Atronic
Great Games Great People

Coin Validator

NRI G-13.mft
Version /4

for use in Atronic Cashline™
and e-motion™ gaming machines.

Rev. 2.0

April 2005

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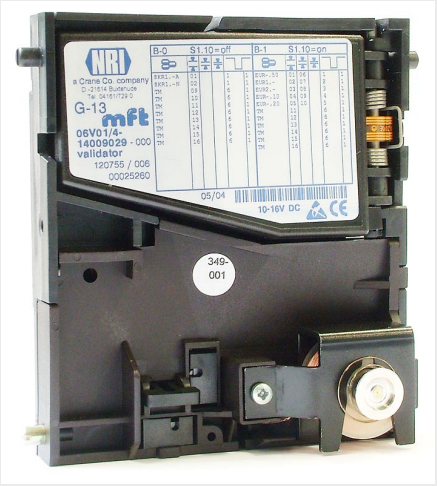
General Information

The electronic coin validator G-13.mft (multi-frequency technology) is based on the well known G-13.6000 series. The new multi-frequency technology provides more flexibility for the measuring sensors and evaluation of 24 measuring parameters for reliable acceptance of genuin coins and rejection of false coins. The G-13.mft - Version /4 features 32 coin channels managed either in a single memory block or in two memory blocks of 2 x 16 coin channels.

G-13 validators for use in Atronic gaming machines utilize customer specific programming. Do not use any other types or programmings as this may lead to malfunctions.



Technical Data

Dimensions

Height:	102.0 mm
Width:	89.0 mm
Depth:	52.0 mm
Installation tilt:	±2°

Coinage

Diameter:	15.0 to 31.5 mm (optional max. 32.5 mm)
Thickness:	1.5 to 2.6 mm (optional max. 3.3 mm)
Coin acceptance:	32 coin channels 6 coin signal lines
Acceptance speed:	2 coins/sec (Validation mode) 5-6 coins/sec (Casino mode)

Electrical data

Voltage:	12 V DC (10-16 V)
Standby:	approx. 30 mA
Measuring:	approx. 100 mA

Environment

Temperature range:	-25 to +70 °C
Temperatur change:	max. 0.2 °C/min
Rel. humidity:	15 to 93 %
Condensation:	not permitted

Nomenclature

Coin Channels

The G-13.mft /4 features 32 coin channels, data-managed in one (1 x 32 channels) or in two blocks (2 x 16 channels). Each coin channel acts like a storage space where following settings can be stored:

- Coin type
- Acceptance band
- Assigned coin signal line(s)
- Number of pulses sent to the machine

Coin Type

This specifies the type of the coin.
For example: *50 Euro cent*

Acceptance Band

This defines the tolerance interval of coin acceptance. A small acceptance band will allow less tolerances in the measurement values. This will lead to an enhanced security against false coins. The drawback is that also genuine coins may be rejected, if they are worn or dirty.

Coin Signal Lines

Each coin channel is assigned to a particular coin signal line. This is the (physical) line where coin signals are sent to the host machine. The G-13.mft uses 6 different coin signal lines.

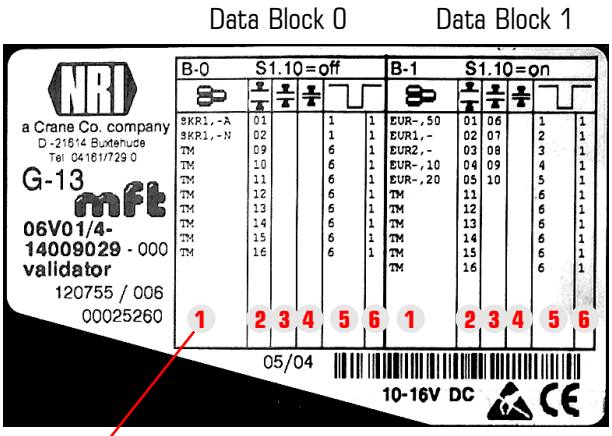
On Atronic gaming machines coin signal lines 1, 2 and 3 are assigned to *G-13 Fast mode* (Casino model), while lines 4, 5 and 6 are assigned for *G-13 Slow mode* (Validation model).

