

# CG68

## MULTI HOPPER NOTE CHANGER



### Operators Manual (Manual – A)

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# A1 Scope

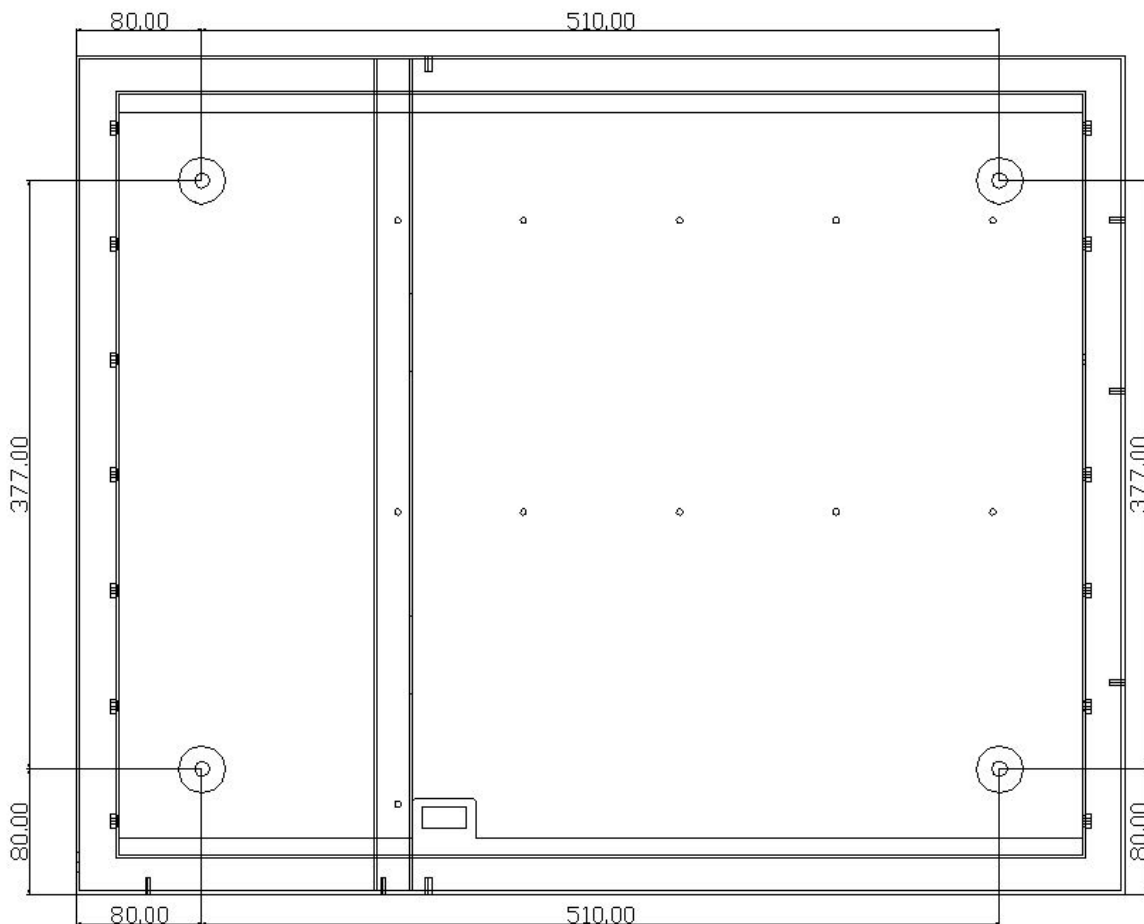
This manual (Manual-A) describes the mechanical details, user functions and operations specific to the CG68 Multi Hopper Note Changer. This machines is fitted with the A47-026 logic board and so this manual should be read in conjunction with the A47-026 logic board manual (Manual-B) to gain details of the operation of the software and programming.

