

1. PREPARATORY OPERATIONS

- Before installing the software and the drivers for the programming interface, verify that your PC must have the Framework 3.5 from Microsoft. If not, download it from the web.
- If your PC does not contain the drivers for the programming interface (file "Driver Silicon Labs"), please download them: they are supplied with the CD- software provided with the programming Kit, or it is available in the Download Area of our web site www.alberici.net, under 'Programming Kit' / 'Drivers universal kit'.
- Download the "Programming sw 66 v. 2.zip" package from the Download section of any of the following pages: 'https://www.alberici.it/eng/products/coin-acceptors/electronic/al66-fg' or of 'https://www.alberici.it/eng/products/coin-acceptors/electronic/al66'
- Unzip the directory "Programming sw 66 v. 2.zip" on your PC, then extract the application file "AlbericiCoinSelector.exe" and its initialization file "Config.ini".



Any of the following two interface tools can be used:

- a) if updating on the machine, the grey USB Pendrive with its 4p/4p cable (cod. no. K-P2C-000003) is the handiest solution; or else
- b) if updating the validator on a working bench, the Universal programming kit (code no. K-P10-000009) will prove to be most convenient.

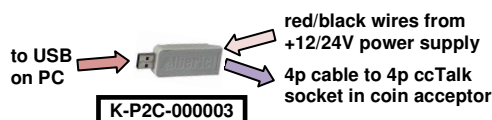


If the USB pendrive is used, go to A) UPDATE BY USB PENDRIVE.

If the Universal kit is used, go to B) UPDATE BY UNIVERSAL PROGRAMMING KIT.

A) UPDATE BY USB PENDRIVE

A1- Insert the Pendrive on a USB port of the PC, and fit the cable 4p/4p to the 4p cctalk socket of the coin acceptor.



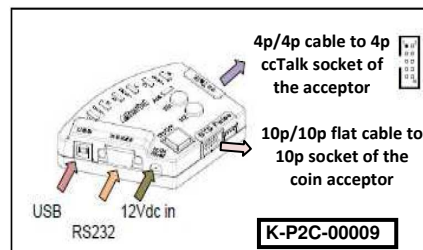
A2- Check the COM port to which the PC detects the Pendrive (check your PC: Control Panel / Device Manager); in case, the correct port number must be entered by the Settings menu.

B) UPDATE BY UNIVERSAL PROGRAMMING KIT

B1- Connect the power supply box to the 24Vdc input on the slant side of the programmer box.



B2- Connect the USB cable between the PC and the USB-A slot on the slant side of the programmer box, or else connect the RS232 cable between the PC and the socket located on the slant side of the programmer box.



B3- Record the positions of the Dip-Switches in the acceptor. Then move all Dip-Switches to OFF.

B4- Connect the 10p/10p cable between the 10p socket of the coin acceptor and the 10p connector on the Pulse side of the programmer box. Also connect the 4p/4p cable between the 4p socket on the cctalk side and the 4p cctalk socket of the coin acceptor.

B5- Make sure that the set COM Port is the one where the PC detects the programming interface (check Control Panel / Device Management on your PC); if necessary, change the setting to the correct Port no.

B6- Turn power on in the programming box (press green switch).

2. SETTING THE DIP SWITCH ROWS

The AL66 v. 2 and the FG acceptors incorporate two Dip-Switch Rows: SW1, by which programmed denominations can be disabled, and SW2, by which a variety of functions can be set. The AL55 v. 2 incorporates only SW1.

Explanation of available functions is given here and in chapter 6. MANUAL PROGRAMMING PROCEDURE.

Row SW 1

The Dip Switches in this row can be used to disable the acceptance of the denominations programmed in the first 6 channel(s). The Dip-Switch 1 of row SW1 must be set to ON to accept the denomination programmed in channel 1; it must be set to OFF to reject it. Same as with the other Dip-Switches of Row SW1.

SW1 Dip-Switch Row	DS1	DS2	DS3	DS4	DS5	DS6
ON	Enable CH1	Enable CH2	Enable CH3	Enable CH4	Enable CH5	Enable CH6
OFF	Disable CH1	Disable CH2	Disable CH3	Disable CH4	Disable CH5	Disable CH6

NOTICE : if a token or different mint has been programmed in a channel from 7 to 16, with the same value as one of the denominations programmed in channels 1-6, such token/mint parameters will not be overwritten and the piece will still be accepted.

Row SW 2

DS1 & DS2: allow to set the communication protocol

- SW1 = OFF, DS2 = OFF > PULSE
- SW1 = ON, DS2 = OFF > CCTALK
- SW1 = OFF, DS2 = ON > MDB [to come]
- SW1 = ON, DS2 = ON > SAS [to come]

DS3

- DS3 = OFF > Multi-pulse totalizer, OUTPUT as per programmed setting (ex. OUT 7)
- DS3 = ON > Multi-pulse totalizer on OUTPUT 3

DS4 & DS5: allows to multiply/divide the totalizer credit value

- DS4 = OFF, DS5 = OFF > multiplies by 1
- DS4 = OFF, DS5 = ON > multiplies by 2
- DS4 = ON, DS5 = OFF > multiplies by 4
- DS4 = ON, DS5 = ON > divides by 10

DS6

- DS6 = ON HIGH Discrimination
- DS6 = OFF STANDARD Discrimination

SW2 Dip-Switch Row	DS2 OFF	DS2 ON	DS4 OFF	DS4 ON	
DS1 OFF	PULSE	MDB			
DS1 ON	CCTALK	SAS			
DS3 OFF					Multi-pulse totalizer, OUTPUT as per programmed setting
DS3 ON					Multi-pulse totalizer on OUTPUT 3
DS5 OFF			x 1	x 4	
DS5 ON			x 2	: 10	
DS6 OFF					STANDARD Discrimination (L / SLC)
DS6 ON					HIGH Discrimination (H / SLC)

Notice: the functions allowed by the SW2 Row are not available in the AL55 coin acceptor, because this one is provided with the SW1 row only. Switch between Pulse mode and ccTalk mode in AL55 can be made only by PC and programming tool/sw (see section 3.3).

MANUAL PROGRAMMING OF COINS: it is also possible to program new coins in the already programmed channels by using the on-board Dip-Switches. See section 6.1 *MANUAL AUTO-PROGRAMMING INSTRUCTIONS*.

