

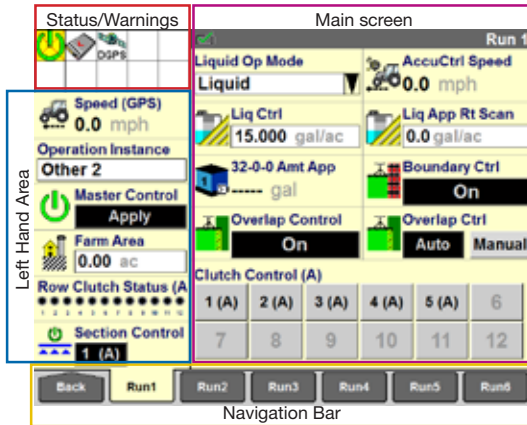
# AFS AccuControl Liquid Toolbar AFS Pro 700 Quick Reference Card (v28.\* and after)

## REQUIREMENTS

The following actions are required for proper operation. Working thru this document in order will properly set up your Liquid Application system. This guide is to be used as quick reference only. Insert a data card in the display before turning the display on.

## 1 – GENERAL NAVIGATION

### 1.1 Main Screens



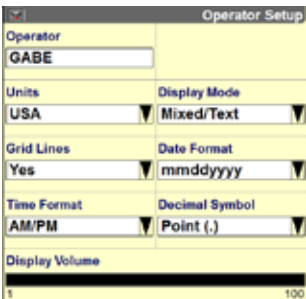
## 2 – SET-UP SCREENS

### 2.1 Operator



Toolbox>Oper

- Create an operator.
- Select preferred units of measurement.

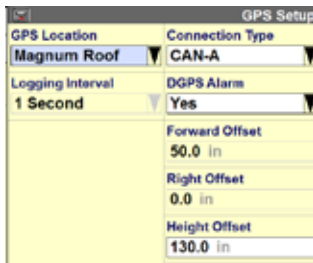


### 2.2 GPS Setup



Toolbox>GPS

- Verify GPS Location
- Verify Offsets
- Verify DGPS Type



## 3 – LIQUID TOOLBAR CONFIGURATION



Toolbox>AccuCtrl

**Note:** Activation is required (Toolbox>Activate) prior to these steps.

### 3.1 Basic Setup

- Select AccuCtrl Operation [Liquid]
- Select AccuCtrl Installed [Yes]
- Create New Implement
- Select Implement Type [Liquid Toolbar]

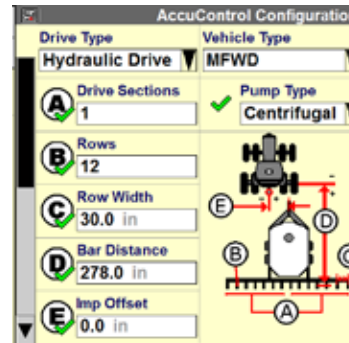


### 3.2 Implement Configuration

- Press 'Setup'
- Select Planter Type
- Select Vehicle Type
- Set Number of Drive Sections [A]

**NOTE!** Section Shut-Off Valve Control information entered in 3.3

- Set Number of Rows [B]
- Enter Row width [C]
- Enter Bar Distance in Inches (axle to application point) [D]



**NOTE!** Verify GPS Offset (Toolbox>GPS)

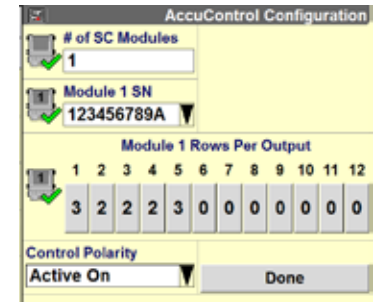
- Measure Implement Right/Left Offset [E]
- Enter Rows Per Drive Section
- Press 'Done'

**NOTE:** The next setup steps may or may not be needed. The configuration of the Liquid Toolbar determines the need for set-up. If the implement is not equipped with this capability, leave the setup as 'No'.

