Microcoin®

Model QL
Multicoin, Multifunction Validator

Micro*coin* Model QL w/ optional faceplate/mounting bracket

Features

- **Validates Up to 12 Coins/Tokens**
- **Onboard Programming**
- **Network Capable**
- **High Security & Discrimination**
- **High Speed, 10 CPS**
- **Onboard Diagnostics**
- **Optional USB & RS232 Interface**
- **Can validate All *Euro* coins**

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Microcoin QL Technical Data

GENERAL DETAILS

Recommended Power Supply :
12 VDC reg @ 1 amp (approx) continuous
Range + 11.5 to + 15 VDC
Quiscent current 100 mA
Peak current 450 mA @ 11.5 VDC
550 mA @ 15 VDC

Coin Output :
Open Collector NPN, 200 mA
Pulse width & duty cycle programmable
(tolerance + 3mSec, - 3mSec)

Enable/Inhibit Input :
An external "inhibit" voltage, V_{inh}, may be used to control an "all coins" inhibit function. An internal jumper can alter the logic level of this control line.

	Option 1 (Standard)	Option 2	Option 3
Inhibit	2.0v < V_{inh} < Vsupply	2.0v < V_{inh} < Vsupply	0v < V_{inh} < 3v
Enable	V_{inh} < 0.8v or not connected	V_{inh} < 0.8v	4v < V_{inh} < 12v

Accumulator Output :
The accumulator or credit output has an internal jumper to alter the operational logic level. There are 3 factory-configurable options

	Option 1 (Standard)	Option 2	Option 3
Logic	Open Collector, NPN 200mA	Active High to Vsupply (less 1.5v)	Active High to 5.5v (with 220 ohm load)

Alarm Output :
There are configurable alarm states available which are described separately. See Alarm Output Table.

Option 1	Option 2
Open Collector NPN, 200mA	Active High to 5v

STANDARD 10 WAY CONNECTOR DESCRIPTION

Pin No.	Industry Standard	QL Standard with accumulator
1	Gnd	Gnd
2	+ 12VDC	+ 12VDC
3	Coin 5 Output	Coin 5 Output
4	Coin 6 Output	Accumulator Output
5	Alarm	Alarm
6	Inhibit	Inhibit
7	Coin 1 Output	Coin 1 Output
8	Coin 2 Output	Coin 2 Output
9	Coin 3 Output	Coin 3 Output
10	Coin 4 Output	Coin 4 Output

GAMING CONNECTOR CONFIGURATIONS

Pin No	6-Pin JST	7- Pin Molex
1	Enable	Gnd
2	Credit (Sense)	Credit (Sense)
3	Not Used	Tilt
4	Not Used	Coin Output
5	+ 12VDC	Not Used
6	Gnd	+ 12VDC
7	-	Enable

Note : Credit (Sense) output can be internally jumpered to provide two types of output :

	Option 1	Option 2
Logic	Active High to Vsupply (less 1.5V)	Active High to +5.5v (with 220 ohm load)

Micro*coin* QL

General Data

Dimensions
101.6mm (H) x 89.0mm (W) x 48.4mm (D)

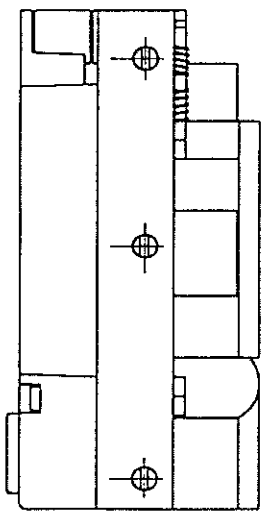
Connections

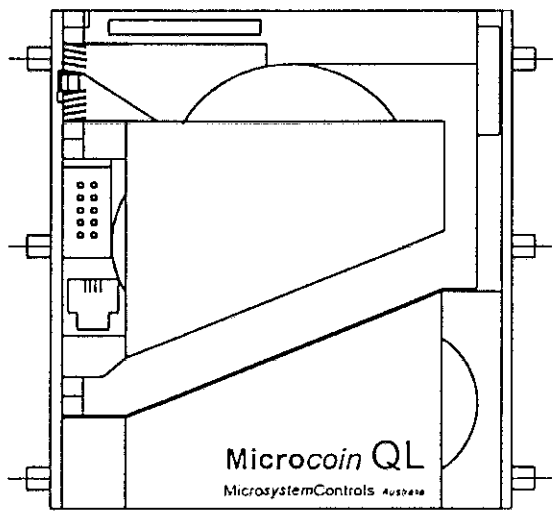
To Micromate Programmer	To Host Machine	
FCC68-4 Data Plug (RJ type)	10-way IDC	(General Application)
	6 pin JST	(Gaming)
	7 pin Molex	(Gaming)

Operating Temperature Range
0°C - 55°C

Coin Parameters

Diameter	17mm – 33mm
Thickness	1mm – 3.2mm





Microcoin QL

Quick Learn

Programming Guide

Microcoin "Quick Learn" is a powerful on-board programming facility which provides you with the ability to program your Microcoin QL simply and efficiently without having to remove it from the machine.

