



Professional HEAVY DUTY

GWG 12V-50 S

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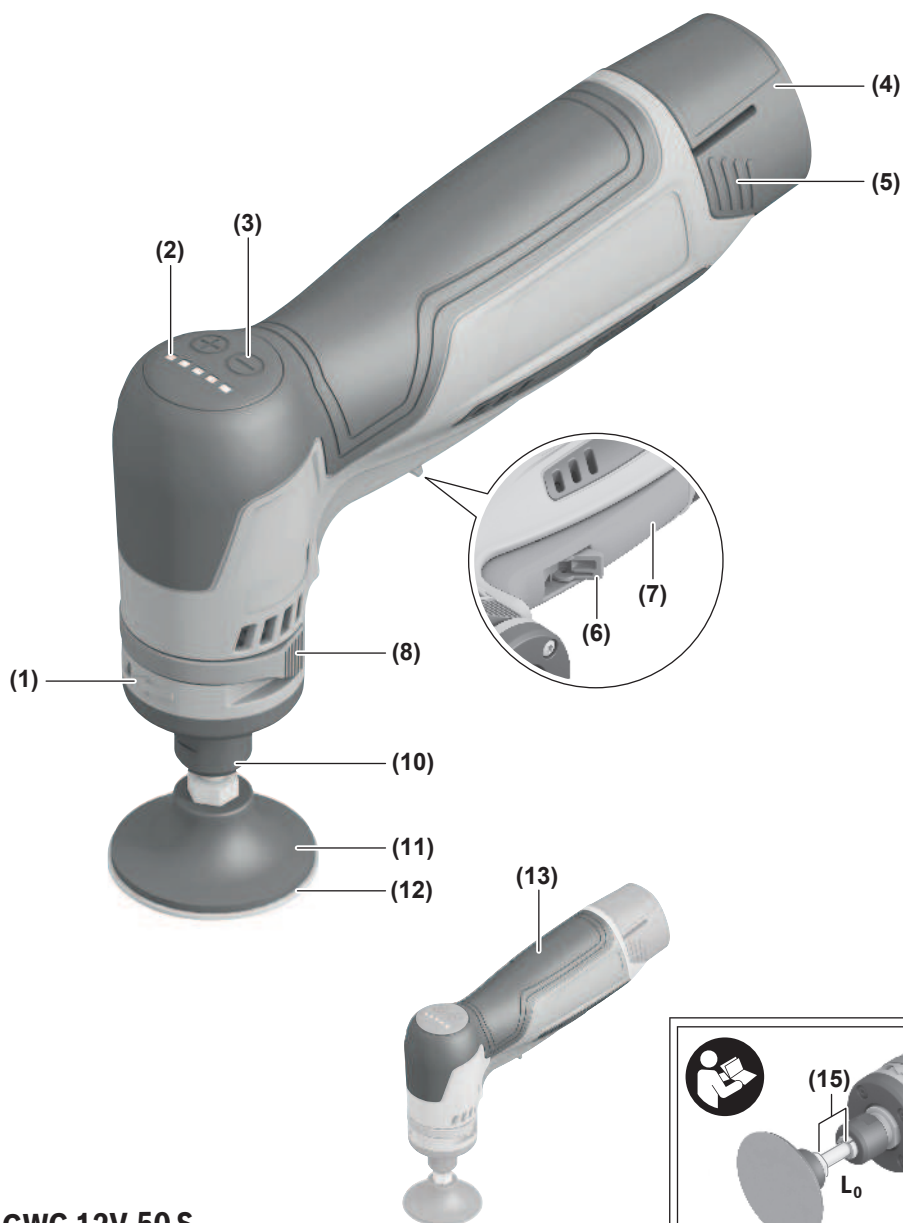


