

## ***RA Series Declutchable Manual Override***

### **Introduction:**

The Automax RA Series declutchable manual override sandwich mounts between the actuator and the valve or damper. The self-locking declutchable worm gear design provides a secure, easily engaged, long lasting override for the Automax SuperNova actuators. The RA Series manual override is direct mounted to the actuator for a low profile design. The override contains internal travel stops which allow for the valve to be independently operated with the actuator removed.



### **Features:**

1. **Sandwich Mounting.** The RA series declutchable manual override is sandwich mounted between the actuator and valve/damper for a low profile design.
2. **Travel Stops.** The RA series declutchable manual override has internal travel stops which allow for the valve to be independently operated with the actuator removed.
3. **Self-locking Declutch Mechanism.** The declutch handle is securely held in place by a spring loaded lock pin to ensure gear engagement or disengagement.
4. **Corrosion Resistant Material.** The body is an aluminum casting which has a black anodized epoxy coating for use in wet and corrosive environments.
5. **Gear Plating.** The output gear and worm gear are plated to ensure a reliable and long life.

### **Materials of Construction:**

Part	Materials
Output Gear	Ductile Iron
Worm Gear	Carbon Steel - Nickel Plated
Eccentric Bearing	Aluminum - Hard Anodized/PTFE Impregnated
Lubricant	Molyguard Paste 35

### **How to Order:**

The manual override shall be an Automax RA declutchable worm gear override capable of being sandwich mounted between the SuperNova actuator and the valve. The gear override should also include the Automax NAMUR mounted LV1 Lockout & Vent Valve. The LV1 exhausts internal actuator pressure to the atmosphere while blocking supply pressure. Internal porting of the LV1 also prevents possible corrosive atmospheres from entering the actuator.

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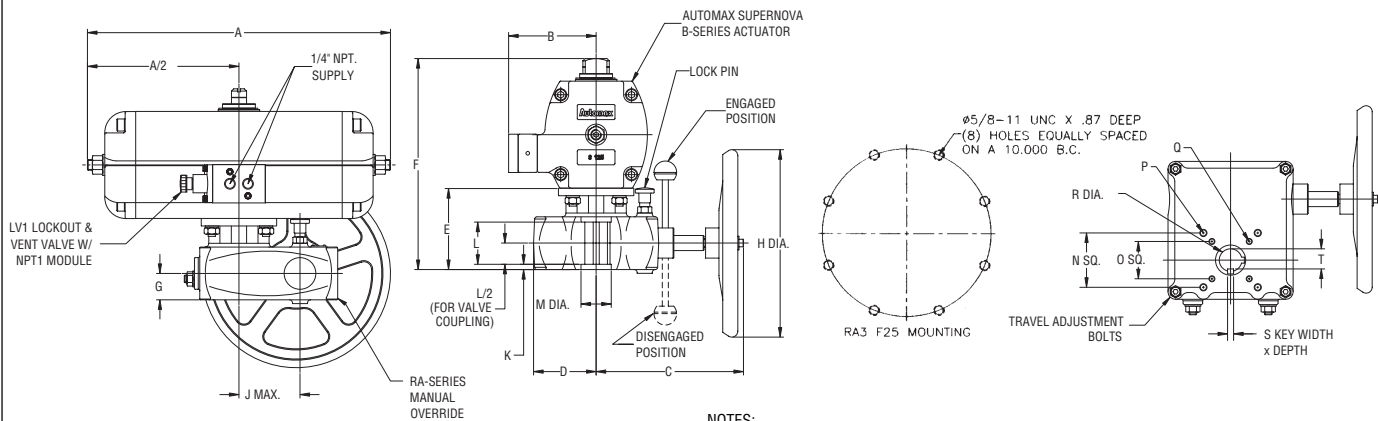
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**Important Note:** To compensate for gear override coupler declutch torque friction, the actuator output torque should be derated by the amount shown in the chart below.

