Technical Documentation

A Crane Co. Company

Coin changer

currenza C² spider

Short reference guide

for starting up the spider system

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RoHS

CRANE

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1 About ...

This chapter should provide a general overview of the contents of this short reference guide as well as the advantages and options regarding the coin changer currenza c² spider.

About this short reference guide

This short reference guide describes:

- scope of delivery and accessories
- the design of the currenza c² and h² hopper
- how to put the currenza c² system into operation
- how to fill the payout units and test the spider system

This short reference guide does not describe the whole functional range of the coin changer currenza c² spider or the h² hopper but only the special functions of the currenza c² spider system. In order to be able to use the whole functional range of the coin changer and the hopper safely, all manuals and short reference guides for the NRI changer currenza c² and the NRI h² hopper must be read carefully (PDF download at www.nri24.com).

About the currenza c² spider

The currenza c² spider is used to validate inserted coins and pay out up to eight different coins as change.

Depending on the measured properties of the coins inserted, the coins will either be rejected and directed to the machine's return area, or they will be accepted and directed into

- the machine's cash-box or
- one of the six tubes in the coin cassette or
- one of the up to two ccTalk hoppers connected using an integrated high-speed sorter.

In the coin cassette and hoppers – completely controlled by the c² – the accepted coins are collected and can be returned as change, regardless of which payout unit is emptied first.

For details on the coin changer and hopper please refer to the currenza c² and h² manuals.

Scope of delivery

currenza c² spider with

- the relevant machine connecting cable as well as
- a ccTalk hopper connecting cable

Accessories

- currenza h² ccTalk hopper (12–37V) (ordering code depends on hopper model (size, coins to be handled etc.))
- Optional adapter cable(s) for a second or several hoppers (ordering code 31527)

2 Design

The coin changer currenza c² spider is a coin validation and 8-fold payout solution based on the well-established currenza c² and currenza d² high-speed sorter properties.