3. USING THE PROGRAMMING SOFTWARE

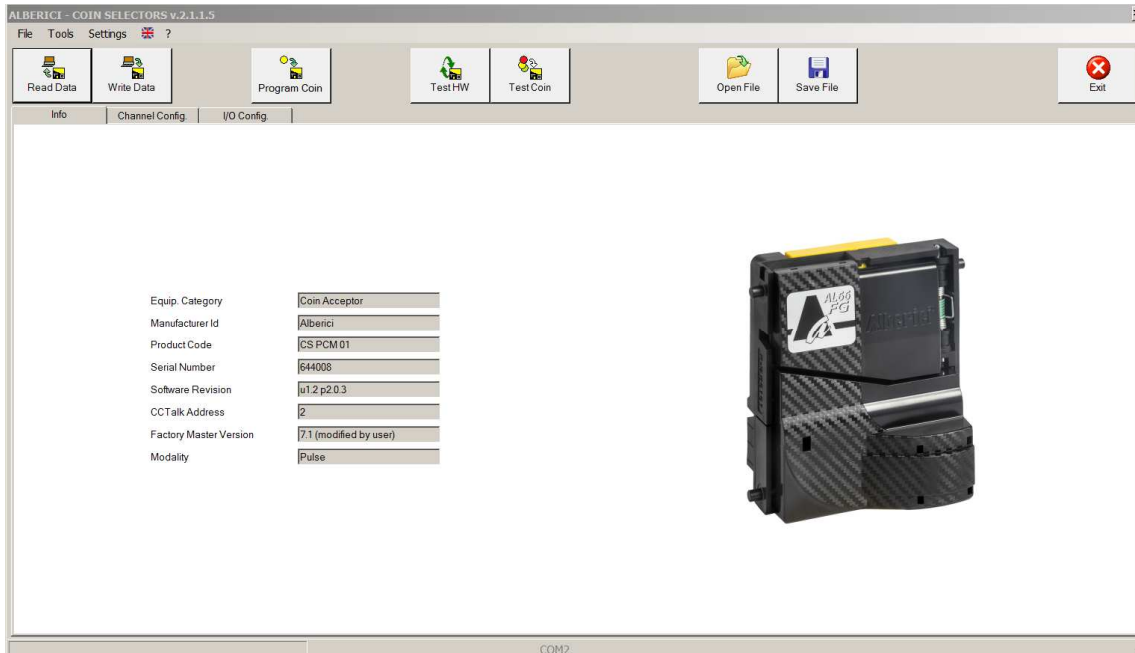


3.1 READ THE EXISTING CONFIGURATION

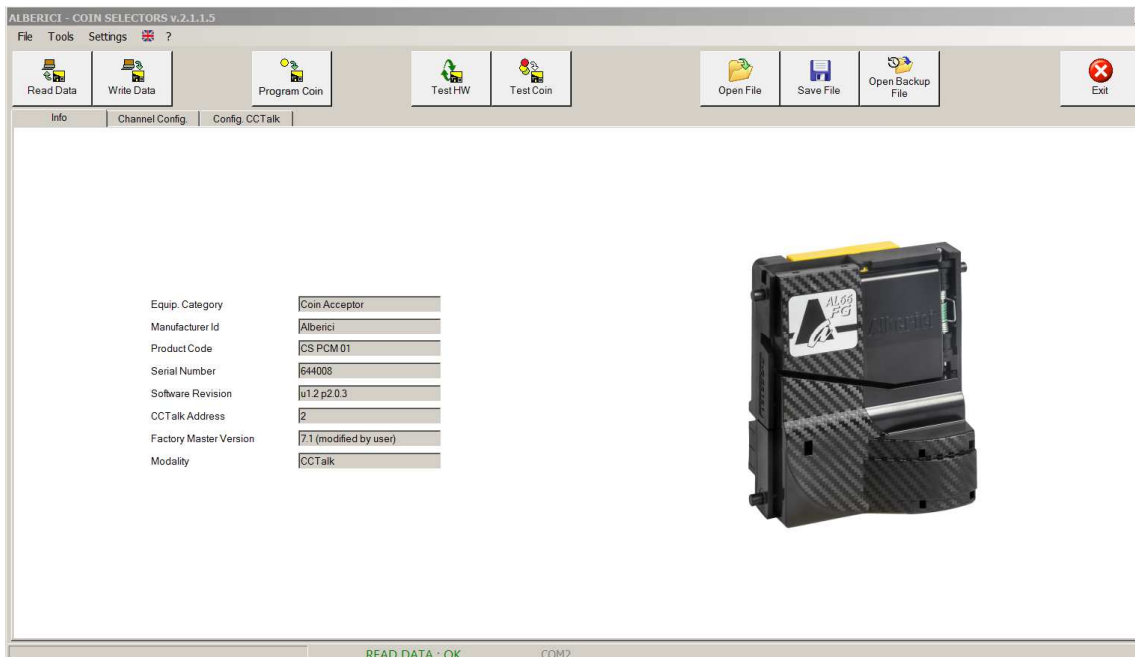
Launch the application “AlbericiCoinSelector.exe”. The software will automatically identify the type of coin acceptor connected. It will also automatically read its configuration, *if there is at least one programmed channel*. The software will show the identification data of the acceptor under the ‘Info’ tag.

NOTICE: if all channels are empty, the warning “ERROR 9: Wrong configuration/settings” will be displayed; click on the OK button in the warning box, and select ‘Read Data’ to upload the acceptor configuration.

When the reading has been completed, the message ‘READ DATA: OK’ will appear at the foot of the window. The associated COM PORT will be shown as well.



The acceptor identifying data will appear beside the image of the acceptor. If the coin acceptor has been set to Pulse operation (see Chapter 2. USING THE DIP SWITCH ROWS), the third tag will show ‘I/O Config.’, as it appears in the example picture above. If instead the coin acceptor has been set to ccTalk operation, the third tag will show ‘Config. CCTalk’ as it appears in the example picture below (referring to an AL66 FG acceptor).



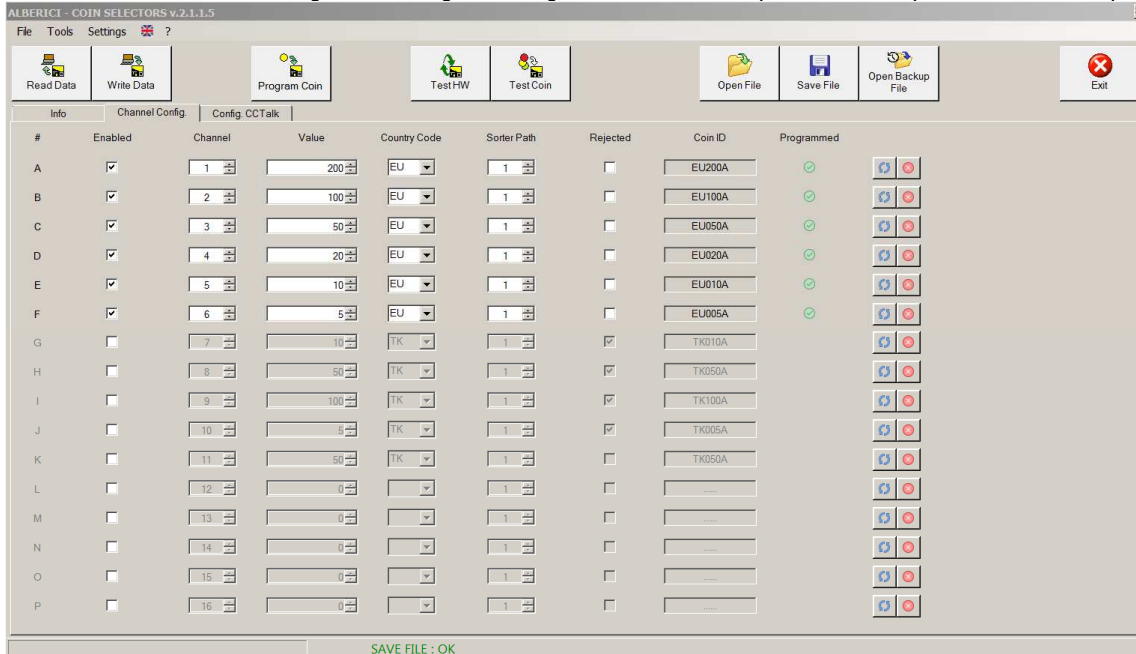
Click on the tag ‘Channel Config.’ to read the programmed channels.

