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Installation Instructions

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COMP. # : L1976

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SUBJECT: Programming Variable Frequency Drive for Air System or Bin Sweep

REVISION: Updated ATV 320 programming parameters.

Overview: See instructions on this and next page to program Variable Frequency Drive for Sukup Air System or Commercial Bin Sweep. Instructions cover Altivar 61, 71, 320 and 630 VFDs, and Mitsubishi VFDs.

Programming ATV 61 or ATV 71

1. Push gray dial to get into menu system.
2. Navigate to [1.1 Simply Start], [1.5 Inputs / Outputs CFG] or [1.7 Application Function] depending on parameter to be set.
3. Enter each setting by following applicable pathway shown below. Press dial after each entry.



PATHWAY		PARAMETER	SETTING
[1.1 SIMPLY START]		[Standard mot. freq]	60
[1.1 SIMPLY START]		[Rated motor volt.]	240 or 480*
[1.1 SIMPLY START]		[Acceleration]	10.0
[1.5 INPUTS / OUTPUTS CFG]	[R1 configuration]	[R1 Assignment]	[No drive flt]
[1.5 INPUTS / OUTPUTS CFG]	[R1 configuration]	[R2 Assignment]	[Drv running]
[1.5 INPUTS / OUTPUTS CFG]	[AO1 configuration]	[AO1 Assignment]	[I motor]
[1.5 INPUTS / OUTPUTS CFG]	[AO1 configuration]	[AO1 Type]	[Voltage]
[1.7 APPLICATION FUNCT.]	[STOP CONFIGURATION]	[Type of Stop]	[Freewheel]

*Based on site & drive

Programming ATV 320

1. Push green dial to get into menu system.
2. Turn dial to ConF; push dial to enter menu.
3. Enter each setting by following applicable pathway shown below. Press dial after each entry, then ESC until get back to ConF.



PATHWAY		PARAMETER		SETTING
ConF	FuLL	SiN-	bFr	60
ConF	FuLL	SiN-	UnS	240/480*
ConF	FuLL	SiN-	ACC	10.0
ConF	FuLL	i_o-	r1- r1	FLt
ConF	FuLL	i_o-	r2- r2	run
ConF	FuLL	i_o-	Ao1- Ao1	oCr
ConF	FuLL	i_o-	Ao1- Ao1t	10v
ConF	FuLL	DrC-	Ctt	Std
ConF	FuLL	Fun-	Stt	nSt

*Based on site & drive

Programming ATV 630



1. Push OK button with directional arrows to get into menu system.
2. Navigate to [Simply Start] or [Complete settings] depending on parameter to be set.
3. Enter each setting by following applicable pathway shown below. Press OK after each entry.

PATHWAY	PARAMETER	SETTING
[Simply Start]	[Motor Standard]	60
[Simply Start]	[Nom Motor Voltage]	240 or 480*
[Simply Start]	[Acceleration]	10.0
[Complete settings] [Input/Output] [Relay] [R1 configuration]	[R1 Assignment]	[Operating State Fault]
[Complete settings] [Input/Output] [Relay] [R2 configuration]	[R2 Assignment]	[Drive Running]
[Complete settings] [Input/Output] [AI/AQ] [AQ1 configuration]	[AQ1 Assignment]	[Motor Current]
[Complete settings] [Input/Output] [AI/AQ] [AQ1 configuration]	[AQ1 Type]	[Voltage]
[Complete settings] [Motor parameters]	[Motor Control Type]	[U/F VC Standard]
[Complete settings] [Generic functions] [Stop configuration]	[Type of Stop]	[Freewheel]

*Based on site & drive

Programming Mitsubishi F800:

Follow steps below to set parameters as shown on next page.

1. Press MODE button one time.
2. Turn dial to get to desired parameter.
3. Press SET button to enter parameter menu.
4. Turn dial to get to desired setting.
5. Press SET button to store desired setting.
6. Turn dial to get to next parameter.
7. Repeat Steps 4 through 6 until all parameters are set.
8. When done programming, return to main screen by pressing MODE button three times.



Program Parameters in this order

Parameters	Name	Setting Range	Minimum Setting Increments	Initial Value	Customer Setting
P 77	Parameter write selection	0 to 2	1	0	2
This allows you to program in any mode and while it's running.					
P 1	Maximum frequency	0 to 120	0.01Hz	120	60
Drive will not exceed this speed.					
P 2	Minimum frequency	0 to 120	0.01Hz	0	0
Drive will not run below this speed except on start.					
P 7	Acceleration time	0 to 3600	0.1s	15	10
Time in seconds from 0 - 60 Hz.					
P 9	Electronic thermal O/L relay/Rated motor current	0 to 500	0.01A	Drive Specific	Motor OL Amps
Motor OL. Usually FLA x S.F.					
P 56	Current monitoring reference	0 to 500	0.01A	Drive Specific	200
Current Scale 0 - 10 vdc, Max Current					
P 57	Restart coasting time	0,0.1 to 30,9999	0.1s	9999	2
Wait time for the inverter to perform a restart while rolling.					
P 158	AM terminal function selection	1 to 3, 5 to 8, 10 to 14, 17, 18, 21, 24, 34, 50, 52 to 54, 61, 62	1	1	2
Select Output Current for Analog Output Terminal (AM)					
P 162	Automatic restart after instantaneous power failure	0 to 3, 10 to 13	1	0	13
Frequency search at every start (reduced impact restart)					
P 195	ABC1 terminal function selection	0 to 5, 8, 10 to 19, 25, 26, 35, 39, 40 to 42, 45 to 54, 57, 64 to 66	1	99	199
Fault Condition or Power Loss breaks the connection between Terminals A1 and C1. When powered up and no Fault, A1 and C1 are connected.					
P 196	ABC2 terminal function selection	0 to 5, 8, 10 to 19, 25, 26, 35, 39, 40 to 42, 45 to 54, 57, 64 to 66	1	9999	1
When the Drive is at speed, Terminals A1 and C1 are connected. When drive is not at speed, Terminals A1 and C1 are disconnected					
P 250	Stop selection	0 to 100, 1000 to 1100, 8888, 9999	0.1s	9999	0
This causes the drive to coast to stop. It disables the deceleration timer.					
P 882	Regeneration avoidance operation selection	0 to 2	1	0	1
Helps prevent Over Voltage Faults caused by Regen from motor.					