

2012

# EAGLE- KRPC

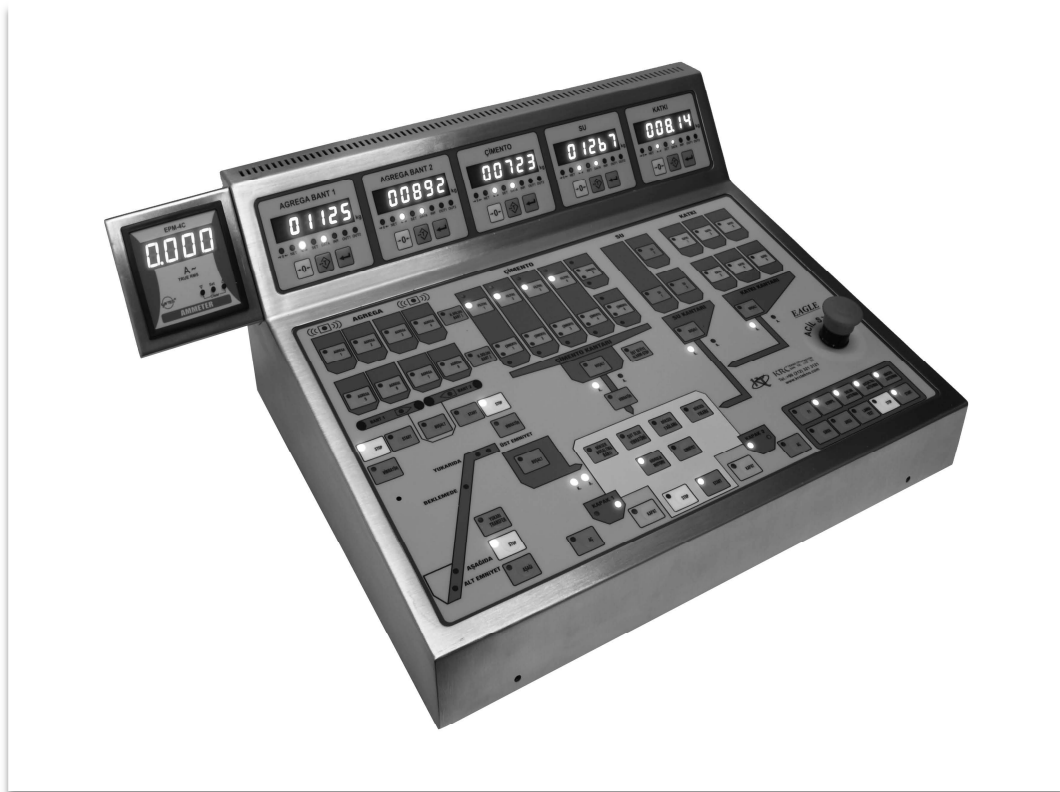
CONCRETE PLANT AUTOMATION SYSTEM

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# ***KRC TEKNO***



## ***EAGLE***

## ***CONCRETE PLANT Automation System***

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## 1. Eagle Indicator definition

### ➤ General Characteritics

Concrete is a system specifically designed for automation plants. Have different structures, command and control of all concrete plants have been designed in accordance with. Working simultaneously with computer systems, and concrete production program, which allows us to manufacture our computer breaks down, when manually switching center of gravity of the indicators of the status of the units, sensors, and knowledge of the operator by means of swiching offering concrete batching plant operator cabs as a solution to the narrowing of the small footprint of the system is another important feature is that it eliminates the clutter of cables.

Aggregate bant1, bant2 aggregate, cement, water and additives bind to 5 pieces weighing point at the same time, Loadcell pulsmeter can be done with the weighing of liquid meters can be used. Also supplied with the system used in switchgear cabinets, mixer ammeter connection is made possible strain on the operator side are immediately apparent.

The interior design is completely modular, there is a fault in any re-runs are made by the user, even a very short time.

Today, concrete plants, concrete mixing ratios produced in systems with more than one device is used for the detection and control. Aggregate in concrete plants, cement, water, additive device or a separate display units are used for receiving and unloading operations. Each unit is used for the connection cable mess by creating a visual pollution.

The constituent materials are filling a mixture of existing systems with PLC control. Slowly filling with PLC control system to control what causes the formation of defects that cause the filling. Incorrect filling, mixing and use of incomplete objectionable material causes the formation of a structural element.

In addition, the existing systems, the DOP (touch operator panel) is used. Such panels may intervene manually using the user part of the concrete plant. The present invention concrete plant integrated control unit, characterized in that the control of filling, the filling out of the weighing indicator does. Weighing indicator via filling control, control of the system by providing high-speed filling minimizes errors.

With a single cable connection to the PLC and the clutter of cables is prevented. According to the invention, is able to control all the power plants on a small computer desk. Automatic or manual operation, resistant to external influences. Ensuring ease of maintenance as mechanical and electronic repairs made easy work. Due to its location visible defects can be easily intervene.

Eagle filling control, calibration, control, and setting menus using the computer as it does on the device to be held this provides great convenience to the user. In case of using liquid indicator counting systems, with a single key is switched pulsmeter and input fluid intake is followed by counting the pulses. Eagle, table-top device. Thus, does not occupy much space. Parts are modular and can interfere with failures more easily. The plant with two cables in a single device automatically controls the entire system and makes.

EAGLE, the rule of touch screen operator panels, concrete plant to recognize it possible to intervene as required. Thanks to the button be pressed as you want at the same time water, cement, sand, additives, while the setting material discharge or mixture has the characteristics of being played with.

### ➤ [Technical Information](#)

- Loadcell input                      5 pieces ( for Scale)   PC communication with Serial1 Eagle
- Serial1                                  PC communication with serial1 Eagle
- Serial2                                  Eagle with the PLC communication
- Moisture meter                      3 pcs
- Power                                  220V AC (60W) - KRPC 220V AC (150W)
- I /O                                      24V DC input-output (external power) max. 1A
- Body                                    DKP – Texture Black or White painted
- Dimensions                          425 x 355 x 190 mm
- Weight                                 8200 gr / KRPC 9000 gr
- Carton weight                        12,8 Kg / 13Kg

### ➤ [Optional Features](#)

- Built-in Computer                    (\*)
- Analog input card                    1 x 3-channel 4 - 20mA / 0 - 10V (for humidity probe and Ammeter)

### ➤ [Package Contents](#)

1. 1 x Eagle or Eagle – KRPC
2. 1 x PLC
3. 1 x Operating System (Windows 7 Home Basic CD or Flash memory) (\*\*)
4. 1 x 100w 24v Power Supply
5. 1 EPA 241-RS Ammeter
6. 1 x Ammeter connector apparatus
7. 1 x 220v computer cable
8. 1 x 900 number one cable
9. 1 x 300 number one cable
10. 1 x Input - Output cable
11. 5 pcs DB 9pin male connector
12. 5 pcs DB 9pin connector cover
13. Eagle user manual 1 pcs

### ➤ [User Guide Target Audience](#)



This guide is for technical personnel, the general is not for the masses. The intervention of unqualified and unauthorized persons is prohibited. This text, the system warns the user about the formation of the hardware, damage and data loss.

