Technical Documentation

Coin changer
Short reference guide
for starting up the coin changer

04.11 DAI/Schn/Roe
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</table>
1 About this short reference guide

This short reference guide describes:
• the coin changer’s scope of delivery and accessories
• the coin changer’s design & special airport function
• how to configure, install and start the coin changer
• the technical data

This short reference guide does not describe the whole functional range of the coin changer currenza c² airport but only the special functions of the currenza c² airport. In order to be able to use the whole functional range of the coin changer safely as well as to configure the changer as required, all manuals for the NRI changer currenza c² and HENRI service tool must be read carefully (PDF download at www.nri24.com).

Text conventions

To make it easier for you to navigate within these instructions and to operate the device, the following accentuations were made in the text:

Safety instructions, which you must observe in order to protect operators and equipment.

Notes, which you must observe in order to protect the environment.

Special notes, which are to facilitate the use of the device.

At the beginning of a chapter you will find a short "guide", which summarises the content of the chapter.

Requests to perform an action are numbered in another typeface and, if possible, listed in a table.

Reference to a figure. The number before the slash refers to the figure number, the number behind the slash to the item number within the figure.

Display texts are set in small capitals.

BUTTONS and MENU ITEMS are shown in bold capitals.
Additional technical documentation

Apart from the short reference guide you already have, there is further documentation for the currenza c² and HENRI service tool, e.g. about service work, configuration and audit/alarm readout with the Audit Manager back office software and currenza airbox modem. All product descriptions are available in a compressed PDF format at www.nri24.com (→ Download).
2 Scope of delivery & accessories

The currenza c² airport with the relevant machine connecting cable (e.g. MDB or Executive) and antenna connector is included in delivery.

To start up the coin changer and check settings and installation you will require the following accessories:

For coin changer

- antenna, e.g.:
  - NRI antenna (magnetic installation): order no. 32768
  - NRI antenna (adhesive installation): order no. 32767
  - NRI antenna (screw fastening outside the machine, vandalism/water-proof): order no. 34265
  - NRI burst antenna (magnetic installation outside the machine having bad reception): order no. 34118
  - Properties required: SMA male/plug, with hex nut and inner thread
- Mobile phone card (SIM) for coin changer
  - ID-000 format
  - No PIN stored
  - Favourable contract terms or no contract terms at all
  - Watch out for special tariffs and high-profile flatrates

For back office

- currenza airbox including USB PC connecting cable (order no. 32304)

We do not recommend any other modem and do not support its configuration or maintenance.

- Mobile phone card (SIM) for currenza airbox
  - ID-000 format
  - contract with favourable telephone charges depending on call frequency
- Machine simulator (e.g., NRI WinSPT)
- HENRI service tool (order no. 30661) for c² airport green/white only
- Audit Manager freeware (download at www.nri24.com)
3

Design & airport function

The currenza c² airport is equipped with a GSM connection module for digital mobile radio. This allows the remote monitoring and read-out of device status, malfunctions and audit data from changer and VMC, e.g. by filling drivers or by PC at the head office.

The GSM modem currenza airbox is used to enable the PC to communicate with the coin changer and read out data using the PC application Audit Manager.

The currenza c² airport

1 Return lever
2 RJ-45 connector – HENRI service tool
3 Coin validator
4 Latch – open sorting cover
5 User interface (optional, here: blue with operating keys and display)
6 Latch – remove coin cassette
7 Coin cassette
8 Coin cassette designation and combination
9 Payout set
10 SIM card holder (with open rear cover)
11 IrDA interface (optional)
12 Coin insert funnel
13 Antenna connector (SMA female/jack/socket)

The currenza airbox

14 Interface – SIM card
15 Status LEDs
16 Antenna
17 Interface – USB PC connection

Fig. 1: The currenza c² airport

Fig. 2: The currenza airbox
4 Coin changer preparation in the back office

Before installing the coin changer in the machine, it is a good idea to prepare the coin changer in the back office.

In this chapter you will learn how to
• insert the SIM card
• test the coin changer and antenna function
• install the Audit Manager and currenza airbox
• set the airbox SIM card PIN
• set up the c² monitoring via text messages (alarm function)
• test the alarm function

This chapter also refers to the Audit Manager and the WinSPT manual as well as the general currenza c² installation, service work and configuration guide.

