



CUSTOMER: _____ **DATE:** _____

CONTACT: _____ **PHONE:** _____ **FAX:** _____

1) APPLICATION

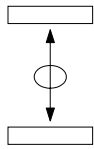
- INDOOR OUTDOOR MARINE ENVIRONMENT MOBILE EQUIPMENT OVERHEAD CRANE/HOISTING CRANE CHAIR
- PORTABLE EQUIPMENT FOOT PEDAL OTHER _____

2) CONTROLLER SIZE & DURABILITY

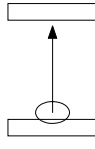
- MINIATURE: V10 H100 H7 V14 V20 S14 MEDIUM: V11 V8 D8
- SMALL: V5 VV5 S2 S21 S22 S23 S24 N6 LARGE: V3 V6 VV6 D64 DD64 K2

3) CONTROLLER FUNCTIONS

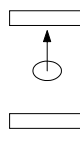
SINGLE AXIS (PICK 1 OF 3 ITEMS BELOW)



STANDARD BI-DIRECTIONAL

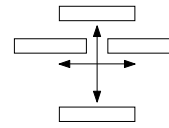


FULL TRAVEL UNI-DIRECTIONAL

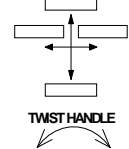


CENTER TO END UNI-DIRECTIONAL

DUAL AXIS



MULTI AXIS



TWIST HANDLE

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
 - FRICTION BRAKE
 - POTENTIOMETER _____
 - 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
 - FRICTION BRAKE
 - POTENTIOMETER _____
 - 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 _____

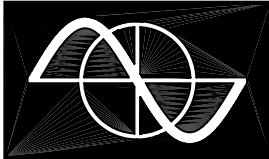
7) NAMEPLATE SPECIFICATIONS

- 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



SENETT
CONTROL
CO. LTD.

V8 MULTI AXIS MASTER SWITCH

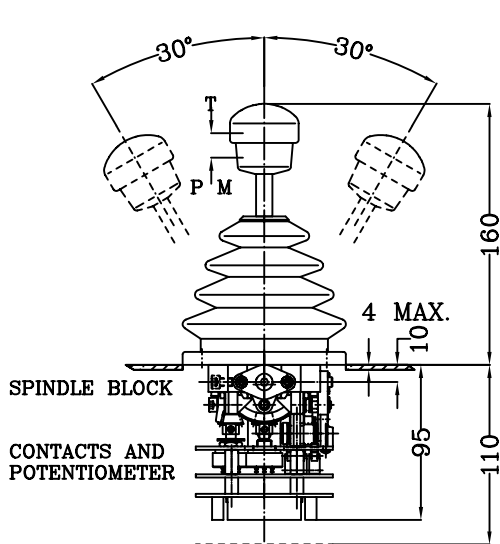
VER.3
1.9.1

T=DEADMAN TO PUSH
P=DEADMAN TO PULL
M=MECH. INTERLOCK IN 0 POSITION

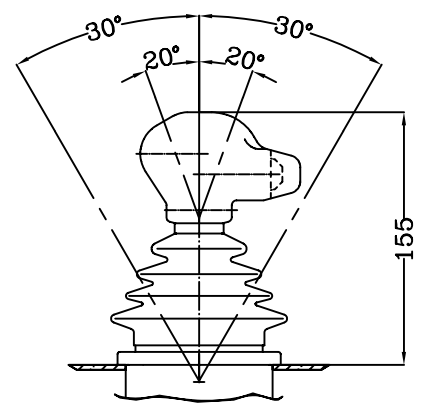
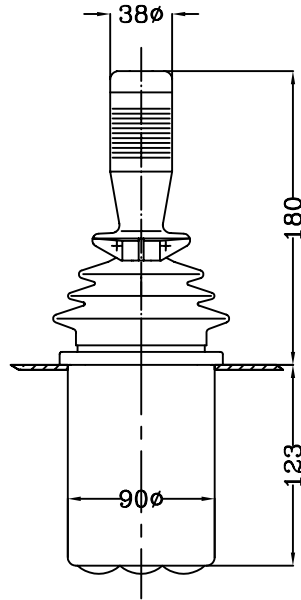
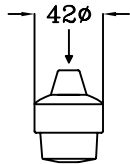
SOLID KNOB
D=PUSHBUTTON
DEADMAN

