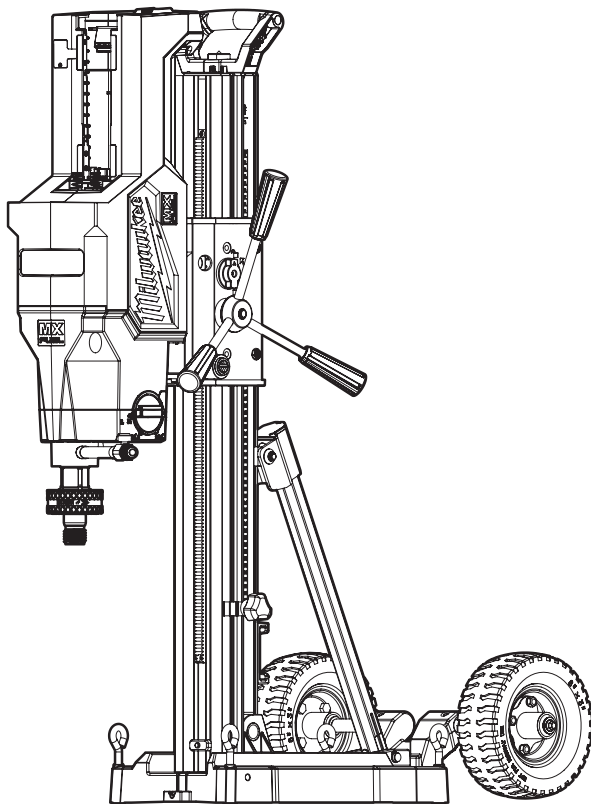





OPERATOR'S MANUAL



Cat. No.
MXF DCD350

MX FUEL™ SUPER CORE DRILL

 **WARNING**

 To reduce the risk of injury, user must read and understand operator's manual.

GENERAL POWER TOOL SAFETY WARNINGS

WARNING Read all safety warnings, instructions, illustrations and specifications provided with this power tool. Failure to follow all instructions listed below may result in electric shock, fire and/or serious injury. **Save all warnings and instructions for future reference.** The term "power tool" in the warnings refers to your mains-operated (corded) power tool or battery-operated (cordless) power tool.

WORK AREA SAFETY

- **Keep work area clean and well lit.** Cluttered or dark areas invite accidents.
- **Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust.** Power tools create sparks which may ignite the dust or fumes.
- **Keep children and bystanders away while operating a power tool.** Distractions can cause you to lose control.

ELECTRICAL SAFETY

- **Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) power tools.** Unmodified plugs and matching outlets will reduce risk of electric shock.
- **Avoid body contact with earthed or grounded surfaces, such as pipes, radiators, ranges and refrigerators.** There is an increased risk of electric shock if your body is earthed or grounded.
- **Do not expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock.
- **Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges or moving parts.** Damaged or entangled cords increase the risk of electric shock.
- **When operating a power tool outdoors, use an extension cord suitable for outdoor use.** Use of a cord suitable for outdoor use reduces the risk of electric shock.
- **If operating a power tool in a damp location is unavoidable, use a residual current device (RCD).** Use of a RCD reduces the risk of electric shock.

PERSONAL SAFETY

- **Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication.** A moment of inattention while operating power tools may result in serious personal injury.
- **Use personal protective equipment. Always wear eye protection.** Protective equipment such as a dust mask, non-skid safety shoes, hard hat or hearing protection used for appropriate conditions will reduce personal injuries.
- **Prevent unintentional starting. Ensure the switch is in the off-position before connecting to power source and/or battery pack, picking up or carrying the tool.** Carrying power tools with your finger on the switch or energising power tools that have the switch on invites accidents.

- **Remove any adjusting key or wrench before turning the power tool on.** A wrench or a key left attached to a rotating part of the power tool may result in personal injury.
- **Do not overreach. Keep proper footing and balance at all times.** This enables better control of the power tool in unexpected situations.
- **Dress properly. Do not wear loose clothing or jewellery. Keep your hair and clothing away from moving parts.** Loose clothes, jewellery or long hair can be caught in moving parts.
- **If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used.** Use of dust collection can reduce dust-related hazards.
- **Do not let familiarity gained from frequent use of tools allow you to become complacent and ignore tool safety principles.** A careless action can cause severe injury within a fraction of a second.

POWER TOOL USE AND CARE

- **Do not force the power tool. Use the correct power tool for your application.** The correct power tool will do the job better and safer at the rate for which it was designed.
 - **Do not use the power tool if the switch does not turn it on and off.** Any power tool that cannot be controlled with the switch is dangerous and must be repaired.
 - **Disconnect the plug from the power source and/ or remove the battery pack, if detachable, from the power tool before making any adjustments, changing accessories, or storing power tools.** Such preventive safety measures reduce the risk of starting the power tool accidentally.
 - **Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool.** Power tools are dangerous in the hands of untrained users.
 - **Maintain power tools and accessories. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tool's operation. If damaged, have the power tool repaired before use.** Many accidents are caused by poorly maintained power tools.
 - **Keep cutting tools sharp and clean.** Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
 - **Use the power tool, accessories and tool bits etc. in accordance with these instructions, taking into account the working conditions and the work to be performed.** Use of the power tool for operations different from those intended could result in a hazardous situation.
 - **Keep handles and grasping surfaces dry, clean and free from oil and grease.** Slippery handles and grasping surfaces do not allow for safe handling and control of the tool in unexpected situations.
- ### BATTERY TOOL USE AND CARE
- **Recharge only with the charger specified by the manufacturer.** A charger that is suitable for one type of battery pack may create a risk of fire when used with another battery pack.
 - **Use power tools only with specifically designated battery packs.** Use of any other battery packs may create a risk of injury and fire.