The currenza c² spider

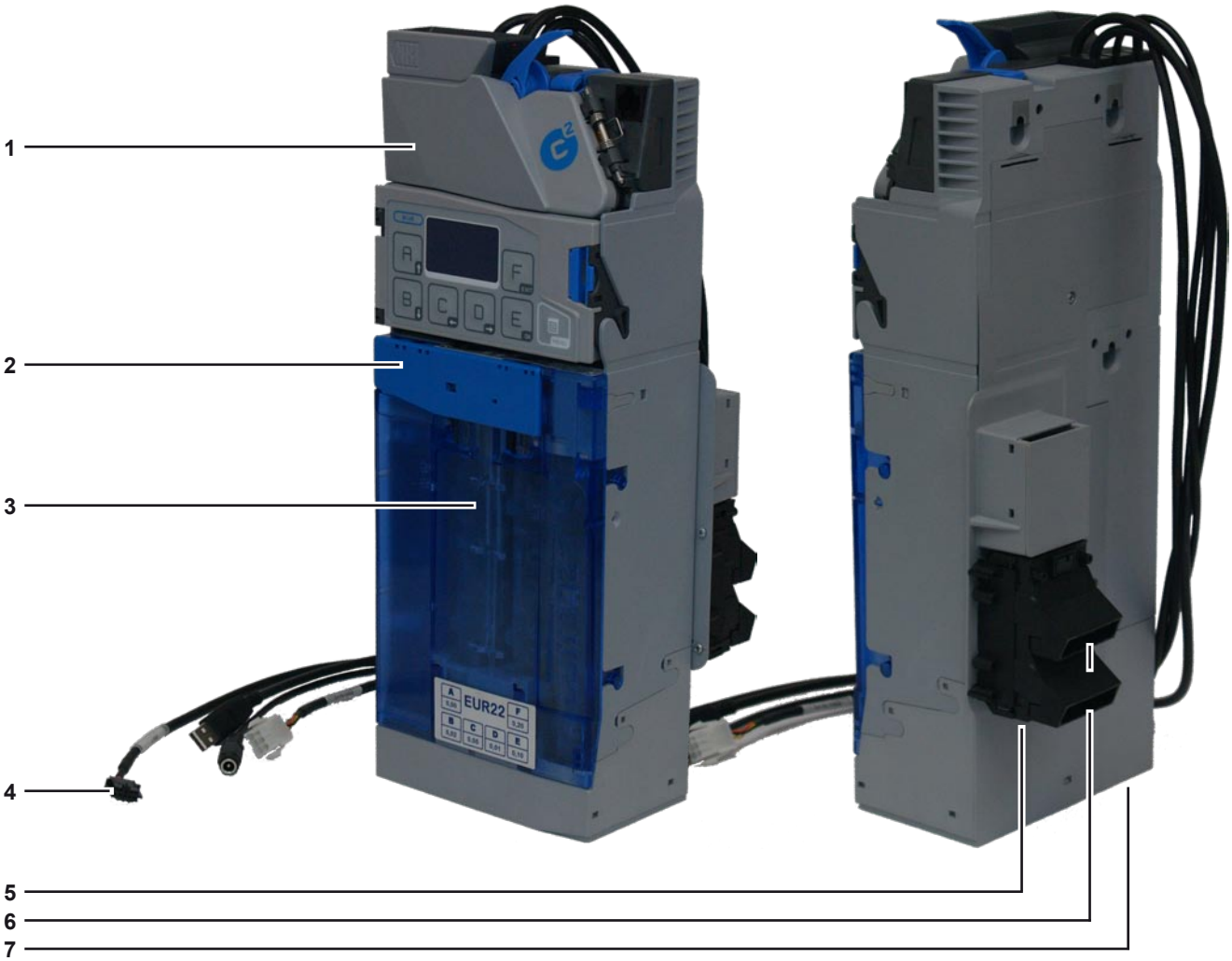

Fig. 1: The currenza c² spider

1 Coin validator
2 Latch – Removing coin cassette
3 6-tube coin cassette
4 ccTalk hopper connecting cable
5 Sorting path for cash-box
6 Sorting paths for 2-fold hopper payout
7 Return chute

The currenza h²

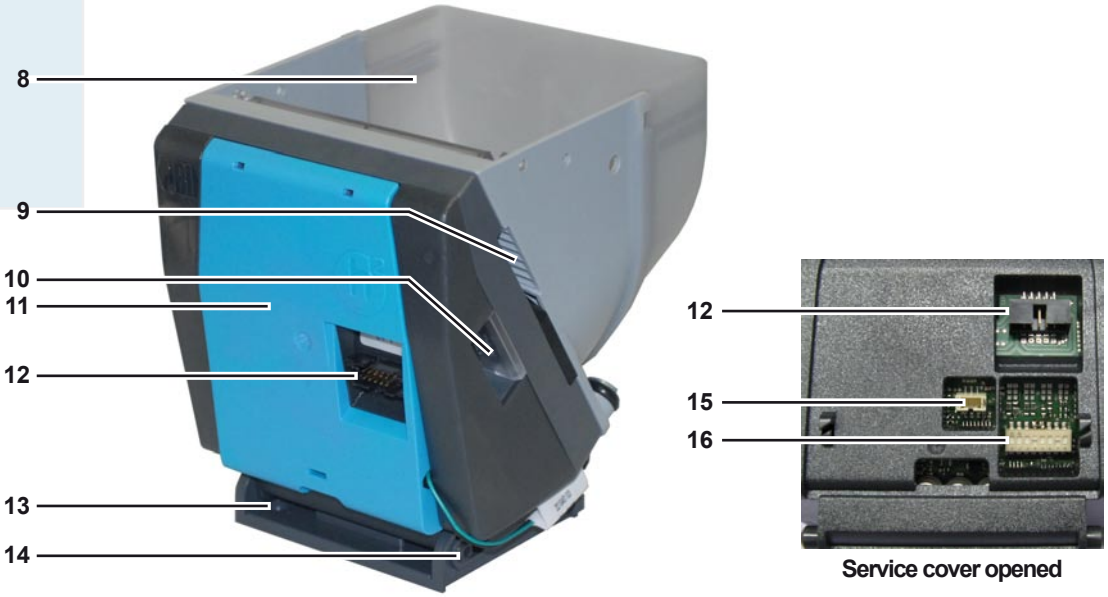

Fig. 2: The currenza h²

8 Bowl
9 Coin outlet
10 Coin passage
11 Service cover
12 Interface – machine
13 Mounting bracket
14 Mounting stud
15 Interface – Empty/full detection
16 Switching block

3 Start-up

In this chapter you will learn how to

- set the hopper address
- install the spider system in the machine
- connect the hopper(s) to coin changer
- configure the hopper coin(s) in the coin changer
- fill the hopper(s)
- test the spider system
  - Checking connection status
  - Paying out coins

Setting hopper address

Before connecting the hopper(s) to the c² spider you may set an individual hopper address. The default address is 3.

If you want to operate more than one hopper, the second hopper must have another unambiguous address for error-free communication with the control unit.