## 2 - Eagle computer components – Opsiyonel

### ➤ Computer General Specifications (\*)

- |               |                                               |
|---------------|-----------------------------------------------|
| • PC board    | Mini ITX Intel Motherboard Innovation series, |
| • Processor   | Intel Atom D2500CC                            |
| • Hard        | Drive 320GB Samsung / Toshiba                 |
| • Ram         | 2 - 4GB PC3 SODIMM                            |
| • Serial Port | 4 (2 internal + 2 external)                   |
| • Lan         | 2 pcs                                         |
| • USB         | 7 (3 internal + 4 external)                   |
| • PS / 2      | 2 (mouse + keyboard)                          |
| • Video       | 1 (VGA + DVI-I)                               |
| • Lpt         | 1 internal                                    |

(\*) Built-in computer, EAGLE - KRPC are coded automation systems

(\*\*) Licensed operating system equipment EAGLE - KRPC provided with.



## ➤ Computer Technical Specifications

### 1. Motherboard Components

Shows the location of the major components on the Intel Motherboard

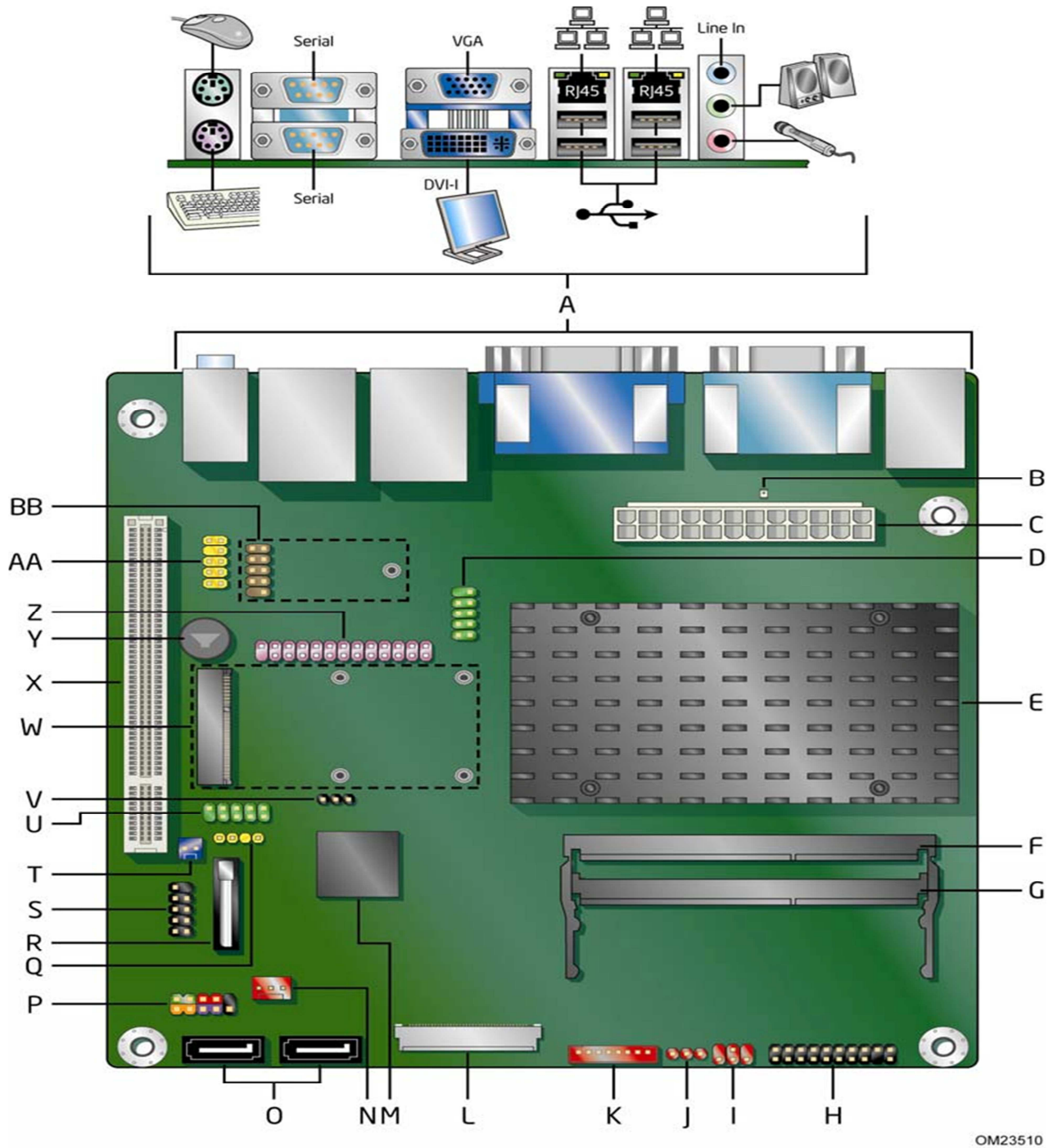


Figure 1

## 2. Motherboard Components Description table

Table-1 Computer Motherboard Components

| Etiket | Description                                                                                          |
|--------|------------------------------------------------------------------------------------------------------|
| A      | Rear panel connectors                                                                                |
| B      | Standby power indicator (LED)                                                                        |
| C      | The main power connector (2 x 12-pin)                                                                |
| D      | Serial port cap (1)                                                                                  |
| E      | Processor                                                                                            |
| F      | SO-DIMM 0 slot - Ram                                                                                 |
| G      | SO-DIMM 1 slot - Ram                                                                                 |
| H      | TPM header                                                                                           |
| I      | Flat-panel voltage selection header                                                                  |
| J      | Backlight inverter voltage selection header                                                          |
| K      | Brightness of the flat panel display connector                                                       |
| L      | LVDS interface connector                                                                             |
| M      | Intel ® NM10 Express Chipset                                                                         |
| N      | The system fan header                                                                                |
| O      | SATA connectors                                                                                      |
| P      | The front panel header                                                                               |
| Q      | S / PDIF out header                                                                                  |
| R      | BIOS battery (***)                                                                                   |
| S      | USB front panel header                                                                               |
| T      | The front panel header wireless activity (LED)                                                       |
| U      | Serial port header (2)                                                                               |
| V      | BIOS configuration jumper block                                                                      |
| W      | PCI Express Full-Mini-Card slot                                                                      |
| X      | PCI bus connector                                                                                    |
| Y      | Piezoelectric speaker                                                                                |
| Z      | Parallel port header                                                                                 |
| AA     | The front panel audio header                                                                         |
| BB     | Intel Z-U130 USB Solid-State Drive (or compatible device) with the support of USB front panel header |

