BOSCH

Professional HEAVY DUTY

GSR 12V-32 FC



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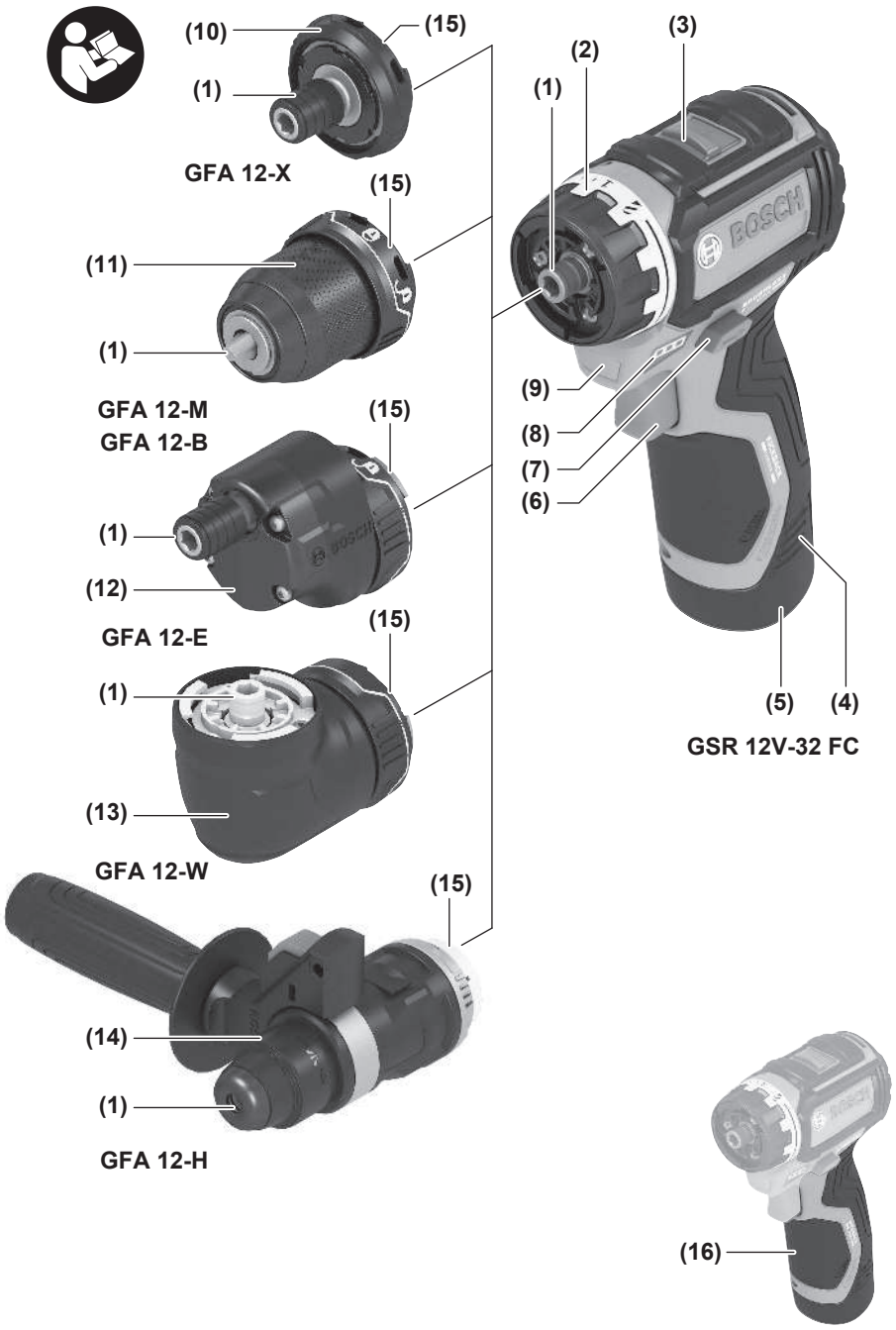
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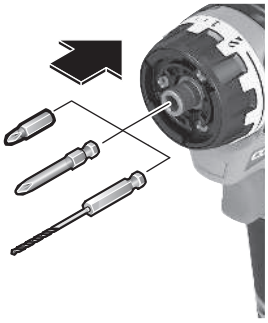
zh 原始使用說明書

