TEL-TRU® TEMPERATURE SOLUTIONS

Customer Focused Since 1916.

CHECK-SET® Data Logger Thermometer Calibrator

USER GUIDE

Check-Set®

Calibrator Data Logger

SHOP ONLINE

www.teltru.com

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Calibrator Data Logger

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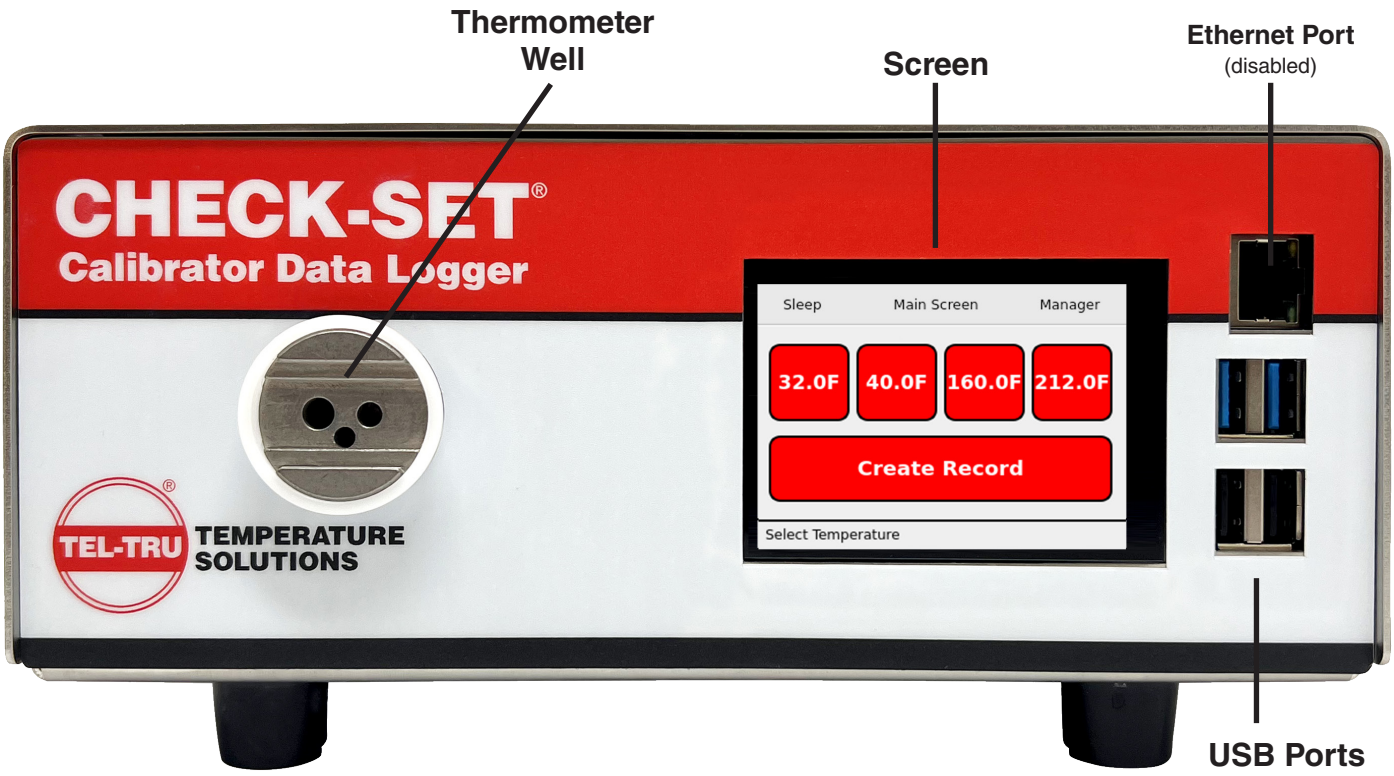
OVERVIEW



Screen will display °F or °C as selected in settings.

QUICK START GUIDE

1. **Register your new Check-Set Data Logger at** http://www.teltru.com/check-set-warranty
   a. Ensures warranty coverage for one year
   b. Provides valuable information on how to have your Check-Set Data Logger recalibrated every year.
   c. Offers suggestions on how to keep your Check-Set Data Logger running trouble free for years to come.

