Cyclone Mid/High Capacity Technical Manual

Money Controls

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1. Diary of Changes

Issue 1.0 ....7th July 2007
> ➢ First issue.

Issue 1.5 ....14th February 2008
> ➢ Added Table 3.
> ➢ Corrected TSP reference at end of manual.

Issue 2.0 ....15th September 2008
> ➢ Added details of the Mid Capacity bowl.

2.   Introduction

The Cyclone High Capacity Coin Hopper is a modular, disc based hopper that is microprocessor driven. Its design is based on Money Controls successful Compact Hopper which has been used for over 10 years in ticketing, vending & amusement machines & has proven reliability. Cyclone High Capacity has incorporated extra features & security specifically aimed at gaming machine applications.

2.1   Product Overview

The Cyclone High Capacity Hopper, as its name suggests, has a much larger coin capacity bowl arrangement, ideally suited for gaming machine applications, based on tried and trusted Compact Hopper technology.   It is also fitted with a baseplate for easy removal from machines and a large carry handle.

The Cyclone High Capacity uses a rotating disc to pick up the coins & transport them to the coin exit window where a spring-loaded finger pays the coin out of the rear of the hopper in an upward direction. Simply swapping the interchangeable disc will allow the Cyclone High Capacity to dispense a different sized coin or token.

High Capacity:-
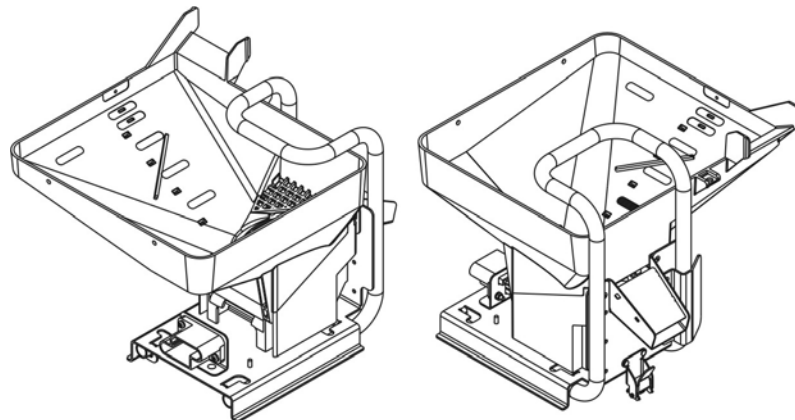
Mid Capacity:-
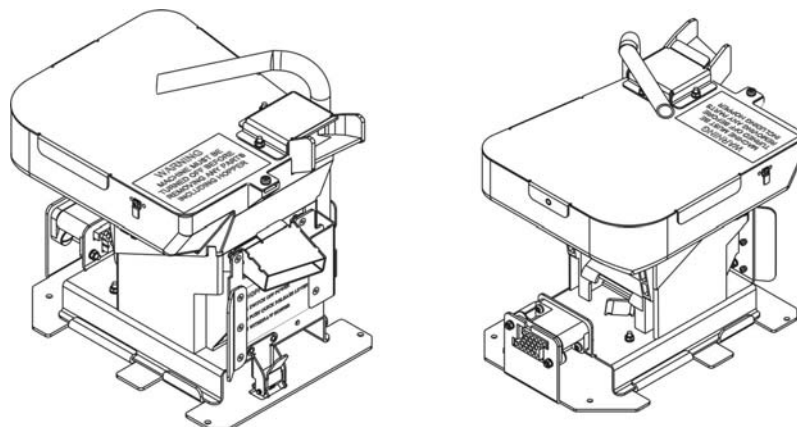
3.   Mechanical Features

➢   Average payout rate of 5 – 6 coins per second.

➢   Very High Capacity - Providing a large capacity making it ideal for use in gaming, machine applications.

➢   Interchangeable disk enables the Cyclone High Capacity Hopper to handle a greater range of tokens & coins (including coins with holes)

➢   Rear (front of machine) payout only.

➢   Auto reverse if jam detected

➢   Controlled by PIC based microprocessor electronics

Figure 1: Rear (front of machine) Coin Exit
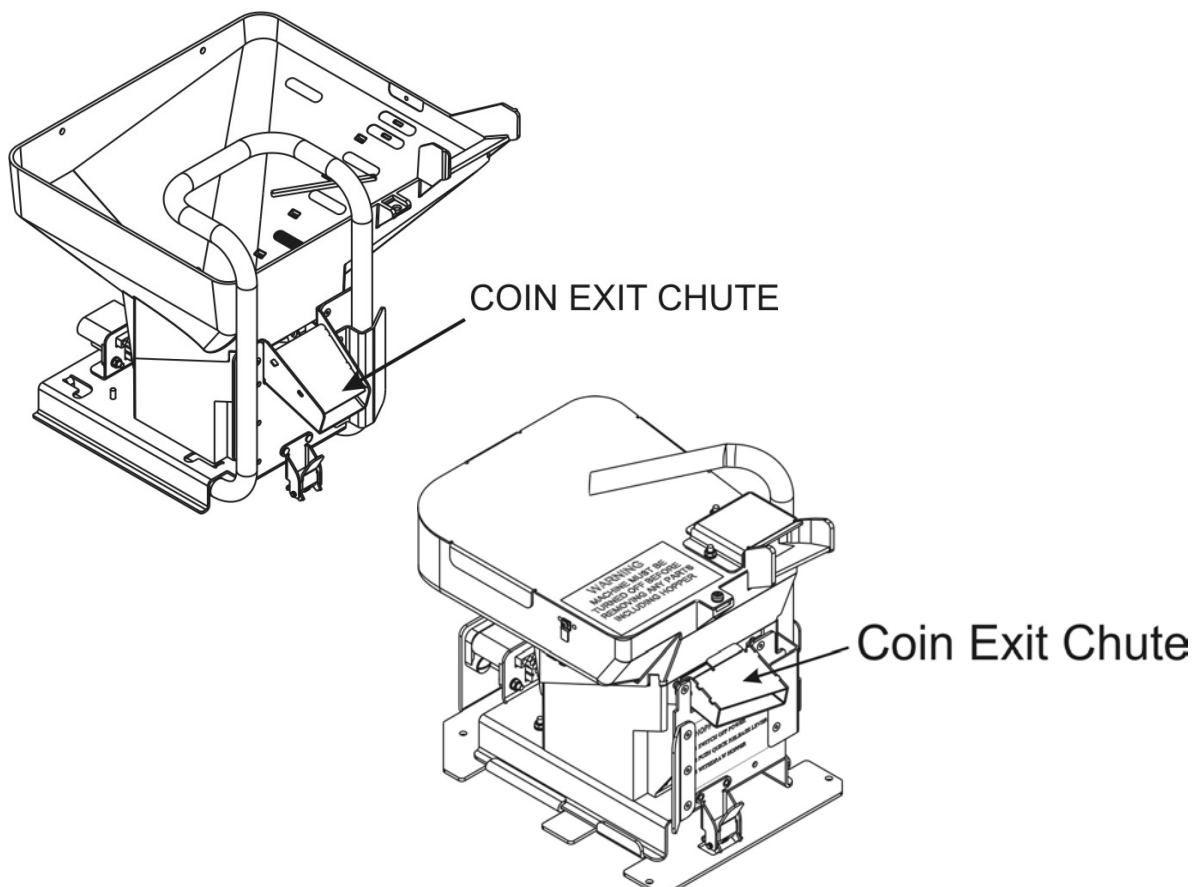
3.1   Variants