The coin acceptor can be preset either for operating by Pulse or by ccTalk standard (modifiable data). For AL66 and AL66 FG this presetting depends on the position of DS1 in SW2 row (DS1 OFF = Pulse, DS1 ON = ccTalk); as to AL55, switching between Pulse and ccTalk can be done only through the software (see section 3.3).

- **ccTalk mode (standard modifiable protocol)**

(this ccTalk protocol cannot be used in Italy and other Countries where fixed ccTalk is requested by law)

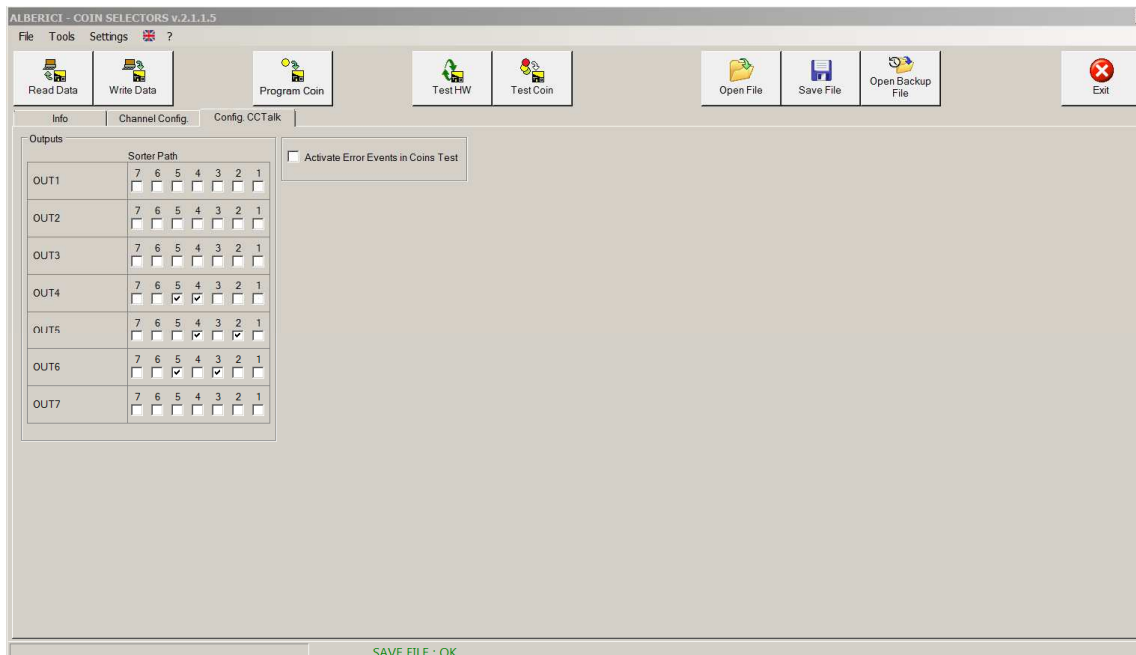
The picture below shows the “Config. ccTalk” tag, meaning that this coin acceptor has been preset for ccTalk operation:



There are 6 programmed channels (A...F), all of them “Enabled”, containing the six Euro denomination coins from the higher to the lowest value (200 = 2 €, 100 = 1 €,, 5 = 0,05 €).

It is possible to reject coins by ticking the corresponding “Rejected” box, or else by moving the corresponding switch to OFF (DS1 = Channel1, DS2 = Channel 2, DS6 = Channel 6).

By clicking on the tag ‘Config. CCTalk’, the coin sorting configuration will appear as well, if it has been programmed:

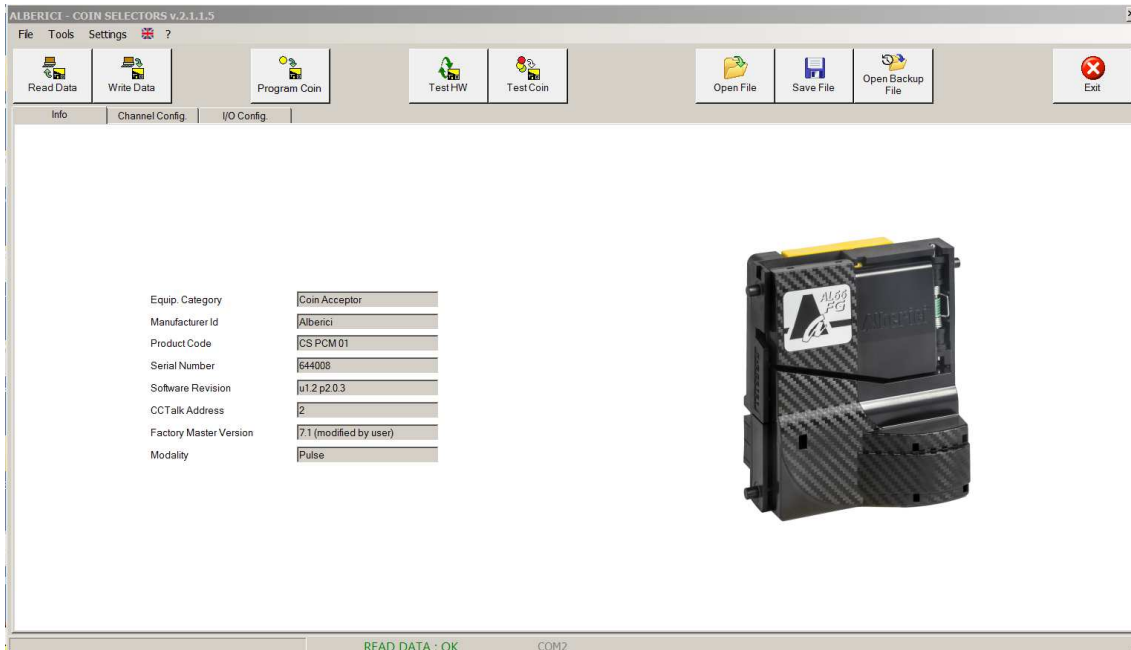


Check Chapter 4 for the instructions about sorter paths settings.

