

**SHEET NUMBER 25166**

**CASE PACKER**

**BRAND HARTNESS INTERNATIONAL USA.**

**MODEL 825CA8EPSCK8K. MODEL 825AT.**

**DIMENSIONS OVERAL 6400MM X WIDTH 1300 MM X  
HEIGHT 2840MM.**

**THIS MACHINE IS CONTROLLED BY A SERIES OF ELECTRICAL AND PNEUMATIC  
FUNCTIONS THAT ALLOW A CHECK AND BALANCE OF THE MACHINE  
COMPONENTS THROUGHOUT THE SYSTEM. DETAILED SPECIFICATIONS  
ATTACHED.**



PAGE 2 SHOW/RM MS10 LINE 13

## **CORPORATE MACHINERY BROKERS**

**PO BOX 1043 KENSINGTON GARDENS, SA, 5068**

**Tel: 042 8832 423**

**Tel: 08 8431 0430**

**Email: [marketing@machineryshowroom.net](mailto:marketing@machineryshowroom.net)**

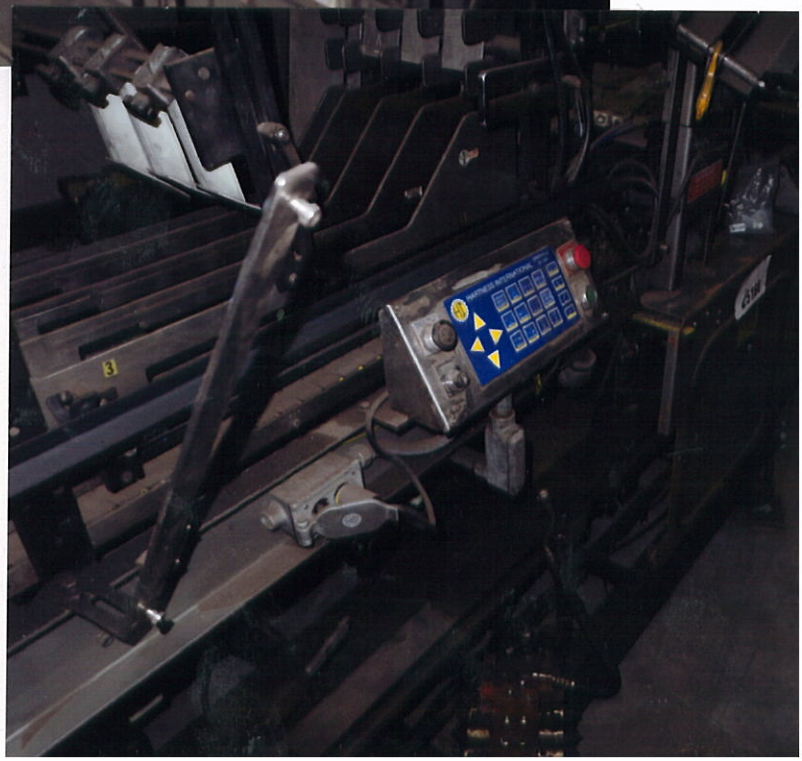
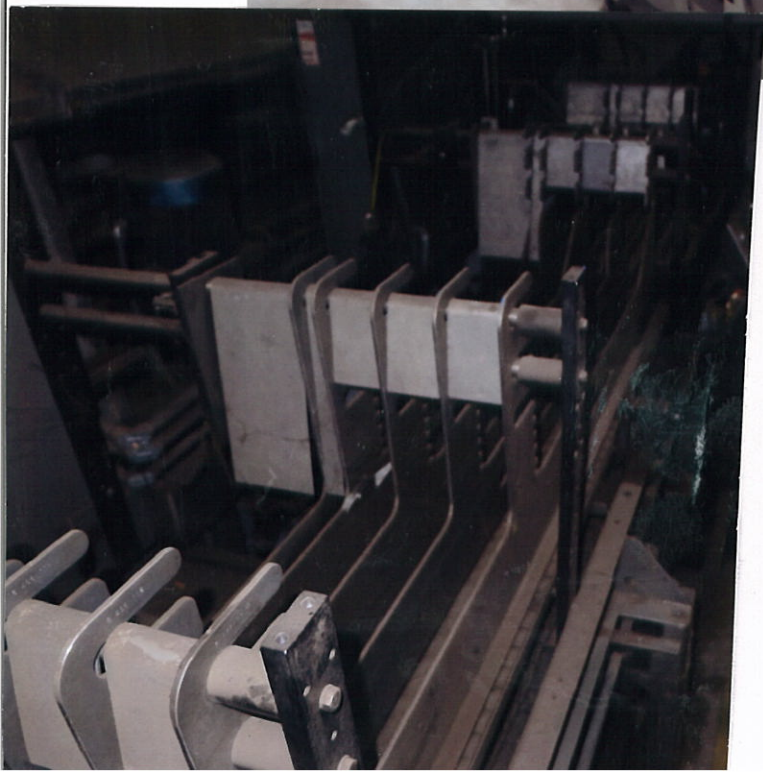
**WEB**

