Application Note
CTAN #278

Converting from Unidrive Classic to Unidrive SP
The Basics – Terminal Connections and Menu 0

Introduction

Control Techniques introduced the Unidrive Classic around 1993 in Europe and approximately 1995 into the Americas. Because the Unidrive Classic ran simple Open Loop, Closed Loop Vector and Servo motor applications as well as offering a Regen mode, the Unidrive Classic found its way into a great many industrial applications, from simple to quite complex.

Unidrive Classic Family

Unidrive SP Family

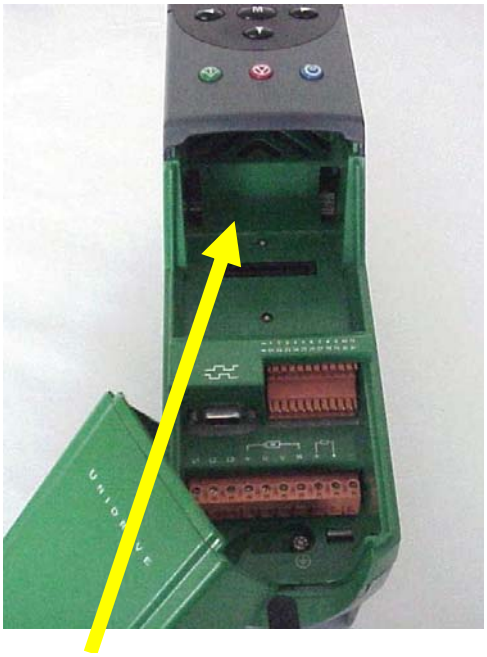
The Unidrive Classic, and it's status as a legacy product, is becoming available only in limited quantities and sizes. Control Techniques premier product- the Unidrive SP is a solutions platform that, in most cases, is more than capable of replacing Unidrive Classics in the field, and makes it the logical upgrade path.

The purpose of this application note is to point out some of the differences between the Unidrive Classic and the Unidrive SP that one may encounter during a retrofit situation. This note is intended for "simple" applications not involving UD7X co-processors (large option modules) or any of the UD5x small option modules.

For additional advisement consult **CTAN277** which discusses
Unidrive Classic to Unidrive SP Conversion Considerations

Where are these modules and how do I identify them ?

The Unidrive Classic could support up to 2 option modules – 1 Large and 1 Small located under the front cover of the drive.

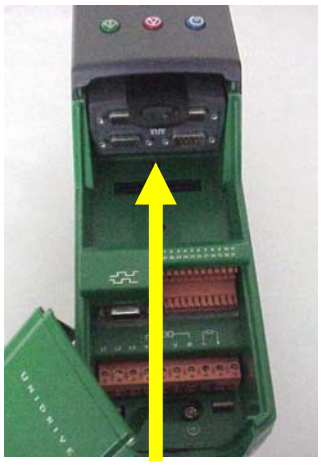


No option modules
in this drive !

If you find no option modules under the cover of the drive this application note should assist with conversion.

