

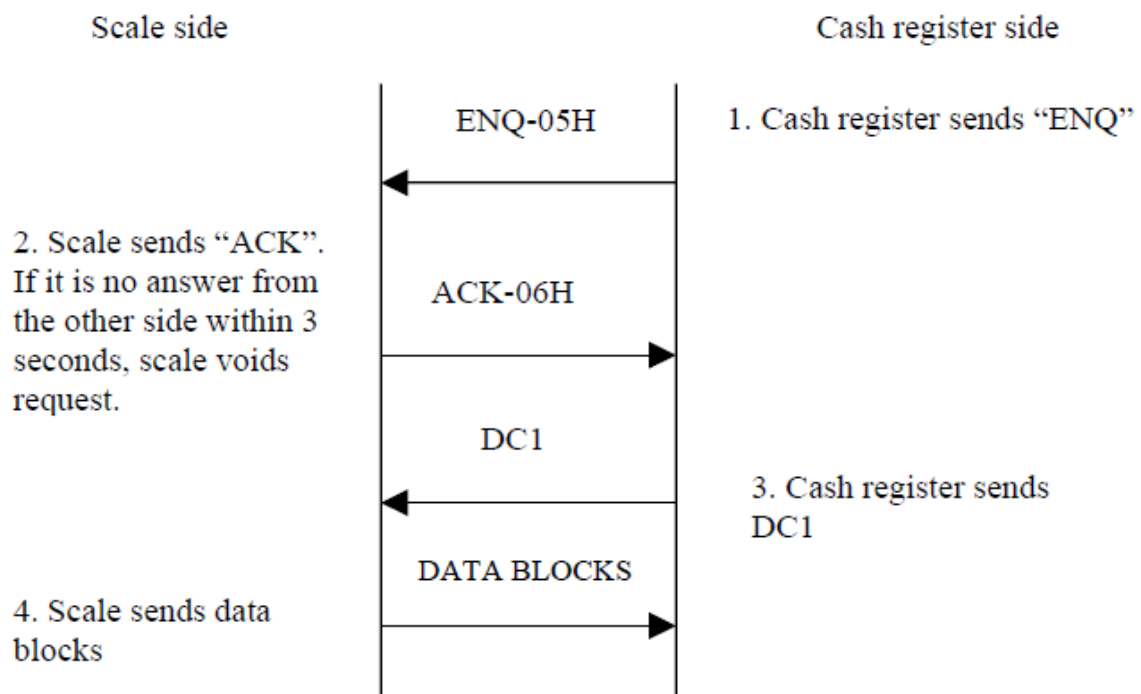
Description of communication protocols supported by scale S200

0. CAS protocol

1. The communication agreements

- 1. BAUD RATE -> 9600
- 2. DATA BIT -> 8 BIT
- 3. STOP BIT -> 1 BIT
- 4. PARITY BIT -> NO
- 6. DATA FORMAT -> ASCII
- 7. THE COMMAND DEFINITIONS
 - „ENQ“ -> 05H
 - „ACK“ -> 06H
 - „SOH“ -> 01H
 - „STX“ -> 02H
 - „ETX“ -> 03H
 - „EOT“ -> 04H
 - „DC1“ -> 11H

2. The communication protocol



1. ELICOM protocol

1. The communication agreements

BAUD RATE - 9600

DATA BIT - 8 BIT

STOP BIT - 1 BIT

PARITY BIT - NO

2. The communication protocol

PC

AA₍₁₆₎

Scale

No weight - BB₍₁₆₎

When weight is stable: 3 bytes + CKS

Example: 2,310kg = 00 23 10 33₍₁₆₎

Scale is zero with command: CC₍₁₆₎

2. Dibal Protocol

1. The communication agreements

BAUD RATE - 9600

DATA BIT - 8 BIT

STOP BIT - 1 BIT

PARITY BIT - NO

2. The communication protocol

<u>PC</u>	STX
<u>Scale</u>	ACK
<u>PC</u>	@1PU4PU3PU2PU1PU0 CR LF (PUn => digit price/kg)
<u>PC</u>	STX
<u>Scale</u>	ACK
<u>PC</u>	10CR LF
<u>Scale</u>	STX
<u>PC</u>	ACK
<u>Scale</u>	PD4PD3PD2PD1PD0 PU4PU3PU2PU1PU0 PX5PX4PX3PX2PX1PX0 0 CR LF