# A2 Specifications

Height : 537mm  
Width : 670mm  
Depth : 260mm

Capacity: 8 x 500 approx (depends on size of coin)  
Weight (Empty): 42.5 Kg  
Power Requirements: 110-240v, 1A, 50-60 Hz

Mounting Dimensions:



# A3 Installation

## 3.1 Unpacking and inspection

The CG68 is supplied protected for transport and should be carefully removed from its packaging and inspected. A small plastic bag containing two keys and this manual should be found within the packaging. All the packaging should be kept in case it is necessary to return the machine for service. Packing material is used inside the CG68 to protect the internal parts during transport. Ensure that all this material is removed.

## 3.2 Opening and Closing the Door

To access the internal parts of the machine the doors must be opened in the following way:

- 1 Insert the supplied key into one of the locks and turn the key one quarter turn **anti-clockwise** to release the lock. Remove the key.
- 2 Insert the key into the other the lock and turn the key one quarter turn **anti-clockwise** to release the lock. Remove the key.
- 3 Once the right hand door is swung open, it is possible to open the left hand door to access the note, the logic board, and the cash box.
- 4 To close the door, ensure that the left hand door is fully closed and then swing the right hand door to the closed position.

## 3.3 Installation

When choosing a location for the CG68 it is important to remember that, when full, it can weigh in excess of 60 kg. Care should be taken that the walls and mounting points are robust enough to support the weight. All installations will be different and this manual can only give general guidance.

- 1) Open the CG68 and remove the cash bin and a couple of the hoppers from the right hind side on the top shelf of the machine in order to expose the mounting holes at the back of the cabinet.
- 2) Mark out and drill holes suitable for M10 bolts as shown in the diagram. Use rawlbolts designed for the task for solid masonry and suitable fixings for other surfaces.
- 3) Support the CG68 during the mounting process using M10 bolts at each mounting location.
- 4) Ensure that the cabinet is secure and remove any brick dust or other contamination that entered the cabinet during installation. Then refit the cash boxes.

## 3.4 Electrical Connections

After installation in the UK the CG68 should be fitted with a standard BS1363 plug fused at 3 Amps using the following wiring colours:

- Brown - to the terminal marked L or Live or coloured Red
- Blue - to the terminal marked N or Neutral or coloured Black
- Yellow/Green - to the terminal marked  $\perp$  or E or Earth or coloured Green

**This equipment must be earthed**

In other countries local rules should be observed.

## 3.5 Initial test of machine

After installation and connection of the CG68 to mains power (but before switching the power on) proceed as follows:

- 1) Open the door and perform a visual check of the internal parts, check the hoppers are fully home and the note box is in position. Ensure that no foreign bodies or packing material are present.
- 2) Switch on the mains power to the CG68.
- 3) Noises should be heard from the Note Validator as it tests itself. The main display will cycle through its test sequence and after a few moments the machine will go silent. The main display will show **Pro** → **1641** to indicate that the door is open. 1641 is an example software program number and may differ for different machines. The A47 control board has 4 red LEDs on it. The 05v, 12v & 24v should illuminate.
- 4) Fill the hoppers as detailed in the relevant section of this manual and close the door.
- 5) The display will show **0000** (or local variations) and the note path entrance will illuminate. If the machine is fitted with a real-time clock and the clock display is enabled then the time in hours and minutes will appear on the display. It is now ready for use.
- 6) Confirm the payout settings, operating mode and currency selections are correct by testing the CG68 with a range of different notes. Confirm that the payouts are as required.

# A4 Anatomy of the Machine

The CG68 is divided internally into three regions:

1) Door Electronics Region

The inside surface of the left door is where main logic board, display and the Note Validator are mounted.

2) Hoppers

The Hoppers are mounted onto the two shelves mounted to the back of the cabinet.. Behind the hoppers is a control board for each hopper and above each hoppers is a counter to display the number of coins paid.

3) Power Supply Unit

The Power Supply Unit is fitted in the bottom of the machine underneath the note bin..

