

6.8 Operator Inputs

6.8.1 Master Switch

1. **Source** - see list for available selections:

- a. **Virtual** - use this selection if you do not have a cabin switchbox connected and only want the master switch to be controlled from the X35 console screen.
- b. **External Console Input** - allows use of the remote mapping connector on the X35 harness as an alternative master signal.
- c. **Apollo CM-40** - not used
- d. **Implement** - use this selection if you want the auto clutch switch on your drill to act as the master switch. Do not use if Drill Control enabled.

e. **Keypad** - use this selection if a cabin switchbox connected and you want to use the master switch on the switchbox.

i. Refer to *Section 6.8.2 - Keypad* for in-cab and on frame switchbox settings.

f. **Keypad and Virtual** - use this selection if you want to control the master switch from the X35 console as well as the in-cab switchbox.

2.. **Implement Master Switch** - allows use of auto clutch as a secondary along with the other Master switch selection. Do not use if Drill Control enabled.

Important

For operational instructions on using the auto clutch switch refer to *Section 13.1 - Implement Switch (Auto Clutch) Feature*.

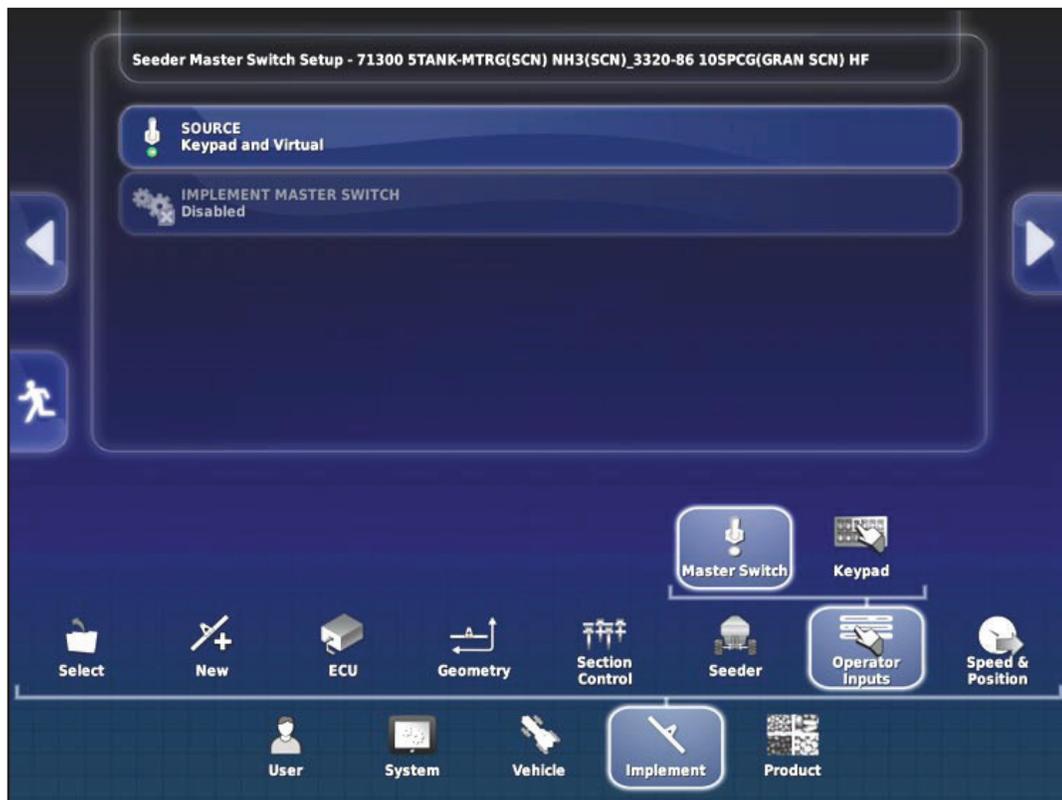


Figure 6.96 - Switches Setup

6.8.2 Keypad

This menu option will allow you to identify and assign the correct in-cab and on-frame switchbox, assign functions to the buttons that have no functions assigned to them (A, B & C buttons) and select how you prefer to control tanks.

There are two tabs, one for the in-cab switchbox and the other for the switchbox on the frame of the air seeder. Refer to [Figure 6.98](#).

6.8.2.1 In-Cab SwitchBox

1. **Keypad ID** - allows you to select the in-cab switchbox.
 - a. When selected, it will display a drop down list with switchbox IDs.
 - i. If there is no switchbox used, select none.
 - ii. You can confirm you have the right keypad assigned in the cab as the LED lights will stop flashing.
 - b. There is also an Identify Keypad button that changes the flash sequence to confirm you have the right one selected for the appropriate location.

2. **Identify Keypad** - When selected, led lights on the switchbox will flash green, yellow, red. Refer to [Figure 6.97](#). Select this button again to stop flashing.



Figure 6.97 - Identifying Keypad



Figure 6.98 - Keypad - In-Cab

Note

Track Master - if turned on then the drill position will follow master switch state. If master is on, drill will be lowered unless drill is manually lifted. If master is off drill will be lifted. If turned off then drill position is independent of master switch state.

3. **Button A** - allows you to choose the function for this button from some of the following options, depending on other features that are enabled:
 - a. **Not Assigned** - this button has no function.
 - b. **Lift Master Control** - will lift & lower the openers if that feature is enabled and connected.
 - c. **Drill Lift Track Master** - enables or disables track master which sets the lift/lower state to track the master switch state.
 - d. **Increase Pack Master Value** - will increase the Pack Master value by the preset.
 - e. **Increase Tank Rate** - will increase the tank rate by the preset. When selected, additional settings that allows the user to select which tank rate will be increased, in the Tank Rate Change Mode, will become available, refer to *Steps 7 & 8 & Figure 6.99*.
 - f. **Pack Master Control On/Off** - engages & disengages Pack Master.
 - g. **Liquid/NH3 Manual Override** - changes between VRC, auto and manual mode for the Liquid/NH3 tank.
 - h. **Fill All Tanks** - adds product weight to each tank, based on 100% tank volume used and density of the product in that specific tank (hold button until all 3 LED light colors flash then goes back to green).
 - i. **Quick Depth Adjustment (QDA)** - raises & lowers the QDA. Only available for the 3420 drill.



