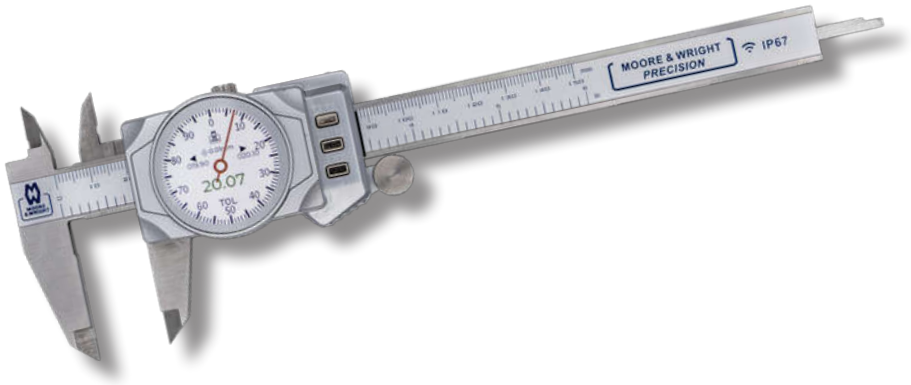
MOORE & WRIGHT

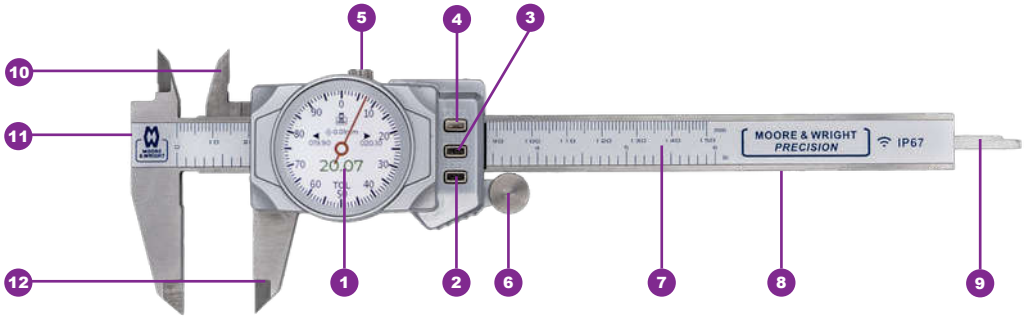


MW148-15D - Digital Dial Caliper

Operating Instructions

IP67

BOWERS GROUP



Description					
1	**LCD Display**	Displays the measurement value.	7	**Scale**	Both mm and inches
2	**SET/0 Button**	Short-press to turn on or reset zero, long-press for over 3 seconds to turn off.	8	**Beam**	Stainless steel
3	**MENU Button**	Short-press to switch between functions, and short press Set in some menus, then long-press MENU button to save settings. There are six functions, shown below.	9	**Depth rod**	Used for depth measuring.
4	**DATA Button**	For pairing and sending measurement data.	10	**Internal Jaws**	Used for internal dimension measuring.
5	**Locking Screw**	Rotate clockwise to lock and anti-clockwise to move freely.	11	**Step Measurement**	Used for measuring step dimensions.
6	**Thumb Roller**	Used for smooth movement of the caliper.	12	**External Jaw**	Used for external dimension measuring.