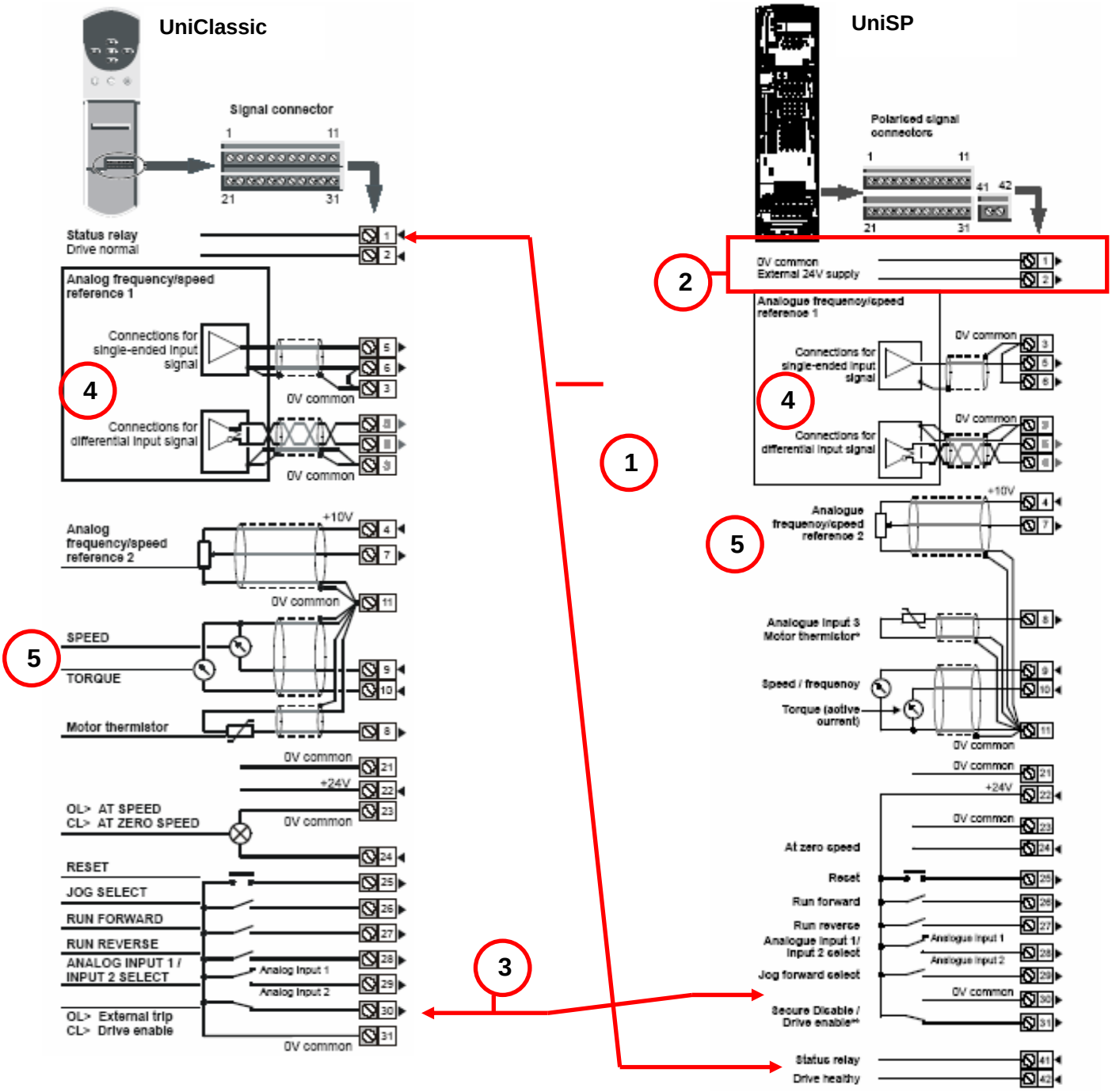
If you find option modules included in this cavity as shown below there will be additional considerations. Consult **CTAN277**

With Small Option Module



With Large Option Module

With a Large & Small Option Module


UniClassic
Signal connector
1
11
21
31
Status relay
Drive normal
Analog frequency/speed reference 1
Connections for single-ended input signal
Connections for differential input signal
0V common
4
Analog frequency/speed reference 2
+10V
5
SPEED
TORQUE
Motor thermistor
+24V
OL> AT SPEED
CL> AT ZERO SPEED
RESET
JOG SELECT
RUN FORWARD
RUN REVERSE
ANALOG INPUT 1 / INPUT 2 SELECT
Analog Input 1
Analog Input 2
OL> External trip
CL> Drive enable
3
UniSP
Polarised signal connectors
41
42
2
0V common
External 24V supply
Analogue frequency/speed reference 1
Analogue frequency/speed reference 2
Analogue Input 3
Motor thermistor*
Speed / frequency
Torque (active current)
At zero speed
Reset
Run forward
Run reverse
Analogue Input 1/ Input 2 select
Analogue Input 1
Analogue Input 2
Jog forward select
Secure Disable / Drive enable**
Status relay
Drive healthy
1

1 Terminals #1 and #2 on the Unidrive Classic were the “Drive Healthy” relay contacts. They have been relocated to terminals #41 and #42 on the Unidrive SP

2 Terminals #1 and #2 now have a different function on the Unidrive SP, #1 is signal common and #2 is an external +24vdc input which allows you to power up the control electronics (and option modules) with out applying the main line voltage to the drive.

