



APPLICATION AND SWITCH ORDERING GUIDE

VER.3

CUSTOMER: _____ DATE: _____

CONTACT: _____ PHONE: _____ FAX: _____

1) APPLICATION

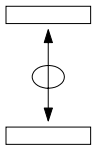
- INDOOR OUTDOOR MARINE ENVIRONMENT MOBILE EQUIPMENT OVERHEAD CRANE/HOISTING CRANE CHAIR
- PORTABLE EQUIPMENT FOOT PEDAL OTHER _____

2) CONTROLLER SIZE & DURABILITY

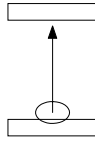
- MINIATURE: V10 H100 H7 V14 V20 S14 MEDIUM: V11 V8 D8
- SMALL: V5 VV5 S2 S21 S22 S23 S24 N6 LARGE: V3 V6 VV6 D64 DD64 K2

3) CONTROLLER FUNCTIONS

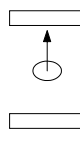
SINGLE AXIS (PICK 1 OF 3 ITEMS BELOW)



STANDARD BI-DIRECTIONAL

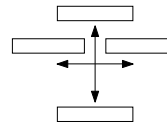


FULL TRAVEL UNI-DIRECTIONAL

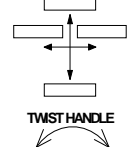


CENTER TO END UNI-DIRECTIONAL

DUAL AXIS



MULTI AXIS



4) SWITCH SPECIFICATIONS

LEFT HAND MOUNTING

- VOLTAGE _____ AC/DC CURRENT _____ AMPS.
 DIRECTION 1&2 DIRECTION 3&4
 NUMBER OF CONTACTS _____ NUMBER OF CONTACTS _____
 STEPLESS OR STEPS _____ STEPLESS OR STEPS _____
- SPRING RETURN SPRING RETURN
 - FRICTION BRAKE FRICTION BRAKE
 - POTENTIOMETER _____ POTENTIOMETER _____
 - ELECTRONICS ELECTRONICS

RIGHT HAND MOUNTING

- VOLTAGE _____ AC/DC CURRENT _____ AMPS.
 DIRECTION 5&6 DIRECTION 7&8
 NUMBER OF CONTACTS _____ NUMBER OF CONTACTS _____
 STEPLESS OR STEPS _____ STEPLESS OR STEPS _____
- SPRING RETURN SPRING RETURN
 - FRICTION BRAKE FRICTION BRAKE
 - POTENTIOMETER _____ POTENTIOMETER _____
 - ELECTRONICS ELECTRONICS

5) ELECTRONICS

A) VALVE SPECIFICATIONS

VALVE MANUFACTURE _____ MODEL NUMBER _____

SUPPLY VOLTS: _____ VDC COIL RESISTANCE: _____ OHMS THRESHOLD: _____ mA MAX. OUTPUT _____ mA

SINGLE COIL DUAL COIL FLOW CONTROL SWITCHES FOR DIRECTIONAL VALVES PWM FREQUENCY: _____ Hz

B) SIGNAL OUTPUTS

SUPPLY VOLTS: _____ VDC 4-20mA 0-20mA 0-10V -10V to +10V OTHER _____

C) OPTIONS FOR BOTH

SINGLE MAX. (A ADJ.) DUAL MAX. (A & B ADJ.) DUAL RANGE _____ mA RAMP TIME _____ SEC.

6) HANDLE TYPE

- STANDARD KNOB MECHANICAL INTERLOCK PUSHBUTTON DEADMAN PUSH DEADMAN PULL DEADMAN
- PALM HANDLE _____

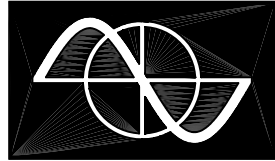
7) NAMEPLATE SPECIFICATIONS

STANDARD NAMEPLATE _____ SPECIAL NAMEPLATE (ATTACH LAYOUT DRAWING OR SPECIFICATIONS)