B1 HANDLE
SEE PAGE 5.1.0

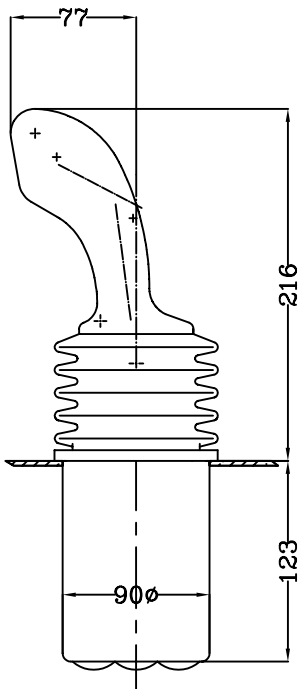
B2 HANDLE
FOR 3rd DIRECTION 9-10 SEE PAGE 5.2.0



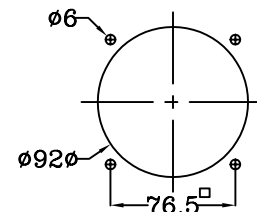
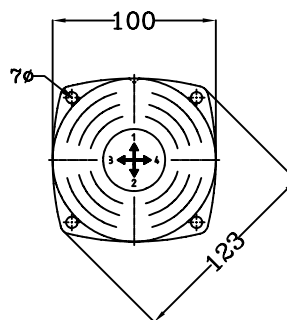
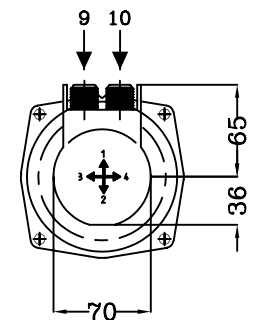
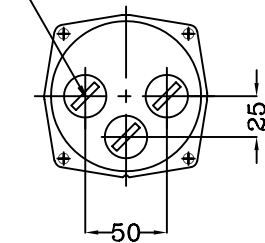
EXPANSION FOR ELECTRONICS
WITH SCREW TERMINALS.