3 The Enable (External Trip) input was terminal #30 on the old Unidrive Classic; it is now terminal #31 on the Unidrive SP. The common connection #31 on the old Unidrive classic is now #30 on the Unidrive SP.

Note that the Unidrive SP by default is set for “**positive**” logic (inputs are connected to +24vdc to activate the input) instead of “**negative**” logic like the Unidrive Classic. Parameter #8.27 sets the logic mode in the Unidrive Classic, while parameter #8.29 sets the logic mode in the Unidrive SP. The only ***exception*** is the enable (secure disable); terminal 31 ***is always positive logic***.

To summarize note that a few of the input functions have been shifted around.

Input Function	Unidrive Classic	Unidrive SP
Jog Input	#26	#29
Run Fwd	#27	#26
Run Rev	#28	#27
Analog Input Select	#29	#28
Enable/External Trip	#30	#31
0V Common	#31	#30

4 The high-resolution input for the Unidrive Classic and the Unidrive SP are the same inputs, terminal #5 and #6, the difference between the two is that in the Unidrive Classic this input can be set for either a voltage or current input. This is not the case for the Unidrive SP; it can only be a voltage input. If a current input (i.e. 4-20ma) is required, analog input #2 (or #3) may be used.

5 The motor thermistor input on the Unidrive classic is defaulted as a voltage input (USA default) where as in the Unidrive SP it is defaulted as a thermistor input. If a motor thermistor is not being used, the drive will trip out with a “th” fault. To change it to a voltage input, set parameter 0.21 to Volt.

The Basics – Menu 0 Parameters

The next three pages show the menu 0 parameters for both the Unidrive Classic and the Unidrive SP for all three operating modes: open loop, closed loop vector and closed loop servo. The red boxes enclose the parameters that are the same in both drives. In the areas between them there may be a few that are the same but in general are different and need to be examined closely. These functions are still available in their associated menus; they are just not mapped to menu 0.

The Basics – Menu 0 Parameters – Open Loop

UniClassic

Parameter	Description	Default	Memory	Units
00.00	Parameter 0	0	**0**	
00.01	Minimum Speed Clamp	0	**0**	Hz
00.02	Maximum Speed Clamp	60.0	**60.0**	Hz
00.03	Accel 1 / Forward accel 1	5.0	**5.0**	s/100Hz
00.04	Decel 1 / Forward decel 1	10.0	**10.0**	s/100 Hz
00.05	Reference selector	4	**4**	
00.06	Symetrical current limit	150.0	**150.0**	%
00.07	Voltage mode select	Ur_I	**Ur_I**	
00.08	Voltage boost	3.0	**3.0**	%
00.09	Dynamic V-F select	0	**0**	
00.10	Motor rpm	0	**0**	RPM
00.11	Pre-Ramp Speed reference	0.0	**0.0**	Hz
00.12	Post-ramp reference	0.0	**0.0**	Hz
00.13	Motor active current	0.00	**0.00**	A
00.14	Jog reference	1.5	**1.5**	Hz
00.15	Ramp Mode	Stnd.Ct	**Stnd.Ct**	
00.16	Stop mode	rP	**rP**	
00.17	Torque Mode Selector	0	**0**	
00.18	S ramp enable	0	**0**	
00.19	S ramp Acceleration Limit	3.1	**3.1**	s²/100Hz
00.20	Skip Speed 1	0.0	**0.0**	Hz
00.21	Skip Speed band 1	0.5	**0.5**	Hz
00.22	Skip Speed 2	0.0	**0.0**	Hz
00.23	Skip Speed band 2	0.5	**0.5**	Hz
00.24	Analog input 1 mode	VoLt	**VoLt**	
00.25	Analog input 2 mode	VoLt	**VoLt**	
00.26	Analog input 2 destination	1.37	**1.37**	menu.param
00.27	Sequencing mode	4	**4**	
00.28	Reference selected	0.0	**0.0**	Hz
00.29	F6 input destination	1.41	**1.41**	menu.param
00.30	Enable keypad fwd/rev switch	0	**0**	
00.31	Parameter macro previously loaded	0	**0**	
00.32	Serial mode	ANSI 4	**ANSI 4**	
00.33	Current rating	0.00	**0.00**	A
00.34	User security code	149	**149**	
00.35	Keypad reference	0.0	**0.0**	Hz
00.36	Baud rate	4800	**4800**	
00.37	Serial address	1.1	**1.1**	group.unit
00.38	Parameter displayed on power up	0.10	**0.10**	menu.param
00.39	Catch a spinning motor	0	**0**	
00.40	Magnetisation current test	0	**0**	
00.41	Switching frequency	3	**3**	kHz
00.42	No. of poles	4 pole	**4 pole**	Poles
00.43	Motor rated power factor	0.920	**0.920**	cos phi
00.44	Motor rated voltage	460	**460**	V
00.45	Motor rated full load RPM	0	**0**	RPM
00.46	Motor rated current	0.00	**0.00**	A
00.47	Motor rated frequency	60.0	**60.0**	Hz
00.48	Drive type	OPEn.LP	**OPEn.LP**	
00.50	Software version	0.00	**0.00**	