8) ENCLOSURE

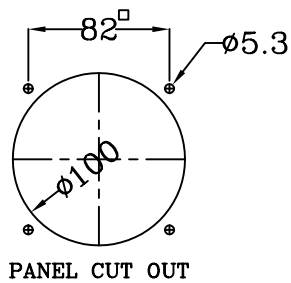
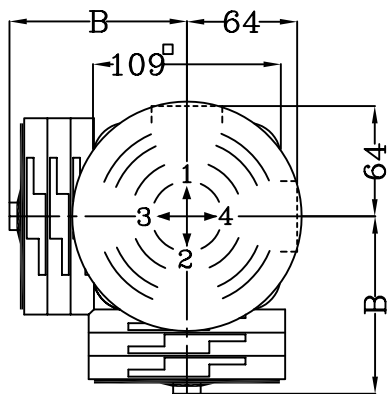
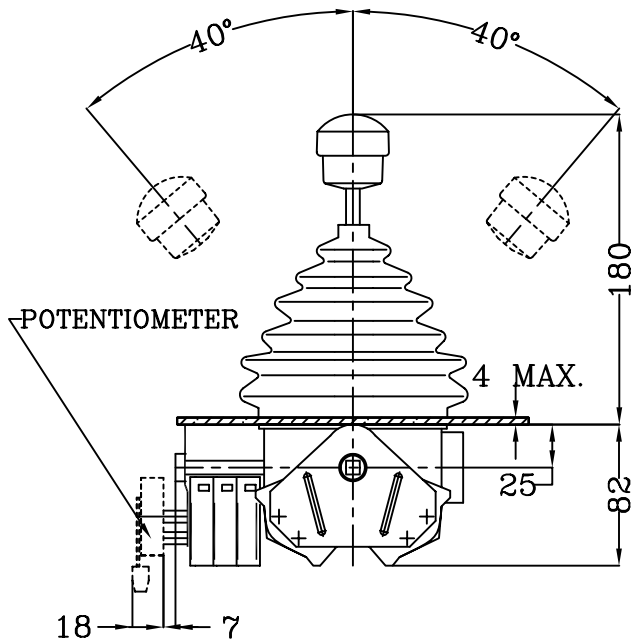
- GENERAL PURPOSE WEATHERPROOF CORROSIVE RESISTANT (PLASTIC) PORTABLE CONSOLES
- ENCLOSURE DIMENSIONS L= _____ W= _____ H= _____ TS1 TS2

9) NOTES

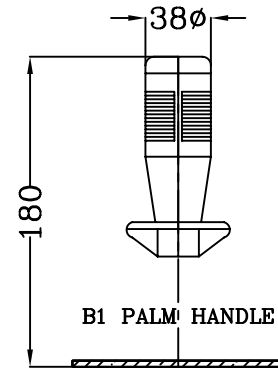
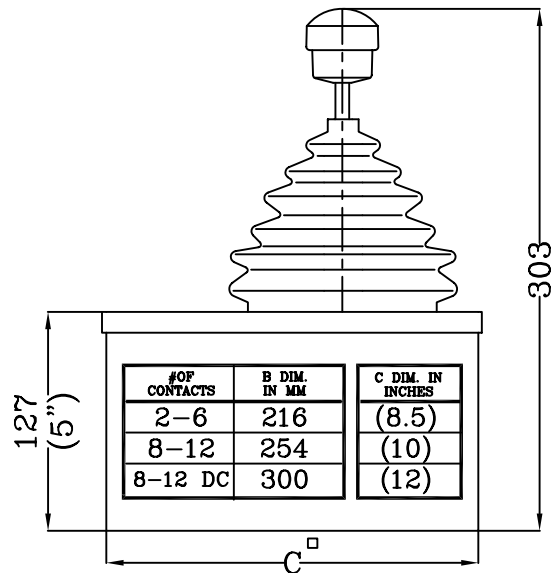


