

FAST™

AG SOLUTIONS

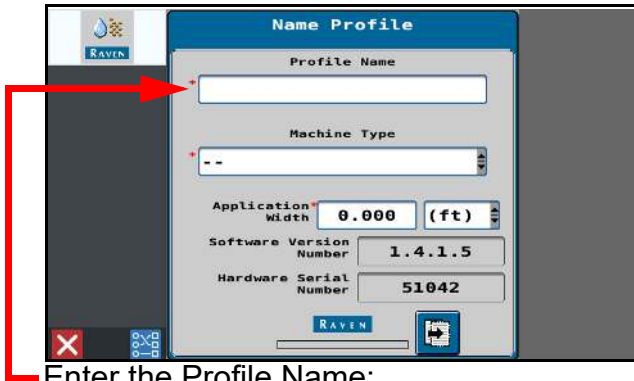


RAVEN RCM SETUP MANUAL

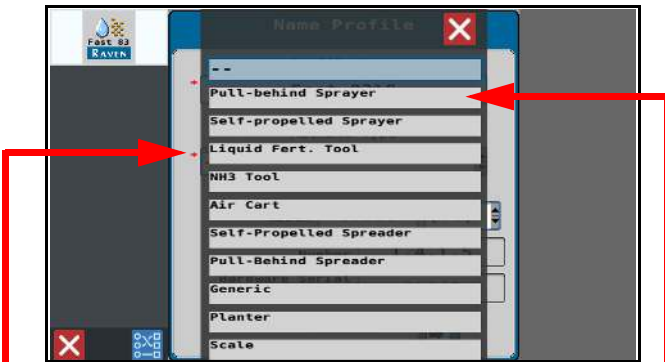


FAST GLOBAL
SOLUTIONS

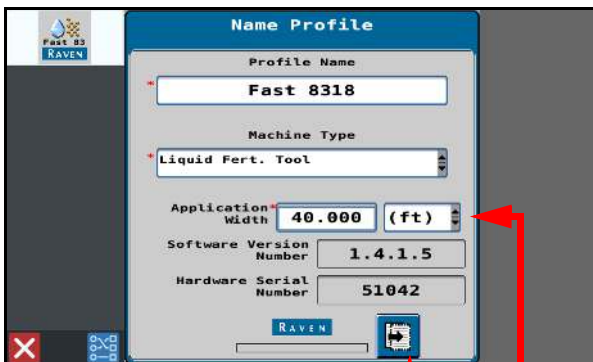
RAVEN RCM SETUP



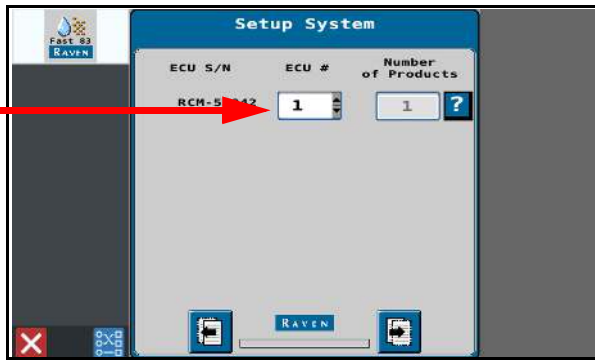
Enter the Profile Name:
FAST + Model Number
(Example: FAST 9518T, FAST 8313)



Select Machine Type:
For Sprayers use: "Pull - behind Sprayer"
For Applicators use: "Liquid Fert. Tool"



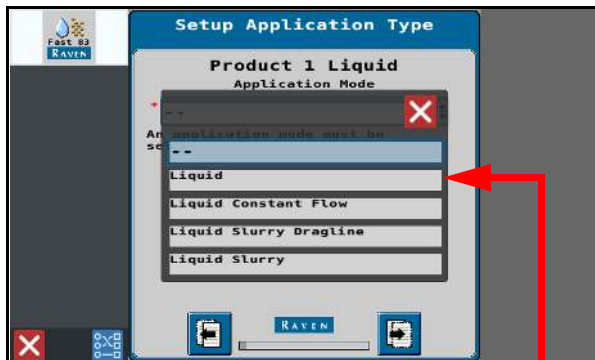
Enter the Application Width.
Press Next.



Leave at "1" unless multiple ECU's are used.
Press Next.



