therefore less harmful than other glycol based colourants. Volatile Organic Compounds (VOC) react with sunlight in the atmosphere creating greenhouse gases and smog.

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Colourants: Rotating Stock

Know your Ultima Plus Batch #'s.

They are printed top of every quart, the bar code of the 1 liter and also on each box.

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Colourants: Rotating Stock

Step 1:
Read
the
Batch #

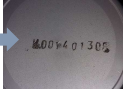


Step 2:
Rotate
the
Stock

- **XXXxxxxxx**: First 3 digits tell us they are Ultima Plus colourants.
- **xxxXXXxxxx**: Second 3 digits tell us which colourant. E.g., 130 = AN-High Performance Yellow, 010 = AX-Organic Yellow, etc.
- **xxxxxxXXxx**: Digits 7 & 8 tell us the year in which the batch was made.
- **xxxxxxxXX**: The last 2 digits tell us the sequence for that particular colourant in the year. E.g., 4001301407 tell us it's the 7th batch of Ultima Plus Colorant AN-High Performance Yellow made in 2014.



When you receive Ultima Plus Colourant check the Batch #'s and ensure the newer batches are packed behind/under the older batches and ensure when you select a new carton to open that you are selecting the oldest available batch.

Slide these older 2013 batches out before restocking with newer 2014/2015 batches. Then place the 2013 batches in front/over the newer batches.

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Colourants: Shaking Procedure



Ultima Plus Colourants are to be shaken vigorously by hand for a minimum of 30 seconds. If using a clamp shaker, shake 1 box at a time using the minimum setting and leave overnight before using. This allows entrapped air to be dissolved.

Before shaking, always ensure the cap is closed securely as lids are machine tightened and are not always secure and may leak.

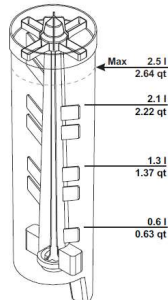
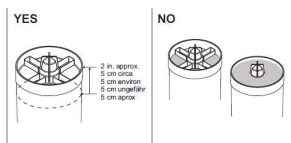
Firmly grip the container with both hands and shake in a circular motion away from you.

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Colourants: Filling Procedure



Canister Example

Only add colourant to the dispenser if the canister can hold 1 full liter. This is to maximize the full tint strength of each quart. Use a stirring stick or similar tool to scrape any excess colorant from the container.

Do Not add the colorant to the dispenser if it appears lumpy. Re-shake by hand or stir for an additional 30 seconds.

Do Not over fill the canister. Each dispenser has a fill level chart on the inside of the lid. Please refer to this for your dispenser type.

Ensure the correct colourant is poured into the correct canisters in the dispenser. Pay special attention to the AXX & AN as these yellows can be mistaken.

Always adjust the colourant levels in the dispenser software to reflect the contents of the canister.

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Colourants: Filling Procedure



Unscraped AXX



Scraped AXX

The major advantage of the new liter packaging, is the ability to scrape the container to extract as much of the colourant as possible from each empty container.

An unscraped container can contain as much as 4 ounces of colourant, which is enough to tint a gallon of paint to Bread 'n Butter (0960), which uses 4ozs + 48 shots of AXX.

Recommendation:
Use 1 stirring stick per colourant, label each one for the colourant it is to be used with and wash after each use to eliminate buildup.

DO NOT scrape lumpy or hardened colourant into the dispenser as this can cause the machine to malfunction. Discard if not usable.



Colourants: Filling Procedure - ALFATINT

Access the colourant levels from the **Service Tab** in **ALFA Tint** and add the required amount of colourant to the respective colorant circuit.

Name	Pigment	Index	Current level	Add [cc]	Min/Max [cc]	Flags
B1	T02	0	986	0	200/10000	⚙️
B2	WHT/FILLER	1	4962	0	200/10000	⚙️
B4	W	3	1150	0	200/10000	⚙️
C1	B	8	958	0	200/10000	⚙️
C3	O	10	929	0	200/10000	⚙️
C4	AXX	18	991	0	200/10000	⚙️
C5	E	12	991	0	200/10000	⚙️
C7	F	14	958	0	200/10000	⚙️
C8	C	15	991	0	200/10000	⚙️
C9	R	16	940	0	200/10000	⚙️
C9	V	18	923	0	200/10000	⚙️
C10	DRK	16	940	0	200/10000	⚙️
C8	M	20	940	0	200/10000	⚙️
C10	W	22	940	0	200/10000	⚙️
C16	RLK	23	940	0	200/10000	⚙️

Use the following guide for refilling:

- 1 colourant = 900cc
- 1 WS = 3700 cc
- 1 NC = 7400 cc

Complete information on the ALFA dispensers can be found in the **ALFA Dispenser Operational Manual HPIL-IRD-158**



Colourants: Filling Procedure - ALFADRIVER

Access the colourant levels from the **Service button** on the **File Watchdog** home screen or the **Service Tab** on the dispense screen and add the required amount of colourant to the respective colorant circuit.

Name	Component	Current Level	Full Level	Warning	Alert	Page	Unit	Refill
001	NC	828.00	270.00	Start	Start	100	gallon	0
002	WS	1728.00	270.00	Start	Start	100	gallon	0
003	WS	1200.00	270.00	Start	Start	100	gallon	0
004	NC	1188.00	270.00	Start	Start	100	gallon	0
005	WS	1080.00	270.00	Start	Start	100	gallon	0
006	WS	1080.00	270.00	Start	Start	100	gallon	0
007	WS	1080.00	270.00	Start	Start	100	gallon	0
008	WS	1080.00	270.00	Start	Start	100	gallon	0
009	WS	1080.00	270.00	Start	Start	100	gallon	0
010	WS	1080.00	270.00	Start	Start	100	gallon	0
011	WS	1080.00	270.00	Start	Start	100	gallon	0
012	WS	1080.00	270.00	Start	Start	100	gallon	0
013	WS	1080.00	270.00	Start	Start	100	gallon	0
014	WS	1080.00	270.00	Start	Start	100	gallon	0
015	WS	1080.00	270.00	Start	Start	100	gallon	0

Use the following guide for refilling:

- 1 colourant = 900cc
- 1 WS = 3700 cc
- 1 NC = 7400 cc

Note: For the **THOR** machines, the value needs to be entered and then click Refill **BEFORE** opening the lid. When you click Refill it will rotate the correct canister to the front for easy access.

