



Roadranger®

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Illustrated Parts List

EH-8E306A-UP
November 2008

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How To Use The Illustrated Parts List

The information contained in this document is subject to frequent updates. Therefore, for the latest information available, please visit the interactive Electronic Parts Catalog at www.roadranger.com/epc.

Model Designation or Nomenclature

- For information regarding Model Designation and Nomenclature, visit www.roadranger.com.

Kits and Assemblies (K/A's)

- Kits and Assemblies contain groups of individual or assembled parts developed for optimal replacement or repair of a service problem.
- Kits and Assemblies are shown with applicable parts groupings in the parts listings.

Identifying Kits and Assemblies

A- Part numbers beginning with the letter 'A' are pre-assembled Production Assemblies

K- Part numbers beginning with the letter 'K' are kits that are not assembled

S- Part numbers beginning with the letter 'S' are pre-assembled Service Assemblies

- Note: Some Production Assemblies do not begin with a letter prefix (Midrange only).

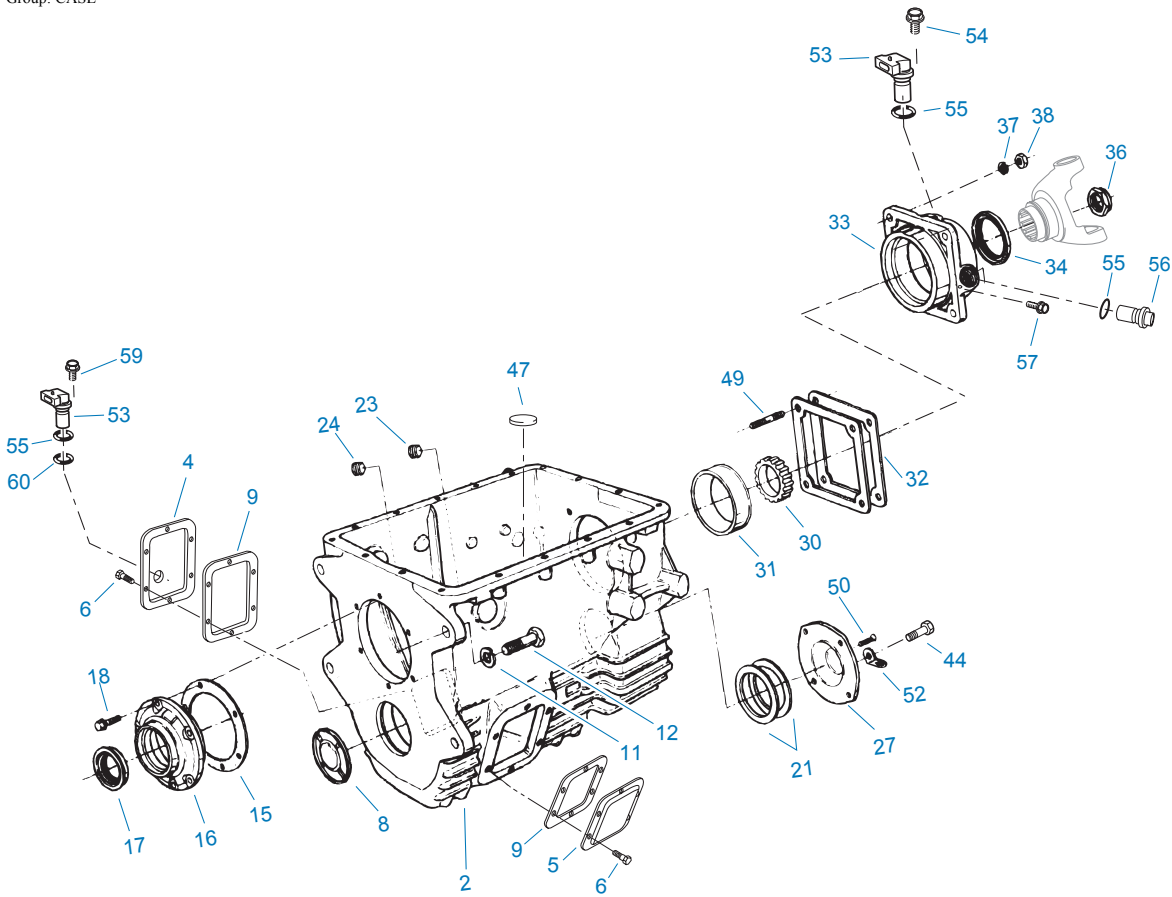
Illustrations

- Illustrations show parts in assembly groups.
- Item numbers on illustrations correspond with parts listings on pages adjacent to the illustration.
- Notes are included on illustrations where additional information is needed.

Parts Listing

Parts listings are defined by parts groupings and are broken down by service assemblies. Parts listings identify a part for servicing with the following categories

- **Item Number** - corresponding with numbers on illustrations for part identification.
- **Current Part** - identifies part as it is available for service.
- **Description** - specifies part name or description.
- **Replaced Part** - quantity quantity required for assembly.
- **Quantity** - defines unique characteristics or requirements.
- **Notes** - indicates Kits or Assemblies that contain a particular part.
- **Kits/Assy's Where Used**

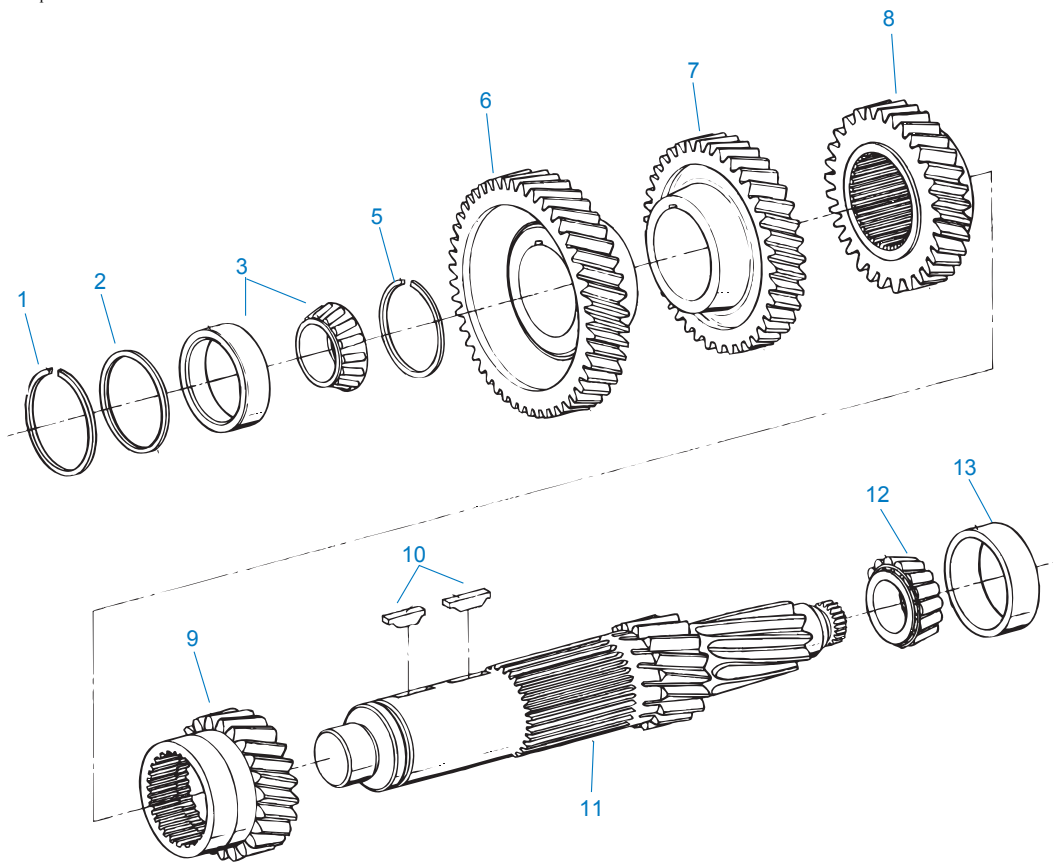


00189-06-06

CASE

Item	Current Part	Description	Replaced Part	Qty.	Notes	Kits/Assys Where Needed
2	A-7635	CASE ASSY	4305847	1		
4	4305936	PTO COVER		1	W/SPEED SENSOR PROVISION	
5	201398	PTO COVER		1		
6	X-8-686	CAPSCREW		12	3/8"-16X3/4"	K-3793
8	3315679	PLUG		1		
9	4305309	GASKET	1684	1		K-3791,K-3793
11	X-3-1000	LOCKWASHER		4	5/8"	K-3771
12	X-8-1014	HEX SCREW		4	RESTRICTED PART – Only available to Authorized Eaton Hybrid Dealers, .625 - 11 X 2.75	K-3771
15	3315659	GASKET		1		K-3791
16	4305925	FRONT BRG COVER		1		
17	4305927	OIL SEAL		1		
18	239614	SCREW		6	3/8"-16X3/4"	
21	3315681	SHIM .004		1		
21	3315682	SHIM .007		1		
21	3315683	SHIM .010		1		
21	3315684	SHIM .020		1		
21	4300977	SHIM .040		1		
23	X-12-1209	PIPE PLUG		1		
24	X-12-1207	PIPE PLUG	X12 1202 ,X12 1206	1	3/4" MAGNETIC	
27	4301607	C/S REAR BRG COVER		1		
30	3316160	SPEEDO ROTOR		1	16 TEETH	
31	711123	BEARING CUP		1		
32	3315662	SHIM .004		1		
32	3315663	SHIM .007		1		
32	3315664	SHIM .010		1		
32	3315665	SHIM .020		1		
32	4300978	SHIM .040		1		
33	S-2864	REAR BRG COVER ASSY	691423 ,691666	1		

