

## AMSOsram ICC Software Manual

Spikes Casting Dispensing Machine

Date: R1, 29Mar2025

### Introduction

The core principle of ICC is to dispense randomly selected units for an initial test, analyse the results, and adjust the dispensing volume for the remaining units to achieve the desired test outcome.

In **Pass 1**, a predefined set of units from the Panel is dispensed with an initial volume. The Panel is then tested, and the ICC Server processes the test data to compute the necessary volume adjustments.

In **Pass 2**, the remaining units are dispensed using the newly determined volume to optimize the test results.

### Definitions

<b>Input File</b>	Input file in xml format to retrieve from <b>Input Folder</b> to obtain initial volume. The file sample as in Appendix.
<b>Output File</b>	Output file in text file format located in <b>Output Folder</b> to retrieve new volume. The file sample as in Appendix.
<b>Input Folder</b>	Configurable Directory The location to retrieve <b>Input File</b> .
<b>Output Folder</b>	Configurable Directory The location to retrieve <b>Output File</b> .
<b>Panel ID</b>	The ID for the Panel, scanned or manual entry by <b>READ_ID</b> command.
<b>Pass 1 Panel ID list</b>	A collection of <b>Panel IDs</b> stored locally that has been dispense as Pass 1.
<b>Pass 2 Panel ID list</b>	A collection of <b>Panel IDs</b> stored locally that has been dispense as Pass 2.

### Normal Run Condition

Process/Condition	Description
Lot Entry.	Select <b>Lot Entry</b> . <i>Refer to Lot Entry.</i> Scan in lot information. Select <b>Start Lot</b> . <i>Recipe name of {11 SERIES} will be automatically loaded.</i>
If Recipe load fail.	Prompt error "Recipe not found or load fail." <i>User needs to manually dispose the Panel.</i>
Load magazine.	Load magazine.
Start operation.	Select <b>Start</b> .

### Run Panel

Process/Condition	Description
Panel loading.	Load Panel to <b>Pro Station</b> .
	Scan <b>Panel ID</b> .
	Cross check local <b>Pass 2 Panel ID list</b> . If Panel ID exist,
Pass 2 Panel ID exists	Prompt error "Panel ID has completed Pass 2". <i>User needs to manually dispose the Panel.</i>

Pass 2 Panel ID do not exist.	Cross check local <b>Pass 1 Panel ID list</b> .
Pass 1 Panel ID exists	Goto <b>Run Pass 2</b> .
Pass 1 Panel ID do not exist.	Goto <b>Run Pass 1</b> .

#### Run Pass 1

Process/Condition	Description
<b>Input File</b> check.	Check for <b>Input File</b> .
<b>Input File</b> do not exist.	Prompt error "Input File is not found." <i>User needs to manually dispose the Panel.</i>
<b>Input File</b> exist.	Retrieve <b>Input File</b> . Decode the initial volume by element <i>InitialDispenserSetting="0.8"</i> . Update the volume as <b>Current Dispense Volume</b> .
Unit selection.	Select PreMap 1. <i>PreMap 1 is the selected Pass 1 units to be dispensed.</i>
Dispense.	Run dispense.
Complete.	Unload Panel.

#### Run Pass 2

Process/Condition	Description
<b>Output File</b> check.	Check for <b>Output File</b> .
<b>Output File</b> do not exist.	Prompt error "Output File is not found." <i>User needs to manually dispose the Panel.</i>
<b>Output File</b> exist.	Retrieve <b>Output File</b> . Check for <b>PanelID</b> .
<b>PanelID</b> do not exist.	Prompt error "PanelID is not found." <i>User needs to manually dispose the Panel.</i>
<b>PanelID</b> exist. Update new volume.	Decode the new volume of <b>PanelID</b> . Update the new volume as <b>Current Dispense Volume</b> . <i>If multiple similar PanelID exist, the last PanelID of the list will be applied.</i>
Unit selection.	Select PreMap 2. <i>PreMap 2 is the selected Pass 2 units to be dispensed.</i>
Dispense.	Run dispense.
Complete.	Unload Panel.

