WAVETRONIX Click 110 4-Channel Contact Closure Card User Guide

Click 110 Contact Closure
INSTALLATION QUICK START GUIDE

The Click 110 is a 4-channel contact closure card for use with Wavetronix smart sensors. For more information about this product, visit wavetronix.com.

Contents

Mount and connect the device

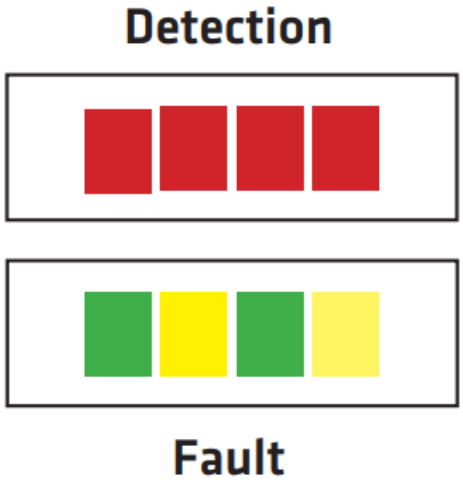
Use the following steps to install the Click 110 rack card:

1. If you're using hardware configuration, set all DIP switches before installing Click 110 devices (see step 3).
2. Insert the card into the rack and daisy-chain all the cards in your installation together using short RJ-11 jumper cables.
3. Connect the first Click 110 card to the SmartSensor via a Click 200 with an RJ-11 patch cord.

Note. Bus 1 should be used to connect to the sensor and bus 2 for configuration.

Understand the device's configuration features

Detection (Channel) LEDs

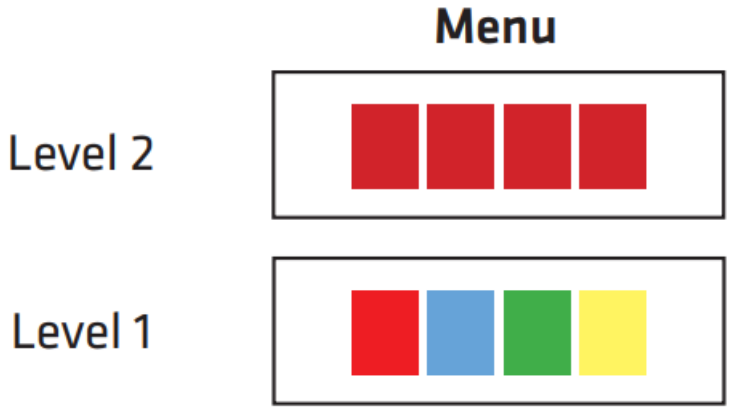


These LEDs light up to indicate vehicle detection.

Fault indicator LEDs

Four green and yellow LEDs numbered 1–4, each representing the channel with the corresponding number.

- **Illuminated green LED** – Indicates a no-fault condition.
- **Illuminated yellow LED** – Indicates a fault condition that has existed for less than one minute.
- **Extinguished LED –** Indicates a fault condition that has existed for more than one minute.



Level 2 LEDs
These LEDs are off.

Level 1 LEDs

- Red (PWR) – Indicates the presence of power to the device.
- Blue (MF) – Illuminates when the master fault output is in the no-fault condition. The LED is extinguished in the fault condition.
- Green (TD) – Indicates serial communication transmits data (from the Click 110) on either RS485 bus 1 or RS-485 bus 2.
- Yellow (RD) – Indicates serial communication receive data (to the Click 110) on either RS485 bus 1 or RS-485 bus 2.

Pushbuttons

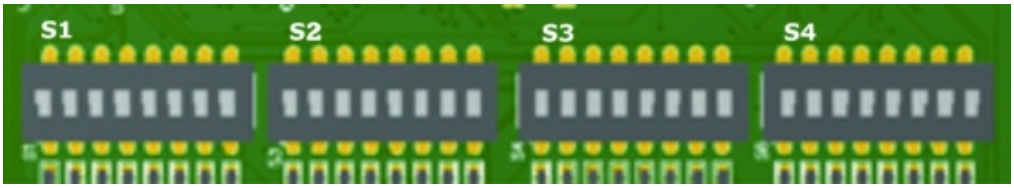
- Mode switch – This allows you to cycle through and select menu and configuration options.
- Reset switch – This allows you to reboot the Click 110. A reboot is one way to clear a latched fault condition. The other way is to have the outstation's back-end software reboot the card.

