

| OPTION | NO. | DESCRIPTION | FOR CONTROL SERIES | LEAD TIME |
|--|-----|---|--|--------------|
| ELECTRON | A1 | Ten-Turn Potentiometer 500 ohm - Used to achieve finer adjustment of speed, replaces the standard single turn master speed pot. | 100-120 | Stk. |
| RSS SA Q 25% | A2 | Ten-Turn Potentiometer 5k ohm - Used to achieve finer adjustment of speed, replaces the standard single turn master speed pot. | 310, Wet-Spec. D-Trol | Stk. |
| | A3 | Rectangular Digital Counting Dial - Precision digital counting dial with locking brake. Includes mounting hardware. For use with option A1 or A2. | 100, 120, 310, Wet-Spec. D-Trol | 1 Wk. |
| | A4 | Round Analog Counting Dial - Precision analog counting dial with large easy-to-read numbers. Numbered wheels progress smoothly without flip action to avoid misreadings. For use with option A1 or A2. | 100, 120, 310, Wet-Spec. D-Trol | Stk. |
| 0 0 0 | A5 | Round Digital Counting Dial - Precision digital counting dial with gear driven numbers. Counting dial is equipped with magnifying lens for readability. Includes lock and mounting hardware. For use with option A1 or A2. | 100, 120, 310, Wet-Spec. D-Trol | 2 Wk. |
| # 12% + 131 # 12% + 131 | *A6 | Multiple Pre-Set Speeds - Consult factory for quotation. This system permits any number of pre-set speed pots to be switched into the circuit. The speed pots may be mounted in an external enclosure with terminals or in customer's panel. Switching may be performed by a multiple position selector switch, relay circuits, or through customer's logic signals. Controls with reversing may operate with one pre-set speed in reverse. When requesting quote, please specify the following: 1. Location of speed pots - inside control or separate enclosures. 2. Number of pre-set speeds desired. 3. Method of switching speed pots - selector switch, relays, or external signal and location of switching devices. (Relays are supplied as standard) | Consult Factory | 6 Wk. |
| | A7 | R.C. Network - Factory installed surge suppression for reduction of inrush current (line spikes) produced by welding or other high frequency applications. Supplied on D-Trol as standard. | 100, 310, Wet-Spec. K-Line, K-Trol | 3 Wk. |
| | A8 | Custom Decals - Consult factory for quotation, a minimum 100 piece quantity is required. (No exceptions) Electrol can furnish a custom-made decal featuring company logo and machine information. When ordering, please supply artwork. One time charge for set-up. | 100, 120, 310, Wet-Spec, D-Trol | 10 Wk. |

^{*}MUST BE WIRED AT FACTORY.



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| | A10 | Hercules Variable Speed Foot Control – 500 ohm. Complies with OSHA provisions for full shielding of foot controls. NEMA 4, water-tight – oil-tight rating. UL and CSA listed. Depressing the treadle rotates the potentiometer from zero to the selected maximum speed. Treadle is spring loaded and returns to normal position when foot pressure is removed. SPDT auxiliary switch for adjustment at any point of the treadle stroke. | 100, 120 | 3 Wk. |
| 9" x 5-3/4" x 4-3/4" 7 lbs. | A12 | Hercules Variable Speed Foot Control – <u>5k ohm.</u> Complies with OSHA provisions for full shielding of foot controls. NEMA 4, water-tight – oil-tight rating. UL and CSA listed. Depressing the treadle rotates the potentiometer from zero to the selected maximum speed. Treadle is spring loaded and returns to normal position when foot pressure is removed. <u>SPDT auxiliary switch for adjustment at any point of the treadle stroke.</u> | 310, Wet-Spec, D-Trol, K-Trol, K-Line | 3 Wk. |
| | – A14 | Varior Variable Speed Foot Control – 500 ohm. For use where a non-water tight housing is suitable. Spring return foot pedal, drawn steel housing, complete with full ribbed treadle pad and non-skid base pad. Supplied in black with 6 ft. No. 18/6 cord without plug. SPDT auxiliary switch for adjustment at any point of the treadle stroke. | 100, 120 | 1 Wk. |