V3 MULTI AXIS MASTER SWITCH

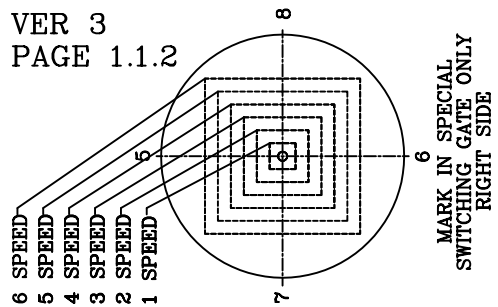
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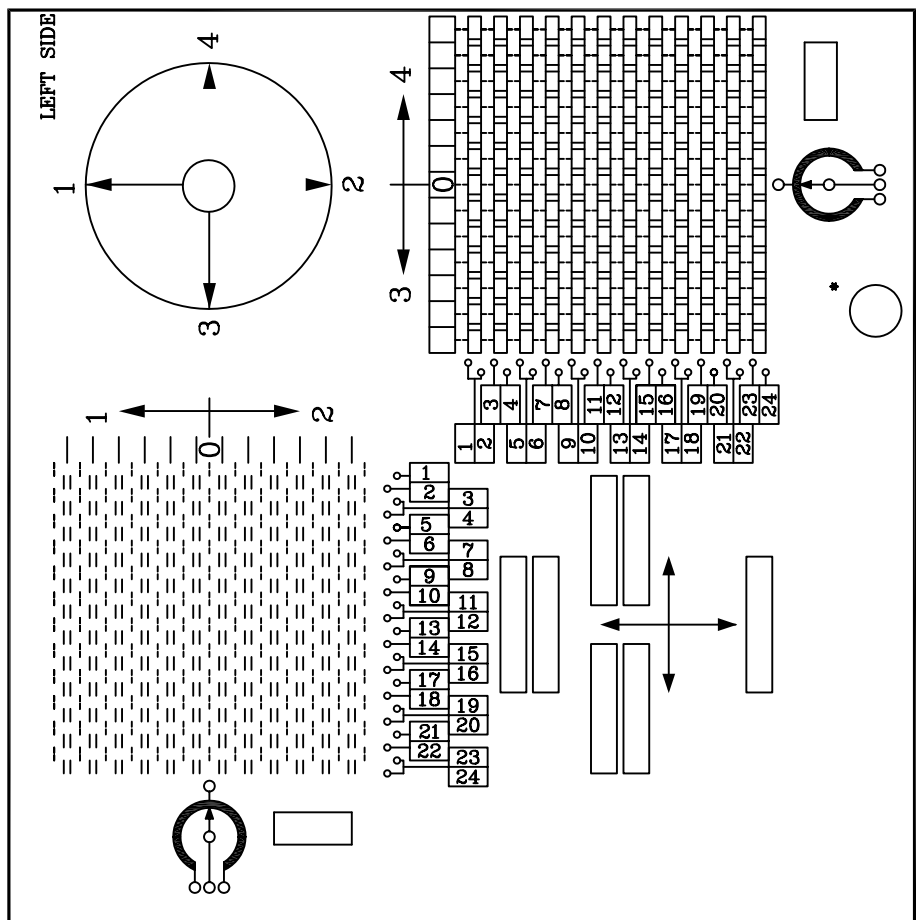
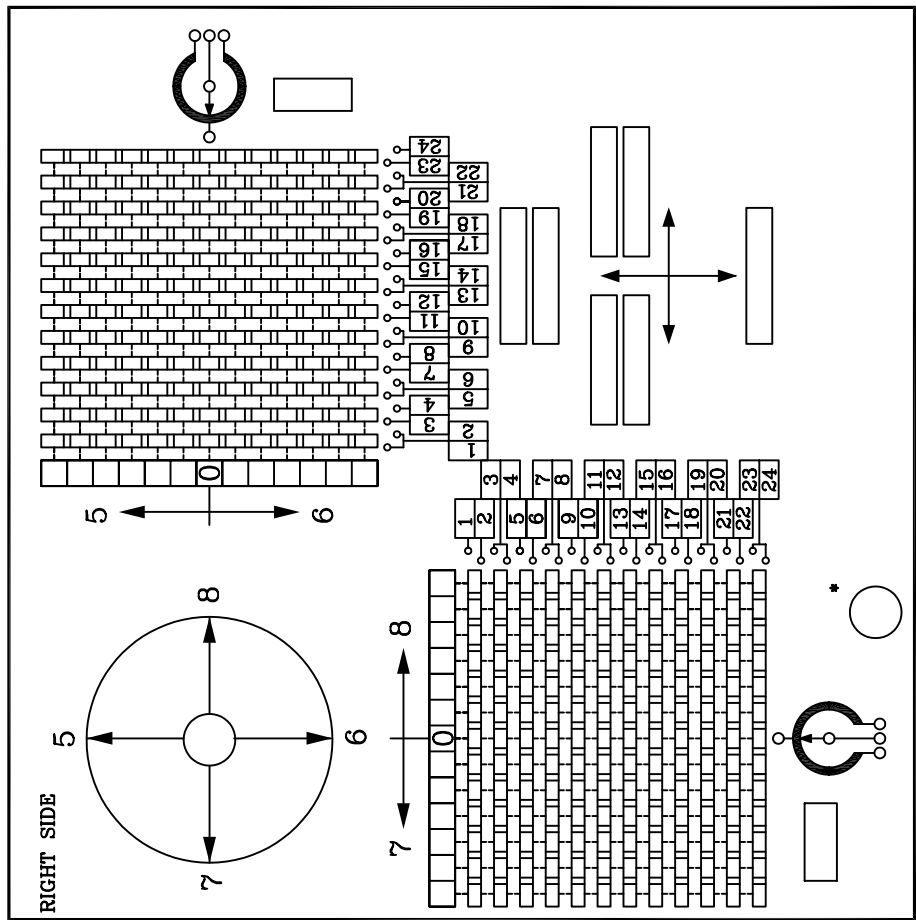
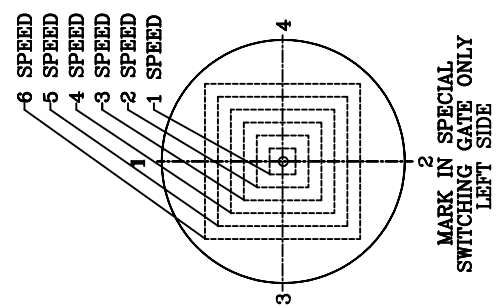
THE V3 MASTER SWITCH IS RUGGED, COMPACT AND IT'S MODULAR DESIGN IS SUITABLE FOR ALMOST ANY APPLICATION. IT IS BUILT FOR 6 MILLION OPERATIONS. IT IS OIL, OZONE, UV AND SALT ATMOSPHERE (OCEAN CONDITION RESISTANT). CONTACTS ARE RATED AT 4A 250V AC15 RES. 1A 24V DC13. DEGREE OF PROTECTION FRONT: IP54 V3 SWITCHES ARE IEC 947-5-1, VDE 0660-200, CSA APPROVED. FILE# 154946



