

## **Ticketflex Maximizer**

# **A Smart Interface Board for your ticket dispensing machines**

- Special Bonus Modes to Boost Revenues on All Games.**

---

- Revitalize older games, even those which traditionally do not operate with tickets (pinball, video, skill tester, etc.).**

---

- Easy adjustment of the ticket payout.**

---

- Easy installation – Plugs in directly to Deltronic 1275 Ticket Dispenser.**

---

- Suitable for most machines and most ticket dispensers.**

---

- Works in both continuous or pulse operation.**

---

- Input for Direct connection to pinball machines.**

---

- Special promotions and Birthday Parties.**

---

- Reduce ticket handling.**

---

- Dispenser Test to reduce downtime.**

---

- Lamp output to indicate ticket jam or that the machine has run out of tickets.**

**Divider**

**Multiplier**

**Timed Bonus**

**Permanent Bonus**

**Bonus Start**

**Jackpot Monitor**

**Zero Tickets**

**Dispenser Test**





([DPSOHR#FRPPRQFRQQHFWR#R#DFKLQ#V

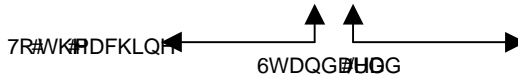
41 'LUHF#RQQHFWR#GOWUR#5#WLFNGLW#SHQVHU

7KL#WVK#RVR#FRPPRQFRQQHFWRQ  
ZKHU#W#D[LPL]H#SOX#J#LUHF#W#  
EHWZH#W#H[LVW#E#RQQHFWR#WVKH  
WLFN#GLW#SHQ#DQ#WVK#RDFKLQ#LULQJ  
\$#W#DQ#G#D#G#R#WVK#FRQQHFWR#RQ  
'HOWUR#5#WLFN#GLW#SHQ#W#XSSOL#HG  
7KL#W#DQ#D#W#UHTXLU#R#WVKH  
IROORZ#R#GH#9;'5 /#08/7,3/(5 /  
=(52 #7.&.(76 #DQ#63(16(5 #7(67 1

6(7 #,3 #6:7&+	
'3 #6: #:	21
'3 #6: #:	2))

6(7 #803(5
'2:1

7LFN#W#SHQVHU



([WHU#DPS

51 &RQQHFWR#[Q#HUQ#DPS#%RQ#DPS,1

7KH#[WHU#DPS#D#P#XOWL#S#SRV#W#UHTXLU#W#E#FRQQHFWR#G#0( #%2186/  
3(50\$1(17 #%2186#R#U#&\$.327 #021,725 #PRGH#Q#D#R#WVK#LQ#V#W#DQ#R#Q#Q#H#F#L#R#Q  
RSWLR#Q#R#Z#H#Y#H#W#R#V#D#W#K#K#G#D#G#Y#D#Q#W#R#W#K#R#L#F#N#H#W#O#B#[LPL]H#L#W#  
UHFRPPHQ#G#W#K#B#W#K#H#[WHU#DPS#R#X#W#S#L#W#K#V#H#G#K#H#D#P#F#D#D#O#H#W#W#H#Q#D#D#W  
GLVW#L#Q#R#5#2#G#H#O#D#V#K#L#Z#K#H#G#W#K#G#L#V#S#H#Q#W#H#D#P#R#W#K#R#D#F#K#L#Q#H#X#Q#R#X#W#R#W#L#F#N#H#W#

7KH#FRQQHFWR#RQ#LPSO#FRQQHFWR#RQ#H#L#G#H#R#I#W#K#H#D#P#S#W#S#L#Q#8#R#L#9#R#I#W#K#H#67  
45#FRQQHFWR#DQ#G#W#K#R#W#K#H#L#G#H#R#I#W#K#H#D#P#S#W#S#L#Q#:#R#U#:#R#I#W#K#H#67 #45  
FRQQHFWR#R#K#H#P#D#[LXP #JDWL#R#I#W#K#H#O#R#E#L#W#4592733 P\$ 1

