tyco /Healthcare

KENDALL

GENIUS™ 2

Checker / Calibrator

Checker / Calibrator
Operation and Service Manual

Appareil de vérification/Calibrateur
Manuel d'utilisation et d'entretien

Prüfgerät/Kalibrator
Benutzer- und Service-Handbuch

Sistema di controllo della calibrazione/calibratore
Manuale operativo e di assistenza

Verificador de calibración
Manual de operación y servicio

Kalibreringsenhet
Användar- och servicemanual

Validator
Gebruiks- en onderhoudshandleiding

Verificador/Calibrador
Manual de utilização e assistência

Kalibrointilaite
Käyttö- ja huolto-opas

Kontrol- og kalibreringsapparat
Betjenings- og servicehåndbog

Ελεγκτής βαθμονόμησης
Εγχειρίδιο λειτουργίας και σέρβις

Ověřovač/Kalibrátor
Uživatelská a servisní příručka

Ellenőrző/kalibráló készülék
Működtetési és karbantartási kézikönyv

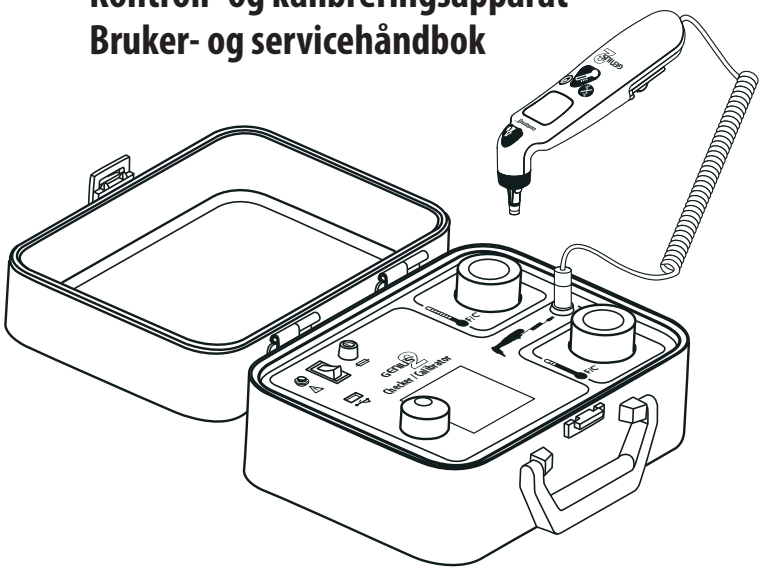
Контрольно-измерительное устройство/Калибратор
Руководство по эксплуатации и техническому обслуживанию

Kalibrator
Instrukcja obsługi i serwisowania

Kontrolör/Kalibratör
Kullanım ve Servis Kılavuzu

Kontroll- og kalibreringsapparat
Bruker- og servicehåndbok

CE AccuSystem™



182563-01

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Section I - Functional Description

This manual describes the operation of the GENIUS 2 Checker/Calibrator. This device has been developed to check the accuracy of the GENIUS 2 Tympanic Thermometer and automatically recalibrate the thermometer, if necessary. In addition, the GENIUS 2 Checker/Calibrator has the capability to generate a test report for each thermometer tested and save it to a USB flash drive. The GENIUS 2 Checker/Calibrator will work with all GENIUS 2 Thermometer software revisions.

The GENIUS 2 Checker/Calibrator contains two independently controlled infrared calibration targets that are similar to factory calibration targets. These "blackbody" targets are designed to have efficient radiative heat transfer and produce infrared radiation that approximates the human ear at temperatures of 32.2° C (90.0° F) and 40.6° C (105.0° F).