2. **Follow the set-up guide to properly set up the Check-Set Data Logger for typical use.**

3. **Insert the power cord into the Check-Set Data Logger and a standard grounded outlet.**

4. **Turn the unit on with the switch in the back and wait until the Check-Set Data Logger has booted up.**
   a. The Check-Set Data Logger has finished booting up when the Main screen is shown

5. **Select the desired set point temperature on the main screen (Fig. 1).**
   a. When a set point is selected, the fans will turn on.

6. **Press the Create Record button if you would like to record data.**

7. **Wait for progress bar to fill after approximately 15 minutes.**
   a.The unit is ready when the bottom bar on the screen turns green. You cannot record data unless the unit is ready.

8. **Insert your thermometer into the smallest fitting hole and allow it to stabilize.**

9. **Verify or calibrate your thermometer per the manufacturer's instructions.**

10. **Input your information into the records screen and press submit to record data.**
    a.This will save the record into an internal database. Previous records can be viewed by pressing the Prev button on the top left of the screen.

Fig. 1

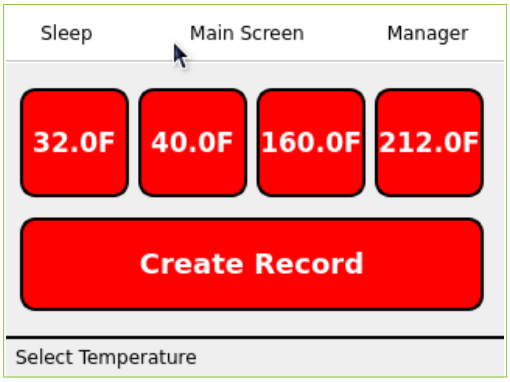


Fig. 2

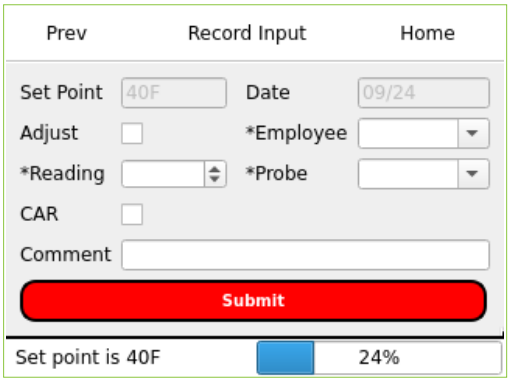


Fig. 3

SET UP GUIDE

To use the full capabilities of the Check-Set Data Logger set up your device as follows.
An Input Device such as a Keyboard and Mouse or Bar Code Reader is necessary to set up the Check-Set Data Logger. See Accessories.

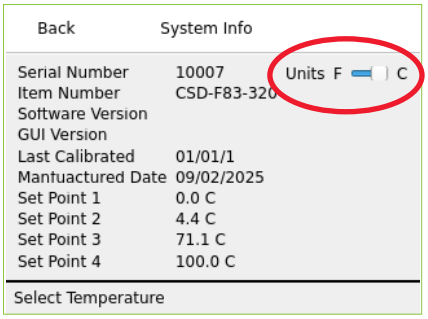
1. Plug the Input Device(s) into the USB ports located at the front of the Check-Set Data Logger

2. Plug the power cord into the Check-Set Data Logger and into a grounded outlet

3. Flip the switch on the back to turn on the Check-Set Data Logger

4. Wait until it is completely booted

a. The Check-Set Data Logger is fully booted when the Main screen appears



5. Press or click the Manager button at the top right or with an input device, press CTRL + M on the keyboard

a. Press System Info to select °F or °C on display, then press back.