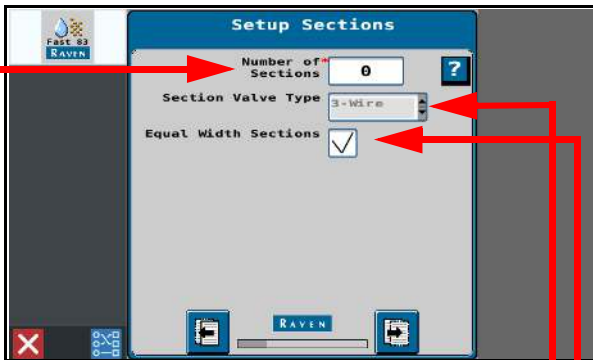
Choose Application Mode.



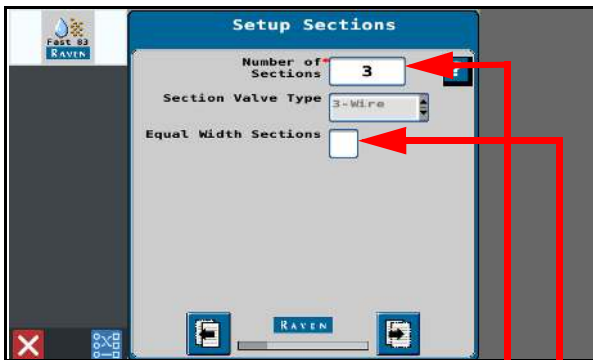
FAST products only use "Liquid".



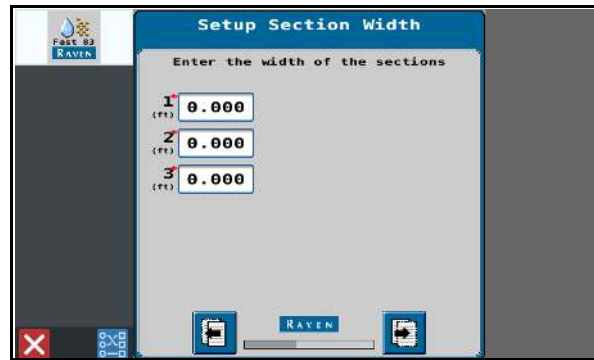
Liquid choice selected.
Press Next.



Enter number of sections (ball valves).
FAST only uses “3-wire” valves.
If the sections are unequal widths,
uncheck the box.



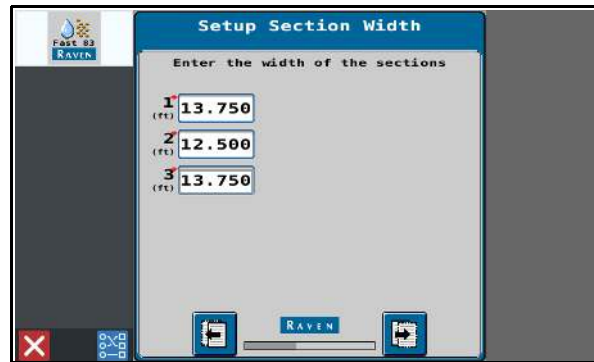
Example setting:
3 sections, 3-wire valve.
Box unchecked for unequal widths.
Press Next



Enter the width of the sections.

For Sprayers: Enter number of tips per section x spacing = width of section.

The sum of the sections must equal the application width entered on (page 1).



FOR APPLICATORS:

16 row, 17 coulters example, 30" spacing.

Section 1 = 5 full rate coulters = 150".

$5 \times 30" = 150"$

1 half rate coulters = 15".

$150" + 15" = 165"$

$165" / 12" = 13.75$ feet

Section 2 = 5 full rate coulters = 150".

$5 \times 30" = 150"$

$150" / 12" = 12.50$ feet

Section 3 = 5 full rate coulters = 150".

$5 \times 30" = 150"$

1 half rate coulters = 15".

$150" + 15" = 165"$

$165" / 12" = 13.75$ feet

16 row, 15 coulters example, 30" spacing.

Section 1 = 4 full rate coulters = 120".

$4 \times 30" = 120"$

1.5 rate coulters = 45".

$120" + 45" = 165"$

$165" / 12" = 13.75$ feet

Section 2 = 5 full rate coulters = 150".

$5 \times 30" = 150"$

$150" / 12" = 12.50$ feet

Section 3 = 4 full rate coulters = 120".

$4 \times 30" = 120"$

1.5 rate coulters = 45".

$120" + 45" = 165"$

$165" / 12" = 13.75$ feet

The sum of the sections must equal the application rate entered on page 1.