Tools: Slotted scew driver, pointed object

To set the ccTalk hopper address

1. If necessary, detach hopper from mounting bracket (cp. hopper manual).
2. Remove service cover (detach from the bottom using a slotted screw driver, see Fig. 3).

Fig. 3: Detaching service cover

3 Use DIL switches 1 to 4 of the switching block [**4**/**1**] on the rear of the hopper and a pointed object to set the required address:

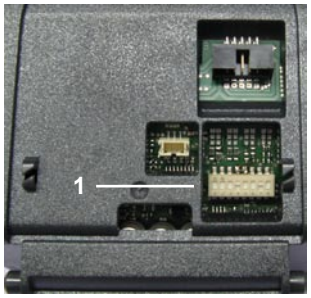

Fig. 4: Switching block

Address	Switch setting
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	

4 For the configuration of the hopper coins mark the hopper with the lower address figure with a "1".

Installing spider system in the machine

Please refer to the currenza c² installation guide and the h² hopper manual to install the spider system and connect it to the machine.

When installing the hopper(s)make sure, that there is enough space in front of the blue service cover in order that you can easily access the machine interface and functional switches.

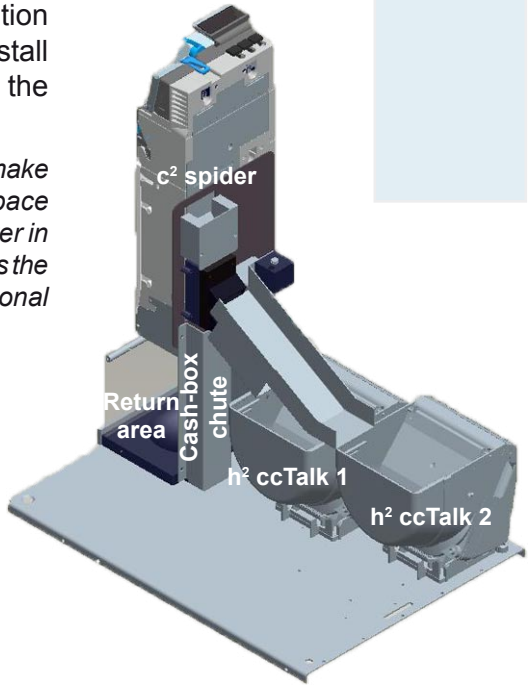

Fig. 5: Application example

Connecting hopper(s) to coin changer

If you want to operate two hoppers, you will need an adapter cable (cp. section "Accessories" in Chap. 1 "About ...").

Connecting two hoppers to coin changer

1. Use the ccTalk adapter cable to link the ccTalk machine interfaces [**6**/**1**] of both hoppers.
2. Use the ccTalk hopper cable [**6**/**2**] of the c² spider to connect the coin changer to the ccTalk plug of the adapter cable.
3. Turn power on.
   The spider system is connected to the VMC.

Fig. 6: ccTalk interfaces

Connecting one hopper to coin changer

1. Use the ccTalk hopper cable [**6**/**2**] of the c² spider to connect the coin changer to the hopper's ccTalk machine interface [**6**/**1**].
2. Turn power on.
   The spider system is connected to the VMC.

Setting hopper coins

In the c² spider, a setting must be made which coin(s) is/are being collected in the hopper(s) so that the coin changer can decide which residual credit is to be paid out from the coin cassette and which from the hopper(s).

If the hopper coins have been quoted when ordering the spider system, the coins have already been set by NRI.

Tools: HENRI service module, if you do not have a c² spider blue

To set the value of the coins collected in the hopper(s):

The hopper figures 1, 2 etc. refer to the ccTalk hopper address set. Hopper 1 is the hopper with the smaller ccTalk address, hopper 2 has a higher address etc (cp. section "Setting hopper address" in Chap. 3 "Start-up").

Quick approach:

= Main menu > E = Settings > Peripheral > Hopper > Coin value in hopper 1/2

	Press key ...	How often?	Effect
1		1 x	You enter the main menu
2	E	1 x	You enter the SETTING menu
3	B	until Peripheral	You want to enter submenu PERIPHERAL
4	E	1 x	You enter the submenu
5	B	until Hopper	You want to enter submenu HOPPER
6	E	1 x	You enter the submenu
7	B	until Coin value in hopper 1	You want to set the value of the coins collected in hopper 1
8	E	1 x	Now you can set the value
9	D / C	until required digit	You highlight the digit to be set
10	A / B	until required value	This value is to be set
11	*Please repeat steps 9 and 10 to set the other digits of the coin value, if necessary*		
12	E	1 x	You lock the set coin value in memory
13	*Press* F *-key and repeat steps 7 to 12 to set coin denomination of hopper 2, if necessary*		
14		2 x	You return to operating mode

The hopper figures 3 and 4 not in use retain coin value "00.00".