- When battery pack is not in use, keep it away from other metal objects, like paper clips, coins, keys, nails, screws or other small metal objects, that can make a connection from one terminal to another. Shorting the battery terminals together may cause burns or a fire.
- Under abusive conditions, liquid may be ejected from the battery; avoid contact. If contact accidentally occurs, flush with water. If liquid contacts eyes, additionally seek medical help. Liquid ejected from the battery may cause irritation or burns.
- Do not use a battery pack or tool that is damaged or modified. Damaged or modified batteries may exhibit unpredictable behaviour resulting in fire, explosion or risk of injury.
- Do not expose a battery pack or tool to fire or excessive temperature. Exposure to fire or temperature above 130°C (265°F) may cause explosion.
- Follow all charging instructions and do not charge the battery pack or tool outside the temperature range specified in the instructions. Charging improperly or at temperatures outside the specified range may damage the battery and increase the risk of fire.

SERVICE

- Have your power tool serviced by a qualified repair person using only identical replacement parts. This will ensure that the safety of the power tool is maintained.
- Never service damaged battery packs. Service of battery packs should only be performed by the manufacturer or authorised service providers.

SPECIFIC SAFETY RULES FOR CORING EQUIPMENT

- When performing drilling that requires the use of water, route the water away from the operator's work area or use a liquid collection device. Such precautionary measures keep the operator's work area dry and reduce the risk of electrical shock.
- Operate power tool by insulated grasping surfaces, when performing an operation where the cutting accessory may contact hidden wiring or its own cord. Cutting accessory contacting a "live" wire may make exposed metal parts of the power tool "live" and could give the operator an electric shock.
- Wear hearing protection when diamond drilling. Exposure to noise can cause hearing loss.
- When the bit is jammed, stop applying downward pressure and turn off the tool. Investigate and take corrective actions to eliminate the cause of the bit jamming.
- When restarting a diamond drill in the workpiece check that the bit rotates freely before starting. If the bit is jammed, it may not start, may overload the tool, or may cause the diamond drill to release from the workpiece.
- When securing the drill stand with anchors and fasteners to the workpiece, ensure that the anchoring used is capable of holding and restraining the machine during use. If the workpiece is weak or porous, the anchor may pull out causing the drill stand to release from the workpiece.
- When securing the drill stand with a vacuum pad to the workpiece, install the pad on a smooth, clean, non-porous surface. Do not secure to laminated surfaces such as tiles and

composite coating. If the workpiece is not smooth, flat or well affixed, the pad may pull away from the workpiece.

- Ensure there is sufficient vacuum before and during drilling. If the vacuum is insufficient, the pad may release from the workpiece.
- Never perform drilling with the machine secured by the vacuum pad only, except when drilling downwards. If the vacuum is lost, the pad will release from the workpiece.
- When drilling through walls or ceilings, ensure to protect persons and the work area on the other side. The bit may extend through the hole or the core may fall out on the other side.
- Never use this product for overhead drilling.
- Always use expansion-type anchor to hold stand on cracked, uneven, porous, or vertical surfaces.
- Do not operate tool with carrier above line marked on mast. Tool and stand could become insecure and tip over during use causing serious injury.
- Chemical Burn Hazard. Keep coin cell battery away from children.

▲WARNING To reduce the risk of injury in applications that produce a considerable amount of dust, use a suitable dust extraction solution in accordance with the solution's operating instructions.

- Always use common sense and be cautious when using tools. It is not possible to anticipate every situation that could result in a dangerous outcome. Do not use this tool if you do not understand these operating instructions or you feel the work is beyond your capability; contact MILWAUKEE® Tool or a trained professional for additional information or training.
- Maintain labels and nameplates. These carry important information. If unreadable or missing, contact a MILWAUKEE® service facility for a replacement.

▲WARNING Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains chemicals known to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:

- lead from lead-based paint
- crystalline silica from bricks and cement and other masonry products, and
- arsenic and chromium from chemically-treated lumber.