Inserting SIM card

In order that the c² airport is able to send text messages without the need for cumbersome activation of the SIM card after every switch-off, you have to deactivate the personal identification number (PIN) of the c² airport SIM card(s), e.g., using a mobile phone or the airbox and Audit Manager (cp. Audit Manager manual).

To insert the SIM card provided by the customer:

Tools: small Phillips screwdriver, slotted screwdriver

1 Unscrew the crosshead screw [Fig. 3/1] and remove rear cover with the aid of a slotted screw driver [Fig. 3/A].

Fig. 3: Removing rear cover
2 Open SIM card holder [Fig. 4/1].
3 Insert SIM card and lock holder.
4 Reinstall rear cover and fasten the screw.
5 Note the c² airport telephone number for future readouts.

Fig. 4: Inserting SIM card

Testing coin changer & antenna function

Tools: Machine simulator (e.g. NRI WinSPT), antenna provided by the customer (cp. “Scope of delivery & accessories”, p. 7), if necessary HENRI service tool

To test the coin changer and antenna function
1 Screw the antenna plug and the changer antenna socket [Fig. 5/1] together and fix the hex nut.

Fig. 5: Antenna connector

2 Place the antenna where it is able to pick up signals.
3 Connect the coin changer to a machine simulator (if available, cp. instructions on the rear side of the WinSPT box). After a while the coin changer should display AIRPORT REGISTERED. If not, reposition the antenna or reconnect the simulator and try again.

In case of the c² airport battery version and a very low battery the link connection may take up to ten minutes.

If you do not have a c² airport blue, just connect the HENRI service tool to display the coin changer message.
Setting up c² monitoring via text messages/e-mails (alarm function)

The c² airport coin changer may send text messages and/or e-mails pointing to a problem to be solved on site by a service technician in order to minimise machine down time.

If you would like the coin changer to send text messages in case of an machine or changer error or a special operating status, use the coin changer menu or the Audit Manager to set up the monitoring (alarm function). For large vending machine parks with several c² airport coin changers to be set up identically we recommend the Audit Manager configuration which can be sent to any airport coin changer you want. Beyond that, the Audit Manager lets you save the alarm configuration in the HENRI service tool for on-site configuration.

If you like the coin changer to send e-mails, the alarm function has to be set up in the Audit Manager (cp. Audit Manager manual, Chap. Setting up c² monitoring via text messages/e-mails, p. 36).

Setting up monitoring via text messages using the coin changer menu

This section describes the SMS alarm configuration for the currenza c² airport. For all other settings please refer to the general c² configuration manual.

The following SMS settings are obligatory:

- mobile no. which is supposed to receive the c² text messages, 2nd mobile no. possible
- at least one coin changer/machine event which is to trigger a text message:
  - no communication for longer than x minutes
  - coin acceptance inhibited in machine for longer than x minutes
  - no coin inserted/validated for longer than x hours
  - machine door open (or other event depending on the c² auxiliary input line connection)
  - failure in coin validator module
  - jam in payout module
  - minimum change amount x
  - no change, insert exact money
  - transaction volume x reached/exceeded
  - power supply interrupted for longer than x minutes (only battery version)
  - error has been fixed
  - etc.
The following SMS settings are optional:
- further coin changer/machine events which are to trigger a text message (see above)
- time specification for text messaging (only settable in Audit Manager)

If you do not have a c² airport blue, just connect the HENRI service tool to set up the alarm function (cp. HENRI short reference guide).

Setting mobile no. which is supposed to receive the c² text messages

You may set up to two international mobile numbers which are supposed to receive the c² text messages, e.g., the airbox phone number, in case the messages are to be checked in the back office using the Audit Manager.

Phone number format:

International call prefix | Country calling code | Phone number (dropping the prefix 0)

Example [EN]: + | 44 | 0xxxxxxxx

Quick approach:

1. Press key ...
2. How often? Effect
3. Press key ...
4. How often? Effect
5. Press key ...
6. How often? Effect
7. Press key ...
8. How often? Effect
9. Press key ...
10. How often? Effect
11. Press key ...
12. How often? Effect
13. Press key ...
14. How often? Effect

The coin changer will send the alarm or status text messages specified in the following to the set phone number(s).
Setting up "No communication"/"Coin acceptance inhibited"/"Power supply interrupted" alarm

If the coin changer is supposed to send a text message when

- the changer no longer communicates with the machine or
- the coin acceptance has been inhibited in the machine or
- the power supply has been interrupted in case of a battery coin changer

then first of all set an individual period of time [in min.] the event has to be present and then activate the event.

