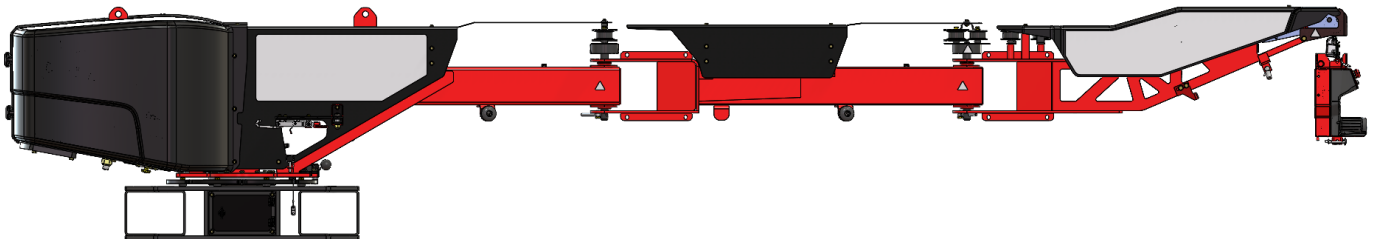




MZ100 FAQs

User Operation



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Why does my gripper run away when I un-grip the block?

First, make sure the **BLUE LIGHT** on the **RETRACT Button** is off. If it is on, press and hold the **RETRACT Button** for 5 seconds and confirm it is now off. If it is off, recalibrate the handle weight without a block gripped, and make sure your hand is not resting on the handle when powering it on. To recalibrate the handle, press and then release the **E-STOP**, and wait for the light under it to turn green. Press the **POWER Button** and remove your hands and wait for the **Flashing BLUE LIGHT** on the **TARE Button** to stop **Flashing**. If the **POWER Button** has a **Solid BLUE LIGHT**, the **TARE Button** is not **Flashing**, and the handle is no longer running away, you have successfully recalibrated the handle weight. This process should never take more than a few minutes.

Why does my gripper run away when I grip a block?

Recalibrate the block weight. The block weight can be recalibrated at any time by pressing the **TARE Button** while the block is gripped. Before pressing the **TARE Button**, make sure the block is not resting on any surface and is freely floating in the air. After pressing the **TARE Button**, remove your hands quickly and wait for the **Flashing BLUE LIGHT** on the **TARE Button** to stop **Flashing** before using it. If the **POWER Button** has a **Solid BLUE LIGHT**, the **TARE Button** is not **Flashing** and the block is no longer running away, you have successfully recalibrated the block weight. This process should never take more than a few minutes.

Why did the system randomly stop working while I was using it?

Check the **E-STOP** on the handle, it may have been accidentally pressed. Twist the **E-STOP** and wait for the light under it to turn green. Press the **POWER Button** and remove your hands until the **Flashing BLUE LIGHT** on the **TARE Button** stops flashing and the **Solid BLUE LIGHT** on the **POWER Button** is on. After grabbing the first block once it has powered back on, make sure you remove your hands and allow the system to lift the block up a few inches to recalibrate the block weight. Once the **Flashing BLUE LIGHT** on the **TARE Button** stops **Flashing**, you are ready to resume operation. This process should never take more than a few minutes.

Why is the MULE dropping block?

DO NOT hit the **GRIP (release) Button** too early. Always press the **GRIP (release) Button** when you are near the motor bed. After pressing the **GRIP (release) Button**, guide the block into place and do not pull up hard on it. The MULE is now carrying the block, so you do not have to. If you hit **GRIP (release) Button** and try to pick up the block as you normally would without the MULE, it will release the block because you requested it to do so when it senses the weight of the block is being supported by something else (typically the wall). If you do not hit the **GRIP (release) Button** early, the block will continue to float and will not release for any reason, including an **E-STOP**. If you are trying to add weight to the block to make it easier to thread through the rebar, press the **SET Button** instead of the **GRIP (release) Button**. This will add weight without causing the block to release. Still press the **GRIP (release) Button** when close to the mortar bed and after you have threaded the block through the rebar.



Why is the block hard to move around and why does the gripper and arms drift away?

Make sure the base is level. Typically, within 1 degree works well for most users, and ½ degree is the target. The system also has an arm brake on arm 1 that can be loosened to make it easier to move the block around the scaffold or tightened to reduce arm drift. In high wind conditions, the brake may need to be tighter than normal to minimize arm drift. Many users rest the controller in an ungripped block on the pallet or in the wall to ensure the gripper stays where they know it will not drift away from them.

