

# TICKET DISPENSER

## YOGI II INTERFACE BOARD OPTIONS REV. 2



Please do not hesitate to contact us with questions.

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YOGI-II OPTIONS REV. 2

The main purpose of the YOGI-II is to control the dispensing of tickets by counting pulses from a game, and to allow the operator to adjust the value of these tickets won. The following is a description of how to adjust the unit using the 2 sets of dip switches as well as a description of how the board works. A PARTS LAYOUT drawing is included to show the reader the location of the dip switches (GROUPS 1 & 2) on the PC Board.

PULSE COUNT:

The PULSE COUNT is set using the first 10 switches (GROUP 1 SWITCHES 1-8 and GROUP 2 SWITCHES 1-2) as follows:

All switches ON sets the PULSE COUNT to 0. Setting a switch OFF will add to the PULSE COUNT as shown in the list below. Set the switches OFF as required so that the PULSE COUNT using these values below adds up to the desired count.

| SWITCH | VALUE OF SWITCH IF OFF (VALUE=0 IF SWITCH ON) |
|--------|---|
| G1S1   | 1   |
| G1S2   | 2   |
| G1S3   | 4   |
| G1S4   | 8   |
| G1S5   | 16  |
| G1S6   | 32  |
| G1S7   | 64  |
| G1S8   | 128   |
| G2S1   | 256   |
| G2S2   | 512   |

The easiest way to determine the right switches to turn OFF is to turn OFF the switch with the HIGHEST value BELOW the desired value and then subtract its value from the desired value. For example-for a PULSE COUNT of 100:

| TURN OFF SWITCH | DESIRED COUNT | SWITCH VALUE | DESIRED COUNT - SWITCH VALUE |
|-----------------|---------------|--------------|------------------------------|
| G1S7            | 100           | 64           | 100-64=36                    |
| G1S6            | 36            | 32           | 36-32=4                      |
| G1S3            | 4             | 4            | 4-4=0                        |

Following is a list of some common PULSE COUNT setups:

| COUNT | Switches set OFF (OPEN)            |                      |
|-------|------------------------------------|----------------------|
| 4     | G1S3                               |                      |
| 10    | G1S4, G1S2                         | (8+2)                |
| 20    | G1S5, G1S3                         | (16+4)               |
| 40    | G1S6, G1S4                         | (32+8)               |
| 100   | G1S7, G1S6, G1S3                   | (64+32+4)            |
| 200   | G1S8, G1S7, G1S4                   | (128+64+8)           |
| 500   | G2S1, G1S8, G1S7, G1S6, G1S5, G1S3 | (256+128+64+32+16+4) |

#### NUMBER OF TICKETS:

Dip switch GROUP 2 SWITCHES 3-6 are used to set the NUMBER OF TICKETS to dispense after receiving the right number of COUNTS (as set above) in the following manner:

All switches ON sets the NUMBER OF TICKETS to 0.

| SWITCH | VALUE OF SWITCH IF OFF (VALUE=0 IF SWITCH ON) |
|--------|---|
| G2S3   | 1   |
| G2S4   | 2   |
| G2S5   | 4   |
| G2S6   | 8   |

Normally, just 1 ticket is dispensed, so set G2S3 OFF and G2S4, G2S5 G2S6 ON.

Dip switch GROUP 2 SWITCH 7 sets the MODE of the YOGI-II as follows:

MODE 1: If the operator wants LEFT OVER pulses to remain in the YOGI-II memory then set G2S7 OFF. The LEFT OVER points will go toward the next ticket(s) for the next player.

MODE 2: If the operator wants LEFT OVER pulses to be RETURNed to the game then set G2S7 ON. Also check the wiring instructions to wire the RETURN pulse back to the game. If the operator wants LEFT OVER pulses to be dropped or lost, then do NOT wire the RETURN pulse back to the game. The RETURN pulses are still generated by the YOGI-II, but since the signal is not wired in, the game doesn't see them.

#### RETURNING PULSES and the HELP MODE:

As soon as the right number of pulses for a ticket to be dispensed are received then those pulses are CONVERTED to tickets and dispensed. The pulse count memory is also zeroed. When no more pulses are received then the pulses remaining in memory are LEFT OVER. For example, assume the YOGI-II is set for 1 ticket dispensed for 10 pulses received. If 27 pulses are then received, the first 20 pulses are CONVERTED to 2 tickets and 7 pulses are LEFT OVER in memory.

If the YOGI-II detects a problem with the TD while trying to dispense these 2 tickets, then it enters what is called the "HELP" mode. When this happens, the YOGI-II will take one of two actions as follows:

A: RE-CONVERT tickets to dispense back to pulses and RETURN them along with the LEFT OVER pulses. In the example above, 27 pulses will be returned and the 2 tickets will be lost.

B: Store the tickets to be dispensed in local memory so as to dispense the tickets once the problem is resolved. In the example above, 7 pulses will be returned and the 2 tickets will be dispensed when the problem is fixed.

Which of these two actions is taken depends on the jumper next to dip switch group 2. Leaving the jumper in will result in action A. Cutting out the jumper will result in action B.

After entering the HELP mode, the YOGI-II will do the following as well as taking the actions above:

1. The "HELP" LED will flash at the rate of about twice per second as an indication that a problem with the TD exists.
2. The relay mounted on the PC board will be turned off also turning off the 12VDC to the TD so that the TD cannot be accidentally turned on.

Once the operator has fixed the problem, then he can press the "HELP" switch on the YOGI-II board. The unit will then turn on the dispenser and dispense the quantity of tickets CONVERTED up to that point or one ticket if that quantity is zero. The "HELP" LED will be turned off and normal operation will be resumed.

#### PULSE TIMING:

The timing of the pulses being returned can be set to 1 of 2 different values. The first value (50ms on and 50 ms off) is set by setting G2S8 ON. This is the default value. The second value (50 ms on and 255 ms off) is set by setting G2S8 OFF. If the game you are using does not get the right number of credits back when returning pulses, then try changing this setting.

#### DISPENSING TICKETS:

The YOGI-II will do the following to dispense tickets:

1. The on-board RELAY will be turned on, which applies 12VDC to the TD.
2. About 50 MS later, the ENABLE signal to the TD will go high which will turn the motor on.
3. Once all the NOTCH signals from the TD are received back from the TD (indicating all the tickets have been dispensed) then the ENABLE signal will go low which will turn the motor off.
4. About 50 MS later, the on-board RELAY will be turned off, turning off the 12VDC to the TD.

#### LOADING TICKETS:

When new tickets need to be "loaded", then do the following:

1. Turn off the YOGI-II unit.
2. Hand load the tickets up to the point where the lead ticket hits the drive roller.
3. Turn the YOGI-II unit back on.
4. Press the HELP switch on the YOGI-II board. The unit will attempt to dispense a ticket. If it does, the unit is ready to go. If a ticket is not dispensed, check to make sure the tickets are set properly and try again. An alternate to this procedure is to do whatever is necessary to get the game to dispense tickets. Once the TD dispenses at least one ticket, then it should be set up properly and normal operation can be started. If the unit doesn't set up the TD properly then check to see if the tickets were loaded properly in step 2 and repeat the procedure.

Some other features the operator should know about the YOGI-II are:

Under voltage protection. If the supply voltage drops below 4.5 volts then the board resets. This will help protect from dispensing tickets erroneously.

Watch dog timer. If board loses control then the watch dog timer should reset the board. This will also help protect from dispensing tickets erroneously.

Reverse voltage protection. Diodes are mounted near the power connector which should "crowbar" the supply if the polarity is wrong.