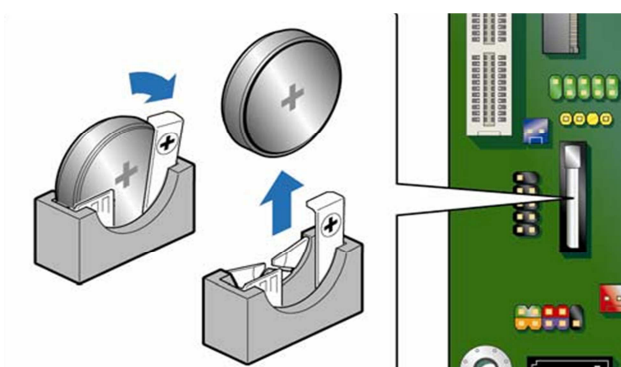


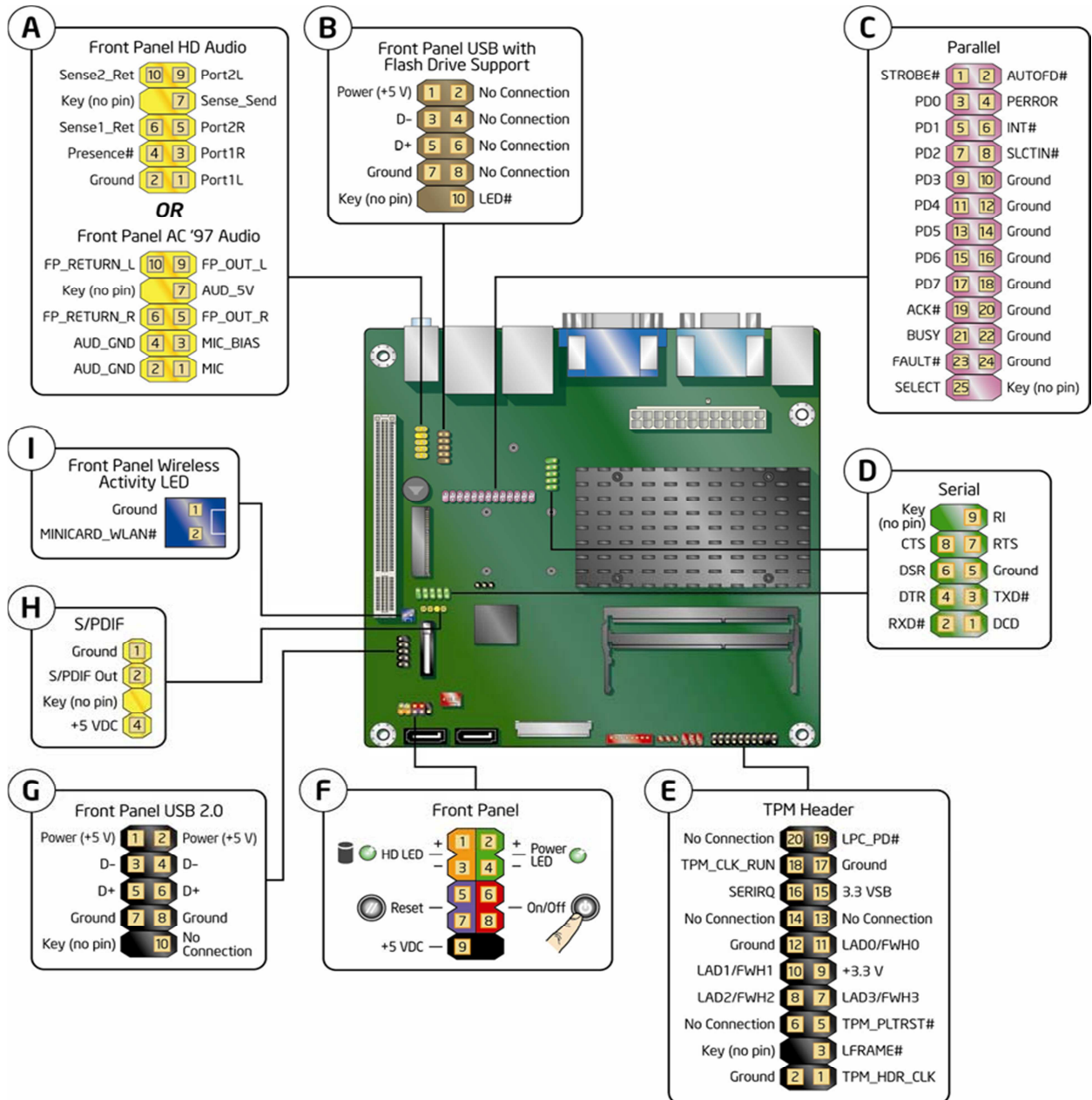
Figure 2

**(\*\*\*) BIOS battery:** Risk of explosion if battery is replaced with an incorrect type is. Batteries should be recycled whenever possible. Used batteries should be disposed of in accordance with local environmental laws.



### 3. Anakart Bileşenleri bağlantı tabloları

Shows the location and connection definitions for the connection on the motherboard headers.



OM23524 +

Figure 3

### 3- Connection Types and Tables Connection Types and Tables

EAGLE - KRPC descriptions of the rear panel view of the connector and cable

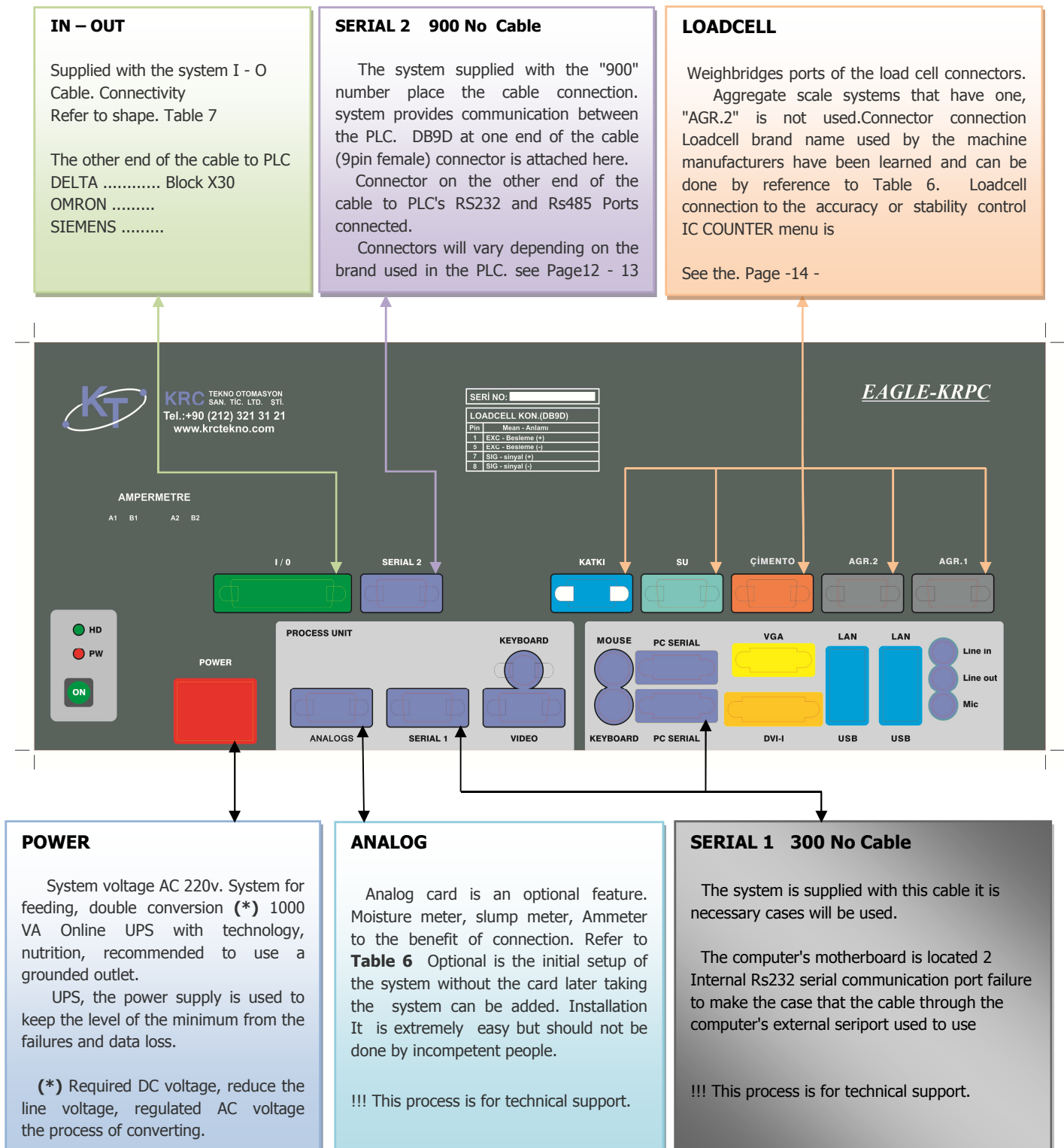


Figure 4

### ➤ Cable connection points

What is the cables supplied with the system ?