6. Press the Settings button

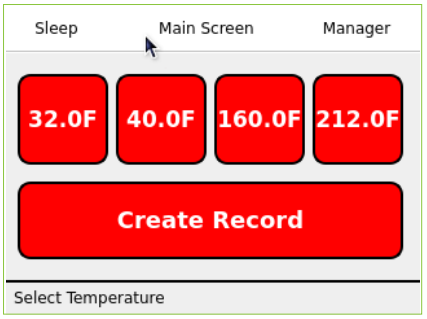
7. Press the Add Employee button.

a. Press the Add Employee button to add rows into the table labeled employees.

b. Add the name of employees using the device for verification/ calibrations into the table

c. Press the submit button to save these names into the Check-Set Data Logger

d. Press the back button located in the top left corner of the screen



8. Press the Add Probe button

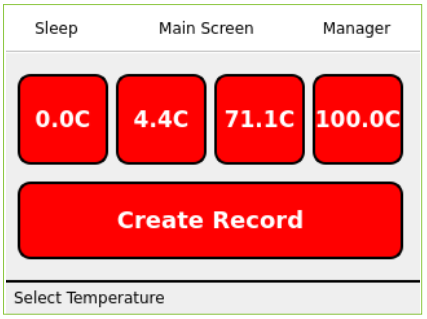
a. Press the Add Probe button to add rows into the table labeled probes.

b. Create unique IDs for your probes that will be verified/calibrated

c. Add these unique IDs into the table

d. Press the submit button to save these probes into the table

e. Press the back button located in the top left corner of the table



9. Press the Set Time button

a. Select the drop down in the date field to select the current date. The date format is MM/DD/YYYY.

b. Select the time field to open the time input window to set the time. The time format is HH:MM.

c. Press the submit button. This will reboot the device.

10. Your device has now been set up

SAFETY AND INSTALLATION INSTRUCTIONS

Safety

Grounding
The Check-Set must be connected to a grounded, 3-prong outlet during operation. Do not modify the cable or use a power cable without a ground connection. Failure to properly ground the unit creates the risk of electric shock and can distort temperature controls.

Moisture
The Check-Set is not designed to survive high moisture or washdown conditions. Any cleaning on/near the unit should be done with a damp cloth while the unit is unplugged. Failure to maintain a dry environment creates the risk of electric shock or damage to the unit.

Contaminants
The Check-Set is not designed to maintain a sterile environment. Any thermometers inserted into the unit may pick up debris/pathogens and must be treated as non-sterile when removed.

USB Inputs
Do not insert anything into the USB ports that is not a USB connector. Inserting objects other than USB connectors may damage the port or damage the Check-Set Data Logger.

Ethernet Ports
The Ethernet port is for manufacturer's use only. It is disabled for use except for Tel-Tru engineers.

Installation Instructions

1. Insert power cord into the device and an AC GROUNDED outlet.

2. Place the unit in a dry, ventilated area.

a. Ambient operating temperature must remain between 65°F (18.3°C) and 75°F (23.9°C).

b. Maintain 3” minimum clearance around fan and vents.

c. Avoid setting the unit on surfaces that may restrict air flow, such as carpet and towels.

d. The tilt stand should be used to improve air circulation.

3. Turn on the power switch located on the back of the device.

4. Unit is booted up when the main screen is shown, approximately 1-2 minutes

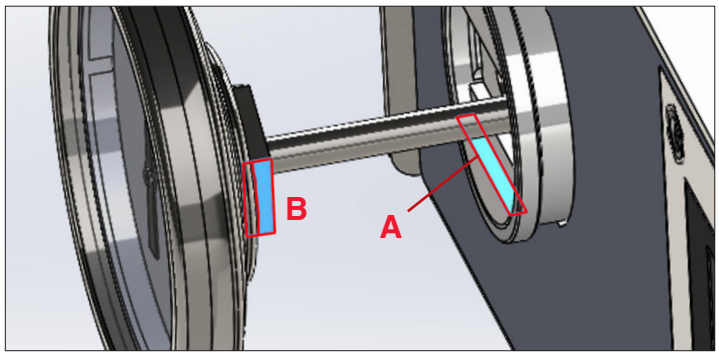
5. Connect any input devices to the USB ports.