\$#FRPPRQ#R#U#D#Q#W#U#D#E#O#H#W#K#D#A#X#L#W#D#E#R#R#V#D#E#R#Q#X#D#P#S#R#U#W#K#H#W#H#G#L#P#H#R#U  
3#H#P#D#Q#H#R#Q#W#R#G#H#H#L#U#H#F#R#P#P#H#Q#G#W#K#B#W#K#L#J#L#V#P#R#X#Q#W#H#O#H#A#K#M#L#F#N#H#W  
GLV#S#H#Q#V#F#K#L#Z#D#W#K#B#O#D#H#P#D#D#V#R#F#L#B#W#K#D#L#Z#W#K#W#L#F#N#H#W#L#D#O#B#H#F#R#P#P#H#Q#G#H#G  
W#K#B#W#K#R#U#L#J#L#D#D#R#H#U#R#W#K#M#U#D#E#O#H#W#K#H#S#O#D#Z#L#G#H#O#D#V#K#H#O#R#E#M#X#F#D#W#K#H#9  
J#O#R#E#M#V#H#G#L#O#O#L#D#Z#W#D#G#L#Q#E#D#Q#W#H#V#S#R#Q#G#M#W#W#M#R#D#V#W#H#D#D#V#K#L#Q#J

7R#JJO#6#ZLWFK

61 &RQQHFWR#Z#JJO#6#ZLWFK

\$#RSWLR#R#D#Q#J#O#Z#L#W#H#G#E#FRQQHFWR#W#K#R#S#W#E#R#O#D#W#D#P#H#Y#H#L#Q#S#X#W#D#W#K#H  
08/7,3/(5 #PRGH#V#X#U#Q#E#O#H#W#K#H#Z#L#W#H#G#1 #H#Q#W#H#L#G#2 #7.&.(7 #PRGH#Z#L#W#K#R#W#K#H#G#H#G  
W#R#J#H#D#G#M#W#K#H#L#S#Z#L#W#H#K#R#Z#H#H#W#K#H#R#G#H#F#D#O#V#H#H#Q#W#H#L#G#L#S#Z#L#W#H#K#H#W#W#L#Q#J  
,Q#7,0( #%2186#R#U#B(50\$1(17 #%2186#PRGH#V#X#U#Q#E#O#H#W#K#H#Z#L#W#H#G#1 #H#Q#W#H#L#G#2 #7.&.(7 #PRGH#Z#L#W#K#R#W#K#H#G#H#G  
GLV#D#E#O#H#W#K#R#Q#X#P#R#G#H#V#K#H#P#D#F#K#L#Q#H#K#H#Q#L#V#S#H#Q#W#L#F#N#H#W#S#H#W#K#D#G#M#X#V#W#R#R#Q#W  
W#K#H#D#P#H#7#K#L#W#G#R#Q#H#R#W#K#H#R#Q#Y#H#Q#L#H#R#H#W#K#H#R#S#H#U#D#V#Z#R#D#F#D#O#X#L#F#N#H#Q#D#E#O#H#U  
GLV#D#E#O#H#R#Q#X#P#R#G#H#V#U#H#T#X#L#U#Z#L#G#W#K#R#W#K#H#G#H#S#V#R#J#H#D#G#M#W#K#H#L#S#Z#L#W#H#G#H#G

&RQQHFWR#W#K#H#R#JJO#M#Z#L#W#F#E#H#W#Z#H#H#G#L#Q#4#D#Q#G#6#R#I#W#K#H#67 #45#FRQQHFWR#R#S  
SLQ#7#D#Q#G#8#R#I#W#K#H#67 #45#FRQQHFWR#R#U#R#J#H#W#K#H#U

71 &RQQHFWR#D#R#H#2#Y#H#6#L#J#Q#D#O

)URP#W#K#H#DPH  
&R#L#G#R#F#N#R#X#W#R#L#O

)URP#W#K#H#DPH  
\*DPH #2YHU#RU  
6WDU#W#K#H#W#R#U  
/DPS

,Q#%2186#67\$57 #PRGH#7#K#H#DPH#2YH#6#L#J#Q#D#O#X#V#E#H  
FRQQHFWR#H#G#F#K#D#Q#H#U#R#P#J#D#P#H#Y#H#U#R#J#D#P#H#S#  
L#Q#L#W#L#B#W#K#H#R#Q#X#W#D#W#L#F#N#H#G#D#V#R#X#W

1R#W#Y#H#L#W#D#P#H#Z#L#G#O#Y#H#W#K#H#L#J#Q#D#O#Y#D#L#O#D#E#X#W#Q  
P#D#Q#J#D#P#H#W#K#H#L#J#Q#D#O#G#E#H#W#D#N#H#O#R#F#W#K#H#D#P#H  
R#Y#H#D#P#S#H#W#K#H#R#D#F#K#L#Q#H#W#K#H#R#L#O#R#F#N#R#X#W#R#L#O#H#Y#H#O#  
V#L#J#Q#D#O#R#F#W#K#H#O#R#E#R#H#O#D#V#K#L#Q#W#D#E#X#W#W#R#D# #E#H  
V#X#L#W#D#E#O#H#H#G#H#V#F#U#L#S#W#R#Z#2,1