Figure 6.99 - Keypad - Tank Rate Change Mode

4. **Button B** - allows you to choose the function for this button from the following options:
 - a. **Not Assigned** - this button has no function.
 - b. **Lift Master Control** - will lift & lower the openers if that feature is enabled and connected.
 - c. **Drill Lift Track Master** - enables or disables track master which sets the lift/lower state to track the master switch state.
 - d. **Decrease Pack Master Value** - will decrease the Pack Master value by the preset.
 - e. **Decrease Tank Rate** - will decrease the tank rate by the preset. When selected, additional settings that allows the user to select which tank rate will be decreased, in the Tank Rate Change Mode, will become available, refer to *Steps 7 & 8 & Figure 6.99*.
 - f. **Pack Master Control** - engages & disengages Pack Master.
 - g. **Liquid/NH3 Manual Override** - changes between VRC, auto and manual mode for the Liquid/NH3 tank.
 - h. **Fill All Tanks** - adds product weight to each tank, based on 100% tank volume used and density of the product in that specific tank (hold button until all 3 LED light colors flash then goes back to green).
 - i. **Quick Depth Adjustment (QDA)** - raises & lowers the QDA. Only available for the 3420 drill.
5. **Button C** - allows you to choose the function for this button from the following options:
 - a. **Not Assigned** - this button has no function.
 - b. **Prime** - can be used to run meters for a preload time or as long as the button is held to check runs.
 - c. **Lift Master Control** - will lift & lower the openers if that feature is enabled and connected.
 - d. **Drill Lift Track Master** - enables or disables track master which sets the lift/lower state to track the master switch state.
 - e. **Pack Master Control On/Off** - engages & disengages Pack Master.
 - f. **Liquid/NH3 Manual Override** - changes between VRC, auto and manual mode for the Liquid/NH3 tank.
 - g. **Fill All Tanks** - adds product weight to each tank, based on 100% tank volume used and density of the product in that specific tank (hold button until all 3 LED light colors flash then goes back to green).
 - h. **Quick Depth Adjustment (QDA)** - raises & lowers the QDA. Only available for the 3420 drill.
6. **Tank Keys** - allows you to select tank controls:
 - a. **Virtual** - means the X35 console only will be used to control the tank switches.
 - b. **Keypad** - means the switchbox will be used to control the tank switches.
 - c. **Keypad and Virtual** - both, the X35 console and the in-cab switchbox will be used to control the tank switches.
7. **Tank Rate Change Mode** - allows you to select which tanks will be controlled when the increase/decrease tank rate button is used. The available options are:
 - a. **All Tanks** - refers to all enabled tanks.
 - b. **Active Tanks** - refers to only tanks that have the switch turned on.
 - c. **Selected Tanks** - brings up another tab that allows you to pick specific tank(s), refer to *Step 8*.
8. **Select Tank** - allows you to select specific tank(s) that will be controlled when the increase/decrease tank rate button is used.

Note

Unused tank buttons and unassigned buttons will have no LEDs lit up.

6.8.2.2 On Frame (calibration) SwitchBox

1. **Keypad ID** - allows you to select the on frame switchbox.
 - a. When selected, it will display a drop down list with switchbox IDs.
 - b. If there is no switchbox used, select none.
2. **Button A** - allows you to choose the function for this button from the following options:
 - a. **Not Assigned** - this button has no function.
 - b. **Calibration Mode On/Off** - will enter/exit calibration mode.
 - i. When in calibration mode, the on frame switchbox can be used to control metering augers, as well as to run meters to check runs when the unit is stationary. The X35 needs to be on the seeder controller screen for this to work. (tap button to enter calibrate; to exit calibrate need to hold button until all 3 LED light colors flash then goes back to amber).
 - c. **Quick Depth Adjustment (QDA)** - raises & lowers the QDA. Only available for the 3420 drill.
3. **Button B** - allows you to choose the function for this button from the following options:
 - a. **Not assigned** - this button has no function.
 - b. **Tank Fill Mode On/Off** - will enter fill mode.
 - i. When in fill mode, the on frame switchbox can be used to activate tanks as they are filled to apply the added weight to them. The X35 needs to be on the seeder controller screen for this to work and LED needs to be amber. (tap button to enter fill mode and LED will go green)
4. **Button C** - on the on frame (calibration) switchbox this button always functions as the prime/reset button.
 - a. In calibration press to reset meter pulses. (amber LED indicates there are pulses detected, red indicates pulses have been cleared)
 - b. When not in calibration this button can be used to prime the meters. They will run for the preset time if the button is tapped. If the button is held they will continue running.
- c. **Lift Master Control** - will lift & lower the openers if that feature is enabled and connected.
- d. **Quick Depth Adjustment (QDA)** - raises & lowers the QDA. Only available for the 3420 drill.

6.6.2.2.1 Switchbox LED status:

1. Tank buttons

Red - tanks are switched off

Amber - tanks are switched on but master is off

Green - tanks are switched on and master is on

2. Master button

Red - master is not ready (something is preventing master turning on, see status window)

Amber - master is ready and can be turned on

Green - master is on

3. Lift Master button

Red - Lift Master is shut off

Amber - Lift Master is turned on but openers are in the lifted position

Green - Openers are in the lowered position