



# Console Quick Start Guide

PBZ LLC

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# TeeJet® 845 Console

NOTE: If a setting is not shown in this guide, leave at the default setting.

Step 1: Press PRO key to power on. To turn the console off, press and hold the “-” key while pressing the “Pro” key. The screen will show a countdown, then turn off.

## Step 2. Program Application Set-up

- With console powered on and in the application mode (there should be a target symbol on top right of screen), Press “Pro” key twice in succession to enter application set-up mode.
- Using “+/-” keys adjust the application rate to a rate achievable with the spray nozzle installed on sprayer. Reference chart below for suggested rate.

Fan Nozzles on 20"	Rate	Cone Nozzles on 15" or 18"	Rate
Green	10	Green	25
Yellow	12	Yellow	35
Purple	15	Blue	50
Blue	20	Red	70
Red	25		
Brown	30		
Gray	35		
White	45		


- Press “Pro” key one time or until triangle indicator is blinking above nozzle selection bar. Use “+/-” keys to move indicator to correct nozzle color. If purple nozzle or other nozzle that does not match the ISO color coding system, move indicator to P (programmable).
- Press and hold the “Pro” key for 3 seconds to return to application mode (a target symbol should appear on top right of screen).

## Step 3. Program System Set-up

- With console powered on and in the application mode, press and hold “Pro” key until the System Setup Mode appears.
- While in the system set-up mode, the “Pro” key is used to scroll through the menu. Following is the list of programming parameters to be entered into the system.

Programing Step	Programing Parameter														
Units	US														
Speed Sensor Calibration	<p>Complete auto calibration process, Press “+” and “-” key at same time. Press “Pro” key. Drive exactly 300' Press “Pro” key again.</p> <table border="1"> <thead> <tr> <th>Speed Sensor</th> <th>Parameter Input</th> </tr> </thead> <tbody> <tr> <td>SP-PR with 28" Wheels</td> <td>190-193</td> </tr> <tr> <td>SP-PR with 38" Wheels</td> <td>153-158</td> </tr> <tr> <td>SP-PR with 20" Wheels</td> <td>245-250</td> </tr> <tr> <td>SP-PR with 15" Wheels</td> <td>230</td> </tr> <tr> <td>SP-GPS *</td> <td>1180-1190</td> </tr> <tr> <td>Matrix GPS *</td> <td>910</td> </tr> </tbody> </table> <p>*IMPORTANT: When using these speed sensor sources console must be set to radar speed type.</p>	Speed Sensor	Parameter Input	SP-PR with 28" Wheels	190-193	SP-PR with 38" Wheels	153-158	SP-PR with 20" Wheels	245-250	SP-PR with 15" Wheels	230	SP-GPS *	1180-1190	Matrix GPS *	910
Speed Sensor	Parameter Input														
SP-PR with 28" Wheels	190-193														
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SP-PR with 15" Wheels	230														
SP-GPS *	1180-1190														
Matrix GPS *	910														
Distance Counter	Ft 0														
Pressure Sensor	No														
Press High	150														
Press REF	4														

# TeeJet® 845 Console

Programing Step	Programing Parameter
Minimum Pressure	10 psi
Flow Sensor	Yes
Flo (Meter Pulses) 	82 (NOTE: This value may be adjusted during rate control operation test.)
Flow Minimum	3.0
Regulation Mode	FLO
Nozzle Spacing	Nozzle spacing in inches
No. of Sections	NOTE: Refer to sprayer build list for number of sections.
# of Nozzles Section 1	Number of active nozzles on section
# of Nozzles Section 2	Number of active nozzles on section
# of Nozzles Section 3	Number of active nozzles on section
# of Nozzles Section 4	Number of active nozzles on section
# of Nozzles Section 5	Number of active nozzles on section
User Programmable Tip	0.00 ( 0.25 if purple nozzles used )
Specific Gravity (Density)	1
Pressure Regulation Mode	THROTTLE (NOTE: All Models Numbers beginning with AGX) BYPASS (NOTE: All Models Numbers beginning with VGX)
Regulation Valve Speed	5.2
Section Valve Type	2 Way
Tank Size	Input tank gallon capacity
Tank Min	0
Communications	None
Sim. Low Speed	4.0
Sim. High Speed	6.0
Speed Min.	0

- Press and hold “Pro” key 3 sec to confirm settings and return to home screen.

