



PROGRAMMING GUIDE

QUICK REFERENCE

MENU NUMBER: Press and hold the lane width and turn the feed rate to select.
VARIABLE SETTING: Press and hold the feed rate and turn the lane width to change.

NO.	NAME	VARIABLE	DEFAULT
1	PASS CODE	Enter Passcode	854
2	PROGRAM ID	None (Factory Reference)	AS REQ
3	AUTO/MAN LOCKOUTS	1 = Manual Only 2 = Auto & Manual 3 = Auto Only	2
4	SPINNER OPERATING OPTIONS	0 = No Spinner 1 = Standard spinner operation - No auto shut-off at 0 mph 2 = Standard spinner operation - With auto shut-off at 0 mph	
5	SPEEDOMETER INPUT TYPE	AC = AC Voltage/vrm style ACD = AC voltage with differential coupling DC = DC pulse/sensor supplies current DCN = DC pulse/sensor receives current	DC
6	SPEEDO SYNC (OPTION 1)	Sensor pulses per mile. Variable range 1000 - 200,000. (Display x 1000 = puls/mile ex. 26.7 = 26,700)	26,700
7	SPEEDO SYNC (OPTION 2)	Match displayed mph number with truck speedometer reading. This will automatically store the puls/mile on menu #6, which can be directly inserted on identical trucks with a MESP-401A.	NONE
8	TWO-SPEED AXLE OPTION	Ratio number from 0.2 to 5.0 for syncing the speedometer for hi/lo axle shifts. This requires connecting AUX 1 or 2 (see instructions)	1
9	BLAST TIMER	Sets duration of blast ranging from 0 to 30 seconds.	5 Sec.
10	BLAST OUTPUT	TRI = Blast output is same as auger max on Menu No. 17. RTE = Blast output is same as auger rate no. 9 per Menu No. 29	TRI
11	AUX INPUT 1	Defines function if the GREEN wire is switched to ground. 0 = Not used 1 = Senses auger jam via psi switch 2 = Remote pass switch 3 = Remote blast switch, 4 = Two-speed axle switch 5 = Remote emergency shutdown	2
12	AUX INPUT 2	Defines function if the BLUE wire is switched to ground. 0 = Not used 1 = Senses auger jam via psi switch 2 = Remote pass switch 3 = Remote blast switch 4 = Two speed axle switch	4
13	PWM FREQUENCY	Pulse rate to valves: Range 30 to 300 hertz Muncie valves = 80 to 120. Other valves, check with manufacturer	120
14	AUGER VALVE CONTROL TYPE	CUR = Current control - <i>RECOMMENDED</i> OLT = Voltage control - <i>NOT RECOMMENDED</i>	CUR
15	SPINNER VALVE CONTROL TYPE	CUR = Current control - <i>RECOMMENDED</i> OLT = Voltage control - <i>NOT RECOMMENDED</i>	CUR
16	AUGER MINIMUM TRIM	WARNING! The auger will become active when making this adjustment. Adjust so the auger motor is beginning to turn. The displayed number is the percentage of total valve drive.	25%
17	AUGER MAXIMUM TRIM	WARNING! The auger will become active when making this adjustment. Adjust for the maximum desired auger speed. The displayed number is the percentage of total valve drive. Exceeding 90% is not recommended for best results and accuracy.	75%
18	SPINNER MINIMUM TRIM	WARNING! The spinner will become active when making this adjustment. Adjust so the spinner is beginning to turn. The displayed number is the percentage of total valve drive.	25%
19	SPINNER MAXIMUM TRIM	WARNING! The spinner will become active when making this adjustment. Adjust for the adjust for the maximum desired spinner speed. The displayed number is the percentage of total valve drive. Exceeding 90% is NOT RECOMMENDED for best results and accuracy.	50%
20	WEIGHED MATERIAL CAL	Follow instructions for determining the spreader's calibration of pounds-per-minute discharge rate and install on this line. The displayed number must be multiplied by 10 for actual weight. (ex. 30.0 = 300 lbs/minute)	30.0 (300 lbs/min.)