B3 HANDLE
FOR 3rd DIRECTION 11-12
FOR 4th DIRECTION 13-14
SEE PAGE 5.3.0

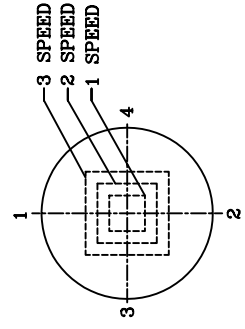


3 CABLE OPENINGS
OR WITHOUT HOLES

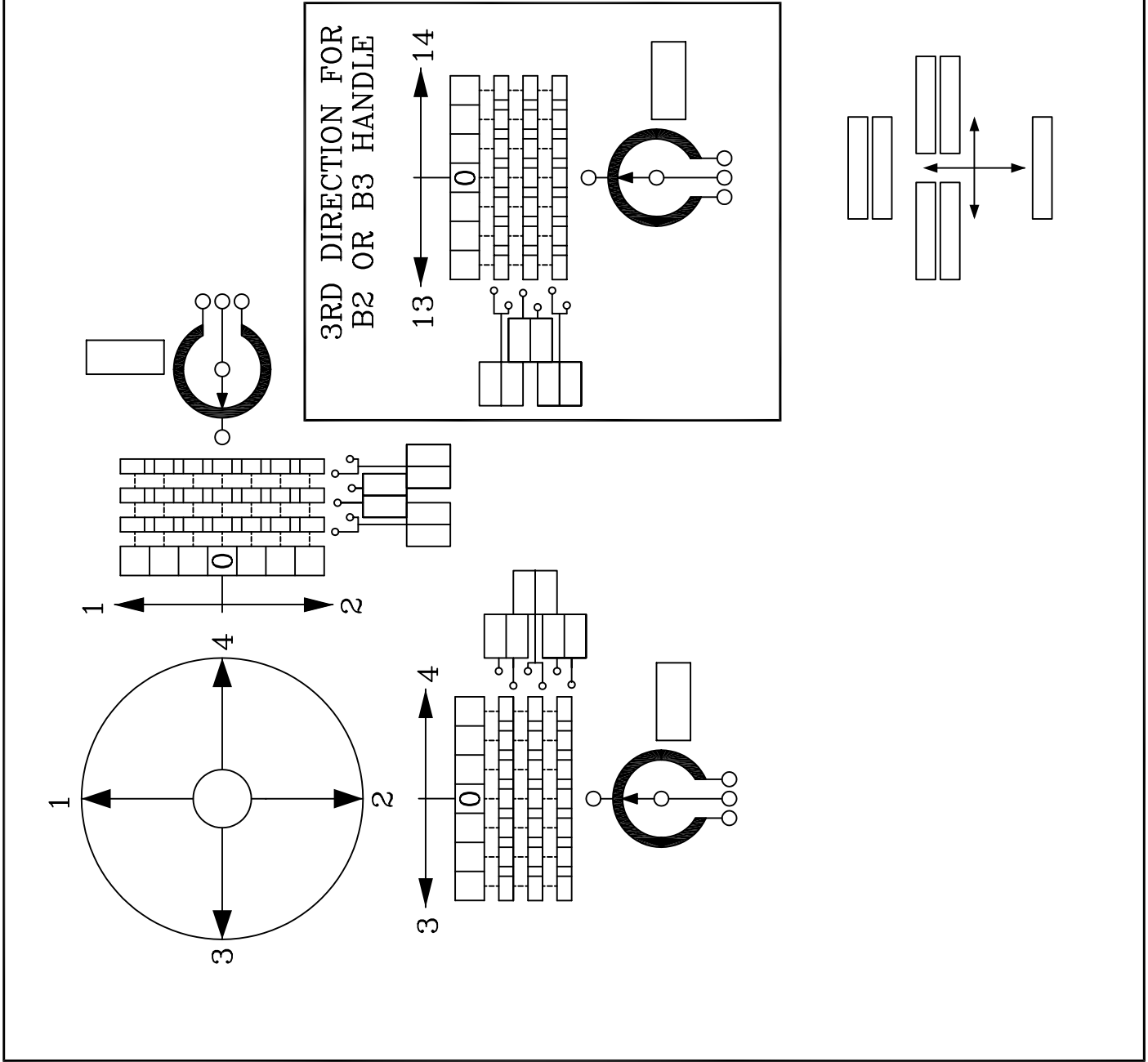


PANEL CUT OUT

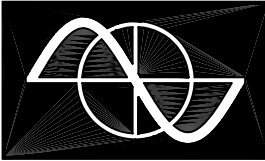
	V8-BASIC MASTER SWITCH
	VV8-BASIC MASTER SWITCH
	X-STANDARD HANDLE
	T-DEAD MAN TO PRESS
	P-DEAD MAN TO PULL
	B-PUSH BUTTON IN HANDLE
	M-MECH. INTERLOCK IN 0 POSS. SPECIAL HANDLE SEE SECT. 5
	1-SWITCHING GATE #1
	2-SWITCHING GATE #2
	3-SWITCHING GATE #3
	4-SPECIAL SWITCHING GATE
	CONTACT ARR. DIR. 1-2
	A-Z-FROM SHEET 20.2.1
	O-SPECIAL CONTACT ARR.
	X-IF NOT REQUIRED
	Z-SPRING RETURN
	T-BRAKE ADJUSTABLE
	X-IF NOT REQUIRED
	P-POTENTIOMETER SEE SECT. 6
	P-POTENTIOMETER MOUNTING
	X-IF NOT REQUIRED
	CONTACT ARR. DIR. 3-4
	A-Z-FROM SHEET 20.2.1
	O-SPECIAL CONTACT ARR.
	X-IF NOT REQUIRED
	Z-SPRING RETURN
	T-BRAKE ADJUSTABLE
	X-IF NOT REQUIRED
	P-POTENTIOMETER SEE SECT. 6
	P-POTENTIOMETER MOUNTING
	X-IF NOT REQUIRED
	1-M-STANDARD NAMEPLATE. SECT. 20.1
	X-IF NOT REQUIRED
	O-SPECIAL NAMEPLATE MARK IN CHART
	G-GENERAL PURPOSE ENCL.
	W-WEATHERPROOF ENCL.
	O-OPEN TYPE SWITCH



