AGXCEL TOPCON GUIDE

(READ INSTRUCTIONS COMPLETELY BEFORE BEGINNING INSTALLATION)

NOTE: This is only a guide! Please consult your local dealer for detailed instructions or troubleshooting!

AGXCEL DUAL PUMP GPA SPECIFICATIONS				
CHART REPRESENTS MAXIMUM GPA ON 30" CENTERS @ 6 MPH				
IMPLEMENT SIZE IN ROWS	8	12	16	24
GPA (MAX)	20	13	10	5
Note: Dual 5.3 GPM electric pumps can only achieve a maximum of 6.0 GPM. However pumps should not be used at their highest capacity as this will drastically reduce the life of the pumps				

ENABLING SPRAYER CONTROL

1. Select [icon] to enter the *Select Feature Screen*.

Illustration 1 - Main Guidance Screen

2. Use the down arrow to scroll to the next screen and select *Sprayer Control*.

3. Select [icon] to *Enable Sprayer Control* if sprayer control is disabled.

Illustration 2 - Select Feature Screen

SPRAYER CONTROL SETUP

1. Select [icon] to enter *Sprayer Control Setup* screen.

2. Select sprayer profile. This is an '.ini' file that is setup by your Topcon dealer specifically for your sprayer configuration.

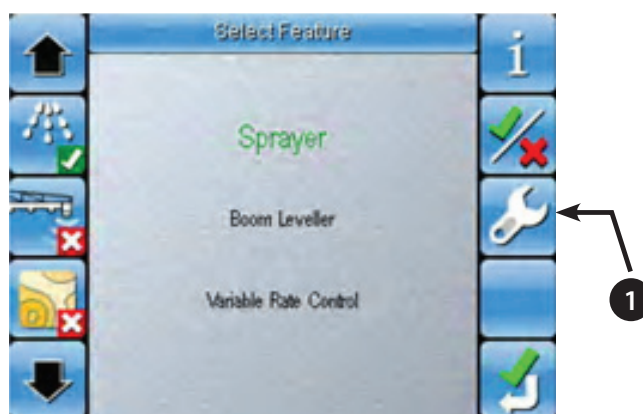3. If no profile is loaded, all other setup options will be grayed out and inaccessible.

Illustration 3 - Feature Selection Screen

SPRAYER CONTROL SETUP (Cont)

Illustration 4 - Sprayer Control Setup Screen

1. Select [icon] to access the **Profile Selection Screen**.

2. Use the Up and Down Arrows or the numeric keypad to select a profile.

3. Select [icon] to confirm your selection and return to Setup Screen.

4. If there are no profiles displayed, you will need to import one into the console. Do this by inserting a thumbdrive with a profile into the consoles USB port and select [icon].
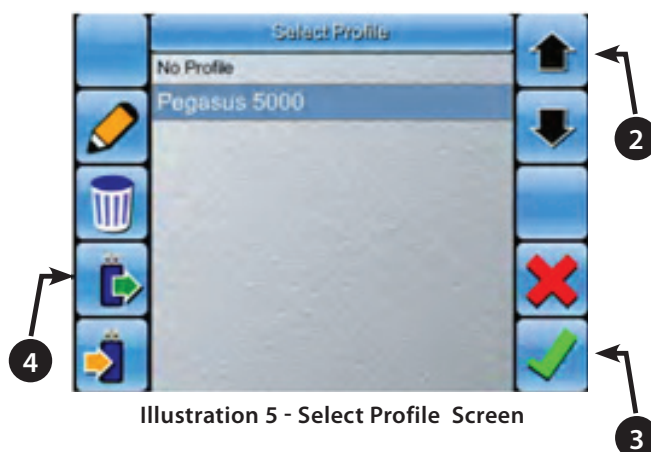

Illustration 5 - Select Profile Screen

5. Use the Up and Down Arrows or the numeric keypad to select a profile.

6. Select [icon] to confirm and import the profile.

Illustration 6 - Import Profile Screen

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SPRAYER DASHBOARD SETUP

The Sprayer Dashboard, when enabled, will display important sprayer information on the main guidance system without having to go into the Sprayer Control menu.

1. Select [icon] (Illustration 4 Page 2) to access the Sprayer dashboard selection screen.

2. Select [icon] to access the Sprayer Dashboard Selection menu.

3. Use the Up and Down Arrows or the numeric keypad to select is the dashboard will be:

    a. Hidden (not visible on the main guidance screen

    b. Cyclic (Sprayer Dashboard will appear and disappear in a cycle).

    c. Always visible (Sprayer Dashboard will be displayed in place of the main guidance screen dashboard.

4. Select [icon] to access the Display Time menu.

5. Use the Up and Down Arrows or numeric keypad to change the Sprayer Dashboard time - The display time option is only applicable when the Sprayer Dashboard is set to Cyclic.

6. Select [icon] to access the display Menu.

7. Use the Up and Down Arrows (5) or the numeric keypad to select between displaying pump speed or flow rate on the Sprayer Dashboard.

Illustration 7 - Sprayer Dashboard Display

Illustration 8 - Sprayer Dashboard Setup Screen

Illustration 9 - Sprayer Dashboard Selection Menu

Illustration 10 - Display Time Menu

116 E 6TH ST
KEARNEY NE 68847
877.218.1981

TANK SETUP

Typically the tank capacity will be setup in the profile that is loaded.