| 4" x 9" x 2" 4-1/2 lbs. | A16 | Varior Variable Speed Foot Control – <u>5k ohm.</u> For use where a non-water tight housing is suitable. Spring return foot pedal, drawn steel housing, complete with full ribbed treadle pad and non-skid base pad. Supplied in black with 6 ft. No. 18/6 cord without plug. <u>SPDT auxiliary switch for adjustment at any point of the treadle stroke.</u> | 310, D-Trol, K-Trol, K-Line | Stk. |
| 10000000000000000000000000000000000000 | *A18 | Contactor Dynamic Braking - Required above 1 HP – Provides fast smooth stop. Relay circuit and braking resistor are rated per motor horsepower. Pushbuttons rather than switch are activated to connect braking resistor. Standard dynamic braking resistors are supplied on the basis of no appreciable external inertia, and the following maximum starts and stops: 1/8 through 1 HP - 115VAC Input - 30 per minute maximum | 100, Wet-Spec, D-Trol | 4-6 Wk. |
| 188 | *A18A | Same as above except 1/8 through 1 HP - 230VAC Input - 30 starts and stops per minute maximum | 120, Wet-Spec, D-Trol | 4-6 Wk. |
| | *A18B | Same as A18 except 1-1/2 through 2 HP - 230VAC Input - 10 starts and stops per minute maximum | 120, Wet-Spec, D-Trol | 4-6 Wk. |
| | *A18C | Same as A18 except 3 through 5 HP - 230VAC Input - 10 starts and stops per minute maximum | 120, Wet-Spec, D-Trol | 4-6 Wk. |





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| in n | A19 | Manual Dynamic Braking - Uses a heavy-duty mechanical switch for braking action. Includes addition of braking resistor in standard enclosure. Resistor is automatically connected across the motor armature when the run-stop switch is activated. The resistor dissipates the energy produced by the motor (now operating as a generator) resulting in a quick, smooth stop. However dynamic braking is ineffective once the load has stopped and will not serve as a holding brake. Standard dynamic braking resistors are supplied on the basis of no appreciable external inertia, and the following maximum starts and stops: 1/8 through 1 HP - 30 per minute maximum | 100, 120, 310, Wet-Spec, D-Trol, K-Line | Stk 3 Wk. |
| | A20 | Manual Reversing with Dynamic Braking - Heavy-duty mechanical switch with center stop for braking action. The center "off" position of switch prevents plugging of motor. Dynamic Braking resistor is connected across motor armature in center "off" position. Dynamic braking is ineffective once load has stopped and will not serve as a holding brake. Maximum 1 HP. | 100, 120, Wet-Spec, D-Trol, K-Line | Stk 3 Wk. |
| | *A20A | Manual Reversing, No Dynamic Braking - Motor must come to complete stop before starting in opposite direction. Center detent position disables pushbuttons when changing directions. Customer must manually restart motor with pushbuttons. | 100, 120, Wet-Spec, D-Trol, K-Line | Stk 3 Wk. |
| | *A21 | Contactor Reversing with Dynamic Braking - Required above 1 HP. Magnetic contactors or power relays operated by pushbuttons are used to reverse armature polarity after the motor has stopped. Anti-plugging protection and dynamic braking are included in this option. Limit switches or other pilot devices may be used with or to replace, pushbuttons to provide armature braking and reversing. NOTE: This may require larger enclosure, consult factory for quotation. 1/8 through 1 HP -115VAC Input | 100, Wet-Spec, D-Trol | 4-6 Wk. |
| 8 8 | *A21A | Same as above except 1/8 through 1 HP - 230VAC Input | 120, Wet-Spec, D-Trol | 4-6 Wk. |
| (수준 등 - #14년 전시 (14) (14) 수 5 (14) | *A21B | Same as above except 1-1/2 through 2 HP -230 VAC Input | 120, Wet-Spec, D-Trol | 4-6 Wk. |
| | *A21C | Same as above except 3 through 5 HP 230VAC Input | 120, Wet-Spec, D-Trol | 4-6 Wk. |