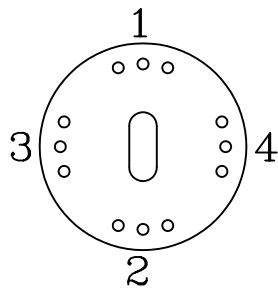
MARK IN SPECIAL SWITCHING GATE ONLY



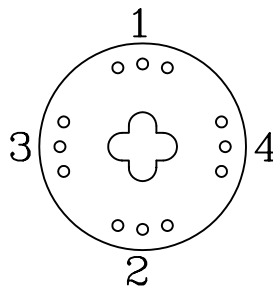
GESSMANN V8/VV8 MASTER SWITCH		JOB #
DATE:	FROM:	
NAME:		



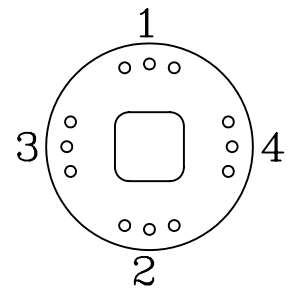
#1



#2



#3



STANDARD

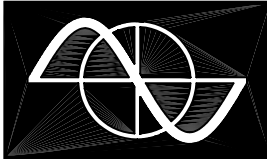
$\bar{1}-\bar{0}-\bar{1}$	KBKV 11
$\bar{2}-\bar{0}-\bar{2}$	KBKV 22
$\bar{3}-\bar{0}-\bar{3}$	KBKV 33

STANDARD

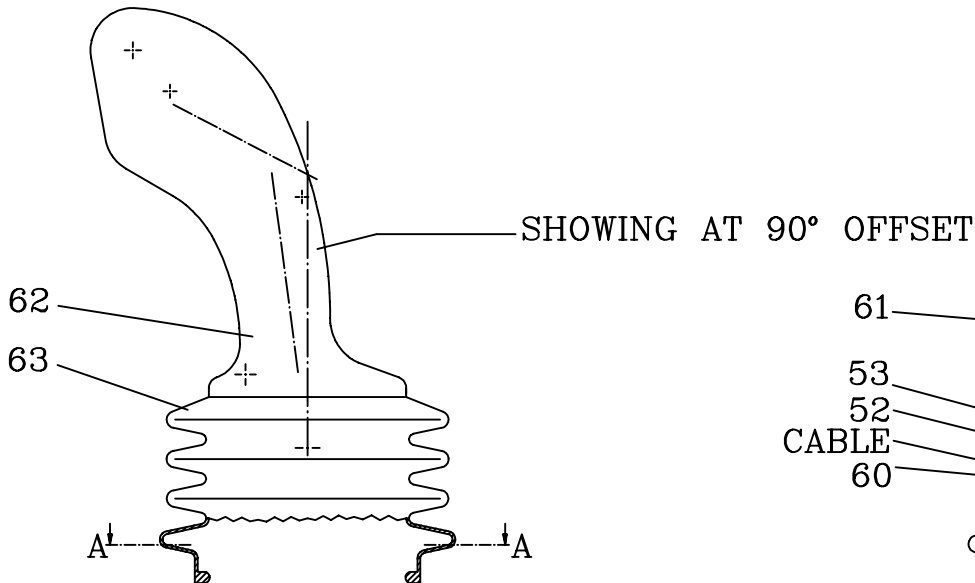
$1-0-1$	KBKV 1111
$1-0-1$	KBKV 1122
$1-0-1$	KBKV 1133
$2-0-2$	KBKV 2222
$2-0-2$	KBKV 2233
$3-0-3$	KBKV 3333