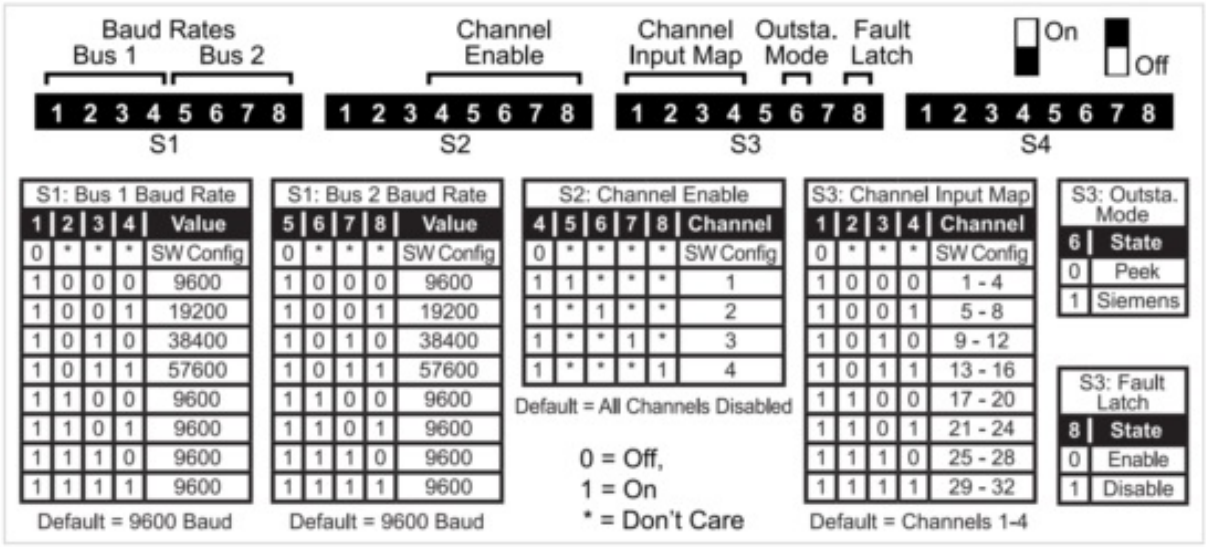
DIP switches
Located on the lower part of the circuit board. These switches allow you to configure the device (see Part 3 of this guide).

Configuring the DIP switches

The Click 110 should be configured using the DIP switches, The DIP switches on the circuit board can be used to change input mapping and the baud rates used for bus 1 and bus 2. These parameters can also be changed using the two other configuration options.
Note. Using the DIP switches to configure puts the Click 110 into hardware mode. In hardware mode, the settings can be viewed, but not changed via Click Supervisor and the front panel menu.

Look at the figure below to see how to set the switches in order to configure the parameters. To turn a switch on, flip it up.





Baud rate for Bus 1 and Bus 2

This function lets you set the baud rate for bus 1 and bus 2. The two buses can be configured separately. Flip the switches up and down according to the diagram to set the baud rate for each bus. All cards should be set to 9600 baud.

Channel output mapping

Any combination of outputs can be enabled. A disabled output will never enter the detection state and will never indicate a fault condition. Due to limited space on the faceplate side label, not all combinations of enabled and disabled channels are listed.

Channel input mapping

This function lets you map four of the input data channels coming from the sensor to the output channels on the device. The outputs are assigned sequentially, so if you select 13-16, then input 13 will be mapped to channel 1, and input 14 will be mapped to channel 2. The table below shows an example of a 10 and 6-lane setup.

Note. The lanes need to be renamed from the default name of “Lane_01” to “#01” using the SSMHD software. Please check the outstation information card to confirm lane assignments as there can be some variation.

Carriageway	Lane name	Loop pair
A	#01	2-Jan
	#02	4-Mar
	#03	6-May
	#04	8-Jul
	#05	10-Sep
B	#10	19-20
	#09	17-18
	#08	15-16
	#07	13-14
	#06	12-Nov

Carriageway	Lane name	Loop pair
A	#01	2-Jan
	#02	4-Mar
	#03	6-May
B	#06	12-Nov
	#05	10-Sep
	#04	8-Jul

Outstation mode
This function allows you to define which type of outstation the Click 110 will be installed in.
Fault latch
This function allows you to define how the fail-safe fault functions and can only be set with the dip switches. The Click 110 will stay in fail-safe mode, unless fault latching is disabled, at any point after the system has been in fail-safe for over one minute even if the Click 110 receives data from the sensor and requires a reset to clear the fail-safe state. The Fault latching setting should be disabled. However, some areas may request that the fault latch be enabled so the RTMC can visit or inspect sites that have gone into fault.

Connections

Once all the Click 110 cards have been inserted into the rack, connect the Click 200 with the long RJ-11 cable into the top RS485 bus (Bus 1) of the Click 110 card in slot 1. Multiple Click 110 cards can be daisy-chained together from the bottom connection of Bus 1 to the top connection of Bus 1 on the next Click 110 cards on the rack. Bus 2 is not used for regular detections and should remain empty and unconnected.
No connections are made between the SmartSensor HD and the traditional loop connections on the rear of the outstation.
These remain empty.
When the cards are configured and connected properly, the LEDs on each card will turn on when vehicles are detected.
Additional information on the Click 110 LEDs can be found in the Click 100-400 Series User Guide.

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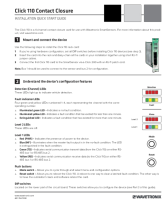	WAVETRONIX Click 110 4 Channel Contact Closure Card [pdf] User Guide Click 110, 4 Channel Contact Closure Card, Click 110 4 Channel Contact Closure Card

References

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