1. Select ![icon] (Illustration 4 Page 2) to access the Tank Setup Screen.

2. Select ![icon] to set the Tank Capacity.

Illustration 11 - Tank Setup Screen

3. Use the Up and Down Arrows or the numeric keypad to set the Tank Capacity.

4. Select ![icon] to confirm the Tank Capacity entered.

Illustration 12 - Tank Capacity Menu

5. Select ![icon] to set a specific amount in tank (less than tank capacity).

6. Use the Up and Down Arrows or the numeric keypad to set specific volume.

7. Select ![icon] to confirm.

Illustration 13 - Remaining Product Menu

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TANK SETUP (cont)

8. Select [icon] to add a specific amount to your tank. The value entered here will be added to the volume already remaining in tank.

9. Use the Up and Down Arrows or the numeric keypad to add the specific volume to the remaining amount in tank.

10. Select [icon] to confirm.

11. Select [icon] (Illustration 11 Page 4) to fill up the tank to capacity.

Illustration 14 - Add Product Menu

SETUP SELECTIONS

1. Select [icon] (Illustration 4 Page 2) to access the Setup Sections.

2. Read the instructions on the screen and press [icon] to continue through each step until prompted to perform an action.

Illustration 15 - Step 2 - Enter Number of Sections

3. Use the numeric keypad to enter the number of sections.

4. Select [icon] to confirm.

5. Use the Up and Down arrows on the left side to select a section.

6. Use the Up and Down Arrows on the right side, or the numeric keypad to adjust the width for each section.

7. Select [icon] to confirm.

Illustration 16 - Step 3 - Enter Section Widths

SETUP SECTIONS (cont)

8. Use the numeric keypad to enter the determined low pressure speed (or enter 0 to disable). The Low Pressure Speed is the ground speed in which the selected spray tips operating pressure would drop below the minimum recommended psi to achieve the proper spray pattern.

9. Select [✓] to confirm.

Illustration 17 - Low Pressure Speed

10. Use the Up and Down Arrows on the left to select a section.

11. Use the Up and down Arrows on the right, or the numeric keypad, to set the low speed shutoff valve for each section
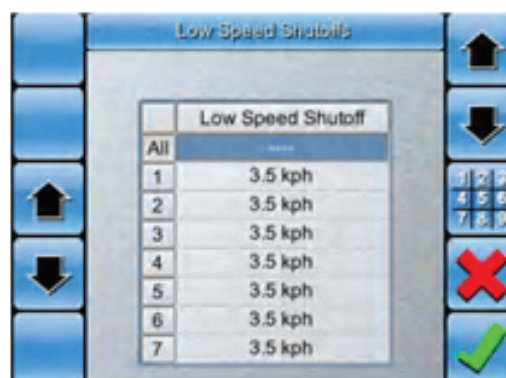
12. Select [✓] to confirm.

Illustration 18 - Low Speed Shutoff Valves for Each Section

13. Use the Up and Down Arrows on the left to select a section.

14. Use the Up and Down Arrows on right, or the numeric keypad, to enter the number of nozzles per section.
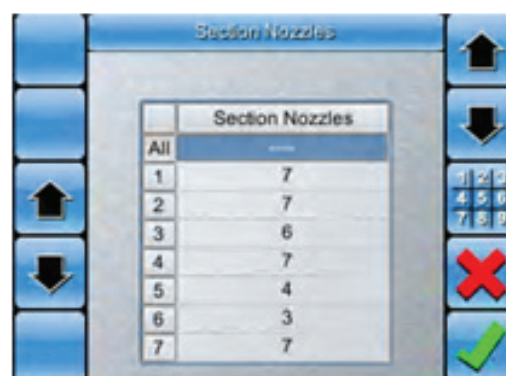
15. Select [✓] to confirm.

Illustration 19 - Number of nozzles for Each Section

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SWITCHBOX SETUP

Typically the switchbox configuration is setup in the profile that is loaded. However, you may modify these settings if required.

1. Select [icon] (Illustration 4 Page 2) to access the Switchbox Setup screen. Follow the steps in the Section Setup Wizard.

2. Read the instructions and press [icon] to continue through each step until prompted to perform an action.

3. Select [icon] to set the switchbox type.

4. Use the Up and Down Arrows to select Virtual.

5. Select [icon] to confirm.

6. Select [icon] and use the Up and Down Arrows to set the number of switches being used.

7. Select [icon] to confirm.

8. Select [icon] to proceed to the next step.

9. Use the Up and Down Arrows on the left to select a section.

10. Use the Up and Down Arrows on the right, or the numeric keypad to select the switch that operate that section.

11. Select [icon] to set the switch mapping to the default setting.

12. Select [icon] to confirm.

**Illustration 20 - Step 2 -
Select Switchbox Type and Number of Switches**

Illustration 21 - Step 3 - Switch Mapping

SPEED SETUP

Typically the switchbox configuration is setup in the profile that is loaded. However, you may modify these settings if required.

1. Select [icon] (Illustration 4 Page 2) to access the Speed Setup screen.

2. Select [icon] to set the Speed Source.

3. Use the Up and Down Arrows to select between:

   a. GPS - Ground speed is taken from GPS receiver.

   b. Manual - Virtual speed entered into console for calibration /testing purposes.

   c. Wheel Sensor - Ground speed is taken from a wheel sensor.

4. Select [icon] to confirm.

Illustration 22 - Speed Source Setup

WHEEL FACTOR

This procedure is only used if Wheel Sensor is selected.