繁體中文..... 頁 6

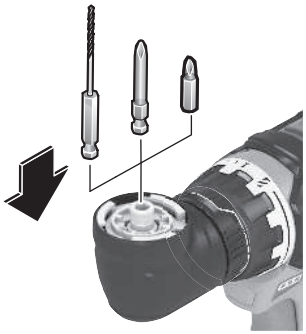
https://eu-doc.bosch.com/


(10)
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GFA 12-X
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GFA 12-M
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GFA 12-E
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GFA 12-W
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GFA 12-H
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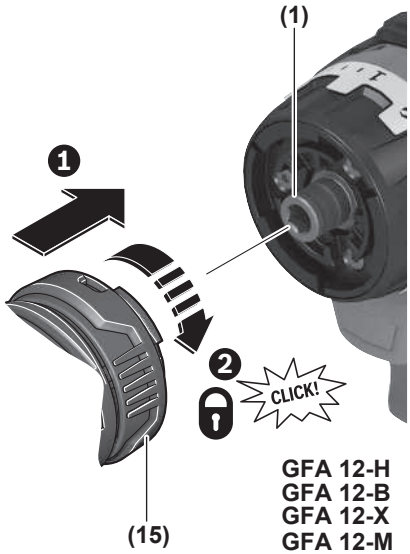


GSR 12V-32 FC



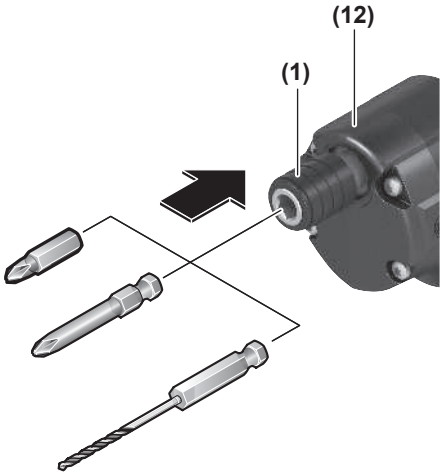
GFA 12-W

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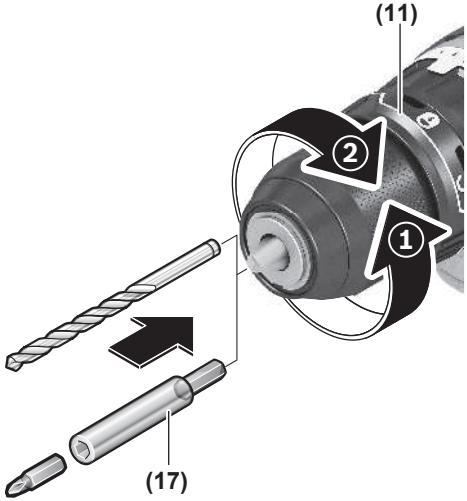
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GFA 12-B
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GFA 12-E

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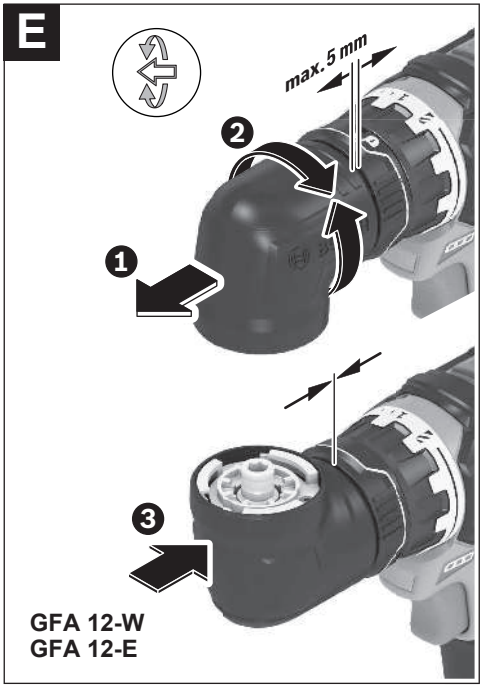