## 4.1 Door Electronics Region



The CG68 is fitted with a mechanical note meter situated below the main logic board.

The Note Validator is at the top of the door.

The White, Red and Black Programming Buttons can be clearly seen on the Display board which is above the main logic board.

## 4.2 Hoppers



The hoppers are divided into two shelves of four hoppers

## 4.3 Power Supply Unit



The Image shows the Power Supply Unit underneath the note bin with the door switch in the foreground.

# A5 Normal Operations

The CG68 needs no special servicing or maintenance. It may be switched off and on whenever necessary and will retain all settings and configuration. If power is removed during a payout that payout will not be restarted when the power is reconnected.

The operator controls the functions of the CG68 through the buttons mounted on the display board that is located on the inside of the door. Using these buttons the operator can:

- 1) Change the currency setting to enable different currencies to be accepted. Note that the Note Validator may need to be reprogrammed separately in order for it to accept other currencies;
- 2) Test the Note Validator;
- 3) Change the way notes are accepted and routed within the machine;
- 4) Test and configure the Hoppers;
- 5) Determine the cause of machine faults;
- 6) Change the payments system to alter the coins that are paid out;
- 7) Read and reset audits;
- 8) Control the machine environment.

The CG68 is fully programmable on site and gives the operator considerable flexibility in setting how many coins will be paid out under different circumstances. Details of all programming and control functions are given in the A47-026 logic board manual (Manual-B).

# A6 Hopper Low Detection

The CG68 can be set up either to shut a hopper down once the coins get below a certain level or carry on running until the hopper eventually times out.

This is controlled by pole 6 on the 6 way dip switch on the hopper controller board mounted behind the hopper.

With pole 6 on, the hopper low detection is disabled and the hopper will run until its completely empty. If this happens during a payout the machine will run the hopper for 15 seconds and then disable the hopper and transfer the value back to the machine so it can be paid from another hopper. The hopper will stay disabled until the machine is opened, the error cleared and the hopper filled up with coins.

With pole 6 off, the hopper low detection is enabled and the machine will automatically disable the hopper when the coins are not in contact with the hopper low plates. The hopper will stay disabled until the machine is opened, the error cleared and the hopper filled up with coins.

# A7 Filling Hoppers

The hoppers used in the CG68 use two metal plates in the bowl of the hopper to detect the presence of coins.

Be certain that the correct coins are being used to fill the hopper. The CG68 will pay out correctly only if the hopper contains the correct coins. If the hopper is being filled from bagged coins it is vital that no bags fall into the hopper. The CG68 cannot protect itself against objects placed inside the hopper that will jam the mechanism

If the CG68 has stopped during a payout and indicated a hopper-timeout (error codes 13, through to 83) or hopper low (error codes 12 through to 82) error **DO NOT TURN THE POWER OFF**. If the CG68 has indicated a hoppers low error at switch on, or some other time when no payout is in progress, or if the hoppers are being topped up without being empty first then it is recommended that the power be switched off before filling.

To refill a hopper during a payout proceed as follows:

- 1) Unlock and open the right hand door of the machine.
- 2) Place a few coins in the hopper to complete the payout without removing it
- 3) Record the coin counts shown on each of the meters above the hopper for auditing purposes.
- 4) The A47-026D logic board used in the CG68 records audits electronically. If audits are being maintained then follow the instructions given in the section “Filling the Dispensers” in the Manual B that accompanies this manual.
- 5) When the door is closed any partial payout will be completed and the CG68 is ready for use.