## 3 – LIQUID TOOLBAR CONFIGURATION – continued

### 3.3 Section Control Setup (If equipped with Section Shutoff Valves)

- Select Section Control [Yes]
- Press 'Setup'
- Select number of Control Modules
- Assign Module Serial Numbers (starting w/ modules on LH side)
- Assign Module Rows Per Section (Number of Rows per shutoff valve)
- Select Control Polarity

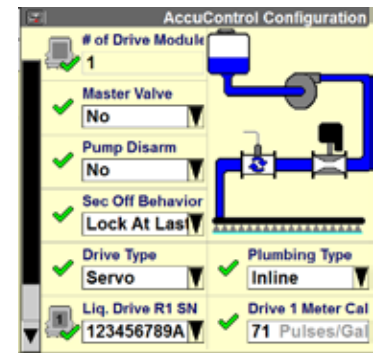


**Note:** Active On is common for Section Control Valves. Active Off is common for LiquiBlock Valves

- Select 'Done'

### 3.4 Liquid Drive Set-up (If equipped w/ hydraulic drive)

- Select Liquid Drive [Yes]
- Press 'Setup'
- Verify Number of Control Modules
- Select Drive Type (Servo or PWM)
- Assign Module Serial Numbers (starting w/ modules on LH side)
- Assign Plumbing Type (Servo only)
- Enter Drive Pulses/Gal for each Drive



**Note:** Pulses/gallon will be found on the liquid flow meter. Some flow meters are measure in pulses/10 gallons. If this is the case, divide that value by 10 to find pulses/gallon.

- Select Master Valve
- Select Pump Disarm
- Select Section Off Behavior (Lock At Last or Turn Off)
- Press 'Done'

### 3 – LIQUID TOOLBAR CONFIGURATION – continued

#### 3.5 Master Switch Box (If equipped with External Switch Box)

- Select Master Sw Box [Yes]
- Press 'Setup'
- Verify Serial Number of Switch Box
- Select Footswitch (if installed)
- Press "Done"

**Note:** Rate 1/Rate2/Manual Switch is not functional. All others are functional.

#### 3.6 Implement Switch (If equipped with Toolbar Mounted Implement Switch)

- Select Imp Switch [Yes]
- Press 'Setup'
- Select Imp Switch Serial Number
- Select Switch Polarity

**Note:** Determine by raising and lowering the implement and watch the Implement Status Arrow in Status/Warning Area for proper operation.

- Press 'Done'

#### 3.7 Section Switch Box (If equipped with External Section Switch Box or Desire Manual Valve Section Control through Run Screens)

- Select Section Switch Box [Yes]
- Press 'Setup'
- Select Config Mode [Auto] or [Manual] for custom
- Verify Sw Box Serial Number (if equipped w/ external switchbox)

**Note:** If no external switchbox is installed, User Defined Windows can be assigned to a Run Screen (**Toolbox>Layout**).

### 4 – WORK CONDITION – REQUIRED FOR OPERATION



#### Work Condition>Layer

**IMPORTANT!** The settings below are linked to a work condition. These must be selected or checked whenever a work condition is created/changed: product type, application rate, drive settings, product delay (w/ as applied), product layer control (w/ as applied), and product control.

**NOTE!** A work condition name could be the current work practice, crop type (corn, soybeans, etc), seed size, field condition, or weather condition, etc.

**NOTE!** This setup is required for logging/ mapping data and using Overlap & Boundary Control.

#### 4.1 Preparation

- Insert a data card in the display
- Create/select a Grower/Farm/Field/Task and Crop Type (**Performance > Profile**)

#### 4.2 Product Setup



#### Toolbox>Product

- Name the product (ex. 32-0-0)
- Select Form Type for Product [Liquid]
- Select Product Usage
- Enter Default Application rate
- Enter Minimum application rate & Maximum application rate

**NOTE!** Rate will not be able to be adjusted outside of this range.

- Create additional products (liquid, etc.) as needed.

### 4 – WORK CONDITION (continued)

#### 4.3 Product Layer Assignment



#### Work Condition>Layer

Assign a product to a control section of the Applicator.