Item	Current Part	Description	Replaced Part	Qty.	Notes	Kits/Assys Where Needed
34	4300119	OIL SEAL		1	SHAFT 2.753, WIDTH .5	S-2864
36	K-3411	NUT KIT	21937,4301920 ,4304690	1		
37	239436	WASHER		4	1/2"	
38	86D8	NUT	86D08	4	1/2"-20	
44	X-8C-604	CAPSCREW		4	3/8"-16X1-1/4"	
47	14373	MAGNET		2		A-7635
49	239433	STUD		4	1/2"-20X2-5/16"	
50	X-12-405	PIPE PLUG		1		
52	238370	LIFTING EYE		1		
53	K-3772	SPEED SENSOR KIT		2	RESTRICTED PART – Only available to Authorized Eaton Hybrid Dealers	
54	X-8C-409	CAPSCREW		1	1/4"-20X5/8"	K-3772
55	14142	-O- RING		4		K-3125,S-2864
56	K-3125	SPEEDO PLUG KIT	4302707	2		
57	X-8C-409	CAPSCREW		2	1/4"-20X5/8"	K-3772
59	X-8C-409	CAPSCREW		2		K-3772
60	20875	O-RING		1		K-3772

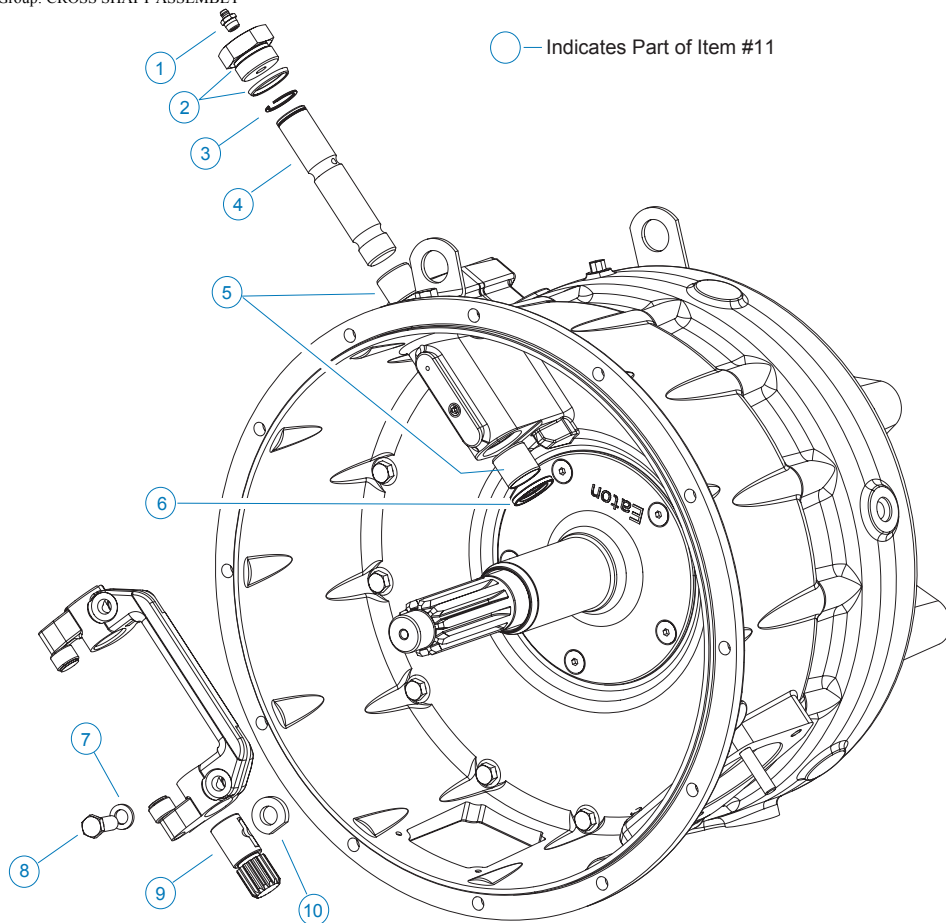


00303-8/93 CS 53

COUNTERSHAFT ASSY

Item	Current Part	Description	Replaced Part	Qty.	Notes	Kits/Assys Where Needed
1	3315686	SNAP RING		1		
2	3315687	WASHER		1		
3	K-3795	BEARING KIT	1313645, 791943	1		
5	3315752	SNAP RING	3315751	1		
6	4304541	DRIVE GEAR-CNTRSHFT		1		
7	4304542	5TH GEAR-CNTRSHFT		1		
8	4304097	4TH GEAR-CNTRSHFT	4304099	1		
9	4304056	3RD GEAR-CNTRSHFT	4304062	1		
10	230292	KEY		2		
11	4303238	COUNTERSHAFT	3315740	1		
12	658981	BEARING CONE		1		
13	660181	BEARING CUP		1		