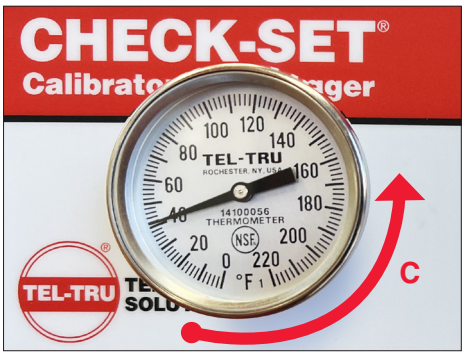
Verification Procedure

1. Select the desired set point temperature by pressing the corresponding button on the main screen.
2. A progress bar will appear at the bottom of the screen, wait for it to turn green, approximately for 10-15 minutes.
3. Insert thermometer probe into the smallest possible hole in the well.
   a. Alternate wells may be purchased separately see Accessories
4. Allow thermometer to remain in the well until temperature indicator pointer or digital readout stabilizes.
   a. Time to stabilize may vary
5. Verify the thermometer's reading matches the set point of the Check-Set Data Logger within the thermometer manufacture's tolerance
6. If readings do not match, adjust per the thermometer manufacturer's calibration instructions.

Recalibration Feature

A three hole removable well with a recalibration feature comes standard on both Check-Sets*. The recalibration feature is a metal piece located on the front of the removable well that has two notches (A) on either side of the openings. These notches fit either a 5/8" or 7/16" recalibration nut located on the back of the thermometer (B) and allows the user to recalibrate their thermometer** by hand-turning or using our recalibration wrench accessory during the verification process (C).



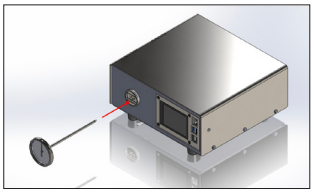


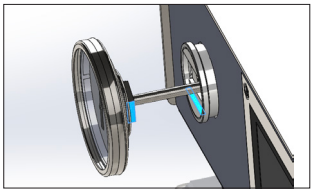
Hand-turn or use our recalibration wrench accessory to recalibrate the thermometer.

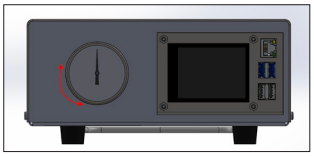
Calibration Procedure

To calibrate a thermometer with the in-built recalibration feature, your thermometer must be:

- **Greater than 3.5 inches**
- **Less than 6 inches**
- **Have a recalibration nut**





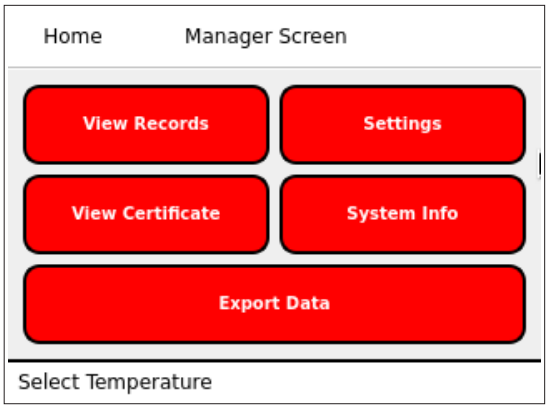


To calibrate your thermometer:

1. Insert your thermometer completely into the Check-Set Data Logger
2. Rotate your thermometer while pushing in gently. The thermometer should move slightly as the recalibration nut fits within the notches. Stop rotating once the recalibration nut catches on the notches.
3. Allow your thermometer indicator pointer to stabilize.
4. With your hands or with a thermometer wrench, rotate the thermometer head until the temperature indicator pointer is pointing at the set point of the Check-Set Data Logger.
5. Your thermometer is now calibrated.

*Additional well inserts sold separately. See accessories.
**Only available for thermometers with stem sizes of 0.125", 0.150" and 0.187"

Manager Screen



1. An input device may be needed to access certain features. Connect any input devices to be used in the USB ports on the front of the device. See Accessories to see compatible input device.

2. From the main screen, press the Manager button on the top right or with a keyboard press CTRL + M to access the manager screen.

   a. A password prompt may appear. If no password has been set, the password is **password**.