Complete information on the ALFA dispensers can be found in the **ALFA Dispenser Operational Manual HPIL-IRD-158**



Tinting Software Basic Tinting



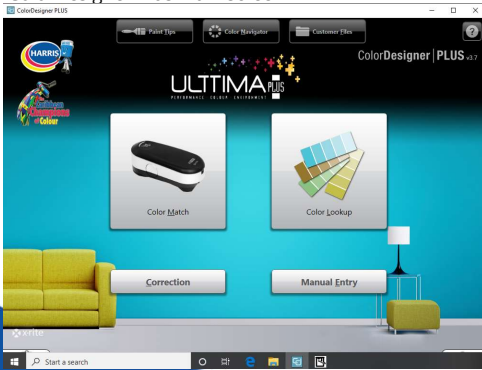
Tinting Software - ALFA

On starting the PC, the main software for tinting should start automatically:

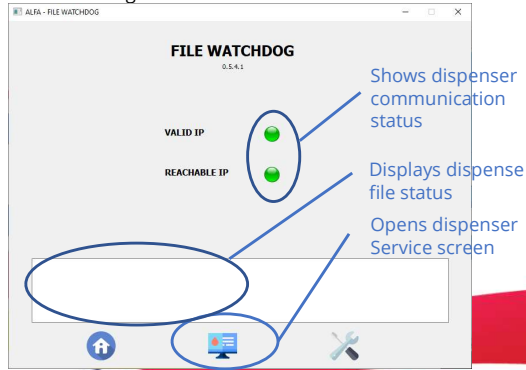
ColorDesigner Plus – Tinting software used for formula generation

File Watchdog – Allows ColorDesigner Plus to interact with the dispenser

ColorDesigner Plus main screen

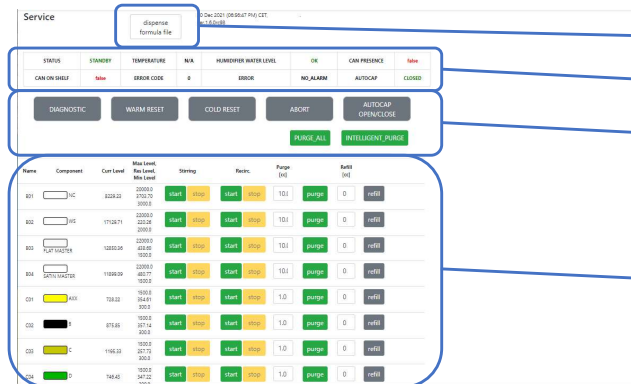


File Watchdog main screen



Tinting Software - ALFADRIVER

ALFA Service – Service screen used for dispenser maintenance.



ALFA Driver Service screen

- Return to formula dispense screen
- Dispenser status window
- Dispenser command buttons
- Canister information

Complete information on the ALFA dispensers can be found in the **ALFA Dispenser Operational Manual HPIL-IRD-158**



Tinting Software - ALFADRIVER

ALFA Dispense – Dispenser verification screen used to que multiple gallons and displays machine status.

Return to service screen

Dispenser status window

Dispenser command buttons

Colour name, number and Product type

Dispense status bar

Formula information

Can size and quantity

ALFA Driver dispense screen

Complete information on the ALFA dispensers can be found in the **ALFA Dispenser Operational Manual HPIL-IRD-158**



Tinting Software - ALFATINT

ALFA Tint – Tinting software used for formula generation and dispenser maintenance

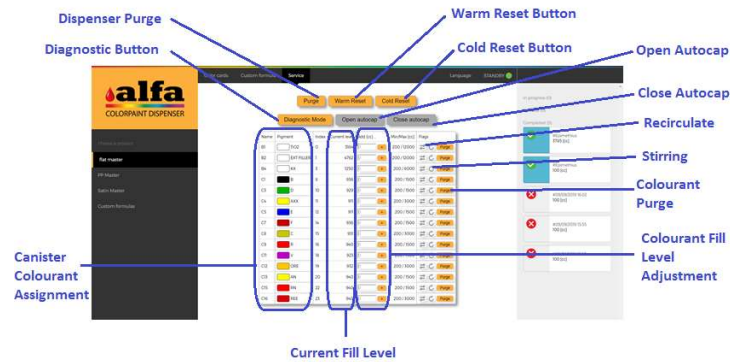
ALFA Tint main screen

Complete information on the ALFA dispensers can be found in the **ALFA Dispenser Operational Manual HPIL-IRD-158**



Tinting Software - ALFATINT

ALFA Service – Service screen used for dispenser maintenance and formula generation.



ALFA Service screen

Complete information on the ALFA dispensers can be found in the **ALFA Dispenser Operational Manual HPIL-IRD-158**

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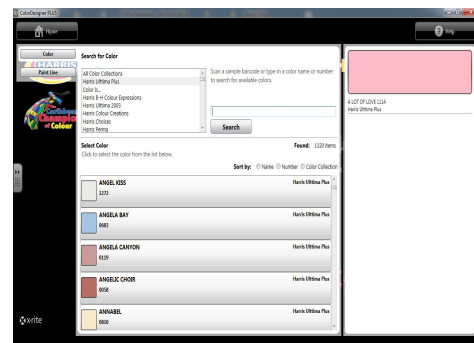
Software: Colour Lookup

ColorDesigner Plus has been set up to include formulas for all the colours in **90 different colour cards and fan decks**.

Every major Caribbean and US paint manufacturer's colours are ready to tint in any Ulttima Plus product – and there are over 70,000 formulas in the system.

Colour Lookup is fast and easy – the system can search by colour name or number and can search across all fan decks from all manufacturers at the same time.

Search results show all colours with the same name and number that are in the system, indicating which manufacturer they are from, and providing a visual reference of what the colour looks like, to help ensure the right colour has been found before tinting.