&RQQHFWR#W#K#H#S#R#V#L#W#L#H#G#H#R#I#W#K#H#D#P#H #2YHU#DPS /  
6WDU#W#K#H#W#R#DPS #R#U#W#K#H#R#L#G#R#F#N#R#X#W#R#L#O#W#S#L#Q  
7#D#Q#G#W#K#H#Q#H#D#W#L#W#L#G#H#R#I#W#K#H#D#P#S#R#U#W#K#H#R#L#O#R#  
SLQ#4#R#I#W#K#H#67 #45#FRQQHFWR#U

([DPSOHR#FRPPRQFRQQHFWR#R#DFKQ#FRQW

81 \*DPH#3YH\$LJQEDVDNHIORFD#+9,#ORJ#FZLWFK

\*\$7( #2:1'  
6:,7&+  
.1#\$7( #66<

7KLVDGH[DPSOHR#DEVDNHW#EDOE#ZKHU#DPH#RYHU  
VLJQEDVDNHIORF#WK#FDW#RZQ' #/ZLW#R#K#DWH \*\$0( #2\$5'  
DVVHPEORV#W#K#N#ZLW#FRQQHF#R#V#K#DPH  
ERDU#Q#S#X#Z#L#F#R#S#H#U#D#W#R#F#.#89#ORJ#E#D#Y#H#D#H#V#L#W#R#U  
54#FRQQHF#R#F#9#N#V#R#V#K#H#Q#S#X#W#R#U#W#K#H#D#V#R#Q#K#H  
SRVLW#L#G#R#I#W#K#F#D#P#H#2#Y#H#Q#S#X#S#L#Q#7#R#W#K#67#45  
FRQQHF#V#L#D#V#R#R#Q#Q#H#F#W#M#B#K#N#D#P#.#89#D#V#X#V#H#R#U  
W#K#H#D#P#H#E#R#D#U#G  
7KH#D#W#H#Z#L#W#F#R#Q#Q#H#F#W#R#X#Q#H#S#L#Q#4#R#W#K#67#45  
ZKH#Q#W#K#D#W#H#V#G#R#Z#Q#L#J#Q#D#O#L#Q#W#K#D#L#P#L#H#W#K#D#M#K#H  
3JDPH#L#V#R#Y#H#U'

&RQYHUV#FDFKQ#W#R#GLVSHQ#M#L#FNHWV

418VLQ#D#FRL#Q#ZLW#R#K#R#QLW#E#D#W#M#S#D#V#R#X#W

\$QH[DPSOHR#DFRLQ  
VZLW#R#S#H#U#D#W#R#Q#V#R  
LVRQD#D#R#I#J#U#L#Y#H  
,Q#S#X#W#L#Q#4#4#R#67  
45#R#Q#Q#H#F#V#L#R#U  
FRQQHF#W#M#B#S#9/  
W#K#H#R#L#Q#Z#L#W#R#K#  
FRQQHF#W#M#B#S#L#Q#3  
R#67#45#R#U  
'H#O#W#U#R#Q#L#F#8#W#K#H  
R#X#W#S#K#W#H#R#U  
FRQW#L#Q#X#R#S#M#U#D#W#L#R#Q  
K#R#Z#H#Y#H#W#K#H#Q#S#X#W  
P#X#V#W#E#H#V#H#R#U#S#X#O#V#H  
R#S#H#U#D#W#L#R#Q

127( =

- 7KD#W#K#H#1' #L#V#FRQQHF#W#M#B#K#E#O#D#F#L#U#S#L#Q#R#67#;#D#Q#W#K#H#45#9#L#V  
FRQQHF#W#M#B#K#R#U#D#Q#Z#L#U#S#L#Q#R#67#;#R#W#K#H#W#D#Q#G#E#D#H#G#G
- ,I#R#S#V#E#V#R#O#D#V#L#R#Q#W#H#T#X#L#U#H#C#H#R#L#Q#Z#L#W#F#D#O#V#E#H#F#R#Q#Q#H#F#W#R#X#Q#H#F#W#R#  
S#L#Q#R#W#K#H#67#;#F#R#Q#Q#H#F#W#R#D#P#H#J#U#L#Y#H#Q#S#X#W

6(7 #,3 #6:,7&+
'3 #6: #: 2))
'3 #6: #: 2))