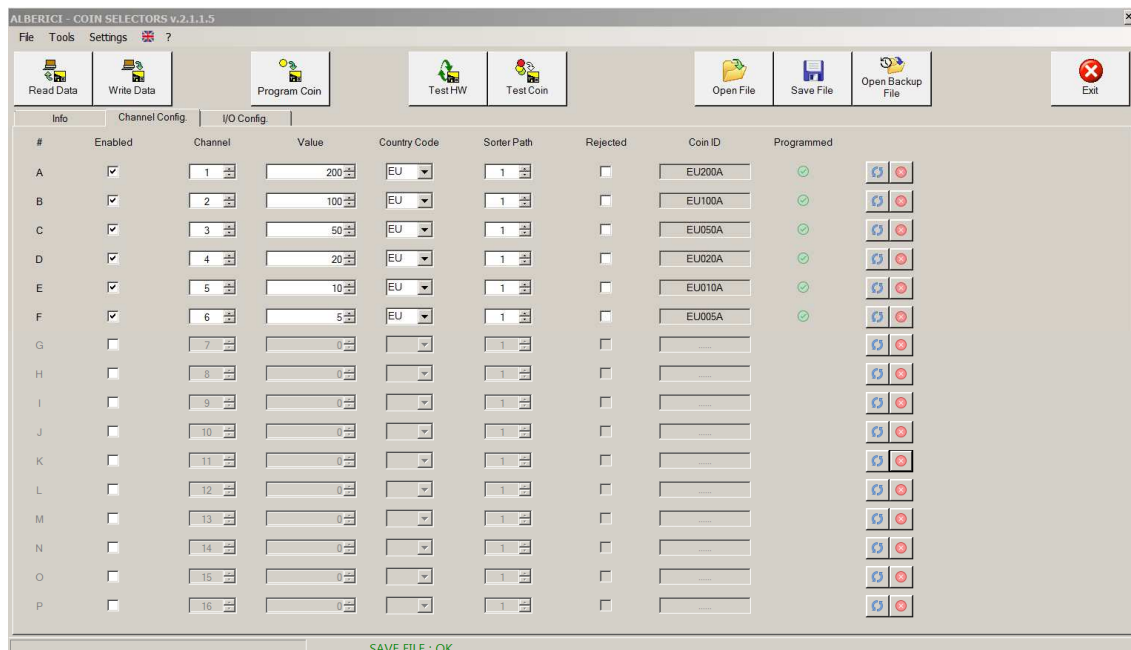
To add up new coins or tokens, see section 3.2 PROGRAMMING THE COINS.

- **Pulse mode**

The picture below shows that this coin acceptor has been preset for Pulse operation.



Click on the “Channel configuration” tag to check which coin denominations have been programmed in the acceptor. The settings are typical ones with 2 € in Channel 1, 1 € in Channel 2, 0,50 € in Channel 3, 0,20 € in Channel 4, 0,10 € in Channel 5, 0,05 € in Channel 6. Sorter path is preset to path 1 by default (see section 4 for explanation of the settings). None of the denomination is set to be rejected; in case, tick the corresponding box to disable acceptance of each coin.



Click on the “I/O Config” tag to check what Input / Output configuration has been programmed.

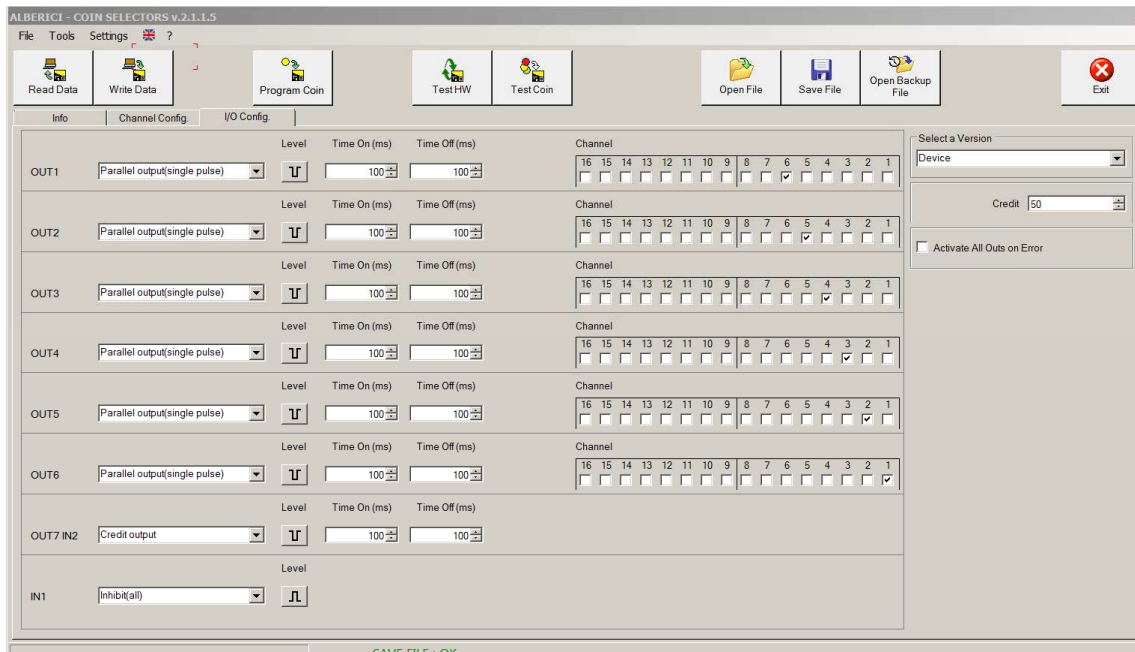
The picture in the following page shows that this coin acceptor has been:

- preset for both Parallel (Outs 1-2-3-4-5-6 = pins 7-8-9-10-3-4) and Totalizer multi-pulse (Out 7 = pin 5) communication. The value of the credit pulse is set to 50 €cents.

Other important information is shown, concerning the level of the signal and its duration:

- the signal pulse is set as Low Active ()
- its low (active) status lasts 100 msec, while its high (non active) status lasts 100 msec (Time On (ms) Time Off (ms)).

To disable acceptance of coins, a High signal (anything from 5Vdc to 24Vdc) must be provided to IN1 (pin 6), for as long as such inhibit status must be maintained.



“Select a version”:

Therefore this acceptor can be programmed either by choosing any of the preset configurations available in the menu ‘Select a version’, if that suits the host needs, or else by programming each output according to the host needs.