zh 原始使用說明書

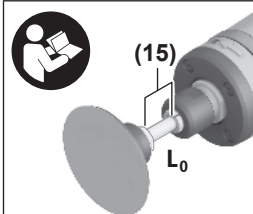


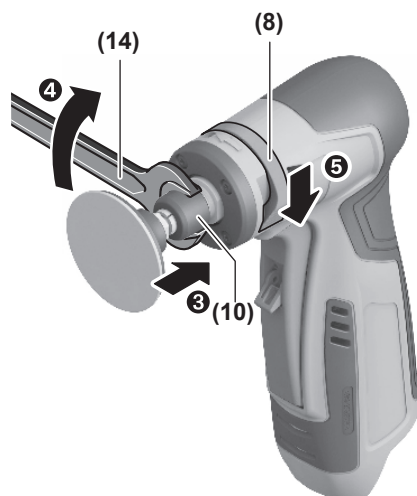
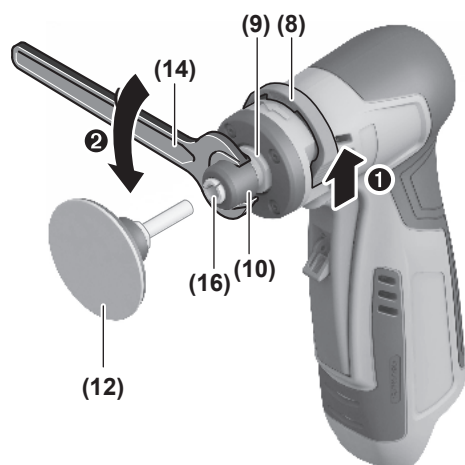
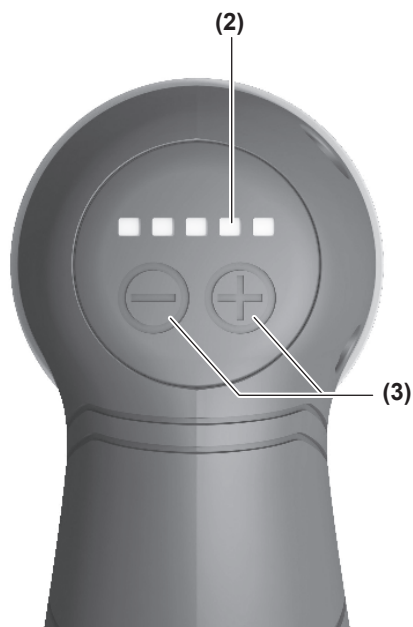
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GWG 12V-50 S



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繁體中文

安全注意事項

電動工具一般安全注意事項

警告 請詳讀工作臺及電動工具的所有安全警告與使用說明。若不遵照以下列出的指示，將可能導致電擊、著火和 / 或人員重傷。

保存所有警告和說明書以備查閱。

在所有警告中，「電動工具」此一名詞泛指：以市電驅動的（有線）電動工具或是以電池驅動的（無線）電動工具。

工作場地的安全

- ▶ 保持工作場地清潔和明亮。混亂和黑暗的場地會引發事故。
- ▶ 不要在易爆環境，如有易燃液體、氣體或粉塵的環境下操作電動工具。電動工具產生的火花會點燃粉塵或氣體。
- ▶ 讓兒童和旁觀者離開後操作電動工具。注意力不集中會使您失去對工具的控制。

電氣安全

- ▶ 不得將電動工具暴露在雨中或潮濕環境中。水進入電動工具將增加電擊危險。

人身安全

- ▶ 保持警覺，當操作電動工具時關注所從事的操作並保持清醒。當您感到疲倦，或在有藥物、酒精或治療反應時，不要操作電動工具。在操作電動工具時瞬間的疏忽會導致嚴重人身傷害。
- ▶ 使用個人防護裝置。始終佩戴護目鏡。安全裝置，諸如適當條件下使用防塵面具、防滑安全鞋、安全帽、聽力防護等裝置能減少人身傷害。
- ▶ 防止意外起動。確保開關在連接電源和 / 或電池盒、拿起或搬運工具時處於關閉位置。手指放在已接通電源的開關上或開關處於接通時插入插頭可能會導致危險。
- ▶ 在電動工具接通之前，拿掉所有調節鑰匙或扳手。遺留在電動工具旋轉零件上的扳手或鑰匙會導致人身傷害。
- ▶ 手不要伸展得太長。時刻注意立足點和身體平衡。這樣在意外情況下能很好地控制電動工具。
- ▶ 著裝適當。不要穿寬鬆衣服或佩戴飾品。讓您的衣物及頭髮遠離運動部件。寬鬆衣服、佩飾或長髮可能會捲入運動部件中。
- ▶ 如果提供了與排屑、集塵設備連接用的裝置，要確保他們連接完好且使用得當。使用這些裝置可減少塵屑引起的危險。
- ▶ 切勿因經常使用工具所累積的熟練感而過度自信，輕忽工具的安全守則。任何一個魯莽的舉動都可能瞬間造成人員重傷。