There are currently two variants – Mid or High Capacity - with the exception of the following:-

➢   Level sensing   - variable depending on position required.

Also there will be individual disc/bed assemblies for different coin types, as there are for all disc-based hoppers.

3.2   Coin Size Range

Diameter	16 – 29.5 mm
Thickness	1.3 – 3.2 mm

3.3   Coin Capacity

	€ 1.00 EU	$ 1.00 AU	£ 1 UK	25c US	Note:
High Capacity Bowl	2000	1300	1465	2230	+/- 50 coins
Mid Capacity Bowl	1840	1200	1350	2060	+/- 50 coins

4.   Installation and Removal

4.1   Removing the hopper from the runner plate

1. Press in, and hold, the spring loaded hopper fixing latch.
2. Take hold of the yellow pull handle and pull the hopper towards you.
3. When the hopper is half off the runner plate, take hold of the yellow lifting handle.
4. Pull and lift the hopper clear of the runner plate.

4.2   Dismantling the Hopper

1. Gently pull outwards the securing clips at the rear of each side of the base.
2. Tilt the bowl forward until it is clear of the clips.
3. Slide the bowl forward until the locating lugs, at the front of the bowl are clear of the slots at the base.
4. Unplug the level sense loom if fitted.
5. Lift the disc bed assembly out of the base.
6. Disconnect the cables from the disc / bed assembly.

4.3   Hopper Assembly

1. Connect the cables to the disc / bed assembly, ensuring that they are the correct way round.
2. Lower the motor assembly into the base, ensuring that the coin exit is in the desired position (side or rear)
3. Re-connect the level sense loom, if fitted.
4. Locate the lugs, on the front of the bowl, into the slots at the front of the base.
5. Gently press down on the top of the bowl until the securing clips, on the base, click into the slots in the bowl.

4.4   Insert the hopper onto the runner plate

1. Holding the hopper by the lifting handle, place it onto the runner plate so that it is central between the guide rails.
2. Push the hopper onto the runner plate until the fixing latch clicks into the rectangular cut-out.

5.   Mechanical Description

5.1   Operation

Each disc contains a number of holes in which the coins are held in short stacks. The disc is driven by the motor via a gear train. As the disc rotates, the coin at the bottom of one of the stacks will make contact with the ejector fingers and start to push the fingers back. Further rotation of the disc will cause the coin to start to move outwards into the exit slot. At this point the spring will be free to pull the ejector fingers forward and push the coin through the exit slot.

An optical detector is formed by an LED transmitter and photo-detectors on the PCB. The infra-red light beam is routed across the exit slot via a light guide. When a coin passes through the exit, the light beam will be broken and a coin output signal will be generated.

There are a range of discs, ejector fingers and adjuster plates available to provide optimum performance for coins within a specified range.

5.2   Coin Routing

Coins are entered into the hopper through the chute in one corner of the bowl, and exit through the rear of the hopper, front of the machine.

6. Electrical Interface

Failure to observe the interface requirements specified in this document may result in erroneous counts, incorrect payout rate, damage to the Hopper or cause unacceptable voltage drops affecting other units dependent upon that supply.

The supply wiring to the Hopper should be of sufficient current rating and run as a twisted pair (+24V and 0V) over a maximum length of 3 metres.

6.1 Interface

6.11 CONNECTIONS

Connection to the hopper will be made via a 25 way AMP Metrimate connector mounted on the front of the base. The pin-out is shown below.

6.12 CONNECTOR TYPE

AMP 25 way, Metrimate connector, type 211149-1 plus crimp pins type 2-66102-5 & 164161-3.

6.13 MATING CONNECTOR

AMP 211150-1 plus crimps sockets type 1-66105-9

6.14 PIN-OUT INFORMATION

PIN	SIGNAL	PIN	SIGNAL
1	Hopper Coin	14	N.C.
2	Motor On	15	N.C.
3	High Probe	16	N.C.
4	Hopper Test	17	N.C.
5	N.C.	18	N.C.
6	N.C.	19	N.C.
7	N.C.	20	N.C.
8	N.C.	21	N.C.
9	Earth	22	N.C.
10	0V	23	N.C.
11	N.C.	24	N.C.
12	24 Volts DC	25	N.C.
13	N.C.		