Easy to follow instructions are located on the validator for your convenience.

An LED provides visual indications of your progress and also validator diagnostics feedback.

There are two versions of Quick Learn available. One provides the added capacity to program the validator for up to 5 different coins in situ. The other version is structured for the Gaming industry and does not permit any on-board coin programming for security reasons. However, you may enable or disable programmed coins.

1. Enable/Disable Coins

Any coin which is programmed into the Microcoin QL can be turned on or off by simply selecting the enable or disable feature and passing the coin through the validator.

The Microcoin QL automatically senses the coin and enables or disables it accordingly.

2. Programming Coins

You may program a single coin or up to 5 coins using Quick Learn's coin programming features. If your validator does not have an LED display populated, then you can only program a single coin. With the LED display fitted, you can program up to 5 coins.

Program Single Coin – No LED Display

To program a single coin only into the Microcoin QL , refer to the "Program Single Coin" instructions. Please note that after passing a recommended minimum of 10 coins, the coin will automatically assume the programmed "**credit**" value. Label indicates original factory setting.

Program Multi Coin – With LED Display

If you have more than one coin to program or have multiple coins already programmed, refer to the "Program Multi Coin" instructions. This feature allows you to select a coin category to program your coin into. After passing a recommended minimum of 10 coins, you may select the value of the coin as a multiple of the programmed credit value. The label indicates the original factory setting. For example, if the credit value is 25c, then a $1 coin would have a credit multiplier value of "4", being 4x25.

Refer to attached flowchart.

3. Escape

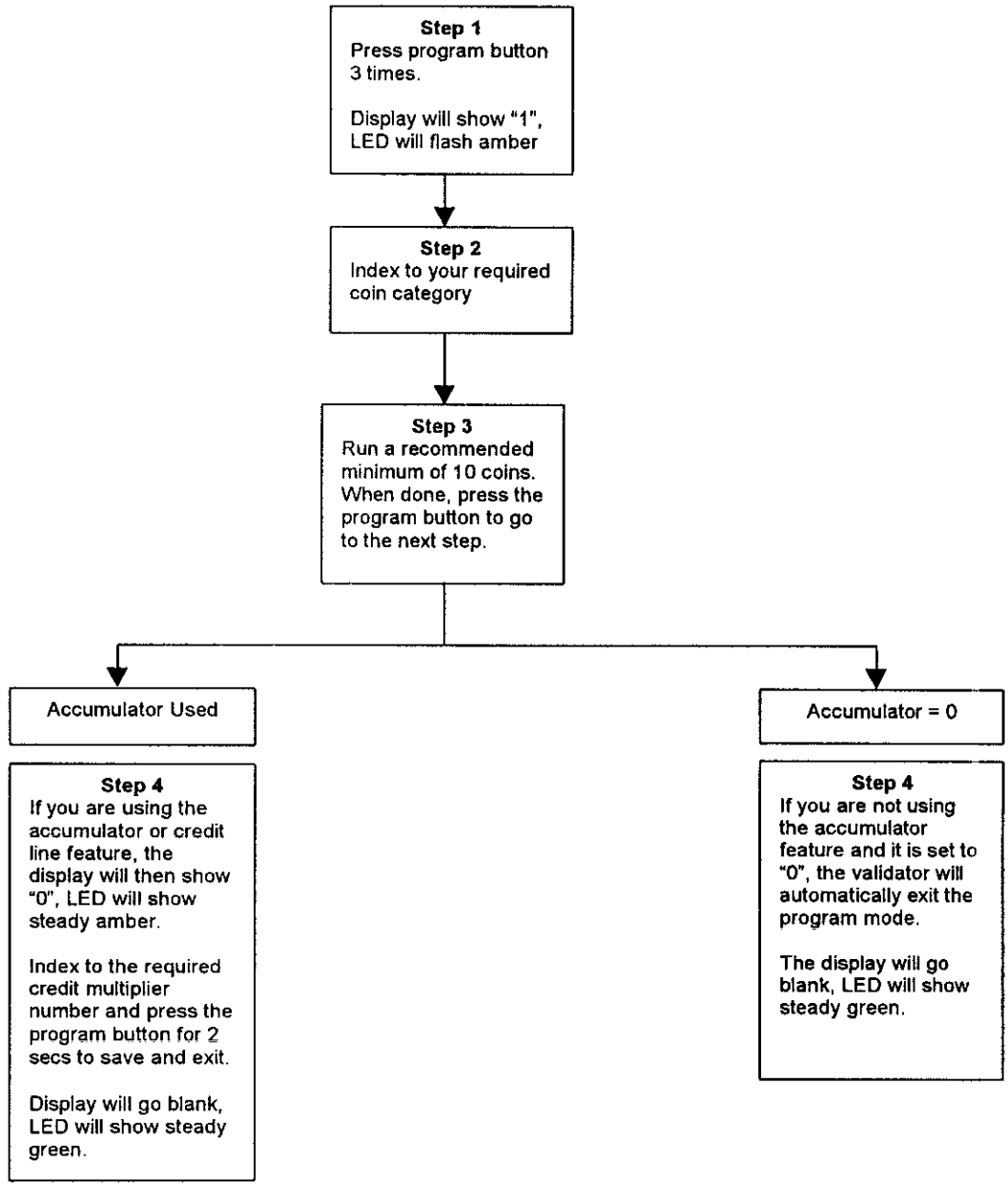
If you hold the programming button for more than 2 seconds, Microcoin QL will exit from its program mode and revert to normal operation.