NO.	NAME	VARIABLE	DEFAULT
21	FEED RATE KNOB POSITION 1	For auto-mode operation each feed rate control position can be	10.0 (100 lbs/mile)
22	FEED RATE KNOB POSITION 2	set for a pounds-per-mile discharge value. For example, Position No. 1	20.0 (200 lbs/mile)
23	FEED RATE KNOB POSITION 3	can be set for 20.0 = 200 lbs/mile (<i>display value x 10</i>). Position 2 for	30.0 (300 lbs/mile)
24	FEED RATE KNOB POSITION 4	25.0 = 250 lbs/mile and so on. The range for each position value is	40.0 (400 lbs/mile)
25	FEED RATE KNOB POSITION 5	10.0 to 199 or 100 to 1990 lbs/ mile.	50.0 (500 lbs/mile)
26	FEED RATE KNOB POSITION 6		60.0 (600 lbs/mile)
27	FEED RATE KNOB POSITION 7	For manual-mode operation the knob positions are fixed increments	70.0 (700 lbs/mile)
28	FEED RATE KNOB POSITION 8	of control divided evenly from 0% to 99% of the total valve capacity.	80.0 (800 lbs/mile)
29	FEED RATE KNOB POSITION 9		90.0 (900 lbs/mile)
30	AUGER OPER FOR SPINNER CAL	If you want the auger to drop material on the spinner during its calibration you may insert an auger valve percentage on this line. When you adjust the spinner speeds in menus #32 to #38, the auger will automatically operate at that setting. This is set by default to 0%, which is indicated by two dashes ~ ~ if you install a percentage, it will default back to 0% when you exit the programming mode.	0%
31	SPINNER CONTROL LIMIT	You may limit the number of positions of spinner control selections available to the operator. Nine(9) positions is the standard default. Set the variable to another number to limit the selections.	9
32	SPINNER RATE POSITION 2	Position No. 1 was set by the spinner minimum trim (Menu #18).	12%
33	SPINNER RATE POSITION 3		25%
34	SPINNER RATE POSITION 4	Adjust each position for the desired spinner speed. This might be by lane width (i.e. Position No. 2=1 lane, Position No. 3=2 lanes, etc.).	37%
35	SPINNER RATE POSITION 5	The factory default divides the range equally between all nine selections.	50%
36	SPINNER RATE POSITION 6		62%
37	SPINNER RATE POSITION 7		75%
38	SPINNER RATE POSITION 8	Position 9 was set by the spinner maximum trim(Menu #19).	87%
39	POWER UP OPERATING MODE	When the MESP-401A is first turned on you may select how it powers up in Auto or Manual mode of operation. Select AUT= Auto or ANU= Manual.	AUT
40	POWER UP FEED RATE	Whatever this variable is set for will determine the feed rate (auger) setting immediately upon powering up the MESP-401A. The variable range is 0=OFF to 9=Maximum Speed. We recommend leaving this set for 0=OFF.	0
41	POWER UP LANE WIDTH	Whatever this variable is set to will determine the lane width rate (spinner) setting immediately upon powering up the MESP-401A. The variable range is 0=OFF to 9=Maximum Speed. We recommend leaving this set for 0=OFF.	0
42	PRODUCT #2 RATIO	The MESP-401A can be programmed for a total of four different granular products (Product Nos. 1 - 4) that can be selected by the operator. By default, Product No. 1 was the designation of the product that was used to determine pounds-per-minute setting on menu (Menu #20). If you want to calibrate Products numbered 2 and 4, you will need to compare weights of these to Product No. 1. Take a 5-gallon bucket and fill with Product No. 1 and weigh it. Refill the bucket with Product(s) No. 2, 3, and 4 to find the ratio of these weights to Product No. 1.	1.00
43	PRODUCT #3 RATIO		1.00
		Product Ratio = $\frac{\text{Weight of Product(s) No. 2 or 3 or 4.}}{\text{Weight of Product No. 1}}$	
44	PRODUCT #4 RATIO	The range on these ratio variables is 0.1 to 5.00.	1.00
45	NEW DEVELOPMENT	DO NOT CHANGE THIS VARIABLE	OFF
46	NEW DEVELOPMENT		
47	NEW DEVELOPMENT		
48	NEW DEVELOPMENT		
49	NEW DEVELOPMENT		
50	INPUT TEST	If AUX Inputs 1 and/or 2 are connected, this line can display if the MESP-401A is reading the inputs. In the first two digits of the display, a zero(0) will be shown if AUX Input 1 is open; and a one(1) will be shown if the input is connected to ground via a switch. The second digit of the display will do the same for AUX Input 2. A Zero (0) = OFF and a One (1) = ACTIVE.	NONE
51	SERIAL NUMBER	Factory Tracking Number	3 Digit S/N

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