1. Select [icon] to set the wheel factor.

2. Use the Up and Down Arrows or the numeric keypad to enter the wheel factor.

3. Select [icon] to confirm.

Illustration 23 - Wheel Factor Setup

WHEEL SPEED CALIBRATION

This only available if Wheel Sensor is selected as speed source. Follow the step in the Wizard to ensure the wheel speed sensor is calibrated correctly.

1. Select [icon] to access the Wheel Speed Calibration Setup.

2. Read the instructions and press [icon] to continue through each step until prompted to perform an action.

3. Select [icon] once the calibration is complete and you will be returned to the Speed Setup Screen.

MANUAL SPEED

Manual speed is useful for simulating a ground speed while stationary. This will assist to calibrate the system and also to complete a pre-field checkout of your pump, spray tips, etc. The manual speed is also capable of running the sprayer control software without a ground speed input.

When using a manual speed, the system does not compensate for speed changes as the manual speed function would supply a simulated speed of whatever value you enter.

1. Select [icon] to access the Manual Speed Setup.

2. Use the Up and Down Arrows or the numeric keypad to set the manual speed.

3. Select [icon] to confirm.

Illustration 24 - Manual Speed Setup

PRESSURE SENSOR SETUP

Pressure sensor setup is for configuring the sensor type and to enable or disable pressure control.

SENSOR TYPE

1. Select [icon] Illustration 4 Page 2) to access the Pressure Sensor Setup Screen.

2. Select [icon] to set the sensor type.

3. Use the Up and Down Arrows to select Voltage as Sensor Type (if using the Micro-Trak pressure sensor). Select none if there is no pressure sensor.

4. Select [icon] to confirm.

Illustration 25 - Sensor Type Setup

PRESSURE SENSOR CALIBRATION

Follow the steps in the wizard to ensure the pressure sensor is calibrated correctly.

1. Select [icon] to access the Pressure Sensor Calibration

2. Read the instructions and press [icon] to continue through each step until prompted to perform an action.

3. Select [icon] once the calibration is complete and you will be returned to the Pressure Sensor Setup Screen.

ENABLE OR DISABLE PRESSURE BASED CONTROL

Follow the steps in the wizard to ensure the pressure sensor is calibrated correctly.

1. Select [icon] to enter Pressure Based Control Menu.

Use the Up and down Arrows to enable or disable pressure based control.

Flow Based Control is Disabled when Pressure Control is Enabled.

2. Select [icon] to confirm.

Illustration 25 - Enable/Disable Pressure Control

PRESSURE CONTROL SETUP (IF ENABLED)

1. Select [icon] to enter Pressure Based Control Setup.

2. Select [icon] to set your reference pressure

3. Select [icon] to set your Nozzle cal.

4. Select [icon] to set your Density.

5. Use the Up and Down Arrows on the right of the numeric keypad to enter value for each item.

6. Select [icon] to confirm.

Illustration 26 - Pressure Control Setup

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FLOW SETUP

1. Select to access *Flow Setup*.
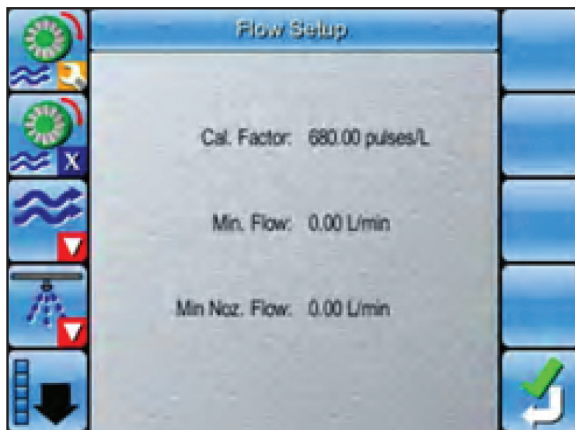
CALIBRATION FACTOR

1. Select to set your *Calibration Factor*.
2. Enter the pulses per gallon Cal number from the flowmeter tag.

FLOWMETER CALIBRATION

1. Select to perform a flowmeter calibration.
2. Follow the on-screen wizard to complete the flowmeter calibration successfully.
3. Select to enter the minimum flow of the flowmeter.

Flowmeter	Minimum Flow
FM 500	.5 gpm
FM 750 GFN LF	.5 gpm
FM 750 GFN SS	2 gpm
FM 1000 SS	3.5 gpm
FM 270	3.5 gpm
FM 10/100	10 gpm
FM 1500 SS	10 gpm
FM 1500 SS LF	3.5 gpm
FM 2000 P	19 gpm
FM 3000	40 gpm

4. Select to set your Minimum Nozzle Flow.

CONTROL VALVE

1. Select to scroll to next screen.
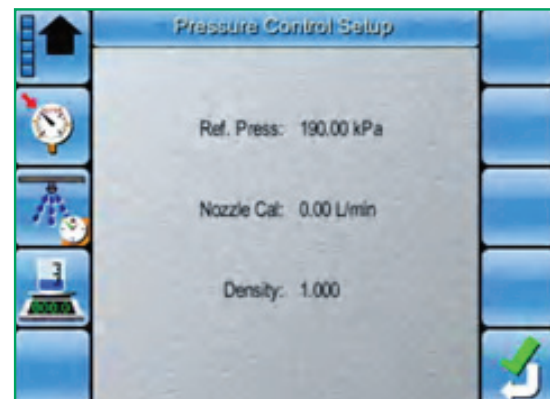
2. Select to select your *Control Valve*.

3. Select between the two control valve choices.
   - Proportional
     - (Micro-Trak PWM Valves, Micro-Trak PWM EMD)
   - Regulator
     - (Micro-Trak Liquid and NH# Standard Servo Valves)

REVERSE VALVE

NOTICE *NOTICE*
This is only applicable to regulator valves

1. Select to activate or deactivate *Reverse Valve*.

If you find the rate (pressure) decreasing when trying to increase, set the *Reverse Valve* to *Yes*.