## Step 4. Testing Rate Controller Operation

- Set all sprayer control valves to spray positions.
- Start PTO and prime the sprayer pump.
- Turn rate control console on and/or ensure that it is in the application mode.
- Using Auto/Man button, set control on manual regulation mode.
- Confirm that system pressure increases when “+” key is pressed and the system pressure decreases as when the “-” key is pressed.
- Using Auto/Man button, set control on automatic regulation mode.
- Turn master boom switch and all boom section switches on and make sure that target application rate is achieved.
- Turn off 1 boom section switch and observe the application rate. Make sure rate returns to target and stays on target.
- Proceed to turn off all remaining boom section switches and make sure all boom sections have stopped spraying.
- Turn on all boom section switches and compare the rate control’s simulated pressure with the actual manifold pressure on the sprayer gauge. If the pressure varies by more than 2%, adjust the flow calibration value until comparable pressures are achieved.




# TeeJet® 8140 Console

Step 1. Press power key on top right hand side of control console.




Step 2. Navigate to home screen

- Touch the green arrow on the right hand side of the screen. 
- Touch the "Home" icon. 

Step 3. Verify console settings





- Touch the "Console" icon. 
- Touch the "Cultural" menu item.
- Verify that language is "English-US"
- Verify that the units are "US".
- Confirm that the date and time are correct.
- (Optional) To enter CAN Port Unlock Code (Part # 98-50143), touch the "Back Arrow" icon. 
- Touch the "Unlock" menu item.
- Enter the CAN BoomPilot unlock code.
- When completed touch the "Home" icon. 

Step 4. Enter OEM Settings




- Touch the "Settings" icon. 
- Touch the "OEM" menu item.
- Enter the OEM Password "9090".
- Touch "Sensor Presence" menu item.
- Flow Sensor status is "Yes" all others "No".
- Touch the "Back Arrow" icon. 
- Touch the "Implement Parameters" menu item.
- Enter # of Sections
- Touch the "Back Arrow" icon. 
- Touch the "Valve Setup" menu item.
- Select Regulation Valve Type:
  - "Throttle" for sprayers with centrifugal pumps

# TeeJet® 8140 Console


- "Bypass" for sprayers with diaphragm pumps

- Select Section Valve Type "2-Way".
- Select Section Valve Behavior "Follow Master".
- Touch the "Back Arrow" icon. 
- Touch the "Tank Setup" menu item.
- Enter Maximum Tank Content.
- Touch the "Back Arrow" icon. 
- Select "Regulation Details" menu item.
- Enter Minimum Regulation Pressure "10.0"
- Enter Maximum Regulation Pressure "200.0" for all AGX sprayers, "289.9" for all VGX sprayers.
- Touch the "Over Arrow" two times to advance to screen 3. 
- Set Default Valve Position to 50%
- Touch the "Home" icon. 





## Step 5. Enter Machine Settings

- Touch the "Settings icon." 
- Touch the "Machine" menu item.
- Touch the "Implement Parameters" menu item.
- Touch the "Section Configuration" menu item.
- Enter the Number of Tips for every available boom section.
- Touch the "Back Arrow" icon. 
- Touch the "Tip Preset Set-up" menu item.
- Select the Tip Series
- Select the Tip Capacity
- Touch the "Back Arrow" icon. 
- Touch the "Regulation Parameters" menu item.
- Set Coarse Valve Calibration at 5

# TeeJet® 8140 Console

- Set Fine Valve Calibration at 1
- Set Tip Spacing
- Touch the “Back Arrow” icon two times. 
- Touch the “Calibrations” menu item.
- Touch the “Implement Speed Sensor” menu item.
- Follow the prompts on screen to perform auto calibration process.

Speed Sensor	Parameter Input
SP-PR with 28" Wheels	190-193
SP-PR with 38" Wheels	153-158
SP-PR with 20" Wheels	245-250
SP-PR with 15" Wheels	230
SP-GPS	1180-1190
Matrix GPS	910

- Touch the “Back Arrow” icon. 
- Touch the “Flow Sensor” menu item.
- Enter Calibration Number “82”. This value may need to be adjusted later to fine tune display pressure. Lower the calibration number to increase display pressure, Increase the calibration number to decrease display pressure.
- Touch the “Back Arrow” icon two times. 
- Touch the “Filling” menu item.
- Enter Actual Content
- Touch the “Back Arrow” icon. 
- Touch the “Operation” menu item.
- Select Speed Source:
  - Implement (For wheel speed sensor “SP-PR”, or GPS speed sensor “SP-GPS”)
  - CAN (If unlock code has been entered.)
- Touch the “Back Arrow” icon two times. 


## Step 6. Enter Job Parameter

- Touch the “Job Parameters” menu item.





# TeeJet® 8140 Console

- Select the Tip Type
- Enter application rate to a rate achievable with the spray nozzle installed on sprayer. Reference chart below for suggested rate.