6.2   Operation

The hopper has a single operating mode. With power applied to the hopper, the motor will run and coins will be dispensed, only when the control input Motor On is set at 0V. The input has an internal pull-up resistor, so the default state is motor braked.

6.21   MOTOR CONTROL

The motor is controlled by a H-bridge circuit so that it can be run in both forward and reverse directions. Four outputs from the micro-controller will set the motor into one of three conditions -

Motor Condition	Motor +ve Terminal	Motor –ve Terminal
Stop / break	0 volts	0 volts
Forward	24 volts	0 volts
Reverse	0 volts	24 volts

All other conditions will be illegal.

6.22   MOTOR START-UP

The motor will be held in the stop/brake condition until the Hopper On is set at 0 Volts.
It will then be set to run in the forward direction providing that the light guide is not blocked. The motor will be stopped again as soon as the CTL1 input is returned to its default condition or if the light guide becomes blocked for more than 120ms.
The motor will be braked for 30ms and will then run in reverse for 100ms whenever the hopper is stopped so that coins will be drawn back away from the exit window. This feature is designed to prevent coins payout out if the hopper is stopped while paying out coins and a critical event occurs in the host machine.

6.23   COIN JAM DETECTION & CLEARING

The current being drawn by the motor will be monitored continuously while the motor is running, in order to detect if a jam has occurred. The readings will be disregarded for the first 50ms after the motor has been switched on. This is to prevent the initial current surge from being interpreted as a jam.

When the motor is running forward and the current has exceeded the jam threshold for at least 50ms, the controller will assume that a jam has occurred. The clearing sequence will be:-

> ➢   brake the motor for 50ms.
> ➢   run motor in reverse for 200ms.
> ➢   brake the motor for 50ms.

The motor will then resume running in the forward direction, assuming that the start-up conditions are still valid.

6.24   MOTOR PROTECTION

A thermal cut-out will be placed in series with the motor and will prevent damage to the hopper in the event of any over-current/over power condition.

6.25   COIN COUNTING

The light guide, LED's and photo-transistors, mounted at the coin exit, generate beams of light across the coin path. An exiting coin will break one or more of the light beams, causing a change in state of the photo-transistor output. The light beams will be positioned so that coins with holes can be counted correctly.

The "Hopper Coin" output will be generated by the micro-controller. The signal from the photo-transistors will be monitored and de-bounced continually by the controller. If no coins are exiting the hopper, the output transistor will be turned off. When a valid signal is detected from the photo-transistors, the output will be turned on. The output transistor will be held in it's active state on for a time, T_{min}, by the controller, i.e. if the actual coin exit time is less than T_{min}, the output pulse will be increased to T_{min}. If the actual time is greater than T_{min}, the output will be reduced to T_{min}. See section 10.24 for timing details.

6.26   LIGHT GUIDE BLOCKAGE

If the micro-controller detects that the light guide has remained blocked for more than 120ms, the motor will be stopped, or not started. The motor will not run again until the blockage has been cleared. This is a security feature to prevent frauding during payout.

6.27   OPTO TESTING

The "Hopper Test" input signal will be provided to allow the user to control the LED's and simulate an exiting coin. In this way, the host machine can check that the sensor is operating correctly prior to dispensing coins.

In normal operation, the test input will be held at 0 Volts and the LED's will be turned on. Providing that the test pulse is less than 3ms, the count outputs will be toggled for the same amount of time. If the test pulse is greater than 3ms then the count outputs will generate signals whose duration will be at least T_{min}.

6.28   COUNT ACCURACY

1 error in 100,000 coins

6.29   LEVEL SENSING

Each High Capacity bowl is fitted with four high level sensor plates and a round 0 volt plate. The level sense loom is fitted, by default, in the highest position and a customer may re-position the loom onto one of the lower plates, if required. An electrical connection between the plates, via the coins, will provide an indication of the number of coins in the hopper bowl.

6.3   Power Supply Requirements – See Section 10.2

6.31   DUTY CYCLE

The hopper is designed for intermittent operation only and must not be permitted to run continuously for longer than 60 seconds.

ON/OFF ratio: 1:1

The ON period must average no more than the previous OFF time. Failure of the host machine to limit the ON time can result in overheating and degradation of the motor.

7.   Maintenance Schedule

Table 1: Maintenance Schedule

Maintenance Schedule	
Every 50,000 to 100,000 depending on coin type.	Using a mild detergent on a damp cloth, clean the light guide. No spray solvents should be used.
Every 500,000 coins.	Replace ejector fingers and spring
Every 1,000,000 coins.	Replace adjuster plate
Expected product lifetime:	3 million coins with routine maintenance

7.1   Replacing Coin Ejector Fingers

The ejector fingers can be replaced very easily. The first step is to take the disc motor assembly out of the hopper base. Next remove the 4 screws on the underside of the disc motor assembly (see Figure 4). Removal of these screws will allow the two PCB covers to be prised apart. Care should be taken at this point as the spring that is connected to the ejector fingers may recoil.

The part number for the $1 Australian & $2 New Zealand ejector finger is PBL/494.

The part no. for the adjuster plate for the $1 AU and $2 NZ is PBL/465.

Figure 2: Screw Positions
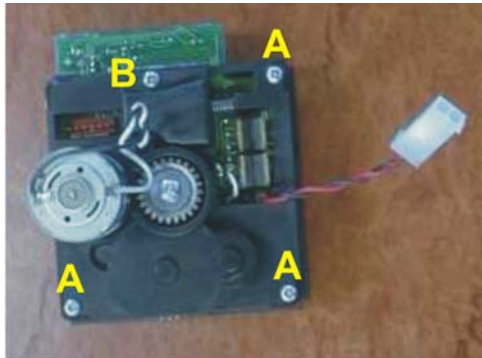
3 Screws "A" hold the PCB cover in place whilst screw "B" secures the ejector spring cover.