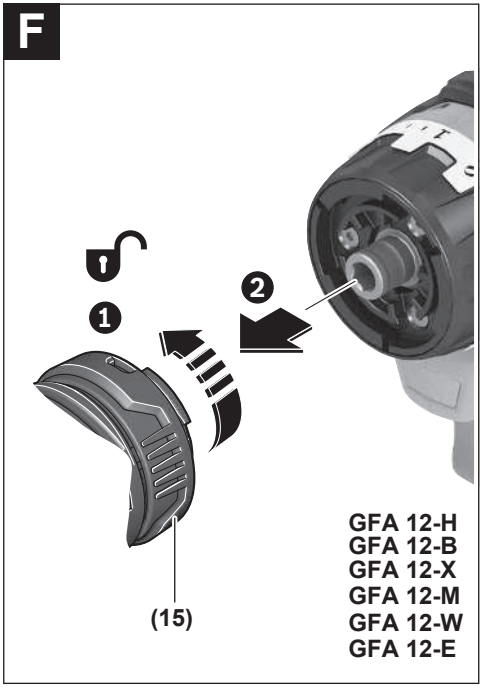
GFA 12-E
GFA 12-X

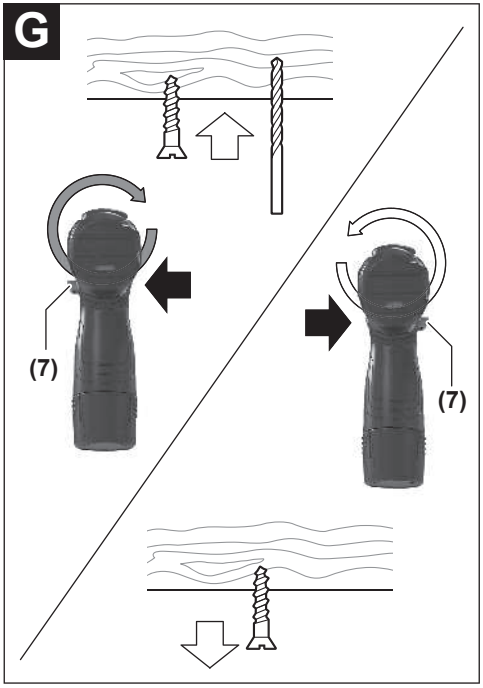
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GFA 12-M
GFA 12-B


E
max. 5 mm
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3
GFA 12-W
GFA 12-E


F
1
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GFA 12-H
GFA 12-B
GFA 12-X
GFA 12-M
GFA 12-W
GFA 12-E


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H
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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。**不當充電或是未在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。

起子機安全注意事項

所有作業的安全說明

- ▶ **進行作業時，負責進行切割的配件或固定釘可能會碰觸到隱藏的配線，請從絕緣握把處拿持電動工具。**負責進行切割的配件或固定釘若是觸及「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。

使用長鑽頭的安全說明

- ▶ **切勿以超過鑽頭額定最高轉速的速度操作。**若鑽頭未接觸工件且以超過最高轉速的速度無負載轉動，可能會讓鑽頭彎曲並導致人員受傷。
- ▶ **請務必以低速啟動並將鑽尖確實抵住工件。**若鑽頭未接觸工件且以超過最高轉速的速度無負載轉動，可能會讓鑽頭彎曲並導致人員受傷。
- ▶ **請沿著鑽頭方向施加適當的壓力，切勿過度施壓。**鑽頭可能會彎曲並造成斷裂、失控並導致人員受傷。