Measurement Mode



Value Locking



Tolerance Reminder



Wireless Data Function



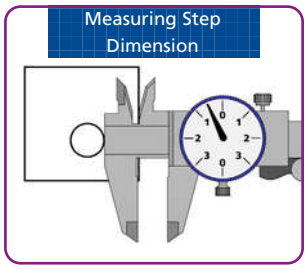
Charging

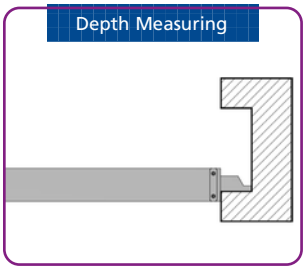
Menu Button: Short press to cycle through each function below			
Units	Select between Metric or Inch with fraction.	**HOLD Locking Function**	Short-press SET/0 button to select HOLD: ON, then Long-press MENU button to save this setting. In use, short-press SET/0 button to lock the current value, and the screen will display H. Short-press the SET/0 button again to unlock, the H will disappear.
Screen Brightness	Night, Normal, Bright	**TOL Tolerance Value Reminder**	Short press the SET/O button to select TOL: ON. Long press MENU to for the configuration screen and long press again to edit values. The current variable is shown red, short press MENU to cycle up and double press MENU to move to the next digit. After setting the two vales left and right, the system will determine which is the lower and which is the higher limit. Long press MENU to keep store values and short press again to exit this mode.
Screen Sleep Time	15s, 30s, 1MIN, 2MIN, 5MIN, 10MIN	**Display Interface**	Short press the MENU button to appear interface, short press the SET/0 button, you can select the dial 0 with a value and the dial 1 with no value, and then long press the MENU button to save the current Settings.
INC Function	Short-press SET/0 button to select INC: ON, Long-press the MENU button to save this setting. When using the INC function, Short-press SET/0 button to display Zero at any position, the screen will display INC. Short-press SET/0 button again to quit relevant measurement mode, INC disappears from the screen.		

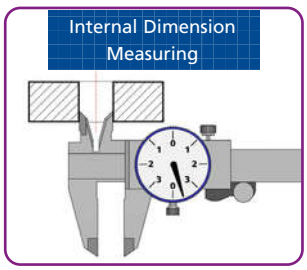
Note: INC/HOLD/TOL The three functions cannot exist at the same time. The system saves only the last configured function.

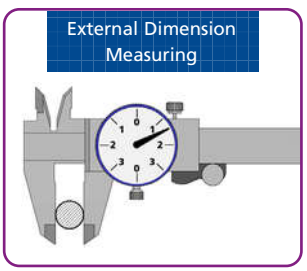
Operation

- The calipers can measure external, internal, step and depth dimensions
- Ensure the measuring surfaces of both the caliper and the object to be measured are clean.
- Power on the calipers and close the jaws. If not already displaying zero, then press the Zero button.
- Select the unit as preferred, mm or inches (or fractions)
- Use the thumbwheel to move the caliper jaws, step or rod against the measuring surface. Ensure the caliper is square to the measuring surface and apply some slight pressure.
- If needed, use the locking screw to lock the position or the Hold button to hold the value before reading the display.
- By switching to Incremental mode the caliper will give a comparative measurements from a defined point.