Group: CROSS SHAFT ASSEMBLY

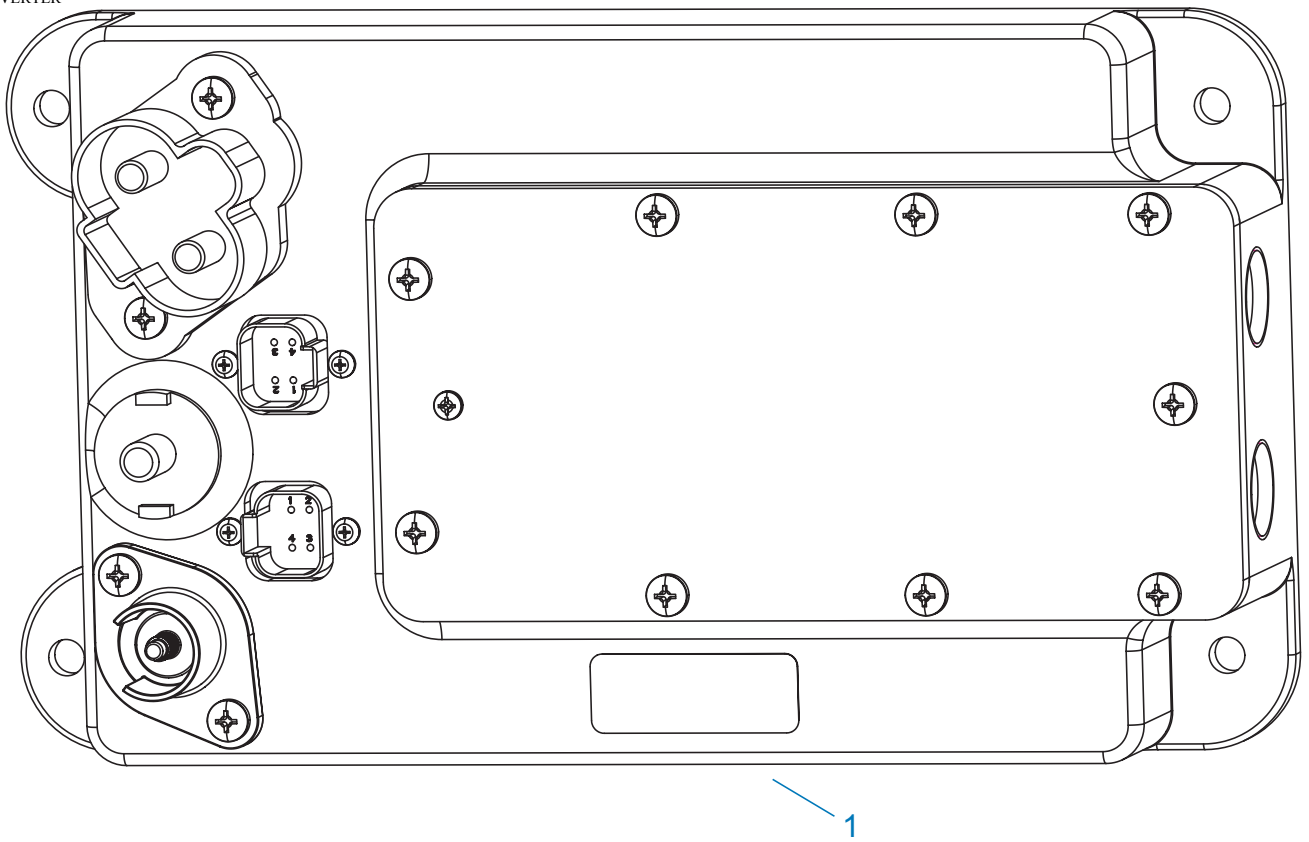


20702-09-06

CROSS SHAFT ASSEMBLY

Item	Current Part	Description	Replaced Part	Qty.	Notes	Kits/Assys Where Needed
1	4759	GREASE FITTING		1	1/8 STR	K-3774
2	4306085	PLUG		1	RESTRICTED PART – Only available to Authorized Eaton Hybrid Dealers	K-3774
3	16387	SNAP RING		1		K-3774
4	4306083	CLUTCH RELEASE SHAFT		1	RESTRICTED PART – Only available to Authorized Eaton Hybrid Dealers	K-3774
5	12815	BUSHING		2		K-3774
6	4306091	SEAL		1	RESTRICTED PART – Only available to Authorized Eaton Hybrid Dealers	K-3774
7	X-3-700	LOCKWASHER		2		K-3771,K-3774
8	90031	BOLT		2	7/16 X 1-1/4	K-3771,K-3774
9	4306302	ACTUATOR SHAFT	4306082	1	RESTRICTED PART – Only available to Authorized Eaton Hybrid Dealers	K-3771,K-3774
10	4306194	CLUTCH REL SHAFT KEY		1	RESTRICTED PART – Only available to Authorized Eaton Hybrid Dealers	K-3771,K-3774
11	K-3774	CROSS-SHAFT ASSEMBLY KIT		1		

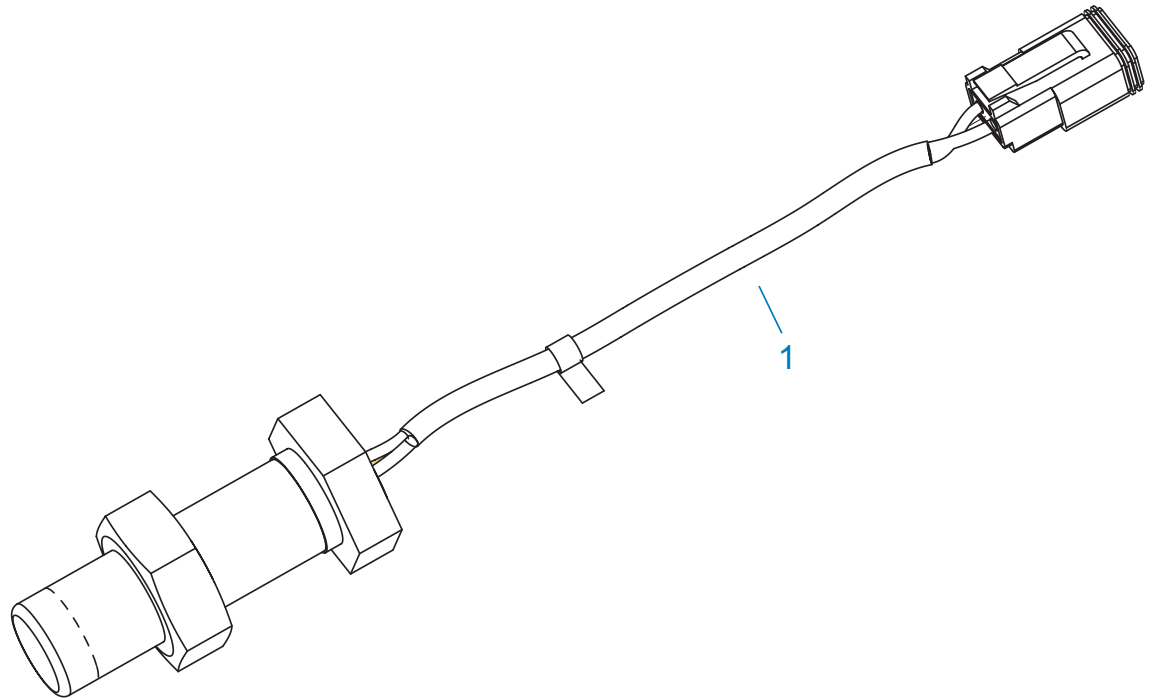
Group: DC/DC CONVERTER



20700-09-06

DC/DC CONVERTER

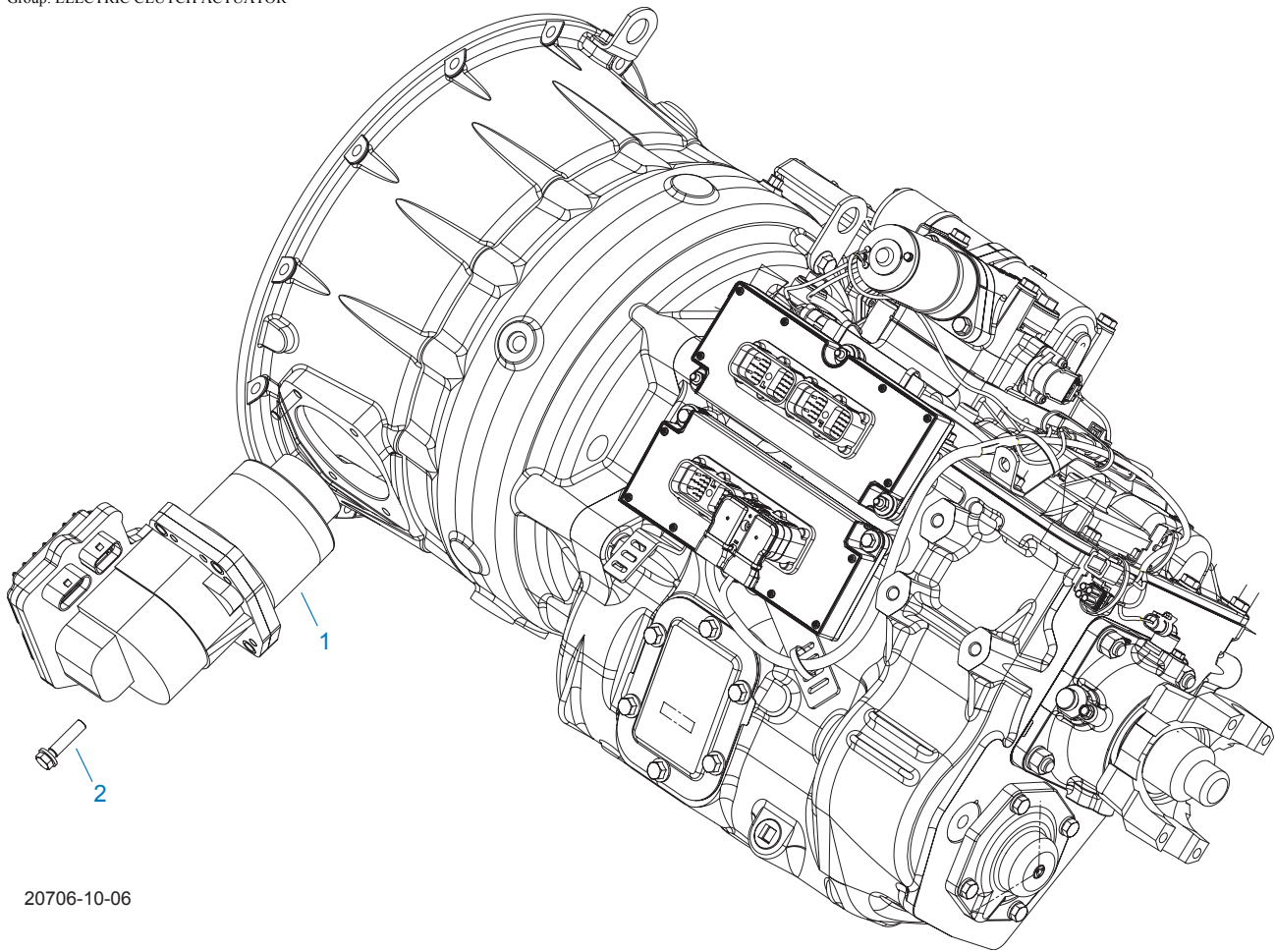
Item	Current Part	Description	Replaced Part	Qty.	Notes	Kits/Assys Where Needed
1	K-3782	DC/DC CONVERTER KIT	4305974	1	RESTRICTED PART – Only available to Authorized Eaton Hybrid Dealers	