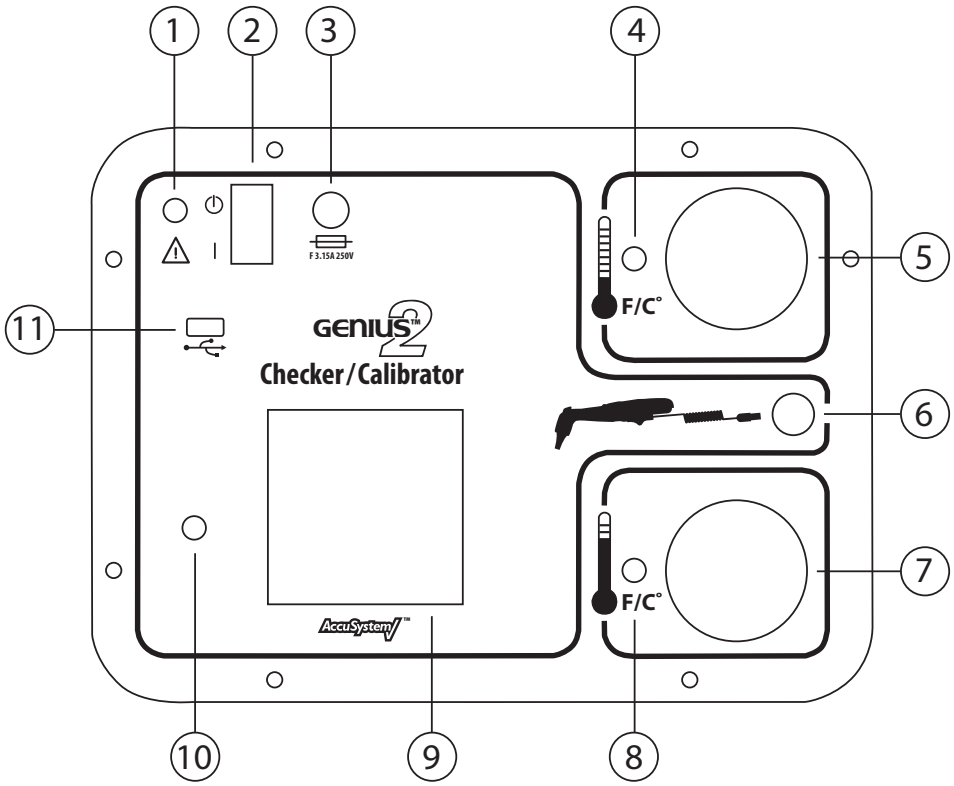

Figure 1 - Front Panel Layout

Legend

1 Power Connector
2 Power Switch
3 Fuse Holder
4 Low Temperature Target LED
5 Low Temperature Target
6 GENIUS 2 Thermometer Connector
7 High Temperature Target
8 High Temperature Target LED
9 LCD Display
10 Encoder Knob
11 USB port

Section II - Precautions and Warnings

- The GENIUS 2 Checker/Calibrator is designed to be operated as specified in this manual. Protection provided by the safety devices in the GENIUS 2 Checker/Calibrator may be impaired if the device is not used in accordance with the directions contained in this manual.
- The GENIUS 2 Checker/Calibrator enclosure is not waterproof. Avoid spilling liquid of any kind onto the front panel of the device. Likewise, the GENIUS 2 Checker/Calibrator is powered from an AC power source. Avoid the potential for contact between liquid and any external surface of the device while connected to the mains source.
- The surface quality of the interior of the reference blackbody targets is critical to their operation as efficient infrared radiators. Care should be exercised when working near the entrance to the blackbody targets to ensure that no contact is made with the surface inside the rubber flaps.
- In the event of a blown fuse, replace the fuse with a fuse that exactly matches the rated voltage, current, and form factor as specified in the GENIUS 2 Checker/Calibrator Specifications section of this manual. Make sure the device is disconnected from the AC power source before changing a blown fuse.
- This device should not be used in the presence of flammable anesthetics. There is risk of an explosion in the presence of these anesthetics.
- There are no user-serviceable components in this device. Do not remove the front panel. Refer servicing to qualified service personnel.
- Use only the supplied power module with this device.
- When prompted to insert the GENIUS 2 Thermometer into one of the blackbody targets, there is a 60 second window of time to accomplish the insertion. If the time delay exceeds this period, the procedure will be terminated.
- Prior to checking/calibrating a GENIUS 2 Thermometer, ensure that the thermometer lens is clean. Effective cleaning will ensure that the calibration tolerances are correctly verified. Refer to the cleaning instructions in the Genius 2 Thermometer operating manual.
- When installing a GENIUS 2 probe cover on to the tip of the GENIUS 2 Thermometer, use only covers that are in a cassette and not released. Try to avoid all hand contact with the probe covers in order to prevent inaccurate readings. Do not reuse probe covers. Use only GENIUS 2 probe covers.
- Let the GENIUS 2 Checker/Calibrator warm up after power-up for at least 15 minutes before use. Make sure that the GENIUS 2 Thermometers, probe covers and the GENIUS 2 Checker/Calibrator have had enough time to equilibrate to room temperature before proceeding. Allow a longer warm up period if the device or thermometers were at the extreme limits of allowed ambient temperature. The portability of the GENIUS 2 Checker/Calibrator will allow for relocation of the device to areas that meet the ambient temperature requirements.
- To maintain Electromagnetic Compatibility (EMC) conformance, use a USB flash drive that is CE marked and meets EN55022 standard.
- Do not put or rest the GENIUS 2 Thermometer on the surface of the GENIUS 2 Checker/Calibrator at any time. The thermal sensors inside the thermometer probe tip will detect the heat transferred from the blackbody targets through the front panel surface. This will cause instability of the thermometer sensors, which will produce erroneous temperature readings.
- The GENIUS 2 Checker/Calibrator may only be used indoors, in an area free from drafts and wide ambient temperature swings.
- The USB port on the front panel is intended to be used with only a USB Flash memory drive. No other USB devices should be inserted into the USB port. The USB flash memory drive should be installed prior to device power-up.
- In the event that the GENIUS 2 Checker/Calibrator is dropped, return the unit to the factory for re-calibration.