**[www.machineryshowroom.net](http://www.machineryshowroom.net)**

**ADD GST TO ALL PRICES**

**ALL SALES ARE SUBJECT TO OUR ANNEXURE 'A' CONDITIONS OF SALE**









Limit switches, proximity switches and photoeyes are used on the packer for various reasons. The following is a list of these devices and their functions:

(Refer to figure C.)

1. The **elevator up switch** is mounted to the elevator frame opposite the control side of the machine. It is mounted to a slotted bracket which allows adjustment of the switch up or down as required. When the switch is activated, the elevator is in the up position and LED 0 is on.
2. The **elevator down switch** is mounted on the lower horizontal frame member opposite the control side of the machine. It is mounted to a slotted bracket which allows adjustment of the switch up or down as required. When the switch is activated, the elevator is in the down position and LED 1 is on.
3. The **case rake forward switch** is mounted underneath the case rake assembly and is centrally located between the infeed and outfeed end of the machine. When the switch is activated, the rake has reached its forward limit of travel and is ready to

## Limit Switches, Proximity Switches and Photoeyes

**Elevator Up  
Limit Switch  
Input 0 Slot 1**

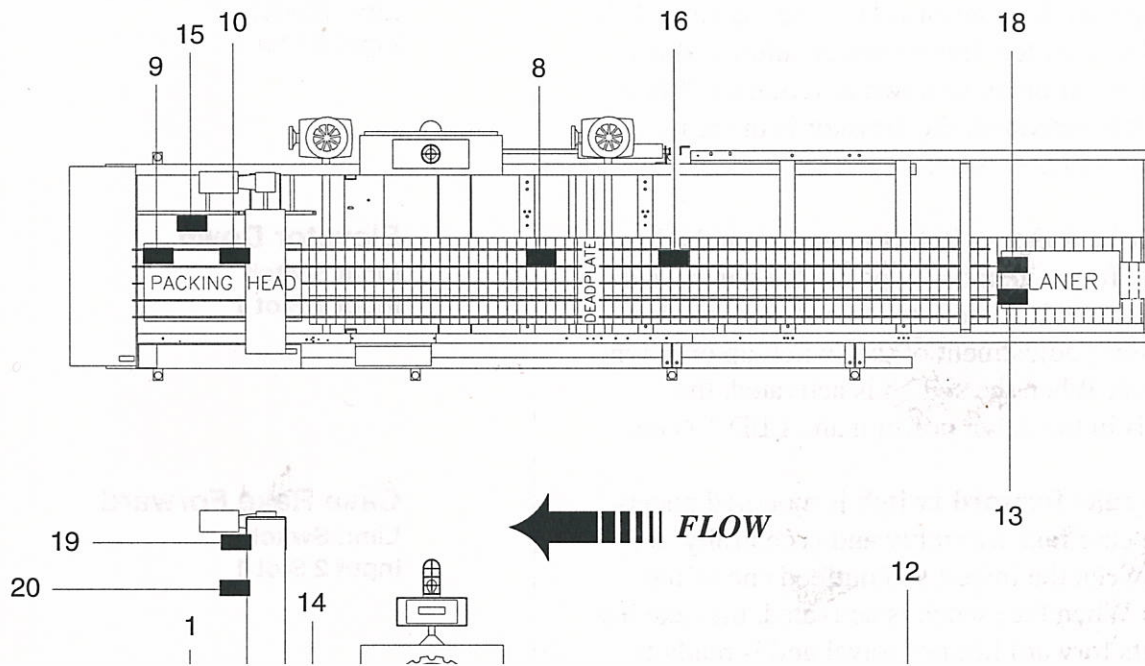
**Elevator Down  
Limit Switch  
Input 1 Slot 1**