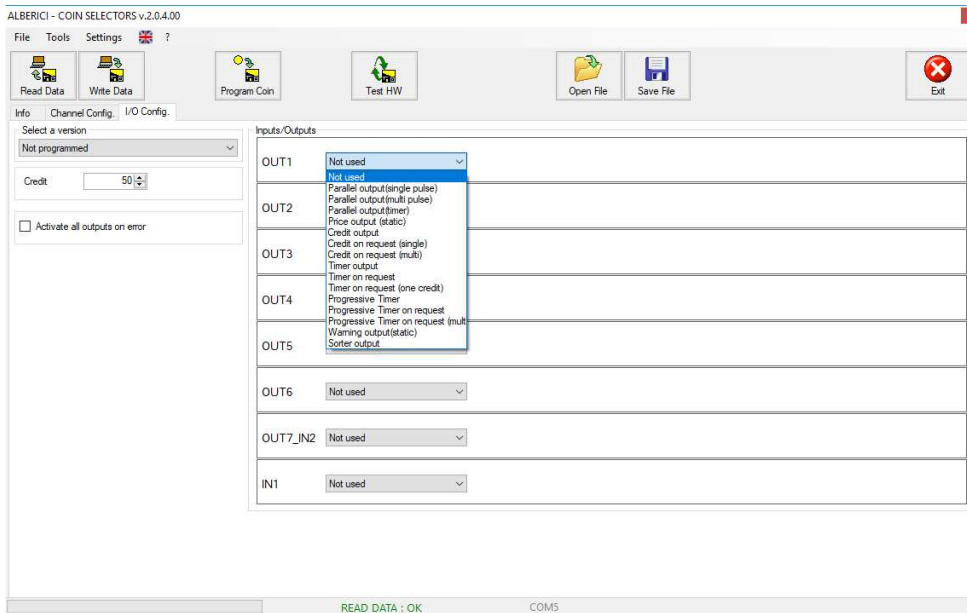
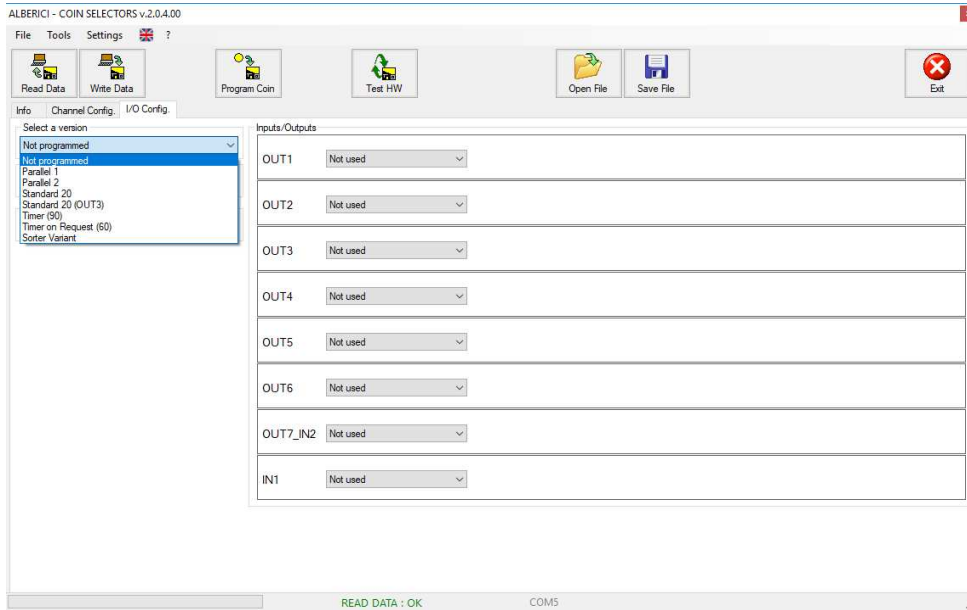
Preset configurations available:

Click on the drop-down arrow in the ‘Select a version’ box. You will be prompted to choose among a list of preset communication set-ups:

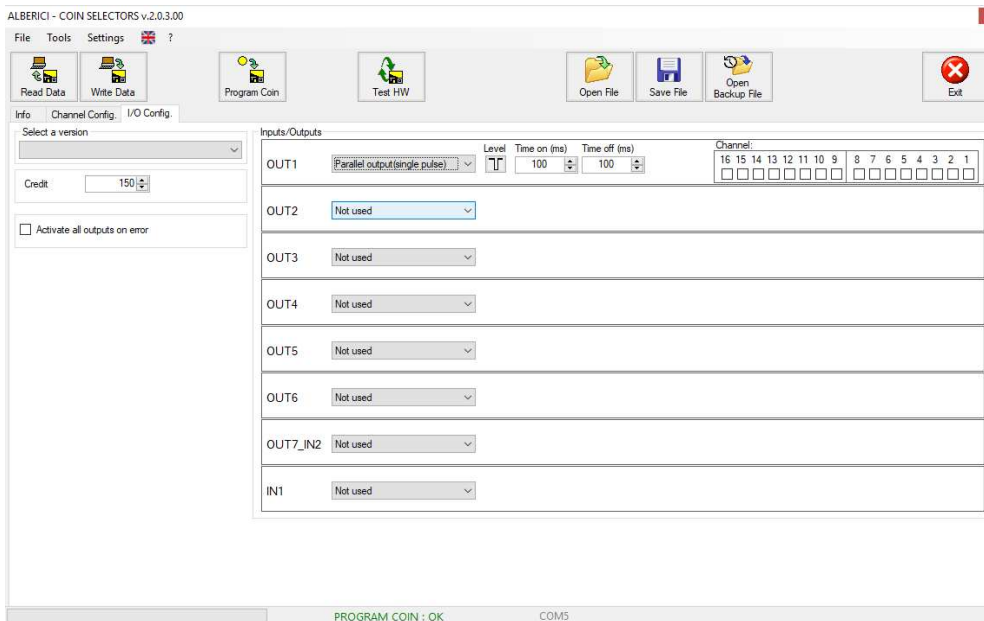
- Not Programmed (to be used for fully Customized configurations)
- Parallel Validator 1
- Parallel Validator 2
- Totalizer (Standard 20 set-up: OUT 7)
- Totalizer (Standard 20 set-up: OUT 3)
- Totalizer on request
- Timer Progressive
- Timer on request

Choose the version that best fits your necessity. The ‘Inputs/Outputs section will show the relevant IN/OUT configuration according to your choice. Each of the OUTs and INs can be accepted as they are, or else further adjusted to your plans.

Custom configuration:



.....