| | *A22 | Heavy Duty Contactor Braking - For repeated Run/Stop cycling high inertia stopping. 1/8 through 1 HP - 115VAC Input | 100, Wet-Spec, D-Trol | 4-6 Wk. |
| | *A22A | Same as above except 1/8 through 1 HP - 230VAC Input | 120, Wet-Spec, D-Trol | 4-6 Wk. |
| | *A22B | Same as above except 1-1/2 through 2 HP - 230VAC Input | 120, Wet-Spec, D-Trol | 4-6 Wk. |
| | *A22C | Same as above except 3 through 5 HP 230VAC Input | 120, Wet-Spec, D-Trol | 4-6 Wk. |



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| SKREREER SKREREER | *A-23 | Terminal Block Connection - Can be supplied for customer limit switch to remote pushbutton operation. Pushbuttons or limit switches switches supplied by Customer or ELECTROL. Consult factory for quote. | 100, 120, 310, Wet-Spec, D-Trol | 4-6 Wk. |
| | A24 | Analog Speed Indicator - 0 - 1800 RPM scale only, reads tachogenerator voltage. Therefore tachometer is required, please specify A37. | 100, 310, Wet-Spec, D-Trol | 6 Wk. |
| 31/2 | A26 | Analog Speed Indicator - 0 - 1800 RPM scale only. 115VAC Input. Measures speed of any ELECTROL motor through measurement of of armature voltage. It requires no tach generator or mechanical couplings and is calibrated in motor RPM. | 100, 310, D-Trol | Stk 3 Wk. |
| 3½ | A26A | Same as above except 230VAC Input | 120, D-Trol, D-Trol II | Stk3 |
| 3/2 | A27 | Analog Speed Indicator - 115VAC Input. Other scale readings. (Specify scale when ordering.) Measures speed of any ELECTROL motor through measurement of armature voltage. It requires no tach generator or mechanical couplings and can be calibrated with different scale readings. | 100, 310, Wet-Spec, D-Trol | 6 Wk. |
| | A27A | Same as above except 230VAC input | 120, Wet-Spec, D-Trol, D-Trol II | 6 Wk. |
| | A28 | Watertight Enclosure - For analog meters A24 through A27. (Specify both numbers when ordering.) Designed for applications requiring an enclosure that will protect the meter in dirty or wet (washdown) environments. | Wet-Spec | 6 Wk. |
| | A29 | Analog Load Indicator - (Specify motor current and scale when ordering.) Provides a continuous readout of motor load. Scale can be calibrated in current or percent of motor RPM. | 100, 120, 310, D-Trol, D-Troll II | 6 Wk. |
| Widdl: | A30 | Digital Speed Indicator - Digital speed indicator eliminates need for for reading a meter needle as in analog systems and is even more accurate. Readout is modular for customer mounting. By using a sensor arrangement that delivers 60 pulses per unit of measure, the indicator will read out directly in the desired units with a convenient second update time. RPM readout is standard. Specify options A31, A31A, A31B, or A31C for 60-tooth ring adaptor kit sized by motor frame. NOTE: Ring Adaptor Kit is necessary for this option. | 100, 120, D-Trol | Stk 1 Wk. |
| | A30A | Programmable Digital Speed Indicator - Adjustable timebase 4-Digit Tachometer. Supplied in rugged, sealed front NEMA 4 construction panel. Adjustable timebase from 4MSEC to 32 SEC, selectable decimal points, accepts magnetic or logic type inputs. | Wet-Spec, D-Trol | Stk 1 Wk. |
| | A31 | Ring Kit - for Motor Frame 56C, shaft diameter 5/8". ring Kit can be quickly and easily installed on foot mounted motors with NEMA C flange endbells, or it may be mounted between the motor and gear reducer. Ring kit is supplied complete with the sensing gear, magnetic pick up and four (4) mounting bolts. Used for RPM indication. | 100, 120, D-Trol | Stk 1 Wk. |
| | A31A | Ring Kit - for Motor Frames 143TC, 145TC, 182C, 184C, Shaft Diameter 7/8". Used for RPM indication. | 100, 120, D-Trol, D-Trol II | Stk 1 Wk. |





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| | A31B | Ring Kit - for Motor Frames 182TC, 184TC, 213C, 215C, 254C, Shaft Diameter 1-1/8". Used for RPM indication. | 100, 120, D-Trol, D-Trol II | Stk 1 Wk. |
