



GB	Cordless Concrete Vibrator	Instruction Manual
F	Vibrateur à béton sans-fil	Manuel d'instructions
D	Akku-Betonverdichter	Betriebsanleitung
I	Vibratore del cemento a batteria	Istruzioni per l'uso
NL	Accu-trilnaald	Gebruiksaanwijzing
E	Vibrador de hormigón a batería	Manual de instrucciones ®
P	Vibrador para cimento a bateria	Manual de instruções
DK	Akku betonvibrator	Brugsanvisning
GR	Δονητής αναμόχλευσης μπαταρίας	Οδηγίες χρήσεως

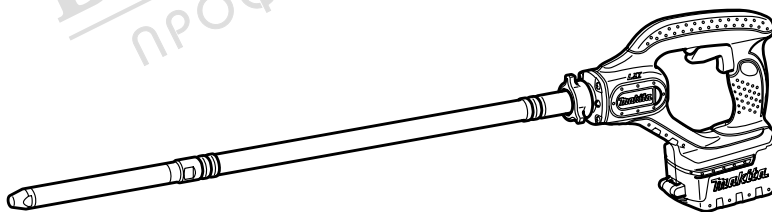
DVR340

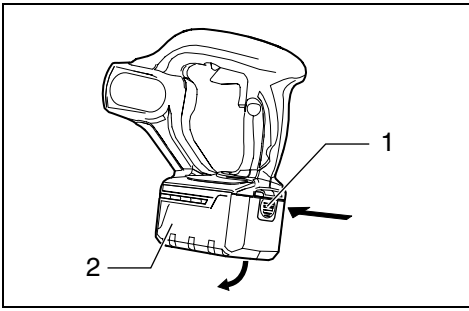
DVR350

DVR440

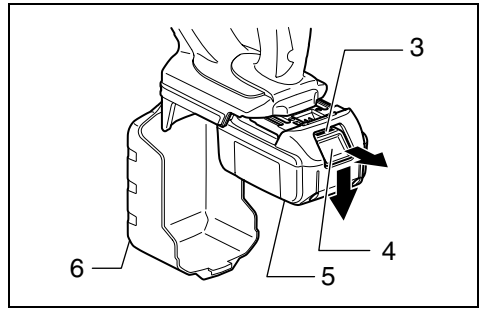
DVR450

DVR850

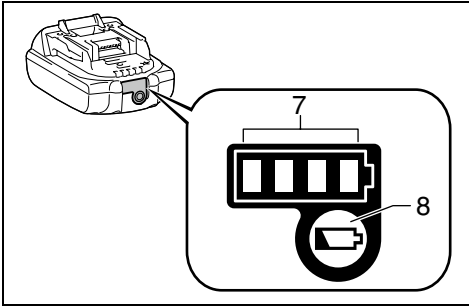




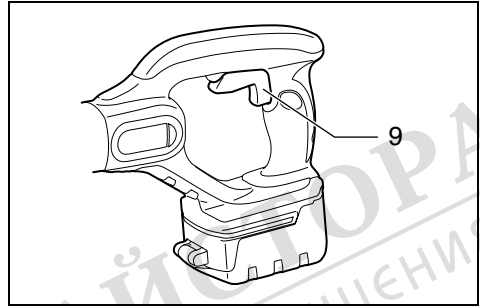
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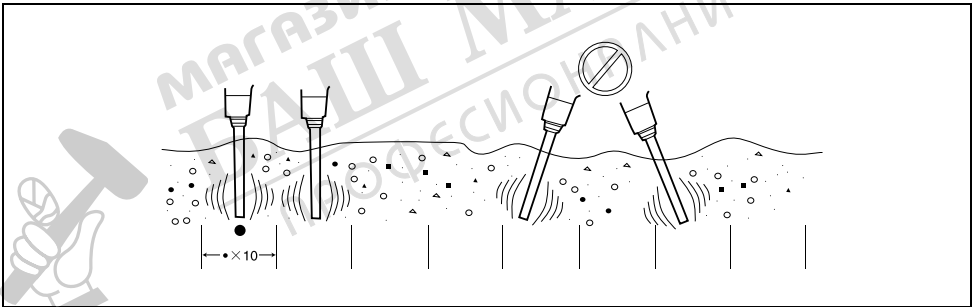
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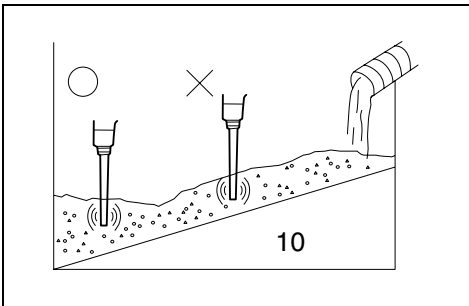
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4



5



6

Symbols

The following show the symbols used for the equipment. Be sure that you understand their meaning before use.