After replacing the ejector finger ensure that the closed loop end of the spring is located in the pin shown in Figure 5. Do not place the open end of the spring over the ejector fingers until the two halves have been bought together & at least one of the three PCB cover screws have been secured in place.

Figure 3: Disk Bed Dis-Assembled

Ejector Spring Securing Pin

PCB Cover
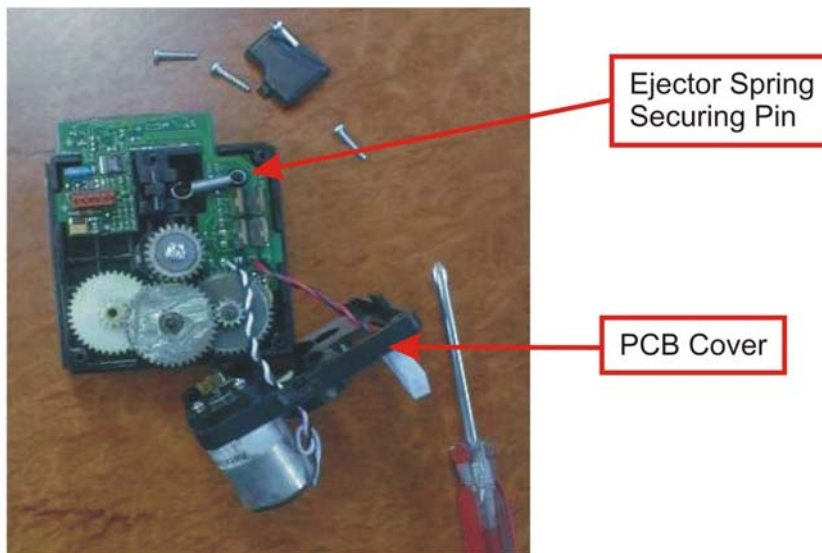
With the disc motor assembly back together use a pair of long nose pliers to place the open end of the spring onto the ejector fingers. Finally replace the ejector finger cover & screw, re-assemble the hopper & test.

7.2   Clearing a Coin Jam

1.   Remove all coins from bowl.

2.   Remove motor assembly from base as described in 4.1

3.   Clear the jammed coin / object by either:

    a)   Manually rotating the disc anti-clockwise then clockwise to release the object
    OR
    b)   Push the coin back in using the edge of a similar coin.

Note:- Common cause is damaged or bent coins. Do not return these to the bowl.

4.   Remove any debris from the disc bed assembly.

5.   Clean the exit window opto with a clean, dry cloth.

6.   Re-assemble, as described in section 4.3

7.   Re-fill and test the hopper.

8.   Fault Finding and Repair

8.1   Test Equipment

General purpose test equipment (meter etc) is all that is required for on-site diagnosis of Cyclone High Capacity failures.

8.2   Coins Fail to Un-jam

> ➢   Ensure coin exit is clear.
> ➢   Ensure no incorrect coins in hopper.
> ➢   Ensure no badly bent coins in hopper.

8.3   Motor Fails to Run

> ➢   Check supply fuse.
> ➢   Protection device tripped?
> ➢   Wait 30 seconds with supply OFF.

8.4   Over Payout of Coins

> ➢   Check opto area/coin exit area for dirt.
> ➢   Incorrect exit monitoring by the host machine.
> ➢   Incorrect exit output debouncing by the host machine.
> ➢   Late power down by the host machine once the correct coin output count has been reached.

8.5   Under Payout of Coins

> ➢   Ensure hopper contains sufficient coins.
> ➢   Incorrect exit monitoring by the host machine.
> ➢   Incorrect exit output debouncing by the host machine.
> ➢   Poor connection to hopper.

9.   Field Adjustment

None required.

10. Specification

10.1 Dimensions

	High Capacity	**Mid Capacity**
Height:	267.5 +/- 2 mm	269.7 +/- 2 mm
Width:	300 +/- 2 mm	204 +/- 2 mm
Depth:	323.6 +/- 2 mm	278.5 +/- 2 mm

10.2 Power Requirements

MCL recommend a 24V, 2A power supply.

Table 2: Electrical Specification

Electrical Specification	
Supply Voltage	+24V
Absolute Maximum	+27V
Minimum	+18V
Ripple	± 1.0V
Typical Operating Current/No Load	0.15A
Typical Operating Current/Max Load	0.70A
Surge Current/Start Up and Reverse $^\#$	2.0A
Opto supply current	25mA
The supply must be able to maintain V within the above limits while switching from no load to delivering *A into a non-inductive load.	*2A
Fuse size (anti-surge / delay)	2A

Warning:- The Hopper must not be operated outside these limits.

$^\#$ Motor start up and reversing surge current may reach 5000mA for 5ms falling to 3000mA for 30ms before settling to consumption as defined above after 200ms.

10.21 HOPPER COIN

	Condition	Maximum
Open Collector Transistor, Active Low	Coin present, voltage.	0.8V DC
	Coin present, current.	30 mA
	No coin, voltage.	30V DC

10.22 MOTOR ON

	Condition	Status
Open Collector Transistor driven Input	Inactive, motor stopped	Internal Pull-up to Supply Voltage via 22K resistor
	Active, motor running	Open Collector Active Low

10.23 HOPPER TEST

	Condition	Status
Open Collector Transistor driven Input	Inactive, opto off	Internal Pull-up to Supply Voltage via 1K2 resistor
	Active, opto on	Open Collector Active Low

10.24 SIGNAL TIMINGS

Count output PW, T_{min}	40ms **(FIXED)**
Count output PW, T_{max}	If blocked for more than 120ms then an alarm pulse of 500ms **MIN** is generated. The output will then remain ON until the blockage is removed.
Input debounce time (CTL1, Photo-transistor)	1ms

10.3 Environment

10.31 TEMPERATURE

Storage temperature:	-20°C to +70°C
Operating temperature:	0°C to +50°C

10.32 HUMIDITY

Storage humidity:	10% to 95% RH non-condensing
Operating humidity:	10% to 75% RH

10.33 LIFE

Life: 3 millions coins, with routine maintenance
        Warranty period 1 year

10.34 GENERAL

Ensure coins can always move freely away from the exit.

