

PRODUCTION DEPARTMENT

#### STANDARD OPERATING PROCEDURE

Title: Operation and Cleaning of Carton Coding Machine

SOP No.:		<b>Department:</b>	Production
SOF No.:		<b>Effective Date:</b>	
Revision No.:	00	<b>Revision Date:</b>	
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#### 1.0 OBJECTIVE:

To lay down a Procedure for Operation & Cleaning of Carton coding machine.

#### 2.0 SCOPE:

This SOP is applicable for Operation & Cleaning of Carton Coding (batch coding & bar coding) machine (**Make:** Mark Vi Trac, **Model No.:** FCRC-3, **Serial No.-** MVT/180703.

### 3.0 RESPONSIBILITY:

Operating Person- Production Operating Person- IPQA

#### 4.0 **ACCOUNTABILITY:**

Head Production.

#### **5.0 ABBREVIATIONS:**

AC Alternating Current

BPCR Batch production and control record.

BPR Batch Packing Record

Exp. Expiry

IPA Iso Propyl Alcohol LAN Local Area Network LED Light Emitting Diode

Mfg. Manufacturing

MRP Maximum retail price

OCR Optical Character Recognition
PLC Programmable Logic Controller

QA Quality assurance

SOP Standard Operating Procedure

#### 6.0 PROCEDURE

# 6.1 Cleaning:

- **6.1.1** Switch "OFF" the electric supply of Machine.
- **6.1.2** Remove all the left over from the Bar Coding Machine.
- **6.1.3** Clean the Machine with Lint Free Cloth / Dry Mop.
- **6.1.4** Wipe all the recessed parts of Machine with 70% IPA.
- **6.1.5** Clean the Machine before and after activity.

**Precaution:** - Don't apply IPA (70%) or cleaning cloth directly to electric supply.

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**6.1.6** Record the maintenance/ cleaning details in respective "Equipment's /Instruments Usage Cleaning Log" as per SOP.

#### 6.2 Instruction:

- **6.2.1** Take line clearance from the QA person of the area.
- **6.2.2** The AC power Adaptor should be securely attached at both ends.
- **6.2.3** The print head should be securely attached with the Splitter Cable as well as the sensor and Encoder.
- **6.2.4** The LAN cables should be properly attached.
- **6.2.5** The encoder should be installed in a manner that it rotates at all times at the same speed as the conveyor belt. A friction wheel or a coupling may be used to achieve this. Please note that the encoder supplied by Mark Vi Trac Systems has a value of 5000 pulses per rotation & the friction wheel diameter is 67.8 mm.
- **6.2.6** The sensor should be placed at the proper location which may enable it to detect objects moving on the conveyor.
- **6.2.7** The print head/s should be properly aligned and at a distance of 2-3 mm from the moving object on the conveyor.
- **6.2.8** Please ensure that the cartridges are securely installed in the designated slot on the print head. A tiny click sound indicates that the cartridge is securely inserted.
- **6.2.9** Please note that power should be turned "OFF" before removing cartridge from the print head for the purpose of cleaning the same or while inserting the same.
- **6.2.10** After all the above conditions are inspected, turn power "ON" from the mains. The LED lights on the controller box/Printer start blinking and then stabilizes.

### **PROCEDURE:**

- **6.3.1** Switch on the main button of power supply.
- **6.3.2** On PLC screen click on the clear belt button then conveyor belt running.
- **6.3.3** Put the carton in the feeder and set as per size.
- **6.3.4** Set the guide track as per carton size and confirmed the carton running smoothly.
- **6.3.5** Move the printer head as the bar coding direction.
- **6.3.6** Login the IDesign software.
- **6.3.7** Make the layout setting as MFG date, EXP date, MRP, Batch No. and Bar code as per the BPR.

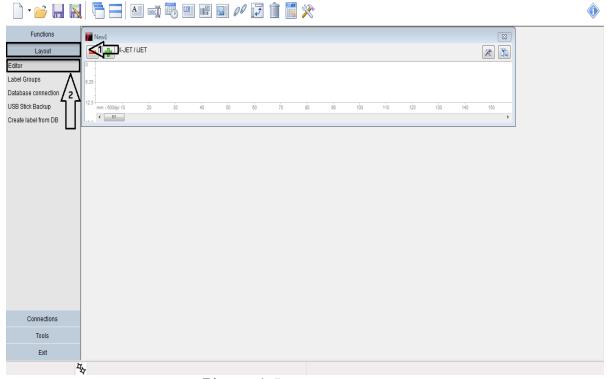


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Picture-1: Layout page.

- 6.3.8 Select the Text field tool Only "Printer fonts" (OCR) can be used for creating Action fields. Select your desired OCR font size from the pull-down menu.
- **6.3.9** Type Batch no., MFG Date, Exp. Date & MRP, Batch No. and Bar code as you required to be print on carton. Eg. FAYHO1 as shown in picture-2.