10/23/2008 Artwork#s: WN 182563-01 Job#: 16245

Section III - Icon Identification

SN	Serial Number		Manufacturer
	Consult Accompanying Documents		Date of Manufacture
	Standby Power		Double or Reinforced Insulation Protection
	Replace with Same Rated Fuse	CE	CE Mark
	USB Port		Dispose of as Electrical and Electronic Waste
F/C°	High Temperature Target		
		c UL us LISTED (LABORATORY EQUIPMENT) 46EA	UL Listing Information
F/C°	Low Temperature Target		
			Caution: Indoor Use Only
	GENIUS 2 Thermometer Connection		

AccuSystem√™

The GENIUS 2 Infrared Tympanic Thermometer is a reliable and accurate temperature-taking device. The reason for the accuracy of the GENIUS 2 Thermometer is the design, controlled calibration methods and stringent manufacturing controls. One of the most critical functional parts of a thermometer is the ACCUSYSTEM√ probe cover produced by Tyco Healthcare/Kendall. The GENIUS 2 Thermometer ACCUSYSTEM√ probe cover, when placed on a GENIUS 2 Thermometer, serves as an infection control barrier between the patient and the device and the medium for heat transmission from the patient to the thermometer. The functionality of the GENIUS 2 Thermometer ACCUSYSTEM√ probe cover is extremely important for preventing device contamination and also for allowing accurate patient temperature measurements.

The reason the GENIUS 2 Infrared Tympanic Thermometer and GENIUS 2 Thermometer ACCUSYSTEM√ probe covers have satisfied our customers' expectations is due to the integration of these two parts during the manufacturing process. The GENIUS 2 Thermometer ACCUSYSTEM√ probe cover molding process parameters are tightly controlled at Tyco Healthcare/Kendall to minimize variation and produce consistent and reliable products. The special grades of thermoplastic materials are also tightly controlled and are specifically chosen to deliver consistent temperature measurements with GENIUS 2 Thermometers. The factory calibration and final determination of an acceptable GENIUS 2 Thermometer is dependent on the use of acceptable Tyco Healthcare/Kendall GENIUS 2 Thermometer ACCUSYSTEM√ probe covers. The use of generic probe covers or other probe covers not produced by Tyco Healthcare/Kendall is not supported or sanctioned by Tyco Healthcare/Kendall. The use of unauthorized GENIUS 2 Thermometer probe covers could jeopardize the accuracy of the GENIUS 2 Thermometer. Check your probe cover carton for the ACCUSYSTEM√ logo to be certain that your thermometer will deliver an accurate temperature every time it is utilized.

Section IV - Required Equipment

1. GENIUS 2 Checker/Calibrator
2. Power module with AC adapter
3. Probe cable
4. Operator's Manual
5. GENIUS 2 Thermometers to be tested
6. GENIUS 2 disposable probe covers
7. Small Phillips screwdriver

Section V - System Setup

The following actions should precede use of the GENIUS 2 Checker/Calibrator:

1. Connect the correct AC plug adapter for your country to the power module.
2. Connect the power module cable to the power jack on the front panel.
3. Connect the power module to an AC power outlet.
4. Turn the unit on via the switch on the front panel.
5. Let the GENIUS 2 Checker/Calibrator unit warm up for at least 15 minutes.
6. Set aside a cassette with new GENIUS 2 probe covers.
7. Let the GENIUS 2 Thermometers equilibrate to the room temperature.
8. Prepare the GENIUS 2 Thermometers by thoroughly cleaning the lenses prior to use. Refer to the GENIUS 2 Thermometer operating manual for cleaning instructions.
9. Remove the battery compartment access panel by using a small Phillips screwdriver. Remove all three AAA batteries.
10. Connect the probe cable round connector to the front panel of the GENIUS 2 Checker/Calibrator.
11. Connect the other end of the probe connector into the battery compartment. The connector will snap into place where the batteries were. Refer to Figure 2.