PDn weight sent by the balance

PUn digit price/kg sent by the balance

PXn total digit price sent by the balance

NOTE: When scale is in the following modes: instability weight, zero weight, overload or "negative" weight. The transmission of messages for WEIGHT, PRICE/KG, PRICE TO PAY the scale will replace all characters PDn, PUn, PXn by the character "X"

3. Mettler protocol

Commands

Each command end with <CR><LF>, where

<CR > = 0Dh

<LF> = 0Ah

The other part of the command is ASCII text

Command S – send stable weight value

Command S

Response: S S Weight value Kg

S I – command is not executable, the scale is busy

Example:

Command S

Response S S 0.360 Kg

Command SI – send weight value immediately regardless the stability

Command SI

Response: S S Weight value Kg - stable weight

S D Weight value Kg - unstable weight

S I – command is not executable, the scale is busy

Example:

Command SI

Response S D 0.360 Kg

Command SIR – send weight value immediately and repeat

Command SIR

Response: S S Weight value Kg - stable weight

S D Weight value Kg - unstable weight

S I – command is not executable, the scale is busy

Example:

Command SIR

Response S D 0.360 Kg

- SIR is overwritten by the commands S, SI

Command Z - Zero the scale

Command Z

Response: Z A – zero setting is performed

Z I – command is not executable, the scale is busy

Example:

Command Z

Response Z A

Command ZI – zero immediately

Command ZI- Zero the scale immediately regardless the stability

Response: ZI D – zero is performed under non-stable conditions

ZI S – zero is performed under stable conditions

ZI I – command is not executable, the scale is busy

Example:

Command Z

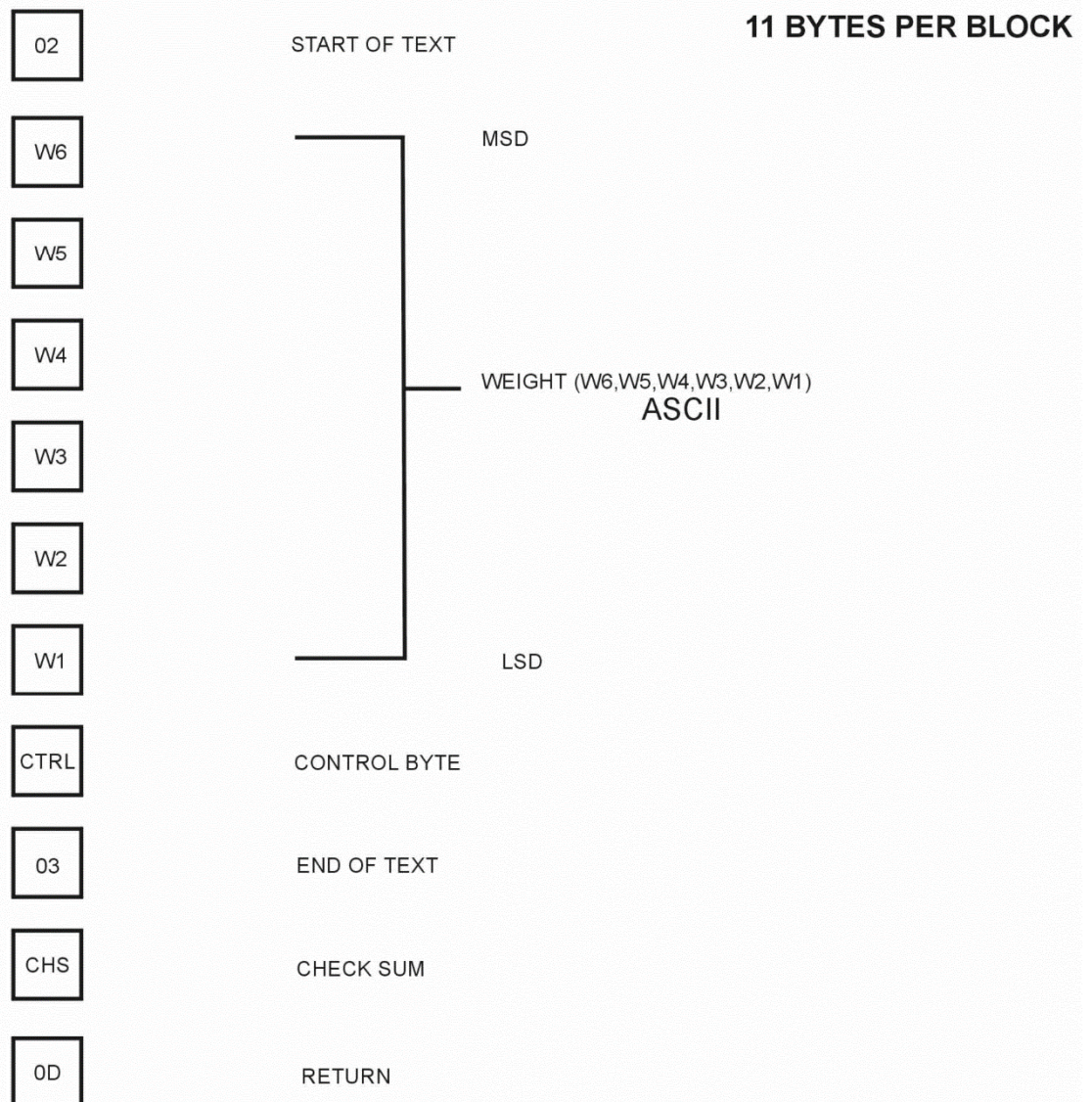
Response Z A

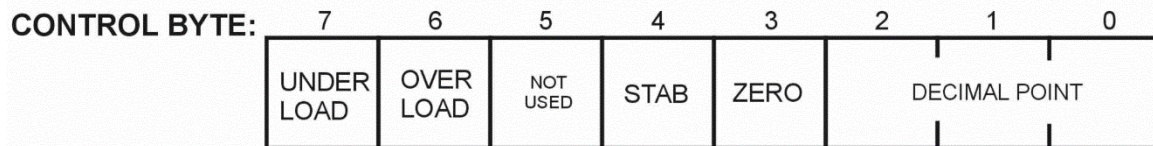
4. DELMAC protocol

Note: This protocol is working on speed 1200 baud rate and scale baud settings from scale menu does not take affect

COMMUNICATION PROTOCOL OF SCALES

RS232 : 1200 baud rate 8bit 1stop no-parity





0:IN RANGE
1:UNDERLOAD

0:IN RANGE
1:OVERLOAD

0:NON STAB
1:STABILITY

0:NON ZERO
1:ZERO

000:NON POINT
001:1st DIGIT
010:2nd DIGIT
011:3d DIGIT
100:4th DIGIT
101:5th DIGIT

CHECK SUM: $(W6 \text{ XOR } 1) + (W5 \text{ XOR } 2) + (W4 \text{ XOR } 3) + (W3 \text{ XOR } 4) + (W2 \text{ XOR } 5) + (W1 \text{ XOR } 6) + (\text{CTRL XOR } 7) = \boxed{\text{CSH}|\text{CSL}}$
2 BYTES

CHS=(CSH XOR CSL) CHECK SUM

5. WEGA protocol

PC asks by: 00 00 03 (16)

The answer is with 17 bytes: weight 6 bytes, unit price 5 bytes, TOTAL: 6 bytes.

Example: weight 2,430kg, unit price 1,25, TOTAL: 3,04 EUR will be send as:

00 03 04 02 00 00 05 02 01 00 00 04 00 03 00 00 00(16)

The command: 00 00 01 (16) clears receiving buffer of the scale