10.35 STATIC

It is possible for coins paid out by the hopper to have a static charge on them. It is desirable that coins are discharged to earth before being presented to the user.

10.36 EXPLOSIVE ATMOSPHERE

The hopper should not be operated in an explosive atmosphere.

10.37 AUDIBLE NOISE

Audible noise generated by an empty hopper is typically 80-85 dBs at 1m.

11. Dimensions

Figure 4: High Capacity Hopper Dimensions

NOTES

1. CONNECTOR TYPE: AMP METRIMATE CONNECTOR 21149-1 [25 PIN]

AMP. PIN No.	FUNCTION	WIRE COLOUR
1	HOPPER COIN	BLUE
2	MOTOR ON	RED
3	HI PROBE	VIOLET
4	HOPPER TEST	WHITE
5	-	-
6	-	-
7	-	-
8	-	-
9	EARTH	GREEN/YELLOW
10	0V	BLACK
11	-	-
12	24V DC	RED
13	-	-
14	-	-
15	-	-
16	-	-
17	-	-
18	-	-
19	-	-
20	-	-
21	-	-
22	-	-
23	-	-
24	-	-
25	-	-

2. FASTENERS, WIRE HARNESSES AND BOWL LEVEL SENSING EQUIPMENT OMITTED FOR CLARITY.

3. THIS DRAWING IS FOR REFERENCE PURPOSES ONLY.

4. THIS PRODUCT IS SUITABLE FOR INDOOR USE ONLY.

LEVEL SENSE PLATES

285.50 ±0.20

HOPPER BED [COIN DEPENDENT]

300.0 ±2.00

261.00±2.00

27.50±0.30

41.25

57.30

323.62

COIN EXIT CHUTE

221.00

96.24

41.00 ±1.00

EARTH GROUND SECURELY FASTENED TO BASEPLATE AT THIS POINT.

186.50 ±0.30

187.70

84.92

267.50 ±2.00

221.00 ±2.00

Cyclone HC

LABEL TO BE FIXED ON THE BASE HERE. THE FOLLOWING INFORMATION TO BE CLEARLY MARKED ON:- MODEL No, SERIAL No, DENOMINATION AND VOLTAGE REQUIREMENTS