Number of pulses

It is possible to assign a particular number of pulses to a particular coin channel. Multi-pulses are not supported by Atronic gaming machines.

Label

The label at front of the validator provides information about validator version and coin channel assignment.



Information for each data block is listed in 6 columns.

Column 1: Type of coin.

Column 2: Coin channel with *standard* acceptance band assigned to this coin type.

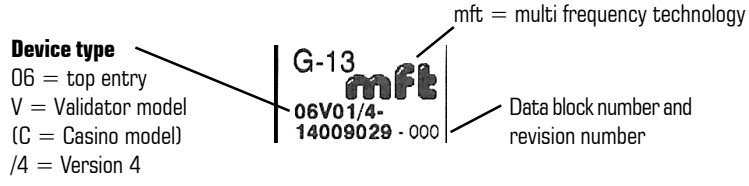
Column 3: Coin channel with *narrow* acceptance band assigned to this coin type.

Column 4: Coin channel with *very narrow* acceptance band assigned to this coin type.

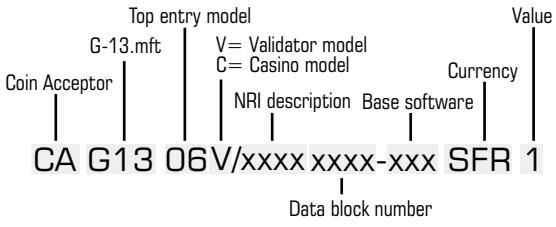
Column 5: Coin signal line assigned to this coin type.

Column 6: Number of pulses sent to host machine.

Label Naming



Atronic Part Number Nomenclatur



***Note**:*
If the validator has been re-programmed by means of an external programming device, it is neccessary to apply a new label with updated information.

***Note**:*
*Set DIL switch S1.10 to use **either** data block 0 **or** data block 1.*

Example 1
(first row in data block 1)
Coin channel 01 is assigned to coin type "50 Euro Cent", uses standard acceptance band and will send one pulse on coin signal line 1.

Example 2
(second row in data block 1)
Coin channel 07 is assigned to coin type "1 Euro", uses narrow acceptance band and will send one pulse on coin signal line 2.

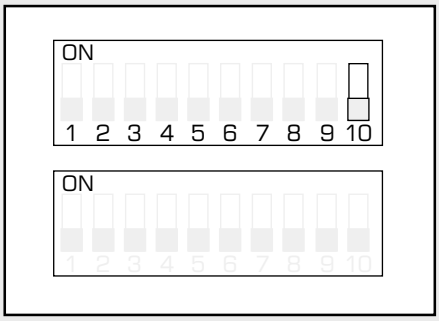
Configuration for use in Atronic machines

Usually the validators are ex-work programmed to customer specification and no user configuration is required. Following description is intented for Service Personnel, if configuration may still be required.

Select Data Block

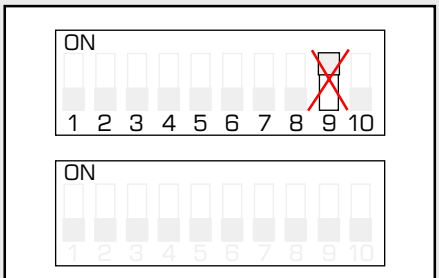
If the G-13.mft /4 validator comes in two data block configuration, it is neccessary to define one data block for operation. This is done by means of DIL switch S1.10 on the validator rear side.

- Set switch S1.10 to OFF to select data block 0.
- Set switch S1.10 to ON to select data block 1.



Casino- and Validation model
Fast mode - Slow mode

Depending on application, G-13 validators for use in Atronic gaming machines will come as Casino model (type "06C") or as Validator model (type "06V"). Mode selection via DIL switch S1.9 is disabled by default.



DIL switch S1.9 is disabled by default.

Handling for Cashline™ machines

The host machine will initialize the according mode automatically when the first coin is fed into the validator after RAM Reset (or Soft Reset).