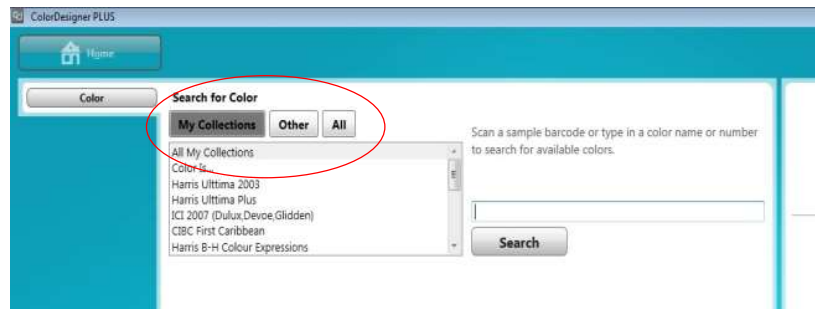
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Software: Colour Lookup

ColorDesigner Plus version 3 has added search filters to speed up the colour search process. You now have the option to search only Harris Colours under the **My Collection** tab or all other competitor colours using the **All** tab. Frequently used competitor fan-decks can also be added to the **Other** tab.



ColorDesigner Plus Version
3.x

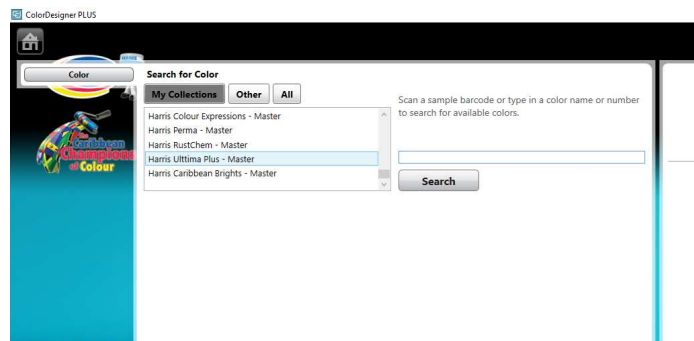
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Software: Colour Lookup - Traditional Bases vs. Master Bases

ColorDesigner Plus gives the versatility to tint both Traditional Bases and the Master bases from one software. You will note however that the more popular Harris colour cards will have "- Master" at the end. This indicates optimized formulations for improved hiding and colour accuracy.



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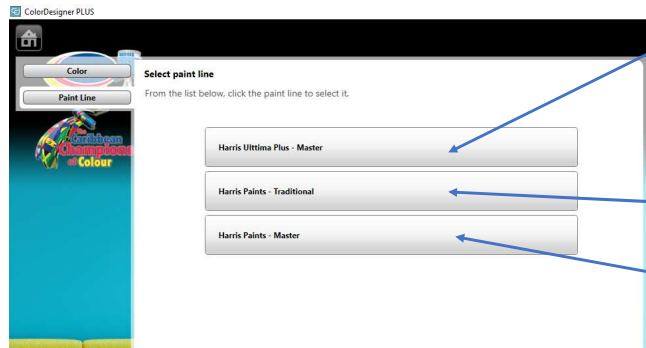
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Paint Line Selection

To ensure the correct formulation for the Master products, be sure to make the correct selection at the Paint Line selection screen.



- For Harris Fan Decks and Colour Cards, or any colour card with Master at the end, always select the FIRST Tab with the name of the colour card. This option does not appear when using a competitor colour card.
- For all Fan Decks using the Traditional bases, use the **Traditional** option.
- For all competitor Fan Decks, using the Master products, use the last option.

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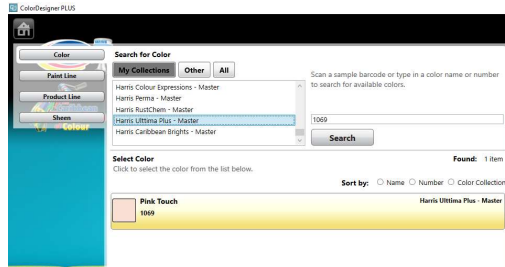


Software: Colour Lookup - Traditional Bases vs. Master Bases

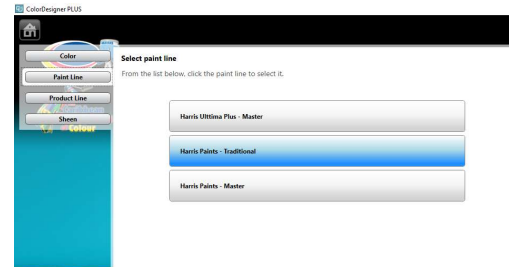
When tinting Traditional bases for all colours:

- Use the Harris Paints - Traditional tab.

Search for colour by name or number



Select Harris Paints -Traditional



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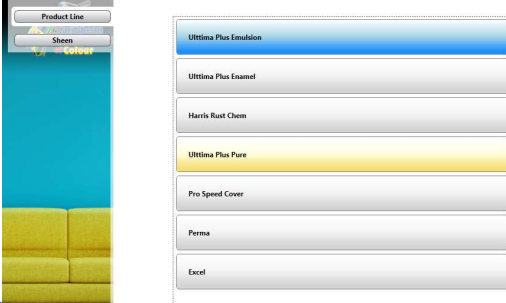
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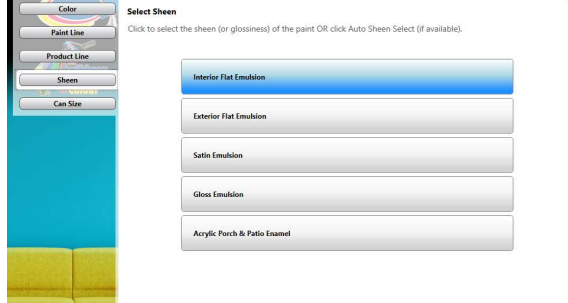
Software: Colour Lookup - Traditional Bases vs. Master Bases

For Traditional Tinting, there is also a new menu structure. Products are grouped under Brand and then by sheen type:

Search for the product type by Brand



Select the product type from the list



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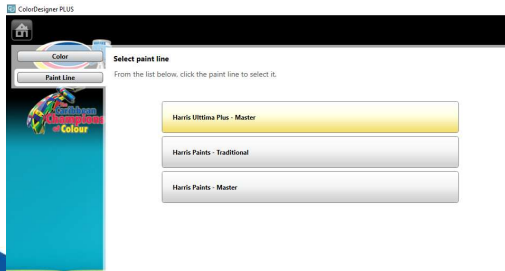


Software: Colour Lookup - Traditional Bases vs. Master Bases

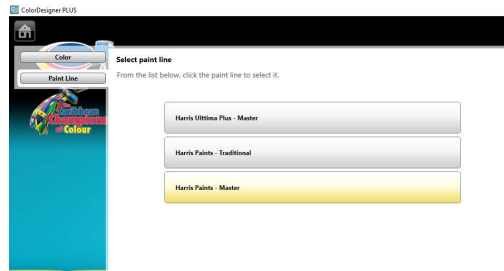
When tinting using Master Base:

- For Harris colours use - **Harris Ultima Plus - Master ***
- For all other Colours use - **Harris Paints - Master**

Harris Colours Only



All other Colours



* This tab will only be available and applies to fan-decks with Master at the end of the name. The Tab name will also change depending on the fandeck selected. i.e. Harris Colour Expressions - Master

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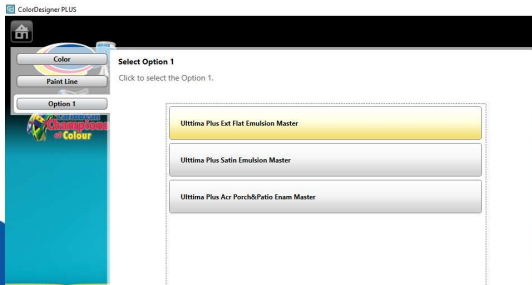


Software: Colour Lookup - Traditional Bases vs. Master Bases

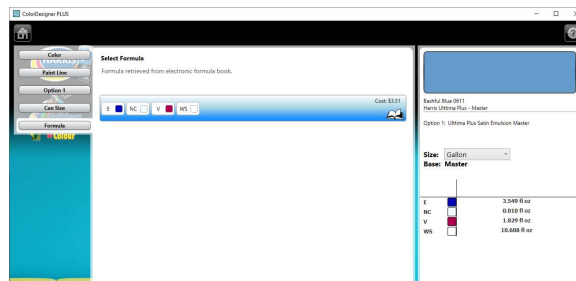
Select the correct Product to be used, followed by the can size.

Please note for Master Base formulations there is no Interior/Exterior selection.

Select the Harris Master product



Final formula display



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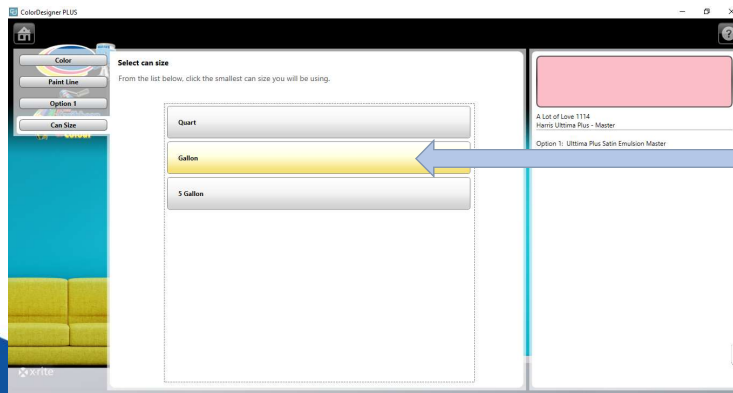
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Tint Defaults: Can Size

- The system selects the most accurate formula regardless of can size. As a result, it is possible to have formulas derived from different colourants to achieve the same colour across quarts, gallons, and five gallons. This is accuracy contending with consistency as many customers who choose quart samples to start a project or to finish one report changes in the colour. We therefore recommend selecting the gallon size first and then scaling up to a 5 gallon or down to a quart as per the customer's requirements.



Default:
ALWAYS
Select Gallon first.

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Saving Customer Colours

- To ensure commonality and ease in the selection of Customer formulas to make available in all Colourcentres, following the steps when saving customer formulas or non-default tints.

- Account / Last Name** – Enter either the Business name or Customer's Last Name in this field. The customer's full name can also be stored here, if this is done, leave the First Name field blank.
- First Name** – Enter the customer's First name only in this field (Optional). Leave blank if Business name or full customer name is entered above.
- Phone Number** – Enter contact number for customer/business
- Click "Create New Customer" to create customer file.
- If customer has already been created, select the customer name from the list of Customers. Formula will be automatically added to the customer file.**

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Saving Customer Colours

- After creating the customer file, modify the saved formulas to include as much information as possible.

- View Modify** – Edits customer information.
- Modify Details** – Edits formula record details.
- Edit Formula** – Edits colourant formula.
- Copy** – Copy formula record to another existing customer or to a new customer file.
- Delete** – Deletes formula record from customer file.
- Rematch** – Edits product type, base or can size of colour record or to rescan a scanned formula.

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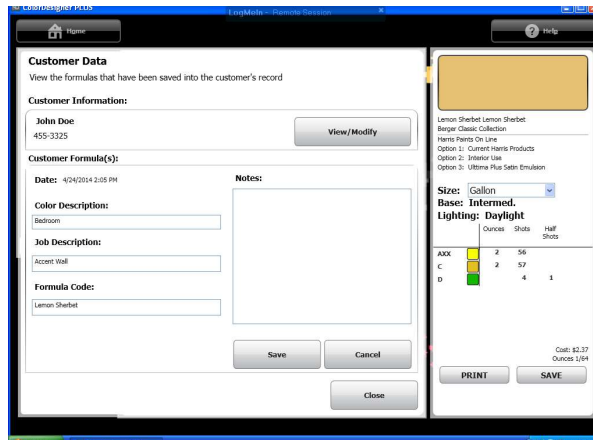
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Saving Customer Colours

- **Modify Details** – Ensure vital information on the colour is stored, such as location being painted, job description, notes on any formula adjustments, or customized colour name.