| Cable No | Description                                   | Eagle Port | Connection Points         |
|----------|-----------------------------------------------|------------|---------------------------|
| 300      | Eagle provides the communication with the PC  | Serial1    | EAGLE ↔ PC SERIALPORT     |
| 900      | Eagle provides the communication with the PLC | Serial2    | EAGLE ↔ PLC RS232 + RS485 |
| I-O      | Eagle I-O with a block of PLC x30 Kon         | I - O      | EAGLE ↔ PLC X30 see Table |

Table 2

#### Serial 1 connection table

| DB9E | Description |
|------|-------------|
| 2    | RXD – RS232 |
| 3    | TXD – RS232 |
| 5    | GND – RS232 |

Table 3

#### Communication Between PC with Eagle wiring diagram (300)

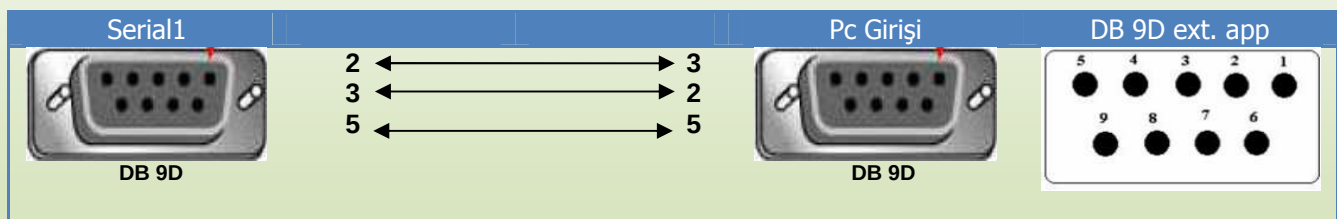


Figure 5

#### Serial 2 connection table

| DB9E | Description | Dinjak | RS485 Conn |
|------|-------------|--------|------------|
| 2    | RXD – RS232 | 3      |            |
| 3    | TXD – RS232 | 4      |            |
| 5    | GND – RS232 | 5      |            |
| 7    | TXB – RS485 |        | -          |
| 8    | TXA – RS485 |        | +          |

Table 4

#### Serial 2 with DELTA DVP14ss2 communication between the cable connection diagram ( 900 no - DELTA )

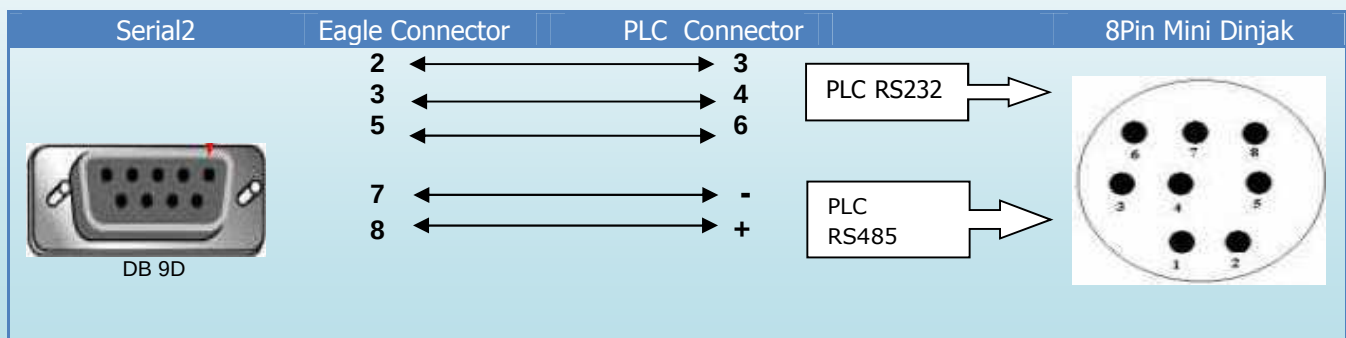
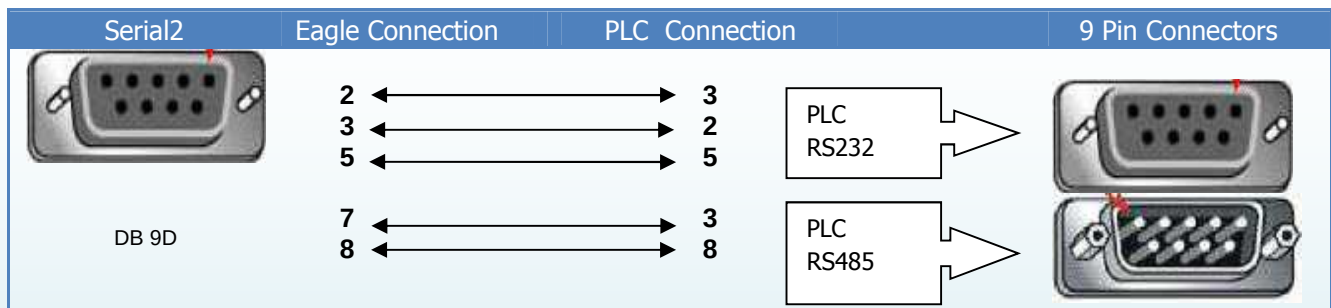
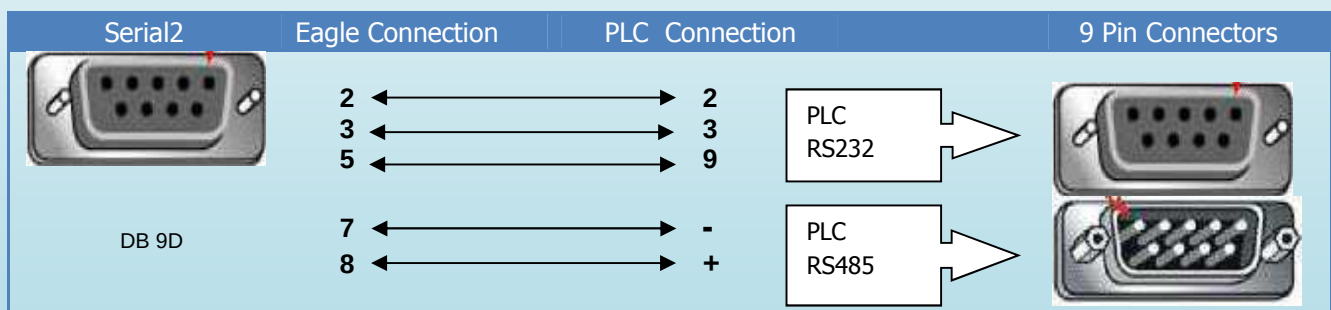


Figure 6

**EAGLE Serial2 - SIEMENS S7 1200 communication between the cable connection diagram ( 900 no - SIEMENS )**

**Figure 7**
**EAGLE Serial2 - OMRON CPU-21 communication between the cable connection diagram ( 900 no - OMRON )**

**Figure 8**
**Loadcell Connection Table**

| DB9D | Description           |
|------|-----------------------|
| 1    | EXC – Power DC 5v (+) |
| 5    | EXC – Power DC (-)    |
| 7    | SIG – Signal (+)      |
| 8    | SIG – Signal (-)      |

**Table 5**
**EAGLE - LOADCELL cable connection diagram**

**Figure 9**

Analog bağlantı tablosu

| DB9D | Description       | Analog No |
|------|-------------------|-----------|
| 1    | COM               | 1         |
| 6    | 4-20 mA & 0 – 10v |           |
| 2    | COM               | 2         |
| 7    | 4-20 mA & 0 – 10v |           |
| 3    | COM               | 3         |
| 8    | 4-20 mA & 0 – 10v |           |

