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Service manual

KERN HCB

Version 1.0

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GB





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Version 1.0 04/2014

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1 Basic Information

The device must be repaired only by trained specialist staff or personnel with professional formation (such as a repair-specialist accredited by law concerning verification). The service manual is obligatory for repair work. After repair, original conditions of the device have to be restored. Only original spare parts should be used.

Instructions about conformity-evaluated scales:

Repair must be carried only at 100% compliance with the type approval. A violation of this specification will result in a loss of the type approval! After successful repair the balance will have to be reverified before it can be used again in a statutorily regulated field.

Detailed instructions about conformity-evaluated scales:

Repair must be carried only at 100% compliance with the type approval. A violation of this specification will result in a loss of the type approval!

After successful repair the balance will have to be reverified before it can be used again in a statutorily regulated field.

2 Introduction

This service manual covers the HCB series and is edited for the authorized servicing personnel. Note all rights are reserved. Copying any part of this manual is prohibited without our permission.

In this lineup it is an eco product, therefore, it is not intended to represent the repair manual in detail, since the construction of the balance is very simple. It is therefore only referring to the list of related to disposal spare parts.

Bei dieser Modelreihe handelt es sich um eine ECO Produkt, daher entfällt der detaillierte Teil der Reparaturanleitung.

3 Introduction

3.1 Features

- Tare function
- Display segment test function
- Display Hold function (6 modes)
- Negative value indication
- Low battery indicator
- Auto zero
- Auto off function (selectable)
- Zero Tracking selectable
- Overload indication
- Digital Internal calibration
- Solder pads to prevent end user internal calibration
- Operated by 3 x AA size alkaline batteries

4 Span Calibration

1. Turn scale on by pressing the [ON/TARE/OFF] key.
2. Press the [UNIT] key for 3 seconds. Display will show [CAL] and then the required calibration weight.
3. Hang the standard weight onto the scale. Wait until display shows [F] then turn off. In case [E] is display instead of [F], this indicates a calibration procedure error, unstable or wrong calibration weight applied for calibration. Reset the scale and repeat the procedures.