Símbolos

Nous donnons ci-dessous les symboles utilisés pour l'outil. Assurez-vous que vous en avez bien compris la signification avant d'utiliser l'outil.

Simbole

Die folgenden Symbole werden für die Maschine verwendet. Machen Sie sich vor der Benutzung unbedingt mit ihrer Bedeutung vertraut.

Simboli

Per questo utensile vengono usati i simboli seguenti. Bisogna capire il loro significato prima di usare l'utensile.

Symbolen

Voor dit gereedschap worden de volgende symbolen gebruikt. Zorg ervoor dat u de betekenis van deze symbolen begrijpt alvorens het gereedschap te gebruiken.

Símbolos

A continuación se muestran los símbolos utilizados con esta herramienta. Asegúrese de que entienda su significado antes de usarla.

Símbolos

O seguinte mostra os símbolos utilizados para a ferramenta. Certifique-se de que compreende o seu significado antes da utilização.

Symboler

Nedenstående symboler er anvendt i forbindelse med denne maskine. Vær sikker på, at De har forstået symbolernes betydning, før maskinen anvendes.

Σύμβολα

Τα ακόλουθα δείχνουν τα σύμβολα που χρησιμοποιούνται για το μηχάνημα. Βεβαιωθείτε ότι καταλαβαίνετε τη σημασία τους πριν από τη χρήση.



- Read instruction manual.
- Lire le mode d'emploi.
- Lesen Sie die Bedienungsanleitung.
- Leggere il manuale d'uso.
- Lees de gebruiksaanwijzing.
- Lea el manual de instrucciones.
- Ler o manual de instruções.
- Læs brugsanvisningen.
- Διαβάστε το εγχειρίδιο οδηγιών.



- Do not use the tool in the rain.
- N'utilisez pas l'outil sous la pluie.
- Benutzen Sie das Werkzeug nicht bei Regen.
- Non usare l'utensile sotto la pioggia.
- Gebruik het gereedschap niet in de regen.
- No utilice la herramienta bajo la lluvia.
- Não utilize a ferramenta à chuva.
- Anvend ikke maskinen i regn.
- Μη χρησιμοποιείτε το εργαλείο στη βροχή.



- Do not clean the tool with water.
- Ne nettoyez pas l'outil avec de l'eau.
- Reinigen Sie das Werkzeug nicht mit Wasser.
- Non pulire l'utensile con acqua.
- Maak het gereedschap niet met water schoon.
- No limpie la herramienta con agua.
- Não limpe a ferramenta com água.
- Rengør ikke maskinen med vand.
- Μη καθαρίζετε το εργαλείο με νερό.



- Only for EU countries
Do not dispose of electric equipment or battery pack together with household waste material!
In observance of the European Directives, on Waste Electric and Electronic Equipment and Batteries and Accumulators and Waste Batteries and Accumulators and their implementation in accordance with national laws, electric equipment and batteries and battery pack(s) that have reached the end of their life must be collected separately and returned to an environmentally compatible recycling facility.
- Uniquement pour les pays européens
Ne jetez pas les appareils électriques ou les batteries avec vos ordures ménagères !
Conformément aux directives européennes relatives aux déchets d'équipements électriques et électroniques et aux piles et accumulateurs ainsi qu'aux déchets de piles et d'accumulateurs et leur mise en œuvre conformément aux lois nationales, les équipements électriques et les piles et batteries en fin de vie doivent faire l'objet d'une collecte sélective et être confiés à une usine de recyclage respectueuse de l'environnement.