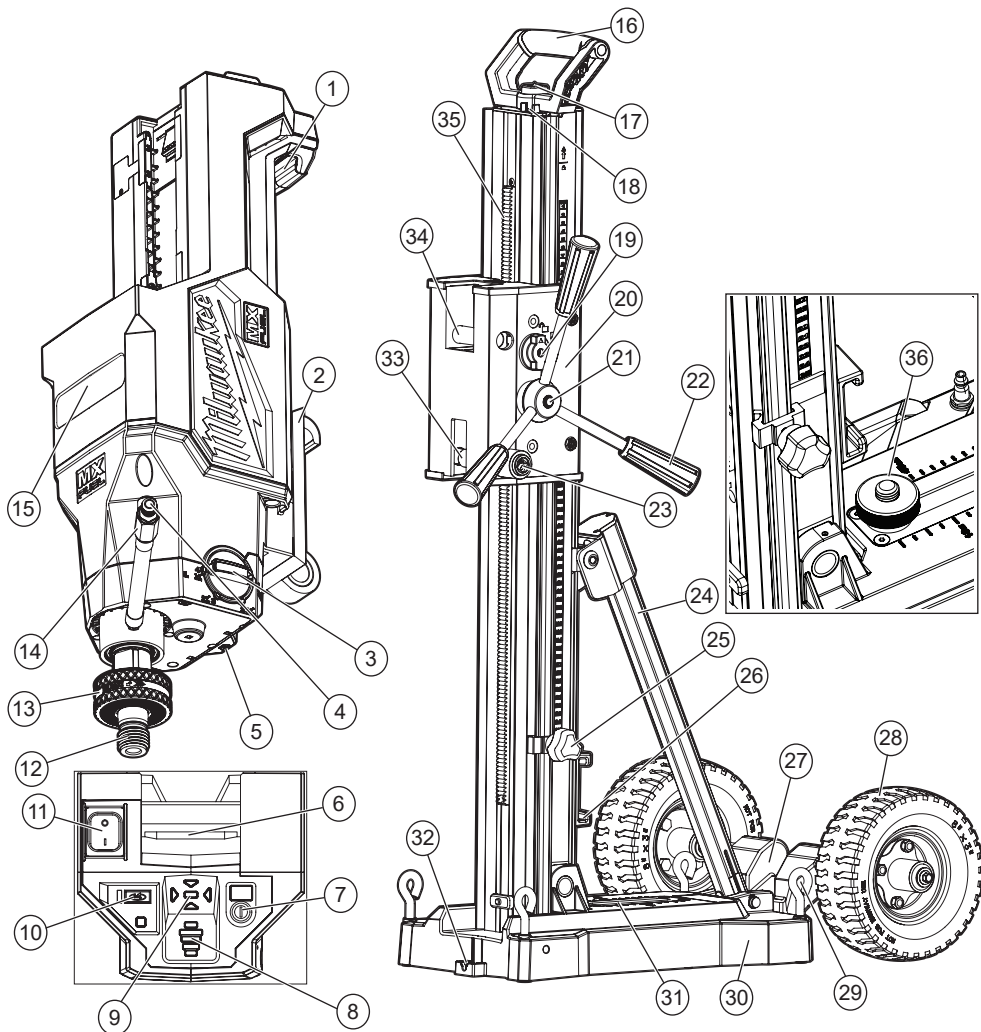
Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: work in a well ventilated area, and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles.

ADDITIONAL BATTERY SAFETY RULES

▲WARNING To reduce the risk of fire, personal injury, and product damage due to a short circuit, never immerse your tool, battery pack or charger in fluid or allow a fluid to flow inside them. Corrosive or conductive fluids, such as seawater, certain industrial chemicals, and bleach or bleach-containing products, etc., can cause a short circuit.

▲WARNING Do not charge non-rechargeable batteries.

FUNCTIONAL DESCRIPTION



- | | | |
|------------------------------------|---------------------------------------|--|
| 1. Back handle | 13. Bit removal device | 26. MX FUEL™ spare battery holder |
| 2. Mounting plate | 14. Water valve | 27. Wheel assembly |
| 3. Gear selector | 15. Front handle | 28. Wheel (2) |
| 4. Water quick-connect | 16. Handle | 29. Eye bolts (4) |
| 5. LED work light | 17. Shoring pin | 30. Base |
| 6. Battery latch | 18. Centre hole indicator tool | 31. Anchor plate |
| 7. ARM button | 19. Carrier lock dial | 32. Centre hole indicator tool pocket |
| 8. Performance gauge | 20. Carrier body | 33. Carrier locking shaft |
| 9. Level indicator | 21. Feed handle release button | 34. Mounting pin |
| 10. Hole start mode button | 22. Feed handle | 35. Mast |
| 11. Spindle rotation ON/OFF switch | 23. Feed handle carrier locking shaft | 36. Vacuum pad / Expansion-type anchor |
| 12. Spindle | 24. Angle brace | |
| | 25. Depth stop | |

SPECIFICATIONS

Drill Cat. No.....	MXF DCD350
Battery Type.....	MX FUEL™
Charger Type.....	MX FUEL™
Rated No Load RPM.....	0 - 2,200
Maximum Bit Capacity.....	355 mm (14")
Spindle Thread.....	1-1/4"-7
Maximum Inlet Pressure.....	90 psi
Recommended Ambient Operating Temperature.....	-17°C to 51°C
Drill stand.....	MXF DR350

SYMBOLLOGY



Safety alert



Volts



Direct Current

n XXXX min⁻¹ No Load Revolutions per Minute (RPM)



Risk of Electric Shock



Read operator's manual.



Always wear eye protection.
Use appropriate hearing and
respiratory protection.



Do not operate machine
with carrier above line
marked on mast.



Centre Hole Indicator Tool



Hole Start Mode



Spindle Rotation ON/OFF



ARM button



Carrier Lock



Carrier Unlock



Regulatory Compliance Mark (RCM).
This product meets applicable
regulatory requirements.