3. **The manager screen is used to access the following features and settings:**

VIEW RECORDS

(An input device is required, Keyboard and mouse, bar code scanner or other compatible USB input device)

- The View Records screen shows all the records in order from newest to oldest.
- Navigate records with the Prev or Next buttons located at the top of the screen.
- In the most recent record, the Next button will become the Back button and take you back to the manager screen

  These records are editable to correct any mistakes or add additional information.

- Any changes made to a record will add a “Modified by Manager” text to the bottom of said record
- No changes will be saved until Submit is pressed
- No new records can be created in View Records

VIEW CERTIFICATE

- View Certificate displays a digitized Calibration Certificate that contains the same information on the physical Calibration Certificate.
- The first page displays information about the calibration. This information includes the calibrator, the nominal set points and the calibration points.
- The second page displays information on the components used during calibration.

SETTINGS

(An input device is required, Keyboard and mouse, bar code scanner or other compatible USB input device)

SETTINGS: ADD THERMOMETER OR PROBE

1. The Check Set can store thermometers and probes so they are easily selectable from the drop down when logging records. Adding devices per this section allows the manager to control the contents of the drop down that appears on the Record Input screen.

2. Devices can be added by pressing the **Add Probe** button and then inputting the device id into the table.

3. Multiple devices can be added at one time.

4. To apply changes, press the **Submit Changes** button.

SETTINGS: ADD EMPLOYEE

(An input device is required, Keyboard and mouse, bar code scanner or other compatible USB input device)

1. The Check-Set can store employees, so they are easily selectable from the drop down when logging records. Adding employees per this section allows the manager to control the contents of the drop down that appears on the Record Input screen.
2. Employees can be added by pressing the Add Employee button and adding the employee's name into the table. Multiple employees can be added at one time.
3. To apply changes, press the Submit Changes button.

SETTINGS: SET TIME

(An input device is required, Keyboard and mouse, bar code scanner or other compatible USB input device)

1. Set Time allows users to adjust the date and time of the device.
2. Select the drop down in the date field to select the current date. The date format is MM/DD/YYYY.
3. Select the time field to open the time input window to set the time. The time format is HH:MM.
4. Press the submit button. This will reboot the device.

SETTINGS: LOCKOUT SETTINGS

1. Lockout Settings allows users to disable the Check Set Data Logger when the calibration certificate expires.
2. The Check Set will no longer allow you to select temperature or create new records.
3. The Certificate Expiration date is shown. This is the date the certificate of calibration expires, and the unit is no longer certified to be in calibration.
4. Data can still be changed in the View Records screen under the Manager Screen, but no new records can be created.
5. Previous records can still be viewed in the View Records screen.
6. Expiration Reminder enables a pop-up when opening the Record Input screen to remind the user that the certificate is expiring.
7. Reminder Date is the date at which the Expiration Reminder pop-up will start to appear in the Records screen.

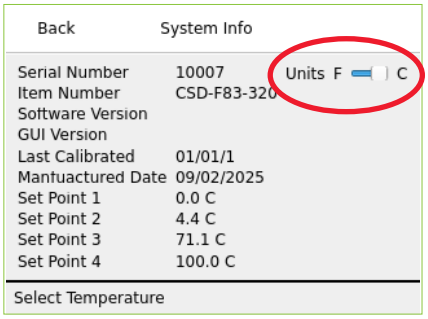
SETTINGS: PASSWORD MANAGER

(An input device is required, Keyboard and mouse, bar code scanner or other compatible USB input device)

1. By factory settings, use of a password is disabled.
2. If enabled, the default password is **password**. When a user tries to enter the manager screen, a password prompt will now appear.
3. Hide Password will hide the New Password and Confirm New Password fields. This will not affect the password pop-up when attempting to enter the Manager page.
4. If a user wants to change the default password, enter the new password in the New Password field and Confirm New Password field. The new password is only implemented once Submit is pressed.
5. If the password is lost, contact Customer Service for assistance

SYSTEM INFO

- System Info displays information about the Check Set Data Logger including the serial number, the software version and when the device should be calibrated again.
- To change °F/°C units use the toggle in the upper right corner