- Nur für EG-Länder
Entsorgen Sie Elektrogeräte oder Akkus nicht zusammen mit dem Hausmüll!
Unter Einhaltung der Europäischen Richtlinie über Elektro- und Elektronik-Altgeräte, Batterien, Akkus sowie verbrauchte Batterien und Akkus und ihre Umsetzung gemäß den Landesgesetzen müssen Elektrogeräte und Batterien bzw. Akkus, die das Ende ihrer Lebensdauer erreicht haben, getrennt gesammelt und einer umweltgerechten Recycling-Einrichtung zugeführt werden.
- Solo per le nazioni UE
Non smaltire apparecchiature elettriche o batterie insieme ai rifiuti domestici!
In osservanza delle direttive europee sui rifiuti di apparecchiature elettriche ed elettroniche (RAEE), e su batterie ed accumulatori e sui rifiuti di batterie ed accumulatori, e sulla relativa implementazione in conformità alle norme nazionali, le apparecchiature elettriche e le batterie che hanno raggiunto la fine della loro vita utile devono essere sottoposte a raccolta differenziata e conferite a una struttura di riciclaggio ecocompatibile.
- Alleen voor EU-landen
Geef elektrisch gereedschap en accu's niet met het huisvuil mee!
Volgens de Europese richtlijn inzake oude elektrische en elektronische apparaten, en inzake batterijen en accu's en oude batterijen en accu's, en de toepassing daarvan binnen de nationale wetgeving, dienen elektrisch gereedschap, accu(s) en batterijen die het einde van hun levensduur hebben bereikt, gescheiden te worden ingezameld en te worden afgevoerd naar een recyclebedrijf dat voldoet aan de geldende milieu-eisen.
- Sólo para países de la Unión Europea
¡No deseche los aparatos eléctricos o baterías junto con los residuos domésticos!
De conformidad con las Directivas Europeas, sobre residuos de equipos eléctricos y electrónicos y baterías y acumuladores y residuos de baterías y acumuladores y su aplicación de acuerdo con la legislación nacional, los aparatos eléctricos y pilas y baterías cuya vida útil haya llegado a su fin deberán ser recogidos por separado y trasladados a una planta de reciclaje que cumpla con las exigencias ecológicas.
- Apenas para países da UE.
Não elimine equipamentos elétricos ou baterias com o lixo doméstico!
Tendo em conta as Diretivas europeias relativas a resíduos de equipamentos elétricos e eletrónicos e baterias e acumuladores e resíduos de baterias e acumuladores e à implementação das mesmas de acordo com as leis nacionais, os equipamentos elétricos e as baterias e pacotes de baterias que chegaram ao fim da vida têm de ser recolhidos separadamente e entregues a instalações de reciclagem ambientalmente compatíveis.
- Kun for landene i EU
Bortskaf ikke elektrisk udstyr eller batteripakken sammen med husholdningsaffald!
I overensstemmelse med det europæiske direktiv om bortskaffelse af affald fra elektriske og elektroniske produkter samt batterier og akkuer, samt bortskaffelse af batterier og akkuer, og deres anvendelse i overensstemmelse med nationale love skal elektrisk udstyr samt batterier og batteripakke(r), der har nået udløbet af deres levetid, indsamles separat og returneres til en miljøvenlig genanvendelsesfacilitet.
- Μόνο για τις χώρες της ΕΕ
Μην απορρίπτετε ηλεκτρικό εξοπλισμό ή την μπαταρία μαζί με τα οικιακά απορρίμματα!
Σύμφωνα με τις Ευρωπαϊκές Οδηγίες για τον απόβλητο ηλεκτρικό και ηλεκτρονικό εξοπλισμό και τις μπαταρίες και συσσωρευτές και τις απόβλητες μπαταρίες και συσσωρευτές και την ενσωμάτωσή τους σύμφωνα με την εθνική νομοθεσία, ο ηλεκτρικός εξοπλισμός και η μπαταρία και τα πακέτα μπαταριών που έχουν φτάσει το τέλος ζωής τους πρέπει να συλλέγονται ξεχωριστά και να επιστρέφονται σε εγκαταστάσεις περιβαλλοντικά συμβατής ανακύκλωσης.



Explanation of general view

- | | | |
|--|---------------------|----------------|
| 1 Recessed part in the battery cartridge cover | 4 Button | 8 Check button |
| 2 Battery cartridge cover | 5 Battery cartridge | 9 Switch lever |
| 3 Red part | 6 Cover | 10 Slope |
| | 7 Indicator lamps | |

SPECIFICATIONS

Model	DVR340	DVR440	DVR350	DVR450	DVR850
Vibrations per minute (min ⁻¹)	12,500	12,500	13,000	13,000	12,500
Vibration amplitude	1.0 mm				
Vibration head (diameter x length)	25 mm x 221 mm				
Flexible shaft assembly length	800 mm	1,200 mm	800 mm	1,200 mm	2,400 mm
Overall length	1,083 mm	1,483 mm	1,083 mm	1,483 mm	2,683 mm
Net weight	3.1 kg	3.6 kg	3.0 kg	3.5 kg	5.2 kg
Rated voltage	D.C. 14.4 V		D.C. 18 V		

- Due to our continuing program of research and development, the specifications herein are subject to change without notice.
- Specifications and battery cartridge may differ from country to country.
- Weight, with battery cartridge, according to EPTA-Procedure 01/2003

ENE055-1

Intended use

The tool is intended for removing bubbles from concrete when casting concrete.