#### Run Condition – No Lot Entry

When a panel is loaded without Lot Entry, it will be processed manually. The following differences apply compared to standard processing:

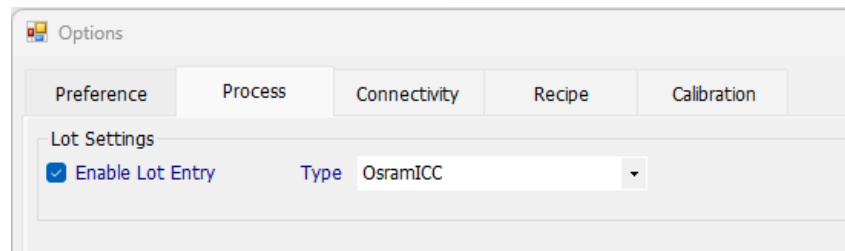
1. The initial volume will be based on the Z\_PATH default Nett Volume setting.
2. No Input File or Output File checking or updates of dispense value.

Process	Lot Entry	No Lot
READ_ID	✓ (when enabled) Panel ID is used for volume feedback.	✓ (when enabled) Panel ID is not used.
OSRAM_ICC	✓ Checking of Input File and Output File.	✗
DOT_ZPATH	✓ Volume from Input File and Output File are updated.	✓ Default Nett Volume will be used.

Execution Comparison

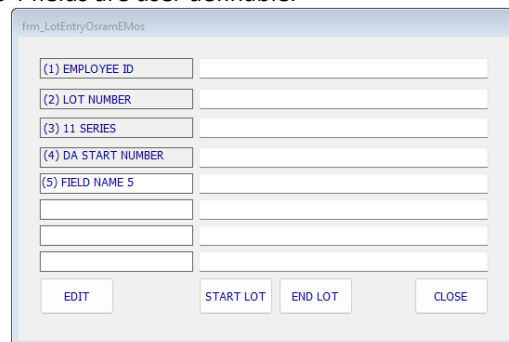
## Lot Entry

Lot Entry feature needs to be enabled at Options-Process. Select type **OsramICC**.



The screenshot shows the 'Options' dialog box with the 'Process' tab selected. Under the 'Lot Settings' section, the 'Enable Lot Entry' checkbox is checked, and the 'Type' dropdown menu is set to 'OsramICC'.

User Interface to enter Lot Data. The first 4 fields, **EMPLOYEE ID**, **LOT NUMBER**, **11 SERIES** and **DA START NUMBER** are compulsory while 4 fields are user definable.



The screenshot shows the 'frm\_LotEntryOsramEMos' user interface. It contains five labeled input fields: (1) EMPLOYEE ID, (2) LOT NUMBER, (3) 11 SERIES, (4) DA START NUMBER, and (5) FIELD NAME 5. Below these are four additional unlabeled input fields. At the bottom, there are four buttons: EDIT, START LOT, END LOT, and CLOSE.

Field	Desription	Usage
<b>EMPLOYEE ID</b>	Enter Employee ID	Record purposes only.
<b>LOT NUMBER</b>	Lot Number on traveller	Filename of <b>Output File</b> .
<b>11 SERIES</b>	11 Series on traveller	Used to Auto Load Device. Filename of <b>Input File</b> .
<b>DA START NUMBER</b>	DA Start Number on traveller	Filename of <b>Input File</b> .
<b>Field5</b> (optional)	User configurable field.	Record purposes only.
<b>Field6</b> (optional)	User configurable field.	Record purposes only.
<b>Field7</b> (optional)	User configurable field.	Record purposes only.
<b>Field8</b> (optional)	User configurable field.	Record purposes only.

## File Logistics

The screenshot shows the 'Dispenser Setup' window. On the left is a sidebar with menu items: Head Calibration, Head Cal Setting, Teach Needle, Disp Control, Clean Purge, Maintenance, Weight, Options, and Custom (highlighted in yellow). The main area is titled 'Volume Offset' and contains the following fields and buttons:

- Protocol:** A dropdown menu showing '7 : OSRAM\_ICC'.
- Input Path:** A text field containing 'c:\OsramICC'.
- Output Path:** A text field containing 'c:\OsramICC'.
- Input File:** A section with a 'Load' button.
- Output File:** A section with 'Load' and 'LookUp' buttons.
- Local PanelID List:** A section with 'Load', 'Edit: Pass1', 'Save', 'Edit: Pass2', and 'Test' buttons.
- Update & Check:** A button located to the right of the Local PanelID List.
- Input Map:** A section with a 'Protocol' dropdown menu showing '0 : None'.

At the bottom of the window are buttons for 'Idle', 'Jog', 'Save', and 'Close'.