Do not dispose of electric tools
together with household waste
material. Electric tools and electronic
equipment that have reached the end
of their life must be collected
separately and returned to an
environmentally compatible recycling
facility.

ASSEMBLY

WARNING Recharge only with the charger specified for the battery. For specific charging instructions, read the operator's manual supplied with your charger and battery.

Inserting/Removing the Battery

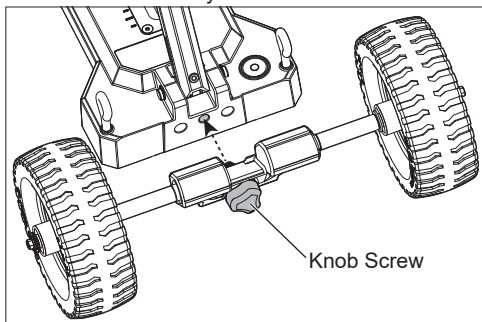
To **insert** the battery, slide the pack into the body of the machine. Make sure it latches securely into place. To **remove** the battery, push the battery latch lock to the side and squeeze the battery latch lever. Pull the battery pack away from the machine.

WARNING Always remove battery pack before changing or removing accessories.

WARNING Only use accessories specifically recommended for this machine. Others may be hazardous.

Attaching Wheel Assembly

1. Remove battery pack.
2. Set the base on the ground upright.
3. Align the bolt with wheel assembly to the back of the stand, as shown.
4. Insert the bolt through the hole, connecting the wheel assembly to the base.
5. Tighten the knob securely located on the back of the wheel assembly.



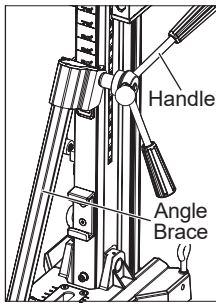
Assembling the Core Drill Stand

Ensure the stand is anchored properly before installing the drill. The stand must be anchored using an expansion-type anchor, or vacuum pad and pump.

1. Set the base on the ground.
2. Raise the mast upright to the desired angle.
3. Tighten the angle brace handle securely.

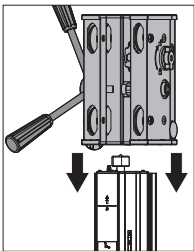
4. Slide carrier assembly onto the mast, matching carrier wheels with grooves in the mast.

NOTE: Over time, the carrier assembly may become loose and need to be tightened (see "Adjusting Carrier Assembly" in the Maintenance section).



5. Press in the feed handle button and insert the feed handle into one of the handle locations. Release the button. Ensure the handle clicks into place.

6. Turn the feed handle to lower or raise the carrier. When the carrier is fully raised, it can be lifted off the mast.



⚠WARNING Do not operate machine with carrier above line marked on mast. The carrier will be loose or could become unsecured during coring and possibly cause injury.

ONE-KEY™

To learn more about the ONE-KEY™ functionality for this machine, go to: www.milwaukeeetool.com.au/innovation/one-key/ To download the ONE-KEY™ app, visit the App Store or Google Play from your smart device.

ONE-KEY™ Indicator

Solid Blue	Wireless mode is active and ready to be configured via the ONE-KEY™ app.
Blinking Blue	Machine is actively communicating with the ONE-KEY™ app.
Blinking Red	Machine is in security lockout and can be unlocked by the owner via the ONE-KEY™ app.

OPERATION

⚠WARNING To reduce the risk of injury, always use personal protective equipment. Always wear eye protection marked to comply with AS/NZS 1337.1.

When working in dusty situations, wear appropriate respiratory protection or use a suitable dust extraction solution.

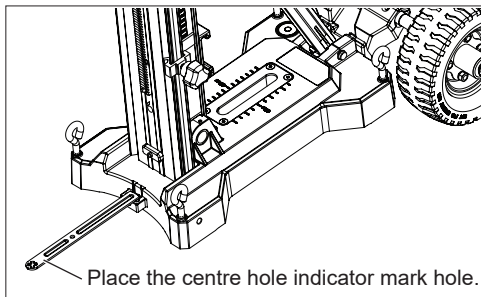
Always secure the stand to the work surface to help prevent personal injury and to protect the stand. Do not rely on the weight of the stand, shoring pin alone or body weight on the stand for securing during use. An unsecured stand could rotate during coring and possibly cause injury. NEVER attempt to use body weight to hold stand. NEVER rely on the shoring pin alone for securing.

Using an Expansion-Type Anchor

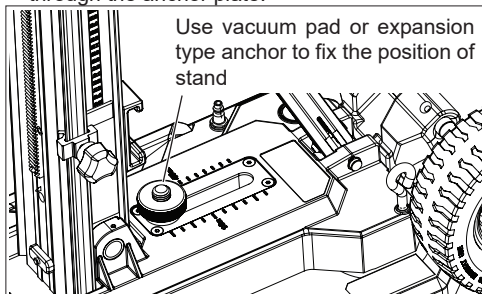
Expansion-type anchors is the preferred method used for floor coring. Use a 16 mm (5/8") or 19 mm (3/4") expansion anchor with an integral threaded rod, washer, and nut.

1. Remove battery pack from the drill and the stand storage position, move the stand aside.
2. Place the centre hole indicator mark hole. Mark the hole location and measure out 406 mm (16") to 508 mm (20"), in the direction the stand will be set.