6(7 #803(5
'2:1

51&RQQHF#W#M#B#S#L#Q#E#D#F#D#F#K#L#Q#H

Z#L#E#N#H#S#D#R#X#W#W#U#L#J#H#U#H#G#D#A#L#Q#J#M#R#O#H#Q#R#L#G

127( =

- 7KD#W#K#H#1' #L#V#FRQQHF#W#M#B#K#E#O#D#F#L#U#S#L#Q#R#67#;#D#Q#W#K#H#45#9#L#V  
FRQQHF#W#M#B#K#R#U#D#Q#Z#L#U#S#L#Q#R#67#;#R#W#K#H#W#D#Q#G#E#D#H#G#G

6(7 #,3 #6:,7&+
'3 #6: #: 2))
'3 #6: #: 2))

6(7 #803(5
'2:1

7KLVDGH[DPSOHR#D#A#R#O#H#Q#R#E#B#Q#Q#H#F#W#R#K#H#2#S#W#R#V#R#O#D#W#H#D#P#H#J#U#L#Y#H#Q#S#X#W#7#K#H#S#R#V#L#W#L#H#G#R#I#W#K#H#R#O#H#Q#R#L#G#83#9,  
FRQQHF#W#M#B#S#L#Q#45#R#I#67#45#FRQQHF#W#R#K#H#R#W#K#H#L#G#R#I#W#K#H#R#O#H#Q#R#E#B#Q#Q#H#F#W#R#43#R#I#W#K#H#67#45#FRQQHF#W#R#U





## Description of Inputs and Outputs cont.

<b>Opto Isolated Game Over</b>	<b>PIN 1,2 &amp; 4 of JST 12</b>
IN MULTIPLIER MODE	allows connection of an external switch for enabling "Zero Ticket Mode". (Loop pins 4 and 5 together, connect the switch between pin 1 and 3 of the JST 12). This connection is optional. Zero Ticket mode can also be selected via Dip Switch.
IN DIVIDER MODE	allows connection for "game over" signal. This is also an optional connection. If connected, all accumulated "fractions" of tickets will be cleared at the beginning of each new game.
IN BONUS START MODE	allows connection for "game over" signal. This connection is required for this mode.
IN PERM. OR TIME BONUS	allows connection of an external switch to disable bonusing. (Loop pins 4 and 5 of JST 12 together, connect the switch between pin 1 and 3 of the JST 12). This connection is optional.

### GAME OVER SIGNAL

Game over signal can be taken from the game over lamp of the machine, coin lockout coil or in some cases a flashing\* start button may also provide a suitable game over signal. Valid Game Over signal is 4 – 30V DC connected between pin 1 (-) and pin 4 (+) of the JST 12 connector. Valid Game Up signal is voltage smaller than 1V DC measured between the pin 1 and 4 of the JST 12 connector. (Connect the positive side of the Game Over Lamp, Start Button Lamp or the Coin Lockout Coil to pin 4 and the negative side of the lamp or coil to pin 1 of the JST 12 connector).

\* The Maximizer can tolerate pulsing game over/up signal providing that the on/off state is not slower than 1.5 seconds. When the signal ceases to pulse the Maximizer will accept it as game up signal and if the Maximizer is set in the Bonus Start mode, tickets will be dispensed with a 3 second delay.

<b>Opto Isolated Game Drive</b>	<b>PIN 10,11 &amp; 12 of JST 12</b>
USED WHEN PULSE OPERATION INPUT IS SELECTED	This input when activated initiates the ticket payout. It may be used when the direct Game Drive Input (pin 3 of JST 8) is not suitable and opto isolation is necessary i.e. connection to the solenoid in a pinball machine. Pin 11 of JST12 can handle voltage range from 5V to 30V, pin 12 of JST 12 can handle voltages ranging from 14 to 60V (suitable for connection to solenoids in pinballs).

<b>External (Bonus) Lamp 12V/400mA</b>	<b>PIN 5,6,7,8 of JST 12</b>
ON POWER UP	indicates what mode was selected (see Quick Chart).
IN ALL MODES	indicates Ticket Jam Error or that the dispenser run out of tickets.
IN PERMANENT BONUS	flashes to indicate to the player that the bonus mode is activated.
IN TIMED BONUS	flashes to indicate to the player that the bonus mode is activated.
IN JACKPOT MONITOR	flashes to indicate that jackpot condition was triggered.
IN DISPENSER TEST	indicates result of the test.

## Start up Status Led or Lamp Indicator

It is easy to make sure that you have selected the correct mode.