20704-10-06

ECA SPEED SENSOR

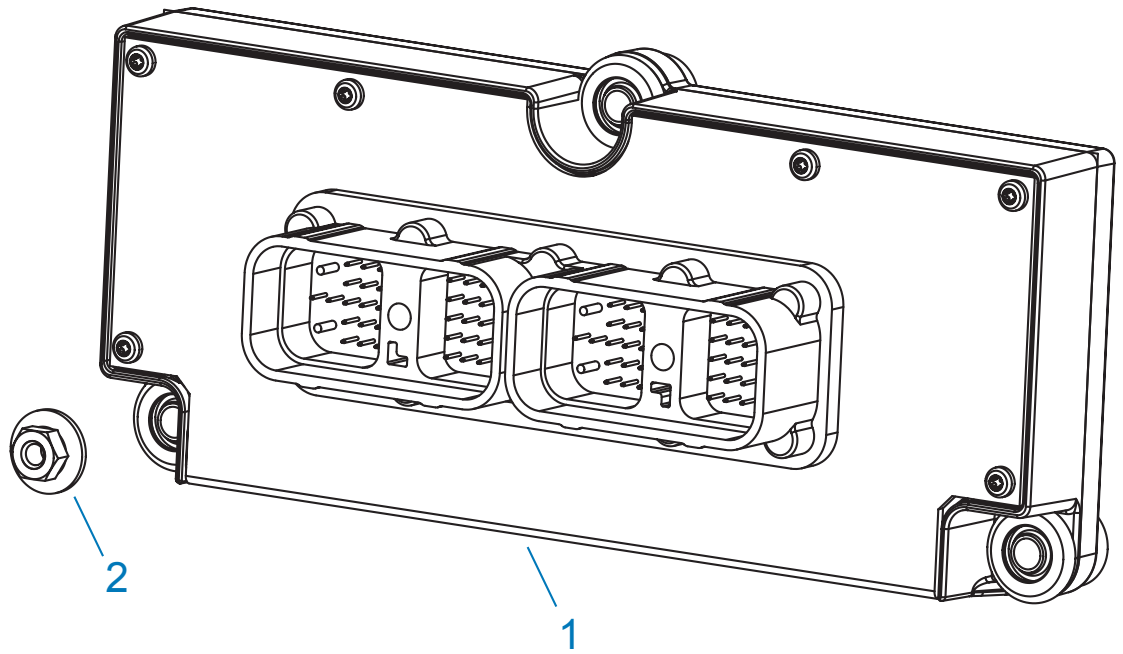
Item	Current Part	Description	Replaced Part	Qty.	Notes	Kits/Assys Where Needed
1	K-3776	ECA SPEED SENSOR KIT	4306190	1	RESTRICTED PART – Only available to Authorized Eaton Hybrid Dealers	



20706-10-06

ELECTRIC CLUTCH ACTUATOR

Item	Current Part	Description	Replaced Part	Qty.	Notes	Kits/Assys Where Needed
1	K-3777	ELECTRIC CLUTCH ACTUATOR KIT		1	RESTRICTED PART – Only available to Authorized Eaton Hybrid Dealers	
2	X-8L-609	CAPSCREW		3		K-3771,K-3777

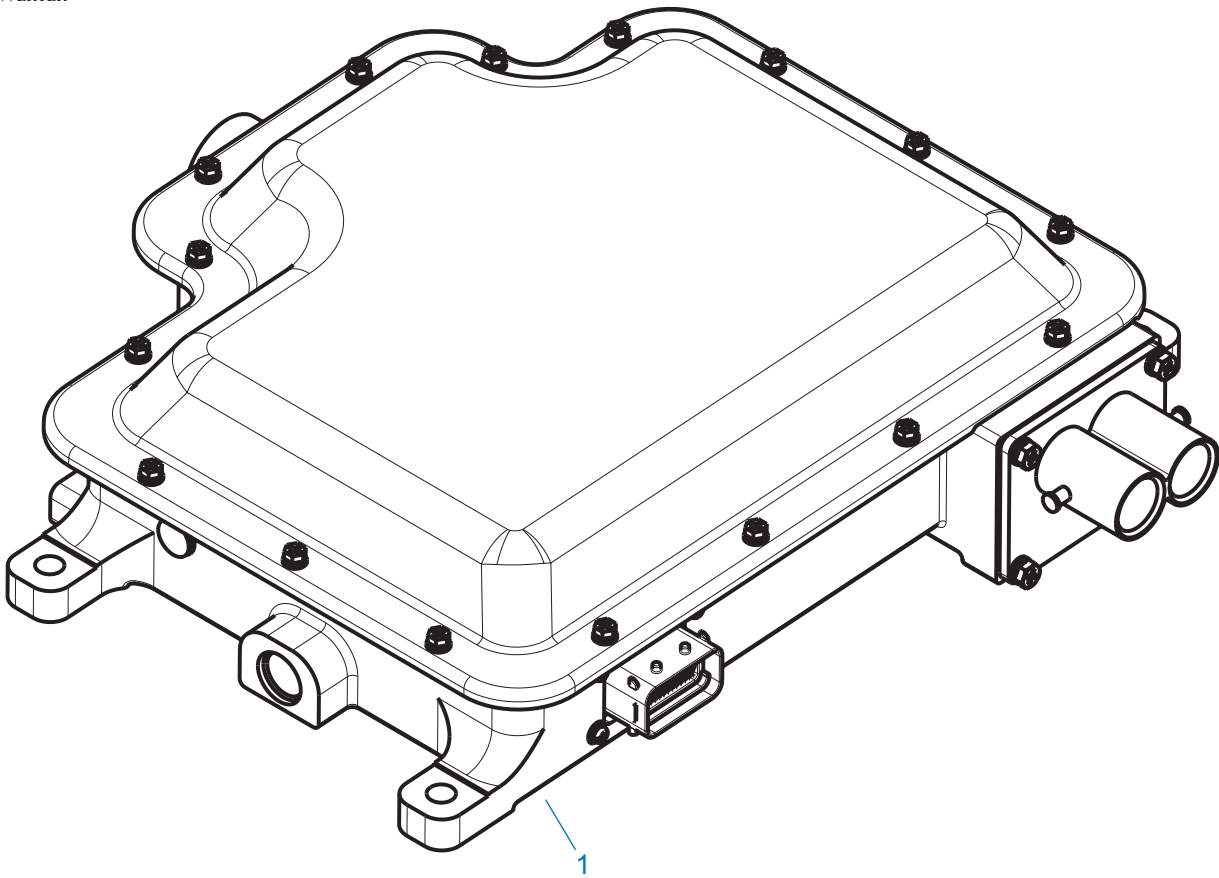


20707-10-06

HYBRID CONTROLLERS

Item	Current Part	Description	Replaced Part	Qty.	Notes	Kits/Assys Where Needed
1	K-3789	HYBRID CONTROLLER KIT (UP)		1	RESTRICTED PART – Only available to Authorized Eaton Hybrid Dealers	
2	4305919	NUT ASSEMBLY		3	(1/4-20)	K-3789

Group: INVERTER



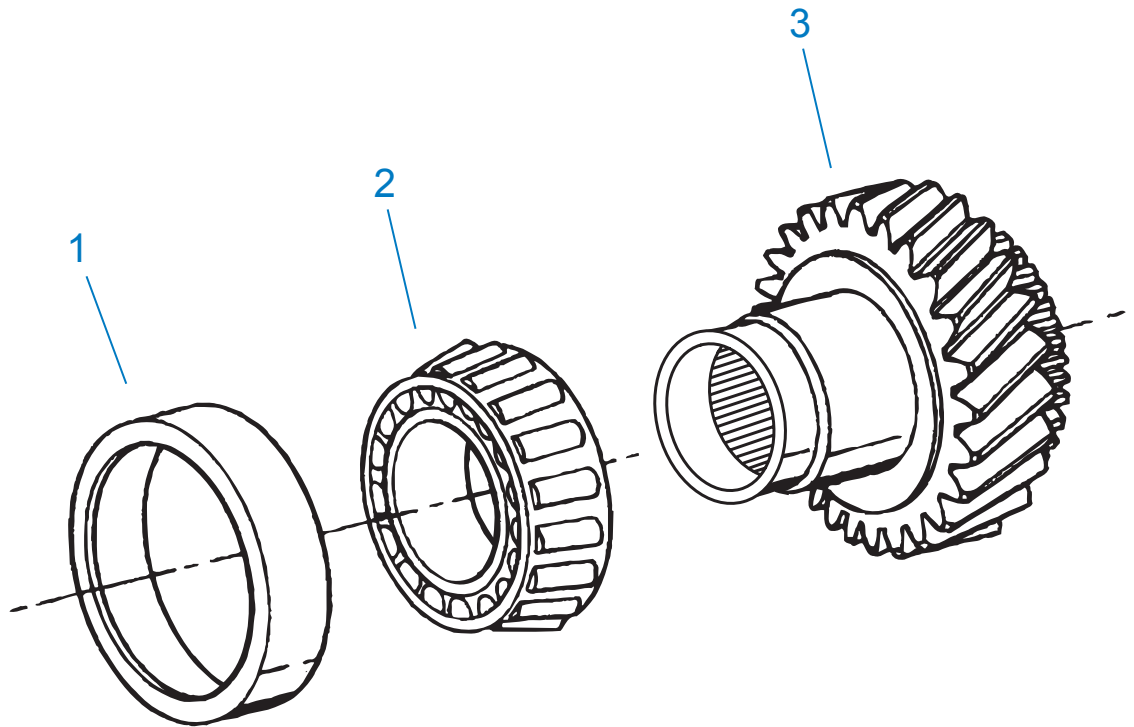
20701-09-06

INVERTER

Item	Current Part	Description	Replaced Part	Qty.	Notes	Kits/Assys Where Needed
1	K-3778	INVERTER KIT	4305985	1	RESTRICTED PART – Only available to Authorized Eaton Hybrid Dealers	

