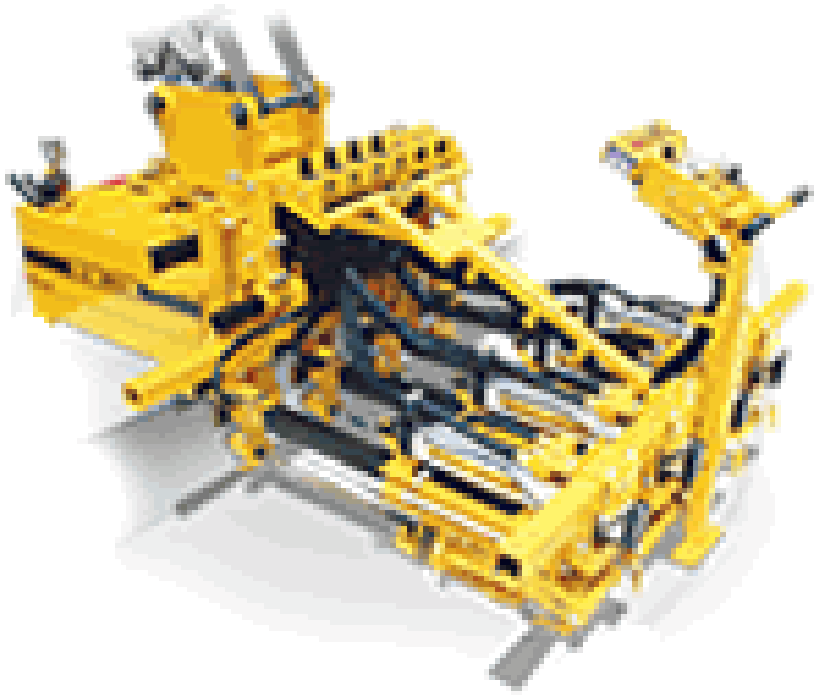
SETTING UP THE
MODEL 210-3, -4 , and -5 EQ MT



SAFETY PRECAUTIONS FOR THE MODEL 210-3, -4, -5 EQ MT

System Under Pressure: Shut off air supply and disconnect air hose before disassembling or disconnecting parts.

Flying Debris: During boring, chips may be ejected. Stay behind control panel and wear safety glasses to prevent eye injury.

Pinch Points: Keep hand clear of carriage assembly. Hands or fingers caught between carriage and frame may be seriously injured.

Moving Parts: When moving drill unit, use carriage lock to prevent assembly from sliding onto hands or fingers.

Transporting: Make sure all carriage locks are in place, and the swivel brake is engaged.

SAFETY PRECAUTIONS FOR THE MODEL 210-3, -4, -5 EQ MT (continued)

 ***Loud Noise***: Wear ear protection to prevent eardrum damage from air compressor.

 ***Dust***: Wear a dust protection mask to protect from concrete dust.

 ***High Pressure***: High pressure from the air compressor can damage the drill, and can void the warranty.

SET UP FOR THE MODEL 210-3, -4, -5 EQ MT

- IMPORTANT: If you purchase this E-Z Drill model and it is being shipped from the factory, much of the following set up steps will be done with the help of an E-Z Drill representative. It is provided the first time set up and training.

SET UP FOR THE MODEL 210-3, -4, -5 EQ MT

- Always keep the lever on the drill motor shown at right in line with the drill motor.

- If the lever is in the position shown at right, the air will be shut off from the drill motor and will not run.

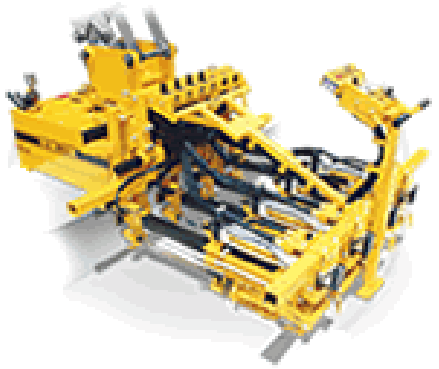
ATTACHING THE DRILL UNIT TO THE BACKHOE

- Pins must be of the correct size, as well as the pin bushings, if needed. These will be provided by E-Z Drill based on make and model of the backhoe

- NOTE: If side bushings are required, the customer must supply those.

ATTACHING THE DRILL UNIT TO THE BACKHOE

- Remove bucket from the backhoe boom. Position the boom over the drill and line up the holes for the pins.