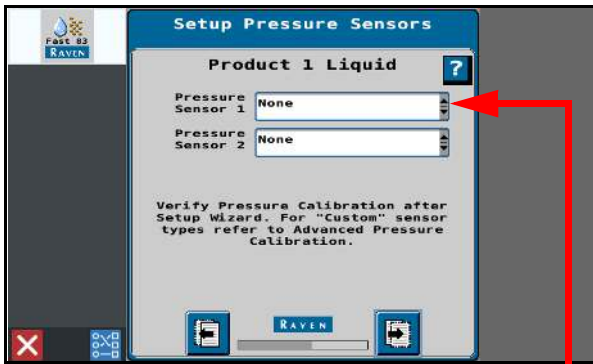
Press Next.



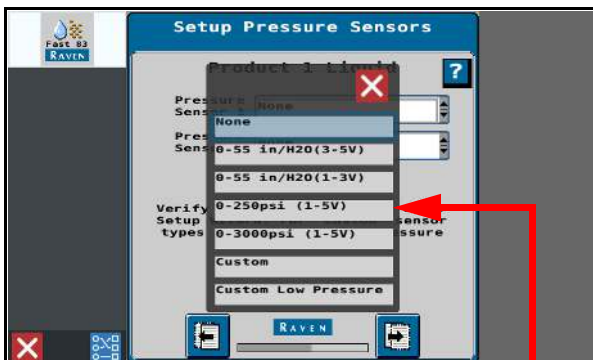
Not used unless there are special requirements.
Press Next.



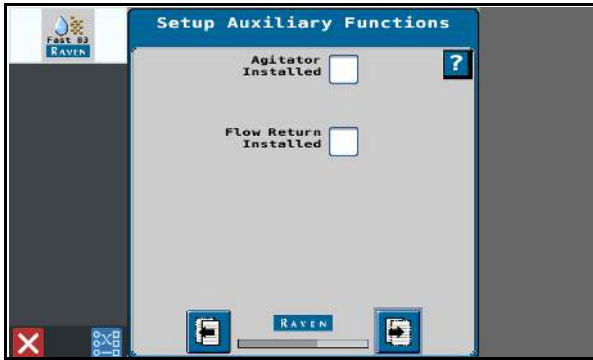
Section summary per product.
If using a switch box, switch assignment is entered here.
Press Next.



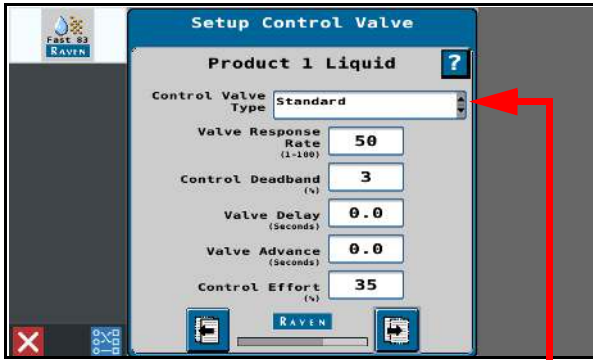
Choose pressure sensor if installed.



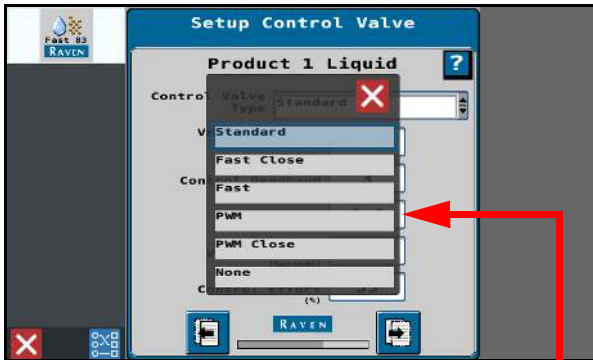
FAST only uses 0-250 psi.
Press Next.



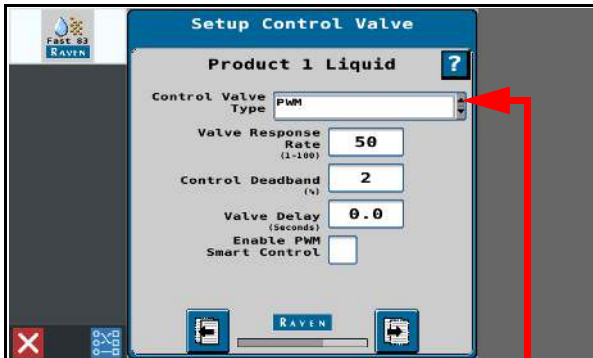
FAST does not use auxiliary functions,
leave unchecked.
Press Next.