SAME

SAME

UniSP

Parameter	Description	Default	Memory	Units
00.00	Parameter 0	0	**0**	
00.01	Minimum reference clamp	0.0	**0.0**	Hz
00.02	Maximum reference clamp	60.0	**60.0**	Hz
00.03	Acceleration rate 1	5.0	**5.0**	s/100Hz
00.04	Deceleration rate 1	10.0	**10.0**	s/100Hz
00.05	Reference selector	A1.A2	**A1.A2**	
00.06	Symmetrical current limit	165.0	**165.0**	%
00.07	Voltage mode select	Ur I	**Ur I**	
00.08	Low frequency voltage boost	3.0	**3.0**	%
00.09	Dynamic V/F / flux optimise select	OFF	**OFF**	
00.10	Motor rpm	0	**0**	RPM
00.11	Output frequency	0.0	**0.0**	Hz
00.12	Current magnitude	0.00	**0.00**	A
00.13	Active current	0.00	**0.00**	A
00.14	Torque mode selector	Speed	**Speed**	
00.15	Ramp mode select	Std	**Std**	
00.16	T28 & T29 digital input auto-selection disable	OFF	**OFF**	
00.17	T29 digital input 6 destination	6.31	**6.31**	menu.param
00.18	Positive logic select	On	**On**	
00.19	T7 analog input 2 mode	Volt	**Volt**	
00.20	T7 analog input 2 destination	1.37	**1.37**	menu.param
00.21	T8 analog input 3 mode	th	**th**	
00.22	Bipolar reference enable	OFF	**OFF**	
00.23	Jog reference	0.0	**0.0**	Hz
00.24	Preset reference 1	0.0	**0.0**	Hz
00.25	Preset reference 2	0.0	**0.0**	Hz
00.26	Preset reference 3	0.0	**0.0**	Hz
00.27	Preset reference 4	0.0	**0.0**	Hz
00.28	Enable forward / reverse key	OFF	**OFF**	
00.29	SMARTCARD parameter data previously loaded	0	**0**	
00.30	Parameter cloning	nonE	**nonE**	
00.31	Drive voltage rating	400	**400**	V
00.32	Maximum Heavy Duty current rating	0.00	**0.00**	A
00.33	Catch a spinning motor	0	**0**	
00.34	User security code	0	**0**	
00.35	Serial mode	rtu	**rtu**	
00.36	Baud rate	19200	**19200**	
00.37	Serial address	1	**1**	
00.38	Current controller Kp gain	20	**20**	
00.39	Current controller Ki gain	40	**40**	
00.40	Autotune	0	**0**	
00.41	Maximum switching frequency	3	**3**	kHz
00.42	Number of motor poles	Auto	**Auto**	
00.43	Rated power factor	0.850	**0.850**	
00.44	Rated voltage	460	**460**	V
00.45	Rated load rpm / rated speed	1800	**1800**	RPM
00.46	Motor rated current	0.00	**0.00**	A
00.47	Rated frequency	60.0	**60.0**	Hz
00.48	User drive mode	OPEn LP	**OPEn LP**	
00.49	Security status	L1	**L1**	
00.50	Software version	0.00	**0.00**	