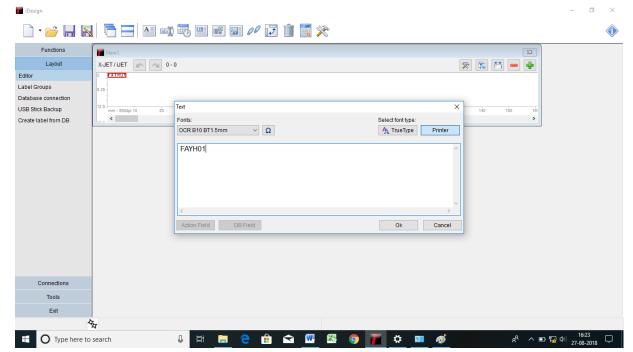


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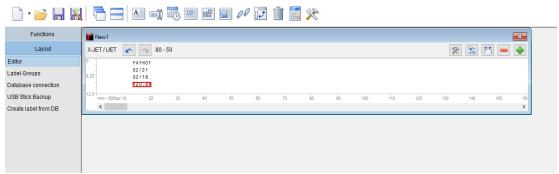
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Picture-2: BATCH CODING DATA

- **6.3.10** Select Text tool A. Type Exp. Date as 02/21.
- **6.3.10.1** Again select Text Again select Text If field tool. Type MFG Date as 21/18 click OK.
- **6.3.10.2** Select Text tool . Type MRP as 120.88
- **6.3.10.3** Confirm all printing detail with BPR.

**i**Design



**6.3.10.4** Now select the **Barcode tool**. Select **DatamatrixECC200** type from the pull-down menu.

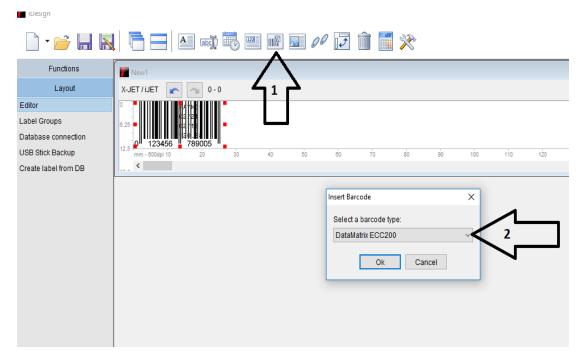


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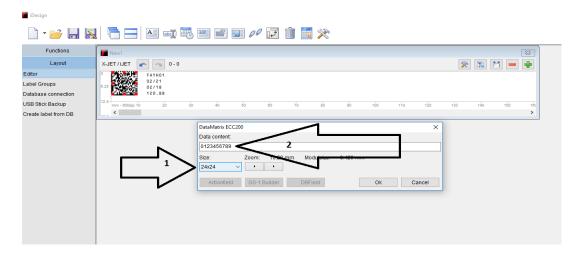
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**6.3.10.5** 1<sup>st</sup> select size of barcode from the pull-down menu.



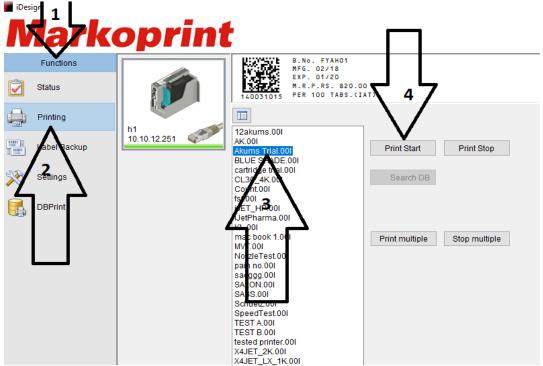
**6.3.10.6** 2<sup>nd</sup> Type data which you want to get after scanning the Barcode. Then click OK. Save the job in C/Documents and settings/All Users/iDesign/label.

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- **6.3.10.7** Exit Editor. Go to Functions-Printing- then select your Carton which is to be print and then click on OK.
- Record the operation details in respective "Equipment's /Instruments Usage Cleaning Log" as per SOP".

#### 6.4 Rejection:

**6.4.1** Total rejected carton count and reconciliation done in the BPRs.

#### 6.5 In-process of Bar Code Checking:

- **6.5.1** Initial setting of data enter by Production officer/ Operator.
- **6.5.2** Initial coding of text matter and bar coding check by Production officer and verify by QA Officer.
- **6.5.3** IPQA as per time interval mentioned in BPR and one hour frequency.

### **6.6** Commonly Used Settings for Printing:

**6.6.1** Go to Functions – Settings to access the settings required by you for printing.

The most commonly used settings are as follows:

Cartridge Type: - Hp Black 1918 Dye 45ai Smart Card (B3F36A).

#### **Print Parameters-**



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Setting	Value
Print delay in mm	As required
Intensity in dpi	300 - 600
Print Direction	L-R or R-L
Nozzle Row	A~B
Encoder resolution	594 PPI
Repeat distance in mm	0

# Print Head Set Up-

Setting	Value
Ink Type	STABL
Head Voltage in 1/10V	110V
Fire time in 10ns	190
Ink Warming in %	5
Pulse Source	Encoder
Sensor Source	External
Zoom Optimization	Yes

# **7.0** ANNEXURES:

Not applicable.

**ENCLOSURES: SOP Training Record** 

### 8.0 **DISTRIBUTION:**

• Controlled Copy No. 01 Quality Assurance

• Controlled Copy No. 02 Production

• Master Copy Quality Assurance

# 9.0 **REFRENCES**:

• OP: Product Packing Operation

### **10.0 REVISION HISTORY:**

#### **CHANGE HISTORY LOG**

Revision	Change control	<b>Details of Changes</b>	<b>Reason for Change</b>	<b>Effective</b>	<b>Updated By</b>
No.	No.			Date	