EXPORT DATA

- Export Data will create a CSV file in any connected USB flash drive.
- If no USB flash drive is detected, a pop-up window will be displayed.
- The CSV file will be named by the date and time of the device when the data was exported.
- A folder named CSD_CAL_DATA will be created in the USB device. The CSV file will be saved there.
- The first row of the CSV file will contain headers for each field. Each record saved in the Check Set Data Logger will be in the CSV file.
- Data will be exported in the °F/°C units set in System Info
- Once the data has been exported successfully, a pop-up window will be displayed

Inputting Data and Record Logging Procedure

1. Press the **Create Record** button, from the main screen.
   a. You will not be able to enter the record input screen unless a temperature has been selected.
2. Once in the record input screen, a form will appear to input data about the current verification/calibration in progress.
3. Input data about the current verification/calibration into the Check-Set Data Logger. You will not be able to submit the record until the data has been input.
   a. Certain fields will be automatically input into the database such as the set point and the date.
   b. Probes and employees can be selected from a drop-down menu or input into the unit with an Input Device. See Accessories for compatible devices. The drop-down menu can be edited; See Manager Screen.
   c. Adjust is a check box that indicates if the device needed to be adjusted for accuracy.
   d. Selecting the Reading field will open another window to input the readings from the probe being verified.
   e. **CAR** is a check box that indicates if a Correct Action Report is called for per your company policy to address the results of the verification.
   f. The Comment field allows users to add information outside the format of the form. To input text in the comment field, an Input Device such as a keyboard will be needed. See Accessories for a list of compatible devices that can be used to input data.
4. Once data has been entered into the Check-Set Data Logger, press the **submit** button at the bottom of the page to store the data in the internal database. New data can now be entered to create a new record.

5. To view previous records, press the top left button labeled **Prev**. The top buttons can be used to navigate older records.
6. To return to the main screen, press the “Home” button on the top right. If this button is not visible, press the **Next** button located on the top right until you return to the blank input form.

Sleep Mode

When the device is not needed, users have the option to put the Check-Set Data Logger in sleep mode to save energy. Sleep mode allows the device to come online faster than when booting from power cycling. On the home screen, the top left button will activate sleep mode.

1. The screen will shut off and after a brief cool down period, the device will sleep.
2. The device can be woken up by pressing any part of the screen or by pressing the space bar on a keyboard.

Error Screen

In the case of errors within the device, an error screen will appear. In the error screen there are 4 options:

1. Restart: software errors may be resolved by completely turning off and restarting the device
2. View QR Code
   a. View QR Code opens a separate screen with a QR code.
   b. Scan the QR code with a smart device to automatically generate an e-mail to Tel-Tru Customer Service.
   c. Information about the error and device are automatically added to the e-mail.
   d. Any additional information can be added prior to sending the e-mail.

During an error you can still:

3. Export Data to any USB device connected. This is the same as Export Data from the Manager screen.
4. View Records: view records will show all records stored within the device. No new records can be created. You can navigate through these records with the **Prev** and **Next** buttons on the top of the screen.

Maintenance

Daily

- When not in use, put the Check-Set Data Logger into sleep mode. The fan may run for a few minutes during a cool down period
- Wipe thermometers clean prior to insertion into the unit. Any debris on the thermometers can accumulate in the well

Monthly

- Clean the well by removing and cleaning with the brush kit
- Re-grease the well with the recommended 2.5 grams of Conductivex Thermo-Grease FDA 7. With the included syringe, grease the outside of the removable well and with the remaining syringe, grease the inside of the brass core.
- Clean the fan filter
  - Do not remove filter screws
  - Pop-out filter guard with your fingers
  - Remove the filter and clear any dust or lint in filter
  - Place filter back on
  - Put filter guard back on

Yearly

Return the unit to Tel-Tru for recalibration/recertification.

Accessories

The Check-Set Data Logger has multiple accessories to help input data, maintain the device or for compatibility with different sized thermometers. These accessories can be purchased at teltru.com.