| | A31C | Ring Kit - for Motor Frames 213TC, 215TC, 254UC, and 256UC, Shaft Diameter 1-3/8". Used for RPM indication. | 100, 120, D-Trol, D-Trol II | Stk 1 Wk |
| | *A33 | Analog Tachometer Follower - A tach follower enables the speed of a motor to follow the speed of an existing motor automatically via a DC Tachometer Generator - When ordering, specify Option A37 which is necessary for the option and shipped loose for customer mounting. | 100, 120, Wet Spec, D-Trol | 4-6 Wk. |
| | *A34 | Analog Tach Feedback - A motor mounted Tachometer generator provides a speed signal which replaces the normal IR feedback, thus making the control directly sensitive to motor speed. The result is improved speed regulation and reduced sensitivity to external influences such as fluctuating line voltage, ambient temperature variations, and motor field warm-up. Specify V/RPM used and base speed of motor. 0 - 1 MA meter output is supplied for speed indication. NOTE: Specify Tachometer Generator Option A37 which is necessary for this option and is shipped loose for customer mounting. | 100, 120, Wet Spec, D-Trol World Class | 4-6 Wk. |
| | *A34A | Digital Tach Feedback - Speed Signal which replaces the normal IR feedback as in A34 above is supplied by a modular, easily mounted 60-tooth gear ring adaptor kit. SPECIFY OPTIONS A31, A31A, A31B, A31C for ring adaptor kit sized by motor frame WHICH IS NEEDED FOR THIS OPTION. | 100, 120, Wet Spec, D-Trol | 4-6 Wk. |
| | A36 | Tachometer Generator - 7V/1000 RPM totally enclosed | 100, 120, 310, D-Trol, Wet Spec | Stk 3 Wk. |
| | A37 | Tachometer Generator - 50V/1000 RPM totally enclosed, 5000 RPM maximum speed, 400 milliamps maximum current. Interchangeable with GE (5-PY) model. • 50 VDC/1000 RPM • VOLTAGE VARIATION FROM UNIT TO UNIT. ± 5% • MAX. SPEED. 5000 RPM • MAX. CURRENT 400 MILLIAMPS • ARM. RESISTANCE 52 OHMS AT 25° C • ARM. INDUCTANCE 124 MILLIHENRYS • ARM. INERTIA 0.40 LB. IN.2 • MAX. TERM. VOLTAGE 250 VDC • REVERSING ERROR 2% | 100, 120, 200, 310, Wet Spec, D-Trol | Stk 1 Wk. |
| Θ (578A) · · · · · · · · · · · · · · · · · · · | A38 | Remote Control Station - All models may be wall mounted or used as hand held pendent. Two pushbuttons and master speed potentiometer. (Specify pot rating when ordering.) | 100, 120, Wet Spec, D-Trol, D-Trol II | 2-3 Wk. |
| | A39 | Remote Control Station - All models may be wall mounted or used as hand held pendent. Three pushbuttons and master speed potentiometer. (Specify pot rating when ordering.) | 100, 120, Wet Spec, D-Trol, D-Trol II | 2-3 Wk. |
| | A40 | Remote Control Station - All models may be wall mounted or used as hand held pendent. Four pushbuttons and master speed potentiometer. (Specify pot rating when ordering.) | 100, 120, Wet Spec, D-Trol, D-Trol II | 2-3 Wk. |



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| | A41 | Remote Control Station - All models may be wall mounted or used as hand held pendent. Five pushbuttons and master speed potentiometer. (Specify pot rating when ordering.) | 100, 120, Wet-Spec, D-Trol, D-Trol II | 2-3 Wk. |
| | A42 | Process Control - Isolated process control board with speed profile adjustments, has multi-turn trim pots for gain adjustment, entry and exit point and entry and exit speed. Reverse ramp capabilities (inversely proportional speed) - full speed output with "0" speed input. Ramp may be set up anywhere between two input and output signals. Control relay supplied with adjustable pickup points for actuation of signal or customer peripheral equipment. Isolation is provided as standard. Dual voltage, AC power supply 115VAC or 230 VAC, selectable by plug. Separate voltage and current inputs on screw terminal. Voltage signals include 0 m- 10V, 0 - 100V or 0 - 200 VDC. Current signals include 0 - 50 MA or 4 - 20 MA.Input Impedance: Current 475 ohm Voltage 10K - 200K ohm. | Wet Spec, D-Trol | Stk 6 WI |