Quick approach:

- Main menu > E = Settings > Airport > Message changer blocked/SMS transmission options

<table>
<thead>
<tr>
<th>Press key ...</th>
<th>How often?</th>
<th>Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1 x</td>
<td>You enter the main menu</td>
</tr>
<tr>
<td>2</td>
<td>1 x</td>
<td>You enter the setting menu</td>
</tr>
<tr>
<td>3</td>
<td>until Airport</td>
<td>You want to enter the airport submenu</td>
</tr>
<tr>
<td>4</td>
<td>1 x</td>
<td>You enter the submenu</td>
</tr>
<tr>
<td>5</td>
<td>until Message changer blocked</td>
<td>You want to set the period in minutes</td>
</tr>
<tr>
<td>6</td>
<td>1 x</td>
<td>Now you can set the period</td>
</tr>
<tr>
<td>7</td>
<td>until required digit</td>
<td>You highlight the digit to be set</td>
</tr>
<tr>
<td>8</td>
<td>until required number</td>
<td>This number is to be set</td>
</tr>
<tr>
<td>9</td>
<td>Please repeat steps 7 and 8 to set the 3-digit period of time</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>1 x</td>
<td>You lock the set period in memory</td>
</tr>
<tr>
<td>11</td>
<td>1 x</td>
<td>You return to the submenu</td>
</tr>
<tr>
<td>12</td>
<td>until SMS transmission options</td>
<td>You want to enter the submenu</td>
</tr>
<tr>
<td>13</td>
<td>1 x</td>
<td>You enter the submenu. The required menu item has already been selected</td>
</tr>
<tr>
<td>14</td>
<td>1 x</td>
<td>Now you can activate the event</td>
</tr>
<tr>
<td>15</td>
<td>until setting desired</td>
<td>You want the coin changer to send a text message in case of an event mentioned above or not</td>
</tr>
<tr>
<td>16</td>
<td>1 x</td>
<td>You lock the setting in memory</td>
</tr>
<tr>
<td>17</td>
<td>1 x/2 x</td>
<td>You return to main menu/operating mode</td>
</tr>
</tbody>
</table>

From now on the coin changer will send a text message to the set phone number if an event mentioned above is present for longer than the time period specified.
Setting up "No coin acceptance" alarm

If the coin changer is supposed to send a text message when no coin has been inserted/validated for longer than an individual period of time, then first of all set the time period [in h] the event has to be present and then activate the event.

Quick approach:

<table>
<thead>
<tr>
<th>Press key ...</th>
<th>How often?</th>
<th>Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1 x</td>
<td>You enter the main menu</td>
</tr>
<tr>
<td>2</td>
<td>1 x</td>
<td>You enter the Setting menu</td>
</tr>
<tr>
<td>3</td>
<td>until Airport</td>
<td>You want to enter the Airport submenu</td>
</tr>
<tr>
<td>4</td>
<td>1 x</td>
<td>You enter the submenu</td>
</tr>
<tr>
<td>5</td>
<td>until Message for no coins</td>
<td>You want to set the period in hours</td>
</tr>
<tr>
<td>6</td>
<td>1 x</td>
<td>Now you can set the period</td>
</tr>
<tr>
<td>7</td>
<td>until required digit</td>
<td>You highlight the digit to be set</td>
</tr>
<tr>
<td>8</td>
<td>until required number</td>
<td>This number is to be set</td>
</tr>
<tr>
<td>9</td>
<td>Please repeat steps 7 and 8 to set the 3-digit period of time</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>1 x</td>
<td>You lock the set period in memory</td>
</tr>
<tr>
<td>11</td>
<td>1 x</td>
<td>You return to the submenu</td>
</tr>
<tr>
<td>12</td>
<td>until SMS transmission options</td>
<td>You want to enter the submenu</td>
</tr>
<tr>
<td>13</td>
<td>1 x</td>
<td>You enter the submenu</td>
</tr>
<tr>
<td>14</td>
<td>until SMS if long time no coins acceptance</td>
<td>You want to activate the event</td>
</tr>
<tr>
<td>15</td>
<td>1 x</td>
<td>Now you can activate the event</td>
</tr>
<tr>
<td>16</td>
<td>until setting desired</td>
<td>You want the coin changer to send a text message in case of the event mentioned above or not</td>
</tr>
<tr>
<td>17</td>
<td>1 x</td>
<td>You lock the setting in memory</td>
</tr>
<tr>
<td>18</td>
<td>1 x/2 x</td>
<td>You return to main menu/operating mode</td>
</tr>
</tbody>
</table>