4. Diagnostics

The following diagnostics are available by observing the LED.

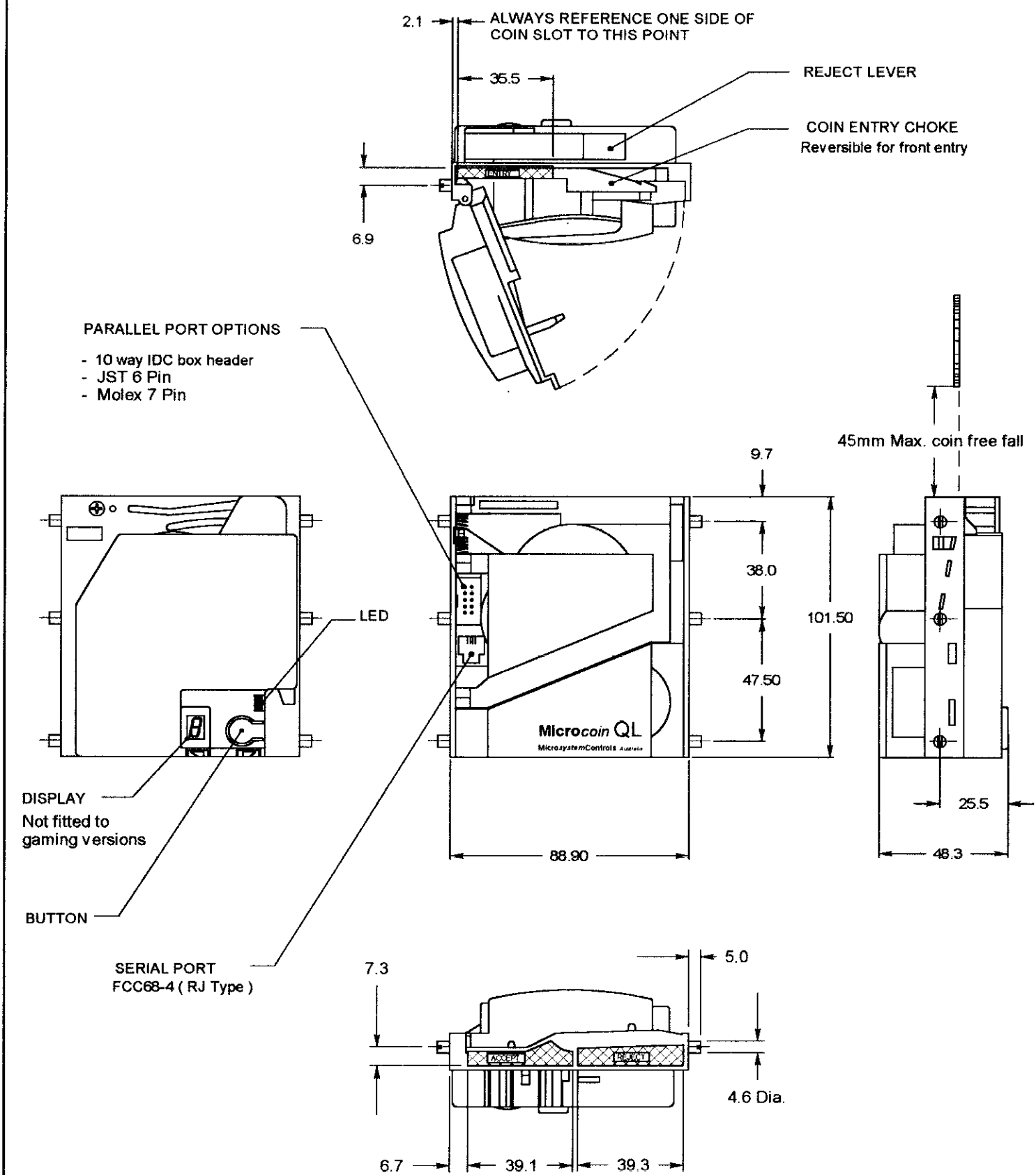
Validator Operational	LED is Green
Validator Fault	LED is Red
Coin Accepted	LED flashes Green once per coin
Validator Disabled	LED is Amber
No Power	LED is Off