電動工具使用和注意事項

- ▶ 不要濫用電動工具，根據用途使用適當的電動工具。選用適當設計的電動工具會使您工作更有效、更安全。
- ▶ 如果開關不能開啟或關閉工具電源，則不能使用該電動工具。不能用開關來控制的電動工具是危險的且必須進行修理。
- ▶ 在進行任何調整、更換配件或貯存電動工具之前，必須從電源上拔掉插頭並 / 或取出電池盒。這種防護性措施將減少工具意外起動的危險。
- ▶ 將閒置不用的電動工具貯存在兒童所及範圍之外，並且不要讓不熟悉電動工具或對這些說明不瞭解的人操作電動工具。電動工具在未經培訓的用戶手中是危險的。
- ▶ 保養電動工具與配備。檢查運動件是否調整到位或卡住，檢查零件破損情況和影響電動工具運行的其他狀況。如有損壞，電動工具應在使用前修理好。許多事故由維護不良的電動工具引發。
- ▶ 保持切削刀具鋒利和清潔。保養良好的有鋒利切削刃的刀具不易卡住而且容易控制。
- ▶ 按照使用說明書，考慮作業條件和進行的作業來使用電動工具、配件和工具的刀頭等。將電動工具用於那些與其用途不符的操作可能會導致危險。
- ▶ 把手及握持區應保持乾燥、潔淨，且不得沾染任何油液或油脂。易滑脫的把手及握持區將無法讓您在發生意外狀況時安全地抓緊並控制工具。

電池式工具使用和注意事項

- ▶ 只用製造商規定的充電器充電。將適用於某種電池盒的充電器用到其他電池盒時會發生著火危險。
- ▶ 只有在配有專用電池盒的情況下才使用電動工具。使用其他電池盒會發生損壞和著火危險。
- ▶ 當電池盒不用時，將它遠離其他金屬物體，例如回形針、硬幣、鑰匙、釘子、螺絲或其他小金屬物體，以防一端與另一端連接。電池端部短路會引起燃燒或火災。
- ▶ 在濫用條件下，液體會從電池中濺出；避免接觸。如果意外碰到了，用水沖洗。如果液體碰到了眼睛，還要尋求醫療幫助。從電池中濺出的液體會發生腐蝕或燃燒。
- ▶ 請勿使用已受損或經改裝的電池盒。已受損或經改裝的電池組可能出現無法預期的反應，進而導致著火、爆炸或造成人員受傷。
- ▶ 勿讓電池盒或工具靠近火源或暴露於異常溫度環境中。若是靠近火源或暴露在超過 130 °C 的環境中可能造成爆炸。
- ▶ 請完全遵照所有的充電說明，電池盒或工具的溫度若是超出指示的規定範圍，請勿進行充電。不當充電或是在未規定的溫度範圍內進行充電，皆可能造成電池損壞並面臨更高的著火風險。