Catalog Number

Keyboard & Mouse 96100384

USB drive 96031201

Bar Code Reader 96100383

Brush Kit 2 (Lg & Sm) 96100145

Heat Sink Compound 96100340

Thermometer Calibration Wrench 96100055

Shoulder Strap 961100224

Check-Set Wells:

a. 1 hole, 3/4" 96100254
b. 1 hole, 1/2" 96100253
c. 1 hole, 3/8" 96100252
d. 3 hole, 3/16", 1/4", 3/8" 96100250
e. 3 hole, Recal, 1/8", 5/32", 3/16' 96100249

Check-Set Data Logger Accessory Bundle:
Cat. No. 96100385
Includes: Keyboard & Mouse, Bar Code Reader, Brush Kit 2 (Lg & Sm), Heat Sink Compound, Thermometer Calibration Wrench, Shoulder Strap, USB drive

Warranty

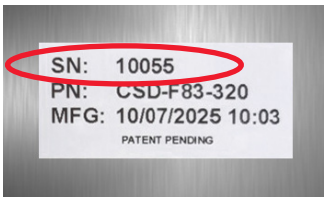
The Check-Set Calibrater Data Logger comes with a one year warranty.

Recertification

Quality Services Provided:

- Inspection performed by a Quality Technician in the Tel-Tru Lab
- Thorough interior cleaning
- Testing of set points
- NIST traceable calibration inspection sticker and certification
- Fast turnaround! 5 business days from when the unit arrives at Tel-Tru

To recertify your unit, follow these quick and easy steps:



1. Go to: https://www.teltru.com/product/re-certification-for-check-set/
2. Enter your serial number (see image).
3. Click **Add to Cart** and **Check Out.**
4. A confirmation e-mail will be sent with a **4 digit Order ID number**, this will serve as your **RMA number** to be placed on the exterior of the shipping box.
5. Ship to Tel-Tru using these packing and shipping instructions.

STEP 1

Identify your unique return identification number.

a.) Online orders:
Order number appears on receipt email (Figure 1)

or

b.) Orders by phone:
RMA # provided by customer service agent

Figure 1

Order Details

Order number: 3864 *Order date: December 17, 2024*

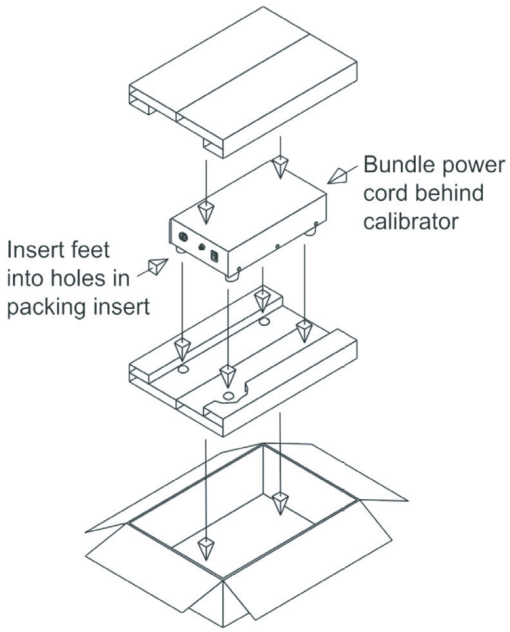
Product	Quantity	Price
Re-Certification for Check-Set (#9610CS81) **Serial Number:** 8010 **Serial Number:** 8010	1	$230.00

STEP 2

Pack Check-Set securely in box (Figure 2)

If original packaging is not available, any shipping box is acceptable. *Please ensure the unit is secured to avoid damage while in transit.*

Figure 2



STEP 3

Address and ship package to:

Tel-Tru Manufacturing Co.
ATTN: Customer Returns
Order ID # or RMA #
408 St. Paul Street
Dock @ 10 Ward Street
Rochester, NY 14605

DO NOT FORGET to place Order Number OR RMA # on the shipping label.

Customer is responsible for freight costs when shipping unit to Tel-Tru.