- **Colour Description** – Prints on the label. Colour name for manual entry or custom matches can be entered here.
- **Job Description** – Information on location of where the colour was used or particular job site.
- **Formula Code** – The colour name or number can be entered here. This can be used as a search option when looking up saved formulas.
- **Notes** – Can be used to enter more detail description of colour or job.
- Click **Save** to continue.
- **Print a new Label and attach to the can AFTER saving the information.**



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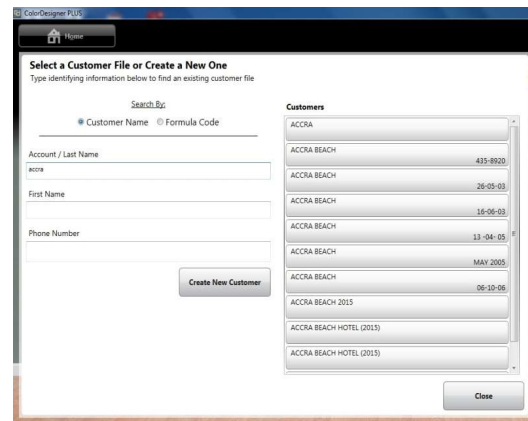
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Retrieving Customer Colours

- To search for and retrieve saved customer information, a search can be done by either the Customer Name or Formula Code.

- **Customer Name** – Type the customer's or contractor's name in the appropriate field. Matching names will show up in the customer list.
- **Formula Code** – This can be the name or special code given to saved colours. If a colour was saved for customer but was listed under an unknown contractor name, but was saved as "John's Brown", doing a search for this code would be useful.
- **Notes** – Partial searches can also be done. For version 2.5, the full list of customers is shown if no name is entered. For version 3 or later, only a partial list is shown.



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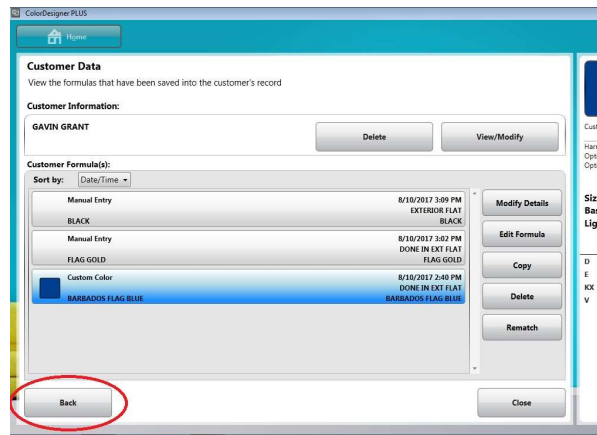
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Retrieving Customer Colours

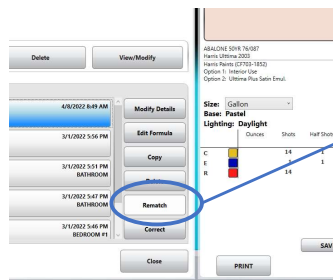
- Once the Customer's file is found, it will display all colours saved under that Customer.

- Select The Correct Colour** – Once the correct colour has been selected, change the product size as necessary then proceed to tint the product.
- Edit formulas** – Saved colours can also be modified at this stage, or even to delete duplicate entries. "Reformulate" or "Rematch" even allows you to change the product type.
- Notes** – For version 3 or later, the "Back" button has been added which allows you to go back to the search screen if the incorrect customer has been selected or to carry out a new search.

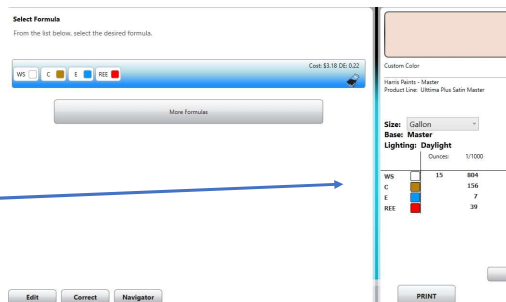


Retrieving Customer Colours

- Some customer colours which contain R, RN or KX which are no longer used, the **Rematch** option will have to be used to recreate a formula using REE or WS.
- NOTE:** For standard colours, we recommend reselecting the Colour Name from the **Colour Look Up** option on the home page.



- Select The Correct Colour** – Once the correct colour has been selected, click the Rematch button.
- Rematch** – Follow all prompts to regenerate the updated formula. Be sure to correctly choose the correct Product Type, Traditional or Master base and can size.

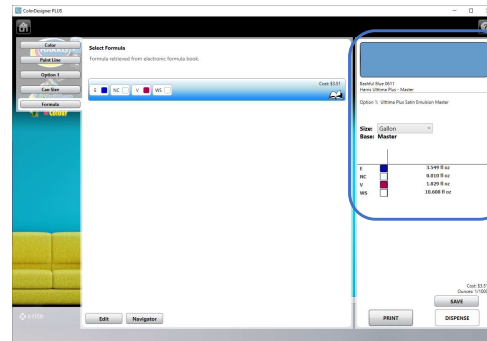
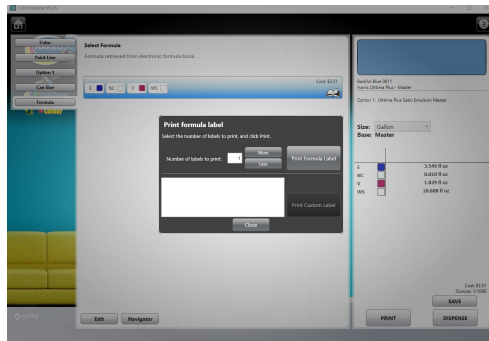


- Save New Formula** – Once the new formula has been generated, save the new formula to the customer file.
- Modify Details** – Rematch will remove the colour name, so always go to Modify Details to readd the colour name.



Printing and Dispensing

- Verifying the colour and product information, and saving the customer file, print the labels for the can by clicking the print button on the formulation screen
- Verify the information on the label once more and then click dispense to begin the tinting process on the dispenser.
- A custom label can also be printed by typing in the open box and click Print Custom Label



Confirm information before saving, printing and dispensing.