- The curl pin goes through the slotted hole in the mounting bracket.

ATTACHING THE HOSE TO THE DRILL UNIT

- Check the specifications to make sure the correct hose size is being used:

210-3 EQ MT	11/2” – 2” ID hose
210-4 EQ MT	2” ID hose
210-5 EQ MT	2” ID hose

- Make sure all safety precautions are followed with the hose and all hose connections.

- IMPORTANT: AIR COMPRESSOR MUST MAINTAIN 120 PSI WHILE ALL DRILLS ARE DRILLING

ATTACHING THE AIR HOSE TO THE E-Z DRILL UNIT

- Before attaching the air hose to the drill, turn the air compressor on and blow air through the hose to clean out any debris that may have accumulated inside the hose. This prevents contaminates from entering the drill system.

Secure hose before turning air on to prevent the hose from whipping.

ATTACHING THE AIR HOSE TO THE E-Z DRILL UNIT

- The E-Z Drill unit has a 1 ½” swivel fitting on which to connect the hose from the air compressor. The swivel allows the hose to turn as the drill is turned to position.

- Connect the hose fitting, and install safety pin.

ATTACHING THE AIR HOSE TO THE E-Z DRILL UNIT

- It is recommended that a “whip check” be installed as a safety measure.

INSTALLING THE DRILL BITS

System Under Pressure: Shut off air supply and disconnect air hose before disassembling or disconnecting parts.

(to remove pressure from system, have air supply disconnected from drill unit, and turn the power switches to the "On" position)

- IMPORTANT: The chuck size of the drill bits must match the chuck size of the drill. Look for the decal on the side of the drill motor to confirm the chuck size. Most E-Z Drill models come standard with 7/8"x 3 ¼" chuck. However, a 7/8" x 4 ¼" chuck and 1" x 4 ¼" chuck are available on request.

- All 210 series E-Z Drill models use 6" of the usable length of the bit (i.e. a 24" bit will drill up to 18" deep; an 18" bits will drill up to 12" deep.

INSTALLING THE DRILL BITS

- IMPORTANT: You must have the correct bit guide bushing to match the bit you will be using:

  For drilling a:

  5/8” diameter hole, use 1108 MCP

  3/4” diameter hole, use 1109 MCP

  7/8” diameter hole, use 1110 MCP

  1” diameter hole, use 1111 MCP

  1 1/8” or larger diameter hole, use 1112 MCP

- Part numbers above will fit bits with either 7/8” x 3 ¼” or 7/8” x 4 ¼” chucks. For 1” x 4 ¼” chucks, see parts book.

INSTALLING THE DRILL BITS

- To install a drill bit, loosen the swivel bolt until you can swing it out away from the lower bit guide.

- NOTE: You can use the wrenches provided; they are located next the oil reservoir.

INSTALLING THE DRILL BITS

- Open the retainer latch on the drill motor.

Pinch point

INSTALLING THE DRILL BITS

- Place the bit into the chuck and close the latch.

Pinch point

INSTALLING THE DRILL BITS

- You may have to adjust the return stop rod so that the end of the bits clears the bit guide.

INSTALLING THE DRILL BITS

- To adjust the stop rods, use the wrenches provided to loosen the stop rod nuts. Move the stop rod in the direction needed to the required location and re-tighten the nuts.

INSTALLING THE DRILL BITS

- Place the proper bushing into the bit guide; one half in the upper bit guide and one half in the lower bit guide. Close bit guide, swing the swivel bolt back onto the bit guide, and tighten.

- Repeat for each drill system.

ADJUSTING THE DRILL SPACING

- IMPORTANT: The following instructions need to be followed after the backhoe has placed the drill on the slab in the drilling position.

- IMPORTANT: Regardless of the spacing, always keep the drill systems centered with the mainframe so that the entire unit remains balanced.

ADJUSTING THE DRILL SPACING

- To slide a drill system one way or the other to reach the required drill spacing, you must first loosen the 5” frame clamps on each end of each feed bar. Loosen all four ½” lock nuts on each frame clamp until you can slide the feed bar.

Pinch points

Heavy load

ADJUSTING THE DRILL SPACING

- To get the proper spacing, measure from one side of the feed bar to the same place on the adjacent feed bar.

ADJUSTING THE DRILL SPACING

- Be sure to measure from both ends of the feed bar to insure the drill systems are parallel to each other.
- After moving the proper distance, re-tighten all on the frame clamps.