Fan Nozzles on 20"	Rate	Cone Nozzles on 15" or 18"	Rate
Green	10	Green	25
Yellow	12	Yellow	35
Purple	15	Blue	50
Blue	20	Red	70
Red	25		
Brown	30		
Gray	35		
White	45		

- Touch the "Home" icon. 

## Step 7. Testing Rate Control Operation

- Touch the "Operation" icon. 
- Set all sprayer control valves to spray positions.
- Start PTO and prime the sprayer pump.
- Touch the green arrow on the right hand side of the screen. 
- Choose manual regulation mode. "Hand" icon in GPA field indicates that the console is in manual mode.
- Confirm that system pressure increases when  key is pressed and the system pressure decreases as when the  key is pressed.
- Choose automatic regulation mode. "Target" icon in GPA field indicates that the console is in automatic mode.
- Turn master boom switch and all boom section switches on and make sure that target application rate is achieved.
- Turn off 1 boom section switch and observe the application rate. Make sure rate returns to target and stays on target.
- Proceed to turn off all remaining boom section switches and make sure all boom sections have stopped spraying.
- Turn on all boom section switches and compare the rate control's simulated pressure with the actual manifold pressure on the sprayer gauge. If the pressure varies by more than 2%, adjust the flow calibration value until comparable pressures are achieved. (Reference Step 5. Machine settings)

# Raven® SCS450 Console

Step 1. Toggle power switch to "ON" position.

Step 2. Select Console Parameters

- Press "Enter" key to select the volume rate "US-VOLUME PER ACRE".
- Press "CE" key to select the speed sensor type either "SP 1-WHEEL Drive or SP 2-RADAR" then press "Enter" key.
- Press "Enter" key to select the valve type "C-SD-STANDARD VALVE".
- Press and hold "SELF TEST" key to review selections.
- If selections need to be changed, toggle power switch to "OFF" position. Press and hold "CE" key and toggle power switch to "ON" position.

Step 3. Enter Calibration Values

- Program Boom Section Widths
  - Press "BOOM CAL" key to program section #1 width.
  - Press "ENTER" key.
  - Use "NUMBER" keys to enter boom width in Inches.
  - Press "ENTER" key to store value.

Speed Sensor	Raven SCS450
SP-PR with 28" Wheels	752
SP-PR with 38" Wheels	923
SP-PR with 20" Wheels	580
SP-PR with 15" Wheels	626
SP-GPS	607 (SP2 - Radar)
Matrix GPS	

- Press "UP" key to move to next section.
- Repeat the above steps to calibrate all boom section widths.

- Enter Speed Calibration Value
  - Press "SPEED CAL" key.
  - Press "ENTER" key.
  - Use "NUMBER" keys to enter speed calibration number (See chart below for correct #)
  - Press "ENTER" key to store value
- Enter Flow Meter Calibration Value
  - Press "METER CAL" key.
  - Press "ENTER" key.
  - Use "NUMBER" keys to enter flow meter calibration number (3080).
  - Press "ENTER" key to store value.
- Enter Regulating Valve Calibration Value
  - Press "VALVE CAL" key.
  - Press "ENTER" key.
  - Use "NUMBER" keys to enter valve calibration number (943)
  - Press "ENTER" key to store value.

# Raven® SCS450 Console

- Program application rate to a rate achievable with the spray nozzle installed on sprayer.
  - Press "RATE 1 CAL" key.
  - Press "ENTER" key.
  - Use "NUMBER" keys to enter desired application rate (Reference chart below for suggested rate).
  - Press "ENTER" key to store value.
- Program Self-Test Speed.

Fan Nozzles on 20"	Rate	Cone Nozzles on 15" or 18"	Rate
Green	10	Green	25
Yellow	12	Yellow	35
Purple	15	Blue	50
Blue	20	Red	70
Red	25		
Brown	30		
Gray	35		
White	45		

- Press "SELF TEST" key.
- Press "ENTER" key.
- Use "NUMBER" keys to enter desired self-test speed (typically 5.0)
- Press "ENTER" key to store value.

## Step 4. Testing Rate Controller Operation

- Set all sprayer control valves to spray positions.
- Start PTO and prime the sprayer pump.
- Turn rate control console on.
- Confirm that self-test speed is set at 5.0 MPH.
- Move rate control switch to "MAN" regulation mode.
- Confirm that system pressure increases when Flow Control switch is toggled to "INC" and the system pressure decreases as when the Flow Control switch is toggled to "DEC".
- Move rate control switch to "RATE 1" automatic regulation mode.
- Turn master boom switch and all boom section switches on and make sure that target application rate is achieved.
- Turn off 1 boom section switch and observe the application rate. Make sure rate returns to target and stays on target.
- Proceed to turn off all remaining boom section switches and make sure all boom sections have stopped spraying.

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