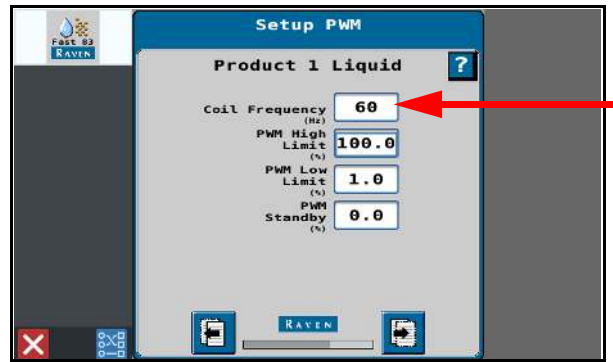
Standard control valve setup.



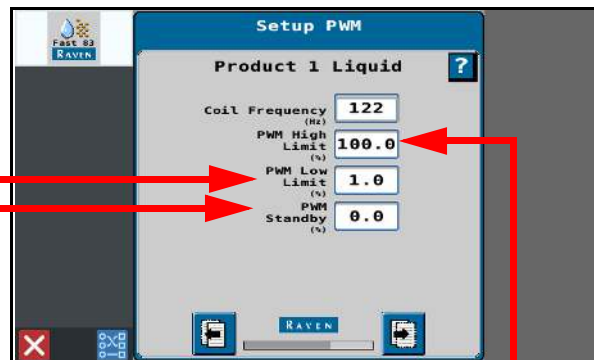
If machine has a PWM pump, choose "PWM".



PWM setup.
Press Next.



If using ACE PWM pump, change the coil frequency to 122.



Max Pump PWM:

Enter a maximum PWM duty cycle percent to set the maximum desired output for a pulse width modulated (PWM) hydraulic control valve. This setting limits how far the PWM valve will open.

(Typically set at 100 psi. deadhead.)

Min Pump PWM:

Enter a minimum PWM duty cycle percent to set the minimum desired output (zero point or shutoff point) for a pulse width modulated (PWM) hydraulic control valve).

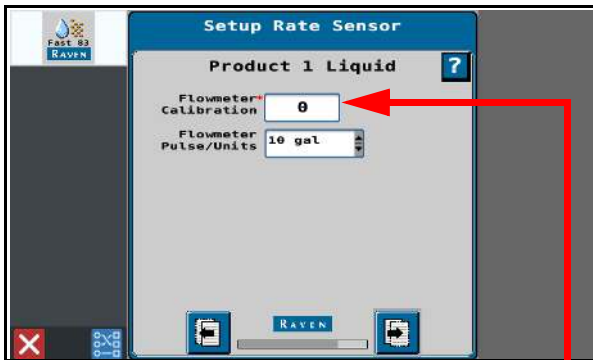
(Typically set at 20 psi. deadhead.)

PWM Standby:

Enter desired control valve PWM duty cycle percent when all sections are off. This is utilized when standby pressure control is not available (pressure sensor not available or direct injection is installed).

(Typically set at within 10 psi of spray pressure.)

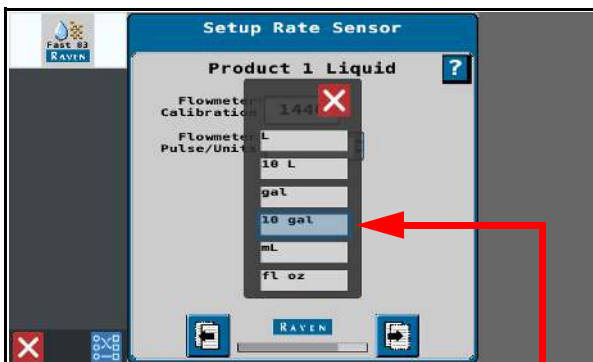
Press Next.



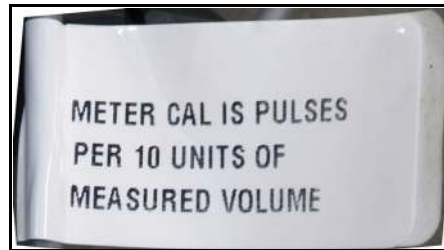
Enter calibration number found on the flowmeter tag.