Topcon ASC-10 System Diagram

TO ASC-10

TO BATTERY/POWER SOURCE

EXIT VEHICLE CAB

SECTIONS 7-10

SECTIONS 1-6

SECTION 1

SERVO

RUN/HOLD

FLOW

SPEED

PRESSURE
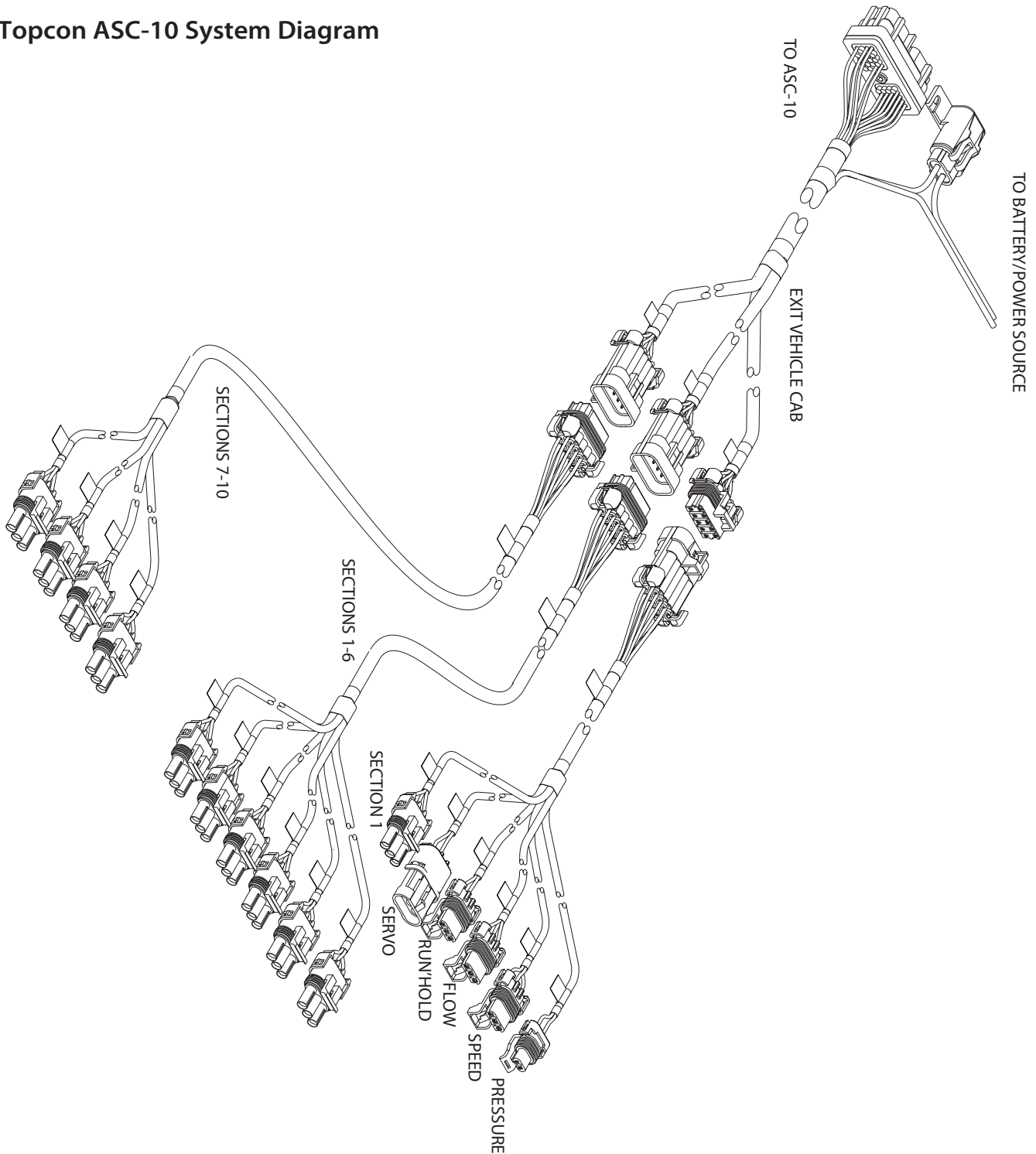
Topcon Main Harness Adapter
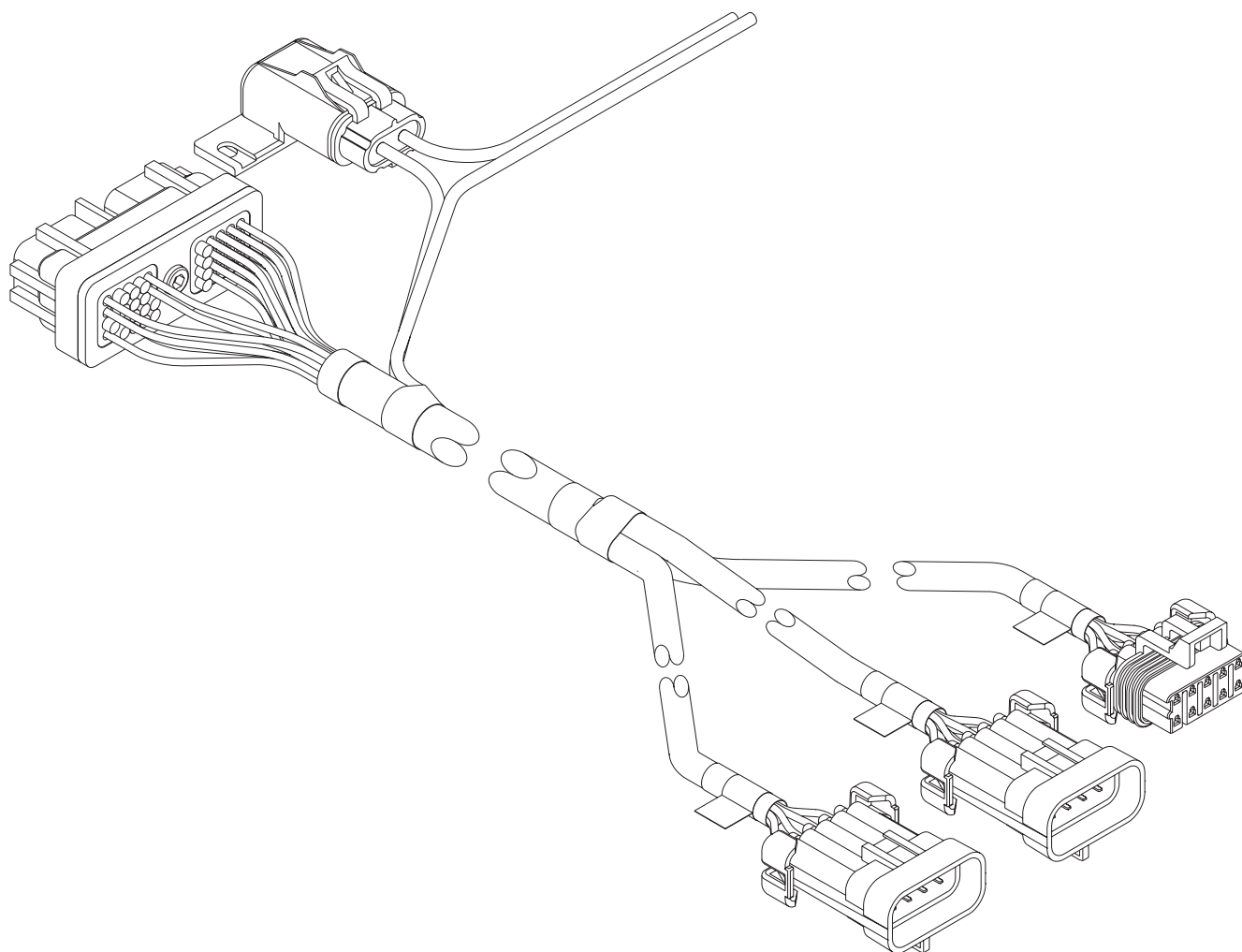
Topcon Main Harness Adapter - Wiring Diagram