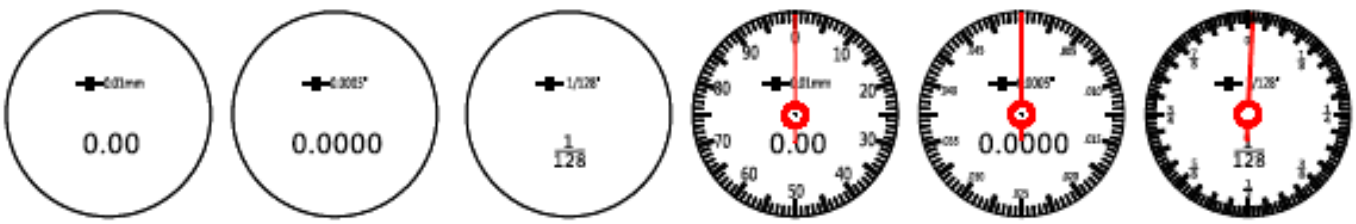


Wireless Data Transfer

1. Before using the wireless data transfer function, set the language in the input method software of the receiving equipment to English.
2. **Matching:** When the caliper matches with the receiving device for the first time, both shall be matched for operation, turn on the Bluetooth® searching function of receiving device (e.g. a computer or phone). At the same time, long-press DATA on the caliper for more than 3 seconds, until the wireless symbol on the screen blinks slowly, to show it is in search mode, wait until the receiving device finds the device, then click to connect, and wait for the connection. After connecting, the wireless symbol will display on the screen. If it can not be connected within 5 minutes, the wireless symbol will disappear and the wireless function will be cancelled. To try again, please repeat the previous steps.
3. **Send Data:** After connecting, short-press DATA, the present reading is then sent to the receiving device, (e.g. a computer or phone), the screen will flash the wireless symbol to show that the data has been sent. When the caliper and receiving device, try to keep the devices closes to avoid disconnecting. If the caliper doesn't send data for more than 15 minutes, the wireless will be turned off automatically to save power.
4. **Caution:** If the caliper matches and connects with several receiving devices, the device which was connected most recently will take priority After a caliper connects with a Windows computer a caliper connects with a computer it can not be re-connected by long-pressing DATA. Instead delete the wireless keyboard input shown on the computer and match again to connect.

Specification

MW148-15D - Digital Dial Caliper					
Range (mm/inch)	0-150 / 0-6	**Accuracy (mm/inch)**	0.02 /0.001	**Screen**	Colour LCD screen with six display options
Resolution (mm/inch)	0.01 /0.0005 1 / 128			**Housing**	Metal
Working Temperature ˚C	0 - 40			**Tolerance**	Can be set for GO/NG.
Storage and Transportation ˚C	-20 - 70			**Battery**	Magnetically secured charger for internal lithium battery
Environmental Humidity	Unlimited			**Wireless**	Export measurements to an external application
Protection class	IP67			**Charging Voltage**	5V (via USB)

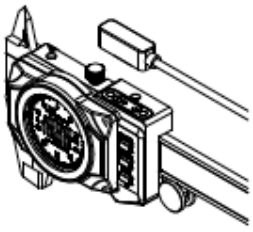


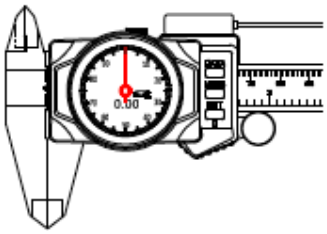
Charging

The product uses a built-in recyclable rechargeable lithium battery, when the power is too low, please recharge the device.

When charging, the screen will display a battery charging sign

1. The charging sign will not flash after the battery is fully charged .
2. Do not connect the magnetic charging head the wrong way round.
3. The battery takes approximatley 3 hours to fully charge.
4. Do not charge when there is liquid in the charging port.
5. Charge in a clean enviroment to avoid blockage of the charging port, which may affect its function.





Caution

As with any other electronic product, appropriate care is necessary.

1. This product is a precise measuring tool, please avoid contact with liquid, exposure to light and do not disassemble or drop the caliper.
2. To maintain the condition of the caliper, clean any oil contamination or liquid on the caliper with a soft cloth after use.

Troubleshooting

1. When the displays flashes or readings appear wrong on the screen, the caliper may not be working properly. Check the battery level, if the screen displays , please charge the device.
2. If the screen is stuck in any screen and the functions do not work, try to restart the system. Long-press the SET/0 button for about 20 seconds, the caliper will first turn off and then restart.
3. If the screen is stuck on any screen during charging, it might be caused by an unstable voltage or high charging temperature, please stop charging and check whether the screen is still stuck. If the screen is no longer stuck, do not use during charging. If the screen is still stuck, restart the device as above.