STANDARD

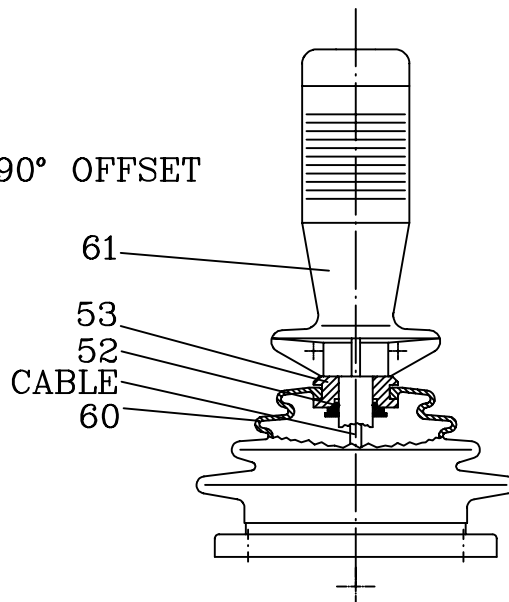
$1-0-1$	KBKV 1111
$1-0-1$	KBKV 1122
$1-0-1$	KBKV 1133
$2-0-2$	KBKV 2222
$2-0-2$	KBKV 2233
$3-0-3$	KBKV 3333