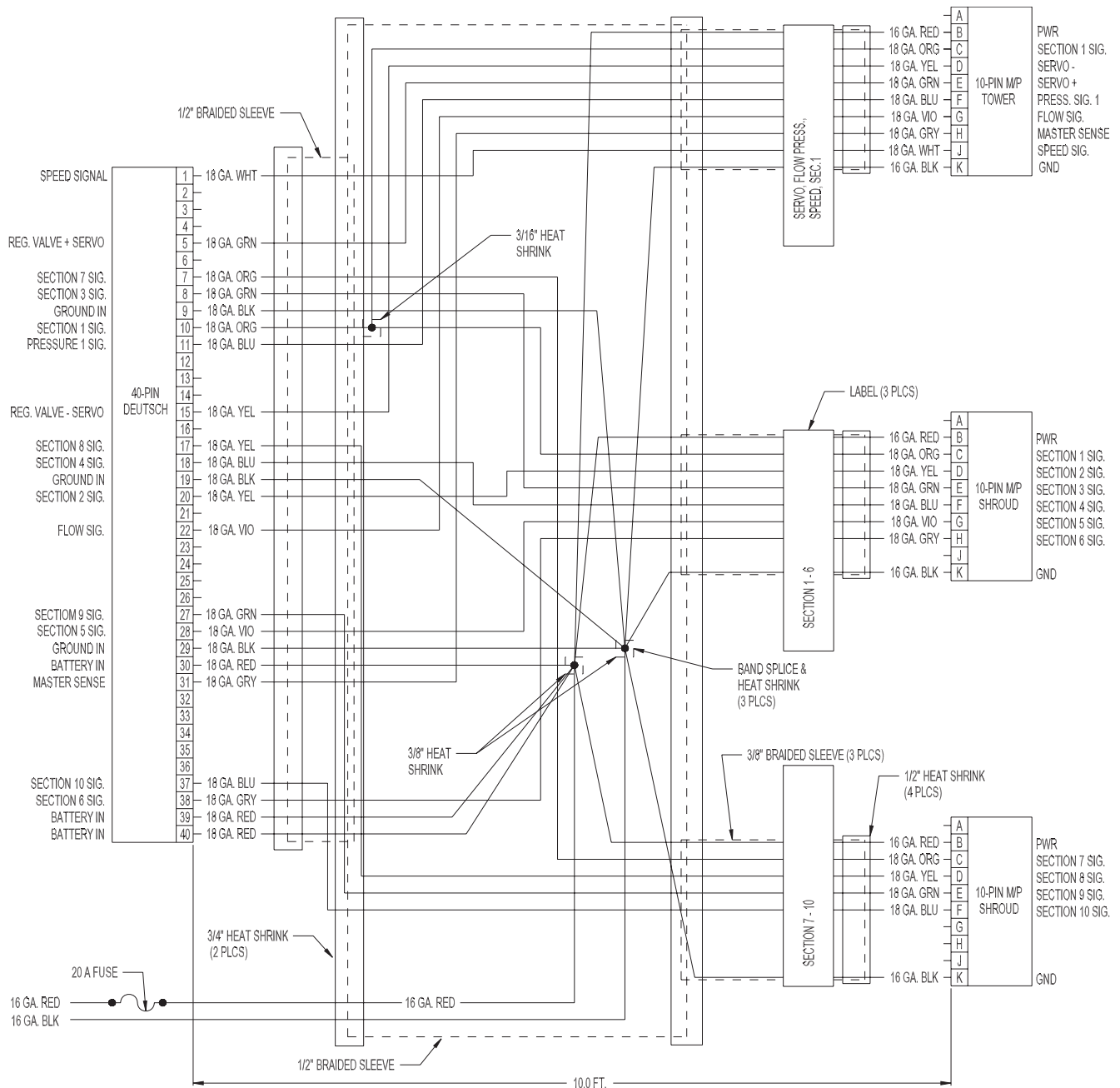
Topcon Harness Adapter - Section 1
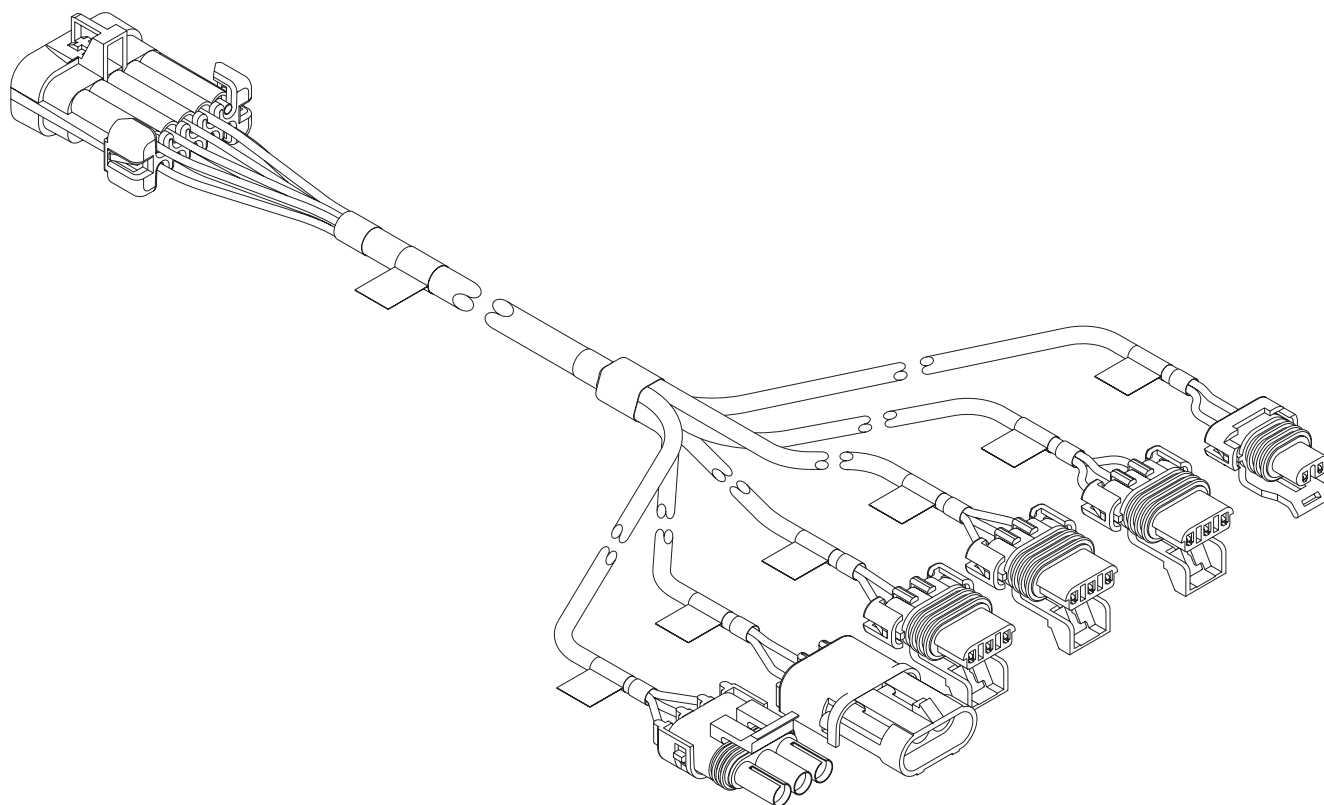
Topcon Harness Adapter - Section 1 - Wiring Diagram