- Select/create a work condition.
- Select Layer 1 Control Type [AccuControl Liquid].
- Select Product for Layer 1 Control.
- Assign Additional Layers as needed

#### 4.4 Controller Setup Liquid – (if equipped)



#### Work Condition>Control

- Verify Implement
- Verify Work Condition
- Select Controller [Liquid]
- Product Delay – Default 2.0 sec. (see section 7 for Product Delay Measurement procedure)
- Enter the Minimum Speed (if ground speed drops below this speed, sprayer will apply at this set speed)
- Enter value for Off-target Alarm Limit

### 5 – CALIBRATIONS (If equipped with Liquid Rate Control)

#### 5.1 Valve Calibration



#### Work Condition>Valve Cal

**Note:** Vehicle & controlling components should be at normal operating temp/ conditions for these calibrations.

- Select Drive Number to Calibrate
- Press 'Start' for Automatic Valve Calibration
- Repeat any other Drives

## 5 – CALIBRATIONS (If equipped with Liquid Rate Control) – continued

### 5.2 Liquid Calibration



Work Condition>Liquid Cal

- Verify Implement
- Verify Work Condition
- Select Liquid Op Mode – [Liquid] (Accept Safety Warning if agreed)
- Press Master Control – ‘Apply’ Button
- Press ‘Next’
- Verify Control Module Serial Number
- Verify Meter Cal Value (change in Toolbox>AccuCtrl>Liquid Drive Setup)
- Enter Simulated Speed (Typical Application Speed)
- Enter Target Rate Prime System
- Press ‘Next’
- Place Catch Buckets Under Each Valve Section of Applicator
- Press the ‘Start’ Button & Allow Product to Flow
- Manually Measure Collected Product and Calculate Total Amount Applied Across Entire Width of Drive Section (in Gal or L)
- Enter [Actual Output]
- Press ‘Update’ Button to Update the Meter Value
- Repeat if Needed.

Record calibration values here, if desired

USAGE	CAL VALUE

## 6 – OPERATION

### 6.1 Enable Spraying



Run screens

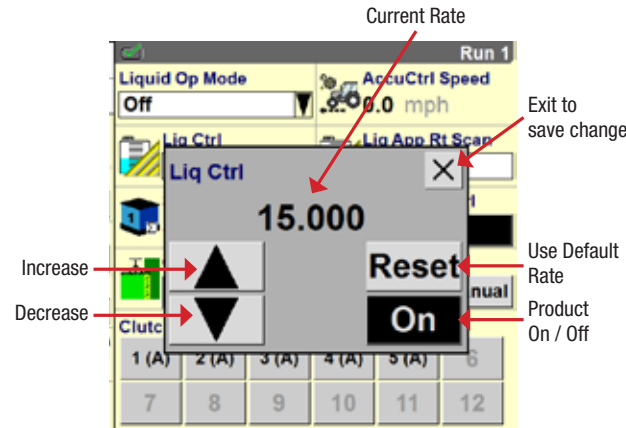
**Note:** Most windows will need to be placed on the run screen (Toolbox>Layout)

- Liquid Op Mode - Select [Liquid]
- Read Safety message & press ‘Accept’ if agreed
- Master Control – Press ‘Apply’ on display or switch on master switch on switchbox (if equipped)



### 6.2 Liquid Rate Control (If equipped)

- ‘Liq Ctrl’ Defaulted to ‘On’
- Increase or decrease rate, if needed
- Automatic rate control (prescription) assigned in Performance>Rx Setup



### 6.3 Prime Control (If equipped w/ Liquid Ctrl)

Prime is used to fill the system so no gap is left in the field when starting.

**Note:** Window may not be available in v28.\* software versions. If not available, use the start button found in Toolbox>Liquid Cal to prime.

- Press the Prime button for 3 sec.
- Wait for prime icon in warning area to stop flashing
- System is primed



## 7 - OVERLAP/BOUNDARY CONTROL

### 7.1 Overlap/Boundary Control



Toolbox>Overlap

- Turn overlap control on.
- Turn boundary control on (requires a created boundary)
- Set % for out of bounds.
- Set % of overlap for shutoff.
- Set start early distance to 0 ft
- Set stop late distance to 0 ft.