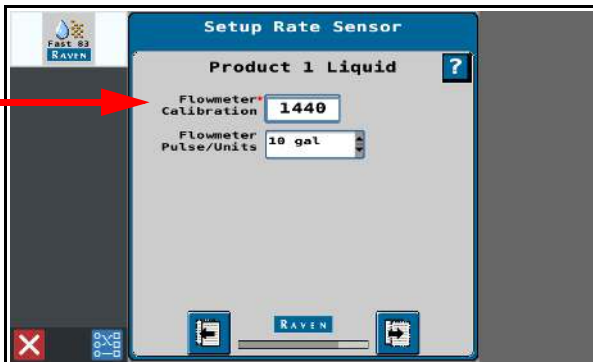
Flowmeter tag calibration number.



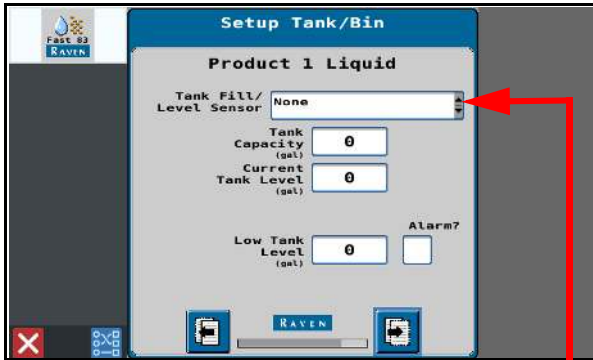
Choose "Flowmeter Pulse/Units".



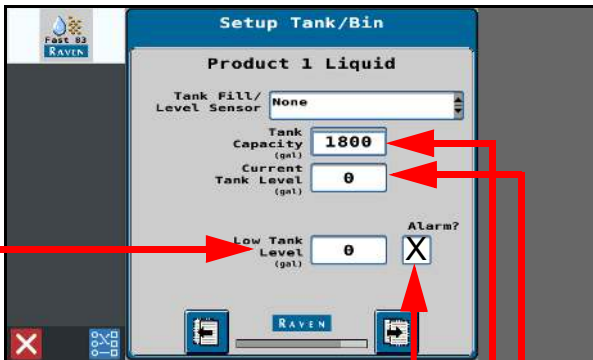
Flowmeter tag Pulse/Units number.



Flowmeter calibration number entered.
Flowmeter Pulse/Units number entered.
Press Next.



FAST does not use a tank fill sensor.



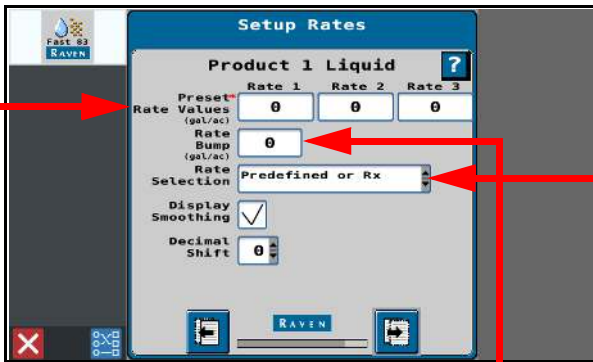
Enter tank capacity.

Enter current tank level.

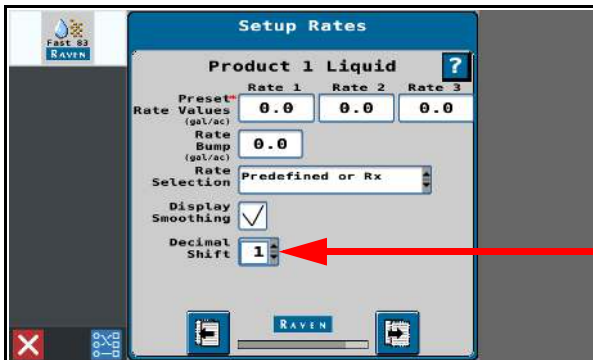
Enter desired low tank level.

Choose alarm.

Press Next.



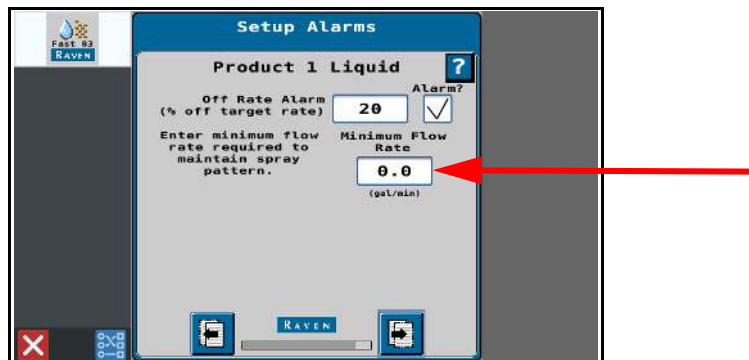
Enter the desired rates.
Enter the desired rate bump.
"Rate Bump" can be used if preferred over a predefined rate.