On power up the LED on the TicketFlex board or the external lamp (if connected) will indicate what mode was selected by different number of flashes (see Quick Chart)

## Ticket Jam Error LED or External Lamp

If ticket jam occurs, the dispenser will dispense approximately 2 and half tickets and the LED or lamp (if connected) will start flashing rapidly (3 times on/off, then space, 3 times on/off again and so on).

## Clearing the Ticket Jam Error

The error condition can be fixed by clearing the ticket jam and cleaning the notch sensor. Move the tickets through the dispenser so that the notch sensor is triggered again. The TicketFlex Maximizer will automatically resume normal operation.

## Flexibility

The design of the TicketFlex Maximizer allows you to connect 2 or more Maximizers together and thus achieve any combination of modes to work simultaneously. This gives you a great ability to control the ticket payout to suit the nature of the game and the players' skills.

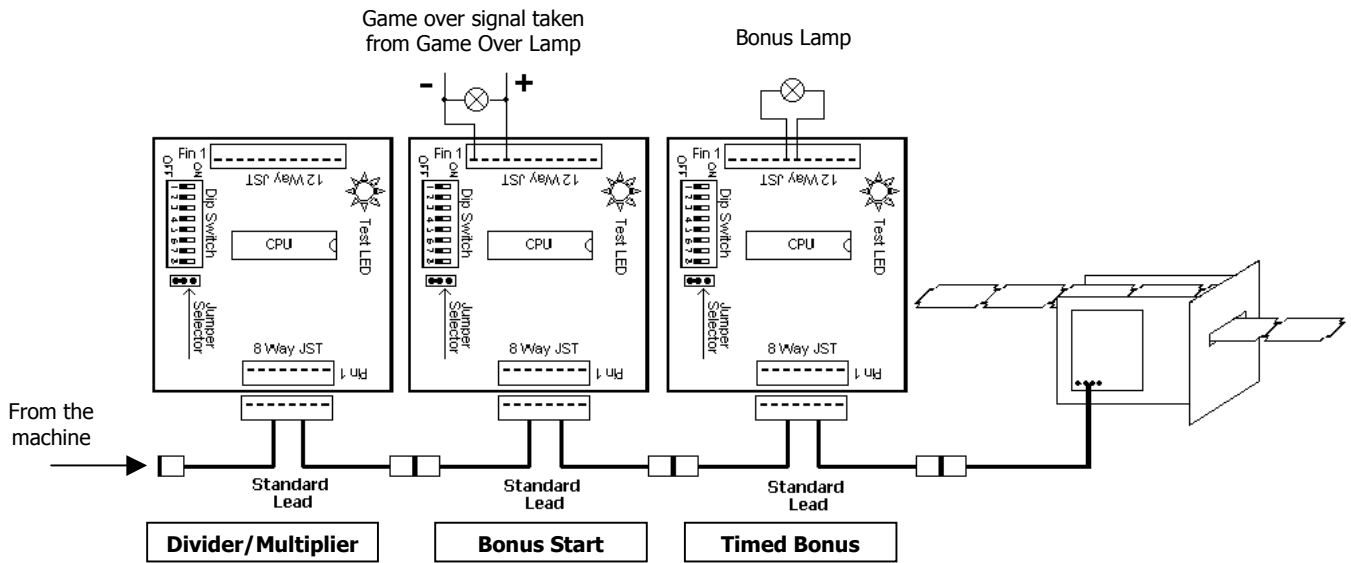
For examples some machines may not payout tickets until a fairly high score is achieved. Those games discriminate the younger children or casual players who have only a little chance to win tickets. A Maximizer set in a Bonus Start mode will improve the situation, as the player will unconditionally receive tickets at the beginning of each game. In addition you may choose to daisy chain another Maximizer to give the players the benefit of the Time Bonus mode. The players have then the chance to win bonus tickets.

Even the order in which the Maximizers are chained together will let you tailor the outcome. By swapping the position of Bonus Start and the Time Bonus Maximizer you may determine whether the players will win bonus tickets also on the initial "Bonus Start" tickets or only on the subsequent tickets.

These modes are designed to give the machines a very effective boost in their performance. The modular approach provides a flexibility to change the configuration in order to achieve the maximum benefit.

# Combining Features

The design of the Ticketflex Maximizer allows you to connect 2 or more Maximizers together. Each Maximizer can be set by Dip Switches to any of the 8 modes. You can tailor the configuration, which suits the best the particular machine and the players' skills. This modular approach gives you the freedom to change your mind any time and reuse the Maximizer in different configuration or in different machine. The Ticketflex Maximizer is a smart "plug in" problem solver.