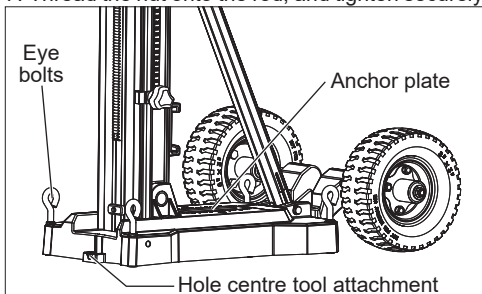
3. Use vacuum pad or expansion-type anchor to fix the position of Stand. Set the anchor according to the expansion-type anchor manufacturer instructions.



4. Place the stand over the anchor so the rod extends through the anchor plate.



5. Place the centre hole indicator tool into the centre hole indicator tool attachment slot and align the appropriate hole over the desired hole location.
6. Adjust all eye bolts (4) to ensure the stand is level according to the bubble indicator.
7. Thread the nut onto the rod, and tighten securely.



Using a Vacuum Pad and Pump

Install the Vacuum Pad and Pump according to the manufacturer's instructions.

1. Loosen the eye bolts (4) until they are flush with the drill stand.
2. Place the stand on the vacuum base plate with the main anchor extending through the anchor plate.
3. Thread the nut onto the rod, and tighten securely
4. Level the stand according to the vacuum pad instructions.

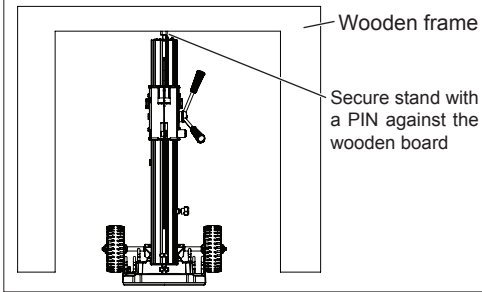
Using the Shoring Pin

For added rigidity, when using an expansion-type anchor or vacuum system, use the shoring pin and a brace.

1. Secure the stand using either an expansion-type anchor or a vacuum system.

WARNING Never rely on the shoring pin alone for securing.

2. Use wood (e.g., 102 mm x 102 mm (4" x 4") piece of lumber) to brace stand between a sturdy structure and the top of the stand.

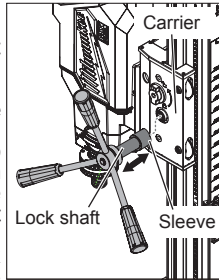


3. Use the eye bolts (4) to level the stand. Check the bubble level to ensure the stand is level.
4. Cut a piece of lumber slightly longer than needed. Wedge the piece of lumber between the stand and the above structure.

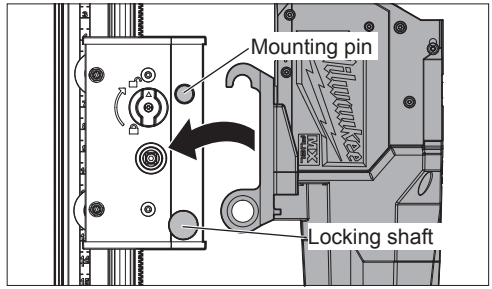
Mounting the Core Drill to the Stand

WARNING Use only a MILWAUKEE® MX FUEL™ Core Drill with this stand.

1. Remove the battery pack.
2. Remove the feed handle from the carrier. The feed handle is also used to install the drill.
3. Install the feed handle into the locking shaft of the carrier.
4. Fully loosen the locking shaft and then slide it out of the carrier (it will be retained in the housing).
5. Hook the mounting of the drill over the mounting pin and set the drill into place (see diagram below). Ensure the mounting plate is flat against the carrier.
6. Slide the lock shaft back into the carrier, and tighten securely with the feed handle.
7. Remove the feed handle from the locking shaft and place it into the desired feed handle location.
8. Ensure the carrier and drill are fully seated and check tightness of the lock shaft before operating the machine.



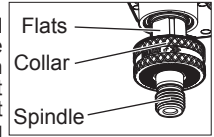
9. To remove drill, reverse the procedure.



Selecting and Installing a Core Bit

Select the proper style and size bit for the job. Always use clean, sharp, and properly maintained bits.

1. Remove battery pack.
2. To **install** the bit, thread the bit securely onto the spindle. Use a wrench on the flats to tighten the bit securely. Do not contact the collar during installation as the collar will loosen, and the bit will not be threaded on securely.
3. To **remove** the bit, rotate the collar anticlockwise by hand to release. Thread off the bit once the collar is released. If the bit does not release use two adjustable wrenches to unthread; one on the bit and one on the flats on the shaft.



Diamond Core Bits

The following conditions can greatly influence diamond core performance:

- Amount of water
- RPM of core drill motor
- Bit run out
- Amount of steel
- Size of embedded steel
- Age of concrete
- Aggregate (size, type, hardness, abrasiveness)
- Type of sand—manufactured vs. river (natural)
- Operator technique
- Operator care
- Feed pressure applied to bit by operator
- Core Drill Stand rigidity and condition

To extend core bit life:

- Choose the right bit for the job. Take into account the size, aggregate, sand, etc.
- When using a new bit, use light feed pressure for the first 2 or 3 holes, so the new diamond gradually breaks in.
- Feed bits very slowly onto the work surface. Use light feed pressure until the bit crown has penetrated or "seated" into the material.
- If the core bit encounters embedded steel, slow down the feed pressure and let the bit core at its own pace. Don't force the bit. Typically, the water around the bit will clear when embedded steel is encountered.