檢修

- ▶ 將您的電動工具送交專業維修人員，必須使用同樣的備件進行更換。這樣將確保所維修的電動工具的安全性。

- ▶ **請勿自行檢修受損的電池盒。**電池組應交由製造商或是獲得授權的服務供應商來進行檢修。

本安全注意事項適用於任何用途

研磨或砂磨的共用安全警告：

- ▶ **本電動工具可作為砂輪機或砂磨機。**請詳讀電動工具隨附的所有安全警告、指示、插圖以及規格等資料。若不遵照以下列出的指示，將可能導致電擊、著火和 / 或人員重傷。
- ▶ **不建議以此電動工具進行諸如鋼絲磨、打蠟或切割等項作業。**使用本電動工具進行非設計用途的作業將產生危險並導致人員受傷。
- ▶ **請勿使用非針對本工具設計的配件或非工具製造商建議使用的配件。**即使該配件可安裝至電動工具上，並不代表可以安全地操作電動工具。
- ▶ **研磨配件的額定速率必須至少等於電動工具上所標示的最大速率。**研磨配件的運轉速度若高於其額定速率，可能會造成其破損並解體。
- ▶ **配件的外徑及厚度必須在電動工具的額定功率範圍內。**規格不正確的配件會無法有效控制。
- ▶ **砂輪和砂磨滾筒凸緣或其他配件的心軸尺寸必須確實符合電動工具或夾頭的主軸。**配件若無法完全符合電動工具的安裝硬體，那麼運轉時將造成失衡、震動幅度過大，甚至造成失控。
- ▶ **心軸固定式砂輪、砂磨滾筒滾筒、切刀或其他配件必須完全插入至夾頭或固定座中。**若心軸不足以固定及 / 或砂輪的懸伸過長，安裝的砂輪可能會在高速下鬆脫或退出。
- ▶ **不可使用已受損的配件。**每次使用前請檢查配件，確認研磨砂輪片是否有缺口和裂縫、砂磨滾筒是否有裂縫、撕裂或過度磨損的現象、鋼絲刷是否發生鬆脫或鋼絲缺損的狀況。電動工具或配件萬一掉落，請檢查是否受損或直接換裝完好的配件。檢查並安裝好配件之後，請您與旁觀者遠離配件的旋轉平面，接著讓電動工具以最高空載速度，持續運轉一分鐘。配件若有受損，通常會在此測試期間分解。
- ▶ **請穿戴個人防護裝備。**根據實際操作狀況，使用面罩、安全護目鏡或防護眼鏡。在適當情況下，請戴上防塵面罩、聽力防護裝置、手套以及可防止細小磨料或工件碎片的工作圍裙。護目裝置必須能有效阻擋各種操作中所產生的噴飛碎屑。防塵面罩或口罩必須能過濾操作中所產生的粉塵。暴露在高分貝噪音中過久，會造成聽力受損。
- ▶ **請旁觀者與工作區保持安全距離。**進入工作區的所有人員都必須穿戴個人防護裝備。工件碎片或破損的配件可能會四處噴飛，造成作業區範圍以外的附近人員受傷。
- ▶ **進行作業時，負責進行切割的配件可能會碰觸到隱藏的配線，**請務必從絕緣處握住拿持電動工具。負責進行切割的配件若是觸及「導電」電線，可能導致電動工具外露的金屬部件「導電」，進而使操作人員遭受電擊。
- ▶ **啟動時請務必用手握緊工具。**馬達的反作用轉矩，在加速到全速後，會造成工具扭轉。
- ▶ **請盡量用固定夾支撐加工件。**使用時，請勿以單手握持小型加工件同時以另一手握工具。將小型

加工件夾住可讓您用（雙）手控制工具。導引桿、管子或軟管這類圓型材料容易在切割時滾動，故會造成鑽頭卡住或向您彈過來。

- ▶ **在配件完全靜止之前，請勿放下電動工具。**旋轉中的配件可能會扣住放置表面，電動工具因為被拉扯而失控。
- ▶ **更換鑽頭或進行任何調整後，請務必確認夾頭螺帽、夾具或其他調整裝置有確實旋緊。**鬆脫的調整裝置可能會意外鬆動，造成失控，鬆脫的轉動元件會亂飛。
- ▶ **當您將電動工具握在身體側邊時，請勿讓它運轉。**萬一不小心碰觸到旋轉中的配件，衣物可能會被撕裂並將配件導向自己的身體。
- ▶ **請定期清理電動工具的通風口。**馬達風扇會將粉塵捲入機殼內，累積過多的金屬粉塵可能危及電氣安全。
- ▶ **請勿在易燃材料旁操作本電動工具。**火花可能引燃這些易燃物。
- ▶ **請勿使用需要冷卻液的配件。**使用水或其他冷卻液可能導致觸電或電擊事件。

反彈與相關警告

反彈是旋轉中之砂輪、砂磨帶、鐵刷或任何其他配件卡住或斷裂時瞬間產生的反作用力。旋轉中的配件發生卡住或斷裂時會突然停止轉動，這將造成電動工具失控並以配件旋轉相反的方向運轉。

舉例來說，工件如果造成研磨砂輪片斷裂或卡住，已推入卡住位置的砂輪邊緣可能會鑽進材料表面裡，而使砂輪脫出或反彈。依據砂輪卡住時的移動方向，它可能彈向或跳離操作人員。在上述情況下，研磨砂輪片亦可能斷裂。