Safety Instructions

- Do not attempt to use this device before reading this manual
- Always obey safety labels on the product and instructions in this document.
- Do not disassemble the device, or attempt to repair or alter the instrument as this will void the warranty.
- Do not place any containers of liquids on or close to the device. Avoid exposing the device to any liquids, or excessive humidity.
- Do not use solvents such as acetone or benzene to clean the device. Always use a soft cloth and rubbing alcohol if needed.
- Always switch off the device and isolate the system before opening any covers.
- Always clean the measuring heads/faces before using the device.
- Do not subject the device to any excessive force such as blows, shocks, or dropping the device.
- Do not use or store the device under direct sunlight, or in excessively hot, or cold areas.
- Avoid exposing the device to strong magnetic fields, or high voltage.
- Do not press the keys or buttons on the device with a pointed object.
- If the device is not being used for extended periods of time, remove the device's batteries to prevent any potential battery leakage.
- Bowers Group accept no liability for damage to the system or injury incurred resulting from incorrect use or incorrect installation by persons other than Engineers approved by the Bowers Group.
- Ensure that the system is operated in accordance with the procedures and safety instructions detailed in this manual and any associated documents.
- Do not change any of the operational setup parameters of the system without consultation with Bowers.

Consignes de Sécurité

- N'utilisez pas cet appareil avant d'avoir lu ce manuel
- Respectez toujours les consignes de sécurité figurant sur les étiquettes de l'appareil et les instructions fournies dans le présent document.
- Ne démontez pas l'appareil et n'essayez pas de le réparer ou de le modifier, car cela entraînerait l'annulation de la garantie.
- Ne placez pas de récipients contenant des liquides sur l'appareil ou à proximité de celui-ci. Évitez d'exposer l'appareil à tout type de liquide ou à un taux d'humidité excessif.
- N'utilisez pas de solvants tels que l'acétone ou le benzène pour nettoyer l'appareil. Utilisez toujours un chiffon doux et de l'alcool à 90° si nécessaire.
- Mettez toujours l'appareil hors tension et isolez le système avant d'ouvrir les couvercles.
- Nettoyez toujours les têtes/faces de mesure avant d'utiliser l'appareil.
- Ne soumettez pas l'appareil à des contraintes excessives telles que des coups, des chocs ou des chutes.
- N'utilisez pas et ne stockez pas l'appareil sous la lumière directe du soleil ou dans des endroits excessivement chauds ou froids.

- Évitez d'exposer l'appareil à des champs magnétiques puissants ou à des tensions élevées.
- N'appuyez pas sur les touches ou les boutons de l'appareil avec un objet pointu.
- Si l'appareil n'est pas utilisé pendant une période prolongée, retirez les piles de l'appareil pour éviter tout risque de fuite.
- Bowers Group décline toute responsabilité en cas de dommages au système ou de blessures résultant d'une utilisation ou d'une installation incorrecte par des personnes autres que les ingénieurs agréés par Bowers Group.
- Veillez à ce que le système soit utilisé conformément aux procédures et aux consignes de sécurité décrites dans le présent manuel et dans tous les documents associés.
- Ne modifiez aucun des paramètres opérationnels de configuration du système sans consulter Bowers.