**Case Rake Forward  
Limit Switch  
Input 2 Slot 1**



## Sensor Locations

The figure below identifies the proximity switches, photoeyes and limit switches on the machine.





7. The **front case on elevator limit switch** detects the presence of the front case on the elevator platform in dual-case applications. LED 6 is on when the switch is activated.
  
8. The **container down photoeye** is located above the tabletop conveyor opposite the control side of the machine, just prior to the grid loading area. When the photoeye is blocked, a container has fallen in one of the lanes prior to its entry into the grid area. LED 8 is on when the photoeye is blocked.
  
9. The **bags forward switch** is located at the front of the machine opposite the control side. When the switch is activated, the bags are in the forward position and ready to release the containers to the grid lower section, and LED 9 will be on.
  
10. The **bags rearward switch** is located upstream of the bags forward switch opposite the control side of the machine. When the switch is activated, the bags are in the rearward position and ready to receive containers, and LED 10 will be on.

**Front Case on Elevator  
Proximity Switch  
Input 6 Slot 1**

**Container Down  
Photoeye  
Input 8 Slot 1**

**Bags Forward  
Proximity Switch  
Input 9 Slot 1**

**Bags Rearward  
Proximity Switch  
Input 10 Slot 1**



**Close Tripplate  
Proximity Switch  
Input 13 Slot 2**

**Tripplate Closed  
Proximity Switch  
Input 13 Slot 2**

**Container Supply Lane #  
Proximity Switches  
Inputs 0-7 Slot 3**

**Lanes Full Lower  
Photoeye  
Input 8 Slot 3**

14. The **close tripplate proximity switch** is mounted on the placehead mast. It signals the tripplate to close when the placehead has cleared the tripplate on its way back up.
15. The **tripplate closed proximity switch** is mounted to the frame of the case packer. This switch is used to signal the PLC that the trip plate has returned to the start position.
16. When one of the **laner container supply switches** is deactivated, an inadequate supply of containers for that lane has been detected, and the “**CONTAINER SUPPLY**” message will appear on the display. When the Laner arrives at that lane position, the PLC signals the Laner’s shift drive controller to supply more containers. When the switches are activated LED's 0 through 7 will be on.
17. The **lanes full lower photoeye** detects the bases of the containers as they exit the High Speed Laner. If the photoeye is blocked, and the lanes full upper photoeye is alternately blocked and unblocked, the Laner will continue to operate. If the photoeye is blocked, and the lanes full upper photoeye is not alternately blocked and unblocked, the Laner will





The **timers, counters, and options** for the machine can be accessed while the machine is in the manual or automatic mode, unless they are locked out by the lockout keyswitch on the operator's console.

- There are 45 timers that control the time delay of certain functions on the case packer.
- There are 10 counters that establish numbered parameters for packer functions.
- There are 25 options that control the machine's operation parameters.

Not all timers, counters and options are used. Your machine's configuration will determine the amount and type used.

The following is a list of timers, counters, and options used on the machine, including their functions and methods of activation where applicable. The words in parentheses are actual display messages.

**Refer to the Maintenance Manual for details on adjusting the timers and counters, and setting the**

## Timers, Counters, and Options



## Timers

### **Activation:**

It is activated when the air bags inflate.

### **Timer #3: Not Used**

### **Timer #4:**

#### **Bag Return Delay (BAG RETURN)**

Air Transfer Machines Only

### **Function:**

This timer controls the amount of time the bags remain in the forward position after they deflate and the bottles have been dropped into the lower grid section.