Fast mode for Casino models

- If the first coin sends an impulse on coin signal line 1, 2 or 3 the host machine will initialize G-13 *Fast mode*. Only coin signals sent on coin signal lines 1, 2 or 3 will add credits to the credit meter. Acceptance speed is 5-6 coins per second.

Slow mode for Validator models

- If the first coin sends an impulse on coin signal line 4, 5 or 6 the host machine will initialize G-13 *Slow mode*. Only coin signals sent on coin signal lines 4, 5 or 6 will add credits to the credit meter. Acceptance speed is 2 coins per second.

Handling for e-motion™ machines

G-13 *Fast mode* or *Slow mode* has to be set during Initial Setup.

Note:
The actual initialized coin acceptor mode can be seen in following machine menus.

Cashline™ machines:
Audit Menu / Configurations

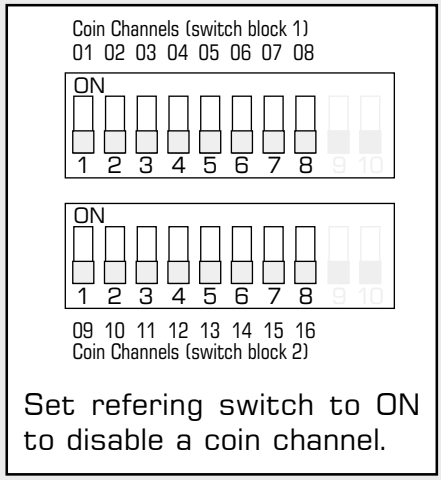
Hi(!)bility/e-motion machines:
Audit Menu / Machine Information

Inhibit particular coins

To prevent the acceptance of a particular coin type, all coin channels assigned to this coin type have to be disabled.

1. Remove the G-13.mft validator to get access to the DIL switches. Do **not** hot plug the validator!
2. Refer to the label at front of the validator to see which coin channels are assigned to the coin type(s) to be inhibited (see also page 5).
3. Set the refering DIL switch(es) to ON to inhibit this coin channel(s).

   If a *standard* band and a *narrow* band are programmed for one coin type, both refering coin channels have to be deactivated to inhibit this coin type.

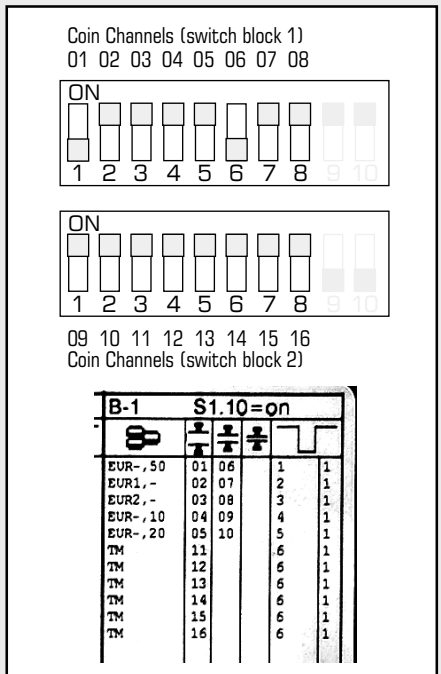


Set refering switch to ON to disable a coin channel.

Accept only one coin type

If the validator programming allows to accept several coins but only one type of coin should be accepted, all other coins have to be disabled.

In the right example data block 1 is enabled and all coin channels except channel 01 and 06 are disabled. Validator will now accept only 50 Euro Cent coins.



Set Acceptance Band

To set the Acceptance Band for a particular coin to *narrow* mode, the coin channel assigned to *standard* Acceptance Band has to be disabled.

In the right example additionally switch S1.1 has to be set to ON, in order to disable the *standard* Acceptance Band on coin channel 01. Validator will now use *narrow* mode (coin channel 06) instead.

Teach Mode

G-13.mft validators for use in Atronic gaming machines have Teach Mode disabled by default.

Coin in geometries

Use only IDX coin-geometries if a G-13 validator is installed in a Cashline™ Upright (WBC) or Slant Top (AST) cabinet or in an e-motion cabinet.