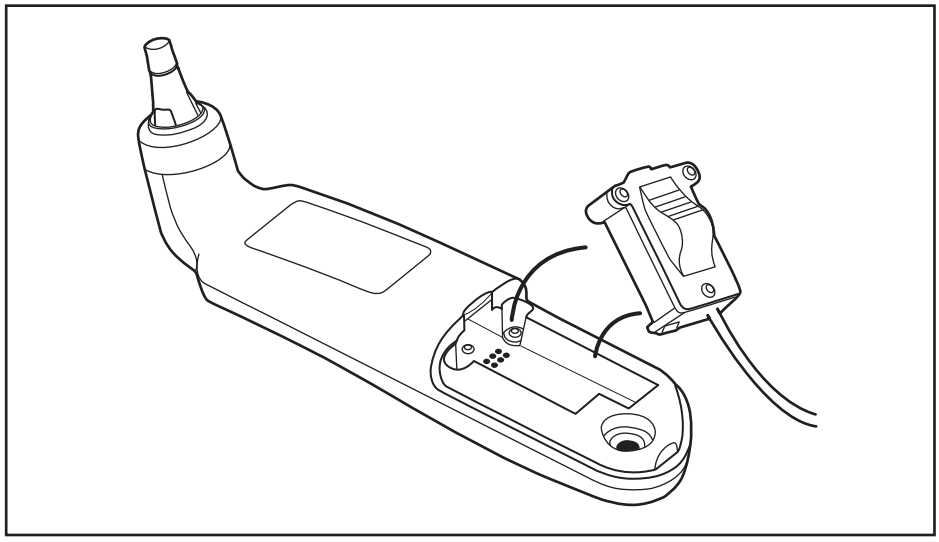

Figure 2 - Insertion of Probe Connector into GENIUS 2 Battery Compartment

Section VI - Operational Procedure

The following procedure will describe the steps required to operate the GENIUS 2 Checker/Calibrator. In order to facilitate familiarity with the product, it would be advisable to use this section of the manual during the calibration check of the first few thermometers.

Installation of USB Flash Drive (Optional)

Install a USB flash drive into the USB port located on the front panel if a report file written to the USB flash drive is desired. If the USB flash drive is installed after performing a calibration check, an error message may occur when attempting to write the report file if the operator does not wait for the USB flash drive to complete initialization. If the GENIUS 2 Checker/Calibrator is powered off, all internal memory (not yet saved to the USB flash drive) will be lost.

Apply Power

Make sure the AC-adapter end of the power module is plugged into a grounded outlet. Connect the power module to the front panel power connector. Apply power to the GENIUS 2 Checker/Calibrator by using the power switch on the front panel.

Start-up Screen

The first screen on the LCD display is the Initialization Screen, which displays the software revision and date of the GENIUS 2 Checker/Calibrator. If there is an internal problem during initialization, an Error screen will be displayed (See Section VII).

Reminder Screen

The next screen on the LCD display is a reminder to let the GENIUS 2 Checker/Calibrator warm-up for at least 15 minutes after applying power. This will let the infrared blackbody targets warm up to the proper temperatures. To exit this screen, press the encoder knob.

Main Menu

The Main Menu screen is displayed next. This screen has four menu options:

Check Calibration
Preferences
Set User/Site Information
Set Time/Date

To enter any menu option, use the encoder knob to scroll over and highlight the desired menu option, then press the encoder knob.

Preferences

The Preferences menu is used to setup the language option. Press the encoder knob to enter the Language Selection screen.

Language Selection

The Language Selection screen lists the available languages for the LCD screen text. To select a language, scroll over the selection and it will be highlighted. Press the encoder knob to complete the selection and return to the Main Menu screen. The selected language will be stored in non-volatile memory and will be used next time the unit is powered on.

Set User/Site Information

The Set User/Site Information screen is used to enter the operator's name and the organization and/or site information. This information will be written to the test report file.

To enter the information, use the encoder knob to scroll through the alphabet for a given letter position in the operator name or site information. When the correct letter is shown, press the encoder knob to select the letter and advance to the next letter position. To enter a space, just press the encoder knob when a space or blank letter is shown in that letter position. The user name can be up to 20 letters long. Use the encoder knob to scroll to the organization field and enter a name for the site in a similar manner. To exit the menu, scroll to the DONE text and press the encoder knob.

Set Date and Time

The Set Date and Time screen menu option is used to setup the date and time that is used on the test report. The time and date are internally stored and automatically updated when the unit is powered up.

To enter time, use the encoder knob to select the hours and minutes. Note: the hours is setup using a 24 hour clock format, where 1PM is entered as 13:00 etc. When the value is correct, push the encoder knob to move to the next field of the time and then to the date field. The date field is setup using a MMDDYYYY format. After the last field of the date is entered, the next encoder push will exit this menu and return to the Main Menu. Note: the time and date are shown at the bottom of the Main Menu.

Check Calibration

This menu option performs the calibration check of a GENIUS 2 Thermometer, and if required, automatically recalibrates the thermometer using a series of step-by-step screens. Before entering this menu option, make sure that the required equipment listed in Section IV is available. This includes a cassette with unused (new) probe covers.

Step 1:

Warm up of infrared blackbody targets. This screen is displayed while the targets are checked for proper temperature. Both the Low Target and the High Target are checked, and when they are at the correct temperature, the screen will change to "OK" for each target. There is a prompt to press the encoder knob to continue to the next screen. If either target cannot reach the correct temperature, an Error message screen will be displayed. If this happens, check to be sure the GENIUS 2 Checker/Calibrator is within the correct ambient (room) temperature range, and has been given at least 15 minutes of warm up time since power was switched on.