其他安全注意事項

- ▶ **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。
- ▶ **必須等待電動工具完全靜止後才能將它放下。**嵌件工具可能卡住而使電動工具失控。
- ▶ **如果嵌件工具被夾住了，請立刻關閉電動工具的電源。請準備好承受反作用力所造成的反彈。**電動工具過載時或當它在進行加工的工件內部歪斜時，都會造成嵌件工具被夾住不動。
- ▶ **使用合適的偵測裝置偵察隱藏的電線，或者向當地的相關單位尋求支援。**接觸電線可能引起火災並讓操作者觸電。若損壞瓦斯管會引起爆炸。如果水管被刺穿會導致財物損失。
- ▶ **請牢牢握緊電動工具。**旋緊與鬆開螺栓時，瞬間可能會有較大的反作用力。
- ▶ **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

此電動工具可用來轉入或旋鬆螺絲，並且可在木頭、金屬、陶瓷及塑膠等材質上進行鑽孔。

本電動工具可搭配直角轉接頭（GFA 12-W）、偏心轉接頭（GFA 12-E）、工具頭轉接頭（GFA 12-X）、（金屬）夾頭轉接頭（GFA 12-M/GFA 12-B）或錘鑽轉接頭（GFA 12-H）使用。

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) 工具夾頭
(2) 預設扭力調整環
(3) 選檔開關
(4) 充電電池的解鎖按鈕（2 個）[a)]
(5) 充電電池[a)]
(6) 起停開關
(7) 正逆轉開關
(8) 充電電池的電量指示器
(9) 工作燈
(10) 工具頭轉接頭 GFA 12-X[a)]
(11) （金屬）夾頭轉接頭（GFA 12-M / GFA 12-B）[a)]
(12) 偏心轉接頭 GFA 12-E[a)]
(13) 直角轉接頭 GFA 12-W[a)]
(14) 錘鑽轉接頭 GFA 12-H[a)]
(15) 止動轉環
(16) 把手（絕緣握柄）
(17) 通用工具頭夾持器[a)]
(18) 腰帶夾[a)]

a) **所述之配件並不包含在基本的供貨範圍中。**

技術性數據

充電式電鑽起子機		GSR 12V-32 FC	GFA 12-X	GFA 12-M	GFA 12-E	GFA 12-W	GFA 12-B
零件編號		**3 601 JN7 1..**	–	–	–	–	–
額定電壓	伏特	12	–	–	–	–	–
額定空載轉速 n_0 [A)]							
– 1.檔位	轉/分鐘	0–475	–	–	–	–	–

充電式電鑽起子機		GSR 12V-32 FC	GFA 12-X	GFA 12-M	GFA 12-E	GFA 12-W	GFA 12-B
– 2.檔位	轉/分鐘	0–1800	–	–	–	–	–
依 ISO 5393 規定之硬接頭/軟接頭最大扭矩[A)]	牛頓米	32/21	–	–	–	–	–
最大鑽孔直徑（1./ 2.檔位							
– 鋼	公釐	10	–	–	–	–	–
– 木材	公釐	35	–	–	–	–	–
最大螺絲直徑	公釐	8	–	–	–	–	–
刀具承座	公釐	6.35 (¼")	6.35 (¼")	0.8–10	6.35 (¼")	6.35 (¼")	0.8–10
重量	公斤	0.6[B)]	0.10	0.20	0.30	0.30	0.20
建議的充電環境溫度	℃	0 ...+35	–	–	–	–	–
操作狀態下以及存放狀態下的容許環境溫度	℃	-20 ...+50	–	–	–	–	–
建議使用的電池		GBA 12V... GBA12V...	–	–	–	–	–
建議使用的充電器		GAL 12... GAL12... GAX 18...	–	–	–	–	–

A) 於 20–25 °C 配備電池 **GBA 12V 6.0Ah** 和轉接頭 **GFA 12-M** 時測得

B) 不含充電電池（您可在 www.bosch-professional.com 找到充電電池重量）

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

充電電池的電量指示器透過三顆綠色 LED 燈告知充電電池的目前電量。

LED	容量
3 顆綠燈持續亮起	68–100 %
2 顆綠燈持續亮起	22–68 %
1 顆綠燈持續亮起	2–22 %
1 顆綠燈閃爍	0–2 %

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，電子裝置便會將電動工具關機，直到它重新回到理想操作溫度的範圍內。