Decimal shift can be used for finer rates.



Example settings.
Press Next.



NOTE: This setting will vary based on tip selection.

Sprayers:

Nozzle capacity at minimum psi, multiply by the number of nozzles.

Example:

For FAST installed tips, see tip chart.

.18 x (number of tips) = minimum flow rate.

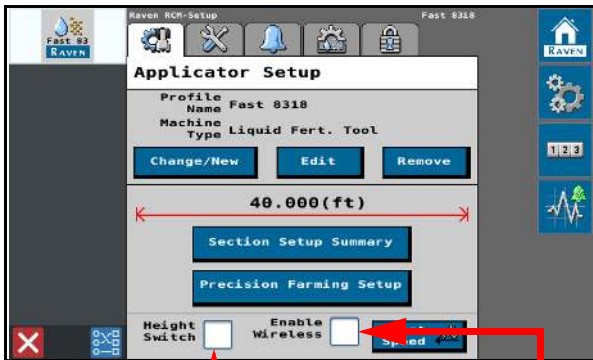
Applicators:

Can be run without entering a minimum flow rate, but if desired, the same formula should be used.

	PSI	DROP SIZE	CAPACITY ONE NOZZLE IN GPM	CAPACITY ONE NOZZLE IN OZ./MIN.			
					4 MPH	5 MPH	6 MPH
TTI110015 (100)	15	UC	0.092	12	6.8	5.5	4.6
	20	UC	0.1	14	8.2	6.5	5.4
	30	UC	0.3	17	9.7	7.7	6.4
	40	UC	0.5	19	11.1	8.9	7.4
	50	UC	0.7	22	12.6	10.1	8.4
	60	XC	0.8	23	13.4	10.7	8.9
	70	XC	0.0	26	14.9	11.9	9.9
	80	XC	0.1	27	15.6	12.5	10.4
	90	XC	0.3	29	17.1	13.7	11.4
	100	XC	0.4	31	17.8	14.3	11.9
TTI11002 (50)	15	UC	0.2	15	8.9	7.1	5.9
	20	UC	0.4	18	10.4	8.3	6.9
	30	UC	0.7	22	12.6	10.1	8.4
	40	UC	0.0	26	14.9	11.9	9.9
	50	UC	0.2	28	16.3	13.1	10.9
	60	UC	0.4	31	17.8	14.3	11.9
	70	XC	0.6	33	19.3	15.4	12.9
	80	XC	0.8	36	21	16.6	13.9
	90	XC	0.0	38	22	17.8	14.9
	100	XC	0.2	41	24	19.0	15.8
TTI110025 (50)	15	UC	0.5	19	11.1	8.9	7.4
	20	UC	0.8	23	13.4	10.7	8.9
	30	UC	0.2	28	16.3	13.1	10.9
	40	UC	0.5	32	18.6	14.9	12.4
	50	UC	0.8	36	21	16.6	13.9
	60	UC	0.1	40	23	18.4	15.3
	70	XC	0.3	42	25	19.6	16.3
	80	XC	0.5	45	26	21	17.3
	90	XC	0.8	49	28	23	18.8
	100	XC	0.40	51	30	24	19.8
TTI11003 (50)	15	UC	0.18	23	13.4	10.7	8.9
	20	UC	0.21	27	15.6	12.5	10.4
	30	UC	0.26	33	19.3	15.4	12.9
	40	UC	0.30	38	22	17.8	14.9
	50	UC	0.34	44	25	20	16.8
	60	UC	0.37	47	27	22	18.3
	70	XC	0.40	51	30	24	19.8
	80	XC	0.42	54	31	25	21
	90	XC	0.45	58	33	27	22
	100	XC	0.47	60	35	28	23
TTI11004	15	UC	0.24	31	17.8	14.3	11.9
	20	UC	0.28	36	21	16.6	13.9
	30	UC	0.35	45	26	21	17.3
	40	UC	0.40	51	30	24	19.8
	50	UC	0.45	58	33	27	22



Setup summary page.
Press Next.



Not used. →

For connecting to mobile app. →



NOTES



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SOLUTIONS



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