Step 2:

Inspect the GENIUS 2 Thermometer that will be tested. Ensure that the thermometer lens is not scratched and is free from ear wax and/or other contaminants. If the thermometer lens is "dirty", clean the lens according to the instructions in the GENIUS 2 Thermometer operating manual. Once the thermometer lens is clean, connect the GENIUS 2 Thermometer to the Checker/Calibrator by plugging the round end of the thermometer interface cable into the round connector socket on the GENIUS 2 Checker/Calibrator front panel (refer to Figure 3). Open the battery door of the thermometer by using a small Phillips screwdriver. Remove the batteries and set aside. Connect the other end of the thermometer probe cable into the battery compartment, making sure the connector "snaps" into place securely. Refer to Figure 2 in Section V.

Note: A new probe cover must be used prior to every target insertion. Finger oils on previously used probe covers or re-used probe covers that have been heated by GENIUS 2 Checker/Calibrator target can cause erroneous readings which may result in a failed calibration check or recalibration. Therefore, it is extremely important that a new probe cover is used each time.

Step 3:

Press the encoder knob to continue, then install a new GENIUS 2 probe cover onto the GENIUS 2 Thermometer. Make sure to use a cover that is held in the cassette. Once the cover is on the thermometer, do not point the probe tip at any object, including hands, fingers or LCD display, as this will cause an inaccurate temperature reading. Inspect the probe cover to make sure it is fully seated (no space between the cover and the tip base) and no holes, tears, or wrinkles are present in the plastic film. When the cover is on, insert the probe tip into the Low temperature target, which will have a blinking LED indicator next to it. Make sure that the probe tip is fully inserted into the target well. Refer to Figure 3 for proper insertion. In order to avoid a time-out error, insert the covered probe tip into the target within 60 seconds from the time the encoder knob is pressed.

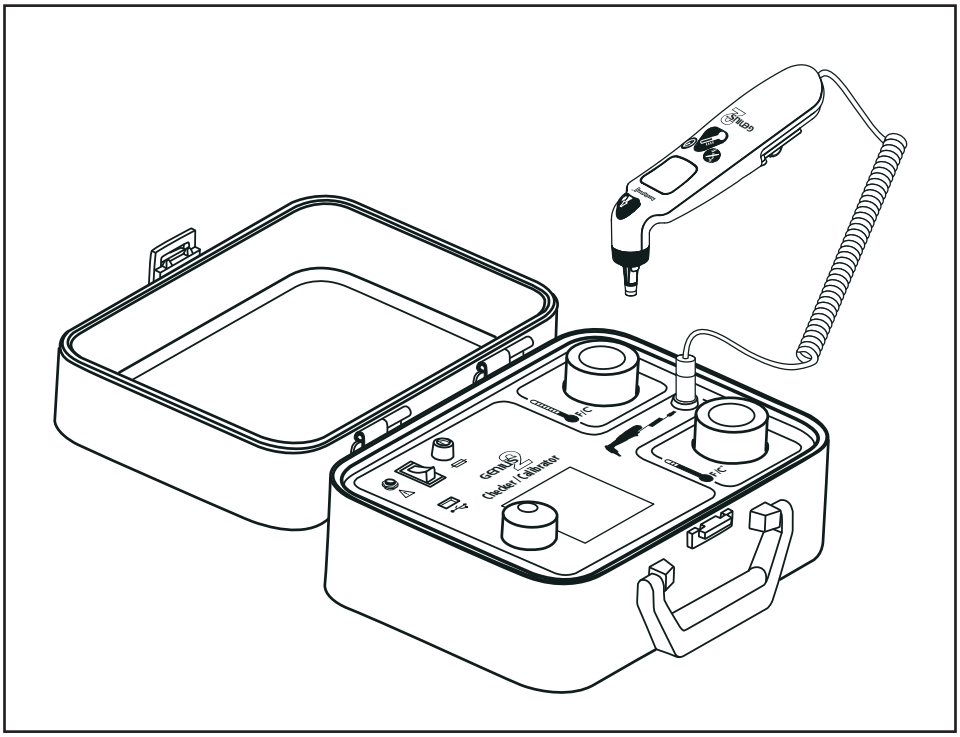

Figure 3 - Proper Insertion of GENIUS 2 Probe Tip into Target

Step 4:
The insertion of the probe tip into the target will automatically be detected and the screen display will change to "Press GENIUS 2 Thermometer scan button." Press the scan button on the GENIUS 2 Thermometer while it is inserted into the Low temperature target. The GENIUS 2 Thermometer will output 3 short beeps as it takes the temperature of the blackbody target. After the temperature is taken, the next screen will display.

Step 5:
Withdraw the thermometer from the Low temperature target and eject the probe cover. The screen display will change to "Install a new probe cover and insert probe into the High target." Again, use a new GENIUS 2 probe cover from the cassette and be careful not to point the probe tip at any object, including hands, fingers or LCD display. Inspect the probe covers to make sure it is fully seated (no space between the cover and the tip base) and no holes, tears, or wrinkles are present in the plastic film. When the cover is on, insert the probe tip into the High temperature target, which will have a blinking LED indicator next to it. Make sure that the probe tip is fully inserted into the target well.

