



## ACCUSET IMPROVEMENTS - TSB 19.21

When a drill goes through a steep ditch or when packing pressure is too high, both these scenarios can result in the rear wheels becoming suspended in the air and off the ground. Due to the current hydraulic settings on the manifold Accuset is unable to keep these cylinders retracted and thus an unstable control state occurs resulting in Accuset locking up for a short period of time (~3 minutes).

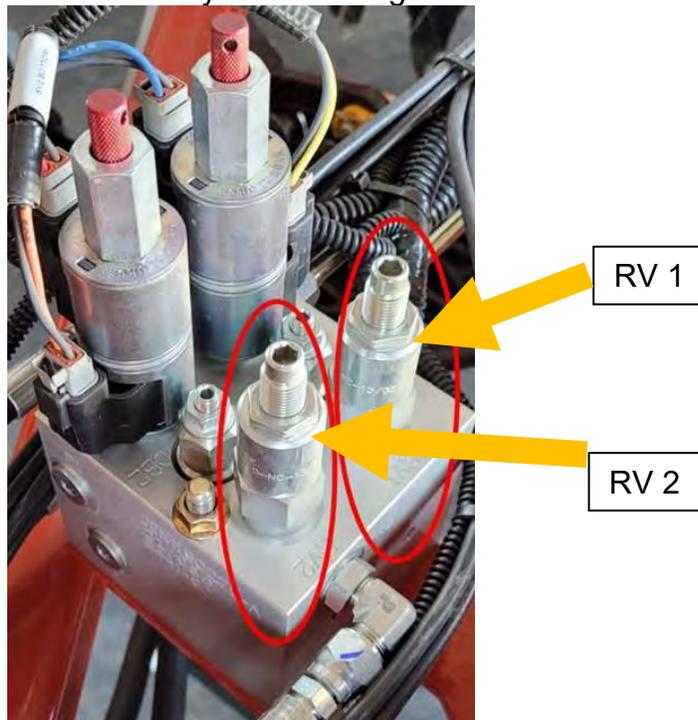
Recent testing has revealed the ability to make adjustments to the hydraulic manifold that will then allow Accuset to keep the rear cylinders retracted when encountering the scenarios listed above.

If you have any questions regarding this TSB, please contact your Dealer.

## CORRECTIVE ACTION:

### Accuset Manifold Adjustment

- The following adjustments must be made on each manifold block
  - There will be 6 manifolds (12 RV cartridges) per drill on 50'/60'/66'/76'/80'/86' width drills.
  - There will be 4 manifolds (8 RV cartridges) per drill on 40' width drills.
- Cartridges labelled 'RV1' and 'RV2' must be turned in (clockwise) 1.5 turns from the factory preset position
  - These adjustments will increase the cracking pressure of the RV's in the manifold blocks to allow enough pressure to build so the wheels can be suspended off of the ground. Do not adjust the valves more than the 1.5 turns or damage to the cylinder and the shim may occur from too high of pressure when retracting the cylinder.
    - Use a  $\frac{3}{4}$ " wrench for the locknut and a  $\frac{1}{4}$ " allen key for the adjustment screw
      - If the factory preset position is unknown or has been tampered with:
        - turn the RV's all the way out
        - turn them back in 3.5 turns to get approximately the right setting.
        - Note that this is not the preferred method as there is some play in the set screw so turning valves all the way out creates some inconsistency in the settings.



As mentioned there have been recent improvements made to the app as well the firmware in the ECU should be updated to take advantage of the many improvements in functionality

**The following steps should be performed on each Accuset system:**

1. Connect device to internet in order to update your Accuset app.
2. For Android:
  - a. <https://support.google.com/googleplay/answer/113412?hl=en>
    - i. Noted improvements:
      1. Additional user notifications
      2. Fixed issue when tapping on OS notification item
      3. Fixed issue with issue with all faults appearing as “Unknown Fault”
3. For iOS:
  - a. <https://support.apple.com/en-ca/HT202180>
    - i. Noted improvements:
      1. Additional user notifications
      2. Bluetooth connectivity improvements
      3. Fixed issue with issue with all faults appearing as “Unknown Fault”
4. Connect to AccuSet ECU via app to update firmware in the ECU
5. Menu => Update Firmware => select version/file (ex: “v1.3.48”)
  - a. Detailed instructions on performing the firmware update are on page 4 of this document



6. Pressure start
7. Leave your phone next to the ECU because it takes about 10 minutes.

**Most notable Firmware enhancements:**

The majority of the firmware enhancements are focused around improved logic when different operational scenarios are encountered. These changes enable the ECU to better maintain the seed depth throughout the various terrain conditions, seed depth, and packing pressures.

- “Transport Low” will now ensure the drill stays on the shims by lowering the drill (or lifting the wheels) every minute after it initially sits on the shims.
- Faults are less likely to be raised while passing through a wash-out
- If a cylinder cannot reach it’s target a fault is generated it will now retry 40 seconds later



## 4 Firmware Update

Bourgault Industries will occasionally release a new version of the firmware running on your BIC ECU.

It is encouraged that updates are applied before the start or after the end of each seeding season, especially if there is a feature or fix that you are interested in. It is not recommended that a firmware update be applied mid-season, unless you are encouraged to do so by an authorized Bourgault dealer.

