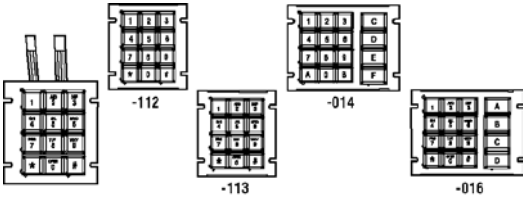


81 Series Full Travel Keypad

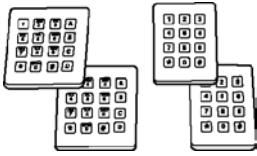
Rated for 3 million operations. Features long keystroke, silicone rubber actuators, conductive ink contacts and membrane matrix circuitry. Two choices for flex tail termination — -C = (2) 0.10 spacing single row connectors; -Z = exposed traces for (2) 0.10 spacing zero-insertion-force connectors. All keypads have black legends on white keycap, legends are molded into plastic keys for long life. Keypad can be mounted directly to PCB or front panel. Legends are alphanumeric telephone plus A through D on -014 and -016. **Operating Temperature:** -40°C to 80°C. **Contact Resistance:** Less than 100 Ω.



Stock No.	Mfr.'s Type	Size/Termination	EACH	
			1-24	25-99
948-2019	81AB2-112-C	3 × 4/Connector	54.26	50.17
948-2020	81AB2-112-Z	3 × 4/Exposed traces	49.29	45.56
948-2021	81AB2-113-C	3 × 4/Connector	54.26	50.17
948-2022	81AB2-113-Z	3 × 4/Exposed traces	49.29	45.56
948-2023	81BB2-014-C	4 × 4/Connector	67.72	62.60
948-2024	81BB2-014-Z	4 × 4/Exposed traces	62.74	58.00
948-2025	81BB2-016-C	4 × 4/Connector	67.72	62.60
948-2026	81BB2-016-Z	4 × 4/Exposed traces	62.74	58.00

Series 96 Quality, Economical Conductive Rubber Keypads

- Available Options: E.L. Panel Backlighting (EL=Backlit) and EMI/RFI Shielding (S=Shielding)
- Front (Top) Panel (F=Front Panel) or Rear (Flush) Panel Mounting Available
- Operations Per Button: 3,000,000 Standard, 1,000,000 Backlit and Shielded
- Compatible with High Resistance Logic Circuitry and Excellent Operator Feedback Matrix Circuitry
- Rated For 5 mA @ 12 Vdc for 0.5 Sec.
- Operating Temperature: -30°C to +80°C
- Legending: -102 and -005 Feature Black-On-White Legends, -152 and -056 Feature White-On-Black Legends
- 3 × 4 Numeric Telephone — 2.7" × 2.0" (68.58 × 50.8)
- 4 × 4 Alphanumeric Telephone Plus A Thru D — 3.0" × 2.2" (76.02 × 55.88)



Stock No.	Mfr.'s Type	Configuration	EACH		Stock No.	Mfr.'s Type	Configuration	EACH	
			1-99	100-499				1-99	100-499
948-7874	96AB2-102-F	3 × 4	11.22	10.37	948-7878	96BB2-006-F	4 × 4	12.50	11.55
948-7882	96AB2-102-FS	3 × 4	14.53	13.40	948-7894	96BB2-006-FS	4 × 4	15.44	14.28
948-7884	96AB2-102-F-EL	3 × 4	49.17	45.40	948-7896	96BB2-006-F-EL	4 × 4	50.09	46.25
948-7886	96AB2-102-FS-EL	3 × 4	52.47	48.43	948-7898	96BB2-006-FS-EL	4 × 4	53.40	49.29
948-7876	96AB2-152-F	3 × 4	11.22	10.36	948-7880	96BB2-056-F	4 × 4	12.50	11.55
948-7888	96AB2-152-FS	3 × 4	14.53	13.40	948-7891	96BB2-056-FS	4 × 4	15.44	14.25
948-7890	96AB2-152-F-EL	3 × 4	49.17	45.40	948-7893	96BB2-056-F-EL	4 × 4	50.09	46.25
948-7892	96AB2-152-FS-EL	3 × 4	52.47	48.43	948-7895	96BB2-056-FS-EL	4 × 4	53.40	49.29

Series 84LS 12 and 16 Button Environmentally Sealed Keypads



Series 84LS 12 and 16 button keypads have matrix circuitry output and are completely sealed by a silicon rubber boot. Legends are epoxy printed on the top surface of the boot. 3 × 4 legend is numeric telephone and 4 × 4 is hexadecimal notation as shown in the figure. 3 × 4 is 2.35" × 3.1"; 4 × 4 is 3.1" × 3.1". Termination accommodates standard connector. Integral studs mount to panel. Rated for 3,000,000 operations per button; 10 mA at 24 VDC.

948-9820, 84LS-AB2-112, 3 × 4 Keypad, Matrix, 1-99	EACH	41.38
100-499	EACH	38.25
948-9822, 84LS-BB2-014, 4 × 4 Keypad, Matrix, 1-99	EACH	44.27
100-499	EACH	40.93

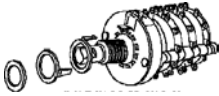
How To Select

42D, 44D, 71D and 56D Series are adjustable stop rotary switches. As listed, they are available with one or two poles per deck. Stop pins or washers can be removed from the front of the switch and replaced to set the number of positions per pole from two to the maximum number noted. Selections of the switch series depends upon the switching current requirements and the size restrictions of the application. The Series 56D is a single deck design with the lowest switching

current rating, 200 mA, but requiring the least amount of space. The Series 42D and 44D switch up to 1 ampere of current, but are the largest in diameter at one inch. The Series 71D is GRAYHILL's most popular multi-deck switch providing a mid range 250 mA switching in an approximate one-half inch diameter. These switches are form, fit and function equivalent to their fixed stop counterparts, which can also be ordered from Allied Electronics.