- Minimise all vibration. Slow the feed rate when necessary. Vibration will cause severe diamond breakage or pullout.

•Use sharp bits.

⚠WARNING To reduce the risk of injury, when working in dusty situations, wear appropriate respiratory protection or use a suitable dust extraction solution.

When drilling with water, route the water away from the work area or use a liquid collection device to keep work area dry and reduce the risk of electrical shock. Do not allow water to flow inside machine or battery pack.

Water Supply

Water provides several benefits during coring:

- Water acts as a coolant, reducing the heat caused by the friction of the coring action. This helps to preserve the integrity of the diamonds, the bond matrix, the segment solder, and core tube. Without a coolant, the heat buildup during coring can cause all of these components to fail.

•Water flushes loose, abrasive particles created during coring. These particles consist of aggregate, sand, diamond particles and various metals from embedded steel and the core bit matrix. The hole must be free of debris to allow the core bit to work. If loose particles are not properly flushed from the hole, an unnecessary drag will occur along the side of the core barrel. This can contribute to bit glazing through lack of power as well as motor damage through amperage increases due to bit resistance. In addition, loose particles tend to wear the bit tube, which can eventually result in the loss of segments.

- Water helps to keep dust down and makes for a cleaner, healthier workplace.

⚠WARNING Always use a suitable dust extraction solution.

To prevent visible dust, an adequate supply of water must flow freely and constantly during the entire cut. A built-in water system allows water to flow down the inside and up around the outside of the bit.

⚠WARNING When drilling with water, route the water away from the work area or use a liquid collection device to keep work area dry and reduce the risk of electrical shock.

1. Use clean water at less than 90 psi through the hose attachment when operating.
2. Fasten a standard 16 mm (5/8") quick-connect fitting to the end of a 16 mm (5/8") hose, and connect the hose to the drill.
3. Do not use hoses that are distorted, worn or damaged.
4. Use the water valve to turn the water supply on and off when coring.

Clutch Servicing

The MX FUEL™ Super Core Drill has a mechanical clutch; it is usual to hear sounds and feel vibrations from the Drill. If the clutch activates regularly during normal operation within the green load lights "Ideal Pressure", the clutch needs to be serviced. Return the Drill to the nearest authorised *MILWAUKEE*® service centre.

NOTE: AVOID activating the clutch for more than 10 seconds at a time. The clutch being active for long periods of time could cause damage to the clutch, and drill resulting in a loss of performance.

Selecting Gears

Select the gear according to the bit diameter and base material. Only change gears when the machine is stopped. Press in the button on the side of the gear selector, and then turn the gear selector until it latches completely into the appropriate gear for the application.

GEAR SPECIFICATIONS		
Gear Setting	Core Bit Size	Rated No Load RPM
1	152 mm - 355 mm (6" - 14")	390
2	76 mm - 152 mm (3" - 6")	850
3	50 mm - 76 mm (2" - 3")	1,650
4	13 mm - 50 mm (1/2" - 2")	2,200

Arming the Machine

The MX FUEL™ machines must be armed prior to use. Even with the battery pack inserted, the trigger and machine functions will not operate until the machine is armed.


To arm the machine:

1. Insert the battery pack.
2. Press the Arm button. The MX FUEL™ icon will light. The spindle switch will become armed in 2 seconds.
3. After 15 minutes of inactivity, the machine will enter sleep mode. The MX FUEL™ icon will go off and the Spindle Rotation ON/OFF switch and LEDs are unoperational.
4. Press and hold the Arm button for 1 second to reactivate the machine.
5. Press and hold the ARM button for 1 second to unarm (turn off) the machine. The MX FUEL™ icon will go off.

Hole Start Mode

Use the Hole Start Mode to help avoid bit jamming or bit binding when starting a hole. Hole Start Mode will run until the bit is "seated" into the material, then it will automatically turn off and the drilling will continue in the selected gear.

Activating the Hole Start Mode:

1. With the machine armed, turn on the spindle by switching to the **ON** position.
2. Press the  button, to start the Hole Start mode.

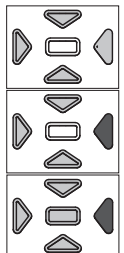
Deactivating the Hole Start Mode:

1. To turn off the machine, press to the **OFF** position.
2. Unarm the machine.

Digital Level

Use the digital level to ensure the hole is level throughout the operation. Use the digital level to properly align the core drill when installing into a core drill stand. The four red arrow LEDs indicate where the machine is not level and the direction in which the machine needs to be moved to become level. Check eyebolts, vacuum pad, and anchor when leveling. The centre white LED indicates the machine is level.

- When level, the centre White LED will light up (<1.5° off of level).



•When "slightly" off level (1.5° - 2.7°), the centre White LED and the Red LED associated with the direction that is off centre will illuminate.