## How to achieve the maximum benefit?

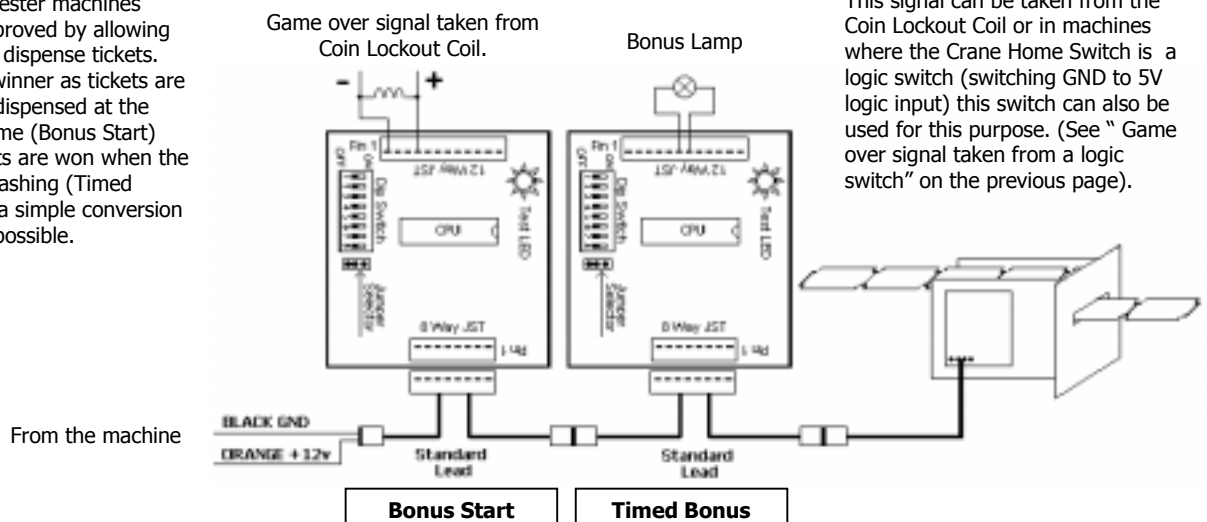
How many Maximizer I should install in the machine to achieve the maximum benefit? This will depend on the machine. Let's have a look at the example above where 3 Maximizers are daisy chained together. The **DIVIDER/MULTIPLIER** is to adjust the basic ticket payout. This allows you to reduce or to increase the payout if the machine does not provide sufficient control over the ticket payout. However, many machines already have a good range of adjustments and the DIVIDER/MULTIPLIER may not be necessary.

The second Maximizer **BONUS START** will award the players at the beginning of each game by 1 to 8 tickets (Dip Switch adjustable). This very desirable and highly recommended feature will greatly enhance the game performance especially when tickets are awarded for higher scores which younger children and casual players find difficult to achieve. Some machines may have this feature already and the **BONUS START** Maximizer may not be necessary.

The third Maximizer **TIMED BONUS** introduces a new concept in ticket dispensing and it is very highly recommended. Designed as truly inexpensive way to significantly enhance the machine performance especially when this mode is used in combination with the BONUS START mode. The Bonus Lamp (usually an orange light mounted near the ticket dispenser) starts flashing approximately every 5 minutes for duration of 1 minute. While the light is flashing the players will receive bonus tickets as per the dip switch adjustment. If supported by a simple advertising i.e. **WIN TICKETS WHEN ORANGE LIGHT IS FLASHING** (posters) the players soon realise the benefit. The Bonus Light prompts the players to play. Even older games were completely revitalized.

## Example of two Maximizers used in Skill Tester.

Takings of skill tester machines were greatly improved by allowing the machines to dispense tickets. Every player is winner as tickets are unconditionally dispensed at the start of each game (Bonus Start) and bonus tickets are won when the orange light is flashing (Timed Bonus). Here is a simple conversion which makes it possible.