KITS & ASSEMBLIES

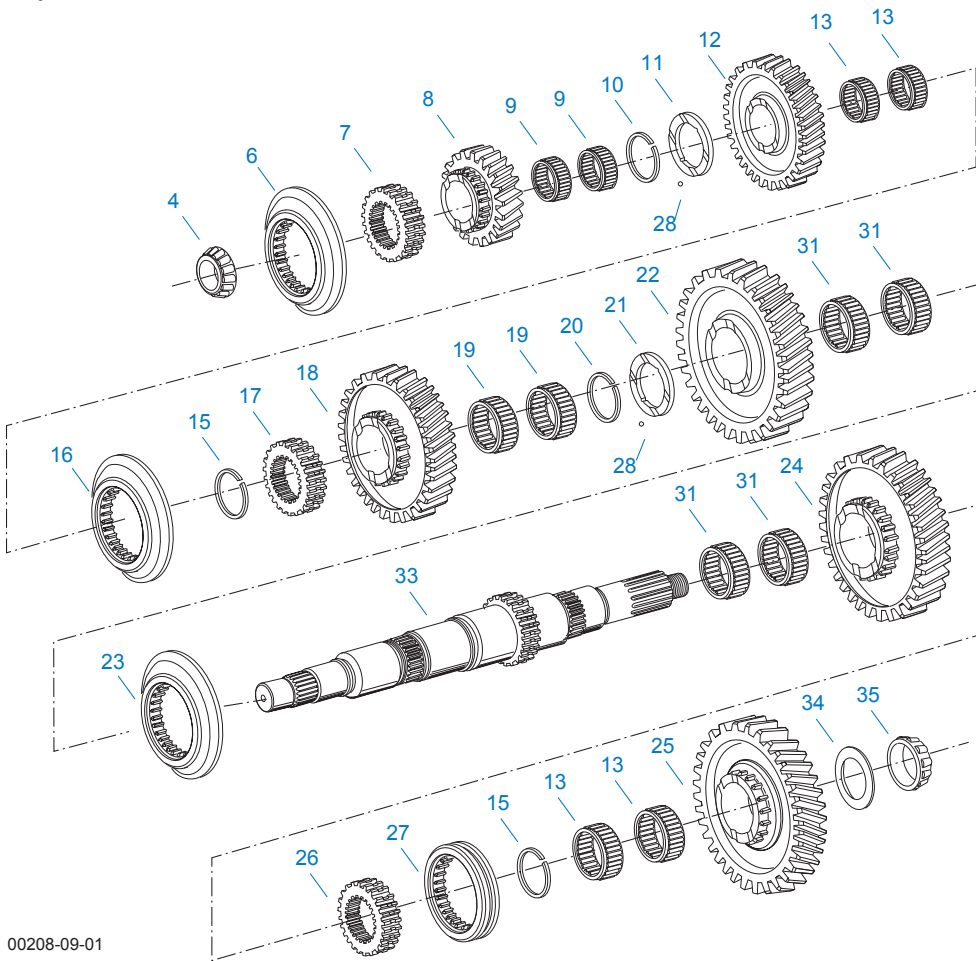
Item	Current Part	Description	Replaced Part	Qty.	Notes	Kits/Assys Where Needed
	K-3125	SPEEDO PLUG KIT		1		
	K-3411	NUT KIT		1		
	K-3438	POSITION SENSOR KIT		1		
	K-3771	MOTOR/GENERATOR KIT		1	RESTRICTED PART – Only available to Authorized Eaton Hybrid Dealers	
	K-3772	SPEED SENSOR KIT		1	RESTRICTED PART – Only available to Authorized Eaton Hybrid Dealers	
	K-3774	CROSS-SHAFT ASSEMBLY KIT		1		
	K-3776	ECA SPEED SENSOR KIT		1	RESTRICTED PART – Only available to Authorized Eaton Hybrid Dealers	
	K-3777	ELECTRIC CLUTCH ACTUATOR KIT		1	RESTRICTED PART – Only available to Authorized Eaton Hybrid Dealers	
	K-3778	INVERTER KIT		1	RESTRICTED PART – Only available to Authorized Eaton Hybrid Dealers	
	K-3780	PEC UTILITY 2 BATTERY KIT		1	RESTRICTED PART – Only available to Authorized Eaton Hybrid Dealers	
	K-3781	TRANSMISSION HARNESS (HYBRID)		1	RESTRICTED PART – Only available to Authorized Eaton Hybrid Dealers	
	K-3782	DC/DC CONVERTER KIT		1	RESTRICTED PART – Only available to Authorized Eaton Hybrid Dealers	
	K-3784	GEN 3 X-Y SHIFTER KIT		1		
	K-3789	HYBRID CONTROLLER KIT (UP)		1	RESTRICTED PART – Only available to Authorized Eaton Hybrid Dealers	
	K-3791	GASKET KIT		1	RESTRICTED PART – Only available to Authorized Eaton Hybrid Dealers	
	K-3792	PEC AIR FILTER KIT		1	RESTRICTED PART – Only available to Authorized Eaton Hybrid Dealers	
	K-3793	PTO RELOCATION KIT		1	RESTRICTED PART – Only available to Authorized Eaton Hybrid Dealers	
	K-3795	BEARING KIT	1313645, 791943	1		
	K-3799	TRANS CONTROLLER KIT (UP)		1	RESTRICTED PART – Only available to Authorized Eaton Hybrid Dealers	
	K-3887	DC POWER CONNECTOR CAP KIT	4306310	1	RESTRICTED PART – Only available to Authorized Eaton Hybrid Dealers	
	S-2864	REAR BRG COVER ASSY		1		
	S-2865	SHIFT BAR HOUSING ASSY		1		



00403-06-06

MAIN DRIVE GEAR

Item	Current Part	Description	Replaced Part	Qty.	Notes	Kits/Assys Where Needed
1	675250	BEARING CUP		1	1.75" INPUT	
2	742259	BEARING CONE		1	1.75" INPUT	
3	4305928	MAIN DRIVE GEAR		1		