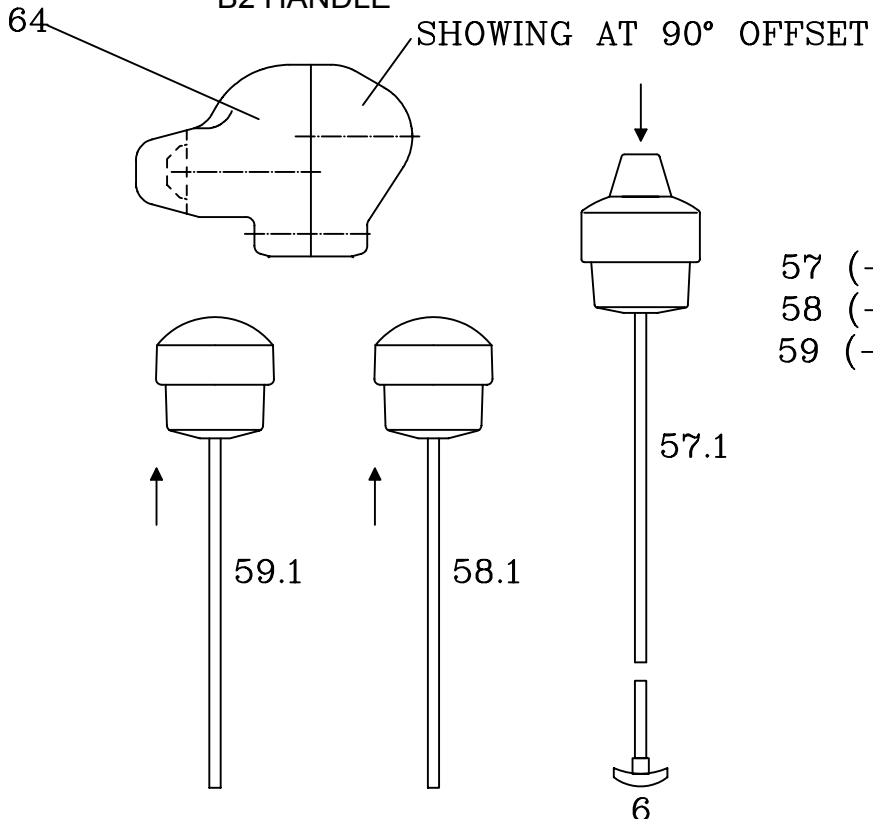
VIEW WITH OPTIONAL
B3 HANDLE



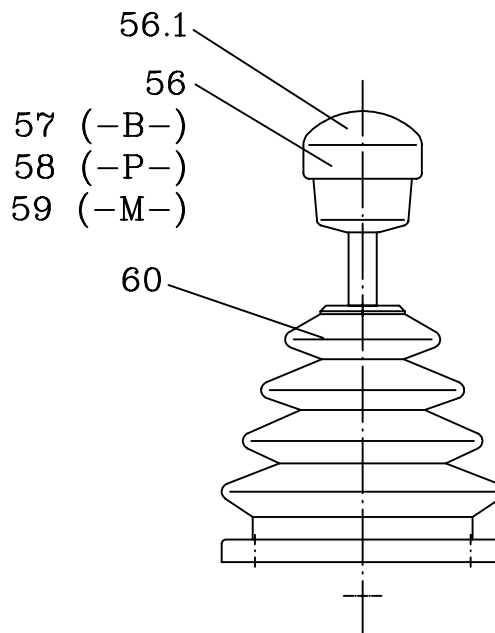
VIEW WITH OPTIONAL
B1 HANDLE

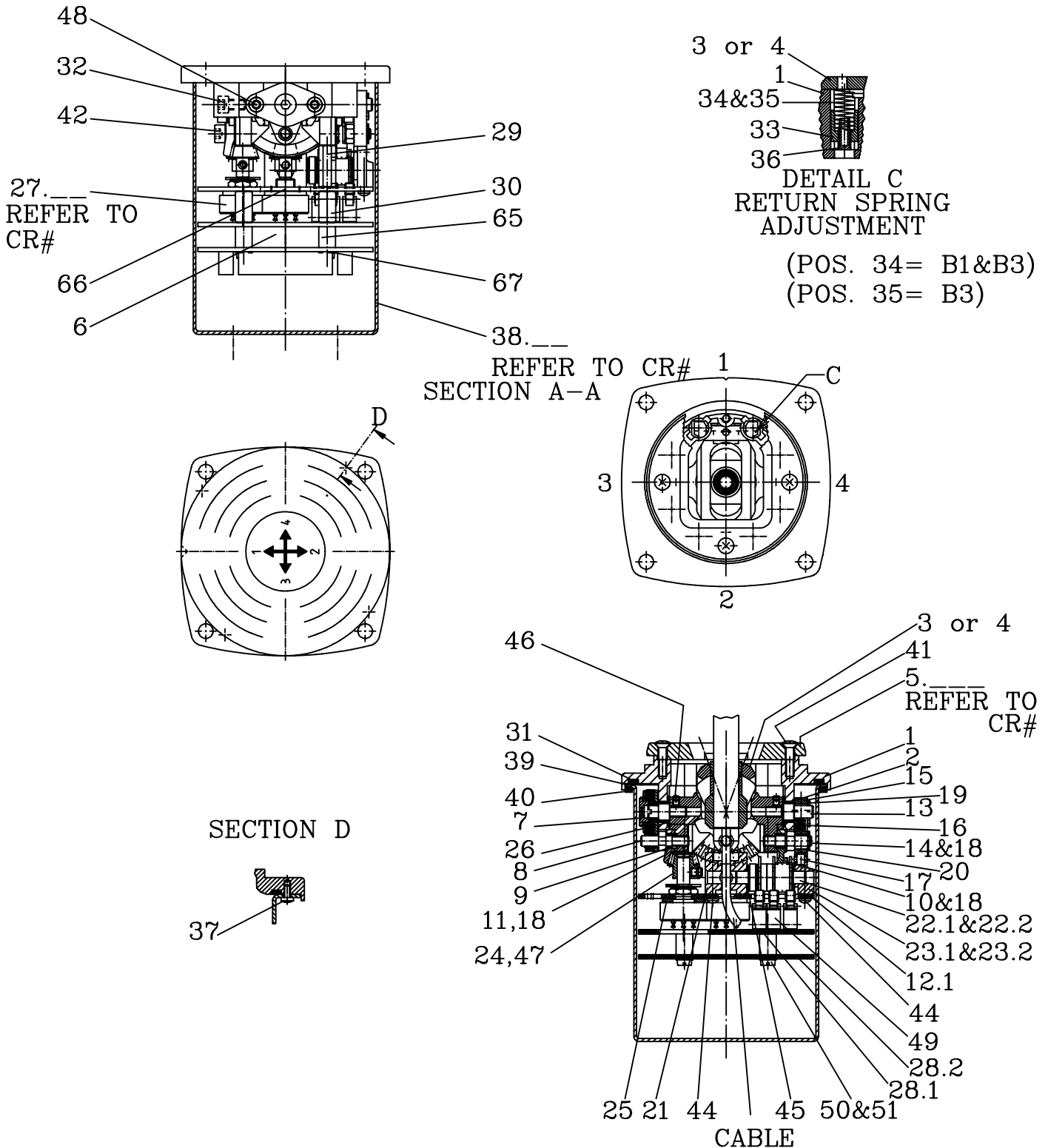
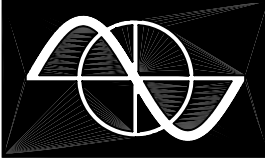