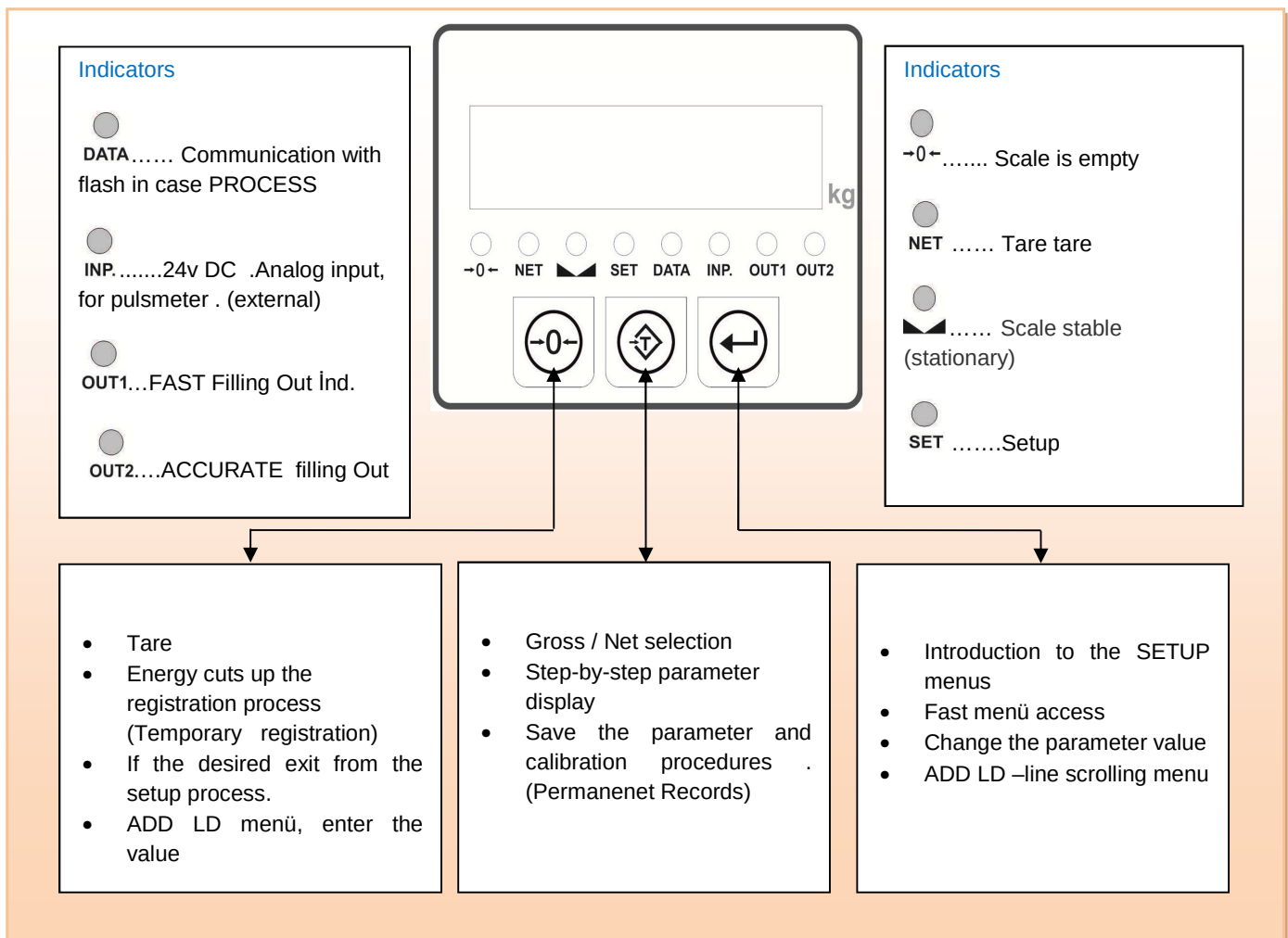
**Table 6**

I – 0 Connection Table

| DB25D                | Description                |
|----------------------|----------------------------|
| 1                    | AGR Bant1 Fast Filling     |
| 2                    | AGR Bant1 Accurate Filling |
| 3                    | AGR Bant2 Fast Filling     |
| 4                    | AGR Bant2 Accurate Filling |
| 5                    | CEMENT Fast Filling        |
| 6                    | CEMENT Accurate Filling    |
| 7                    | WATER Fast Filling         |
| 8                    | WATER Accurate Filling     |
| 9                    | ADMIXTURE Fast Filling     |
| 10                   | ADMIXTURE Accurate Filling |
| 14                   | AGR Bant1 Pulsmeter İn.    |
| 16                   | AGR Bant2 Pulsmeter İn.    |
| 18                   | CEMENT Pulsmeter İn.       |
| 20                   | WATER Pulsmeter İn.        |
| 22                   | ADMIXTURE Pulsmeter İn.    |
| 11,12,13             | DC 24V                     |
| 15,17,19,21,23,24,25 | DC 0V                      |

**Table 7**

## 4. Indicator Features



## Indicator Menus

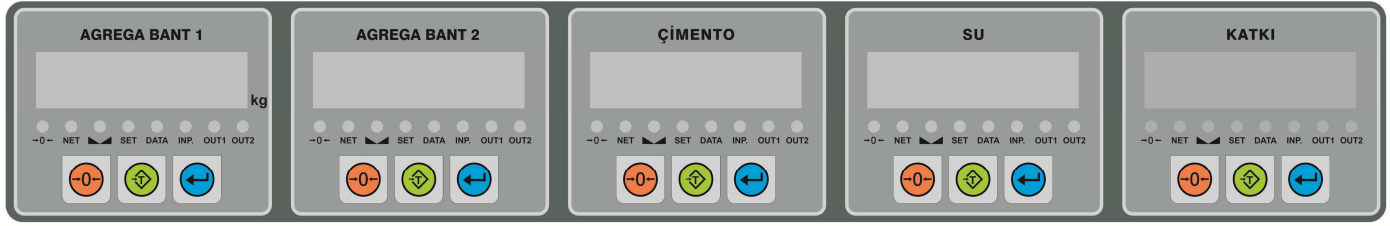


Figure 11

### ➤ [ SETUP]

This menu is accessed by pressing the key. This menu is used to configure the indicator. Here by pressing the **"PASS"** menu switches.

### ➤ [PASS]

Password parameters are required for the adjustment of the device. **"PASS"** was written in position on the keypad (2. 1. 1. 3.) by pressing the **"blt 01"** menu is reached.

### ➤ [blt 01]

On the screen **"blt 01"** was written with the menu button entered. ENTER button this section from "0" to "6" it is possible to set the digital average filter set. Press the key again to exit the menu here **"blt 02"** menu is reached.

### ➤ [blt 02]

On the screen **"blt 02"** written while the menu button entered. ENTER button from "0" to "9", or it is possible to set up a digital sudden load filter setting Press the button to exit the menu here **"blt 03"**

### ➤ [blt 03] [Baud Rate]

On the screen **"blt 03"**, TARE key is pressed while the menu entry is available during login menu indicator allows for serial port communication protocols. By pressing the ENTER button, set the desired protocol Concrete Batching Plant Automation, "0" is used. Press the button to exit menu here **"blt 04"** menu is reached.