Step 6:
The insertion of the probe tip into the High target will automatically be detected and the screen display will change to "Press GENIUS 2 Thermometer scan button." Press the scan button on the GENIUS 2 Thermometer while it is inserted into the High temperature target. The GENIUS 2 Thermometer will output 3 short beeps as it takes the temperature of the blackbody target. After the temperature is taken, the next screen will display.

Step 7:
If the GENIUS 2 thermometer is within specified accuracy limits, a Results screen will be displayed showing the thermometer serial number along with an indication that the thermometer passed calibration check. If the GENIUS 2 thermometer is found to be outside the specified accuracy limits , the display will indicate to the user that the GENIUS 2 Checker/Calibrator is entering into a calibration sequence that requires the user to repeat Steps 3 through 6 three more times in order to gather recalibration data. Following the last pass through Steps 3 through 6, the GENIUS 2 Checker/Calibrator will attempt to recalibrate the GENIUS 2 thermometer. If the recalibration is successful, a Results screen will be displayed showing the thermometer serial number along with an indication that the thermometer passed calibration. If the recalibration is unsuccessful or the thermometer is unable to be calibrated, a Results screen will be displayed showing the thermometer serial number along with an indication that the thermometer failed calibration.

Step 8:
After the pass/fail Results screen has been displayed, press the encoder knob to display a second Results screen containing the target temperatures, the GENIUS 2 readings, and the target versus thermometer variances.

Step 9:
The next screen will display "Write report to USB flash drive?" and display Yes and No below. If a report is desired, insert a flash drive into the front panel USB port. Note: allow about 30 seconds after insertion for the USB flash drive to initialize. Use the encoder knob to scroll to either Yes or No and press the encoder knob to make a selection. If No is selected, the screen returns to the Main Menu. If Yes is selected, a report is written to the USB flash drive, using the thermometer serial number for filename and .TXT as the file extension. The file contains the test results as well as other information such as serial number, date, time, user name, and organization. This file is a simple ASCII text file and is only available in English. This file can be read by MicrosoftTM Windows programs such as Microsoft™ Notepad and sent to a printer. After the file is written, the display will show "Push knob to continue." Press the encoder knob to return to the Main Menu.

Step 10:
After completing a calibration check/recalibration, remove the probe connector from the battery compartment, using a rocking motion to free the connector. Then reinstall the 3 AAA batteries, observing the proper polarity orientation. Finally, reinstall the battery compartment cover and tighten the screw.

Step 11:
Remove USB flash drive before closing the lid of the case. The lid should be closed when the GENIUS 2 Checker/Calibrator is not in use.

Section VII - Error Messages

The error messages will have a number associated with them, such as Error 1, etc. The following is an explanation of the errors:

Error 1: Internal Error
This error is an indication of a problem within the GENIUS 2 Checker/Calibrator. If this error persists after cycling power off and back on, return the unit for factory servicing.

Error 2: Unable to communicate with GENIUS 2 Thermometer.
This error is an indication of either a lack of communication or a miscommunication between the GENIUS 2 Thermometer and the GENIUS 2 Checker/Calibrator. Check both ends of the thermometer probe cable, especially the end that connects inside the battery compartment. The pins in the thermometer probe cable can lose spring action if they are bent or damaged. After inspecting the probe cable, re-attempt the calibration check. If the problem persists, try a different GENIUS 2 Thermometer, if available. If this does not resolve the problem, return the unit for factory servicing, along with the thermometer cable and the GENIUS 2 Thermometer that indicated this error.

Error 3: Timeout
This error is an indication that the operator took too long to perform an operation. This error might be seen when connecting to the GENIUS 2 Thermometer, or while installing a probe cover on the thermometer. The timeout is set for one minute. Try repeating the operation that gave this error.

Error 4: Target Out of Range
This error is an indication that one of the blackbody targets is not within the range of temperature allowed. Check that the unit is being operated within the allowed ambient temperature operating range. Refer to Section VIII. If operating within the specified ambient conditions does not eliminate the error, the blackbody target(s) may be damaged. Return the unit for factory servicing.

Error 5: USB Flash Drive Write Error
This error is an indication of a problem when writing the report file to a USB flash drive. Check that the write protect switch on the USB drive is in the "off" position. Make sure that there is sufficient free space on the drive, and that security or encryption features are not in use.

Error 6: Ambient Temperature Out of Range
This error is an indication that the ambient temperature is not within the specified range for performing an accurate recalibration. Check that the unit is being operated within the allowed ambient temperature operating range. Refer to Section VIII.

Error 7: Wrong Target

This error is an indication that the GENIUS 2 Thermometer has been inserted into wrong target or was inserted into the target prematurely. Please take care to follow the instructions on the screen and not perform steps prior to the instructions being displayed.