The Basics – Menu 0 Parameters – Closed Loop

UniClassic

Parameter	Description	Default	Memory	Units
00.00	Parameter 0	0	**0**	
00.01	Minimum Speed Clamp	0	**0**	RPM
00.02	Maximum Speed Clamp	1800	**1800**	RPM
00.03	Accel 1 / Forward accel 1	2.0	**2.0**	s/1000 RPM
00.04	Decel 1 / Forward decel 1	2.0	**2.0**	s/1000 RPM
00.05	Reference selector	0	**0**	
00.06	Symetrical current limit	150.0	**150.0**	%
00.07	Speed loop P gain	200	**200**	1/rad s-1
00.08	Speed loop I gain	100	**100**	
00.09	Speed loop D gain	0	**0**	
00.10	Speed feedback	0	**0**	RPM
00.11	Pre-Ramp Speed reference	0	**0**	RPM
00.12	Post-ramp reference	0	**0**	RPM
00.13	Motor active current	0.00	**0.00**	A
00.14	Jog reference	50	**50**	RPM
00.15	Ramp Mode	Stnd.Ct	**Stnd.Ct**	
00.16	Stop mode	rP	**rP**	
00.17	Torque Mode Selector	0	**0**	
00.18	S ramp enable	0	**0**	
00.19	S ramp Acceleration Limit	1.500	**1.500**	s²/1000RPM
00.20	Skip Speed 1	0	**0**	RPM
00.21	Skip Speed band 1	5	**5**	RPM
00.22	Skip Speed 2	0	**0**	RPM
00.23	Skip Speed band 2	5	**5**	RPM
00.24	Analog input 1 mode	VoLt	**VoLt**	
00.25	Analog input 2 mode	VoLt	**VoLt**	
00.26	Analog input 2 destination	1.37	**1.37**	menu.param
00.27	Sequencing mode	4	**4**	
00.28	Reference selected	0	**0**	RPM
00.29	F6 input destination	1.41	**1.41**	menu.param
00.30	Enable keypad fwd/rev switch	0	**0**	
00.31	Parameter macro previously loaded	0	**0**	
00.32	Serial mode	ANSI 4	**ANSI 4**	
00.33	Current rating	0.00	**0.00**	A
00.34	User security code	149	**149**	
00.35	Keypad reference	0	**0**	RPM
00.36	Baud rate	4800	**4800**	
00.37	Serial address	1.1	**1.1**	group.unit
00.38	Parameter displayed on power up	0.10	**0.10**	menu.param
~~00.39~~	~~Catch a spinning motor~~	~~1~~	~~**1**~~	
00.40	Magnetisation current test	0	**0**	
00.41	Switching frequency	3	**3**	kHz
00.42	No. of poles	4 pole	**4 pole**	Poles
00.43	Motor rated power factor	0.920	**0.920**	cos phi
00.44	Motor rated voltage	460	**460**	V
00.45	Motor rated full load RPM	1770	**1770**	RPM
00.46	Motor rated current	0.00	**0.00**	A
00.47	Motor rated frequency	60.0	**60.0**	Hz
00.48	Drive type	CL.VECt	**CL.VECt**	
00.50	Software version	0.00	**0.00**	