VIEW WITH OPTIONAL
B2 HANDLE



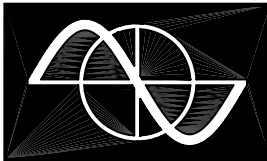
VIEW WITH OPTIONAL
STANDARD HANDLE





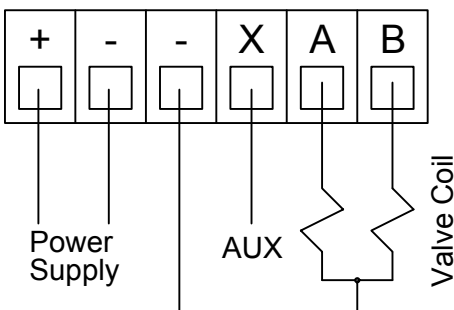


PART#	DESCRIPTION	PART#	DESCRIPTION
1	CASTING	33	STANDARD SHAFT ASSEMBLY FOR PUSH DEAD MAN 'T'
2	BRONZE BUSHING	34	KNOB AND ROD FOR PUSH DEAD MAN 'T'
3	SECOND MOTION BRACKET 10mm FOR #56,57,58	35	STANDARD SHAFT ASSEMBLY FOR PULL DEAD MAN 'P'
4	SECOND MOTION BRACKET 10mm FOR #63	36	KNOB AND ROD FOR PULL DEAD MAN 'P'
5.1	SWITCHING GATES #1 SEE PAGE 1.9.3	37	STANDARD SHAFT ASSEMBLY FOR PUSH BUTTON DEAD MAN 'B'
5.2	SWITCHING GATES #2 SEE PAGE 1.9.3	38	KNOB AND ROD FOR PUSH BUTTON DEAD MAN 'B'
5.3	SWITCHING GATES #3 SEE PAGE 1.9.3	39	RUBBER CAP FOR PUSH BUTTON DEAD MAN
6	DEADMAN ACTUATOR	40	STANDARD SHAFT ASSEMBLY FOR B1T
7	FRICTION BRAKE ASSEMBLY	41	B1 PALM HANDLE WITH ROD
8	BOLT FOR FRICTION BRAKE	42	DEADMAN ACTUATOR
9	SPACER FOR PLASTIC GEARS	43	SWITCHING GATES #1 SEE PAGE 1.7.3
10	CAM SHAFT DRIVE GEAR PLASTIC	44	SWITCHING GATES #2 SEE PAGE 1.7.3
11	LARGE GEAR PLASTICLARGE	45	SWITCHING GATES #3 SEE PAGE 1.7.3
12.1	MOUNTING PLATE	46	METAL FLANGE PLATE
13	BEARING SCREW	47	PLASTIC FLANGE PLATE
14	RATCHET BOLT	48	RUBBER BOOT
15	RATCHET ARM	49	PLASTIC HEX MOUNTING SCREWS M5x15
16	RATCHET SPRING	50	SECOND MOTION BRACKET
17	RATCHET ROLLER	51	0 STEP RATCHET (SMOOTH) FOR TWO RATCHET ARMS
18	DISC SPRING WASHER	52	4 STEP RATCHET FOR TWO RATCHET ARMS
19	RETAINING RING EXTERNAL 6mm	53	6 STEP RATCHET FOR TWO RATCHET ARMS
20	RETAINING CLIP 4mm	53	RATCHET ARM
21	PLASTIC BEARING FOR CAM SHAFT	56	RATCHET ARM ROLLER BEARING
22.1	CAM SHAFT FOR DIRECTION 1&2	56.12	RATCHET ARM SPRING WEAK FOR TWO RATCHET ARMS
22.2	CAM SHAFT FOR DIRECTION 3&4	57	RATCHET ARM SPRING NORMAL FOR TWO RATCHET ARMS
23.1	0 STEP RATCHET (SMOOTH)	58	RATCHET ARM SPRING STRONG FOR TWO RATCHET ARMS
23.2	3 STEP RATCHET	58.1	BLANK PLASTIC CAM
24	POTENTIOMETER GEAR	59	0 STEP RATCHET (SMOOTH) FOR ONE RATCHET ARM
25	POTENTIOMETER MOUNTING RING ADAPTER	59.1	4 STEP RATCHET FOR ONE RATCHET ARM
26	SHIM 6x12x0.2	60	6 STEP RATCHET FOR ONE RATCHET ARM
27	POTENTIOMETER SEE SECTION 6	61	7 STEP RATCHET FOR ONE RATCHET ARM
28.1	PRINTED CIRCUIT BOARD FOR CONTACTS & POTENTIOMETERS	62	9 STEP RATCHET FOR ONE RATCHET ARM
28.2	PRINTED CIRCUIT BOARD WITH TERMINALS	63	RATCHET ARM SPRING NORMAL FOR ONE RATCHET ARM
29	HEX STANDOFF M4x20	64	RATCHET ARM SPRING STRONG FOR ONE RATCHET ARM
30	HEX STANDOFF M4x15	105.28	POTENTIOMETER 2x5K
31	RUBBER GASKET	123	MINIATURE LIMIT SWITCH WITH CABLE EXPLOSION PROTECTION
32	HEX SOCKET CAP SCREWM5x8 MACHINED		