The Error screen will be displayed for 60 seconds before returning to the Main Menu. To exit the Error screen sooner, press the encoder knob.

Section VIII - Checker/Calibrator Specifications

Temperature Set Points

Low Target . . . . . 32.2 °C +/- 0.3 °C (90.0 °F +/- 0.5 °F)
High Target . . . . . 40.6 °C +/- 0.3 °C (105.0 °F +/- 0.5 °F)

Target Temperature Accuracy . . . . . Initial Limit +/- 0.03 °C (0.05 °F)
. . . . . Post year 1 +/- 0.06 °C (0.10 °F)

GENIUS 2 Thermometer Accuracy After Recalibration*

Readings between 36. 0 °C and 39.0°C (96.8 °F and 102.2 °F) . . . . . +/- 0.2 °C (+/- 0.4 °F)
Readings less than 36. 0 °C (96.8 °F) or greater than 39.0°C (102.2 °F) . . . . . +/- 0.3 °C (+/- 0.5 °F)

Warm-up Time Before Use . . . . . 15 minutes (from non-extreme ambient)
Ambient Temperature Operating Range . . . . . 21.1-26.7 °C (70-80 °F)
Relative Humidity Operating Range . . . . . 50 +/- 20%, non-condensing
Altitude Range . . . . . Up to 2000 meters (6563 feet)
Storage Temperature Range . . . . . -25 °C - 55 °C (-13°F - 131°F) 85% RH non-condensing

Approximate Size

Length . . . . . 31.1 cm (12.25″)
Depth . . . . . 15.9 cm (6.25″)
Width . . . . . 26.0 cm (10.25″)

Weight . . . . . 3.3 kg (7.2 lbs)
Power Requirements 100-240V 0.8-0.4A 47-63Hz
Fuse Requirements . . . . . Schurter FSF 5 x 20mm Fast Blow
. . . . . Low Breaking Capacity 250 V, 3.15A
Recommended Checker/Calibrator Calibration Interval . . . . . One Year
ESD Immunity . . . . . Meets IEC 61000-4-2 Non-continuous Criteria C
Pollution Degree 2
Installation Category II
. . . . . Indoor Use Only

*Post recalibration accuracy using the GENIUS 2 Checker/Calibrator may not necessarily be equivalent to factory calibration

Section IX - Cleaning Instructions

CAUTION: DO NOT IMMERSE THE Checker/Calibrator, CABLES, OR POWER CORD IN WATER OR OTHER CLEANING SOLUTION; CLEAN USING A DAMP (NOT WET) CLOTH. FAILURE TO FOLLOW CLEANING PROCEDURES DESCRIBED HEREIN COULD RESULT IN HAZARDS TO USERS.

As with any AC powered electrical device, care must be taken to prevent liquid from entering the Checker/Calibrator to avoid electrical shock hazard, fire hazard, or damage to electrical components.

General Cleaning Instructions

Cleaning of the GENIUS 2 Checker/Calibrator may be performed as follows:

- FIRST, UNPLUG THE GENIUS 2 Checker/Calibrator FROM POWER SOURCE. NEVER CLEAN THE DEVICE WHILE CONNECTED TO THE MAINS SUPPLY.
- A mild detergent should be used for general cleaning of outside surfaces. Also, a cloth damped with isopropyl alcohol can be used to clean the unit. DO NOT USE abrasives or solvents. Avoid excess moisture around the target assemblies and the electrical connectors.
- Do not attempt to clean the target below the rubber flaps.
- Do not clean the target nests or flaps with alcohol.

If there is any doubt about the compatibility of a cleaning agent with part of this equipment or its materials contact Tyco Healthcare/Kendall customer service (See Section XI).

Section X - Troubleshooting

Some of the common problems are as follows:

Problem	Probable Cause	Corrections
GENIUS 2 Checker / Calibrator will not power up	GENIUS 2 Checker / Calibrator not receiving AC power	Check AC power connections
	Blown fuse	Replace fuse
Test report does not write to USB flash drive	USB flash drive not formatted	Use PC or laptop to format flash drive
	USB flash drive write protected	Use PC or laptop to turn off write protection
	USB flash drive does not contain enough free memory space	Use PC or laptop to delete unnecessary items or use different USB flash drive
	USB flash drive incompatible with GENIUS 2 Checker/Calibrator	Use different USB flash drive
	GENIUS 2 Checker / Calibrator has not had enough time to detect the newly inserted USB flash drive	Retry write process
Multiple GENIUS 2 thermometers fail recalibration	Probe cover stuck in one of the blackbody targets	Remove probe cover from blackbody target using small needle-nose pliers or hemostats. Do not scratch the interior surface of the target.
	Dirty probe cover	Use a new probe cover for each reading. Do not re-use a probe cover. Probe covers should never be touched by hand.
	Dirty thermometer lens	Clean the thermometer lens per the instructions in the GENIUS 2 operating manual.
	GENIUS 2 thermometer not seated correctly	Ensure that the GENIUS 2 thermometer is completely seated in the target and at the proper angle.
	GENIUS 2 thermometers, probe covers, and/or checker/calibrator not at room temperature.	Ensure that the GENIUS 2 thermometers, probe covers, and/or checker/calibrator have had enough time to equilibrate to room temperature before proceeding.
Error 6 repeatedly appears while testing the same GENIUS 2 thermometer	Potential power consumption issue with GENIUS 2 thermometer	Repeat calibration check / recalibration with a different GENIUS 2 thermometer and return problem thermometer for factory servicing.
GENIUS 2 thermometer seems to read high or low following a successful recalibration	Probe cover reused during calibration check / recalibration	Repeat calibration check / recalibration using a new probe cover prior to every target insertion during the process.