HANDLE

HOPPER FIXING LATCH
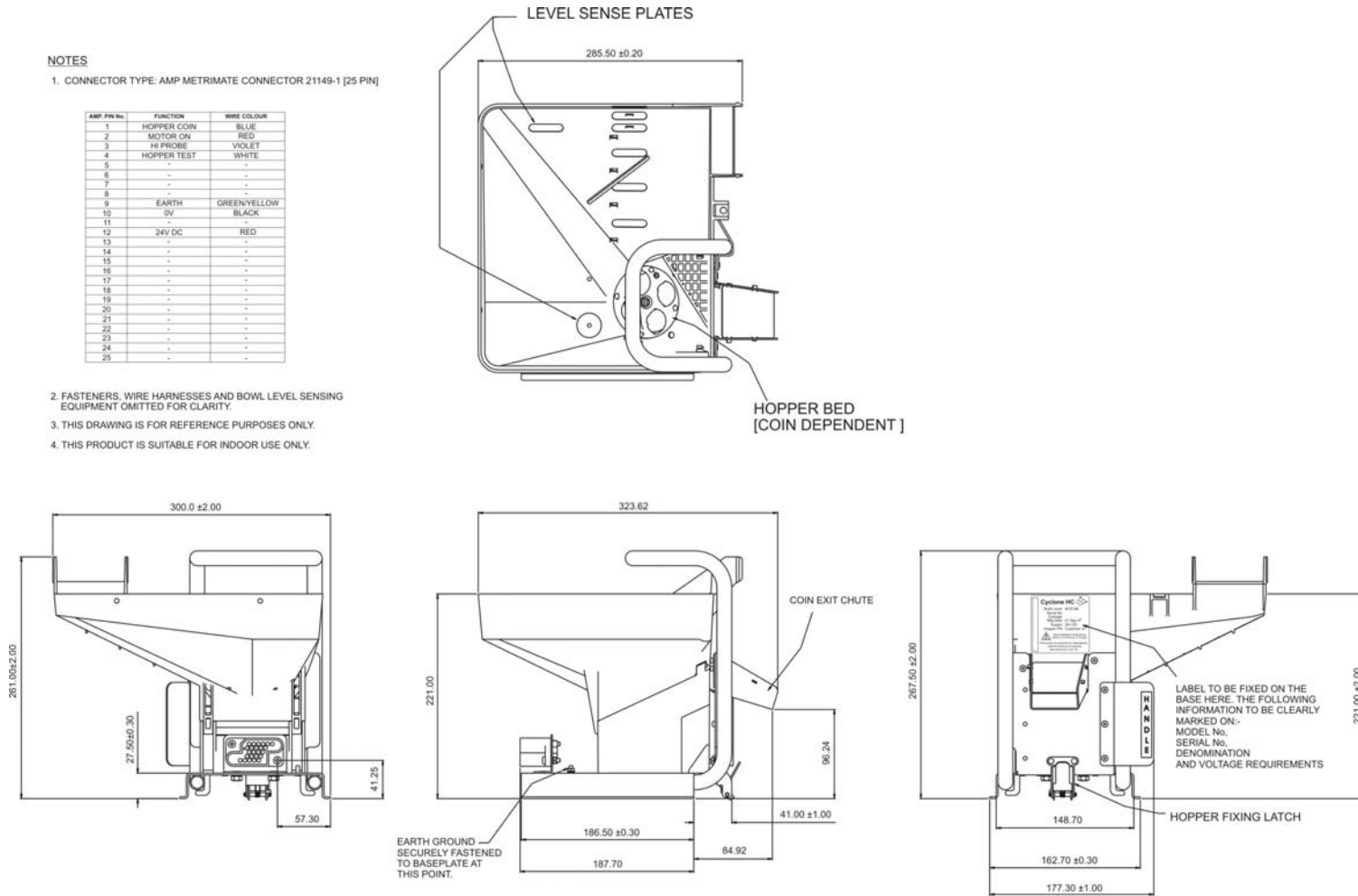
148.70

162.70 ±0.30

177.30 ±1.00

Figure 5: Mid Capacity Hopper Dimensions

NOTES

1. CONNECTOR TYPE: AMP METRIMATE CONNECTOR 21149-1 [25 PIN]

AMP. PIN No.	FUNCTION	WIRE COLOUR
1	HOPPER COIN	BLUE
2	MOTOR ON	RED
3	HI PROBE	VIOLET
4	HOPPER TEST	WHITE
5	-	-
6	-	-
7	-	-
8	-	-
9	EARTH	GREEN/YELLOW
10	0V	BLACK
11	-	-
12	24V DC	RED
13	-	-
14	-	-
15	-	-
16	-	-
17	-	-
18	-	-
19	-	-
20	-	-
21	-	-
22	-	-
23	-	-
24	-	-
25	-	-

2. FASTENERS, WIRE HARNESSES AND BOWL LEVEL SENSING EQUIPMENT OMITTED FOR CLARITY.

3. THIS DRAWING IS FOR REFERENCE PURPOSES ONLY.

4. THIS PRODUCT IS SUITABLE FOR INDOOR USE ONLY.

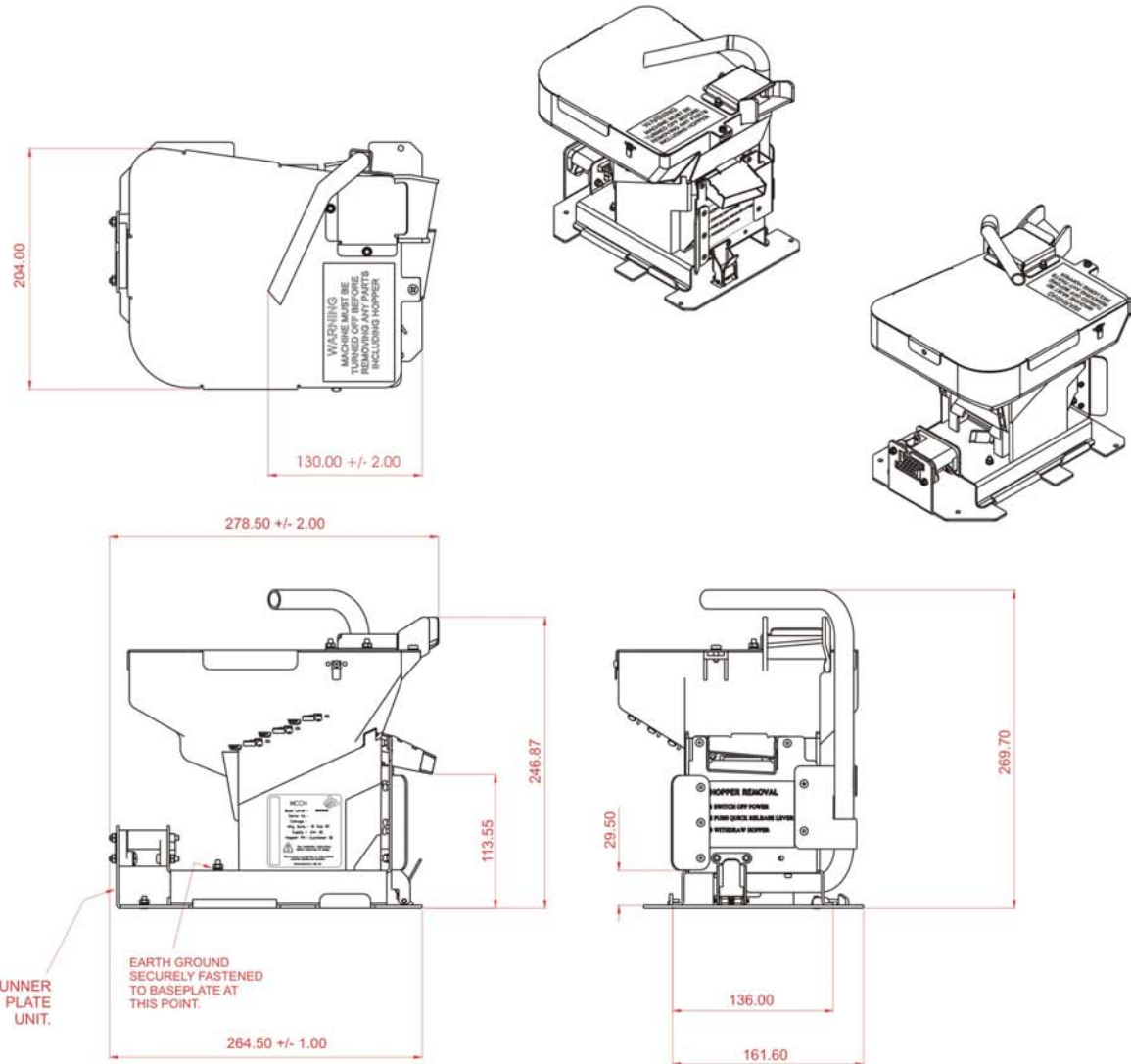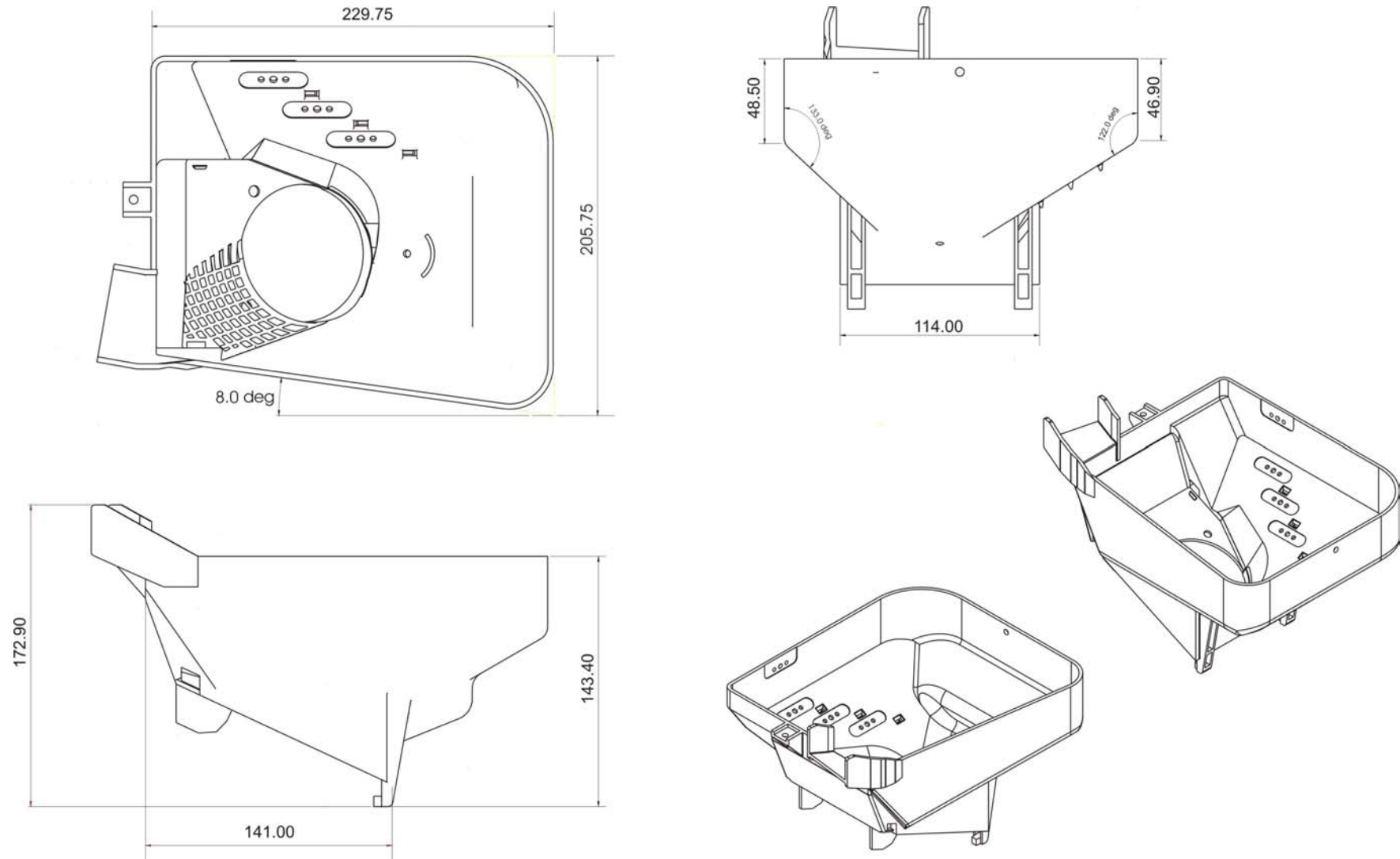*Figure 6: Mid Capacity Bowl Dimensions*