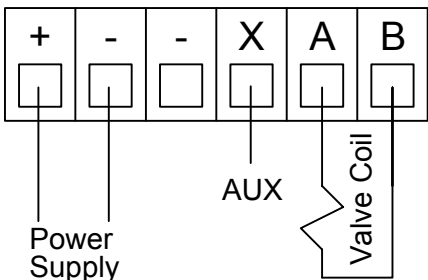


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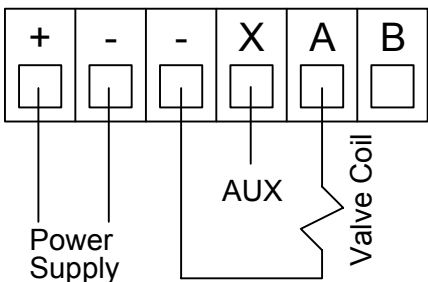
Dual Coil



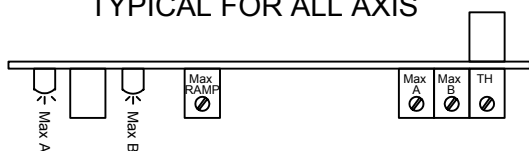
Single Coil



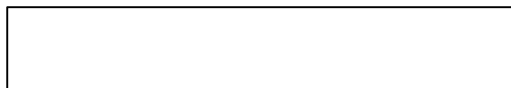
Flow Control



TYPICAL FOR ALL AXIS



Voltage: 12VDC 24VDC



Threshold Adjustment (TH)

Adjust the "Threshold" Trimpot for the desired minimum speed/flow. Move the handle slowly until the LED just comes ON. If speed is too slow, turn the adjustment screw CW. If the speed is too fast, turn the adjustment screw CCW.

Maximum Adjustment (Single Max)

Adjust the "Maximum" Trimpot for desired maximum speed/flow when the handle is at full travel. Assure that the speed decreases when the handle is moved away from fully deflected position.

Dual Max Adjustment (Max A, Max B)

See adjustment for "Maximum adjustment". Max A and Max B provide the joystick controller with separate maximum adjustments for each of the two directions.

Ramping

Adjusts the rate of change of output current as the handle is changing position. To increase the Ramp time, turn the adjustment CCW; to decrease the ramp time, turn the adjustment CW. To turn the Ramping completely off, turn the adjustment to minimum. (20 times CW).

Dual Range Adjustment (DR)

When power is applied to the R terminal, the joystick is in dual range mode. Adjust the "maximum setting" potentiometer for desired maximum current when the handle is deflected to its full travel position. Assure that the speed decreases when the handle is moved away from fully deflected position.

CW Clockwise
 CCW Counter-Clockwise