To refill a hopper when the machine is idle proceed as follows:

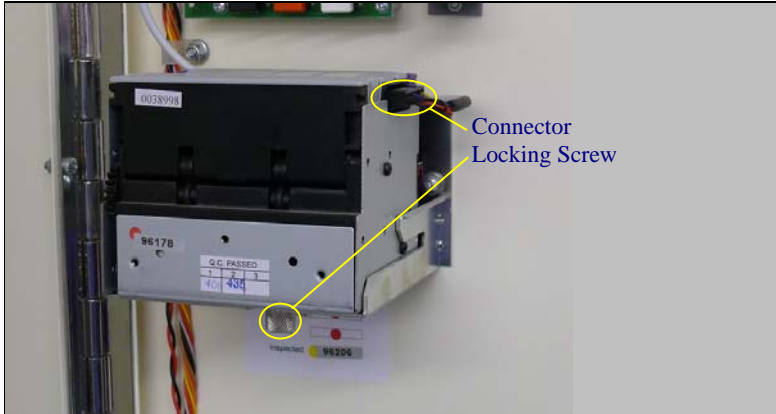
- 1) Switch off the power to the machine
- 2) Unlock and open the right hand door of the machine.
- 3) Locate the locking lever in the bottom right corner of the hopper and pull the hopper forward.
- 4) Either slide the hopper right out and fill the hopper up on the bench or carefully pull the hopper out  $\frac{3}{4}$  of the way and fill up.
- 5) Push the hoppers home and make sure the locking lever ‘clicks’ back in.
- 6) Record the coin counts shown on each of the meters above the hopper for auditing purposes.
- 7) Shut and lock the machine and power it back on.



# A8 Note Acceptor Maintenance

The CG68 will be fitted with an Astro-Systems GBA note acceptor.

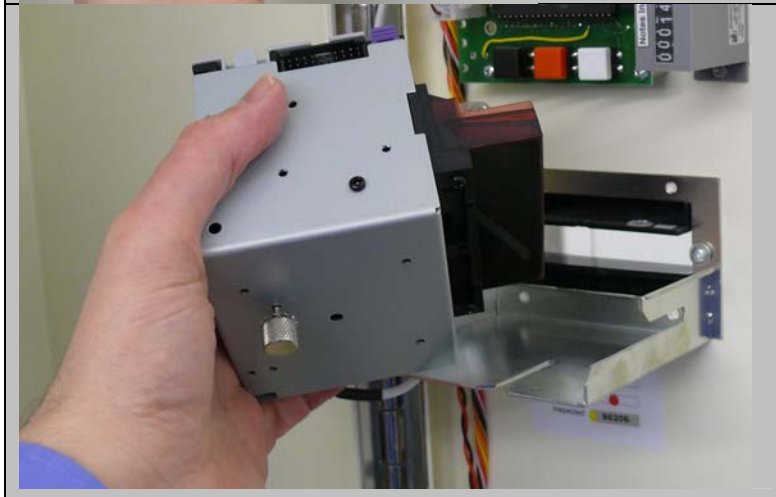
The pictures below show a GBA note acceptor mounted in a machine that may not exactly match with the look of the CG68. The pictures should be treated as a general guide.



This picture shows a GBA note acceptor in position on a machine. Before removing the acceptor, switch the mains power off at the machine's main switch and unplug the note acceptor's connecting cable.