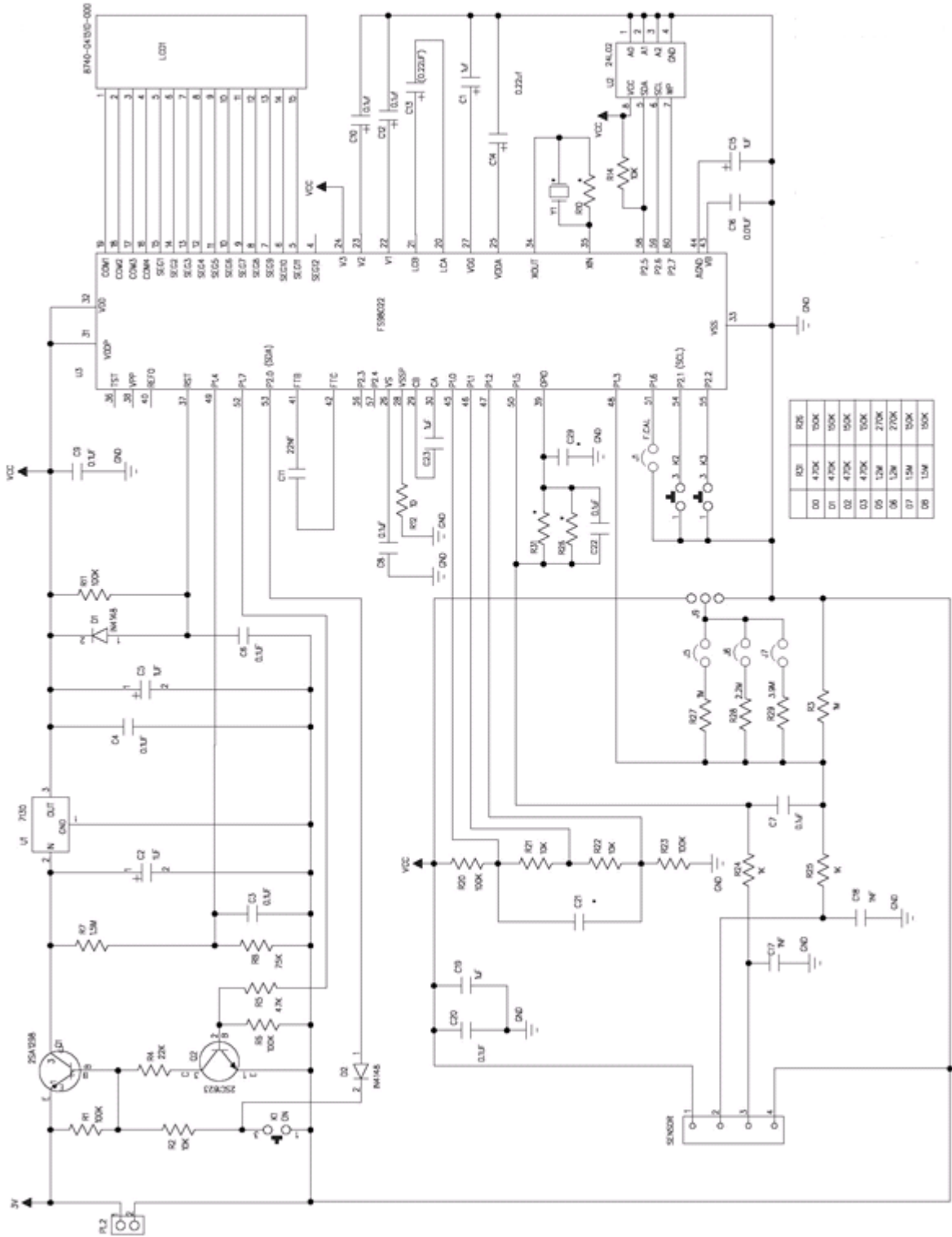
4.1 Internal Calibration Procedure

1. Remove battery compartment door and the two screws inside. Disassemble the rear housing of the scale.
2. Connect J1 on the PC board.
3. Install batteries. With scale on its weight position, turn scale on. Display will show the internal counts. The reading shall fall into the range of 3000 to 5000. In case out of this range, connect J9 to increase or decrease reading. Connect or disconnect J5, J6, or J7 to adjust the reading to the required range.
4. Press [ON/TARE/OFF] key once. Display will show the required calibration weight. Hang weight onto the scale accordingly until scale show [F] and turn off.
5. Disconnect J1. Calibration completed. Check the accuracy at different weight.
6. Install the rear housing of scale with the two screws.