GEA010-1

General Power Tool Safety Warnings

⚠ WARNING Read all safety warnings and all instructions. Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury.

Save all warnings and instructions for future reference.

GEB082-1

CORDLESS CONCRETE VIBRATOR SAFETY WARNINGS

1. Always keep your hands and face away from vibrating head when operating.
2. Switch off the tool immediately if you notice abnormal noise or something faulty during operation.
3. Inspect the tool carefully for breakage, cracks or deformation if you accidentally drop it or strike it against something.
4. Do not carry the tool with finger on switch.
5. Do not set the tool down and switch it on. The vibrating head may whip around out of control and cause an accident.
6. Be careful not to allow water, wet concrete or the like to get into the tool. Do not let the tool fall into wet concrete.

7. Insert the vibrating head carefully between iron/ steel frames or reinforcing rods not to come in contact with them.
8. Do not crush or twist the flexible hose.
9. Do not overly bend the flexible hose.
10. Use a wet cloth or the like to carefully wipe off any wet concrete left on the tool after use. Extra care should be given to thorough cleaning of the vents, switch area, cover openings, etc.
11. Do not use the tool in the rain. Do not clean the tool in water.

SAVE THESE INSTRUCTIONS.

WARNING:

DO NOT let comfort or familiarity with product (gained from repeated use) replace strict adherence to safety rules for the subject product. MISUSE or failure to follow the safety rules stated in this instruction manual may cause serious personal injury.

ENC007-11

IMPORTANT SAFETY INSTRUCTIONS

FOR BATTERY CARTRIDGE

1. Before using battery cartridge, read all instructions and cautionary markings on (1) battery charger, (2) battery, and (3) product using battery.
2. Do not disassemble battery cartridge.
3. If operating time has become excessively shorter, stop operating immediately. It may result in a risk of overheating, possible burns and even an explosion.
4. If electrolyte gets into your eyes, rinse them out with clear water and seek medical attention right away. It may result in loss of your eyesight.

5. **Do not short the battery cartridge:**
 - (1) **Do not touch the terminals with any conductive material.**
 - (2) **Avoid storing battery cartridge in a container with other metal objects such as nails, coins, etc.**
 - (3) **Do not expose battery cartridge to water or rain.**

A battery short can cause a large current flow, overheating, possible burns and even a breakdown.
6. **Do not store the tool and battery cartridge in locations where the temperature may reach or exceed 50 °C (122 °F).**
7. **Do not incinerate the battery cartridge even if it is severely damaged or is completely worn out. The battery cartridge can explode in a fire.**
8. **Be careful not to drop or strike battery.**
9. **Do not use a damaged battery.**
10. **The contained lithium-ion batteries are subject to the Dangerous Goods Legislation requirements.**

For commercial transports e.g. by third parties, forwarding agents, special requirement on packaging and labeling must be observed.

For preparation of the item being shipped, consulting an expert for hazardous material is required. Please also observe possibly more detailed national regulations.

Tape or mask off open contacts and pack up the battery in such a manner that it cannot move around in the packaging.

11. **Follow your local regulations relating to disposal of battery.**

SAVE THESE INSTRUCTIONS.

⚠ CAUTION: Only use genuine Makita batteries.

- Use of non-genuine Makita batteries, or batteries that have been altered, may result in the battery bursting causing fires, personal injury and damage. It will also void the Makita warranty for the Makita tool and charger.

Tips for maintaining maximum battery life

1. **Charge the battery cartridge before completely discharged. Always stop tool operation and charge the battery cartridge when you notice less tool power.**
2. **Never recharge a fully charged battery cartridge. Overcharging shortens the battery service life.**
3. **Charge the battery cartridge with room temperature at 10 °C - 40 °C (50 °F - 104 °F). Let a hot battery cartridge cool down before charging it.**
4. **Charge the battery cartridge if you do not use it for a long period (more than six months).**

FUNCTIONAL DESCRIPTION

CAUTION:

- Always be sure that the tool is switched off and the battery cartridge is removed before adjusting or checking function on the tool.

Installing or removing battery cartridge



















(Fig. 1 & 2)

- Always switch off the tool before insertion or removal of the battery cartridge.
- To remove the battery cartridge, first open the battery cartridge cover. To open the cover, press its recessed part and pivot it with the recessed part depressed. And then withdraw it from the tool while sliding the button on the front of the cartridge.
- To insert the battery cartridge, align the tongue on the battery cartridge with the groove in the housing and slip it into place. Always insert it all the way until it locks in place with a little click. If you can see the red part on the upper side of the button, it is not locked completely. Insert it fully until the red part cannot be seen. If not, it may accidentally fall out of the tool, causing injury to you or someone around you.
- Do not use force when inserting the battery cartridge. If the cartridge does not slide in easily, it is not being inserted correctly.