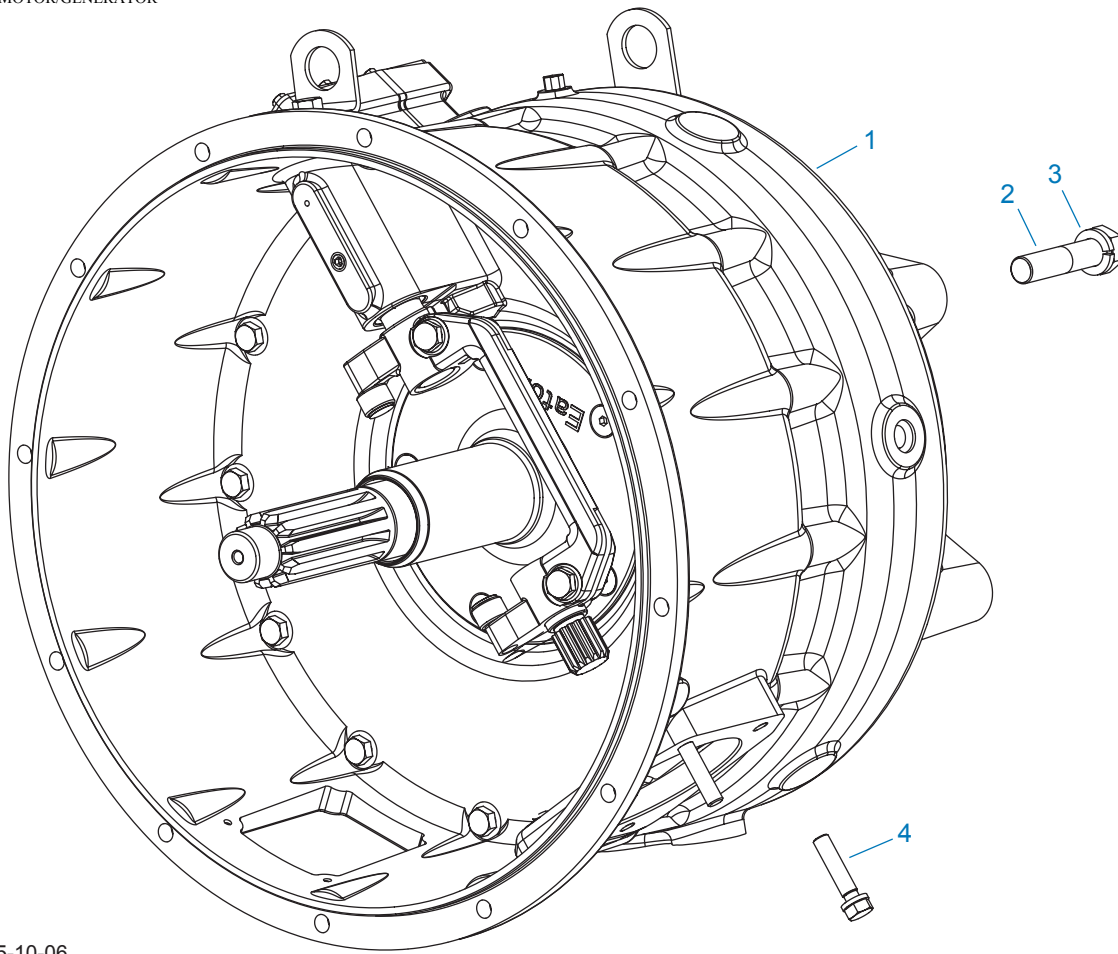


00208-09-01

MAINSHAFT ASSY

Item	Current Part	Description	Replaced Part	Qty.	Notes	Kits/Assys Where Needed
4	710787	BEARING CONE		1		
6	691415	SLIDING CLUTCH (5TH/6TH)		1		
7	4301476	CLUTCH HUB 5/6		1		
8	4304543	5TH GEAR-MAINSHAFT		1		
9	3315737	BEARING		2		
10	3315728	SNAP RING	3315729	1		
11	3315727	WASHER		1		
12	4304098	4TH GEAR-MAINSHAFT	4304401	1		
13	4124075	BEARING		4		
15	3315725	SNAP RING		2		
16	691414	SLIDING CLUTCH (3RD/4TH)		1		
17	4301475	CLUTCH HUB 3/4		1		
18	4304057	3RD GEAR-MAINSHAFT	4304063	1		
19	3315722	BEARING		2		
20	3315717	SNAP RING	3315718	1		
21	3315719	WASHER		1		
22	4303231	2ND GEAR-MAINSHAFT	4301482	1		
23	4301852	SLIDING CLUTCH 1ST/REV		1		
24	4303230	1ST GEAR-MAINSHAFT	4301483	1		
25	4301484	REVERSE GEAR-MAINSHAFT		1		
26	4301474	CLUTCH HUB-REV		1		
27	4301473	SLIDING CLUTCH-REV		1		
28	10J06	STEEL BALL		2	3/16"	
31	3315703	BEARING		4		
33	4301468	MAINSHAFT		1		
34	4301492	WASHER		1		

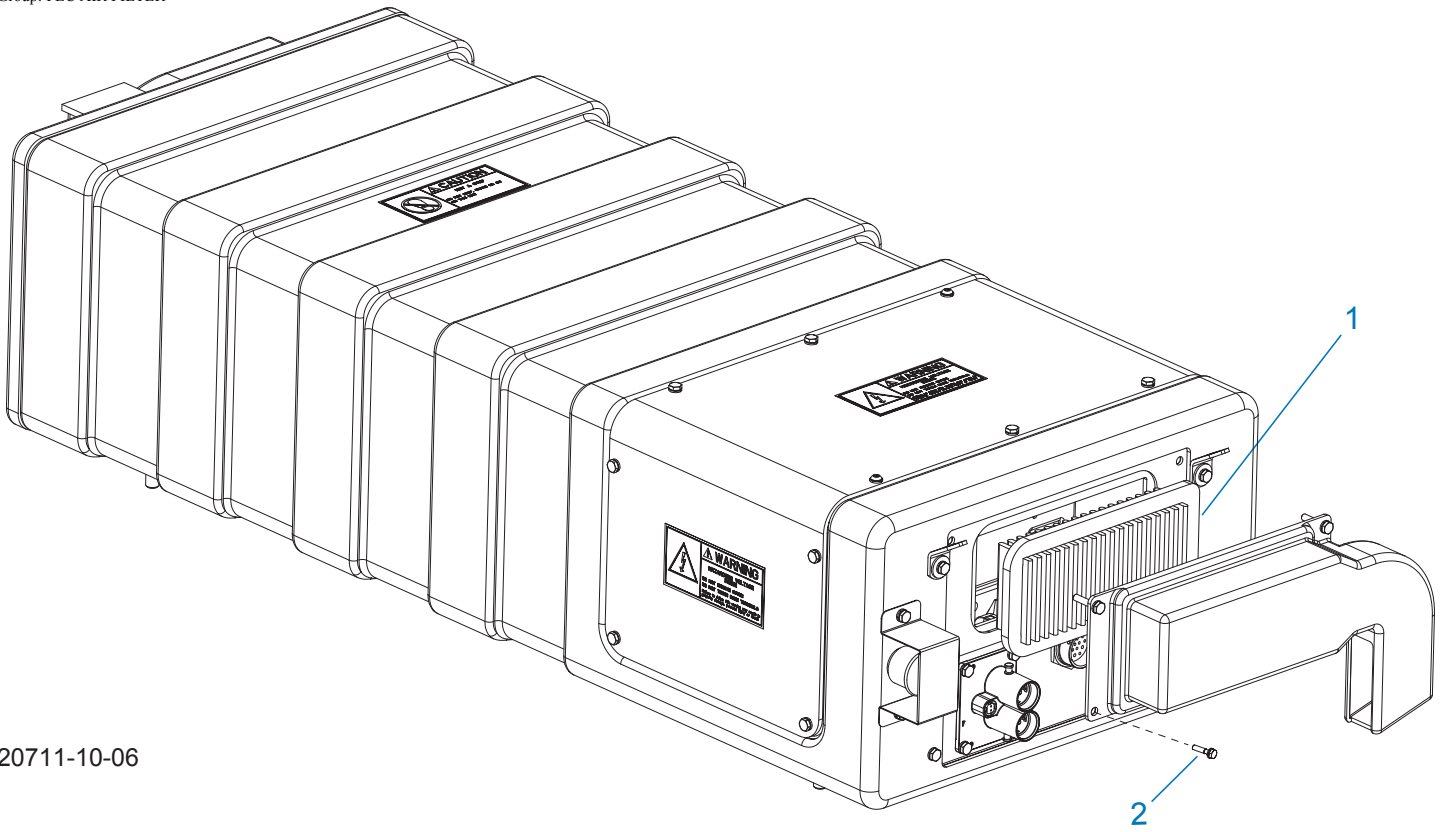
Item	Current Part	Description	Replaced Part	Qty.	Notes	Kits/Assys Where Needed
35	5557003	BEARING CONE		1		



20705-10-06

MOTOR/GENERATOR

Item	Current Part	Description	Replaced Part	Qty.	Notes	Kits/Assys Where Needed
1	K-3771	MOTOR/GENERATOR KIT		1	RESTRICTED PART – Only available to Authorized Eaton Hybrid Dealers	
2	X-8-1014	HEX SCREW		4	RESTRICTED PART – Only available to Authorized Eaton Hybrid Dealers, .625 - 11 X 2.75	K-3771
3	X-3-1000	LOCKWASHER		4		K-3771
4	X-8L-609	CAPSCREW		3		K-3771,K-3777

