

Protocol Description

Access Touch

Version	Date	Author	Description
1.30	30.09.2011	Ara	Document renamed to Access Touch Protocol Description as it is valid for Access Touch 2.x and 3.x
1.20	09.06.2010	Pko	Power failure message added
1.10	22.03.2010	Pko	Wiegand output format updated
1.00	9.12.2009	Jpo	First version
0.10	23.9.2009	Pko	First PRELIMINARY version

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1. Protocol Description

1.1. Status Query

Ascii character "Q" is sent to the internal application controller. 7 byte answer includes sensor and input status. Answer is described in table 1.

size	1 byte	1 byte	1 byte	1 byte	2 bytes	1 byte
status	infrared sensor	battery level	external power level	input status	ISL sensor	temperature sensor

Table 1.

Infrared sensor: Not equipped as a default

Battery level: Indicate back- up capacitors charge level

External power level:

- 1 is equivalent to 0.1 V
- i.e. value 0x9B ~ 155 (dec) ~ 15.5V

Input status bits: XXABXXXT

- A: input A (1,0)
- B: input B (1,0)
- T: tamper (1,0)
- X: RFU

ISL sensor: Not equipped as a default

Temperature sensor:

- answer is signed char
- temperature scale is Celsius
- 00 = 0 °C
- 7F = 128 °C
- 80 = -128 °C

1.2. Reader Data

Access Touch can use readers with wiegand or RS232 interface.

1.2.1. Wiegand

Wiegand data is started with "W" or "w" character. "W" indicates Wiegand A reader data and "w" wiegand B reader data. Following characters are 0x30 and 0x31. 0x30 indicates detected 0-bit, 0x31 indicates detected 1-bit. All wiegand data is buffered first and send after that with a start character. If both readers Wiegand A and Wiegand B send data simultaneously, data will be corrupted, and therefore won't be sent forward. Line feed (0x0A) is sent as an end character.

1.2.2. RS232

RS232 reader data is also buffered first. The data is sent to ETX-e module with start character "R". Line feed (0x0A) is sent as an end character.

Command strings can be sent for RS232 reader by ETX-e application SW with same format. Data starts with character "R" and following data is piped to the rs232 reader.

Example:

RQ sent to the Access 9 CM reader -> reader answer with current reader firmware version

1.3. Output Control

There are two outputs to be controlled with command.

Command strings for controlling outputs are described in table 2.

	Set command [reply]	Unset command [reply]
OUT_A	OA1 [A]	OA0 [A]
OUT_B	OB1 [B]	OB0 [B]
OUT_C	OC1 [C]	OC0 [C]
OUT_D	OD1 [D]	OD0 [D]

Table 2.

1.4. Power Failure

Application controller monitors input voltage level continuously. If voltage level decreases less than 12 V, application controller indicates power failure situation to ETX by sending character 'p'. If voltage is still low after 3 seconds, application controller sends character 'P' as an indication that ETX will be shut down after 2 seconds (even though voltage rises up within those 2 seconds). Both 'p' and 'P' characters are followed by line feed (0x0A).

1.5. Alive Restart

If application controller doesn't get any command or query from ETX-e within 5 minutes, it restarts ETX-e.

This functionality is depending on DIP switch position. Alive restart can be blocked out.

Note! Alive restart is only possible with PCB versions starting v 1.2!