Actuator	Gear Override	Friction (in-lb)	Actuator	Gear Override	Friction (in-lb)
B050	RAI050V	6	B125	RAI125V	15
B063	RAI063V	6	B150	RAI150V	35
B085	RAI085V	6	B175	RAI175V	35
B100	RAI100V	15	B200	RAI200V	35
B115	RAI115V	15	SNA250	RAG250V	48
			SNA300	RAG300V	48

### Dimensions:



**NOTES:**

1. Actuator is shown in the full clockwise position as viewed from the accessory side.
2. Maximum input at handwheel rim to get rated output of DA actuator @ 80 psi.
3. Assembly weight of all components except actuator.

ACTUATOR	MANUAL OVERRIDE	GEAR PART NO.	A	B	C	D	E	F	G	H	J	K	L	M
B050	RAI050V	RA0	6.69	3.08	5.23	1.97	4.22	7.57	1.22	2.95	1.77	0.14	2.17	1.10
B063	RAI063V	RA0	7.95	3.27	5.23	1.97	4.22	8.20	1.22	3.94	1.77	0.14	2.17	1.10
B085	RAI085V	RA0	9.84	3.74	5.23	1.97	4.22	9.16	1.22	3.94	1.77	0.14	2.17	1.10
B100	RAI100V	RA1	11.65	3.98	7.70	3.27	4.25	9.84	1.39	5.91	3.67	0.27	2.20	1.57
B115	RAI115V	RA1	13.47	4.41	7.70	3.27	4.25	10.73	1.39	9.84	3.67	0.27	2.20	1.57
B125	RAI125V	RA1	15.83	4.57	7.70	3.27	4.25	11.22	1.39	9.84	3.67	0.27	2.20	1.57
B150	RAI150V	RA2	19.13	4.97	9.32	5.83	4.84	12.87	1.73	11.81	6.19	0.35	2.72	2.36
B175	RAI175V	RA2	21.34	5.67	9.32	5.83	4.84	14.23	1.73	19.69	6.19	0.35	2.72	2.36
B200	RAI200V	RA2	24.41	6.22	9.32	5.83	4.84	15.41	1.73	19.69	6.19	0.35	2.72	2.36
SNA250	RAG250V	RA3	27.32	7.99	12.50	7.79	7.65	20.32	2.52	23.62	8.44	0.39	4.21	3.94
SNA300	RAG300V	RA3	32.60	9.18	12.50	7.79	7.65	22.69	2.52	31.50	8.44	0.39	4.21	3.94

ACTUATOR	N	O	P	Q	R	S	T	RIM PULL (lbs)②	NO. TURNS for 90°	ASSEMBLY WEIGHT③
B050	1.949	1.392	5/16-18UNC X .59	1/4-20UNC X .59	20mm	6mm x 6mm	17.1mm	11	8	7(lbs)
B063	1.949	1.392	5/16-18UNC X .59	1/4-20UNC X .59	20mm	6mm x 6mm	17.1mm	15	8	7(lbs)
B085	1.949	1.392	5/16-18UNC X .59	1/4-20UNC X .59	20mm	6mm x 6mm	17.1mm	31	8	7(lbs)
B100	2.840	1.949	3/8-16UNC X .59	5/16-18UNC X .59	30mm	8mm x 7mm	26.3mm	24	8	15(lbs)
B115	2.840	1.949	3/8-16UNC X .59	5/16-18UNC X .59	30mm	8mm x 7mm	26.3mm	39	8	17(lbs)
B125	2.840	1.949	3/8-16UNC X .59	5/16-18UNC X .59	30mm	8mm x 7mm	26.3mm	46	8	17(lbs)
B150	3.897	N/A	5/8-11UNC X .87	N/A	45mm	14mm x 9mm	39.8mm	42	16	43(lbs)
B175	3.897	N/A	5/8-11UNC X .87	N/A	45mm	14mm x 9mm	39.8mm	37	16	47(lbs)
B200	3.897	N/A	5/8-11UNC X .87	N/A	45mm	14mm x 9mm	39.8mm	53	16	47(lbs)
SNA250	SEE DWG	4.593	SEE DWG	3/4-10UNC X 1.25	80mm	22mm x 14mm	71.2mm	65	22	91(lbs)
SNA300	SEE DWG	4.593	SEE DWG	3/4-10UNC X 1.25	80mm	22mm x 14mm	71.2mm	72	22	98(lbs)