Sicherheitshinweise

- Benutzen Sie das Gerät erst, nachdem Sie dieses Handbuch gelesen haben.
- Beachten Sie stets die Sicherheitshinweise auf dem Produkt und die Anweisungen in diesem Dokument.
- Nehmen Sie das Gerät nicht auseinander und versuchen Sie nicht, es zu reparieren oder zu verändern, da dies zum Erlöschen der Garantie führt.
- Platzieren Sie keine Behälter mit Flüssigkeit auf dem Gerät oder in seiner Nähe. Schützen Sie das Gerät vor Flüssigkeiten und übermäßiger Feuchtigkeit.
- Verwenden Sie zur Reinigung des Geräts keine Lösungsmittel wie Aceton oder Benzol. Verwenden Sie zur Reinigung immer ein weiches Tuch und gegebenenfalls Reinigungsalkohol.
- Schalten Sie das Gerät immer aus und trennen Sie es von der Stromversorgung, bevor Sie irgendwelche Abdeckungen öffnen.
- Reinigen Sie die Messköpfe/-flächen immer, bevor Sie das Gerät benutzen.
- Setzen Sie das Gerät keinen übermäßigen Gewalteinwirkungen wie Schlägen, Stößen oder Stürzen aus.
- Schützen Sie das Gerät während der Verwendung und Lagerung vor direkter Sonneneinstrahlung sowie übermäßiger Hitze und Kälte.
- Das Gerät darf keinen starken Magnetfeldern oder Hochspannung ausgesetzt werden.
- Verwenden Sie zum Drücken der Tasten oder Knöpfe des Geräts keine spitzen Gegenstände.
- Wenn das Gerät längere Zeit nicht benutzt wird, nehmen Sie die Batterien aus dem Gerät, um ein mögliches Auslaufen derselben zu verhindern.
- Die Bowers Group übernimmt keine Haftung für Schäden am System oder Verletzungen, die durch unsachgemäßen Gebrauch oder fehlerhafte Installation durch andere Personen als von der Bowers Group zugelassene Techniker entstehen.
- Stellen Sie sicher, dass das System in Übereinstimmung mit den Verfahren und Sicherheitshinweisen betrieben wird, die in diesem Handbuch und allen zugehörigen Dokumenten beschrieben sind.
- Ändern Sie ohne Rücksprache mit Bowers keine Parameter der Betriebseinstellungen des Systems.

Instrucciones de Seguridad

- No intente usar este dispositivo antes de leer este manual.
- Siempre obedezca las etiquetas de seguridad en el producto y las instrucciones en este documento.
- No desarme el dispositivo, ni intente reparar o modificar el instrumento, ya que esto anulará la garantía.
- No coloque contenedores de líquidos sobre o cerca del dispositivo. Evite exponer el dispositivo a líquidos o a una humedad excesiva.
- No utilice disolventes como acetona o benceno para limpiar el dispositivo. Siempre use un paño y alcohol isopropílico si es necesario.
- Siempre apague el dispositivo y aísle el sistema antes de abrir cualquier cubierta.
- Siempre limpie las cabezas/carátulas de medición antes de usar el dispositivo.
- No someta el dispositivo a fuerzas excesivas, como golpes, choques o caídas.
- No use ni almacene el dispositivo bajo la luz solar directa, ni en áreas excesivamente cálidas o frías.
- Evite exponer el dispositivo a campos magnéticos fuertes o a alta tensión.
- No presione las teclas o botones del dispositivo con un objeto puntiagudo.
- Si el dispositivo no se va a usar durante períodos prolongados, retire las baterías para prevenir posibles fugas de batería.
- Bowers Group no acepta ninguna responsabilidad por daños al sistema o lesiones resultantes de un uso incorrecto o una instalación incorrecta realizada por personas que no sean ingenieros aprobados por Bowers Group.
- Asegúrese de que el sistema se opere de acuerdo con los procedimientos y las instrucciones de seguridad detalladas en este manual y en cualquier documento asociado.
- No cambie ninguno de los parámetros de configuración operativa del sistema sin consultar a Bowers.

Istruzioni di Sicurezza

- Si prega di non utilizzare il dispositivo prima di leggere questo manuale
- Attenersi alle etichette di sicurezza sul prodotto e alle istruzioni all'interno del documento
- Non smontare il dispositivo, né tentare di riparare o modificare lo strumento, poiché ciò annullerà la garanzia
- Non posizionare contenitori di liquidi sopra o vicino al dispositivo. Evita di esporre il dispositivo a qualsiasi liquido o umidità eccessiva
- Non utilizzare solventi come acetone o benzene per pulire il dispositivo. Utilizza sempre un panno morbido e alcol denaturato se necessario