Indicating the remaining battery capacity (Fig. 3)

Only for battery cartridges with the indicator

Press the check button on the battery cartridge to indicate the remaining battery capacity. The indicator lamps light up for few seconds.

Indicator lamps			Remaining Capacity
 Lighted	 Off	 Blinking	
			75% to 100%
			50% to 75%
			25% to 50%
			0% to 25%
			Charge the battery.
			The battery may have malfunctioned.
			

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NOTE:

- Depending on the conditions of use and the ambient temperature, the indication may differ slightly from the actual capacity.

Switch action (Fig. 4)

CAUTION:

- Before inserting the battery cartridge into the tool, always check to see that the switch lever actuates properly and returns to the "OFF" position when released.

To start the tool, simply pull the switch lever. Release the switch lever to stop.

Switch lever can be pulled from either top or back side of the tool.

OPERATION

Hold the tool straight when inserting/operating. Use the tool within the effective vibration range at equidistant intervals. The effective air bubble removal range is about ten times the diameter of the vibrating head, or around 250 mm.

Do not use this tool to move concrete within a form. The mortar will just move away and the coarse aggregate will remain, causing segregation. (Fig. 5)

Effective leveling and removal of air bubbles

Removal of the air bubbles is complete after you have worked the tool throughout each effective range, the concrete stops shrinking, and the mortar has risen evenly to the surface, giving off a light appearance. Gently remove the operating tool not to leave holes.

NOTE:

- Vibrating too long in a single place causes concrete segregation.
- When the coarse aggregate segregates when placing concrete, shovel out the coarse aggregate and put it where there is plenty of mortar. Then use the tool on it. Don't leave coarse aggregate in the segregated condition.

When concreting a slope site, always pour from the bottom at the beginning. This way the weight of the freshly poured concrete and vibration will lead to effective removal of air bubbles. Conversely, if the pouring is done first from above, the mortar will separate and eventually slide to the bottom. (Fig. 6)

MAINTENANCE

CAUTION:

- Always be sure that the tool is switched off and the battery cartridge is removed before attempting to perform inspection or maintenance.
- Never use gasoline, benzine, thinner, alcohol or the like. Discoloration, deformation or cracks may result.

To maintain product SAFETY and RELIABILITY, repairs, any other maintenance or adjustment should be performed by Makita Authorized Service Centers, always using Makita replacement parts.

OPTIONAL ACCESSORIES

CAUTION:

- These accessories or attachments are recommended for use with your Makita tool specified in this manual. The use of any other accessories or attachments might present a risk of injury to persons. Only use accessory or attachment for its stated purpose.

If you need any assistance for more details regarding these accessories, ask your local Makita Service Center.

- Makita genuine battery and charger

NOTE:

- Some items in the list may be included in the tool package as standard accessories. They may differ from country to country.

Noise

The typical A-weighted noise level determined according to EN60745:

Model DVR350

Sound pressure level (L_{pA}): 74 dB (A)
Uncertainty (K): 3 dB (A)

The noise level under working may exceed 80 dB (A).

Model DVR450, DVR850

Sound pressure level (L_{pA}): 70 dB (A) or less
Uncertainty (K): 3 dB (A)

The noise level under working may exceed 80 dB (A).

Wear ear protection

ENG900-1

Vibration

The vibration total value (tri-axial vector sum) determined according to EN60745:

Model DVR350

Work mode: operation without load
Vibration emission (a_{hv}): 3.0 m/s²
Uncertainty (K): 1.5 m/s²

Model DVR450, DVR850

Work mode: operation without load
Vibration emission (a_{hv}): 2.5 m/s² or less
Uncertainty (K): 1.5 m/s²

ENG901-1

- The declared vibration emission value has been measured in accordance with the standard test method and may be used for comparing one tool with another.
- The declared vibration emission value may also be used in a preliminary assessment of exposure.

WARNING:

- The vibration emission during actual use of the power tool can differ from the declared emission value depending on the ways in which the tool is used.
- Be sure to identify safety measures to protect the operator that are based on an estimation of exposure in the actual conditions of use (taking account of all parts of the operating cycle such as the times when the tool is switched off and when it is running idle in addition to the trigger time).

EC DECLARATION OF CONFORMITY

For European countries only

The EC declaration of conformity is included as Annex A to this instruction manual.