SAME

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UniSP

Parameter	Description	Default	Memory	Units
00.00	Parameter 0	0	**0**	
00.01	Minimum reference clamp	0.0	**0.0**	RPM
00.02	Maximum reference clamp	1800.0	**1800.0**	RPM
00.03	Acceleration rate 1	2.000	**2.000**	s/1000 RPM
00.04	Deceleration rate 1	2.000	**2.000**	s/1000 RPM
00.05	Reference selector	A1.A2	**A1.A2**	
00.06	Symmetrical current limit	175.0	**175.0**	%
00.07	Speed controller proportional gain (Kp1)	0.0300	**0.0300**	1/rad s-1
00.08	Speed controller integral gain (Ki1)	0.10	**0.10**	1/rad
00.09	Speed controller differential feedback gain (K...	0.00000	**0.00000**	s
00.10	Speed feedback	0.0	**0.0**	RPM
00.11	Output frequency	0.0	**0.0**	Hz
00.12	Current magnitude	0.00	**0.00**	A
00.13	Active current	0.00	**0.00**	A
00.14	Torque mode selector	Speed	**Speed**	
00.15	Ramp mode select	Std	**Std**	
00.16	Ramp enable	On	**On**	
00.17	Current demand filter1	0.0	**0.0**	ms
00.18	Positive logic select	On	**On**	
00.19	T7 analog input 2 mode	Volt	**Volt**	
00.20	T7 analog input 2 destination	1.37	**1.37**	
00.21	T8 analog input 3 mode	th	**th**	
00.22	Bipolar reference enable	OFF	**OFF**	
00.23	Jog reference	0.0	**0.0**	RPM
00.24	Preset reference 1	0.0	**0.0**	RPM
00.25	Preset reference 2	0.0	**0.0**	RPM
00.26	Overspeed threshold	0	**0**	RPM
00.27	Drive encoder lines per revolution	1024	**1024**	
00.28	Enable forward / reverse key	OFF	**OFF**	
00.29	SMARTCARD parameter data previously loaded	0	**0**	
00.30	Parameter cloning	nonE	**nonE**	
00.31	Drive voltage rating	400	**400**	V
00.32	Maximum Heavy Duty current rating	0.00	**0.00**	A
00.33	Rated rpm autotune	0	**0**	
00.34	User security code	0	**0**	
00.35	Serial mode	rtu	**rtu**	
00.36	Baud rate	19200	**19200**	
00.37	Serial address	1	**1**	
00.38	Current controller Kp gain	150	**150**	
00.39	Current controller Ki gain	2000	**2000**	
00.40	Autotune	0	**0**	
00.41	Maximum switching frequency	3	**3**	kHz
00.42	Number of motor poles	Auto	**Auto**	
00.43	Rated power factor	0.850	**0.850**	
00.44	Rated voltage	460	**460**	V
00.45	Rated load rpm / rated speed	1770.00	**1770.00**	RPM
00.46	Motor rated current	0.00	**0.00**	A
00.47	Rated frequency	60.0	**60.0**	Hz
00.48	User drive mode	CL VECt	**CL VECt**	
00.49	Security status	L1	**L1**	
00.50	Software version	0.00	**0.00**	

The Basics – Menu 0 Parameters – Servo

UniClassic

Parameter	Description	Default	Memory	Units
00.00	Parameter 0	0	**0**	
00.01	Minimum Speed Clamp	0	**0**	RPM
00.02	Maximum Speed Clamp	3000	**3000**	RPM
00.03	Accel 1 / Forward accel 1	0.200	**0.200**	s/1000 RPM
00.04	Decel 1 / Forward decel 1	0.200	**0.200**	s/1000 RPM
00.05	Reference selector	0	**0**	
00.06	Symetrical current limit	175.0	**175.0**	%
00.07	Speed loop P gain	200	**200**	
00.08	Speed loop I gain	100	**100**	
00.09	Speed loop D gain	0	**0**	
00.10	Speed feedback	0	**0**	RPM
00.11	Pre-Ramp Speed reference	0	**0**	RPM
00.12	Post-ramp reference	0	**0**	RPM
00.13	Motor active current	0.00	**0.00**	A
00.14	Jog reference	50	**50**	RPM
00.15	Ramp Mode	Stnd.Ct	**Stnd.Ct**	
00.16	Stop mode	no.rP	**no.rP**	
00.17	Torque Mode Selector	0	**0**	
00.18	S ramp enable	0	**0**	
00.19	S ramp Acceleration Limit	0.030	**0.030**	s²/1000RPM
00.20	Skip Speed 1	0	**0**	RPM
00.21	Skip Speed band 1	5	**5**	RPM
00.22	Skip Speed 2	0	**0**	RPM
00.23	Skip Speed band 2	5	**5**	RPM
00.24	Analog input 1 mode	VoLt	**VoLt**	
00.25	Analog input 2 mode	VoLt	**VoLt**	
00.26	Analog input 2 destination	1.37	**1.37**	menu.param
00.27	Sequencing mode	4	**4**	
00.28	Reference selected	0	**0**	RPM
00.29	F6 input destination	1.41	**1.41**	menu.param
00.30	Enable keypad fwd/rev switch	0	**0**	
00.31	Parameter macro previously loaded	0	**0**	
00.32	Serial mode	ANSI 4	**ANSI 4**	
00.33	Current rating	0.00	**0.00**	A
00.34	User security code	149	**149**	
00.35	Keypad reference	0	**0**	RPM
00.36	Baud rate	4800	**4800**	
00.37	Serial address	1.1	**1.1**	group.unit
00.38	Parameter displayed on power up	0.10	**0.10**	menu.param
00.39	Catch a spinning motor	1	**1**	
00.40	Encoder phasing test	0	**0**	
00.41	Switching frequency	3	**3**	kHz
00.42	No. of poles	6 pole	**6 pole**	Poles
00.43	Motor rated power factor	1.000	**1.000**	cos phi
00.44	Motor rated voltage	0	**0**	V
00.45	Motor rated full load RPM	1770	**1770**	RPM
00.46	Motor rated current	0.00	**0.00**	A
00.47	Motor rated frequency	0.0	**0.0**	Hz
00.48	Drive type	SErVO	**SErVO**	
00.50	Software version	0.00	**0.00**	