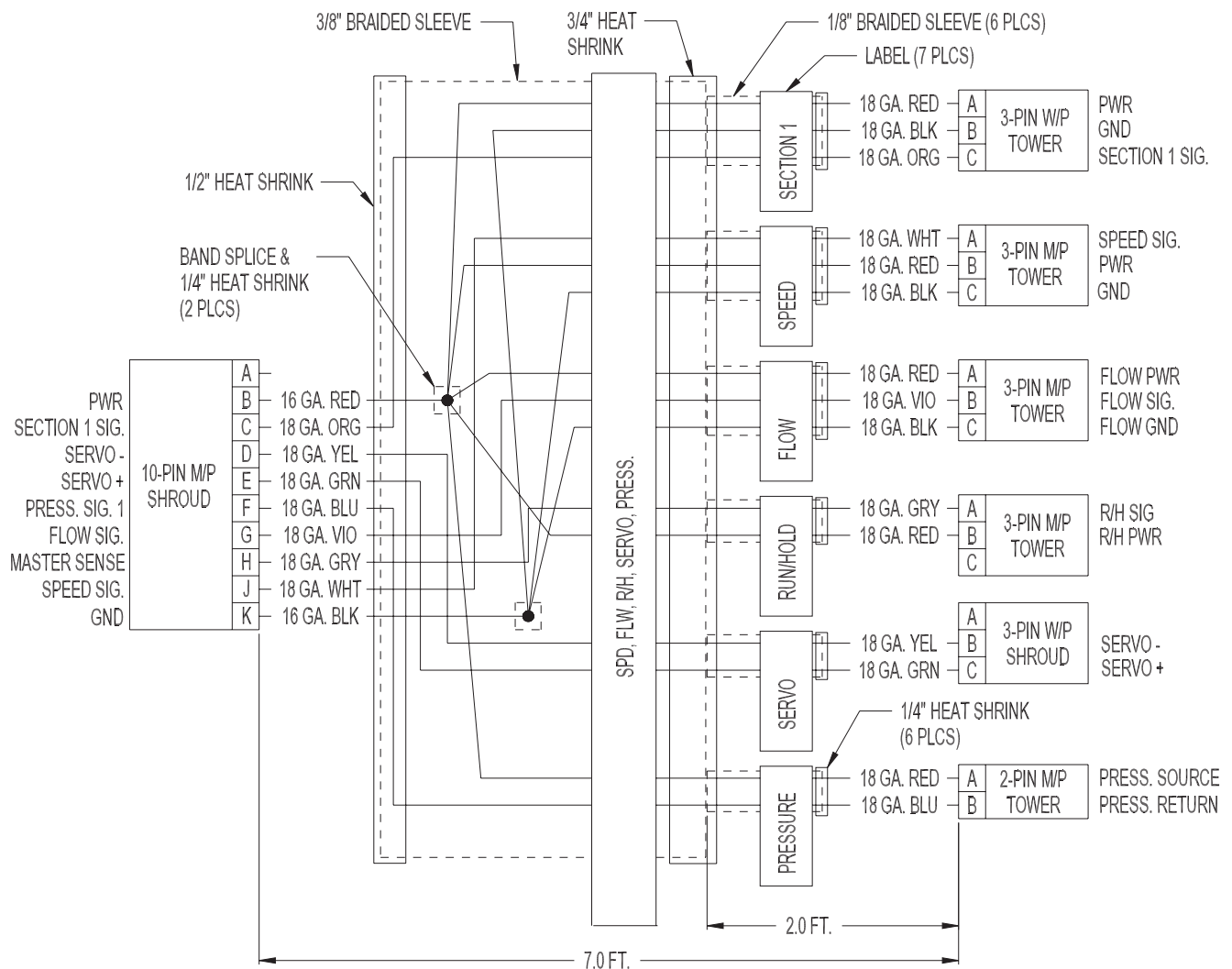
Topcon Harness Sections 1-6
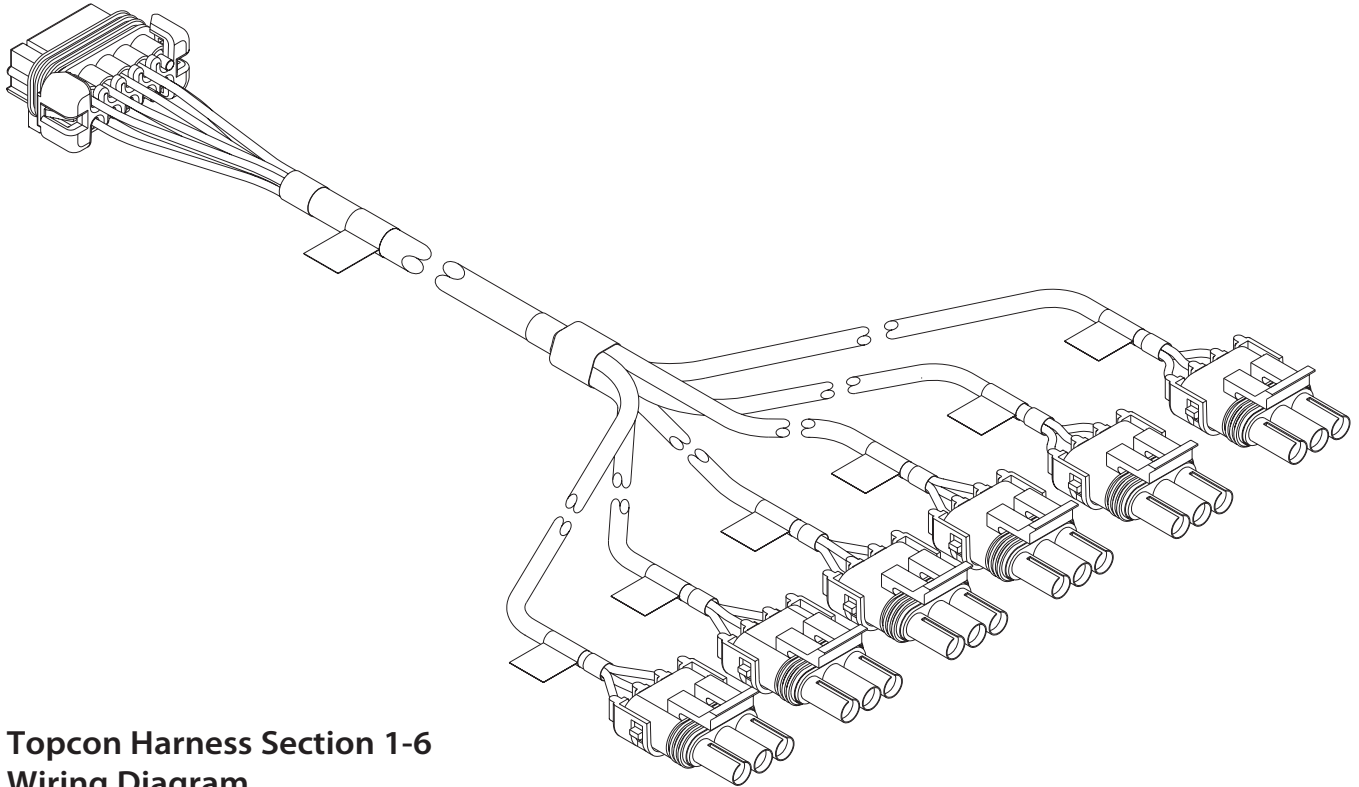
Topcon Harness Section 1-6
Wiring Diagram