Table 3: Coin Label v Coin Size

CONFIG No: High Capacity	CONFIG No: Mid Capacity	Coinage Label	MARKETS	Coin Denom.	COINS SIZES (Thickness x Diameter)	Disc	Fingers	Adjuster	Conversion Kit	Disc Colour	I.D.Pip
HCCHCN 1A00002 (was HCCHCN 1A00001)	MCCHCN 1A00001	A	NZ - CASINOS	NZ$2	2.65 x 26.55mm	SCCHCN 1A00001	SCCHCN 1A00002	SCCHCN 1A00003	KCCHCN 1A00002	Brown	
			AUSTRALIA CASINO	$1	2.65 x 24.95mm						
			STH AFRICA CASINOS	5 Rand coin - new	2.70 x 26.0mm						
HCCHCN 1B00002 (was HCCHCN 1B00001)	MCCHCN 1B00001	B	STH AFRICA CASINOS	50c coin	2.00 x 22.0mm	SCCHCN 1B00001	SCCHCN 1B00002	SCCHCN 1B00003	KCCHCN 1B00002	Blue	Red
			STH AFRICA CASINOS	1 Rand coin	1.85 x 20.0mm						
			STH AFRICA CASINOS	2 Rand coin	1.78 x 22.1mm						
			STH AFRICA CASINOS	25c MCS token	1.85 x 20.0mm						
			STH AFRICA CASINOS	50c MCS token	2.06 x 21.95mm						
			EUROPE - GENERAL	20c Euro coin	2.14 x 22.25mm						
			Slovenia - Hit Casino	Slovenia - Hit Casino	1.90 x 21.2 mm						
			ASIA - SINGAPORE	20c coin	1.72 x 21.4mm						
			ASIA - SINGAPORE	$1 coin	2.32 x 22.36mm						
			ASIA - CAMBODIA	US 20c Tkn	2.25 x 22.25mm						
			ARGENTINA	1 Peso coin	2.10 x 23.0mm						
HCCHCN 1C00002 (was HCCHCN 1C00001)	MCCHCN 1C00001	C	STH AFRICA CASINOS	R2 MCS token	2.60 x 23.0mm	SCCHCN 1C00001	SCCHCN 1C00002	SCCHCN 1C00003	KCCHCN 1C00002	Yellow	Purple
			EUROPE - UK	1 Pound Sterling	3.10 x 22.4 mm						
			Gibraltar - Int'l Casino	1 Pound	3.10 x 22.4 mm						
			Genting Casino	1 Ringgit	2.64 x 24.55mm						