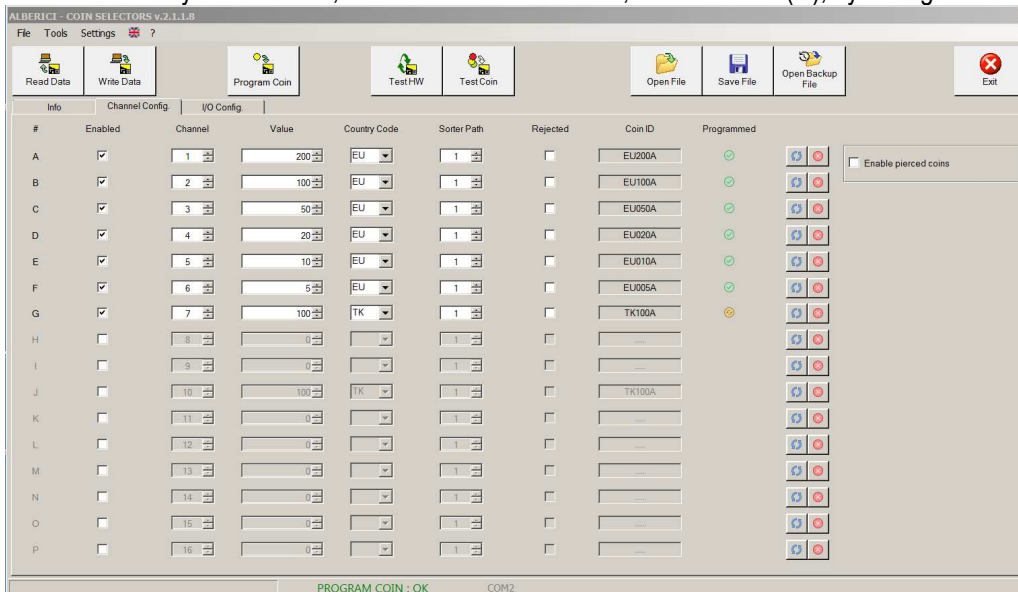


To add up new coins or tokens, see section 3.2 PROGRAMMING THE COINS.

3.2 PROGRAMMING THE COINS

3.2.1 Programming new coins/tokens in a new free channel



To program a new coin in any free channel, activate such channel first, ex. channel 1 (G), by ticking the 'Enabled' box.



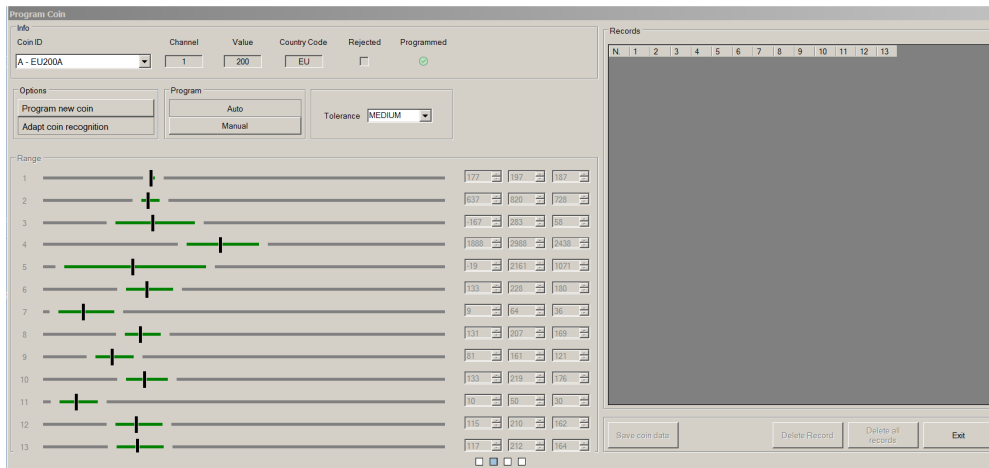
If the new channel must contain a piece with the same value as one of the already programmed ones, just copy the same data from the boxes of the corresponding channel. Otherwise, fill the boxes accordingly:

- Tick the 'Enabled' box - if the coin must be rejected (ex. the coin is a fake), tick the 'Fake' box;
- Channel number;
- Value of the denomination in cents (range available from 1 to 50.000);
- Country Code (ex. EU, CH, GB,...);
- Sorter Path (if any);
- Coin ID.

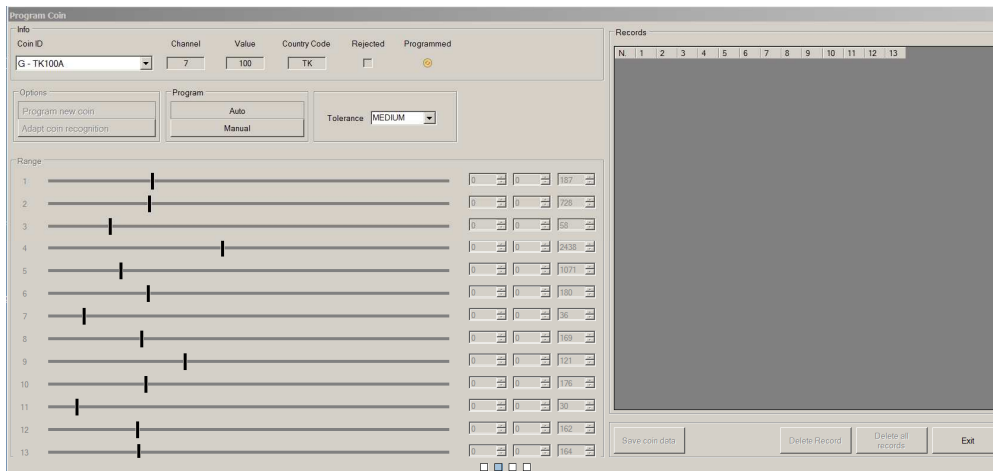
The "Programmed" round symbol will remain yellow until the channel has not been programmed.

The  button allows to reset (erase) completely the channel parameters.
 The data previously programmed in one channel can be restored after reset by clicking on the  button.
 In case of any error made, the restore button always takes back to the data previously programmed.

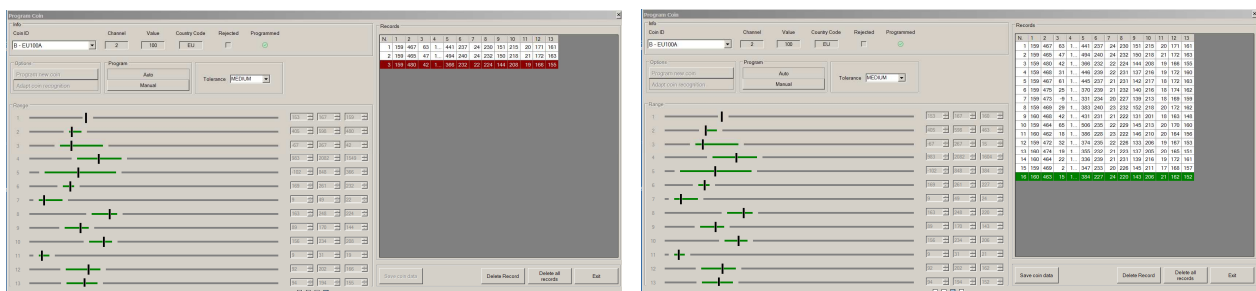
Confirm the new channel by the 'Write Data' button , and click the 'Program Coin'  button.
 The window below opens up:



If channel 1 (line A = coin A) has been already programmed, the warning 'Coin A already programmed!' will be shown. If you want to maintain the programmed parameters but you need to enlarge them by adding other coins of the same denomination, select 'Adapt coin recognition'.
 Or else, choose the preferred channel (ex. 7=G) from box 'Coin ID' and select the 'Program new coin' option.