0 ..... 9600,n,8,1 (Omron PLC)

1 ..... 9600,e,7,1 (Delta PLC)

### ➤ [bIt 04] [Measure Type]

On the screen “bit 04” written while the key is pressed while the menu entry is placed in writing. Provided This menu indicator measurement of the type of the set is ensured. ENTER by pressing the. ENTER by pressing the button, the desired “0” or “1” value, the value is set .If the Indicator is set to Pulsmeter screen that comes up when the key is pressed after entering a value of key are printed on the screen is 1 liters of corresponding Pulse number should be written. The ENTER button on the steps of the scroll button while increasing value to be used. More nra button in order here “bit 04” value “0” if “S01 0” menu is started.

0 ..... LoadCell

1 ..... Palsmetre

### ➤ [S01 0] [ Internal Counter]

On the screen, “bit 04” written while the ENTER button by pressing the menu is entered on the screen and “INTERNAL COUNTER”, the value will appear in the menu setting made indikatore belonging to the A/D converter with input and outputlari can be tested.

Indikatore belonging to the “INTERNAL COUNTER” numeric value displayed on the screen is displayed with the button Out1, the button with the Out2 outputs control edilebilir.Yine this menu Indikatore depending on the loadcell'in the robustness of the test can also be done. ENTER button using the menu to exit

### ➤ SUrE [Validate]

On the screen, “SUrE” the letter appears in the button is pressed, the Setup menus entered the new values of the enclosure. Energy in case of a loss even if the information stores. If this screen, press the button in the calibration steps of the horses and the “SUrE” of the post is displayed again button is pushed most of the parameters to the end of the energy that goes into may retained. The energy is cut again, in the event set the previous set of values of the returns

### ➤ [CAL 01]

On the screen, “CAL 01” is written when the  key is pressed. In this section, the Indicator parts of the value 1-2-5-10-20-50-100-200 as determined key  using these values in one of the selected and the  key is pressed. Here, the selected value of the Weight increase of the value. This section CAL 02 is associated with the continuation of the [CAL 02] to see.

### ➤ [CAL 02]

On the screen, “CAL 02” is written when the key is pressed.  In this section, the Indicator partition value, 1000-1600-2000-3000-4000-5000-6000-8000-10000-20000-50000-100000 as determined  key using these values in one of the selected and the key is pressed.  [CAL 01] x [PLAY 02]= CAPACITY

### ➤ [CAL 03]

On the display “**CAL 03**” key is pressed  the display appears. In this section, the number of fractional value, 0-1-2-3-4, respectively.  Select one of these values using the key and the key is pressed . From this menu, [no Ld] menu is reached.

Example: CAL 01 ..... 2  
 CAL 02 ..... 2000  
 CAL 03 ..... 1  
 $2 \times 2000 = 4000.0$  kg. If CAL 03 -0 - is no capacity = 4000kg.

### ➤ [no Ld] [Empty Scale]

On the screen “[ **No Ld** ]” key is pressed  the display appears. Indicator 10 reads the information back to the load cell count. [Add Ld] section of the passes. Thus, tare the scale will be taken.

### ➤ [Add Ld] [Scale Cost]

On the screen [Add Ld] is displayed, press the display basılır.Ekranda 000000 will be displayed. left the initial "0" in the form of flash flashes. Scale weight placed on the value of etolon to enter  the digit with the  button is shifted to the right. button and press the  button after entering information yazılır.Ağırlık figures. Indicator 10 reads the information back to the load cell count [Time] passes through the section. Thus, the scale is calibrated.

### ➤ SURE [Validate]

On the screen “**SURE**” key is pressed  the display appears, however, retains the Setup menus, the new values are entered. Stores information even in the event of a power failure. If this button is pressed  on the screen jumps to the calibration steps and the “**SURE**” button is pressed  again, the display appears, go to the end of the parameters will be stored up energy is removed. If it has again set off the power to the previous set values edilmeyerek return.

Password is entered, until the desired menu, then press ENTER  button to move ahead without any menus .. Setup 'button  from anywhere in the final approval of the section can be skipped.

(\*\*\*) Scale calibration Betosistem computer all versions 2.0 and later can be made.

## Indicators calibration process, and input - output control



1. Press the button to start the calibration
2. Display the "SETUP" appears, press the button caption.
3. On the screen to "PASS" the letter of laws, respectively, the button is pressed.
4. The words "BIT 01" menu is displayed, press the button and the button to enter into the menus to change the set value. (\*\*\*\*)
5. Press the button to scroll through the menus, entering.
6. Indicator "IC COUNTER" button after viewing the value of the Out1, Out2 outputs can be controlled with the button
7. Screen button to exit the counter value, the counter display the enter button after exiting the "SURE" (Approval) Scroll up the screen, this menu is exited by pressing the button on this screen.
8. The display shows "CAL 01" menu appears, enter the menu by pressing the button , where you partition the value of the scale, if we want to make escapes weighing weight intervals are selected with the button . Value is selected
9. The display shows "CAL 02" menu appears, enter the menu by pressing the button , where the scale factor value is selected with the button , the value is selected, and then exit the menu button
10. The display shows "CAL 03" menu appears, enter the menu by pressing the button , the decimal value of the scale button is selected here, the value is selected, then the menu is exited with the button .
11. Display "no Ld" is displayed. You wanted us to wait until the end of the countdown scale empty button.
12. Scale empty after receiving information on the "Add Ld" menu is displayed, the required calibration weight on us here in accordance with the scale by placing the button is pressed on the screen at the end of this process "000000" author, left the leading "0" in the form of flash flashes, weight placed on the scale to enter information; button is shifted to the right digits, numbers written with the button . Weight information is entered by pressing the button and then the countdown process is expected to end.
13. The countdown is finished the display shows "Sure" (Confirmation) appears on the display. button is pressed. The calibration process is completed.

(\*\*\*\*) Calibration menus Refer to Table 7 for the meaning of the parameters and the appropriate parameter selection.

| Command         | Meaning                  | Value                                                                                                                                                | Description                                                                                                                                                               | Default                                                 |
|-----------------|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|
| <b>BLT 01</b>   | Digital Filter 1         | <b>0 - 6</b>                                                                                                                                         | Average Filter Level<br><b>0</b> ..... Filtering NO<br><b>9</b> ..... Filtering VERY HIGH                                                                                 | <b>2</b><br><br>Filtering MEDIUM                        |
| <b>BLT 02</b>   | Digital Filter 2         | <b>0 - 9</b>                                                                                                                                         | Filter Surge Level<br><b>0</b> ..... Filtering NO<br><b>9</b> ..... Filtering VERY HIGH                                                                                   | <b>1</b><br><br>Filtering LOW                           |
| <b>BLT 03</b>   | Baud Rate                | <b>0 - 1</b>                                                                                                                                         | <b>0</b> ..... 9600,n,8,1 DELTA PLC<br><b>1</b> ..... 9600,e,7,1 OMRON PLC                                                                                                | <b>0</b><br><br>DELTA PLC                               |
| <b>BLT04</b>    | Weighing Type            | <b>0 - 1</b>                                                                                                                                         | <b>0</b> ..... LOADCELL<br><b>1</b> ..... PULSMETER                                                                                                                       | <b>0</b><br><br>LOADCELL                                |
| <b>IC SAYAC</b> | Ic Counter               | <b>Automatik</b>                                                                                                                                     | Automatically displayed                                                                                                                                                   | <b>0</b>                                                |
| <b>SURE</b>     | Approval                 |                                                                                                                                                      | If you want to load the calibration procedure "PRINT", if you want to continue with these parameters in the energy ceases to be a "T" key.                                |                                                         |
| <b>CAL 01</b>   | Partition Value          | <b>1</b><br><b>2 - 5</b><br><b>10 - 20</b><br><b>50 - 100</b><br><b>200 - 500</b>                                                                    | Display interval value is determined by calibration.                                                                                                                      | <b>5</b>                                                |
| <b>CAL 02</b>   | Number of partition      | <b>1000</b><br><b>1600</b><br><b>2000</b><br><b>3000</b><br><b>4000</b><br><b>5000</b><br><b>6000</b><br><b>8000</b><br><b>10000</b><br><b>20000</b> | Join parts of the display, with the value entered in the CAL calibration belirlenir.Burada maximum capacity is obtained by multiplying the value entered in parameter 01. | <b>1000</b><br><br>CAL01 X CAL02<br><br>5x1000=5000 ton |
| <b>CAL 03</b>   | Number of fraction       | <b>0 - 4</b>                                                                                                                                         | Number of digits after the decimal point in the calibration set.                                                                                                          | <b>0</b>                                                |
| <b>NO LD</b>    | Remove Load              |                                                                                                                                                      | Empty if the load on the scale. Press enter and wait for the termination of counting process.                                                                             |                                                         |
| <b>ADD LD</b>   | Put the Load             |                                                                                                                                                      | Place the calibration weight on the scale. Press enter.                                                                                                                   |                                                         |
|                 | Enter the amount Of Load |                                                                                                                                                      | Scale up and down on the amount of load placed on the keys, and then press Enter to wait for the expiry of counting process.                                              |                                                         |
| <b>SURE</b>     | Approval                 |                                                                                                                                                      | If you want to load the calibration procedure "PRINT", if you want to continue with these parameters in the energy ceases to be a "T" key.                                |                                                         |