充電電池之電量指示器 的三顆 LED 燈若如同跑馬燈一般輪流點亮，即代表電動工具正處於此一狀態。LED 燈將在重新回到理想操作溫度後熄滅。

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。

▶ **更換工具時請戴上防護手套。**長時間操作之後，嵌件工具和鑽夾頭溫度會變高。

更換工具

安裝嵌件工具（請參考圖 A）

請將嵌件工具完全插入工具夾頭 **(1)** 內。

安裝轉接頭（請參考圖 B）

請取下嵌件工具。

將轉接頭裝入工具夾頭 **(1)** 內。轉動止動轉環 **(15)**，直到聽見卡上的聲音。

將嵌件工具插入轉接頭內

GFA 12-W（請參考圖 A）

請將嵌件工具完全插入工具夾頭 **(1)** 內。

GFA 12-E、GFA 12-X（請參考圖 C）

將鎖定套筒 往後推，將嵌件工具往工具夾頭 **(1)** 推入到底，然後放開鎖定套筒 即可固定住嵌件工具。

GFA 12-M / GFA 12-B（請參考圖 D）

往旋轉方向 ❶ 轉動即可打開（金屬）夾頭轉接頭 **(11)**，直到可裝入嵌件工具的程度。裝上嵌件工具。

往旋轉方向 ❷ 徒手用力轉緊（金屬）夾頭轉接頭 **(11)** 的套筒。如此（金屬）夾頭才會自動鎖止。

若要鬆開鎖止件並移除工具，請往旋轉方向 ❶ 轉動（金屬）夾頭轉接頭 **(11)**。

旋轉轉接頭 GFA 12-E，GFA 12-W（請參考圖 E）

將轉接頭向前拉。請旋轉轉接頭。轉接頭鎖定在 360° 的 16 個位置。選擇一個有利於作業的位置。

重新放開轉接頭 ，以將其鎖定。

拆卸轉接頭（請參考圖 F）

請取下嵌件工具。

沿 方向將轉接頭解鎖，接著把它從工具夾頭 **(1)** 上卸下。

結合轉接頭

直角轉接頭 **(13)** 可與其他每個轉接頭結合。

為此請將直角轉接頭 **(13)** 插入工具夾頭 **(1)** 內。轉動止動轉環 **(15)**，直到聽見卡上的聲音。接著將其他的另一個轉接頭裝到直角轉接頭 **(13)** 上。

吸鋸塵 / 吸鋸屑

避免在未採取減塵措施的情況下進行工作。適合的吸塵裝置可減少危害健康的粉塵污染。工作場所要保持空氣流通。原則上，請使用適合的呼吸防護裝置。儘可能使用適合物料的吸塵裝置。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。

對吸塵器之要求		
建議軟管額定直徑	mm	**35**
所需負壓[A)]	mbar hPa	≥ **230** ≥ **230**
所需流量[A)]	l/s m^3/h	≥ **36** ≥ **129.6**
建議過濾效率		粉塵等級 M[B)]

A) 電動工具的吸塵器連接頭功率值

B) 符合 IEC/EN 60335-2-69

請遵循吸塵器說明書。如果吸塵力下降，請停止工作並排除原因。

腰帶夾（請參考圖 H）

使用腰帶夾 **(18)** 即可把電動工具掛在腰帶上。如此不但能夠空出雙手而且電動工具亦隨手可及。

操作

調整旋轉方向（請參考圖 G）

透過正逆轉開關 **(7)** 即可變更電動工具的旋轉方向。但按下起停開關 **(6)** 時，將無法這樣做。

正轉： 若要旋入螺栓及旋緊螺母，請將正逆轉開關 **(7)** 往左推到底。

逆轉： 若要鬆開或旋出螺栓與螺母，請將正逆轉開關 **(7)** 往右推到底。

預設扭力

使用預設扭力調整環 **(2)**，您可以分段預選所需的扭力。如果設定了合適的扭力，當螺栓在物料中一旋入至表面齊平後，或者說到達所設扭力之後，嵌件工具便會停止轉動。在位置 ⩙，過載離合器被停用，例如用於鑽孔或鎖入大型螺栓。在此段位可達到最大扭力。