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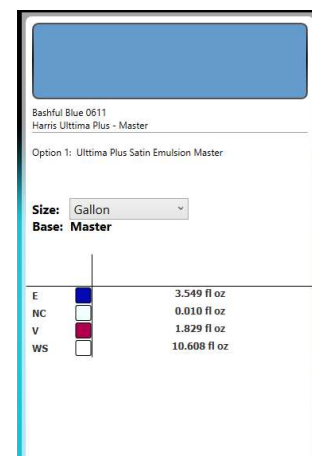


Formula Display - Decimals

To improve accuracy, we have also changed to formulation type from 1/64ths to a full decimal system. You will no longer have formulas displayed as ounces, shots and halfshots.

- Formulations are no longer restricted to the software but only to the dispenser accuracy.
- With the 1/64th system, the smallest dispense size, a halfshot, is 0.008 ozs, the dispenser can dispense lower than 0.001.
- This allows greater precision in formula generation and adjustments.

Note: Clicking on the formulation area will cycle between 0.000 fl oz and 1/1000 oz modes.



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Shots to Ounces Conversion

	Ozs Fractions	Ozs Decimals
Ounce	1 oz	1 oz
Shot	1/64	0.016
Half Shot	1/128	0.008

To convert from shots to ounces, divide the number of shots by 64 and half shots by 128.

E.g. 5 shots = 5 divided by 64 = **0.078** ounces
Total formula 0.078 and to be entered as 78 under the 1/1000 column

If the formula was 4 oz 53 shots and 1 half shot:
 53 shots divided by 64 = **0.828**
 1 half shot divided by 128 = **0.008**
 Add the 0.828 + 0.008 = **0.836**
Total Formula = 4.836 to be entered as 4 ounces and 836 under the 1/1000 column

Colorant: R [Red] [Dropdown]

Ounces: 4 1/1000: 836

Size: Gallon [Dropdown]
 Base: Master

4.836 fl oz

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Dispensing - ALFA

- With the ALFA dispensers, once you click dispense in Colour Designer Plus, a Chrome window will automatically open showing the formula information of the colour to be dispensed. If this window does not automatically open, ensure File Watchdog is running, and start it if isn't.
- When the can is detected, the dispense status bar will turn green and the Dispenser tab will become available. Set the number of cans to be dispensed if more than 1 and click the Dispense button.

Dispense

STATUS: STANDBY TEMPERATURE: N/A HUMIDIFIER WATER LEVEL: OK CAN PRESENCE: false

CAN ON SHELF: false ERROR CODE: 0 ERROR: NO_ALARM AUTOCAP: CLOSED

NAME: SoftFull Blue 5011 UltraPlus Series Device

PLEASE INSERT A CAN BEFORE DISPENSING

Components: NC, V, I, WS

Quantity: 10.0, 10.0, 10.0, 1000.0

Unit: 1/1000 fl oz, 1/1000 fl oz, 1/1000 fl oz, 1/1000 fl oz

Number of cans to disp: 1

Select a can size: 1 GALLON

Dispense button

Dispense status bar

Dispense button

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Know your Bases - Shaking

Each Ultima Plus product base has a different shake duration because of the loading difference and paint to colourant ratio. Insufficient shaking will result in inadequate colourant dispersion.

Ultima Plus Base	Quart	Gallon	5 Gallon Pail
Pastel	1 min	2 min	3 min
Intermediate	1 min	2 min	3 min
Deep	2 min	4 min	5 min
Accent	2 min	5 min	5 min +
Master	2 min	4 min	5 min

NB: It is not recommended to shake Tinted TrowelTex using standard 5 gallon shakers. They should be mixed using a hand drill with a mud slinger or equivalent mixing blade.



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Advanced Tinting & Quality Control

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COLOUR MATCHING

Tips on how to use the RM400 or i1PAINT Spectrophotometer:

- Ensure sample received is clean and dry. 1 inch squared minimum.
- Place sample over solid coloured background (white for light colours, black for dark colours) and place spectro flat and level above it.
- Ensure eye of spectro can be placed flush against the sample.
- Press the scan button on the spectro or click measure in the software. **DO NOT** press and hold the button for more than 3 seconds as it will reset the device and it will have to be reinstalled by a Harris Service Technician.
- Always do multiple scans of the sample as the computer generates an average of these scans for a more accurate match result. Always do a minimum of 3 scans for Dirty or Textured finishes.
- Colour Designer Plus Version 3.5 or later has a feature which will display the closest matching colours followed by the scanned formula and will be displayed as Custom Colour.
- Once the formula has been generated, print a label of the existing formula. If you are doubtful of the formula produced, click edit formula and reduce the formulation by 15% (lighten) and dispense this adjusted formula. If the colour requires further adjusting re-add the additional 15% colourant as necessary.



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Tint Quality Control

- Review the entire order. Pay attention to special instructions (if any).
- Take 3 (or more) readings with the Spectrophotometer
 - The spectro-takes the average of multiple scans resulting in a better match
- Check Colourant levels in Dispenser and clean nozzles daily
 - Eliminates mistint errors due to the incorrect amount of colourant being dispensed into the base
- Verify the Tint Formula, at least twice and obtain the correct tint base
 - One of the most common mistint errors is caused by incorrect base usage.
- Shake Cans for the Appropriate Amount of Time
 - Minimum times per can size – 2 minutes for quarts, 3 minutes for single gallons and 5 minutes for 5 gallon pails
- Verify Colour Accuracy After Tinting
 - Small Orders: Check every container.
 - Large Orders: The first and last container must be verified for accuracy. If the order is particularly large, every 5th pail should be checked.

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Tint Quality Control

The Colour Keeper allows physical tracking of all colours tinted for customers. Always use the Colour Keeper form for known repeat customers, projects, or any customer with multiple gallons of the same colour. This allows for a visual record of every pail produced to ensure constancy across pails. It is also an excellent reference tool for identifying colour issues.