### Note

"Firmware Updates" only refer the software running on the AccuSet ECU. These are different than the updates the AccuSet mobile app will periodically receive through the App Store.

The only method of upgrading the firmware on the ECU is through the AccuSet mobile app over Bluetooth.

1. A reliable internet connection (WiFi, Cellular, etc.) is required to download the Firmware Updates onto your mobile device.
2. After that is completed, however, you may apply the update onto your AccuSet ECU even when it is in the field, away from any internet connection.

### Important

If your device and BIC ECU continue to operate successfully, a firmware update is only recommended before or after seeding season.

It is also extremely recommended to avoid updating your mobile device's Operating System during the seeding season.

## 4.1 Downloading Firmware Update

Firmware updates can be downloaded before hand, when not connected to BIC ECU, or while connected to BIC ECU, as long as mobile device connected to the internet and connection is stable and reliable (WiFi, Cellular, etc).

Steps to download firmware:

1. Ensure your mobile device connected to the internet.
2. Open the AccuSet mobile app, navigate to the Menu page, and select Firmware Updates. Refer to *Figure 4.1*.
3. Allow a moment for the list of available updates to be displayed, and identify the desired version. Refer to *Figure 4.2*.
  - a. If you are unsure which version to install, please contact an authorized Bourgault dealer.
4. Select the download button if it is available
  - a. The download button  should be replaced with  replaced with
  - b. If it is not available, please check your mobile device's internet connection and try again.

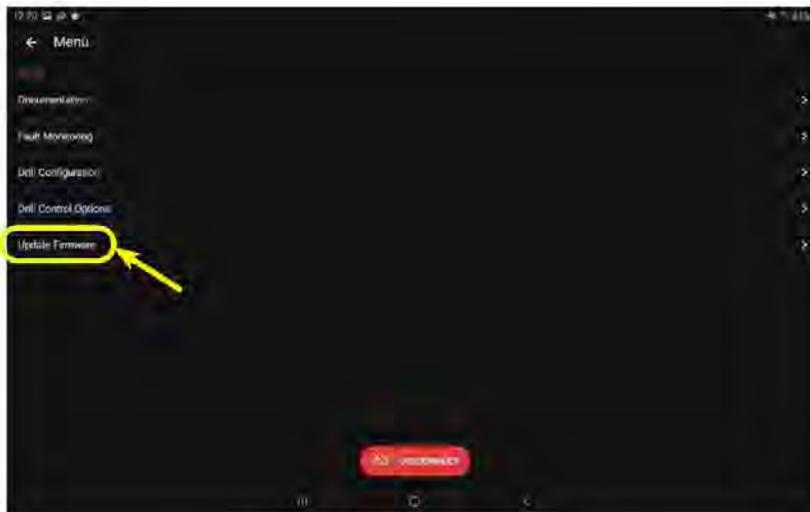


Figure 4.1 - Update Firmware

AccuSet App
Firmware Update

## 4.2 Applying an Update

**Important**

Once an update is started, it is crucial that you let it complete successfully. Cancelling or otherwise aborting the update, example turning off the BIC ECU, may cause your BIC ECU to be unusable until you start and complete an update successfully.

1. Ensure your BIC ECU is powered on and within range.
  - a. It does not need to be physically connected to a drill in order to be updated.
2. Open the AccuSet mobile app and connect to your BIC ECU.
3. Navigate to the Menu page, and select Firmware Updates.
4. On the next screen you will see list of available files.
 

 - indicates that file is available for download

 - indicates files that are already downloaded and saved on the device.
5. Identify the desired version.
  - a. If you are unsure which version to install, please contact an authorized Bourgault dealer.
  - b. If desired version already downloaded and saved on the device proceed to the *Step 6*.
  - c. If desired file was not downloaded in advance, please download the firmware update by selecting the download button  .
    - i. An internet connection is required to download the update.
    - ii. If you do not have internet access near your drill, firmware update download should be done ahead of time by following the steps in *Section 4.1 - Downloading Firmware Update*.



Figure 4.2 - Available Update Files

## Firmware Update

AccuSet App

6. Tap the install button .
  - a. You should be redirected to the Apply Firmware Update page, refer to *Figure 4.3*.
7. Press START to begin update.
  - a. Please be patient as this can take five to ten minutes. Leave your mobile device on and nearby the drill throughout the update process
  - b. It is recommended that your mobile device be sufficiently charged beforehand
  - c. If the update was successful, you will see an option that says FINISH with a check mark, refer to *Figure 4.4*.
  - d. If the update was not successful (connection failure, etc.), you will see an option that says RETRY. Press this to automatically begin the process again.
8. Once the upgrade is complete, press the FINISH button. You will be automatically disconnected from the BIC ECU.
9. Your AccuSet is now updated to the desired firmware version you selected. You may now reconnect and explore the new features, or continue using the BIC ECU just as you did before.
10. If you wish to revert back to an old firmware version, you may do so by following the same procedure.
  - a. At the appropriate step select the firmware version you want instead of the one that is installed.
  - b. If you wish to pursue this option, it is recommended that you contact an authorized Bourgault dealer first.



Figure 4.3 - Apply Firmware



Figure 4.4 - Firmware Update Completed