From now on the coin changer will send a text message to the set phone number if no coin has been inserted/validated for longer than the time period specified.
Setting up "Door open" alarm (c² auxiliary input line connection)

The alarm may have another meaning in case something else than the machine door is connected to the c² auxiliary input line.

If the coin changer is supposed to send a text message when the vending machine door is open:

Quick approach:

- Main menu > E > Settings > Airport > SMS transmission options > SMS if door open

<table>
<thead>
<tr>
<th>Press key</th>
<th>How often?</th>
<th>Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1 x</td>
<td>You enter the main menu</td>
</tr>
<tr>
<td>2</td>
<td>1 x</td>
<td>You enter the Setting menu</td>
</tr>
<tr>
<td>3</td>
<td>until Airport</td>
<td>You want to enter the Airport submenu</td>
</tr>
<tr>
<td>4</td>
<td>1 x</td>
<td>You enter the submenu</td>
</tr>
<tr>
<td>5</td>
<td>until SMS transmission options</td>
<td>You want to enter a further submenu</td>
</tr>
<tr>
<td>6</td>
<td>1 x</td>
<td>You enter the submenu</td>
</tr>
<tr>
<td>7</td>
<td>until SMS if door open</td>
<td>You want to activate the event</td>
</tr>
<tr>
<td>8</td>
<td>1 x</td>
<td>Now you can activate the event</td>
</tr>
<tr>
<td>9</td>
<td>until setting desired</td>
<td>You want the coin changer to send a text message if the machine door is open or you do not want ...</td>
</tr>
<tr>
<td>10</td>
<td>1 x</td>
<td>You lock the setting in memory</td>
</tr>
<tr>
<td>11</td>
<td>1 x/2 x</td>
<td>You return to main menu/operating mode</td>
</tr>
</tbody>
</table>

From now on the coin changer will send a text message to the set phone number if the vending machine door is open.
Setting up "Failure in the validator module" alarm

If the coin changer is supposed to send a text message when there is an error within the coin validator module:

Quick approach:

1. Main menu > E = Settings > Airport > SMS transmission options > SMS if error in the validator

<table>
<thead>
<tr>
<th>Press key ...</th>
<th>How often?</th>
<th>Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1 x</td>
<td>You enter the main menu</td>
</tr>
<tr>
<td>2</td>
<td>1 x</td>
<td>You enter the Setting menu</td>
</tr>
<tr>
<td>3</td>
<td>until Airport</td>
<td>You want to enter the Airport submenu</td>
</tr>
<tr>
<td>4</td>
<td>1 x</td>
<td>You enter the submenu</td>
</tr>
<tr>
<td>5</td>
<td>until SMS transmission options</td>
<td>You want to enter a further submenu</td>
</tr>
<tr>
<td>6</td>
<td>1 x</td>
<td>You enter the submenu</td>
</tr>
<tr>
<td>7</td>
<td>until SMS if error in the validator</td>
<td>You want to activate the event</td>
</tr>
<tr>
<td>8</td>
<td>1 x</td>
<td>Now you can activate the event</td>
</tr>
<tr>
<td>9</td>
<td>until setting desired</td>
<td>You want the coin changer to send a text message if there is an error in the validator or you do not want ...</td>
</tr>
<tr>
<td>10</td>
<td>1 x</td>
<td>You lock the setting in memory</td>
</tr>
<tr>
<td>11</td>
<td>1 x/2 x</td>
<td>You return to main menu/operating mode</td>
</tr>
</tbody>
</table>

From now on the coin changer will send a text message to the set phone number if there is an error in the coin validator module.
Setting up "Payout jam" alarm

If the coin changer is supposed to send a text message when there is a coin jam in the payout module:

Quick approach:

1. Main menu > E = Settings > Airport > SMS transmission options > SMS if jam in the payout module

<table>
<thead>
<tr>
<th>Press key ...</th>
<th>How often?</th>
<th>Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1 x</td>
<td>You enter the main menu</td>
</tr>
<tr>
<td>2</td>
<td>1 x</td>
<td>You enter the Setting menu</td>
</tr>
<tr>
<td>3 until</td>
<td></td>
<td>You want to enter the AIRPORT submenu</td>
</tr>
<tr>
<td>4 until</td>
<td>1 x</td>
<td>You enter the submenu</td>
</tr>
<tr>
<td>5 until</td>
<td></td>
<td>You want to enter a further submenu</td>
</tr>
<tr>
<td>6 until</td>
<td>1 x</td>
<td>You enter the submenu</td>
</tr>
<tr>
<td>7 until</td>
<td></td>
<td>You want to activate the event</td>
</tr>
<tr>
<td>8 1 x</td>
<td>1 x</td>
<td>Now you can activate the event</td>
</tr>
<tr>
<td>9 until</td>
<td></td>
<td>You want the coin changer to send a text message if there is a jam in the payout module or you do not want ...</td>
</tr>
<tr>
<td>10 1 x</td>
<td>1 x</td>
<td>You lock the setting in memory</td>
</tr>
<tr>
<td>11 1 x/2 x</td>
<td></td>
<td>You return to main menu/operating mode</td>
</tr>
</tbody>
</table>

From now on the coin changer will send a text message to the set phone number if there is a coin jam in the payout module.
Configuring minimum change amount

If the coin changer is supposed to send a text message when the tube change equals or goes below a configured change amount, the minimum change amount can be set in the c² menu. The event has to be activated using the Audit Manager (cp. Chap. Setting up c² monitoring via text messages/e-mails, p. 36 in the Audit Manager manual:

Quick approach:

Press key ... | How often? | Effect
--- | --- | ---
1 | 1 x | You enter the main menu
2 | 1 x | You enter the Setting menu
3 | until Airport | You want to enter the Airport submenu
4 | 1 x | You enter the submenu
5 | until Value for low change SMS | You want to set the minimum change amount
6 | 1 x | Now you can set the amount
7 | until required digit | You highlight the digit to be set
8 | until required number | This number is to be set
9 | Please repeat steps 7 and 8 to set the 5-digit amount
10 | 1 x | You lock the set amount in memory
11 | 1 x/2 x | You return to main menu/operating mode
12 | | Activate event using Word

As soon as the event has been activated using the Audit Manager the coin changer will send a text message to the set phone number when the tube change equals or goes below the specified change minimum amount.

The event will be deactivated again if the minimum change amount is set to zero.
Setting up "Exact money" (no change) alarm

If the coin changer is supposed to send a text message when there is no change available and the customer has to insert exact money:

Quick approach:

- Start with the main menu: E
- Go to Settings: E
- Choose Airport: E
- Select SMS transmission options: E
- Choose SMS if exact change status: E

**Press key ...** | **How often?** | **Effect**
--- | --- | ---
1 | 1 x | You enter the main menu
2 | 1 x | You enter the Setting menu
3 | until Airport | You want to enter the Airport submenu
4 | 1 x | You enter the submenu
5 | until SMS transmission options | You want to enter a further submenu
6 | 1 x | You enter the submenu
7 | until SMS if exact change status | You want to activate the event
8 | 1 x | Now you can activate the event
9 | until setting desired | You want the coin changer to send a text message if there is no change available in the tubes or you do not want ...
10 | 1 x | You lock the setting in memory
11 | 1 x/2 x | You return to main menu/operating mode

From now on the coin changer will send a text message to the set phone number if there is no change available and the customer has to insert exact money.
### Setting up “Transaction volume reached” alarm

If the coin changer is supposed to send a text message when a configured transaction volume has been reached or exceeded, first of all specify a maximum amount and then activate the event:

**Quick approach:**

1. **Main menu** > **E** > **Settings** > **Airport** > **Vend value for sending an SMS** > **SMS transmission options**