鬆開螺栓時，可選用較高設定值，或者請您設在 ⩙ 符號上。

機械式選檔

▶ **電動工具靜止時**，才能**操作選檔開關 (3)**。

▶ **請務必將選檔開關完全推到底。**否則可能造成電動工具損壞。

選檔開關 **(3)** 提供 2 種轉速範圍，供您選用。

選檔開關位置(3)	轉速	扭力	應用範圍
1	低	高	適用於重型應用: 例如大直徑鑽孔和拆裝螺絲
2	高	低	適用於輕型應用: 例如小直徑鑽孔和拆裝螺絲

設定操作模式



鑽孔

將預設扭力調整環 **(2)** 移至「鑽孔」符號，以達到鑽孔與拆裝螺絲的最大扭力。



拆裝螺絲

將預設扭力調整環 **(2)** 設為所需扭力。

啟動 / 關閉

按下電源開關 **(6)** 不要放開，即可讓電動工具**持續運轉**。

輕按起停開關 **(6)** 或完全按下時，工作燈 **(9)** 隨即亮起，可照亮光線不足的工作區域。

放開起停開關 **(6)**，即可讓電動工具**停止**運轉。

調整轉速

您可為已啟動的電動工具無段調控轉速，轉速是由按壓起停開關 **(6)** 的深度而定。

輕按起停開關 **(6)** 時，轉速較低。逐漸在開關上加壓，轉速也會跟著提高。

快關功能（Advanced KickBack Control）



與未配備 Advanced KickBack Control 的電動工具相較之下，快關功能（Advanced KickBack Control）可讓您完整掌控電動工具，以增加對使用者的保護。

若鑽頭卡在材料中，或螺絲在工件中突然停止，整合於電動工具中的感測器會立即關閉馬達。如此可防止電動工具突然繞軸旋轉並造成受傷。

整合於電動工具中的 Advanced KickBack Control 包含兩個元件：「快速」KickBack Control，以及額外的「慢速」KickBack Control。後者甚至可防止工具緩慢繞軸旋轉，例如在使用長螺絲作業時，因其需要緩慢但持續增加的保持力。

電動工具上的工作燈閃爍即代表快關功能啟用。

此時若想**繼續操作**，則須先將起停開關放開後再重新按壓。

作業注意事項

▶ **電動工具應先停止運轉，然後才放到螺栓上。**轉動中的嵌件工具可能會滑開。

將較大、較長螺栓旋入堅硬材質之前，應先以螺紋孔底徑預鑽孔至 2/3 螺栓長度。

在金屬上鑽孔時，僅能使用完好的銳利 HSS 鑽頭（HSS = 高速鋼）。選用 **Bosch** 原廠的配件產品，即可確保符合此品質等級。

使用低轉速長期操作之後，應該讓電動工具以最大轉速空轉約 3 分鐘來幫助機器冷卻。

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。**若是不小心觸動起停開關，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。**

顧客服務處和顧客咨詢中心



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製造商地址:
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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。

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。

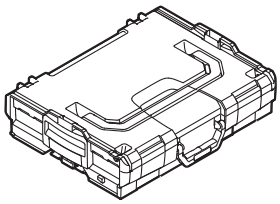


不可以把電動工具和充電電池 / 拋棄式電池丟入一般家庭垃圾中!

製造商保固



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1 600 A00 F5J (GFA 12-X)



1 600 A03 7MD (GFA 12-M)
1 600 A00 F5H (GFA 12-B)



1 600 A00 F5L (GFA 12-E)



1 600 A00 F5K (GFA 12-W)



1 600 A02 4LN (GFA 12-H)

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