**IMPORTANT!** Product delay must be measured and set correctly before adjusting start early/stop late values.

### 7.2 Product Delay Adjustment



Work Condition>Control>Liquid

**Before** making any adjustments to the Product Delay, make sure GPS offsets & Bar Distance are entered correctly.

To check performance:

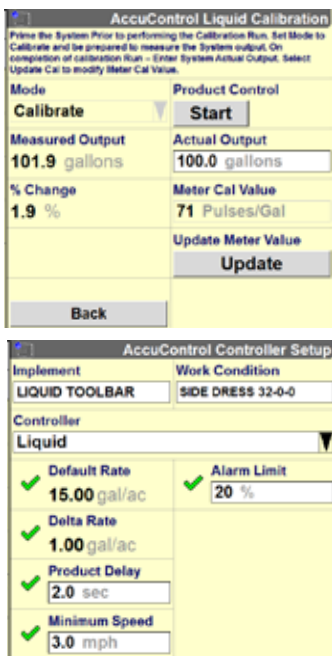
**Note:** Prime can be used to perform this calibration (start at step h), but may not be available on the run screens. The liquid calibration screen will be used to check the product delay in this case. Instructions below are for using the liquid calibration method.

- Select Work Condition>Liquid Cal
- Select Liquid Op Mode – [Liquid] (Accept Safety Warning if agreed)
- Press Master Control – ‘Apply’ Button
- Press ‘Next’
- Enter Simulated Speed (Typical Application Speed)
- Enter Target Rate and press ‘Next’

continued on next page

7.2 Product Delay Adjustment – continued

- g) Press the ‘Start’ button on the display and at the same time, start the stopwatch.
- h) Stop the stopwatch when product is first observed leaving the application point.
- i) The elapsed time displayed on the stopwatch is the Product Delay.
- j) Exit the calibration without updating the calibration number by pressing ‘Back’.
- k) Press ‘Liquid’ Tab
- l) Enter the measured time as the Product Delay figure.
- m) Throughout the season check for proper overlap operation
- n) If exact measurement of error is determined use this formula to convert this distance to a new Product Delay (PD).



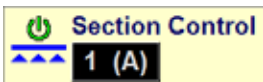
$$\frac{\text{In. of error}}{\text{mph} \times 17.52} = \text{new PD (sec)}$$

- o) Adjust Start Early/Stop Late distance for intentional overlap. If a negative number seems to be required for SE/SL, re-measure & adjust Product Delay

7.3 Running Overlap/Boundary Ctrl



**NOTE!** The following windows can be located on the Run screens.



Disengages drive section master valve and/or all boom valves for that drive section. “On” when the button is black (1), and “Off” when the button is grey (2)



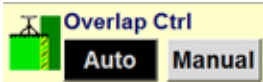
Enables/Disables Boundary Control



Enables/Disables Overlap Control (disable before backing, enable after driving forward), except AccuGuide complete tractors



Disengage individual boom valves



Quickly switch between Auto and Manual section control

**NOTE!** (A) must be present for Auto Overlap and Boundary Control to function. If (M) is present, Auto Overlap and Boundary control will not work!

**TIPS**

- 1) A data card must be inserted in to the display.
- 2) Check GPS Offset, Bar Distance, Product Delay, and check that a product is assigned to a layer for Overlap & Boundary control to function properly.
- 3) “(A)” must be present in a window for Auto mode.
- 4) Disable Overlap Ctrl before backing into corners, etc. Re-enable after moving forward. Turning off Overlap Control before backing up is not required with tractors that have Case IH Factory AccuGuideAutoGuidance.

AFS-8035-13e Replaces: None

© 2013 CNH America LLC. All rights reserved. Printed in U.S.A.

Case IH is a registered trademark of CNH America LLC. Any trademarks referred to herein in association with the goods and/or services of companies other than CNH America LLC are the property of those respective companies.

CNH America LLC reserves the right to make improvements in design and changes in specifications at any time without notice and without incurring any obligation to install them on units previously sold. Specifications, descriptions and illustrative material herein are as accurate as known at time of publication, but are subject to change without notice. Availability of some models and equipment builds varies according to the country in which the equipment is used.

Visit us on the web at [www.caseih.com](http://www.caseih.com)