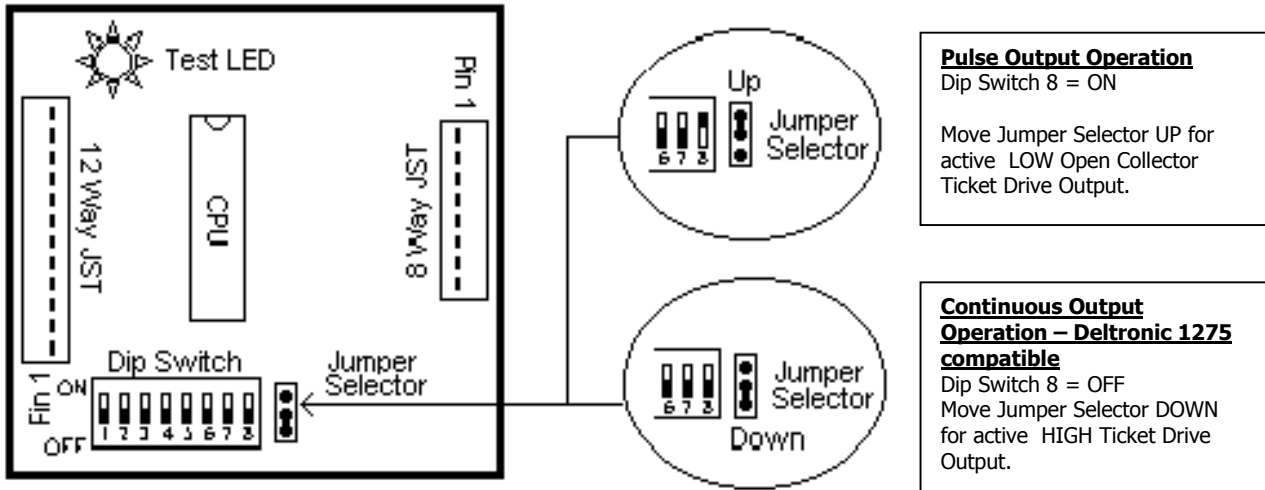


### Game Over Signal

This signal can be taken from the Coin Lockout Coil or in machines where the Crane Home Switch is a logic switch (switching GND to 5V logic input) this switch can also be used for this purpose. (See "Game over signal taken from a logic switch" on the previous page).



# Dip Switch and Jumper Selector



See Quick Chart for the connector pinouts, selecting the mode and the ticket payout .

## Selecting Continuous or Pulse Operation

Both the input and output can be independently selected for continuous or pulse operation. For Deltronic 1275 or compatible ticket dispenser both the input and the output are set for continuous operation (Dip Switch 7 = ON, Dip Switch 8 = OFF, Jumper Selector down).

### The Input

Input	Sw 7
Continuous Operation	ON
Pulse Operation	OFF

#### Continuous Input Operation (Deltronic 1275 compatible)

In the Continuous Input Operation the ticket drive input (pin 3 of the 8 Way JST connector) must be driven "high" to initiate ticket dispensing. The Ticketflex Maximizer will output simulated ticket notch pulses for the host game (pin 1 of the 8 Way JST connector).

#### Pulse Input Operation

In the Pulse Input Operation the ticket drive must be pulsed "low" to initiate ticket dispensing. The simulated notch output is not used.

### The Output

Output	Sw 8
Continuous Operation	OFF
Pulse Operation	ON

#### Continuous Output Operation (Deltronic 1275 compatible)

In the Continuous Output Operation the ticket drive output (pin 2 of the 8 Way JST connector) is driven "high" to initiate ticket dispensing. The ticket notch feedback from the dispenser is required. The Jumper Selector must be "Down".

#### Pulse Output Operation

In the Pulse Output Operation the ticket drive output is pulsed "low" to initiate ticket dispensing (Jumper Selector "UP"). The ticket notch feed back is not utilized. The ticket dispenser will dispense one ticket for each pulse received.

## The Jumper Selector

The Jumper Selector enables to select an appropriate voltage level for the ticket drive output. This is the signal which drives the ticket dispenser. Commonly when the ticket dispenser works in continuous operation this signal has to go "HIGH" to initiate ticket dispensing (i.e. Deltronic 1275 ticket dispenser). It is usually the other way around if the ticket dispenser works in pulse operation. The input of the ticket dispenser must be usually pulsed "LOW". However, some ticket dispensers may operate with inverted voltage levels. In those cases the Jumper Selector may be used to match the Ticketflex Maximizer to the ticket dispenser.

NOTE, that when the Jumper Selector is "down" the ticket drive output should not be connected to inputs with higher than 5V voltage levels. If the Jumper Selector is "UP" an open collector output is used higher voltage levels such as 12V are allowed.