Frequently Asked Questions

1. What do I do if my screen is frozen?

- If your screen is unresponsive, you should try the following:
  a. Wait 1 minute, the Check-Set Data Logger can be completing work in the background
  b. Turn the device off and on again *(never turn the unit off if you are in the process of exporting data to a USB Flash Drive, it may damage the drive).*

2. The device is plugged in and turned on, but the screen is off, what do I do?

- The device could be in sleep mode. Try the following:
  a. Touch any part of the screen
  b. Connect a keyboard and press the space bar
- If the device does not turn on, do the following:
  a. Turn off the Check-Set Data Logger with the switch in the back
  b. Unplug the Power Cable
  c. Wait 10 seconds
  d. Plug the Power Cable into the Check-Set Data Logger
  e. Turn the Check-Set Data Logger on with the switch in the back

3. Can I print my certification from the device?

- No, currently the Check-Set Data Logger does not have the capability to print your Calibration Certificate.

4. Can I connect my Check-Set Data Logger to a computer?

- No, currently the Check-Set Data Logger cannot connect to another computer

5. Can I test RTDs with the Check-Set Data Logger?

- Yes, your RTD must have a probe sensing area of at least 3.5” from face
- The accuracy of the Check-Set is +/- 0.2°F (0.1°C)

6. My company does not allow the use of USBs, how can I view my data?

- All records can be viewed in the Check-Set Data Logger. See User Manual on how to view records
- SD cards can be used with an SD card USB adapter

7. Can I use my own accessories?

- Yes, you can use your own Keyboard and mouse, bar code reader or other data input device.
- Currently, we only support standard American keyboard layout. Other keyboard layouts may not behave as expected
- The accessories available on teltru.com have been vetted to work with the Check-Set Data Logger

8. How do I connect accessories to the Check-Set Data Logger?

- Connect any device to the Check-Set Data Logger by plugging into the available USB ports in the front of the panel

9. Can I connect Bluetooth devices?

- Currently, the Check-Set Data Logger does not support Bluetooth connectivity

10. Can I delete employees/probes?

- No, for audit and tracking purposes, employees and probes cannot be deleted

11. How many employees/probes can be added to the Check-Set Data Logger?

- There is no maximum for the number of employees and probes that can be added to the Check-Set Data Logger

12. How long does the Check-Set Data Logger take to get to temperature?

a. The time to temperature varies depending on the environment.

b. For 40°/160°F (4.4°/71.1°C), leave at least 10 minutes for the device to reach temperature

c. For 32°/212°F (0°/100°C), leave at least 15 minutes for the device to reach temperature

d. If it takes longer than 15 minutes, the environment or air flow may not be adequate for the device. Make sure the device is in a room that is between 65°F (18.3°C) to 75°F (23.9°C.

e. If the Check-Set Data Logger finds an internal error or takes too long to get to temperature, an error screen will be shown

13. How will I know when the Check-Set Data Logger is ready?

- When getting to temperature, a progress bar will be displayed
- When the Check-Set Data Logger is at temperature, the bottom of the screen will turn green

14. Are any other languages supported?

- Currently, the Check-Set Data Logger is only available in English

15. Can I keep the Check-Set Data Logger on all day?

- The Check-Set Data Logger can remain on for extended periods of time. In order to save power without completely shutting down the unit, the Check-Set Data Logger can be put to sleep.

16. What devices work with the Check-Set Data Logger?

- Many devices are compatible with the Check-Set Data Logger, but not all may behave as expected. We are working on expanding what devices work but currently:
  - a. Keyboard and Mouse
  - b. 2D Code Reader
  - c. USB Flash Drives
- Additional Accessories are available for maintenance or for improved performance:
  - a. Calibration Wrench
  - b. Check-Set Shoulder Strap
  - c. 2 Brush Kit
  - d. Additional Wells
  - e. See the Accessories page for more information

17. What thermometers can I use?

a. The default core that comes with the Check-Set Calibrator has holes for thermometers with stems of a diameter of ¼", .150" and .187". For different diameter stems, check additional cores available for purchase at teltru.com

b. All stems must have a minimum length of 3.5". This ensures the thermometer is being properly controlled.

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