<table>
<thead>
<tr>
<th>Press key</th>
<th>How often?</th>
<th>Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1 x</td>
<td>You enter the main menu</td>
</tr>
<tr>
<td>2</td>
<td>1 x</td>
<td>You enter the <strong>Setting</strong> menu</td>
</tr>
<tr>
<td>3</td>
<td>until <strong>Airport</strong></td>
<td>You want to enter the <strong>Airport</strong> submenu</td>
</tr>
<tr>
<td>4</td>
<td>1 x</td>
<td>You enter the submenu</td>
</tr>
<tr>
<td>5</td>
<td>until <strong>Vend value for sending an SMS</strong></td>
<td>You want to set the maximum transaction volume</td>
</tr>
<tr>
<td>6</td>
<td>1 x</td>
<td>Now you can set the volume</td>
</tr>
<tr>
<td>7</td>
<td>until required digit</td>
<td>You highlight the digit to be set</td>
</tr>
<tr>
<td>8</td>
<td>until required number</td>
<td>This number is to be set</td>
</tr>
<tr>
<td>9</td>
<td>Please repeat steps 7 and 8 to set the 5-digit amount</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>1 x</td>
<td>You lock the set amount in memory</td>
</tr>
<tr>
<td>11</td>
<td>1 x</td>
<td>You return to the submenu</td>
</tr>
<tr>
<td>12</td>
<td>until <strong>SMS transmission options</strong></td>
<td>You want to enter the submenu</td>
</tr>
<tr>
<td>13</td>
<td>1 x</td>
<td>You enter the submenu</td>
</tr>
<tr>
<td>14</td>
<td>until <strong>SMS if vend value reached</strong></td>
<td>You want to activate the event</td>
</tr>
<tr>
<td>15</td>
<td>1 x</td>
<td>Now you can activate the event</td>
</tr>
<tr>
<td>16</td>
<td>until setting desired</td>
<td>You want the coin changer to send a text message in case the transaction volume reaches the maximum amount specified or you do NOT want ...</td>
</tr>
<tr>
<td>17</td>
<td>1 x</td>
<td>You lock the setting in memory</td>
</tr>
<tr>
<td>18</td>
<td>1 x/2 x</td>
<td>You return to main menu/operating mode</td>
</tr>
</tbody>
</table>

From now on the coin changer will send a text message to the set phone number if the transaction volume reaches or exceeds the maximum amount specified.
Setting up "All-clear" message

If the coin changer is supposed to give the all-clear and send a second text message when an event reported beforehand is no longer present or the error has been fixed:

Quick approach:

1. Press the main menu key.
2. Press the setting menu key.
3. Press until the Airport menu is entered.
4. Press the submenu key.
5. Press until the SMS transmission options menu is entered.
6. Press the submenu key.
7. Press until the SMS if failure no longer exists menu is entered.
8. Press the activation key.
9. Press until the setting desired key is pressed.
10. Press the activation key once more.

From now on the coin changer will send a text message to the set phone number if an event reported beforehand is no longer present or the error has been fixed (e.g.: "NO COMMUNICATION/INHIBITED BY VMC" NO LONGER EXISTS).
Setting up monitoring via text messages/e-mails using the Audit Manager

Please refer to the "Installation" chapter of the Audit Manager manual to install and start the back office software and the NRI GSM modem currenza airbox.

Starting the Audit Manager

After having installed the airbox and started the Audit Manager, the last should display the modem status icon [Fig. 6/1] for the signal strength.

Fig. 6: Audit Manager start screen
Setting airbox SIM card PIN

Please refer to the Audit Manager manual, Chap. 5 Basic settings, p. 28.

*Basic settings for another modem than the airbox are also defined.*

Setting up alarms

Please refer to Chap. 5 Basic settings, p. 28 of the Audit Manager manual to set up the c² monitoring via text messages or e-mails and send the alarm configuration to all relevant coin changers or save the alarm configuration in the HENRI service tool for on-site configuration.