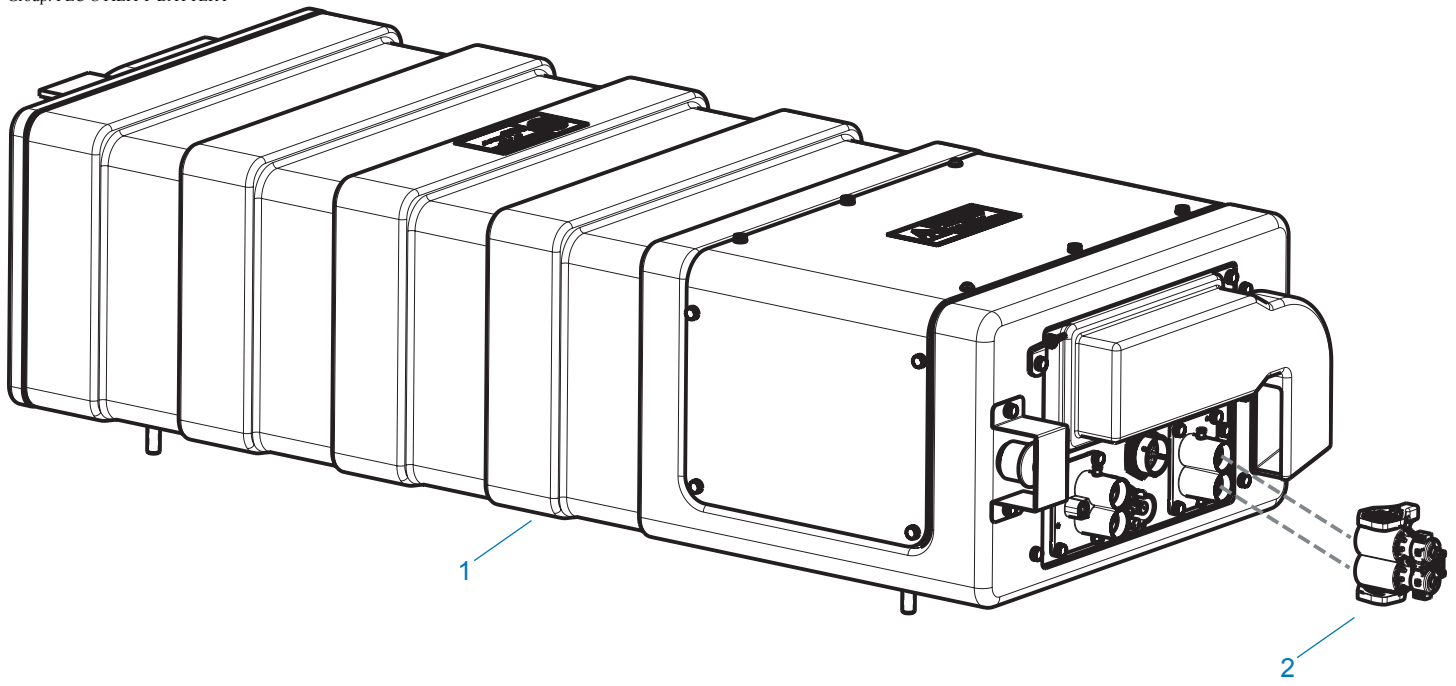


20711-10-06

PEC AIR FILTER

Item	Current Part	Description	Replaced Part	Qty.	Notes	Kits/Assys Where Needed
1	K-3792	PEC AIR FILTER KIT	4306115	1	RESTRICTED PART – Only available to Authorized Eaton Hybrid Dealers	
2	X-8C-401	CAPSCREW		4		

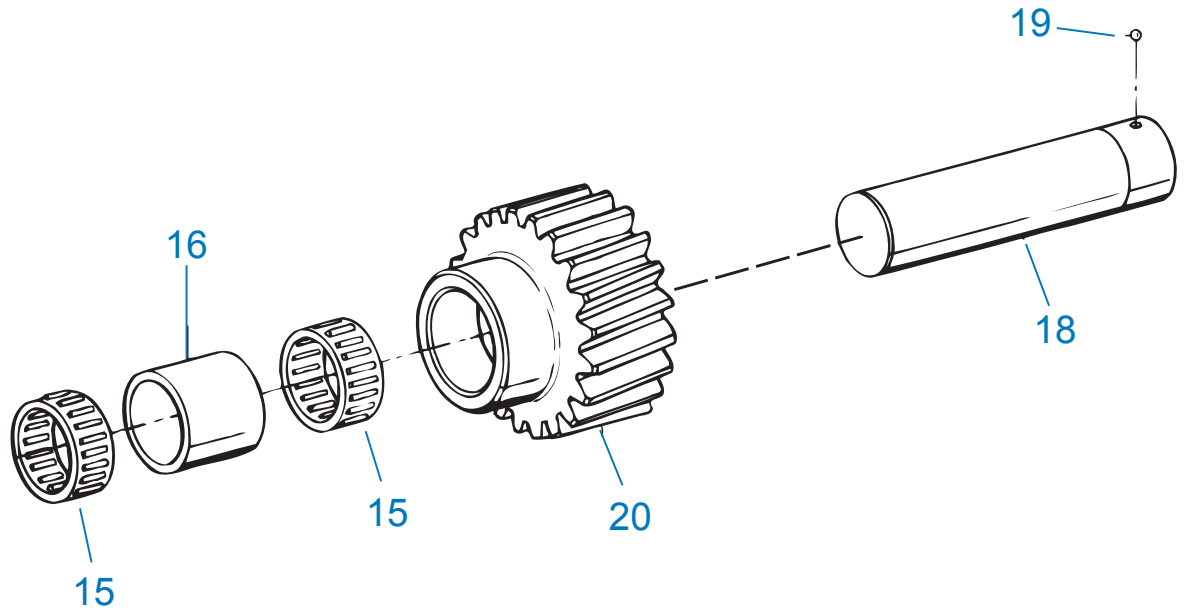
Group: PEC UTILITY BATTERY



20712-07-07

PEC UTILITY BATTERY

Item	Current Part	Description	Replaced Part	Qty.	Notes	Kits/Assys Where Needed
1	K-3780	PEC UTILITY 2 BATTERY KIT		1	RESTRICTED PART – Only available to Authorized Eaton Hybrid Dealers	
2	K-3887	DC POWER CONNECTOR CAP KIT	4306310	1	RESTRICTED PART – Only available to Authorized Eaton Hybrid Dealers	

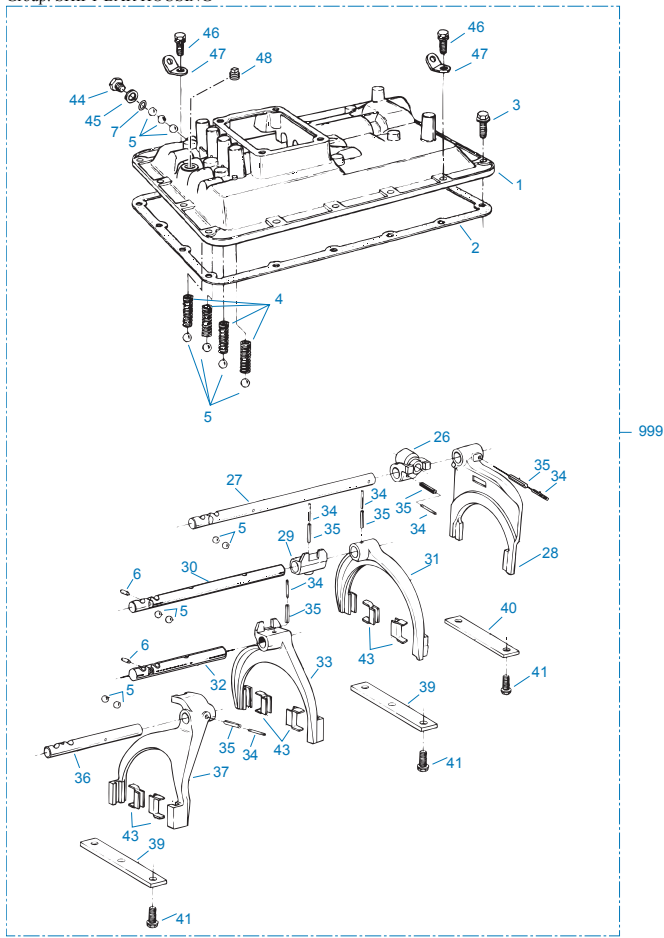


00455-02-03

REVERSE IDLER GEAR ASSY

Item	Current Part	Description	Replaced Part	Qty.	Notes	Kits/Assys Where Needed
15	3315674	BEARING		2		
16	3315676	SPACER		1		
18	3315672	REVERSE IDLER SHAFT		1		
19	10J06	STEEL BALL		1	3/16"	
20	4304318	REVERSE IDLER GEAR		1		