反彈是不當使用電動工具及 / 或操作程序（條件）不正確所造成的結果。採取以下適當預防措施，則可避免此一情況。

- ▶ **緊緊握好電動工具，並穩住您的雙臂和身體，以抵抗反彈力道。**操作人員只要採取適當防護措施，即可控制反彈力道。
- ▶ **處理尖角、銳利邊緣等物時，請穿戴特殊的防護裝備，防範配件彈跳和斷裂。**尖角、銳利邊緣或彈跳力道往往會扯斷旋轉中的配件，並造成工具失控或反彈。
- ▶ **請勿安裝鋸齒型鋸片。**此類刀片會產生規律性反彈，進而導致本工具失控。
- ▶ **將鑽頭送入材質中時，請與切割刀離開材質時相同方向（即與碎片飛出的方向一致）。以錯誤的方向將工具送入會造成鑽頭的切割刀從工件上滑出並將工具朝送入的方向拉。**
- ▶ **務必確實夾緊工件。**當配件在溝槽中稍微傾斜將會產生阻力，進而造成反彈並讓工具失去控制。

研磨的專用安全警告：

- ▶ **請務必使用您電動工具所建議的砂輪類型，並僅用於建議的應用中。**

其他安全注意事項



請佩戴護目鏡。

- ▶ 砂輪片尚未冷卻之前，切勿用手碰觸。作業時，切割片會變得非常炙熱。
- ▶ 固定好工件。使用固定裝置或老虎鉗固定工件，會比用手持握工件更牢固。
- ▶ 本電動工具並不適用於以不移動的方式進行加工。不得將它夾入老虎鉗或固定在工作桌上。
- ▶ 如果充電電池損壞了，或者未按照規定使用充電電池，充電電池中會散發出有毒蒸氣。充電電池可能起火或爆炸。工作場所必須保持空氣流通，如果身體有任何不適必須馬上就醫。充電電池散發的蒸氣會刺激呼吸道。
- ▶ 切勿改裝拆開充電電池。可能造成短路。
- ▶ 尖銳物品（例如釘子或螺絲起子）或是外力皆有可能造成充電電池損壞。進而導致內部短路而發生電池起火、冒煙、爆炸或過熱等事故。
- ▶ 僅可在製造商的產品中使用充電電池。如此才可提供過載保護。



保護充電電池免受高溫（例如長期日照）、火焰、污垢、水液和濕氣的侵害。有爆炸及短路之虞。

產品和功率描述



請詳讀所有安全注意事項和指示。如未遵守安全注意事項與指示，可能導致火災、人員遭受電擊及 / 或重傷。請留意操作說明書中最前面的圖示。

依規定使用機器

本電動工具配備背墊及相應圓盤，適用於金屬的研磨、去毛刺和清潔作業。

插圖上的機件

機件的編號和電動工具詳解圖上的編號一致。

- (1) 轉軸的旋轉方向指示箭頭
- (2) LED 指示燈
- (3) 轉速設定按鈕
- (4) 充電電池^{a)}
- (5) 充電電池解鎖按鈕^{a)}
- (6) 起停開關的解鎖桿
- (7) 起停開關
- (8) 主軸鎖
- (9) 磨削主軸
- (10) 迫緊螺母
- (11) 帶有夾緊軸的背墊^{b)}
- (12) 墊片^{b)}
- (13) 把手（絕緣握柄）

(14) 開口扳手

(15) 淨軸尺寸 L_0

(16) 彈式夾環

- a) 所述之配件並不包含在基本的供貨範圍中。
- b) 一般市售（不包含在供貨範圍）

技術性數據

數值可能因產品而異，並受使用條件以及環境條件影響。進一步資訊請見 www.bosch-professional.com/wac。

充電電池

Bosch 亦販售不含充電電池的充電式電動工具。可以從外包裝看出電動工具的供貨範圍是否包括電池。

為充電電池進行充電

- ▶ 只能選用技術性數據裡所列出的充電器。僅有這些充電器適用於電動工具所使用的鋰離子充電電池。

提示：由於國際運輸規定，出貨時鋰離子充電電池已部分充電。初次使用電動工具之前，請先將充電電池充飽電以確保充電電池蓄滿電力。

安裝充電電池

將已充飽電的充電電池推至充電電池固定座內，直到卡緊。

取出充電電池

若要取出充電電池，請按解鎖鈕，然後將充電電池抽出。不可以強行拉出充電電池。

充電電池的電量指示器

5 顆 LED 指示燈可顯示充電電池電量。LED 指示燈會在開機後亮燈 5 秒。

LED	容量
5 顆綠燈持續亮起	80–100 %
4 顆綠燈持續亮起	60–80 %
3 顆綠燈持續亮起	40–60 %
2 顆綠燈持續亮起	20–40 %
持續亮起 1 x 黃燈	1–20 %
持續亮起 1 x 紅燈	0–1 %