Rev 1 – 22 July 2015 HPIL-FRM-215

HARRIS PAINTS INTERNATIONAL LIMITED

COLOUR KEEPER

COMPANY: _____ SALES PERSON: _____ CUSTOMER NAME _____

PROJECT: _____ AREA: _____ TEL # _____

Operators Name: _____

Apply copy of label here

Operators Name: _____

Apply copy of label here

Operators Name: _____

Apply copy of label here

Use one form per customer. The form can carry multiple projects from the same customer

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Tint Quality Control

Dispenser Testing

These tests are to be done by the Tint Operator following instructions from a Colourcentre Service Technician under the following conditions:

- Inaccurate colour reproduction
- Colour adjustment errors
 - Incremental adjustments yield a different colour to when the total formula is dispensed

These tests will provide the information required to more accurately troubleshoot the issues above by identifying dispense volume variances.

Follow the dispense guidelines on the Retail Tint Operator Dispenser Test Form – HPIL-FRM-280 and return the completed form to your Colourcentre Service Technician or Sales Rep.

Rev 1 – 14 September 2020 HPIL-FRM-280

Retail Tint Operator Dispenser Test Form

This test checks the dispenser function for each colourant. It is used as an initial diagnostic test to determine if a dispenser is dispensing correctly and is to be carried out using the checklist below and the measuring tools provided. This test is to be used as the first step (for example initial troubleshooting), or as requested, and to be carried out by any Retail Tint Operator to check the dispensing reliability of a particular colourant(s).

Dispense 1oz of each colourant or a specified colourant(s) using the manual entry option in Colour Designer Plus and allow the colourant to settle in the cup before taking the reading. Verify the dispense amount matches the value on the cup and record Y / N in corresponding field. For N readings, please indicate if the dispense is above or below the measurement line on the cup.

Once test is completed, pour the colourants back into their respective containers and thoroughly wash the measuring cup for future use. Send the completed form back to your ColourCentre Technician. Please continue use of the dispenser unless advised by a member of the technical team.

Store / ColourCentre Name: _____ Dispenser ID: _____


Colourant Volume	Ioz
AXX	
B	
C	
D	
E	
F	
KK	
R	
V	
AN	
BN	

Test completed by: _____ Date: _____

Retail ColourCentre Tint Training Document – HPIL-IRD-35

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Mistint Procedure

Each store has different procedures for handling mistints, however a few common procedures MUST be followed.

- Make a draw down or brushed out sample and attach a label of the formula to the draw down card.
- Try to identify the nature of the mistint.
 - Mechanical – incorrect colorant quantity dispensed.
 - Tint Software – incorrect formulation
 - Operator Error – incorrect formula selection; incorrect base
- Some mistints can be corrected and reused. Recovery of the mistint should always be first option where possible.
- Notify store supervisor/manager and log any un-recoverable mistints. Record as much information as possible on the Non-Conforming Product form.
- Notify Harris Paints Service Team of any mistints caused by mechanical or software error. Provide as much information on the mistint as possible.

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Mistint - Correction

In the event the problem was easily identified and the mistint can be corrected, there are two ways of recovering a mistint, with both requiring the use of the Colour Correction tool in the Colour Designer Plus software and the RM400 Spectro.

Option #1: If the mistint is lighter than the desired colour it can be easily adjusted to the desired colour. E.g. If tinting Wonder Woods (0772) and the colour looks like Green Lime (0771), then the colour can be darkened to the Wonder Woods. However if it looks like Glass Bottle (0773), then the best option in this case would be option #2.

Option #2: If the mistint is darker than the desired colour. Select a new, similar or darker colour to adjust the colour to. Using the example above, if the tinted colour looks like Glass Bottle, it can be adjusted downward to Green Gone Wild (0774) .

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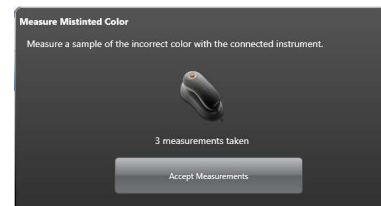
Mistint - Correction

In both options, a sample of the mistint or incorrect colour must be brushed out onto a white brush out card to what would be the equivalent of 2 coats. Ensure the sample is thoroughly dried before continuing onto the next step.

For the case of option #1 and the tint is lighter than the desired colour, with the formula on the screen click the Correct button in the bottom left of the screen.



It will then ask to scan a sample of the incorrect colour, this would be the brush out that was previously done. We recommend taking a minimum of 3 scans of the sample for better accuracy. Click accept measurements to continue.



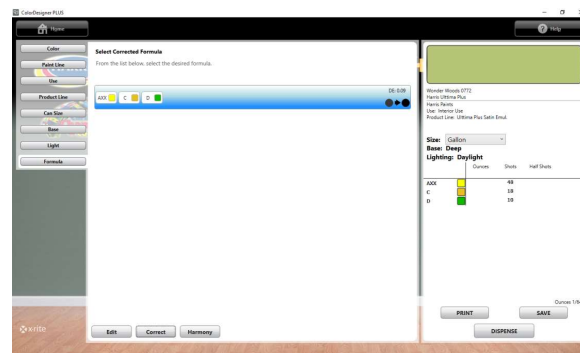
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Mistint - Correction

The system will then generate a formula of what needs to be added to the mistint to achieve to correct colour which was originally desired. In the example shown, the original color was Wonder Woods but the tinted sample looked more like Green Lime. Print this additional label for reference and click Dispense to drop the additional colourant into the existing mistint.



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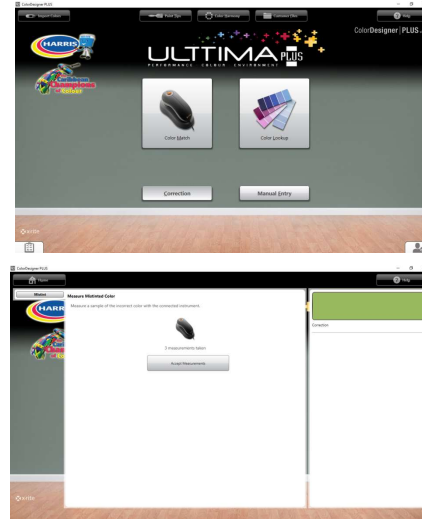
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Mistint - Correction

For cases like Option #2 where the mistint is too dark to be recovered into the original colour, and needs to be matched to a darker colour, go to the Home screen and click the Correction tab.