| | *A45 | Customer Contacts - Additional relay contacts from switching relays are provided and wired to terminal block for customer use. These circuits are suitable for indicator lights, warning signals, holding brake coils and other circuits. Specify Contact Current required when ordering. | 100, 120, Wet-Spec, D-Trol, D-Trol II | 6 Wk |
| | A46 | Potentiometer Prewired - Specify pot rating and length of wires. Min. 100 | | 3 Wk |
| | A47 | Special Panel Sizes - Special quote per specifications. Min. 100 | | 4-6 Wk. |
| · 查查书 | *A48 | Contactor Start/Stop - "Start" and "Stop" functions are governed by pushbuttons instead of switch. Control must be manually restarted in the event of power failure or disconnect - an excellent safety feature. Supplied on D-Trol as standard. 1/8 through 1 HP - 115VAC Input | 100 | 4-6 Wk. |
| | *A48A | Same as above except 1/4 through 2 HP - 230VAC Input | 120 | 4-6 V |
| | *A48B | Same as above except 3 through 5 HP - 230VAC Input Supplied on D-Trol II as standard. | 120 | 4-6 Wk. |
| | A49 | Master Override - This system governs the speed of two or more individual drives with one master adjustment. Each control has individual trim adjustment. | Consult Factory | Con Fact |
| | A50 | Jogging/Threading - Provides means of intermittent low speed operation. Controls are supplied with jog/run switch and jog pushbutton mounted on cover of enclosure and a separate jog speed trim pot mounted on control chassis. Drive operates while jog pushbutton is depressed. Jog speed pot allows a variable preset speed. | 100, 120, 310, Wet-Spec, D-Trol | 3-4 Wk. |
| | A51 | Torque Control - Torque control speed pot mounted on door of enclosure 100 and 120 series only. Preset taper (ramp) as standard. Provides constant tension for take up/wind up and other applications. Current controlled rather than speed controlled. | 100, 120, D-Trol | 3-4 Wk. |
| | A52 | Tach mounting kit for use with M46 series motors on page B-11 when using A37 tachometer. NOTE: All tachometers are shipped loose for customer mounting. ELECTROL will not be responsible for mounting or alignment. | | Stk 3 Wi |





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| | A54 | Tach mounting kit for use with 66 series motors on Page B-12. | | Stk 3 Wk. |
| | A55 | Isolation Amplifier provides an isolated interface between non-isolated signals and Electrol controls. Signal sources include process controllers, transducers, microprocessors and programmable controllers (PC's). Dual voltage power supply input 115/230 VAC, 50/60 HZ voltage, selectable by slide switch. Wide range of voltage and current signal inputs, selectable by dip switch. Voltage signals include 0 - 13, 0 - 25, 0 - 120, 0 - 550 VDC. Current signals include 1 - 5, 4 - 20 and 10 - 50 MA. 0 - 13 DC max. output which is a linear function of input. Multi-turn trim pots for gain and offset functions. Offset trim-adjust low end, minimum output. Gain trim - adjust high end, maximum output. Small size: Dimensions 1.4" x 3.5" x 4.5". Competitively priced. See Page C-6 for more data. | World Class, K-Trol, D-Trol, Moto-Vator II | Stk 3 Wk. |
| | A56 | Pulse Rate to Analog Converter - A convenient plug-in module that provides voltage and current analog output signals proportional to the pulse-rate (frequency) of the input signal. A machine mounted sensor generates a signal which has a frequency proportional to machine process speed. (Option A31 is one type of sensor). Five input frequencies are available from 30HZ to 10 KHZ. Output signal 0-10 VDC plus selectable signal current output of 0-1 MA or 4-20 MA. Typical applications include digital tach feedback, machine process speed control, and computer interface. | D-Trol, K-Trol | 1 Wk. |