Testing the alarm function

*If you do not have a c² airport blue, just connect the HENRI service tool to test the alarm function (cp. HENRI short reference guide).*

In order to check whether text messages and e-mails sent by the coin changer will be received by the mobile phone/e-mail account or airbox the number/address of which you specified beforehand, just send a test message using the coin changer service menu:

<table>
<thead>
<tr>
<th>Press key ...</th>
<th>How often?</th>
<th>Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>a</td>
<td>1 x</td>
<td>You enter the main menu</td>
</tr>
<tr>
<td>b</td>
<td>1 x</td>
<td>You enter the SERVICE menu</td>
</tr>
<tr>
<td>c</td>
<td>until Airport ready</td>
<td>You want to send a test message</td>
</tr>
<tr>
<td>d</td>
<td>1 x</td>
<td>Now you can send the test message</td>
</tr>
<tr>
<td>e</td>
<td>1 x</td>
<td>Confirm Send message query with Yes. The coin changer sends the message &quot;OAB Inspecting and Service&quot; and confirms with OK</td>
</tr>
</tbody>
</table>

1 Check the in-box of the relevant mobile phone/e-mail account for the test message Airport ready or read out the coin changer messages using the airbox (cp. Audit Manager manual, Chap. 10 currenza c² airport monitoring via text messages/e-mails, p. 70).
5

Start-up in the machine

In this chapter you will most notably learn how to position the antenna inside or outside the machine and check the quality of reception/signal strength.

*This chapter also refers to the general currenza c² installation and service work guide.

**Coin changer and antenna may only be connected by a qualified electrician.**

Positioning antenna

Tools: please refer to antenna description, HENRI (if you do not have a c² blue)

To position the antenna (with SMA male/plug) provided by the customer:

1. If necessary, screw the antenna plug and the changer antenna socket [Fig. 7/1] together and fix the hex nut.

2. Place the antenna somewhere in/on the machine where it is able to pick up signals.

   *If you are not sure of the reception just hold the antenna and do not fix it yet.*

   *Never fix the antenna to metal surfaces. Otherwise the coin changer gets no signal.*

3. Check quality of reception:
– If you do not have a $c^2$ blue, connect the HENRI to the coin changer (cp. separate HENRI short reference guide). HENRI switches to $c^2$ mode automatically and displays the start screen.

- Press key ...
  How often? Effect
  a  1 x You enter the main menu
  b  1 x You enter the diagnostics menu
  c  until Audit module You select relevant module
  d  1 x You enter the diagnostics screen for the audit module where the reception quality is displayed as percentage. If it is higher than 30%, the antenna is well positioned. If not, please try another position and check again.
  e  1 x/2 x You return to main menu/operation mode

4 Test alarm function once again and send the AIRPORT READY test message using the coin changer service menu (cp. “Testing the alarm function”, p. 23).

5 If necessary, finally fix the antenna.

Installing coin changer

Please refer to the currenza $c^2$ installation guide to install the coin changer and connect it to the machine.

Filling coin cassette

Please refer to the currenza $c^2$ installation guide to fill the change tubes of the coin cassette for the first time or to the currenza $c^2$ service work guide to refill the cassette.
6

Loading the alarm configuration into the coin changer

This chapter describes how to upload the alarm configuration carried out using the Audit Manager and saved in the HENRI service tool into the c² airport on site at the machine.

Please refer to the Audit Manager manual to learn the set-up of the c² text message or e-mail monitoring using the Audit Manager as well as the transfer of the individual alarm configuration into the HENRI service tool.

Once saved in HENRI the text message and e-mail data may be uploaded on site to any airport changer you want.

To load the alarm configuration to the coin changer:

   HENRI switches to c² mode automatically and displays the start screen.

2. │ Press key ... │ How often? │ Effect |
   └─────────────┴─────────────┴─────────────
   a  1 x          1 x          You enter the HENRI main menu
   b  1 x          1 x          You enter the menu DB UPDATE
   c  1 x          1 x          You want to upload/update the alarm configuration (AUDIT DB)
   d  1 x          TEST 4 AIRPORT EMAILS has been confirmed.
   e  3 x          Data transfer has been started and is completed as soon as HENRI reports UPDATE DONE.
   f  1 x/2 x      You return to the c² operation mode/c² main menu

3. Test alarm function and send the AIRPORT READY test message using the coin changer service menu (cp. “Testing the alarm function”, p. 23).
The c² airport text messages/e-mails

Each text message/e-mail sent by the coin changer starts with the 10-digit machine number saved in the coin changer followed by a 3-digit EVA-DTS error code:

<table>
<thead>
<tr>
<th>EVA-DTS Error Code</th>
<th>Message text</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>EAA</td>
<td>LONG TIME NO COIN ACCEPTANCE</td>
<td>No coin inserted/validated for a specified time period</td>
</tr>
<tr>
<td>EAD</td>
<td>FAILURE IN THE VALIDATOR MODULE</td>
<td>Coin validator signals any error</td>
</tr>
<tr>
<td>EAF</td>
<td>PAYOUT JAM IN CHANGER</td>
<td>Coin changer has problems to payout coins</td>
</tr>
</tbody>
</table>
| EAR                | NO COMMUNICATION/ INHIBITED BY VMC | • No communication  
• Coin acceptance inhibited in machine for a specified time period |
| ECA                | POWER SUPPLY INTERRUPTED | Only for battery application: Power supply interrupted for a configured time period |
| ECZ                | POWERING UP | Only for battery application: Power re-established |
| EGS                | DOOR OPEN | Machine door has been opened (meaning can change in case something else than the door is connected to the c² line) |
| OAB                | INSPECTING AND SERVICE | Inspecting and service work done |
| OBC                | VEND VALUE REACHED | Configured transaction volume reached/exceeded |
| EA_L               | LOW CHANGE WARNING | Tube change equals or goes below configured change amount |
| OBK                | EXACT CHANGE | No change available, customer has to insert exact money |
| EAW                | "..." NO LONGER EXISTS | "..." error has been fixed, coin changer gives the all-clear, e.g.: "No communication, Inhibited by VMC" no longer exists |
8

Readout of $c^2$ status & audit data

Please refer to the Audit Manager manual to read out the status and error messages as well as the audit data of the $c^2$ airport coin changer.
9 Technical data

Supply voltage
- Executive: 24V AC
- BDV: 18V to 43V DC
- MDB: 18V to 43V DC

Power consumption
- Standby mode: 2.5VA max.
- Coin acceptance: 16.0VA max.
- Coin payout: 16.0VA max./motor
  (48VA max. when paying out with all three motors)

Temperature range
- -25°C to +80°C

Temperature change
- Max. 0.2°C/min.

Relative humidity
- Up to 90%

Condensation
- Not permitted

Machine interface
- Serial MDB interface (Multi Drop Bus) for slave operation/
- Serial BDV interface (Bundesverband der Deutschen
  Vending-Automatenwirtschaft e.V. = association of German
  vending machine industry) for master operation/
- Serial Executive interface for master operation/
- Combinations:
  - MDB + BDV
  - MDB + Executive

Antenna connector
- SMA female socket

Coin acceptance
- 16 coin types max. (of these, up to three tokens) in
  24 channels
- Coin diameter: 15–32.5mm
- Coin thickness: 1.5–3.5mm
**Coin payout**

Max. 6 coin types from a coin cassette

Coin diameter and thickness depend on coin cassette in use.

**Possible payout combinations:**

<table>
<thead>
<tr>
<th>Coin diameter</th>
<th>Tube</th>
</tr>
</thead>
<tbody>
<tr>
<td>29.0–32.5mm</td>
<td>✓</td>
</tr>
<tr>
<td>26.5–29.0mm</td>
<td>✓</td>
</tr>
<tr>
<td>24.5–26.5mm</td>
<td>✓</td>
</tr>
<tr>
<td>23.0–24.5mm</td>
<td>✓</td>
</tr>
<tr>
<td>21.5–23.5mm</td>
<td>✓</td>
</tr>
<tr>
<td>20.0–21.5mm</td>
<td>✓</td>
</tr>
<tr>
<td>18.5–20.0mm</td>
<td>✓</td>
</tr>
<tr>
<td>17.0–18.5mm</td>
<td>✓</td>
</tr>
<tr>
<td>16.0–17.0mm</td>
<td>✓</td>
</tr>
<tr>
<td>15.0–16.0mm</td>
<td>✓</td>
</tr>
</tbody>
</table>

**Device dimensions**

- Height: 377.10mm
- Width: 137.75mm
- Depth: 80.00mm (81mm with pressed return lever)

(for mounting dimensions see separate "Technical data" sheet for the currenza c²)

**Mounting position**

Vertical, max. deviation: ± 2°

**Directives applied**

- **EMC:** 2004/108/EC
  - EN 55 014-2 (interference resistance)
  - EN 55 022 (interference emission)
- **Machinery:** 2006/42/EC
- **R&TTE:** 1999/5/EC (Radio and telecommunications terminal equipment)

(cf. Declaration of Conformity)