SAME

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UniSP

Parameter	Description	Default	Memory	Units
00.00	Parameter 0	0	**0**	
00.01	Minimum reference clamp	0.0	**0.0**	RPM
00.02	Maximum reference clamp	3000.0	**3000.0**	RPM
00.03	Acceleration rate 1	0.200	**0.200**	s/1000 RPM
00.04	Deceleration rate 1	0.200	**0.200**	s/1000 RPM
00.05	Reference selector	A1.A2	**A1.A2**	
00.06	Symmetrical current limit	175.0	**175.0**	%
00.07	Speed controller proportional gain (Kp1)	0.0100	**0.0100**	1/rad s-1
00.08	Speed controller integral gain (Ki1)	1.00	**1.00**	1/rad
00.09	Speed controller differential feedback gain (K...	0.00000	**0.00000**	s
00.10	Speed feedback	0.0	**0.0**	RPM
00.11	Drive encoder position	0	**0**	
00.12	Current magnitude	0.00	**0.00**	A
00.13	T5/6 analog input 1 offset trim	0.000	**0.000**	%
00.14	Torque mode selector	Speed	**Speed**	
00.15	Ramp mode select	Std	**Std**	
00.16	Ramp enable	On	**On**	
00.17	Current demand filter1	0.0	**0.0**	ms
00.18	Positive logic select	On	**On**	
00.19	T7 analog input 2 mode	Volt	**Volt**	
00.20	T7 analog input 2 destination	1.37	**1.37**	menu.param
00.21	T8 analog input 3 mode	th	**th**	
00.22	Bipolar reference enable	OFF	**OFF**	
00.23	Jog reference	0.0	**0.0**	RPM
00.24	Preset reference 1	0.0	**0.0**	RPM
00.25	Preset reference 2	0.0	**0.0**	RPM
00.26	Overspeed threshold	0	**0**	RPM
00.27	Drive encoder lines per revolution	4096	**4096**	
00.28	Enable forward / reverse key	OFF	**OFF**	
00.29	SMARTCARD parameter data previously loaded	0	**0**	
00.30	Parameter cloning	nonE	**nonE**	
00.31	Drive voltage rating	400	**400**	V
00.32	Maximum Heavy Duty current rating	0.00	**0.00**	A
00.34	User security code	0	**0**	
00.35	Serial mode	rtu	**rtu**	
00.36	Baud rate	19200	**19200**	
00.37	Serial address	1	**1**	
00.38	Current controller Kp gain	150	**150**	
00.39	Current controller Ki gain	2000	**2000**	
00.40	Autotune	0	**0**	
00.41	Maximum switching frequency	6	**6**	kHz
00.42	Number of motor poles	6 pole	**6 pole**	
00.43	Encoder phase angle	0.0	**0.0**	°
00.44	Rated voltage	460	**460**	V
00.45	Thermal time constant	20.0	**20.0**	
00.46	Motor rated current	0.00	**0.00**	A
00.48	User drive mode	SErVO	**SErVO**	
00.49	Security status	L1	**L1**	
00.50	Software version	0.00	**0.00**	

The Basics – Menu 0 Parameters
Key Configuration Parameters

There are a few key configuration parameters in menu 0 of the Unidrive Classic that are still available in the Unidrive SP but in a slightly different form. These will be discussed in more detail below since they can be used to configure the drive in a more "automatic" manner.