Drop into the acceptor at least 15 pieces. The red data appearing in the monitor screen are the ones read by the sensors. They will be shown in green colour after the 15th coin measured.



Set the tolerance level to High, Medium or Low, according to your needs, then click on the button 'Save Coin Data', confirm OK, then click on 'Exit'.
 Repeat the same procedure for all the new coins to be programmed.

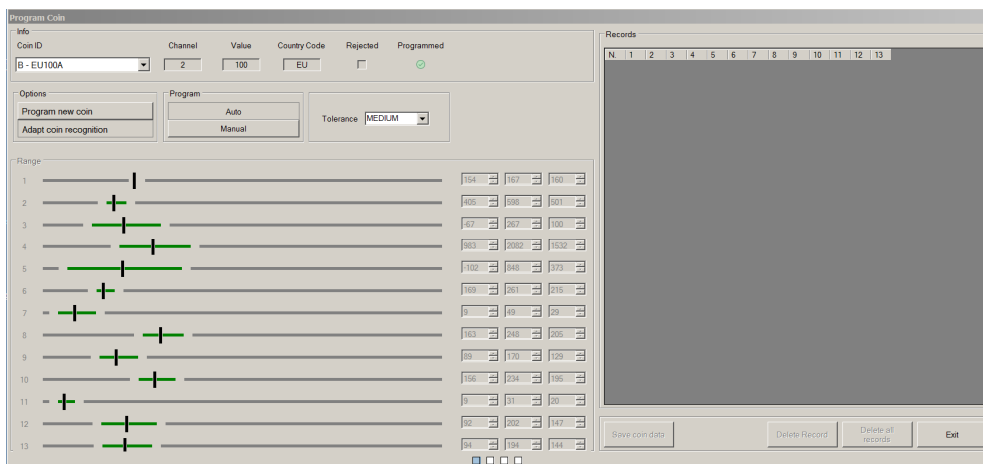
In case the acceptor is set (or must be set) to work as Pulse Parallel, do not forget to associate the channel to the output (section "I/O Config.") from where the acceptance of the coin must be signalled. If the programmed piece is a token, it is advised to associate its channel to the same output that signals the acceptance of the coin denomination having the same value assigned to the token. Ex. if the token programmed in channel 7 (G) is given value 100, and the 1 € coin (=value 100) channel is 2 (B) matched to OUT 2, then match channel 7 (G) too to OUT 2.

3.2.2 Adding new coins from the same denomination in the preset coin denomination channel

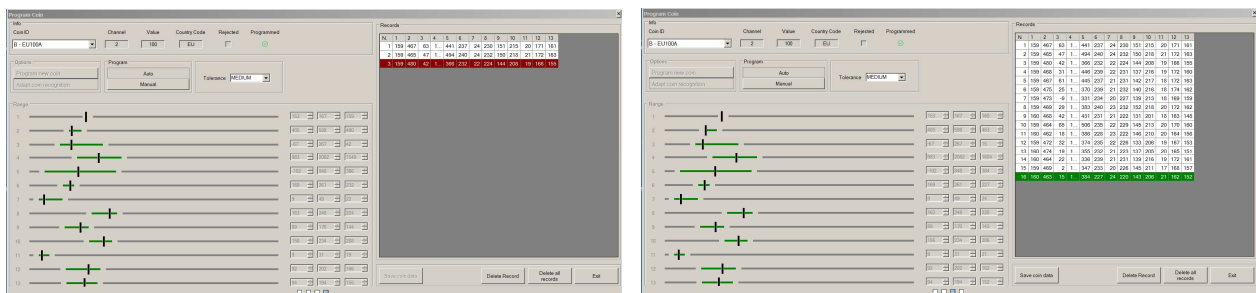
It may occur that new coins or deviant coins (ex. from a different mint) are not accepted, though they belong to the same denomination as the coins that are accepted.

In such a case, these 'exception' coins can be included in the same channel where the denomination has been programmed. This is recommended when the acceptor will be used in ccTalk protocol. For Pulse mode acceptors, the new coin can be either programmed in a different channel, or in the same channel as its related denomination.

When coins must be added to the relevant existing preset channel (ex. rejected 1 € coins to channel B=2), use the 'Adapt coin recognition' option:





Drop into the acceptor at least 15 pieces. The red data appearing in the monitor screen are the ones read by the sensors. They will be shown in green colour after the 15th coin measured.



Set the tolerance level to High, Medium or Low, according to your needs, then click on the button 'Save Coin Data', confirm OK, then click on 'Exit'.

The application backs up automatically all the programmed configurations in the Backup Directory.

The file(s) can be as well saved and named by the 'Save File'  button. It will be then possible to retrieve the necessary file(s) by the 'Open File'  button, and download it/them to other coin acceptors.