Item	Description	Usage
<b>Protocol</b>	Select Volume adjustment Protocol.	Applies Osram ICC volume adjustment.
<b>Input Path</b>	Define the Input Path of Input Files.	Location to retrieve the Input Files.
<b>Output Path</b>	Define the Output Path of Output Files.	Location to retrieve the Output Files.
<b>Update &amp; Check</b>	Update and check Input Path and Output File.	Verify the path validity. Brief colour indicators.
<b>Input File – Load</b>	Load the current Input File.	Test load the current input file and display the volume information. The Lot Entry must be entered prior to the test.
<b>Output File – Load</b>	Load the Panel ID Output file.	Test load the Panel ID Output File to memory.
<b>Output File – Lookup</b>	Lookup the Panel ID volume information.	Test lookup of the Panel ID and display the volume information.
<b>Local PanelID - Load</b>	Load Pass1 and Pass2 local Panel ID list.	Test load the local Panel ID list. The list will store up to 100 last processes Panel ID.
<b>Local PanelID - Save</b>	Save Pass1 and Pass2 local Panel ID list.	Test save the local Panel ID list. The list will store up to 100 last processes Panel ID.
<b>Edit Pass1, Edit Pass2</b>	Open the local Pass1 or Pass2 text file.	Edit the local Panel ID list.
<b>Test</b>	Test OsramICC function.	Test OSRAM_ICC function for volume settings.

DOT\_ZPATH Command

019 DOTS\_ZPATH

Head No3Dispense

Model No0Edit

Position

-1.924,-0.888SetGoto

Point TL

Disp Gap

Down Wait

Disp

End Gap

D1

Speed

D2

SpeedF

Disp Gap

Disp

End Gap

Post Wait

D3

Speed

D4

Point BR

-0.936,-1.882SetGoto

Disp Gap (mm)\*0.3

End Gap (mm)0.3

Ret Gap (mm)\*3

AccelDecel (mm/s3)\*2500.0

Speed (mm/s)\*8.0

SpeedF (mm/s)\*30.0

Down Wait (ms)\*10

Post Wait (ms)\*100

Nett Volume

Head2Head1

D1, Dot 1 (%)25

D2, Dot 2 (%)25

D3, Dot 3 (%)25

D4, Dot 4 (%)25

Default (ul)0.3680.367

Current (ul)0.3680.367

OKCancel

Item	Description
Head No	Select Head Execution 0 – none 1: Head 1 only (Single Head) 2: (not support) 3: Head 1 and Head 2.
Model No	Select Model No to applies.
Edit	Edit Model.
Dispense	Options to enable Dispense
TL Set/Goto	Set and Goto Top Left corner of the pattern path.
BR Set/Goto	Set and Goto Bottom Right corner of the pattern path.
Disp Gap	Define the Needle distance from the detect height for dispense.
End Gap	Define the Needle distance from the detect height after dispensing of each dot.
Ret Gap	Define the Needle distance from the detect height after completing of the unit dispensing.
Accel/Decel	Define acceleration and deceleration of the path.
Speed	Define speed.
SpeedF	Define diagonal speed.
Down Wait	Time to wait before path dispensing.
Post Wait	Time to wait after path dispensing.
Nett Volume Default	Display the default Nett Volume.
Current	Display current Nett Volume. <i>Nett Volume = Disp Volume – Backsuck Volume</i>
D1-D4	Define the percentage distribution of each dot.

000	LAYOUT	[0] Unit M CR(28,28) Cistr CR(M1,M1) YFU
001	READ_ID	[0]
002	OSRAM_ICC	
003	FOR_LAYOUT	[0]
004	USE_MAP	
005	DO_REF	[0] Board P1(-89.516,1.483) P2(1.485,-89.496)
006	END_LAYOUT	[0]
007	FOR_LAYOUT	[0]
008	USE_MAP	
009	USE_REF	[0]
010	DO_HEIGHT	[0] Board Least Square Fit 8 Point(s)
011	END_LAYOUT	[0]
012	FOR_LAYOUT	[0]
013	PP_FILL	Cond1,14,0
014	CLEAN	Cond1,2,0 Cond2,8,0 (Auto) Count 1, Time 1ms, Delay 700ms
015	PURGE	Cond1,2,0 (Auto) Count 1, Time 20ms, Delay 900ms, PVT 8
016	USE_MAP	
017	USE_REF	[0]
018	USE_HEIGHT	[0]
019	DOTS_ZPATH*	
020	UNIT_COMPL...	
021	END_LAYOUT	[0]
022	BD_READY	

Place READ\_ID after LAYOUT to execute ID Read.