The system will ask you to scan the mistint colour, and same as before, do a minimum of 3 scans. Click accept measurements and then scan a sample of the desired colour or new target colour. 3 scans once again.



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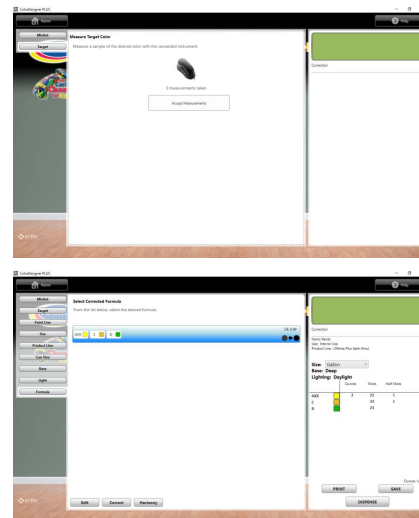
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Mistint - Correction

After scanning the target colour, click on accept measurements and proceed to select the correct tint options for the mistinted product. For this example we had used a Ulttima Plus Satin Emulsion 1 gallon deep base using interior formulations.

Please note unlike the Option #1 correction, product information must be reentered exactly as was originally done. The system then generates a formula of what needs to be added to the mistint to achieve the new colour. Save the new formulation as Corrected.



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Software: Built In Paint Tips

Another unique feature of ColorDesigner Plus is that it comes with built in Paint Tips, designed to help instruct customers on how to deal with problems like chalking paint, peeling paint, blistering and so forth.

A picture of common paint problems is displayed, and upon selection the system will provide preparation and paint selection advice based on research done by the Paint Quality Institute – so that everyone tinting paint has easy access to technical advice for their customers.



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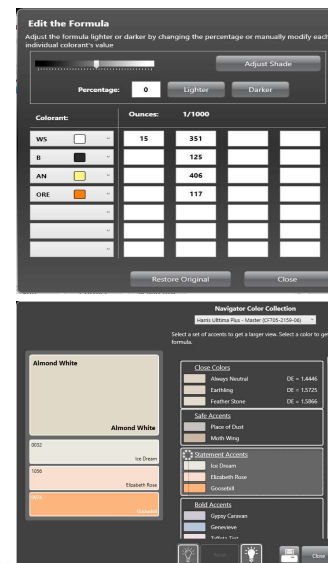
Software: Design Assistance

Often when tinting a colour, customers bring in chips and ask for the colour to be made “like the chip, but a little lighter/darker”.

The system can automatically adjust the formula to be lighter or darker by a percentage and will advise if a different tint base is needed as a result.

Additionally, many customers often want to know which colours will go best with the colour they have selected, for an accent wall or adjoining room.

The tint software has a colour harmony feature that will show complimentary colours, such as “Safe Accents”, “Statement Accents” or “Bold Accents” for any colour to be tinted – even custom computer matched colours.



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Formulation Adjustments

Please note, with the Master bases, close attention needs to be paid when adjusting formulations.

When reducing the formula using the Edit Formula tool, you are not only reducing the colourant going into the can, but also the WS. This can have a negative effect on the hiding properties of the paint.

Do not reduce the WS by more than 10% of the original formulation.

Quick calculation is to take the formula and divided it by 10.

In the formula example shown, WS was reduced from 15.351 oz. to 13.815 oz.

Edit the Formula
Adjust the formula lighter or darker by changing the percentage or manually modify each individual colourant's value.

Percentage: 0 Lighter Darker Adjust Shade

Colourant	Ounces	1/1000		
WS	15	351		
B		125		
AN		406		
ORE		117		

Restore Original Close

Edit the Formula
Adjust the formula lighter or darker by changing the percentage or manually modify each individual colourant's value.

Percentage: 0 10% Lighter Adjust Shade

Colourant	Ounces	1/1000		
AN		365		
B		112		
ORE		105		
WS	13	815		

Restore Original Close

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Fault Logging

- Gather as much information as possible about the problem you are having.
- Write down any error messages as they may appear on the screen.
- Notify store supervisor/manager of any problems you are having with the tint equipment.
- Notify the Harris Rep. or a member of the Service Team as soon as possible and provide as much information about the problem to minimize down-time.

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Fault Logging

- Problems can also be logged directly using our online Fault Log (Colourcentre Fault Log HPIL-FRM-230)
- Once log is created, an email is sent to the Colour Technology Officer and the respective maintenance personnel.
- All reports will be responded to by order of priority.

ColourCentre Fault Log
Rev 0 - 1 October 2015 HPIL-FRM-230

Business Name*

Country*

Reported Problems*

Date Reported*

Reported By*

File Attachments
 Upload

Send me a copy of my responses

Submit

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Equipment & Personal Safety and Maintenance

- Purge the dispenser daily and ensure all colorants are dispensed correctly
- Clean and moisten the humidifier sponge and cup.
- Inspect and clean nozzle tips if build up is noticed or if colorants are not dispensing straight down.
- Ensure the capping mechanism is moving freely and securely closes the nozzle assembly.
- Check colorant levels in the canister and verify against the system levels.
- Keep all canister covers closed. Do not leave covers half-opened.
- Causes eye irritation and mild skin irritation:- Wear protective gloves/clothing/eye protection. IF ON SKIN: wash with plenty of water. IF IN EYES: rinse cautiously with water for several minutes. If irritation continues, get medical advice!
- Clean any spills on the top of the dispenser.
- Do Not overfill canisters. Pay close attention to the recommended filling level as printed on the inside of the dispenser cover.
- Notify your Harris Rep or a Harris Service Technician of any problems.

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Useful Info and Resources

Scan the QR Code or type in the URL shown below to gain access to the Harris Tint Ops page. Here you will find how-to videos, user guides and other useful information, all at your fingertips.



<https://championsofcolour.com/pages/tint-ops>



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