- Spegnere sempre il dispositivo e isolare il sistema prima dell'apertura di qualsiasi copertura
- Pulisci sempre le teste/le superfici di misurazione prima di utilizzare il dispositivo
- Non sottoporre il dispositivo a forze eccessive come colpi, urti o cadute
- Non utilizzare o esporre il dispositivo sotto la luce diretta del sole o in ambienti eccessivamente freddi o caldi
- Evita di esporre il dispositivo a campi magnetici forti o a tensioni elevate
- Non premere i tasti o i pulsanti del dispositivo con oggetti appuntiti
- Se il dispositivo non viene utilizzato per lunghi periodi di tempo, rimuovere le batterie per prevenire eventuali perdite di batteria
- Il Gruppo Bowers non si assume alcuna responsabilità per danni al sistema o infortuni derivanti da uso scorretto o installazione errata da parte di persone diverse dagli ingegneri approvati dal Gruppo Bowers
- Assicurati che il sistema venga utilizzato in conformità con le procedure e le istruzioni di sicurezza dettagliate in questo manuale e in tutti i documenti associati
- Non modificare i parametri di configurazione operativa del sistema senza previa consultazione con il Gruppo Bowers.

安全上の注意事項

- 本デバイスの使用前に、本マニュアルをお読みください。
- 製品の安全ラベルと本書の指示に必ず従ってください。
- デバイスを分解したり、修理または改造したりしないでください。保証が無効になります。
- 液体の入った容器をデバイスの上や近くに置かないでください。デバイスを液体や高湿度にさらさないでください。
- デバイスの清掃にはアセトンやベンゼンなどの溶剤を使用しないでください。常に柔らかい布と、必要に応じて消毒用アルコールを使用してください。
- カバーを開ける前に必ずデバイスの電源をオフにし、システムを分離してください。
- デバイスを使用する前に、必ず計測ヘッド/面を清掃してください。
- デバイスに打撃、衝撃、落下などの過度の力を加えないでください。
- 直射日光の当たる場所、高温/低温の場所でデバイスを使用したり保管したりしないでください。
- デバイスを強力な磁場や高電圧にさらさないでください。
- デバイスのキーやボタンを先の尖ったもので押さないでください。
- デバイスを長期間使用しない場合は、電池の漏れを防ぐためにデバイスの電池を取り外してください。
- Bowers Groupは、Bowers Groupが承認したエンジニア以外による誤った使用または誤った設置の結果として生じたシステムの損傷または傷害については一切責任を負いません。
- 本マニュアルおよび関連文書に記載されている手順と安全上の指示に従って、システムを操作してください。
- Bowersへの確認なく、システムの操作設定パラメータを変更しないでください。

安全须知

- 阅读本手册前，不要尝试使用本设备
- 务必遵守产品上的安全标签和本文档中的说明。
- 不得拆卸设备或尝试修理或改造仪器，否则会导致保修失效。
- 不得在设备上或设备附近放置任何液体容器。避免将设备暴露在任何液体或过度潮湿的环境中。
- 不得使用丙酮或苯等溶剂清洁设备。如需要，务必用软布蘸酒精擦拭。
- 打开任何盖板前，务必将设备关机并隔离系统。
- 使用设备前，务必清洁测量头/测量面。
- 不得对设备施加任何过大外力，如撞击、冲击或摔落设备。
- 不得在阳光直射处或温度过高/过低的地方使用或存放设备。
- 避免将设备暴露在强磁场或强电中。
- 不得使用尖锐物体按压设备上的按键或按钮。
- 如果长时间不使用设备，请取出设备中的电池，以防电池漏电现象发生。
- 因未经宝禾集团认可的工程师错误使用或错误安装所导致的系统损坏或人身伤害，宝禾集团概不承担责任。
- 确保按照本手册和任何配套文档中介绍的程序和安全说明操作本系统。
- 未事先咨询宝禾集团工作人员的情况下，不得更改系统的任何操作设置参数。


⚠ WARNING!
THIS PRODUCT CONTAINS A BUTTON BATTERY
If swallowed, a lithium button battery can cause severe or fatal injuries within 2 hours.
Keep batteries out of reach of children.
If you think batteries may have been swallowed or placed inside any parts of the body, seek immediate medical help.