Designed to Protect™

Overload Release Clutches

Roto-Fuse® Clutch

Unique design provides torque protection in one rotational direction and a solid drive in the opposite.

Roto-Fuse SS™ Clutch

Stainless steel, wash down and chemically-resistant clutch

AO Automatic Overload™ Clutch

Reliable and time-tested, bi-directional torque-limiting clutch.

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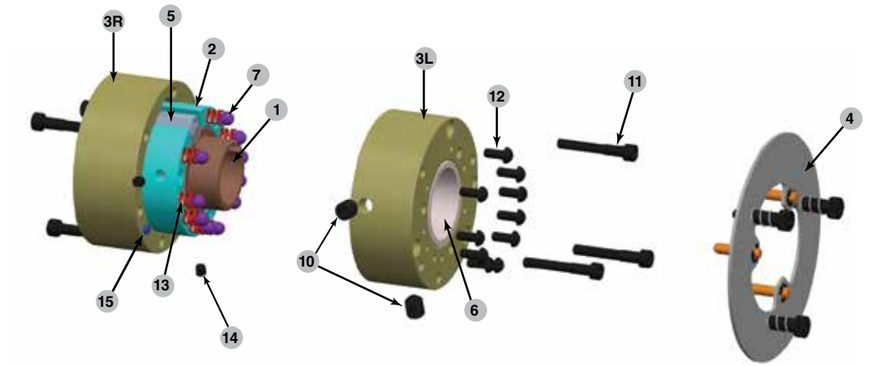
Cabat Roto-Fuse Overload Release Clutch

Installation and Operation Instructions



Item	Description	Quantity
1	Hub	1
2	Rotor	1
3R	Housing	1
3L	Housing	1
4	Switchplate Assembly	1
5	Drive Key	1
6	Bearing	2
7	Ball	20*

Item	Description	Quantity
8	Plunger (not shown)	1
9	Plunger Spring (not shown)	1
10	Access Plug	2
11	Housing Screw	6
12	Torque Adjustment Screw	20*
13	Torque Spring	10*
14	Hub Set Screw	2
15	Housing Dowel Pin	2

ROTO-FUSE — How It Works

The Cabat® Roto-Fuse® Overload Release Clutch is designed to provide controlled or limited torque transmission between the inner hub and the outer housing. The drive can be from the inner hub to the outer housing or vice-versa.

The torque limiting action is uni-directional, providing overload protection in one direction of rotation, and solid or rigid drive in the opposite direction. Figure 1 (next page) describes briefly how the clutch operates.

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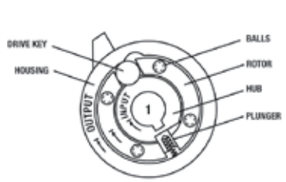
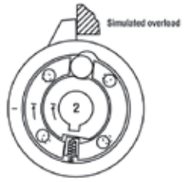
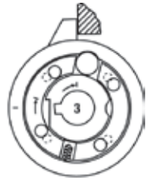


Unit rotates as a whole in the torque protected direction



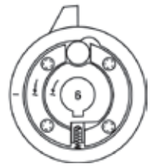
Preset torque value is reached due to overload



Unit disengages the housing from the hub, load and drive are now separated

Unit direction is reversed, beginning reset procedure

Reset process continues

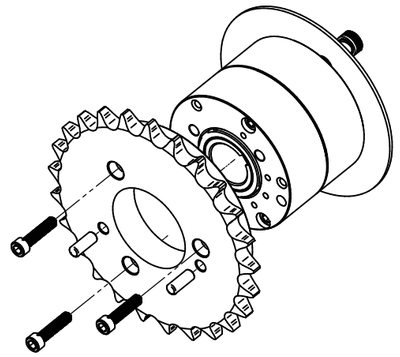


Unit is now re-engaged and operates normally

Mounting Drive Members

Various types of drive members can be used with the Cabat® Roto-Fuse®. Typical P.T.O. side drives, sprockets, V-belt pulleys or timing-belt pulleys can be mounted on either end face of the clutch. Drive members can be piloted off of the clutch housing diameter or located with dowels in the holes provided. Threaded holes are also provided to secure the drive member to either face. If relatively wide pulleys are used, they may be hollowed out to permit mounting them over the clutch housing to minimize the side-pull overhang from the bearings.

The clutch installer should determine the proper clutch end face to mount the drive member on. Reference the **DIRECTION OF ROTATION LABEL** on the clutch for input (driver)/output (driven) information. Start by removing the torque adjusting screws on the desired clutch face to mount the drive member on. If the slotted head screws are removed to install the drive member, replace the Phillips head screws on the opposite side with the same amount of slotted head screws that were taken out of the now drive member side. This will retain the specified torque set at the factory.