溫控的過載保護裝置

只要按照規定使用，電動工具就不可能過載。萬一負載過重或充電電池的溫度已超出允許範圍，電動工具的轉速會變慢或是直接停機。電動工具將持續以低轉速運作，直到充電電池的溫度降至允許範圍或負載減輕，它才會恢復全速運轉。發生自動停機的情況時，請將電動工具關機，待充電電池降溫後再重新開機。

如何正確地使用充電電池

妥善保護充電電池，避免濕氣和水分滲入。

充電電池必須儲存在 -20 °C 至 50 °C 的環境中。夏天不可以把充電電池擱置在汽車中。

充電後如果充電電池的使用時間明顯縮短，代表充電電池已經損壞，必須更換新的充電電池。

請您遵照廢棄物處理相關指示。

安裝

- ▶ 在電動工具上進行任何作業之前（例如維修，更換工具等等），請將機器中的電池取出。若是不小心觸動起停開關，可能造成人員受傷。

安裝磨具（請參考圖 A）

- ▶ 只能使用合適且未受損的開口扳手（詳見「技術性數據」）。
- ▶ 請僅使用來自專業經銷商的品牌研磨配件，其允許轉速至少為 16000 min⁻¹，最大直徑為 50 mm，並可由背墊固定；該背墊的直徑同樣不得超過 50 mm，且其夾緊軸直徑為 6 mm、1/4" 或 8 mm。
- 將磨削主軸 (9) 以及準備裝上的所有部件都清潔乾淨。
- 如需鬆開彈式夾環 (16)，請將主軸鎖 (8) 向前推。
- 使用扳手槽上的開口扳手 (14) 逆時針旋轉鬆開迫緊螺母 (10)。
- 將背墊 (11) 的夾緊軸完全插入彈式夾環 (16) 內。
- 使用開口扳手 (14)，順時針旋轉迫緊螺母 (10)，將背墊 (11) 張緊。
- 將墊片 (12) 安裝在背墊 (11) 上。
- 接著請將主軸鎖 (8) 再次推回。

磨具必須能夠正確而且不偏移地旋轉。不可以繼續使用無法均勻旋轉的磨具，必須更換此磨具。

- ▶ 只要尚未裝上磨具，就絕對不可透過迫緊螺母將夾頭鎖緊。否則會造成夾頭損壞。
- ▶ 僅可使用柄直徑合適的背墊。若背墊的柄直徑與電動工具的夾頭若不相符（詳見「技術性數據」），可能無法正確固定並造成彈式夾環損壞。
- ▶ 嵌件工具必須至少夾入 10 mm。利用最大淨軸尺寸 L₀，便可根據嵌件工具製造商所提供的資訊確定嵌件工具的最高容許轉速。因此其不得低於電動工具的最高轉速。

吸鋸塵 / 吸鋸屑

含鉛的顏料及部分木材、礦物和金屬的加工廢塵有害健康。機器操作者或者工地附近的人如果接觸、

顏色	狀態	代表意義/原因	解決辦法
白色	持續亮起 (1 x ... 5 x)	轉速設定	(參見「轉速設定（請參考圖 B）」，頁 8)
綠色	持續亮起 (2 x ... 5 x)	仍有足夠電力	(參見「充電電池的電量指示器」，頁 7)
黃色	持續亮起 (1 x)	充電電池的電量即將用盡 (參見「充電電池的電量指示器」，頁 7)	儘快更換充電電池或為其充電