Tablo 8

### 3- Eagle Manuel Control (Mimic)

#### ➤ Mimic Description

Command and control of the entire process that allows a computer except for concrete plant, through the fillings on the LED lamps, material transfers, evacuations and providing information for the user, which is located on your computer 'ability to continue to produce in the event of failure in the automatic control system.

Manual control - Mimic the look and block definitions

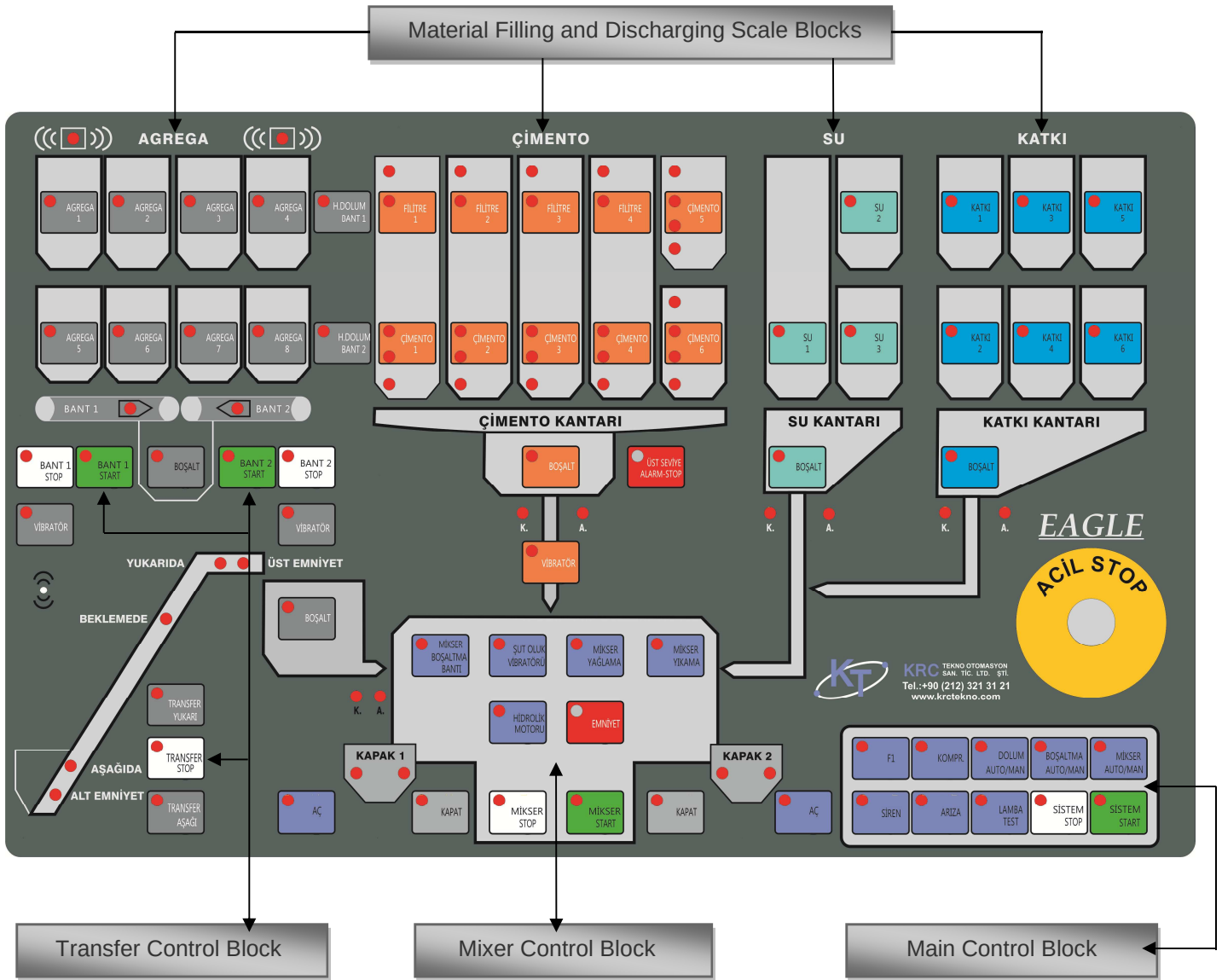


Figure 12

## ➤ Use of Mimic

### 1. Emergency Stop

At any stage of production, resulting in a dangerous situation, the fastest way to stop the whole system to be used by pressing on. After the elimination of a dangerous situation, translated dropped slowly in a clockwise direction, the system will continue from the start been in production.

### 2. System Start

The start or control over production system in order to mimic the Start button to run the system. System on the Start button, LED lamp is lit, the production plant to start playing the siren, the potential hazards uyarılır.Bu personnel around the machine with the aim of preventing , switchboard operator, the bell rings after a while, tapes, and after making sure no staff is present on and around the drain covers should begin production.

#### System Auto/ Manuel Control Block

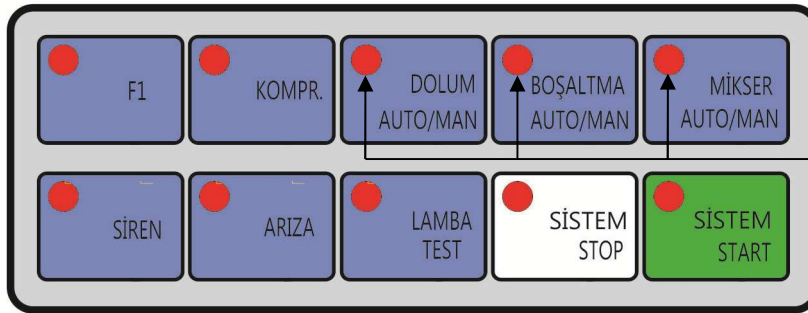


Figure 13

#### Mimic Main Control Block

Filling the main control buttons are located bloğuda Drain and cover of the mixer enables the use of manual or automatic controls.