Multi-Coin Programming Flowchart



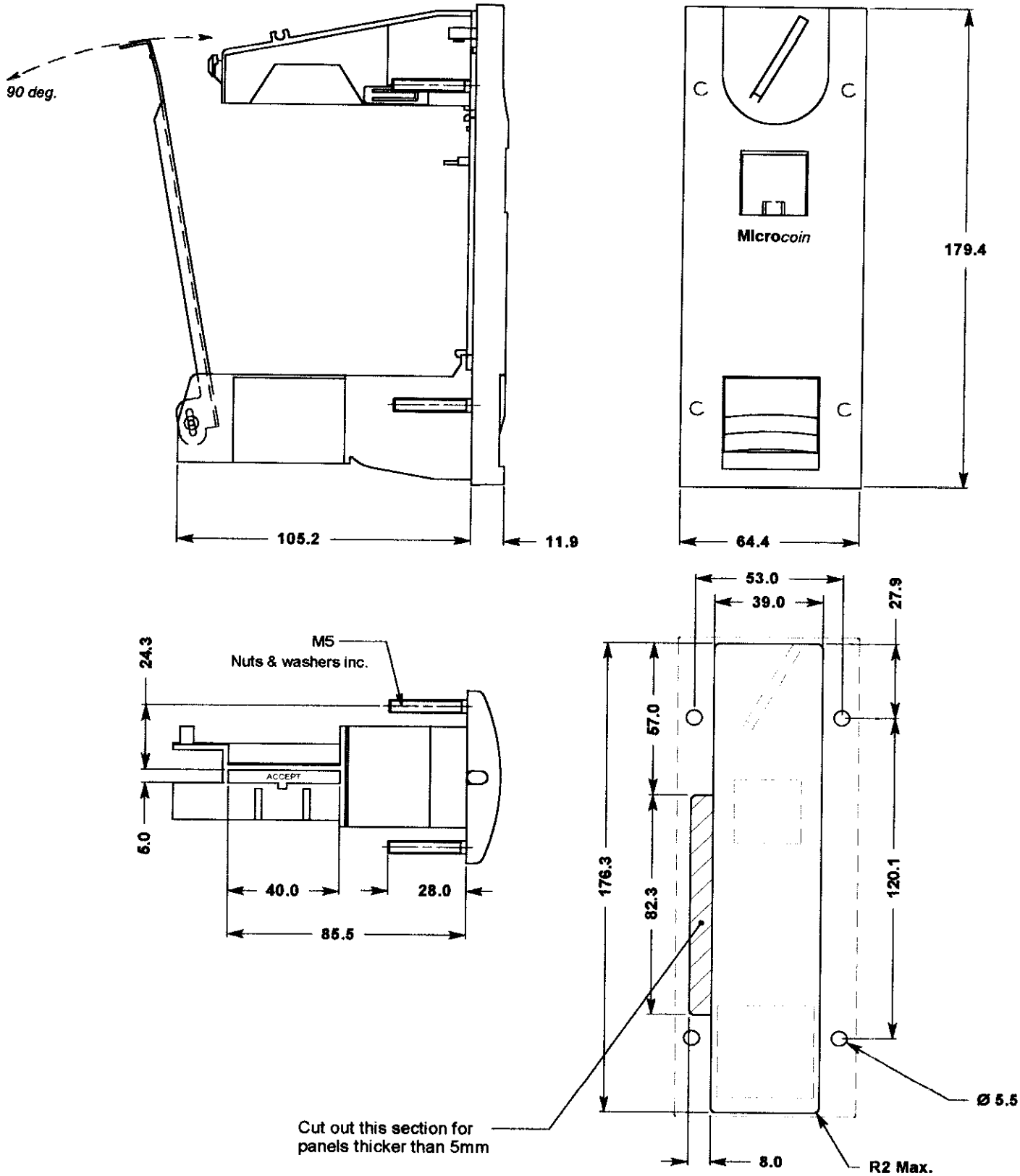
Note 1 : You are not restricted to programming with 10 coin passes. You may run as many coins as you wish, with the benefit of maximising the coin accept rate with the more coins you use.

Note 2 : Quick Learn is designed to supplement the facilities available via the Micromate hand-held programmer. There may be solutions you wish to employ which require the full features of the Micromate.



WEIGHT: 270gm

File Name: Validator-2.vlm



PANEL CUT OUT DETAILS

WEIGHT: 150gm

File Name: Face Plate-1.vlm