## Recommendations and Important Notes

- **The Ticketflex Maximizer is very universal device capable of working with different machines and ticket dispensers. Both the input & the output can be independently selected for a continuous or pulse operation. However if it is a matter of choice the continuous operation for both the input and the output is preferable to a pulse operation.**
- **To minimize the likelihood of damage by electrostatic discharge it is recommended to check whether the ticket dispenser body is connected to the protection earth.**
- **Although the installation of the Maximizer is very simple it should be carried out by a person who posses an appropriate technical knowledge and is familiar with the workings of the machine.**
- **Switch the machine off prior any dip switch adjustment otherwise the new adjustment will not take effect.**

Innovation Search  
P.O.Box 622  
Randwick NSW 2031  
Australia  
Fax: +612 9315 8681

IN USA/CANADA DISTRIBUTED BY:  
**STAR\*TECH Journal**  
PO Box 35, Medford NJ 08055  
Phone: 609/654-5544. Fax: 609/654-1441  
Email: ticketflex@startechjournal.com

# Quick Chart

## Power up LED or External Lamp

Number of flashes	MODE
1	DISPENSER TEST
2	DIVIDER
3	MULTIPLIER
4	PERMANENT BONUS
5	TIMED BONUS
6	BONUS START
7	JACKPOT MONITOR
8	ZERO TICKETS

Input	Sw7
Continuous Operation	ON
Pulse Operation	OFF

## 8 Way JST Connector

PIN	JST Connector
1	Notch Output
2	Ticket Drive Output
3	Game Drive Input
4	Ticket Notch Input
5	GND (Out)
6	GND (In)
7	+12V (Out)
8	+12V (In)

Output	Sw8
Continuous Operation	OFF
Pulse Operation	ON

## 12 Way JST Connector

PIN	JST Connector
1	- Opto Game Over
2	- Opto Game Over
3	GND (Out)
4	+ Opto Game Over 5-30V
5	+12 V (Out)
6	+12 V (Out)
7	Lamp Output
8	Lamp Output
9	Not Used
10	- Opto Game Drive
11	+Opto Game Dr 5-30V
12	+Opto Game Dr 14-60V

## Divider/Multiplier Mode

### ADJUST TICKETS

Tickets	Sw1	Sw2	Sw3	Sw4
1	OFF	ON	ON	ON
2	ON	OFF	ON	ON
3	OFF	OFF	ON	ON
4	ON	ON	OFF	ON
5	OFF	ON	OFF	ON
6	ON	OFF	OFF	ON
7	OFF	OFF	OFF	ON
8	ON	ON	ON	OFF
9	OFF	ON	ON	OFF
10	ON	OFF	ON	OFF
11	OFF	OFF	ON	OFF
12	ON	ON	OFF	OFF
13	OFF	ON	OFF	OFF
14	ON	OFF	OFF	OFF
15	OFF	OFF	OFF	OFF

### SET MODE

Mode	Sw5	Sw6
Divide	OFF	OFF
Multiply	OFF	ON

## Bonus Start

### ADJUST TICKETS

Bonus Tickets	Sw1	Sw2	Sw3
1	ON	ON	ON
2	OFF	ON	ON
3	ON	OFF	ON
4	OFF	OFF	ON
5	ON	ON	OFF
6	OFF	ON	OFF
7	ON	OFF	OFF
8	OFF	OFF	OFF

### SET MODE

Mode	Sw4	Sw5	Sw6
Bonus Start	ON	ON	OFF

## Jackpot Monitor

### ADJUST TICKETS

Jackpot Level	Sw1	Sw2	Sw3
10	OFF	ON	ON
20	ON	OFF	ON
30	OFF	OFF	ON
40	ON	ON	OFF
50	OFF	ON	OFF
60	ON	OFF	OFF
70	OFF	OFF	OFF
100	ON	ON	ON

### SET MODE

Mode	Sw4	Sw5	Sw6
Jackpot Monitor	ON	ON	ON

## Permanent Bonus/Timed Bonus

### ADJUST TICKETS

Extra Ticket Every	Sw1	Sw2	Sw3
1	ON	ON	ON
2	OFF	ON	ON
3	ON	OFF	ON
4	OFF	OFF	ON
5	ON	ON	OFF
6	OFF	ON	OFF
7	ON	OFF	OFF
8	OFF	OFF	OFF

### SET MODE

Mode	Sw4	Sw5	Sw6
Timed Bonus	OFF	ON	OFF
Permanent Bonus	OFF	ON	ON

## Zero Tickets

Sw1	Sw2	Sw3	Sw4	Sw5	Sw6	Sw7	Sw8
ON	ON	ON	ON	OFF	ON	ON	OFF

## Dispenser Test

Sw1	Sw2	Sw3	Sw4	Sw5	Sw6	Sw7	Sw8
ON	ON	ON	ON	OFF	OFF	ON	OFF