吸入這些廢塵，可能會有過敏反應或者感染呼吸道疾病。

特定粉塵（例如加工橡木或山毛櫸的廢塵）可能致癌，特別是與處理木材的添加劑（例如木材的防腐劑等）混合之後。只有經過專業訓練的人才允許加工含石棉的物料。

- 工作場所要保持空氣流通。
- 建議佩戴 P2 濾網等級的口罩。

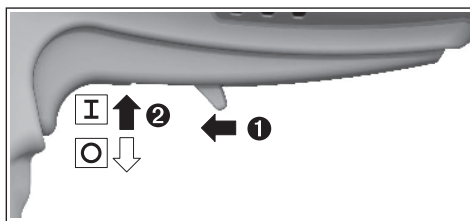
請留意並遵守貴國與加工物料有關的法規。

- ▶ 避免讓工作場所堆積過多的塵垢。塵埃容易被點燃。

操作

操作機器

啟動/關閉



若要讓電動工具運轉，請將解鎖桿 (6) 向前推，然後將起停開關 (7) 向上按。

放開起停開關 (7)，即可讓電動工具停止運轉。

轉速設定（請參考圖 B）

利用兩個轉速設定按鈕 (3)，即使是在運作期間，亦可按照需求設定轉速。合適的轉速會因物料或工作狀況而不同，唯有實際操作才能夠找到最佳設定。

LED 燈	[min ⁻¹]
1 顆白燈持續亮起	5000
2 顆白燈持續亮起	7500
3 顆白燈持續亮起	10000
4 顆白燈持續亮起	12500
5 顆白燈持續亮起	15000

- ▶ 配件的額定速率必須至少等於電動工具上所標示的最大速率。配件的運轉速度若高於其額定速率，可能會造成其破損並解體。

LED 指示器（請參考圖 B）

下表為可能的 LED 指示器 (2) 說明。

顏色	狀態	代表意義/原因	解決辦法
紅色	閃燈 (5 x)	已達到臨界溫度（馬達、電子部件、充電電池）	讓電動工具空轉並降溫冷卻
	持續亮起 (1 x)	充電電池的電量耗盡 (參見「充電電池的電量指示器」，頁 7)	更換充電電池或為其充電
	閃燈 (5 x)	電動工具過熱並隨即關機	先使電動工具冷卻，然後再重新啟動
		電動工具卡住並隨即關機	排除卡住狀況，然後再重新啟動電動工具
		已啟動主軸鎖，電動工具隨即關機	先關閉主軸鎖，然後再重新啟動電動工具

電子穩定控制系統

不論機器處在負載或空載狀態，恆定電子裝置都能夠穩定轉速，確保一致的工作效率。

作業注意事項

輕輕施壓並均勻地來回帶有墊片的背墊，如此能夠獲得最佳的工作效果。壓力過大會降低電動工具的性能並使研磨體磨損得更快。

► 請妥善收藏磨具，避免受到碰撞。

廢棄物處理

必須以符合環保的方式，將損壞的電動工具、充電電池、配件和包裝材料進行回收再利用。



不可以把電動工具和充電電池 / 拋棄式電池丟入一般家庭垃圾中！

維修和服務

維修和清潔

- 在電動工具上進行任何作業之前（例如維修，更換工具等等），請將機器中的電池取出。若是小心觸動起停開關，可能造成人員受傷。
- 電動工具和通風口都必須保持清潔，這樣才能夠提高工作品質和安全性。

顧客服務處和顧客諮詢中心

台灣進口商

電話: (02) 7734 2588

製造商地址:

Robert Bosch Power Tools GmbH

羅伯特· 博世電動工具有限公司

70538 Stuttgart / GERMANY

70538 斯圖加特/ 德國

當您需要諮詢或訂購備用零件時，請務必提供本產品型號銘牌上 10 位數的產品機號。

搬運

建議使用的鋰離子充電電池受危險物品法的規範。使用者無須另外使用保護包裝便可運送該充電電池。

但是如果將它交由第三者運送（例如：寄空運或委託運輸公司），則應遵照包裝與標示的相關要求。此時必須向危險物品專家請教有關寄送危險物品的相關事宜。

確定充電電池的外殼未受損後，才可以寄送充電電池。用膠帶貼住裸露的接點並妥善包裝充電電池，不可以讓充電電池在包裝材料中晃動。同時也應留意各國相關法規。



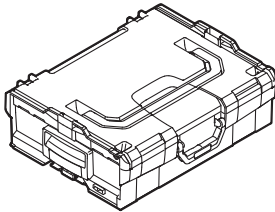
- S**
- | | |
|-------------|---------------|
| 6 mm / M 15 | 2 608 570 084 |
| 1/4" / M 15 | 2 608 570 085 |
| 8 mm / M15 | 2 608 570 086 |



2 608 000 857



1 607 950 525



(L-BOXX 102)
1 600 A00 1DY



1 600 A02 K82

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