Place OSRAM\_ICC after READ\_ID to execute OsramICC flow.

Sample for Program for ICC

## Appendix

### Sample Input File

**Filename:** {Input Folder}\{11 SERIES}\_{DA START NUMBER}\_\_.xml

**Note:**

- underscore between {11 SERIES} and {DA START NUMBER}
- ends with 2 underscores.

**Example:** {Input Folder}\11108864\_L15NSWDL4GWCSSRM3.PMN4P1A535K2M2700\_\_.xml

### Example content:



The screenshot shows a web-based XML viewer interface. At the top, there's a navigation bar with a back arrow, a refresh icon, and a file path: "G:/NDispWin5-OSram-x64/Doc/ICC%20Development/11108864\_L15NSWDL4GWCSSRM3.PMN4P1A535K2M2700\_\_.xml". Below the navigation bar, a message states: "This XML file does not appear to have any style information associated with it. The document tree is shown below." The XML content is displayed in a tree view, with the root element being <SteeringSettings. The tree view shows the following structure: <SteeringSettings (xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance", xmlns:xsd="http://www.w3.org/2001/XMLSchema", xmlns="http://www.osram-os.com/steering/config") -> ProductName="Demon Poseidon BREE 3000K" -> <LogFileLocation>\\int.osram-light.com\Net-klm\lApps\Casting\OSLONSquare\LLC\_LogFiles\</LogFileLocation> -> <PanelSize RowMax="28" ColMax="28"/> -> <TargetSettings InitialDispenserSetting="0.8" ColorSpace="CIE2DegreeCxCy" TargetCxDistance="0.4" TargetPathAngle="22"> </TargetSettings> -> <ControllerSettings ControllerModule="ComixBasedController" PathLengthOffset="0.01" FloatingLength="2"> -> <Converters> -> <Converter Name="QL905" InitialWeightPercent="3" Group="1" AllowVariation="true"/> -> <Converter Name="QL904" InitialWeightPercent="3" Group="1" AllowVariation="true"/> -> <Converter Name="L167" InitialWeightPercent="3" Group="2" AllowVariation="true"/> -> </Converters> -> </ControllerSettings> -> </SteeringSettings>

```
<SteeringSettings xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns="http://www.osram-os.com/steering/config"
  ProductName="Demon Poseidon BREE 3000K">
  <LogFileLocation>\\int.osram-light.com\Net-klm\lApps\Casting\OSLONSquare\LLC_LogFiles\</LogFileLocation>
  <PanelSize RowMax="28" ColMax="28"/>
  <TargetSettings InitialDispenserSetting="0.8" ColorSpace="CIE2DegreeCxCy" TargetCxDistance="0.4" TargetPathAngle="22"> </TargetSettings>
  <ControllerSettings ControllerModule="ComixBasedController" PathLengthOffset="0.01" FloatingLength="2">
    <Converters>
      <Converter Name="QL905" InitialWeightPercent="3" Group="1" AllowVariation="true"/>
      <Converter Name="QL904" InitialWeightPercent="3" Group="1" AllowVariation="true"/>
      <Converter Name="L167" InitialWeightPercent="3" Group="2" AllowVariation="true"/>
    </Converters>
  </ControllerSettings>
</SteeringSettings>
```

### Sample Output File

**Filename:** {Output Folder}\{Lot Number}.txt

**Example:** {Output Folder}\LOTABCD.txt

### Content:

The file contains list of lines of Panel ID, Dispense 1 and Dispense 2 volume semi-colon (;) delimited.

Panel;Dispenser1;Dispenser2

{Panel ID 1};{Head 1 Volume 1};{Head 2 Volume 2}

{Panel ID 2};{Head 1 Volume 2};{Head 2 Volume.2}

...

{Panel ID n};{Head 1 Volume n};{Head 2 Volume.n}

### Example content:

Panel;Dispenser1;Dispenser2

JMC1234;1.1112;1.1016

JMC1235;1.1242;1.0735

JMC1236;1.1034;1.1143

JMC1237;1.1143;1.1023

JMC1234;1.1200;1.1200

## Revision

Rev	Author	Description
0	NSW KN	Initial Version
1	NSW KN	Change PanelID to PanelID Added DOT_ZPATH Command, File Logistics

End of document.