•When "very" off level, the red LED will show the direction out of level and will illuminate (>2.7° out of level).

NOTE: The digital level will flash four red arrow LEDs and a white centre LED in an alternating pattern if the machine is unable to provide a level. If this occurs, the machine will still operate upon normal cycling of the switch. In order to restart the digital level, the machine will need to be disarmed and re-armed again. If the machine still does not work properly, return the machine, charger and battery pack, to a **MILWAUKEE®** service facility for repairs.

Performance Indicator

The performance indicator provides pressure feedback. The LEDs will light up one by one as pressure is applied to the bit. Increase or decrease pressure on the bit to reach the green "Ideal Pressure". When using new diamond bits, follow manufacturer's instructions for breaking them in (see "Diamond Core Bits").

After the bits have been broken in, low feed pressure will polish diamonds, slows penetration and contributes to bit glazing. High feed pressure can overload the core drill motor or can cause diamonds to pull out prematurely, particularly when coring embedded steel. Make the bit work, but do not try to jam the bit through the material.

Core Drilling Procedure

WARNING To reduce the risk of injury, do not core unless the proper vacuum has been achieved when the stand is secured with a vacuum system. Do not rely on the weight of the stand, shoring pin alone, or body weight on the stand for securing during use. The stand will rotate and cause injury.

1. Secure the stand to the work surface using expansion-type anchors or vacuum pad system.

WARNING Do not rely on the weight of the stand, shoring pin alone, or body weight on the stand for securing during use. The stand will rotate and cause injury.

2. Install the core drill onto the stand according to the core drill stand instructions (see "Mounting the Core Drill to the Stand").

3. When securing with a vacuum, set up the vacuum system according to the vacuum manufacturer's instructions.

WARNING Do not core unless the proper vacuum has been achieved. Always monitor the vacuum gauge while coring.

4. When securing with an expansion-type anchor, ensure the nut is securely tightened against the anchor plate before coring.

5. Install the bit according to "Selecting and Installing a Core Bit" section.

6. Select the gear according to "Selecting Gears" section.

7. Insert the battery pack.

8. Press the Arm button.



9. Use the digital level to ensure the core drill is plumb before and during the coring process. If the core drill is not plumb, stop coring and re-level the machine.

10. Ensure water source is connected properly before starting the flow of water. Start the flow of water to the bit by opening the water valve.

WARNING When drilling with water, route the water away from the work area or use a liquid collection device to keep work area dry and reduce the risk of electrical shock.

11. Turn on Hole Start Mode.

12. To **start** the machine, switch to the **ON** position.

13. Use light feed pressure until the bit crown has penetrated or "seated" into the material. Once seated, hole start mode will turn off. Continue with the selected gear for the remainder of the coring process.

14. Once the bit is "seated", use the Performance Indicator to determine if proper pressure is being used throughout the cut. Increase or decrease pressure as needed.

15. Monitor the water flow. Adjust the water valve so the water return is a muddy, solid colour. Clear water or clear streaks indicate too much water volume.

16. When the cut is complete, raise the bit from the cut slowly using the feed handle.

17. To **stop** the machine, switch to the **OFF** position. Make sure the bit comes to a complete stop.

18. Close the water valve.

19. Press the arm button to turn **OFF** the machine.

Retrieving Cores and Deep Coring

When coring holes that are deeper than the core bit:

1. Core the hole. Once the maximum depth has been cut, remove the bit from the hole and stop the machine.

2. Remove the core by driving a chisel or slender wedge into the cut between the core and the work surface. Other items, such as core tongs, bent wire or anchor bolts can also be used to remove the core. Removing cores with diameters greater than twice their length can be difficult. One method is to first break the core into smaller pieces and then remove the pieces.

3. Reinstall the bit using a bit extension, if necessary, and continue coring.

Troubleshooting

Vibration

1. Stop drilling.

2. Turn core drill off.

3. Remove battery.

4. If the carrier is loose, see "Adjusting Carrier Assembly" in the maintenance section.

5. Check for excessive bit runout. Replace if required. If vibration continues to occur, remove the core and loose material. If vibration continues to occur after attempting these measures, return the rig to the nearest **MILWAUKEE®** service facility.

Bit Binding

Bit binding can occur by a dull "glazed" bit, a poorly stabilised stand, or particles within a cut.

Causes of bit glazing:

- Wrong RPM for bit diameter
- High feed pressure
- Low feed pressure

- High steel content in work surface
- Large, hard aggregate
- Too little water
- Low motor power

Transporting

1. Remove the battery, and spare battery from the storage holder on the stand.
2. Remove the machine from the stand.
3. Ensure the machine, stand, and batteries are secure before transporting.

MAINTENANCE

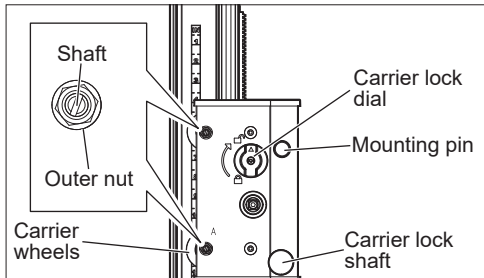
WARNING To reduce the risk of injury, always unplug the charger and remove the battery pack from the charger or machine before performing any maintenance. Never disassemble the machine, battery pack or charger. Contact a MILWAUKEE® service facility for ALL repairs.