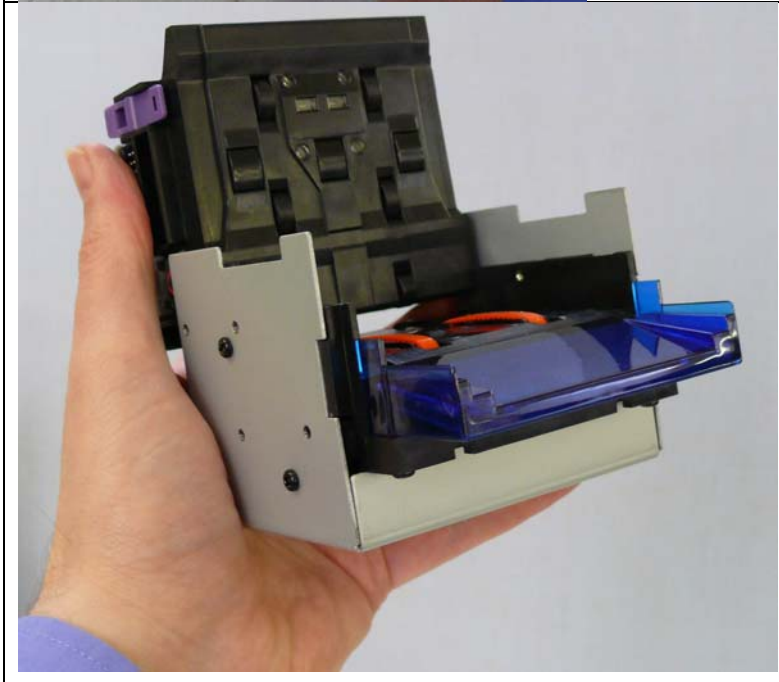


To remove the acceptor turn the Locking Screw a couple of turns anti-clockwise to release it. Do not attempt to completely unscrew the Locking Screw.



The GBA validator slides off its mounting plate.

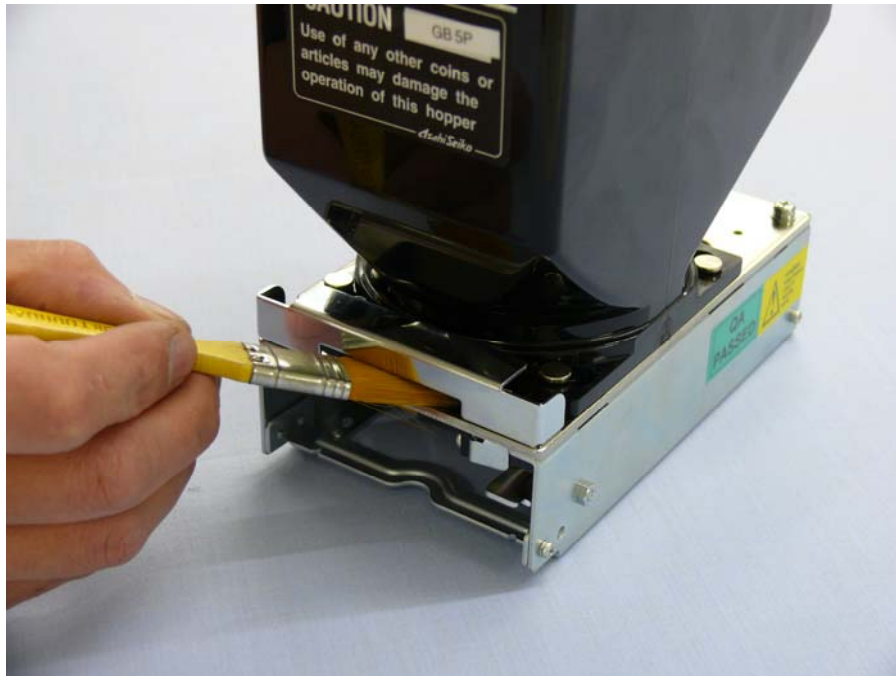
It will sometimes be necessary to clean the note path within the GBA note acceptor. Access to the note path is easily gained after the acceptor has been removed from the machine. Liquids should not be used when cleaning the note path. A dry cloth or blower brush can be used to remove dust and deposits. If the note path parts are damaged or scratched then the acceptor should be returned for service.

	<p>Locate the two purple coloured release buttons and press them together as indicated in the picture.</p>
	<p>The GBA hinges open along its back edge to reveal the note path.</p>

# A9 Hopper Maintenance

The CG68 will be fitted with an Asahi Sekio SA595 Disc Hopper

The Hopper needs no special servicing but depending on the use the output sensor and the coin disc may benefit from cleaning once in a while. This can be done with a small soft paint brush just to remove the dust.



To remove the hopper bowl push down on the locking pin and twist in a clockwise direction and then lift upwards. Carefully remove it from the base as the hopper low & high signal wires are attached to the back. Clean again with a soft paint brush.