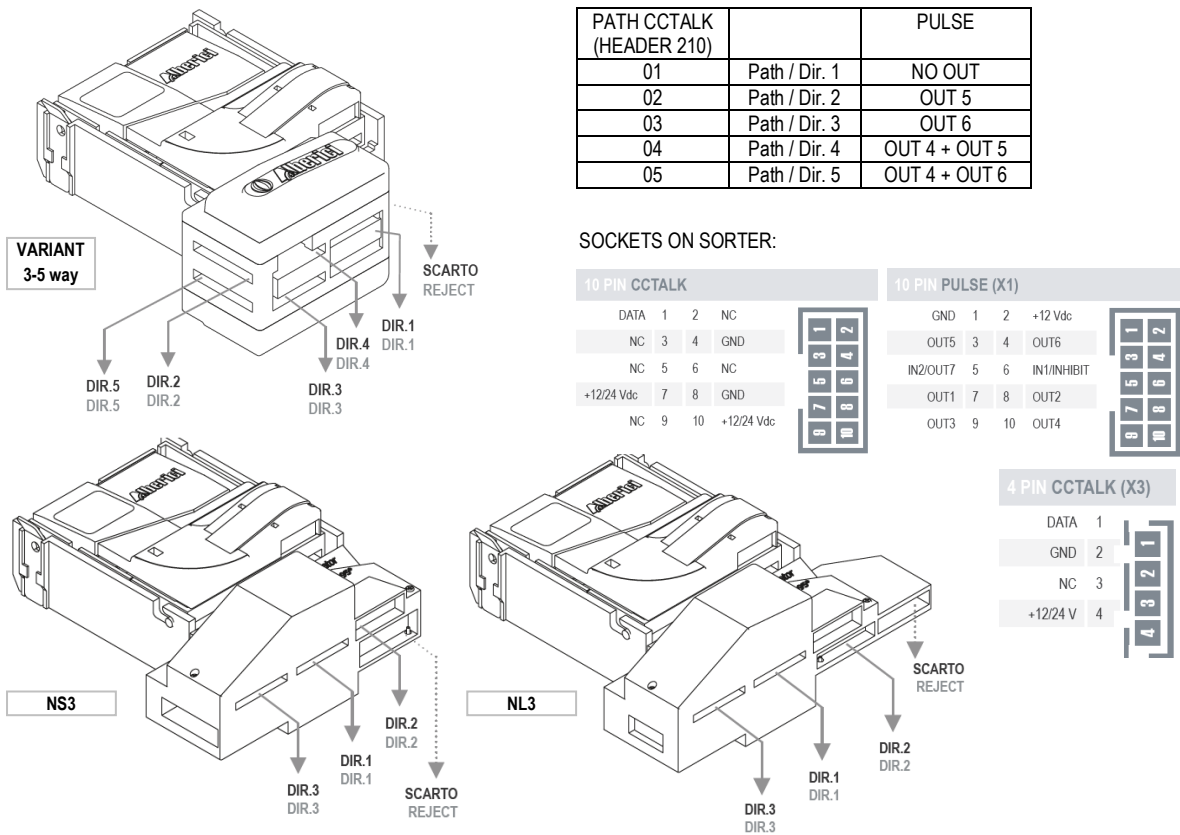
3.3 AL55: SWITCHING FROM PULSE MODE TO CCTALK MODE

To switch between Pulse and ccTalk mode, the interface window will show a dedicated button as below (only when an AL55 acceptor is reckoned):

4. SETTING SORTER PATHS

Driving the NL3, NS3 and VARIANT sorters

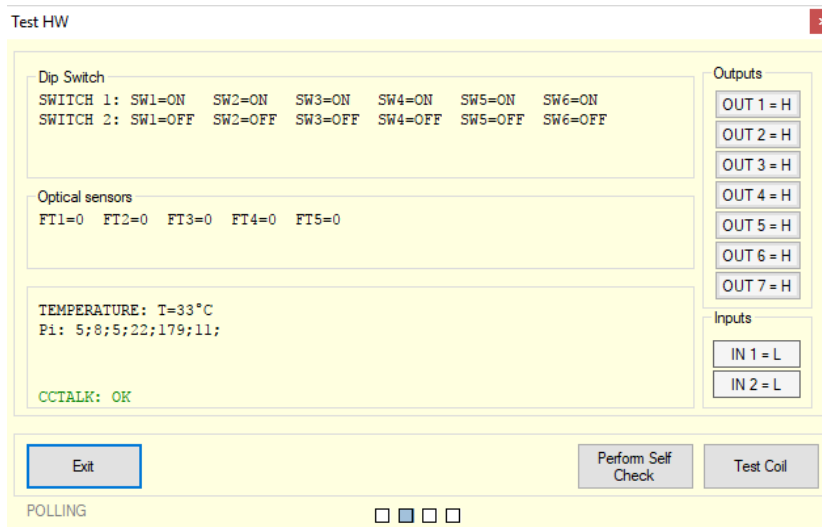
To attribute the sorting commands, please refer to the output paths shown below for our sorters:



5. TESTING ACCEPTANCE AND OPERATION


5.1 ACCEPTOR OPERATION

Click on the  button.



Press OK, shut down the program, turn the power box off (press green switch), disconnect the coin acceptor, and test for proper operation on the machine.

5.2 COIN ACCEPTANCE

Click on the 'Channel Configuration' tag, then click on the  button.

Drop coins into the acceptor: the monitor interface will show the denomination that has been accepted.

6. MANUAL PROGRAMMING BY THE ON-BOARD DIP SWITCHES

The AL55 can be re-programmed only by PC and programming tool/sw. The AL66 and the AL66 FG allow also to program new coins in the already programmed channels by using the on-board Dip-Switches.

6.1 MANUAL AUTO-PROGRAMMING INSTRUCTIONS (rows SW1 and SW2)

6.1.1 How to programme (new) coins

- 1) Take note of the positions of the dip-switches.
- 2) Power off the coin acceptor.
- 3) Set all the dip-switches in SW1 row to OFF.
- 4) Move the dip-switch 2 of the SW2 row to ON.
- 5) Power up the coin acceptor: start of the auto-programming mode is confirmed by single coil activation.
- 6) In SW1 row, move to ON the dip-switch corresponding to the channel in which the coins will be teached.
- 7) Drop 10 such coins into the acceptor: double coil activation will confirm that the coins have been programmed.
- 8) Power off the coin acceptor and set the dip-switches according to the desired operation.

6.1.2 How to reset the previous configuration

- 1) Take note of the positions of the dip-switches.
- 2) Power off the coin acceptor.
- 3) Set all the dip-switches in SW1 row to OFF.
- 4) Move the dip-switch 2 of the SW2 row to ON.
- 5) Set to ON both dip-switches 1 and 6 of the SW1 row.
- 6) Power up the coin acceptor: after few seconds, triple coil activation will confirm that the coins/channels that have been manually programmed have been cancelled, and that the previous configuration as been restored.
- 7) Power off the coin acceptor and set the dip-switches according to the desired operation.
- 6) Power off the coin acceptor and set the dip-switches according to the desired operation (see Chapter 2).

6.2 MODIFYING CREDIT VALUE (SW2 row)

When the acceptor is programmed as Totalizer or Timer, a corresponding credit value (threshold at which the confirmation pulse signal is produced on the credit Output) is set. In lack of the PC programming tool, the acceptor provides means to change such credit value by setting the combination of the Dip-Switches 4 and 5 in the SW2 Row:

- | | | |
|------------------------|---|-----------------|
| - DS4 = OFF, DS5 = OFF | > | multiplies by 1 |
| - DS4 = OFF, DS5 = ON | > | multiplies by 2 |
| - DS4 = ON, DS5 = OFF | > | multiplies by 4 |
| - DS4 = ON, DS5 = ON | > | divides by 10 |

It is also possible to move the credit signal from the preset Output (standard being generally OUT 7) to the OUT 3, by setting the Dip-Switch 3 of SW2 Row.

- | | | |
|-------------|---|---|
| - DS3 = OFF | > | Multi-pulse totalizer, OUTPUT as per programmed setting (ex. OUT 7) |
| - DS3 = ON | > | Multi-pulse totalizer on OUTPUT 3 |

6.3 MODIFYING PROTECTION IN ACCEPTANCE (SW2 row)

Move the Dip-Switch 6 in the SW2 Row from its default OFF position to ON, if in need of stricter discrimination of the inserted coins, i.e. when very well-made fakes or false coins are in circulation.

- | | |
|-------------|-------------------------|
| - DS6 = ON | HIGH Discrimination |
| - DS6 = OFF | STANDARD Discrimination |

6.4 DISABLING ACCEPTANCE OF COINS (SW1 row)

To inhibit acceptance of any coin programmed in the channels, move the corresponding Dip-Switch in SW1 Row to OFF, according to the scheme below:

SW1 Dip-Switch Row	DS1	DS2	DS3	DS4	DS5	DS6
ON	Enable CH1	Enable CH2	Enable CH3	Enable CH4	Enable CH5	Enable CH6
OFF	Disable CH1	Disable CH2	Disable CH3	Disable CH4	Disable CH5	Disable CH6



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