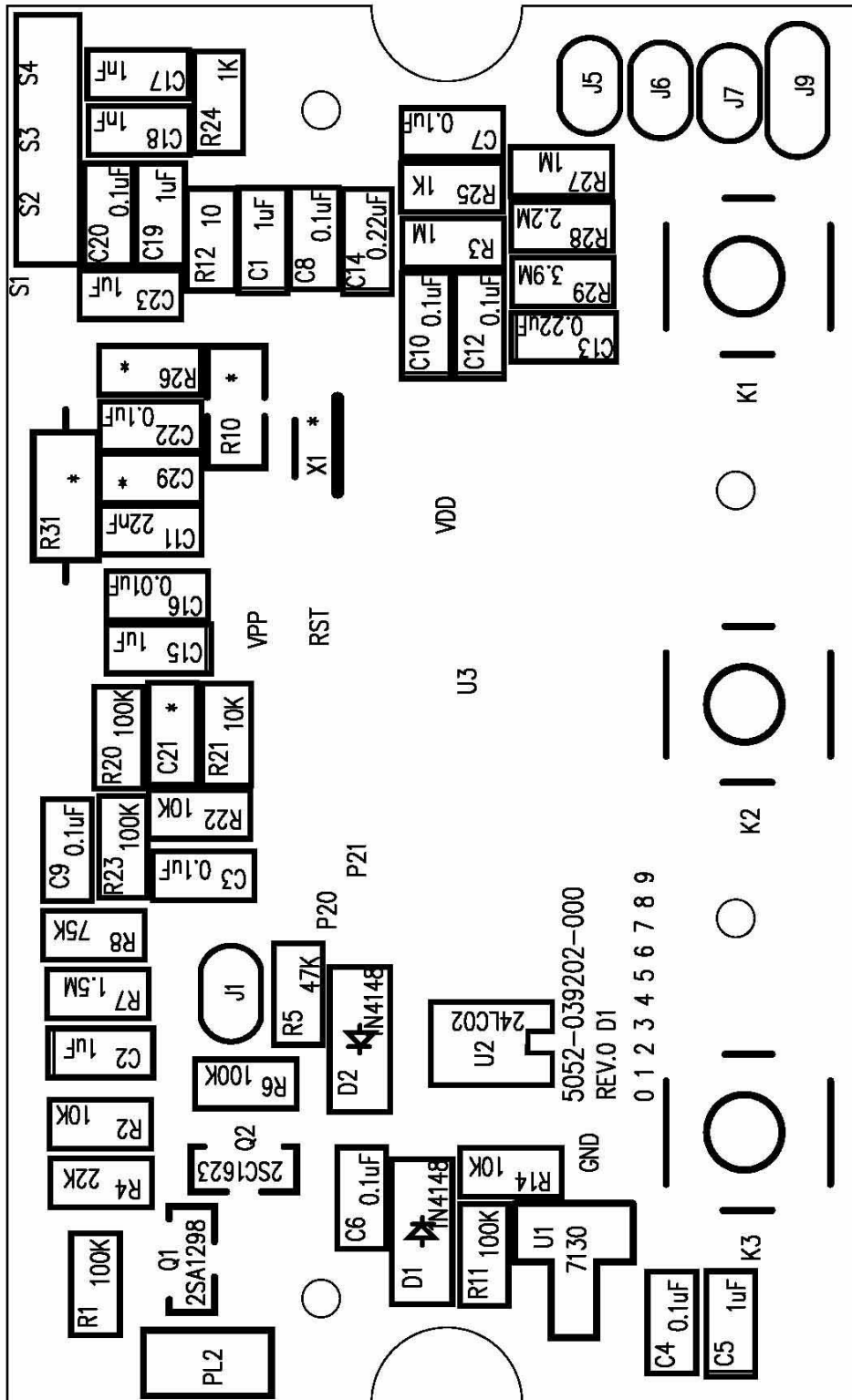
5 Trouble Shooting

- Power on
 - ↓
- Full Segments?
 - If no display, check batteries; keyboard / overlay; connection between battery—main board.
 - If wrong segments, check fixing of LCD, zebra connector under LCD.
 - ↓
- Display Zero?
 - If display [LO], check battery>3.5V.
 - If display [E] , check internal count.
 - ↓
- Proper readout?
 - If unstable reading, check hook, loadcell, Clearance between metal sensor and lower plastic housing
 - ↓
- Correct reading?
 - If not accurate, perform span calibration.
 - If cannot reach full capacity, loadcell, and internal zero point.
 - If always zero, check internal zero point. Internal calibration if necessary.
 - ↓
- Normal operation.

6 Schematics



7 Components Layout



8 Spare part list

KERN Nummer / KERN part no.	Beschreibung	Description	Model
RHCB-4001	Folientastatur	Key panel	HCB 20K10
RHCB-4002	Folientastatur	Key panel	HCB 20K50
RHCB-4003	Folientastatur	Key panel	HCB 50K20
RHCB-4004	Folientastatur	Key panel	HCB 50K100
RHCB-4005	Folientastatur	Key panel	HCB 99K50
RHCB-4006	Folientastatur	Key panel	HCB 100K200
RHCB-4007	Folientastatur	Key panel	HCB 200K100
RHCB-4008	Folientastatur	Key panel	HCB 200K500
RHCB-4009	Folientastatur	Key panel	HCB 0.5T-3
RHCB-4010	Folientastatur	Key panel	HCB 1T-3
RHCB-3001	LC-Display	LC-display	
RHCB-8001	Batteriedeckel	Battery cover	