CONFIG No:		Coinage Label	MARKETS	Coin Denom.	COINS SIZES (Thickness x Diameter)	Disc	Fingers	Adjuster	Conversion Kit	Disc Colour	I.D.Pip
High Capacity	Mid Capacity										
HCCHCN 1D00003 (was HCCHCN 1D00001)	**MCCHCN 1D00001**	D	STH AFRICA CASINOS	R5 MCS token	2.45 x 26.0mm	SCCHCN 1D00001	SCCHCN 1D00002	SCCHCN 1D00003	KCCHCN 1D00002	Blue	Orange
			EUROPE - GENERAL	50c Euro coin	2.38 x 24.25mm						
			EUROPE - GENERAL	1 Euro coin	2.33 x 23.25mm						
			EUROPE - GENERAL	2 Euro coin	2.20 x 25.75mm						
			EUROPE - GENERAL	50c German Bar tkn	2.45 x 23.50mm						
			ASIA - THAILAND	10 Baht coin	2.20 x 26.00mm						
			ASIA - PHILLIPINES Six In One	10 Pesos Token	2.32 x 24.9mm						
HCCHCN 1E00002 (was HCCHCN 1E00001)	**MCCHCN 1E00001**	E	STH AFRICA CASINOS	1 Rand token - M.C.	2.10 x 24.0mm	SCCHCN 1E00001	SCCHCN 1E00002	SCCHCN 1E00003	KCCHCN 1E00002	Orange	Red
			STH AFRICA CASINOS	R5 coin - old	1.70 x 26.0mm						
			STH AFRICA CASINOS	1R Golden Horse Tkn	2.00 x 24.0mm						
			EUROPE - Croatia	2 Kuna coin	1.80 x 24.4mm						
			EUROPE - HOLLAND	50c Euro bar token	1.90 x 25mm						
			ASIA - SINGAPORE	50c coin	2.05 x 24.6mm						
			ASIA - S. KOREA	100 Won	1.70 x 24.0mm						
			ASIA - S. KOREA	500 Won	1.95 x 26.5 mm						
			ASIA - PHILLIPINES	10 Piso coin	2.25 x 26.5mm						
			KAZAKHSTAN	100Tenge	1.80 x 24.5mm						
			ASIA - HK/MACAU	Sands HK $5 token	1.65 x 22.9mm						
			ASIA- MACAU	1 Pataca	2.25 x 25.95mm						
			ASIA - CAMBODIA	10 Baht token	1.70 x 25.0mm						
			ASIA - VIETNAM	$1 token	1.65 x 25.0mm						
				Carnival Cruise US $1 Tkn	1.60 x 25.0mm						
			STAR CRUISE	HK Token Sing$1	2.00 x 25.0 mm						
			PERU	1 Sol coin	1.80 x 25.5mm						

CONFIG No:		Coinage Label	MARKETS	Coin Denom.	COINS SIZES Thickness x Diameter)	Disc	Fingers	Adjuster	Conversion Kit	Disc Colour	I.D.Pip
High Capacity	Mid Capacity										
HCCHCN 1H00002 (was HCCHCN 1H00001)	MCCHCN 1H00001	H	STH AFRICA CASINOS	20c coin	1.66 x 19.0mm	SCCHCN 1H00001	SCCHCN 1H00002	SCCHCN 1H00003	KCCHCN 1H00002	Grey	Purple
			EUROPE - GENERAL	10c Euro coin	1.90 x 19.75mm						
HCCHCN 1J00002 (was HCCHCN 1J00001)	MCCHCN 1J00001	J	EUROPE - GENERAL	1E German Bar tkn	2.80 x 26.75mm	SCCHCN 1J00001	SCCHCN 1J00002	SCCHCN 1J00003	KCCHCN 1J00002	Navy Blue	Green
			ASIA - HK/MACAU	HK$5.00	3.23 x 27.0mm						
HCCHCN 1K00002 (was HCCHCN 1K00001)	MCCHCN 1K00001	K	STH AFRICA CASINOS	R1 SI token	2.20 x 27.9mm	SCCHCN 1K00001	SCCHCN 1K00002	SCCHCN 1K00003	KCCHCN 1K00002	Navy Blue	Blue
			STH AFRICA CASINOS	R10 MCS token	2.35 x 28.5mm						
			EUROPE - HOLLAND	1E Euro bar token	2.10 x 29mm						
			EUROPE - UK	£2	2.60 x 28.4mm						
			ASIA - PHILLIPINES PAGCOR	10 Pesos Token	2.30 x 28.7mm						
HCCHCN 1L00001	MCCHCN 1L00001	L	EUROPE - Swiss	1 Franc coin	1.50 x 23.15mm				KCCHCN 1L00002	Blue	Black
			EUROPE - Croatia	1 Kuna coin	1.70 x 22.5mm						
HCCHCN 1M00001		M	US CASINOS	50c coin	2.20 x 30.6mm						
				Flamingo token	2.00 x 30.0mm						
	MCCHCN 1X00001	X	US CASINOS	$1 US TOKEN	2.60 x 37.25mm	SCCHCN XX00013	SCCHCN XX00014	SCCHCN XX00012	KCCHCN 2X00001		
	MCCHCN 1Y00001	Y	US CASINOS	$5 US TOKEN	3.25 x 44.35mm	SCCHCN XX00013	SCCHCN XX00015	SCCHCN XX00012	KCCHCN 2Y00001		
			US CASINOS	$10 US TOKEN	3.50 x 43.2 mm						

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