**Automatic location : Led lights off**

**Manual position : Led lights dimmed in the**

### 3. Mixser Auto / Manuel selection

This button is located in the main control block of the plant içindir.Manuel mixer discharge valves to control automatically or manually using the buttons to open and close the cover on the LED lamp is guaranteed to be passive, so dull. Automatically by pressing the button again to use the LED lamp on the button lights up, so is guaranteed to be active.

### 4. Unloading Auto / Manuel selection

This button is located in the main control block of the plant Aggregate, Cement, Water, Weight Scales are used to control the automatic or manual drain covers. Manually using a button to open and close the cover on the LED lamp dimmer that is guaranteed to be passive. Automatically by pressing the button again to use the LED lamp on the button lights up, so is guaranteed to be active.

### 5. Filling Auto / Manuel seçimi

This button is located in the main control block of the plant Aggregate, Cement, Water, Weight Scales covers the filling of the silos for automatic or manual control. Manually using a button to open and close the cover on the LED lamp dimmer that is guaranteed to be passive. Automatically by pressing the button again to use the LED lamp on the button lights up, so is guaranteed to be active.

### Mixer Control Block

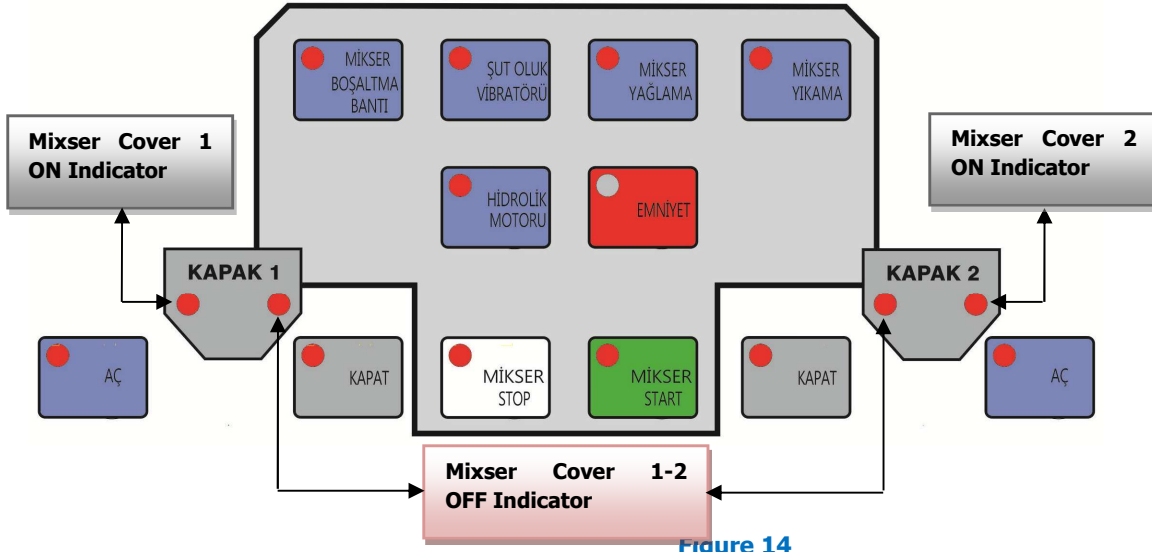


Figure 14

### 6. Hydraulic Engine Starting

Mikser kontrol bloğunda bulunan bu buton karıştırıcıya ait boşaltma kapaklarının hareketini sağlayan motoru çalıştırır. Mikser Auto/Man butonu aktif ise yani led lambası yanıyorsa plc'den aç veya kapat komutu geldiğinde hidrolik motoru otomatik olarak çalışacaktır.

Hidrolik motorunu manuel olarak çalıştırmak istenildiğinde butona 3sn süreyle basılmalı Hidrolik Motoru butonu üzerindeki led lambasının aktif olması yani yanması sağlanmalıdır.

### 7. Mikser Motoru Çalıştırma / Manuel seçimi

Mixer covers the movement of the control block that allows the discharge of the mixer, this button to start the engine. Mixer Auto / Man button is active, ie the PLC LED lamp is turned on or off command will run automatically when the hydraulic motor.

### 8. Transfer Band Operation

Transfer tape to mimic the main control block to run it manually in the "Empty Auto / Man" Manual button is located. (See topic 4) Stand-by systems, bunker bunker bunker drain cover not wait to be in the closed position systems, the mixer discharge valves are in the closed position conditions occurs, the transfer block, the "Transfer Up" button, by setting automatic transfer tape to tape çalıştırılır. Transfer to work, however, before starting production "Unloading auto / Man" button to leave the position to be taken automatically and the formation of the above-mentioned conditions are sufficient.

### 9. Weighing Band Operation

Weighing bands mimic the main control block to run it manually in the "Empty Auto / Man" Manual button is located. (See topic 4) Weighing tape to work, and then transferred to the transfer tape block çalıştırıldıktan the "Bantı1 Start" and "Bantı2 Start" button the desired weight with the help of tape to tape çalıştırılır. Tartı to work automatically, however, before starting production "unloading auto / Man "button in the formation of the above-mentioned conditions sufficient receiving and discharging automatic position.

## 6 Fault Detection And Solutions

1. **Eagle does not turn on** Check the power cord and uninterruptible power supply.

### 2. Windows startup error

EAGLE - KRPC model mevcuttur. Sistem shut down the computer systems should not be cut energy than the Windows operating system, click "Start" menu, select "OFF" indicator on the rear panel or with the command "ON" button is pressed a short time. Energy stopped suddenly, loss of data and can cause hardware failures. If an error opening the Windows operating system, use the startup repair.

### 3. Scale calibration issues

➤ **Indicator screen goes negative weight value is consistently.**

Scale of the load cell or load cell is defective, please obtain technical support, please identify.

➤ **Indicator screen goes blank**

Scale capacity, the value placed on the weight under the partition Betosistem Increase the value of the scale are related to the program. Capacity changed, repeat the calibration process.

➤ **It also explains stocks occurs.**

Scale calibration check at least once a month. Before calibration, weighing around and clean the drain valves located under the tarp. scale load cells connecting with metal rods (stud) ensuring that equal distances to stop at the scale balance. them in spite of all of you to pay attention in your stocks consists of an open,

Find the weighbridge load cells connected to a weight of 50 kg in the corners, in the order of 50 kg weight release. Indicator value is display, the scale must be the same all the corners. (+, -) 1 kg load cell check around the corner, albeit endeavors occurred in spite of the difference seems to explain the difference persists please call service for technical support.

### 4. Communication Errors

➤ **Program (Betosistem) communicating with the EAGLE indicator**

Betosistem program the serial port status indicator does not turn in the lower right corner there is a communication problem

1. Beto System program, be sure to check the Serial Port settings
2. Device Manager - Mice and other pointing devices - the "Microsoft Serial Ballpoint" If you have the device named "Disable" option, turn off the device.
3. Communication does not correct the problem, contact an authorized service.

➤ **Indicator weights program does not appear.**

Weighing machine weights of the system is first installed, Betosistem program main screen is displayed, the central parameters yet.

Downloads - M3 - all the parameters sent to the central menu, select Settings.

➤ **Betosistem weighbridge program seems to open doors.**

1. No. 900 of the cable, make sure it is plugged into serial 2 connector.
2. PLC sure to check out the energy.
3. Weighbridge weighbridge weights at the same time the program is on screen, you can not see the covers, please call service.

- Manual control (mimic) intermittent siren sound to play, in the form of flash lights led lights
- 1. No. 900 of the cable, make sure it is plugged into serial 2 connector.
- 2. PLC sure to check out the energy.
- 3. Please call service.