| | A57 | Pulse Generator provides 5 volt square wave pulse with frequency proportional to shaft RPM with one pulse per revolution (PPR). With an external power supply, this unit can be used with Option A30A, or on other applications that can accept this type of input. Option is supplied as a printed circuit board sealed in a thermoplastic case with an 6-foot rubber cord. Maximum shaft speed is 5000 RPM. | D-Trol, K-Trol | 1 Wk. |
| | A58 | Jog at Jog Speed - Modular plug in card provides the necessary relay and signal logic to operate the unit at a predetermined jog speed. Jog trim pot included on PC Board for customer adjustment. NOTE: Jog at run speed does not require this option - use a standard D-Trol II. | D-Trol II | Consult Factory |
| | A59 | Control by External Signal - Modular plug in card provides various input voltages or currents with isolation to control the process speed from customer designated external signals. Specifications and Ratings Power Supply | D-Trol II | Stk 3 Wk. |
| | | Linearity | | |



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| | A60 | Contactor Braking - Modular plug in card plus heavy duty contactor and braking resistors for disconnecting motor from control and to handle dynamic braking function. Includes forward/stop/reverse pushbuttons mounted on door of enclosed model or shipped loose for customer connection with chassis mount unit. Pilot duty contacts provide for customer customer-supplied signalling devices or low current actuation of auxiliary equipment. NOTE: Braking resistors must be mounted and wired externally. | D-Trol II | 4-6 Wk. |
| | A61 | Contactor Reversing with Dynamic Braking - Modular plug in card plus heavy duty contactors and braking resistors to disconnect the motor from control and reverse rotation of motor shaft. Anti-plugging is provided as standard with this option to prevent plug reversing of motor armature. Includes forward/stop/reverse pushbuttons mounted on door of enclosed model or shipped loose for customer mounting with chassis mount units. Pilot duty contacts provide for customer-supplied signalling devices or low current actuation of auxiliary equipment. NOTE: Braking resistors must be mounted and wired externally. | D-Trol II | 4-6 Wk. |
| | A62 | Analog Tach Feedback - Modular plug in card plus motor mounted tachometer provides the customer with increased speed regulation - 1% of base speed or greater. NOTE: Specify A37 tachometer generator or equivalent which is necessary for this option and is shipped loose for customer mounting. Acceptable input voltages are 7VDC/1000 RPM, 50VDC/1000 RPM, and 100VDC/1000 RPM. | D-Trol II | 4-6 Wk. |
| | A63 | Metering Output: An analog scale output is provided to operate a 0-1 MA meter for both current and motor voltage. Meter can be scaled for various purposes, dependent upon customer application. NOTE: Specify meter which is NOT included in this option (A64 or equivalent). | D-Trol II | 4-6 Wk. |
| | A64 | 0-1MA Meter - Movement scaled 0-100%. May be used for current or speed indication. | D-Trol II | 4-6 Wk. |
| | A65 | Ramp Down Reversing – Solid State Contactor Reversing P.C. Board features solid state braking and controlled ramp down reversing. Internal braking resistors may be disconnected for applications that require reversing only. Ideal for cycling applications. Small size, easy N/O – N/C hookup to run from PLC. See page C-7 for more data. | World Class, K-Trol, D-Trol | Stk 2 Wk. |
| | A66 | Solid State Braking - Solid state dynamic braking circuit removes power from the motor and applies a dynamic braking signal to the motor armature. See page C-7 for for more data. | D-Trol, Wet-Spec | Stk 2 Wk. |
| | A67 | Isolation Amplifier – An electrical interface between non-isolated signals and ELECTROL controls. See page C-6 for more data. | D-Trol, Wet-Spec | Stk 2 Wk. |