Installation and Operation

Knowing the direction of rotation of input (driver) and output (driven) members, mount the clutch on the shaft in accordance with **DIRECTION OF ROTATION** label. Remove the (2) access hole pipe plugs in the housing outer diameter and insert a hex wrench through the access hole to the set screws. Anchor the clutch axially by tightening the (2) hub set screws. Note that these set screws are “staked” to the hub to prevent them from being backed out, which could interfere with proper clutch function and/or render the clutch completely inoperable. Replacement set screws can only be installed through the bore.

The switchplate assembly can bolt onto either face of the clutch and consists of the plate, screws, springs, and three actuating pins. With the actuation pins inserted in the matting holes in the clutch face, draw up shoulder screws evenly until they bottom. When the clutch disengages, the switchplate will automatically extend. Upon clutch re-engagement, the switchplate will retract. When a torque overload occurs and the clutch releases, it will rotate freely until the drive is stopped. To re-engage, simply rotate output member forward or input member reverse for one revolution or less and the clutch will automatically snap back into engagement at the same singular relationship between input and output.

Torque Adjustment

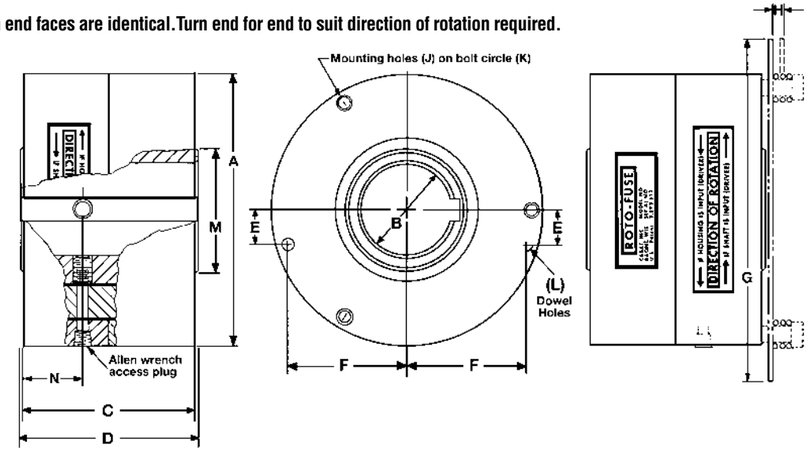
As shipped from the factory, the clutch will have been adjusted to the customer’s specified torque. If your factory adjusted Cabat® Roto-Fuse® Overload Release Clutch needs further adjustment upon receipt, simply add a number of factory supplied slotted head screws to reduce the torque, or remove a number of slotted head screws to increase the torque.

NOTE: All slotted screws should be place on only one face or the other.

Each screw will represent approximately 6% of an increase or decrease in torque. If you cannot acquire the torque needed, it may be possible to replace the springs set to bring the clutch into a different torque range. Contact our customer service for information on alternate spring sets: (262) 554-2300.

Cabat® Roto-Fuse® Specifications

Note: Both clutch end faces are identical. Turn end for end to suit direction of rotation required.



Cabat® Roto-Fuse® Clutch Specifications

Model No.	Torque Range	Inch lbs.	Dimensions (inches) +0.000 -0.002 A	Max. B	C	D	E	F	G	H	J (No.) Size	K B.C.	L	M	N
A-10	A	20-45	2.5000	0.750	1.87	0.07	0.375	1.021	3.50	0.12	(3) 8-32	2.176	0.188	1.00	1.25
	B	60-125													
	C	75-150													
	D	150-300													
	E	280-408													
A15	A	70-100	3.000	1.000	2.23	0.16	0.438	1.245	4.00	0.12	(3) 10-24	2.608	0.188	1.25	1.35
	B	120-175													
	C	150-225													
	D	250-336													
	E	341-720													
A-20	A	60-100	4.000	1.250	2.79	0.09	0.500	1.705	5.00	0.12	(3) 1/4-20	3.554	0.250	1.62	1.85
	B	300-450													
	C	750-1200													
	D	870-1380													
	E	1225-2100													
A-30	A	740-1500	5.1880	1.750	3.24	0.57	0.500	2.306	6.44	0.18	(3) 1/4-20	4.72	0.250	2.25	2.18
	B	930-1880													
	C	1880-3780													
	D	3000-6000													
	E	3920-7860													
A-40	A	600-1200	5.8800	2.250	3.71	0.11	0.750	2.548	7.12	0.18	(6) 5/16-18	5.312	0.312	2.75	2.52
	B	1440-2880													
	C	3060-6120													
	D	3720-7440													
	E	6740-10000													