Filling coin cassette and hopper(s)

Please refer to the currenza c² installation guide to fill the change tubes of the coin cassette for the first time or to the currenza c² service work guide to refill the cassette. You may choose from different filling methods depending on the c² spider's default settings regarding the change counters in the tubes.

Before filling the hopper(s) with coins you must consider that:

There are different hopper versions depending on the coins to be processed!
To guarantee a proper hopper operation, please only fill those coins into the hopper intended for the corresponding hopper version (see label specification V1.0, 1.1, 2.0 etc.). In case of doubt please contact NRI or download the hopper overview "Which h² version is intended for which coin?" (www.nri24.com)!

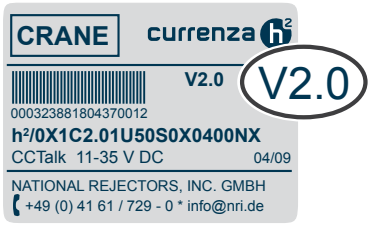

Fig. 7: Hopper label

After having filled the hopper with coins make sure that the safety flap of the hopper is installed correctly and engaged in the hopper bowl on both sides, so that the rotating parts are protected against access during hopper operation and the coins are transported to the coin outlet optimally.

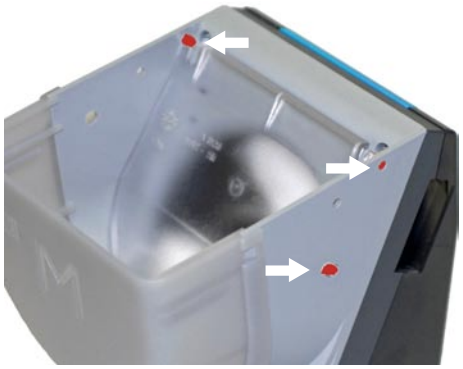

Fig. 8: Engaging safety flap

Testing the spider system

After you have installed, connected, set and provided the spider system with change, you should now check the connection status as well as pay out a few coins as a trial.

Checking connection status

The c² spider provides you with detailed information for diagnostics and troubleshooting. If a section of the unit is malfunctioning or supposed to be checked, the Diagnostics menu provides specific details, e.g., about the hopper connection:

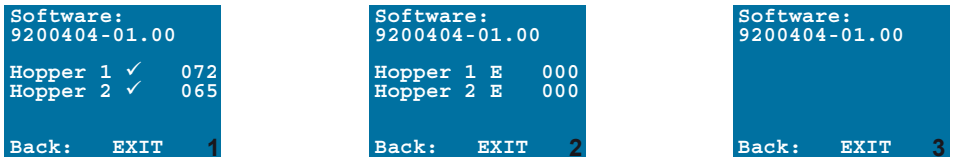

Fig. 9: Diagnostic screen examples

- Firmware version of ccTalk hopper interface (SOFTWARE)
- HOPPER 1/2 connected?

If the hopper(s) is/are not displayed, they are not connected [**9**/**3**].

- Empty/full message (E/F [**9**/**2**])
- Number of coins collected (xxx [**9**/**1**])

The correct number of coins can only be registered and displayed if the hopper(s) is/are filled by inserting the coins into the c² spider.

Tools: HENRI service module, if you do not have a c² spider blue

To check the connection of the hopper(s):

Quick approach:

= Main menu > D = Diagnostic > Hopper

	Press key ...	How often?	Effect
1		1 x	You enter the main menu
2		1 x	You enter the DIAGNOSTICS menu
3		until Hopper	You want to display the hopper diagnostic screen
4		1 x	You enter the diagnostic screen
5		*Check the hopper data*	
6		2 x	You return to operating mode

Paying out coins

Tools: HENRI service module, if you do not have a c² spider blue

To pay out a few or all coins from the hopper(s) as a trial:

Quick approach:

`= Main menu > C = Service > Hopper`

	Press key ...	How often?	Effect
1		1 x	You enter the main menu
2	C	1 x	You enter the SERVICE menu
3	B	until `Hopper`	You want to test the hopper(s) paying out coins
4	E	1 x	Now you can pay out coins
5	A/B	1 x	Hopper 1 (hopper with lower ccTalk address figure)/ hopper 2 pays out a coin as a trial
		To pay out all coins automatically keep the A or B key pressed until the hopper has paid out approx. five coins.	
6		2 x	You return to operating mode