3/4" HEAT SHRINK

1/8" BRAIDED SLEEVE (7 PLCS)

1/2" HEAT SHRINK

	18 GA. RED	A	3-PIN W/P TOWER	PWR
SEC. 1	18 GA. BLK	B		GND
	18 GA. ORG.	C		SEC. 1 SIG.

	18 GA. RED	A	3-PIN W/P TOWER	PWR
SEC. 2	18 GA. BLK	B		GND
	18 GA. YEL	C		SEC. 2 SIG.

	18 GA. RED	A	3-PIN W/P TOWER	PWR
SEC. 3	18 GA. BLK	B		GND
	18 GA. GRN	C		SEC. 3 SIG.

	18 GA. RED	A	3-PIN W/P TOWER	PWR
SEC. 4	18 GA. BLK	B		GND
	18 GA. BLU	C		SEC. 4 SIG.

	18 GA. RED	A	3-PIN W/P TOWER	PWR
SEC. 5	18 GA. BLK	B		GND
	18 GA. VIO	C		SEC. 5 SIG.

	18 GA. RED	A	3-PIN W/P TOWER	PWR
SEC. 6	18 GA. BLK	B		GND
	18 GA. GRY	C		SEC. 6 SIG.

SECTIONS 1 - 6

PWR	A	
SEC. 1 SIG.	B	16 GA. RED
SEC. 2 SIG.	C	18 GA. ORG.
SEC. 3 SIG.	D	18 GA. YEL.
SEC. 4 SIG.	E	18 GA. GRN
SEC. 5 SIG.	F	18 GA. BLU
SEC. 6 SIG.	G	18 GA. VIO
	H	18 GA. GRY
	J	
GND	K	16 GA. BLK

10-PIN W/P TOWER

BAND SPLICE &
1/4" HEAT SHRINK

3/8" BRAIDED SLEEVE

LABEL
(7 PLCS)

2.0 FT.

1/4" HEAT SHRINK
(6 PLCS)

7.0 FT.

Topcon Harness Sections 7-10

Topcon Harness Section 7-10
Wiring Diagram

3/8" BRAIDED SLEEVE

1/8" BRAIDED SLEEVE
(4 PLCS)

LABEL (5 PLCS)

3/4" HEAT SHRINK

1/4" HEAT SHRINK (4 PLCS)

1/2" HEAT SHRINK

	18 GA. RED	A	3-PIN W/P TOWER		PWR
SEC. 7	18 GA. BLK	B			GND
	18 GA. ORG	C			SEC. 7 SIG.

PWR
SECTION 71 SIG.
SECTION 8 SIG.
SECTION 9 SIG.
SECTION 10 SIG.

A
B   16 GA. RED
C   18 GA. ORG
D   18 GA. YEL
E   18 GA. GRN
F   18 GA. BLU
G
H
J
K   16 GA. BLK

10-PIN M/P
TOWER

GND

	18 GA. RED	A	3-PIN W/P TOWER		PWR
SEC. 8	18 GA. BLK	B			GND
	18 GA. YEL	C			SEC. 8 SIG

	18 GA. RED	A	3-PIN W/P TOWER		PWR
SEC. 9	18 GA. BLK	B			GND
	18 GA. GRN	C			SEC. 9 SIG.

SECTIONS 7 - 10

	18 GA. RED	A	3-PIN W/P TOWER		PWR
SEC. 10	18 GA. BLK	B			GND
	18 GA. BLU	C			SIG. 10 SIG.

BAND SPLICE &
1/4" HEAT SHRINK

2.0 FT.

7.0 FT.

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Precision Liquid Fertilizer Solutions

agXcel

FOR ALL YOUR LIQUID FERTILIZER NEEDS

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