Section XI - Customer Service

The GENIUS 2 Checker/Calibrator requires factory calibration and inspection once a year. Notify and return the device to Tyco Healthcare/ Kendall on or before the calibration date for the Checker/Calibrator. The Checker/Calibrator will display a message one month prior to the calibration date as a reminder.

CAUTION: THERE ARE NO SERVICEABLE PARTS INSIDE, RETURN TO FACTORY FOR SERVICE.

In the event that it is necessary to return a unit for repair, please observe the following:

1. Contact Tyco Healthcare/Kendall as shown below, or your local customer service representative for an Authorized Return Number and shipping instructions.
2. Ship insured parcel to your local service contact or the appropriate location below.

United States
Tyco Healthcare Group LP
98.6 Faichney Drive
Watertown, NY 13601
1-800-448-0190 or
(315) 788-5246

Canada
Tyco Healthcare Canada
7300 Trans Canada Highway
Pointe-Claire, QC
H9R 1C7
1-877-664-8926 or
(514) 695-1220

Outside US & Canada
Tyco Healthcare Group LP
Unit 2 Talisman Business Center, London Road
Bicester, OX26 6HR, UK
+44-1869-328065

Parts Listing

Please contact your local customer service center or sales representative for the parts listed below.

Description

GENIUS 2 Checker/Calibrator 303097
Refurbished GENIUS 2 Checker/Calibrator. 303096

Section XII - Warranty

Tyco Healthcare/Kendall warrants the GENIUS 2 Checker/Calibrator to be free of defects in materials and workmanship under normal use and service for a period of 1 year from the date of delivery by Tyco Healthcare/Kendall to the first purchaser. Liability hereunder is limited to repair or replacement, at Tyco Healthcare/Kendall's option, at Tyco Healthcare/Kendall service facility for any product, which shall under normal use and service, appear to Tyco Healthcare/Kendall to have been defective in material or workmanship. This warranty shall not apply to, and Tyco Healthcare/Kendall shall not be responsible for, any loss arising in connection with the purchase of any product that has been repaired by anyone other than Tyco Healthcare/Kendall or its authorized representative, or which has been subject to misuse, neglect, or accident, or which has been used otherwise than in accordance with the instructions furnished by Tyco Healthcare/Kendall. Tyco Healthcare/Kendall neither assumes nor authorizes any representative or other person to assume for it any liability other than as expressly set forth herein.

Tyco Healthcare/Kendall DISCLAIMS ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR APPLICATION OTHER THAN AS EXPRESSLY SET FORTH IN THE PRODUCT LABELING. IN NO EVENT WILL Tyco Healthcare/Kendall BE LIABLE FOR ANY INCIDENTAL, INDIRECT, OR CONSEQUENTIAL DAMAGES IN CONNECTION WITH THE PURCHASE OR USE OF THIS PRODUCT.

Section XIII - Electromagnetic Conformity Declaration

The Genius 2 Checker/Calibrator has been built and tested according to IEC/EN61010-1 and EN61326-1 standards

The Checker/Calibrator is intended for use in the electromagnetic environment specified below. The user of the equipment should assure that it is used in such an environment.

Emissions Test	Compliance	Electromagnetic Environment -Guidance
Conducted and Radiated Emissions (EN61326-1)	Group 1, Class B	The Checker / Calibrator emissions are very low and are not likely to cause interference in nearby electronic equipment.
Harmonic Current (EN61000-3-2)	Class A	
Voltage Fluctuation and Flicker (EN61000-3-3)	Complies	
Radiated Disturbance Immunity (EN61000-4-3)	Complies	
Conducted Disturbance Immunity (EN61000-4-6)	Complies	
Power Frequency Magnetic Field Immunity (EN61000-4-8)	Complies	
Voltage Dips and Interrupts Immunity (EN61000-4-11)	Complies	
Electrical Fast Transient/Bursts Immunity (EN61000-4-4)	Complies	
Surge Immunity (EN61000-4-5)	Complies	
Electrostatic Discharge (EN61000-4-2)	Meets Criteria C, Non-Continuous	