

## MEASURING INSTRUMENTS



### BALANCING INSTRUMENT

The TA-CBI is a state-of-the-art balancing instrument that measures and documents differential pressure, flow, and temperature. TA-CBI has direct PC communication and large storage capacity when logging. Its accuracy and ease-of-use delivers faster commissioning and more cost-efficient balancing while simultaneously enabling rapid troubleshooting, especially in situations of a more complex technical nature.



### USER-FRIENDLY DESIGN

Simple to use, the TA-CBI speeds up the commissioning process.



### ANTI-FREEZE CORRECTION

System data is easily adjusted to take the effect of anti-freeze agents into account.



### EASY VALVE CONNECTION

The TA-CBI fits quickly and simply onto measurable TA valve, resulting in faster commissioning.

## TECHNICAL DESCRIPTION

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TA-CBI is a computer programmed balancing instrument. It consists of an electronic differential pressure gauge and a micro computer which has been programmed with the TA valve characteristics which makes a direct reading of flow and differential pressures possible.

The TA-CBI has two main components:

- An instrument which contains a micro computer, input touch pad, LCD display and re-chargeable NiMh batteries.
- A sensor unit which contains a piezoresistive pressure sensor, one measurement valve and connections. The measurement valve has a safety function which protects the sensor from differential pressures which are too high.

### Measurement range:

Total pressure: max 2 500 kPa.

Differential pressure: -9 to 200 kPa.

Flow: During flow measurements the pressure range is 0.5 to 200 kPa.

Temperature: -20 to 120°C

### Temperature liquid medium:

-20 to 120°C

### Measurement deviation:

Differential pressure: The greater of  $\pm 1\%$  of displayed value or  $\pm 0.2$  kPa

Flow: As for differential pressure + valve deviation.

Temperature:  $< 0.2^\circ\text{C}$  + sensor deviation.

### Effective operating time:

8 to 10 h between charges depending upon application.

### Ambient temperature for the instrument:

0 to 40°C (during operation)

5 to 40°C (charging)

-20\* to 60°C (storage) \*) Do not leave water in the sensor when there is a risk of freezing.

## FUNCTION

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### Differential pressure measurement

Sensor for high total pressures and low differential pressures gives quick results and reliable readings.

### Temperature measurement

A Pt 1000 temperature sensor which allows measurement directly in the media is included.

### Automatic calibration

When the sensor is connected and the instrument switched on, the sensor is automatically calibrated before each measurement sequence.

### Automatic venting

The design of the sensor unit and a short flow-through during calibration eliminate measurement errors caused by insufficient venting.

### Balancing

The instrument is programmed to calculate pre-setting values for balancing and also the TA Method and TA Balance.

### PC communication

Measured values can be saved in the TA-CBI and then transferred to a PC for printout as a commissioning report. It is also possible to prepare the measurements by describing the system in the PC and then download the data to the TA-CBI. A PC program is included for this purpose.

### Media correction

TA-CBI can calculate flows with different contents of glycol or similar anti-freeze additives in the water.

### Trouble shooting

TA-CBI can log differential pressures, flows or temperatures: up to 24 000 measured values can be logged. This means that if the appropriate logging intervals are chosen, periods of between 20 hours and 65 days can be covered.



TA No	Language
52 197-001	SE
52 197-002	GB
52 197-003	DK
52 197-004	NO
52 197-005	FI
52 197-006	DE
52 197-007	FR
52 197-008	NL
52 197-009	ES
52 197-010	CZ
52 197-011	PL
52 197-012	RU
52 197-013	HU
52 197-014	US
52 197-015	UK
52 197-020	CN
52 197-021	IT
52 197-022	CH

**Case contents:**

- Instrument unit
- Sensor unit
- Temperature sensor Pt 1000
- Charger
- Measuring hoses:
  - 400 mm blue
  - 400 mm red with shut-off valve
  - 150 mm with twin needle
- Chucks:
  - Red, for old valves
  - Blue, for old valves
- Allen keys:
  - 5 mm
  - 3 mm
- Key STA
- Chain for mounting
- User manual
- Certificate
- Guarantee, service form
- CD-record
- PC cable
- Torx key
- Upgrade PC cable
- Measuring needles
- Belt clip
- Presetting tool TBV-C
- USB cable

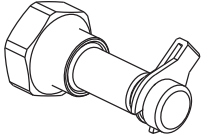
# TA-CBI

BALANCING

## ACCESSORIES

### Measuring nipple

Thread connections G1/2 and G3/4

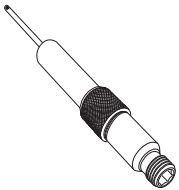


TA No	
52 197-303	G1/2
52 197-304	G3/4

### Measuring nipple

Extension 60 mm

Can be installed without draining of the system.



TA No
52 179-006

### Measuring hose

Extension



TA No	Length	
52 197-093	3 m	red, with shut-off valve
52 197-094	3 m	blue

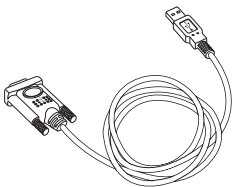
### Charge lead for 12V connection in a car



TA No
52 197-070

### USB cable

Fully compliant with USB specification v1.1. Supports the RS232 Serial Interface.



TA No		
52 197-071*	IBM PC	Drivers included on CD

\*) Included in TA-CBI case.

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For the most up to date information about our products and specifications, please visit [www.tourandersson.com](http://www.tourandersson.com).

7-5-5 TA-CBI 2008.08

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