42D and 44D Series
1 Amp Adjustable Stop Rotary

Fully enclosed switches interchange with fixed stop models. **Electrical Ratings:** Make/break 1 amp, carry 10 amps at 115 VAC, resistive. **Insulation Resistance:** 50,000 megohms initial, 10,000 megohms minimum. Non-shorting contacts. $\frac{3}{16}$ "-32NEF bushing. **Behind-Panel Depth:** 1-deck — 1.025"; 2-deck — 1.371"; 3-deck — 1.717"; 4-deck — 2.063". **42D Series:** 10-position switch. 36° indexing. 1" diameter. **44D Series:** 12-position switch. 30° indexing. 1.162" diameter.



Stock No.	Mfr.'s Type	Poles	Decks	EACH	
				1-99	100-499
948-7224	42D36-01-1-AJN	1	1	35.72	31.14
948-7225	42D36-01-2-AJN	2	1	35.13	32.47
948-7226	42D36-02-1-AJN	1	2	43.89	40.56
948-7227	42D36-02-2-AJN	2	2	46.79	40.81
948-7228	44D30-01-1-AJN	1	1	34.57	31.96
948-7229	44D30-01-2-AJN	2	1	36.03	31.42
948-7230	44D30-02-1-AJN	1	2	45.93	42.46
948-7231	44D30-02-2-AJN	2	2	48.82	42.57
948-7232	44D30-03-1-AJN	1	3	57.29	49.96

19 Series 15-Amp Power Tap Rotary Switches



Solder Terminal



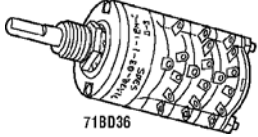
Faston Terminal

UL Recognized. Single pole, single deck units have 2 to 11 positions plus common, with 30° indexing. Available in solder lug terminal with 0.125" wire hole or Faston terminal with 0.080" wire hole. 15 amps, 120 VAC, non-inductive load. **Contact Resistance:** 10 milliohms at 2 VDC and 100 mA; contacts are non-shorting. **Insulation Resistance:** 100,000 megohms. **Voltage Breakdown:** 2500 VAC.

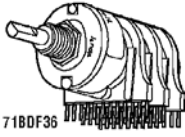
Stock No.	Mfr.'s Type	Positions	Terminals	EACH	
				1-24	25-99
948-7277	19001-5UL	5	Solder	24.21	22.39
948-7278	19001-6UL	6	Solder	25.34	23.42
948-7280	19001-8UL	8	Solder	27.60	25.52
948-7282	19001-11UL	11	Solder	30.91	26.84
948-7284	19101-4UL	4	Faston	23.10	20.05
948-7285	19101-5UL	5	Faston	24.21	22.38
948-7287	19101-7UL	7	Faston	26.45	23.07

71 Series 1/4 Amp, Adjustable Stop Rotary Switches

71 Series. Multi-deck, single shaft switches are adjustable stop. **Insulation Resistance:** 10,000 megohms minimum. **Voltage Breakdown:** 500 VAC minimum. Meet moisture, shock, salt spray, explosion and stop strength requirements of MIL-S-3786. 71BD are standard style with solder lug terminals and 0.250" diameter shaft. 71ADF are PC mount with 0.125" diameter shaft; 71BDF are PC Mount with 0.250" diameter shaft. All are either 30° or 36° angle of throw. **Behind-Panel Depth:** 1-deck — $\frac{3}{4}$ ", 2-deck — 1".



71BD36



71BDF36

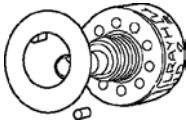
Stock No.	Mfr.'s Type	Decks	Positions	EACH	
				1-99	100-499
948-7243	71BD36-01-1-AJN	1	10	13.95	12.90
948-7247	71BD30-01-1-AJN	1	12	13.95	12.90
948-7248	71BD30-01-2-AJN	1	6	14.49	13.20
948-7249	71BD30-02-1-AJN	2	12	18.07	16.70

Printed Circuit Terminals

948-7253	71ADF30-01-1-AJN	1	12	15.24	14.09
948-7257	71BDF36-02-1-AJN	2	10	20.92	19.34

56 Series 1/2" Diameter Single Rotary Switches

Economically priced, high quality, single deck rotary switches from GRAYHILL require a minimum of space. Rated to make and break 200 mA of current at 115 VAC or 30 VDC, resistive load for 10,000 cycles of operation. **Maximum Contact Resistance:** 100 milliohms, minimum of 10,000 megohms, insulation resistance. **Voltage Breakdown:** 600 VAC. The Series 56 switches that are listed below are adjustable stop to allow you to set and reset the number of positions per pole to suit the application's need. These switches have non-shorting contacts, please contact Allied Electronics for shorting contact types.



Solder Lug Terminals — Part Nos. Containing 'S' Have Shaft/Panel Seal

Stock No.	Mfr.'s Type	Poles	Positions	EACH	
				1-24	25-99
948-7166	56D36-01-1-AJN	1	10	9.58	8.62
948-7167	56D36-01-2-AJN	2	5	10.68	9.82
948-7173	56SD36-01-1-AJN	1	10	10.41	9.62
948-8004	56D30-01-1-AJN	1	12	9.90	9.15
948-7165	56D30-01-2-AJN	2	6	10.98	10.00

Printed Circuit Terminals

948-7181	56DP36-01-1-AJN	1	10	9.90	9.15
948-7182	56DP36-01-2-AJN	2	5	10.98	10.00
948-8012	56DP30-01-1-AJN	1	12	10.21	9.40