Adjusting Carrier Assembly

Over time carrier assembly may become loose and need to be tightened.

1. Remove drill and all accessories.
2. When the carrier is loose, tighten the four carrier wheel shaft/nut assemblies.
 - a. Loosen the outer nut slightly.
 - b. Hand-tighten the shaft with a flat screwdriver to 0.11 - 0.56 nm (1 - 5 in-lb).
 - c. Manually tighten the outer nut.

NOTE: Over-tightening the assembly will make the carrier difficult to move up and down.



Lubricating Rack

Maintain a light coat of grease on the rack to reduce friction and wear when the carrier is moved up and down.

Sharpening Procedure for Core Bits

To work efficiently, diamond core bits must maintain good diamond exposure. Many factors work together to provide the "controlled erosion" cycle of the machine's segment to occur. When this "controlled erosion" cycle is altered, the bit can become dull or "glazed". Glazing becomes noticeable when the coring feed rate slows dramatically or the bit does not cut. Examine the bit immediately. If the diamonds are flush with the metal, they are underexposed or "glazed". The following steps will often correct the problem:

1. Reduce water flow until water becomes very muddy. Continue using as little water as possible until penetration increases.
2. If the bit does not open up, remove from hole. Pour into the kerf a thick (1/4") layer of silica sand (the coarser the better).
3. Resume drilling for approximately 3 to 5 minutes with very little water and at a lower RPM.

Maintaining Machine

Keep your machine, battery pack and charger in good repair by adopting a regular maintenance program. Inspect your machine for issues such as undue noise, misalignment or binding of moving parts, breakage of parts, or any other condition that may affect the machine operation. Return the machine, battery pack, and charger to a MILWAUKEE® service facility for repair.

If the machine does not start or operate at full power with a fully charged battery pack, clean the contacts on the battery pack. If the machine still does not work properly, return the machine, charger and battery pack, to a MILWAUKEE® service facility for repairs.

ONE-KEY™

WARNING Chemical Burn Hazard.

This device contains a lithium button/coin cell battery. A new or used battery can cause severe internal burns and lead to death in as little as 2 hours if swallowed or enters the body. Always secure the battery cover. If it does not close securely, stop using the device, remove the batteries, and keep it away from children. If you think batteries may have been swallowed or entered the body, seek immediate medical attention.



Internal Coin Cell Battery

An internal coin cell battery is used to facilitate full ONE-KEY™ functionality.

If the Mode Indicator LED turns off and the machine cannot adjust speed, or if the Bluetooth communication stops working, remove and reinsert the coin cell battery to reset. Replace the battery if the problem continues.

To replace the coin cell battery:

1. Remove the battery pack.
2. Remove the screw(s) and open the coin cell battery door.
3. Remove the old coin cell battery, keep it away from children, and dispose of it properly.
4. Insert the new coin cell battery (3V CR2032), with the positive side facing up.
5. Close the battery door and tighten the screw(s) securely.

Cleaning

Clean dust and debris from vents. Keep handles clean, dry and free of oil or grease. Use only mild soap and a damp cloth to clean, since certain cleaning agents and solvents are harmful to plastics and other insulated parts. Some of these include petrol, turpentine, lacquer thinner, paint thinner, chlorinated cleaning solvents, ammonia and household detergents containing ammonia. Never use flammable or combustible solvents around tools.

Cleaning the Battery and Battery Bay

Keep battery connections and surfaces between the machine and battery free of debris and materials. Failure to keep surfaces clean may result in misalignment and/or damage to the battery connection.

Repairs

For repairs, return the tool, battery pack and charger to the nearest authorised service centre.

ACCESSORIES

⚠WARNING Use only recommended accessories. Others may be hazardous.

For a complete listing of accessories, go online to milwaukeeetool.com.au / milwaukeeetool.co.nz or contact a distributor.

WARRANTY - AUSTRALIA and NEW ZEALAND

Please refer to Australian and New Zealand warranty supplied with tool. This warranty applies only to product sold by authorised dealers in Australia and New Zealand.

SERVICE - AUSTRALIA and NEW ZEALAND

MILWAUKEE® prides itself in producing a premium quality product that is Nothing But Heavy Duty™. Your satisfaction with our products is very important to us! If you encounter any problems with the operation of this tool, please contact your authorised **MILWAUKEE®** dealer.

For a list of **MILWAUKEE®** dealers, guarantee or service agents please contact **MILWAUKEE®** Customer Service or visit our website.

(Australia Toll Free Telephone Number 1300 645 928)

(New Zealand Toll Free Telephone Number 0800 645 928)

or visit milwaukeetool.com.au/milwaukeetool.co.nz.

Milwaukee Electric Tool Corporation

13135 West Lisbon Road, Brookfield, Wisconsin U.S.A. 53005

Milwaukee Tool (Australia)

26 - 40 Nina Link, Dandenong South,
Victoria, 3175, Australia

Milwaukee Tool (New Zealand)

274 Church Street, Penrose,
Auckland, 1061, New Zealand

DESIGNED BY MILWAUKEE ELECTRIC TOOL CORP.
PROFESSIONALLY MADE IN CHINA
PRINTED IN CHINA