Heavy load

ADJUSTING THE HEIGHT OF THE DRILL SYSTEMS (with no overlay)

- Adjusting the height of the drill systems is done by turning the mast screw jack assembly located at the top of the mast. Before turning the screw jack, you must first loosen the two 1/2” bolts that are on each side of the mast.

- Use a 1 3/8” wrench to turn the screw jack to raise or lower the drill frame to the desired location

ADJUSTING THE HEIGHT OF THE DRILL SYSTEMS (with overlay)

- On those occasions where there may be an asphalt overlay on top of the concrete slab, it may require the drill frame to be adjusted down further than what the screw jack can do. In this case, loosen the 4 – 1/2” bolts on each side of the mast. Loosen the bolt on the metal tab on each side, flip the tab up and re-tighten the bolt. Then repeat the steps on the previous slide.

LEVELING THE DRILL SYSTEMS

IMPORTANT: BEFORE LEVELING THE DRILL SYSTEMS, CONFIRM THE ANGLE REQUIRED. MANY TIMES THE DRILL SYSTEMS ARE NOT TO BE “LEVEL WITH THE WORLD”, BUT SHOULD BE SET TO DRILL PARALLEL WITH THE TOP OF THE CONCRETE SLAB INTO WHICH YOU ARE DRILLING.

ALSO, THIS ADJUSTMENT HAS BEEN MADE AT THE FACTORY. CHECK THE DRILL FOR LEVEL BEFORE MAKING ANY ADJUSTMENTS.

LEVELING THE DRILL SYSTEMS

- First loosen the two ½” bolts on the Adjusting Arm.

LEVELING THE DRILL SYSTEMS

- Use a 1 1/2” wrench to turn the screw jack nut until to the desired location.
- Then re-tighten the two ½” bolts

LEVELING THE DRILL SYSTEMS

- Placing a 4’ level across the tool bars, then placing it on the concrete slab will show if the drills are going to drill parallel to the top of the concrete slab.

SETTING THE DRILL DEPTH USING THE AUTOMATIC SHUT OFFS

- To adjust the automatic shutoff valves to the shut the drills off at the desired depth, make sure all other adjustments have been made, the air supply is connected to the drill, and it has been placed on the slab with the frame pulled up against the slab.

- NOTE: The support leg under the control panel shown in the top picture provides support only when the drill unit is disconnected from the backhoe. After installing on the backhoe, loosen the two 1/2” bolts and slide the leg up. Then re-tighten the bolts.

SETTING THE DRILL DEPTH USING THE AUTOMATIC SHUT OFFS

- Unlock all of the individual carriage locks.

***Pinch Points**: Hands or fingers caught between moving parts of the frame may be seriously injured.*

SETTING THE DRILL DEPTH USING THE AUTOMATIC SHUT OFFS

- Again, make sure the drill unit is “snug” up against the concrete slab. The backhoe should position close to the first set of holes to be drilled.
- .The “side-shift” feature allows the drill operator to now move the drill frame laterally right or left to the exact drilling location.
- NOTE: The “side-shift” feature has approximately 14” of travel.

“SIDE SHIFT” FEATURE

- Use the side-shift lever to move the drill frame either right or left.

- This feature, in cases where there is 12” spacing between holes, allows you to drill two sets of holes without moving the entire drill unit. To do this, the spacing would have to be set at 24”. You would line up the first set of holes, drill and retract. Then side-shift over 12” to the next set of holes and drill them. After retracting, the backhoe will then pick up the drill unit and re-position.

SETTING THE DRILL DEPTH USING THE AUTOMATIC SHUT OFFS

- Place the feed lever into the “in” position. All of the drills will move forward until the bits contact the concrete slab.

SETTING THE DRILL DEPTH USING THE AUTOMATIC SHUT OFFS

- Measure the distance from the head of the stop rod to the rubber stop pad. If this is not the required drill distance, use the wrenches provided to loosen the stop rod nuts.

- The wrenches are found on the side of the mounting bracket.

SETTING THE DRILL DEPTH USING THE AUTOMATIC SHUT OFFS

- After loosening the stop rod nuts, move the stop closer or farther away from the stop pad in order to get it the correct distance. Then re-tighten the nuts.
- Repeat for each drill system.
- After you drill a set of holes, measure the actual holes drilled to confirm the proper drill depth. You may have to make another small adjustment.