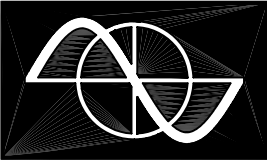
SIZE	# OF CONTACTS	B DIMENSION
01	2	77
02	4	89
03	6	102
04	8	114
05	10	127
06	12	139



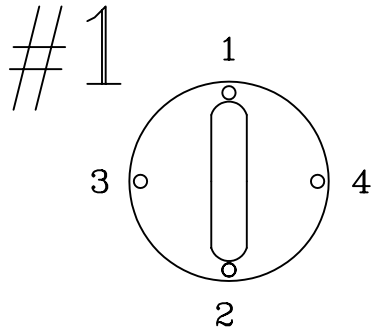
V3L	V3R	V3 LEFT/V3 RIGHT
<input type="checkbox"/>	<input type="checkbox"/>	CONTACT ARR. DIR 1-2 OR 5-6 A-Z-FROM SHEET 20.2.1 O-SPECIAL CONTACT ARR. X-IF NOT REQUIRED
<input type="checkbox"/>	<input type="checkbox"/>	z-SPRING RETURN r-BRAKE ADJUSTABLE X-IF NOT REQUIRED
<input type="checkbox"/>	<input type="checkbox"/>	P-POTENTIOMETER SEE SECT. 6 p-POTENTIOMETER MOUNTING X-IF NOT REQUIRED
<input type="checkbox"/>	<input type="checkbox"/>	CONTACT ARR. DIR 3-4 OR 7-8 A-Z-FROM SHEET 20.2.1 O-SPECIAL CONTACT ARR. X-IF NOT REQUIRED
<input type="checkbox"/>	<input type="checkbox"/>	z-SPRING RETURN r-BRAKE ADJUSTABLE X-IF NOT REQUIRED
<input type="checkbox"/>	<input type="checkbox"/>	P-POTENTIOMETER SEE SECT. 6 p-POTENTIOMETER MOUNTING X-IF NOT REQUIRED
<input type="checkbox"/>	<input type="checkbox"/>	X-STANDARD HANDLE T-DEAD MAN TO PRESS P-DEAD MAN TO PULL B-PUSH BUTTON IN HANDLE M-MECH. INTERLOCK IN 0 POS. SPECIAL HANDLE SEE SECT. 5
<input type="checkbox"/>	<input type="checkbox"/>	1-SWITCHING GATE #1 <input type="checkbox"/> 2-SWITCHING GATE #2 <input type="checkbox"/> 3-SWITCHING GATE #3 <input type="checkbox"/> 4-SPECIAL SWITCHING GATE
<input type="checkbox"/>	<input type="checkbox"/>	1-PUSH BUTTON IN ENCLOSURE 2-SELECTOR SWITCH OFF-ON 3-SELECTOR SWITCH H-O-A 4-PILOT LIGHT 5-EMERGENCY STOP 6-KEY SWITCH X-IF NOT REQUIRED
<input type="checkbox"/>	<input type="checkbox"/>	1-M-STANDARD NAMEPLATE X-IF NOT REQUIRED SECT. 20.1 O-SPECIAL NAMEPLATE MARK IN CHART
<input type="checkbox"/>	<input type="checkbox"/>	G-GENERAL PURPOSE ENCL. W-WEATHERPROOF ENCL. M-MOUNTING STAND O-OPEN TYPE SWITCH