Parameter 0.05 – Reference Selector

This parameter is mapped to parameter 1.14 in both drives. It is used to select the primary speed reference. The difference between the two drives is that the SP will automatically configure terminals #28 and #29 to select the secondary references for some of the reference selections. This function (automatic configuration) can be disabled by setting parameter #8.39 to "on". In the Unidrive Classic, this automatic configuration function was done using macros (parameter #0.31).

Unidrive Classic

Reference select Pr 1.14	
0	Reference select by terminal
1	Analog reference 1
2	Analog reference 2
3	Preset speeds reference selected
4	Keypad reference selected
5	Precision reference selected

Note: Parameter 6.04 in the Unidrive Classic configures the digital inputs. When a selection is made, the individual inputs can be changed and saved

Unidrive SP **Term #28** **Term #29**

Reference select Pr 1.14		Pr 8.25	Pr 8.26
0, A1.A2	Analog reference 1 or 2 selected by terminal input	Pr 1.41 – Analog ref 2 select	Pr 6.31 - jog
1, A1.Pr	Analog reference 1 or presets selected by terminal input	Pr 1.41 – preset select bit 0	Pr 1.41 – preset select bit 1
2, A2.Pr	Analog reference 2 or presets selected by terminal input	Pr 1.41 – preset select bit 0	Pr 1.41 – preset select bit 1
3, Pr	Preset reference by terminal input	Pr 1.41 – preset select bit 0	Pr 1.41 – preset select bit 1
4, Pad	Keypad reference selected	Pr 1.41 – Analog ref 2select	Pr 6.31 - jog
5, Prc	Keypad reference selected	Pr 1.41 – Analog ref 2 select	Pr 6.31 - jog

Parameter 0.27 – Sequencing Mode

This parameter is mapped to parameter 6.04 in the Unidrive Classic. This parameter sets up the start stop logic in the drive. The equivalent parameter in the Unidrive SP is also parameter 6.04

Unidrive Classic

Pr 6.04	T24	T25	T26	T27	T28	T29	
0	Logic output	Reset	Jog	Run	Fwd/Rev	Not Stop	Latched
1	Jog Rev	Reset	Jog Fwd	Run Fwd	Run Rev	Not Stop	Latched
2	Logic output	Reset	Jog	Run Fwd	Run Rev	Not Stop	Latched
3	Logic output	Reset	Jog	Run	Fwd/Rev	Analog Input 1/2 Select	Non-Latched
4	Logic output		Jog	Run Fwd	Run Rev	Analog Input 1/2 Select	Non-Latched

Unidrive SP

Pr 6.04	T25	T26	T27	Pr 6.40
0	Enable	Run Fwd	Run Rev	Non-latching
1	Not-stop	Run Fwd	Run Rev	Latching
2	Enable	Run	Fwd / Rev	Non-Latching
3	Not-stop	Run	Fwd / Rev	Latching
4 (Default*)	User Prog (Reset)	User Prog (Run Fwd)	User Prog (Run Rev)	User Prog (Non-latching)

* Note: Settings when the drive is reset to defaults (or drive out of the box state), these can be changed by the user and saved. All other settings, 0 thru 3, cannot be modified as the drive software continually sets these parameters.

Parameter 0.31 – Macro previously loaded

This parameter is mapped to parameter 11.37 in the Unidrive Classic. It shows the last macro loaded into the drive. Macros were a method of configuring the drive for specific applications. The Unidrive SP does not have built in macros like the classic although the Unidrive SP Advanced User Guide does provide required parameter listings and block diagrams to achieve the macros provided in the Unidrive classic.

http://www.emersonct.com/download_usa/manuals/SPAdvancedUsersGuide.pdf

Macro	Description
1	Easy mode
2	Motorised potentiometer
3	Preset frequencies / speeds
4	Torque control
5	PID (set-point control)
6	Axis-limit control
7	Brake control
8*	Digital lock / shaft orientation

Questions: **For Additional help, please Call Control Techniques Technical Support @ 1-800-367-8067**