Why am I fighting with it every time I try and pick another block?

Check to see if the **TARE Button** has a **Solid BLUE LIGHT**. If it is on, the auto-tare feature is active, which means it pauses to reweigh each and every block you grab instead of picking and moving quickly. To disable the auto-tare function, pick up a block and press and hold the **TARE Button** for 5 seconds. Confirm that the **Solid BLUE LIGHT** turns off. If the block drifts up or down afterward, press the **TARE Button** and quickly remove your hands until the **Flashing BLUE LIGHT** on the **TARE Button** stops flashing. You are now in normal operating mode and should be able to grab blocks quickly. This process should never take more than a few minutes.

Why isn't it working when it's cold?

Like a diesel engine, the battery has a built-in heater to warm it up quickly before operating in temperatures below 45°F. Even if it warms up during the day, the battery may still need to be heated upon startup if overnight temperatures were cold. The screen will indicate when the battery is too cold to operate. Once plugged in, it typically takes about 15 minutes to warm up the battery and resume normal operation. Once the battery is warmed up and the MZs are in use, they do not need to remain plugged in. In colder temperatures, it is recommended to plug in the MZs first thing in the morning prior to mixing mortar, so they are charged and warmed up before the masons begin laying block.

How do I handle a pallet of block with mixed web thicknesses without always recalibrating?

Assuming you can still pick both blocks with the same gripper setup, calibrate the single or thinner web block, and have the mason add a couple extra pounds of effort to the thicker or double web block. This prevents the block from needing to be recalibrated every time it changes randomly on the pallet. Doing this will cause the block to drift down slowly with the thicker web block. Drifting down is preferable to drifting up over your head, which happens if you weigh the thicker web block and then pick the thinner web block. Using the auto-tare feature is also an option, but it is typically not preferred because it adds a delay for every block pick.

Does the MULE have to be powered on to charge them and how do I know they are charging?

No, the MULE can be powered on or off while charging. To confirm power is reaching the MULE, customers typically use extension cords with an end that lights up when receiving power. This is especially important when using site power rather than a local generator. When the system is powered on, the bottom of the overview screen displays a green light, indicating that charging is active.



What type of generator do I need to charge my MZ100 and how long does it take?

Any small, standard 120VAC generator will typically work. It will take less than 4 hours to charge from a dead battery. Assuming 1,000 watts of continuous generator output per MZ100 charging, you should not have any issues regardless of the generator type. Unlike the ML150s, the MZ100 does not require an inverter generator. Since MZ100 can easily run for days on its internal battery, many customers with many units alternate charging MZs as needed, allowing a small generator to power all the MZs on the scaffold.

Why does my MZ100 handle keep losing power when I press the GRIP button?

It is likely that the gripper motors need to be calibrated. Anytime you swap a whole gripper or gripper module, it is best to perform the gripper calibration.

To calibrate the grippers:

1. Press the **E-STOP** on the handle and then twist or pull it back out and wait for the light under the **E-STOP** to turn green. DO NOT press the **POWER Button** as you normal would.
2. With the **BLUE LIGHT** on the **POWER Button** off, press and hold the **GRIP Button** and **RETRACT Button** at the same time for 10-15 seconds. Once you see both gripper cams (or one on a veneer gripper) move out and back in individually, the process is complete.
3. Power the handle back on and resume normal operating procedures. This process should never take more than a few minutes.

How do I keep my gripper from drifting up where I can't reach it?

Reconsider your setup and contact CR for further setup support. The optimal setup typically uses the appropriate base for your scaffold, a 5 ft mast, and your MZ100. This configuration allows the MZ100 to operate above your head while remaining within reach for ease of charging, powering on/off, servicing, and recovery from any issues that arise. Users often place their MULE out of reach because they are unaware it could operate on their scaffold, including standard frames.

Why does my MZ100 keep turning off on its own?

The MZ100 has a sleep timer, similar to the screen on your smartphone. Like your smartphone, that sleep timer is adjustable in the settings. On the bottom left of the overview screen, there is countdown timer that will show you how long until your MZ100 goes to sleep. To wake the MZ back up, you can use the “shake-to-wake” feature or turn red disconnect switch off and then back on. Typically, the timer is set for 30 minutes or longer, depending on the job and personal preference. To adjust the sleep timer, go to the “Adjust” screen and set the sleep time to your preferred duration.