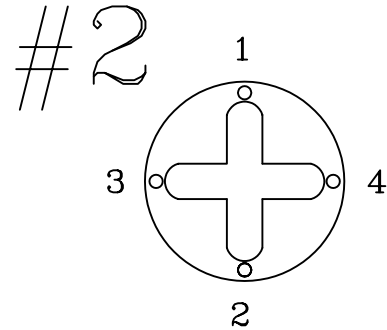
GESSMANN V3 MASTER SWITCH		JOB #
DATE:	FROM:	
NAME:		



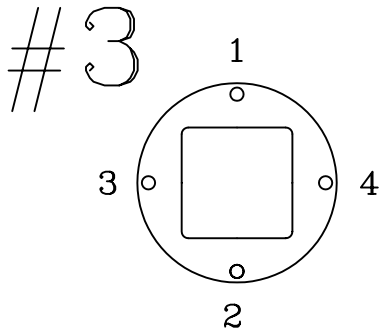
V3 SWITCHING GATES



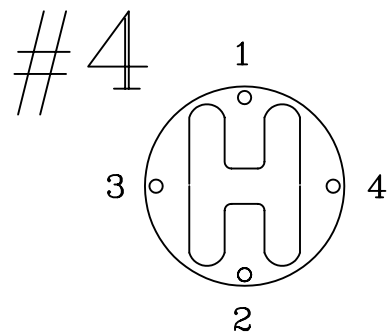
STANDARD	SPECIAL
$\overline{1-0-1}$ KBKE 11	$\overline{4-0-1}$ KBKE 41
$\overline{2-0-2}$ KBKE 22	
$\overline{3-0-3}$ KBKE 33	$\overline{3-0-4}$ KBKE 34
$\overline{4-0-4}$ KBKE 44	$\overline{4-0-5}$ KBKE 45



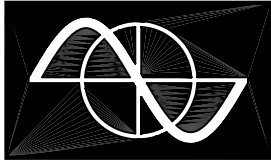
STANDARD	SPECIAL
$\overline{1-0-1}$ KBKF 11	$\overline{1-0-1}$ KBKF 1112
$\overline{1-0-1}$ KBKF 12	
$\overline{1-0-1}$ KBKF 13	
$\overline{1-0-1}$ KBKF 14	
$\overline{2-0-2}$ KBKF 22	$\overline{3-0-3}$ KBKF 2225
	$\overline{3-0-3}$ KBKF 2241
$\overline{2-0-2}$ KBKF 23	
$\overline{2-0-2}$ KBKF 24	$\overline{2-0-4}$ KBKF 2423
	$\overline{2-0-3}$
$\overline{3-0-3}$ KBKF 33	
$\overline{3-0-3}$ KBKF 34	
$\overline{4-0-4}$ KBKF 44	
	$\overline{4-0-4}$ KBKF 421
	$\overline{1-0-0}$



STANDARD	SPECIAL
$\overline{1-0-1}$ KBKD 11	$\overline{1-0-1}$ KBKD 1123
$\overline{1-0-1}$ KBKD 12	$\overline{2-0-3}$ KBKD 1134
$\overline{1-0-1}$ KBKD 13	
$\overline{1-0-1}$ KBKD 14	
$\overline{2-0-2}$ KBKD 22	$\overline{2-0-2}$ KBKD 2243
	$\overline{4-0-3}$ KBKD 2241
$\overline{2-0-2}$ KBKD 23	
$\overline{2-0-2}$ KBKD 24	
$\overline{3-0-3}$ KBKD 33	$\overline{3-0-3}$ KBKD 3345
$\overline{3-0-3}$ KBKD 34	$\overline{4-0-4}$ KBKD 4424
	$\overline{2-0-4}$
	$\overline{4-0-4}$ KBKD 4434
	$\overline{3-0-4}$