### **Activation:**

It is activated when the bags deflate. When the timer times out, the bags will move rearward.

### **Timer #5:**

#### **Bag Jam (BAG JAM)**

Air Transfer Machines Only

### **Function:**

This timer controls the amount of time allowed for the





**Timer #7:  
Case Outfeed Blocked  
(CASE OUTFEED BLOCKED)**

**Function:**

This timer controls the amount of delay allowed after the case outfeed photoeye beam is broken (indicating a backup of full cases) before the CASE OUTFEED BLOCKED message appears on the display.

**Activation:**

It is activated by the case outfeed blocked photoeye. When the timer times out, the machine will stop the automatic cycle.

**Timer #8:  
Case Staging (CASE STAGING)**

**Function:**

This timer controls the amount of time the case staging photoeye must remain activated for the packer to cycle.

**Activation:**

It is activated when the case staging photoeye is acti-

## Timers



## Timers

### **Timer #11:**

#### **Plow Extend (PLOW EXTEND)**

Active Plow Option

#### **Function:**

This timer controls the amount of time allowed for the flap opener to complete its cycle before the plow cylinder actuates to keep the flaps open.

#### **Activation:**

It is activated by the rake forward switch. When the timer times out, the plow cylinder will actuate.

### **Timer #12:**

#### **Container Supply (CONT SUPPLY)**

#### **Function:**

This timer controls the amount of delay allowed after the container supply switch is deactivated before the CONT SUPPLY message appears on the display.

#### **Activation:**

It is activated when the container staging switch is deactivated. When the timer times out, the CONT



**Timer #14:  
Elevator Up High Pressure (ELEV HI PRES)**

**Function:**

This timer controls the amount of time high pressure remains on the elevator cylinder after the product is dropped.

**Activation:**

It is activated by either the air bags deflate (AT Machines) or triplate open (Ware Strip Machines) signal. When the timer times out, the high pressure is turned off to the cylinder and the result is a cushioned transfer of the containers from the upper grid section to the lower section.

**Timer #15:  
Elevator Jam (ELEV JAM)**

**Function:**

This timer controls the amount of time allowed for the elevator to reach either the up or down switch before the ELEV JAM message appears on the display.

**Timers**





## Timers

### Timer #17:

#### Flap Opener (FLAP OPENER)

Flap Opener Option

#### Function:

This timer controls the amount of time allowed for the flap scoop to move to the forward position.

#### Activation:

It is activated by the rake forward switch. When the timer times out, the flap scoop will return.

### Timer #18:

#### Flap Cycle (FLAP CYCLE)

Flap Orienter Option

#### Function:

This timer controls the amount of time allowed for the flap orienter to extend.

#### Activation:

It is activated when the side flap photoeye is activated and the rake is in the forward position. When the timer times out, the flap orienter retracts.



**Activation:**

It is activated by the clamp signal. When the timer times out, the laner tunnel will shift.

**Timer #21:**

**Clamp During Shift (CLAMP DURING)**

(Standard) Pneumatic Laner Only

**Function:**

This timer controls the amount of time allowed for the laner to shift to the next lane before the clamps open.

**Activation:**

It is activated by the lane shift signal. When the timer times out, the clamps will open.

**Timer #22:**

**Not Used**

**Timer #23:**

**Lanes Full (LANES FULL)**

Laner Option

**Function:**

## Timers



## Timers

### **Timer #25: Rake Start (RAKE START)**

#### **Function:**

This timer controls the delay time for the rake to actuate and rake the cases to their next position.

#### **Activation (Lowering Head):**

It is activated by the elevator up signal. When the timer times out, the cases are raked to their next position.

#### **Activation (Elevator):**

It is activated by the elevator down signal.

### **Timer #26: Table Hi-Speed**

Not Used

### **Timer #27: Table Off (TABLE OFF)**

#### **Function:**

This timer controls the amount of time the container conveyor will run when the case outfeed switch is





**Timers #29:  
Tripplate Jam (GRID JAM)**

**Function:**

This timer controls the amount of time allowed for the tripplate to move to the close position where it activates the tripplate return switch.