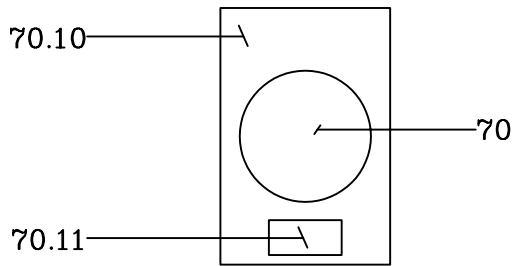
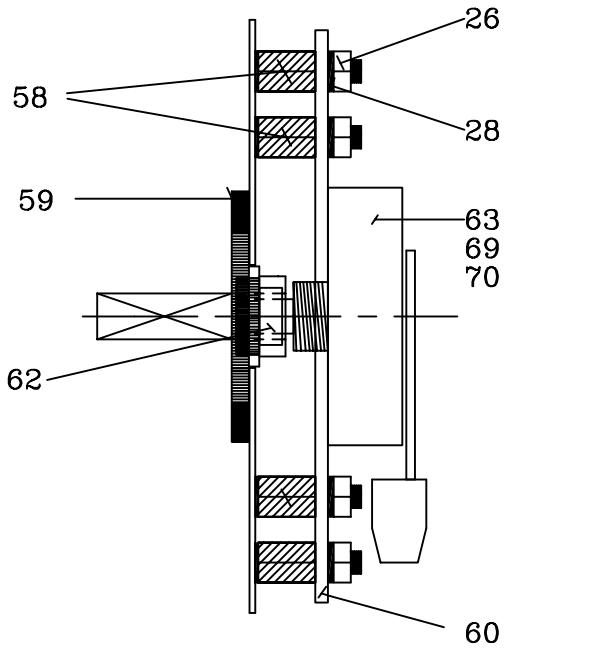


STANDARD	SPECIAL
A-B $\overline{1-0-1}$	
C-D/A $\overline{4-0-4}$	KBKG 3
C-D/B $\overline{1-0-1}$	
A-B $\overline{1-0-1}$	KBKF 52
C-D $\overline{1-0-1}$	

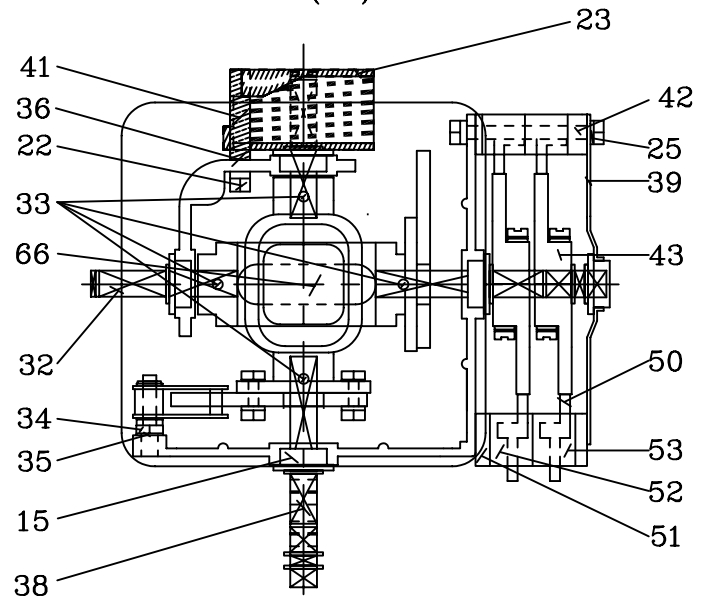
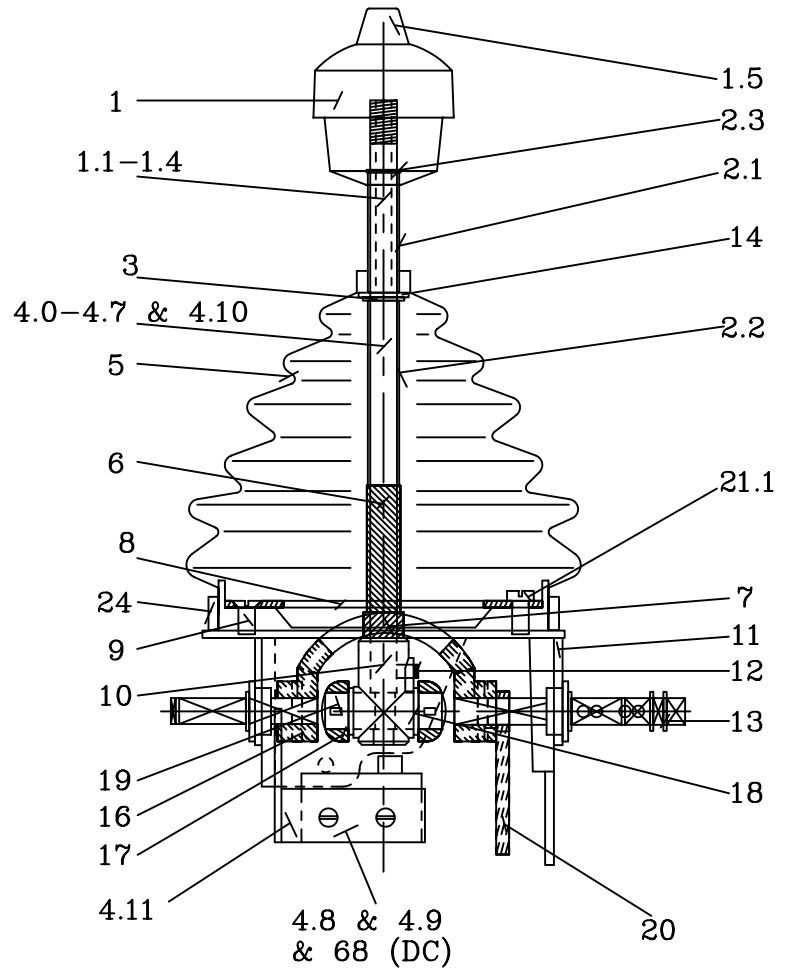
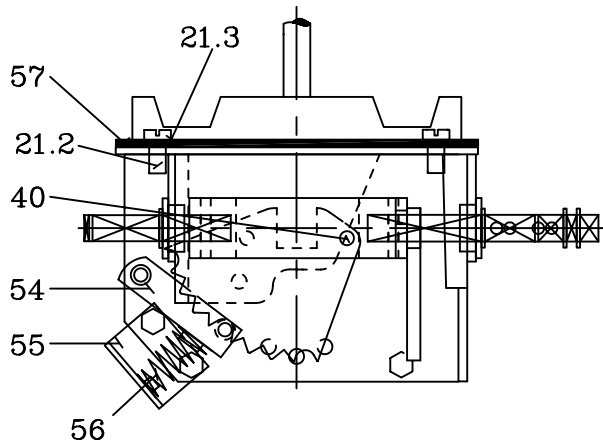
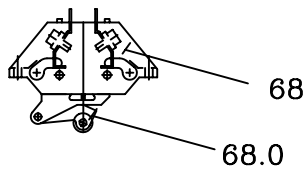