**Activation:**

It is activated when the tripplate close valve is actuated. If the timer times out, the GRID JAM message will appear on the display.

**Timers #30:  
Tripplate Open (TRIPPL OPEN)**

**Function:**

This timer controls the amount of delay allowed before the tripplate opens after all grid loading conditions are met.

**Activation:**

It is activated when all grid loading conditions are met. When the timer times out, the tripplate will open.

**Timers**



## Timers

### **Activation:**

It is activated by the container counter sensor. When the timer times out, the pusher will extend.

### **Timers #33:**

#### **Pusher Dwell (PUSHER DWELL)**

One-to-Two Pusher Option

### **Function:**

This timer controls the amount of delay time the pusher remains in the extended positions.

### **Activation:**

It is activated by the pusher extend signal. When the timer times out, the pusher will retract.

### **Timers #34-36:**

**Not Used**

### **Timers #37:**

#### **Infeed Restart**

Bottle Turner and Laner Option

### **Function:**



**Timer #39:**  
**Lanes Empty (LANES EMPTY)**  
One-to-Two Pusher Option

**Function:**

This timer controls the delay after the lanes full photo-eye becomes unblocked.

**Activation:**

When the timer times out, the pusher will retract.

**Timer #40**  
**PLACEHEAD DOWN DELAY**  
Placehead Option

**Function:**

This timer controls the delay after the grippers grip the bottles, the air bags deflate and the triplate opens before the placehead starts down to the drop position.

**Timer #41**  
**PLACEHEAD DOWN DWELL**  
Placehead Option

## Timers





## Counters

**Counter #1:**  
**Containers Per Lane**  
(Standard) Pneumatic Laner Only

**Function:**  
This counter sets the number of containers to be dispatched in each lane.

**Counter #2:**  
**Number of Lanes (NUMBER OF LANES)**

**Function:**  
This counter sets the number of lanes the laner will address.

**Counter #3:**  
**Number of Drops (NUMBER OF DROPS)**

**Function:**  
This counter sets the number of times the grid drops per cycle. This pertains to the number of layers required per case.



**Function:**

This counter sets the bottle counter at the laner for the maximum amount of bottles per lane. For example, if maximum bottles per lane is four, then the laner will start counting at the minimum bottles per lane value and increase one bottle per lane until the maximum bottles per lane is reached. The Laner would count (for a four-lane machine) 4-2-2-4, then 6-3-3-6 and finally 8-4-4-8.

**Counter #7:**

**Maximum Extra Bottles Per Lane  
(MAX. EXTRA BOTTL)**

High Speed Laner Only

**Function:**

This counter sets the maximum number of bottles added to a lane that is short.

**Activation:**

The Maximum Extra Bottles Per Lane counter is activated based on the bottle supply flags for each lane. If a flag is activated and broken (the PLC input turns on and

## Counters



## Options

The **25 option positions** for the machine are listed below:

1. Drop if Good Case
2. No Bag Forward without Case
3. No Down Container
4. Container Staging
5. Fingers Up Closed
6. Flap Closed Index
7. Flap Opener
8. Side Flap Orienter
9. Option 9
10. Option 10
11. Table Stop
12. AC Table Drive
13. Dry Cycle
14. Spanish Language
15. French Language
16. Option 16
17. Option 17
18. Option 18
19. Placehead Option
20. Servo Setup Mode



The **Operator's Console** is located close to the grid area on the control side of the machine. The console contains an alphanumeric display, a keypad, and manual switches.

1. The **Master Switch** is used to reset the machine's master control relay after an emergency stop switch has been pushed or a safety door has been opened.
2. The **Emergency Stop Switch** is used to stop the machine in emergency situations. It should not be used to stop the machine under normal operating conditions.
3. The **Push/Pull Start/Stop Switch** is used to start and stop the machine's normal operating mode.
4. The **Lockout Switch** is a key switch that is used to lockout the following keypad functions:
  - Product Change
  - Adjustments (including timers, counters and options)
  - Diagnostics
  - Reset Counter

## Operator's Console





# Operator's Console