V3 PARTS LIST

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1.1.4



SEE PAGE 19.1





V3 PARTS LIST

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PART#	DESCRIPTION	PART#	DESCRIPTION
1	SOLID KNOB	23.2	RETURN SPRING WEAK
1.1	KNOB AND ROD FOR MECHANICAL INTERLOCK 'M'	23.3	RETURN SPRING STRONG
1.2	KNOB AND ROD FOR PUSH DEAD MAN 'T'	24	BOOT CLAMP
1.3	KNOB AND ROD FOR PULL DEAD MAN 'P'	25	FLAT WASHER M4
1.4	KNOB AND ROD FOR PUSH BUTTON DEAD MAN 'B'	26	HEX NUT M4
1.5	RUBBER CAP FOR PUSH BUTTON DEAD MAN	28	SPLIT LOCK WASHER M4
1.6	B1T PALM HANDLE WITH ROD	32	RETURN SPRING SHAFT
1.7	BRACKET FOR MECHANICAL INTERLOCK	33	ROLL PIN 3x18
2.1	PLASTIC SLEEVE FOR TOP OF SHAFT	34	RATCHET ARM STUD
2.2	PLASTIC SLEEVE FOR BOTTOM OF SHAFT	35	SPLIT LOCK WASHER M5
2.3	SLEEVE CLIP	36	FLAT WASHER M5
3.1	RETAINING RING EXTERNAL 8mm	38	CAM SHAFT WITH PLASTIC BUSHING (REFER TO CR#)
3.2	RETAINING RING EXTERNAL 10mm	39	ALUMINUM END PLATE
4.0	SOLID STEEL SHAFT	40	HEX CAP SCREW M4x12
4.1	SHAFT ONLY	41	RETURN SPRING POSITION BOLT
4.2	STANDARD SHAFT ASSEMBLY	42	CONTACT MOUNTING BOLT (REFER TO CR#)
4.3	STANDARD SHAFT ASSEMBLY FOR MECHANICAL INTERLOCK 'M'	43.1	BLANK METAL CAM
4.4	STANDARD SHAFT ASSEMBLY FOR PUSH DEAD MAN 'T'	43.2	BLANK PLASTIC CAM
4.5	STANDARD SHAFT ASSEMBLY FOR PULL DEAD MAN 'P'	50	CONTACT ACTUATOR
4.6	STANDARD SHAFT ASSEMBLY FOR PUSH BUTTON DEAD MAN 'B'	50.1	CONTACT SPRING
4.7	STANDARD SHAFT ASSEMBLY 10mm FOR B_	51	STARTER PLATE
4.8	DEAD MAN MICRO SWITCH	52	CENTER CONTACT
4.9	DEAD MAN MICRO SWITCH SS1.10 DC (GREEN) WITH BRACKET	53	END CONTACT
4.10	STANDARD SHAFT ASSEMBLY 8mm FOR B1T	54	RATCHET ARM
4.11	BRACKET FOR DEAD MAN SWITCH	55	RATCHET SPRING HOLDER
4.13	STANDARD SHAFT ASSEMBLY SOLID STEEL BENT AT 90°	56.1	RATCHET SPRING WEAK
4.14	SOLID KNOB FOR BENT SHAFT	56.2	RATCHET SPRING NORMAL
4.15	4 POLE TERMINAL STRIP	56.3	RATCHET SPRING STRONG
4.16	BRACKET FOR DEAD MAN SWITCH MECH. INTERLOCK	57	RUBBER GASKET
4.17	BRACKET FOR TERMINAL STRIP	58.1	HEX STANDOFF'S M4x10
5	RUBBER BOOT	58.2	HEX STANDOFF'S M4x20
6	STEEL SLEEVE	58.3	HEX STANDOFF'S M4x25
7	BRONZE BUSHING	58.4	HEX STANDOFF'S M4x15
8	SWITCHING GATES SEE PAGE 1.1.3	59.1	LARGE GEAR
9	FLATHEAD SCREW M5x12	59.2	ROUND LARGE GEAR
10	SHAFT CASTING	60.1	POTENTIOMETER ADAPTER PLATE FOR 1 POT.
11	CHASSIS CASTING	60.2	POTENTIOMETER ADAPTER PLATE FOR 2 POTS.
12	SET SCREW WITH DOG POINT M5x8	60.3	POTENTIOMETER ADAPTER PLATE FOR US POT.
13	RETAINING CLIP	60.4	POTENTIOMETER ADAPTER PLATE FOR ELECTRONICS
14	FLAT WASHER M8	61	PAN HEAD SCREW M4x6
15	SQUARE PLASTIC BUSHING	62	SMALL GEAR WITH 6mm HOLE
16	SECOND MOTION BRACKET	62.1	SMALL GEAR WITH 1/4" HOLE
17	SHAFT OPERATOR CASTING	63	POTENTIOMETER CENTER TAP SEE SECTION 6
18	METAL BUSHING	66	DEAD MAN ACTUATOR
19	ROUND STEEL SHAFT	67	DC CONTACT 5A 250V
20.1	4 STEP RATCHET	68	S01 DC CONTACT (PAGE 19.1)
20.2	5 STEP RATCHET	68.0	ROLLER LEVER FOR S01 CONTACT (PAGE 19.1)
20.3	6 STEP RATCHET	69	POTENTIOMETER SEE SECTION 6
20.4	0 STEP RATCHET (SMOOTH)	70	POTENTIOMETER CLAROSTAT
21.1	PAN HEAD SCREW M5x12	70.10	PRINTED CIRCUIT BOARD
21.2	PAN HEAD SCREW M5x20	70.11	2 POLE TERMINAL STRIP
21.3	M5 FLAT WASHER NYLON	71.1	GENERAL PURPOSE ENCLOSURE 8.5"x8.5"x5" (NEMA 1)
22	HEX NUT M5	71.2	GENERAL PURPOSE ENCLOSURE 8.5"x8.5"x8" (NEMA 1)
23	RETURN SPRING NORMAL	71.3	GENERAL PURPOSE ENCLOSURE 10"x10"x5" (NEMA 1)
23.1	FRICTION BRAKE	71.4	WEATHER PROOF ENCLOSURE 10"x10"x5" (NEMA 4)