Group: SHIFT BAR HOUSING



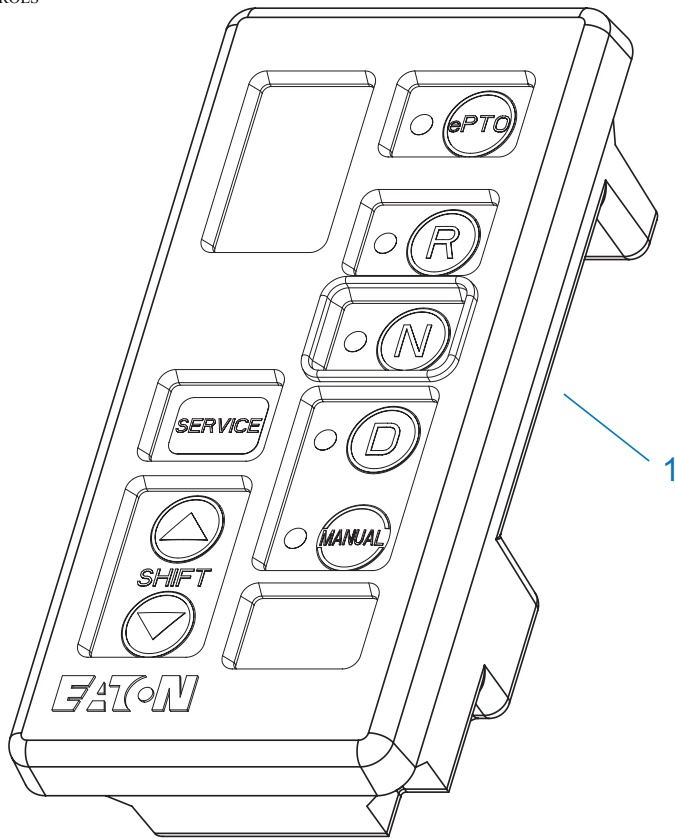
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SHIFT BAR HOUSING

Item	Current Part	Description	Replaced Part	Qty.	Notes	Kits/Assys Where Needed
1	S-2865	SHIFT BAR HOUSING ASSY	691655 ,A - 7053	1		
2	4300854	GASKET	3315678	1		K-3791,S-2865
3	X-8C-600	CAPSCREW	239611	15	3/8"-16X1"	
4	691644	SPRING		4		
5	10J14	STEEL BALL		13	7/16"	
6	201044	PIN		2		
7	4301719	BALL RETAINER-REVERSE		1		
26	691526	SHIFT BLOCK - REVERSE		1		
27	691654	YOKE BAR - REVERSE	691422	1		
28	3315897	SHIFT YOKE ASSY		1		
29	691522	SHIFT BLOCK (1ST/2ND)		1		
30	691419	YOKE BAR (1ST/2ND)		1		
31	3315772	SHIFT YOKE ASSY	3315770	1		
32	691420	YOKE BAR (3RD/4TH)		1		
33	A-7038	YOKE ASSY (3RD/4TH)	691524	1		
34	1JM6028	PIN		6		
35	1JM3528	PIN		6		
36	691421	YOKE BAR (5TH/6TH)		1		
37	A-7039	YOKE ASSY (5TH/6TH)	691525	1		
39	4301279	SHIFT BAR RETAINER	3315756	2		
40	3315757	SHIFT BAR RETAINER		1		
41	233043	CAPSCREW		8	3/8"-16X1"	
43	227675	INSERT - YOKE PAD		6		A-7038,A-7039
44	235052	CA PLUG		1	9/16 - 18	
44	4303656	PLUG	15917	1	9/16 - 18, THREADED	
45	15900	GASKET		1		K-3791,S-2865
46	X-8-688	CAPSCREW		2	3/8"-16X1"	
47	238370	LIFTING EYE		2		

Item	Current Part	Description	Replaced Part	Qty.	Notes	Kits/Assys Where Needed
48	X-12-603	PIPE PLUG	X12 602	1	3/8" NPT	K-3784
999	S-2865	SHIFT BAR HOUSING ASSY	691655 ,A - 7053	1		

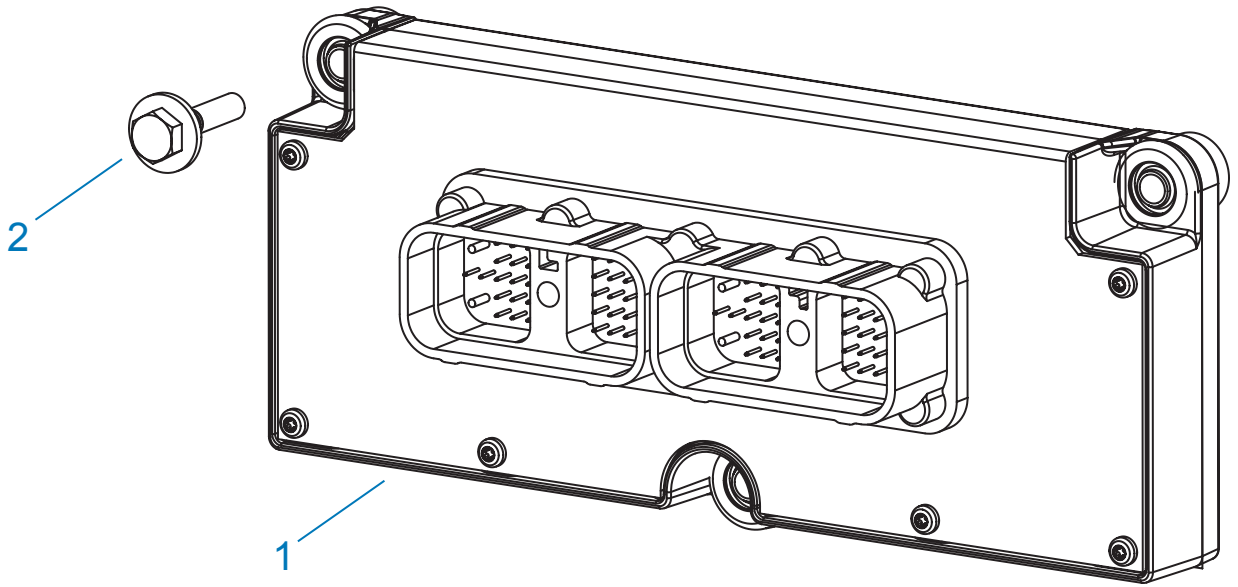
Group: SHIFT CONTROLS



20324-11-06

SHIFT CONTROLS

Item	Current Part	Description	Replaced Part	Qty.	Notes	Kits/Assys Where Needed
1	4306358	PUSHBUTTON, HYBRID (EPTO)	S-3061	1		

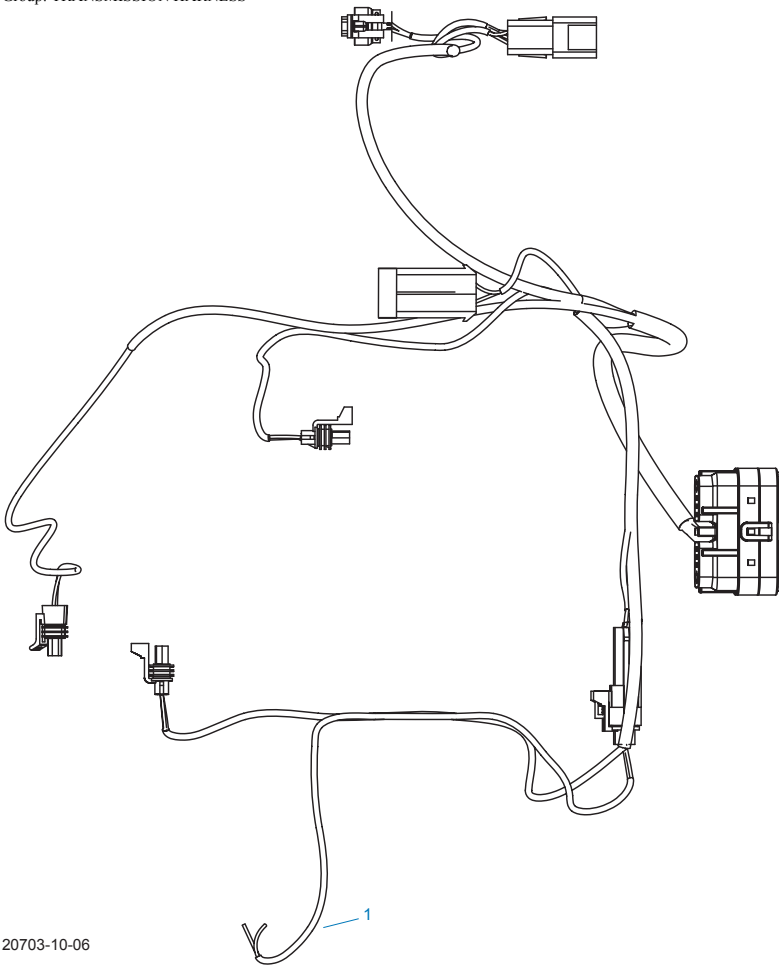


20708-10-06

TRANSMISSION CONTROLLER

Item	Current Part	Description	Replaced Part	Qty.	Notes	Kits/Assys Where Needed
1	K-3799	TRANS CONTROLLER KIT (UP)		1	RESTRICTED PART – Only available to Authorized Eaton Hybrid Dealers	
2	X-8C-455	HEX HEAD WASHER/SCREW		3		K-3799

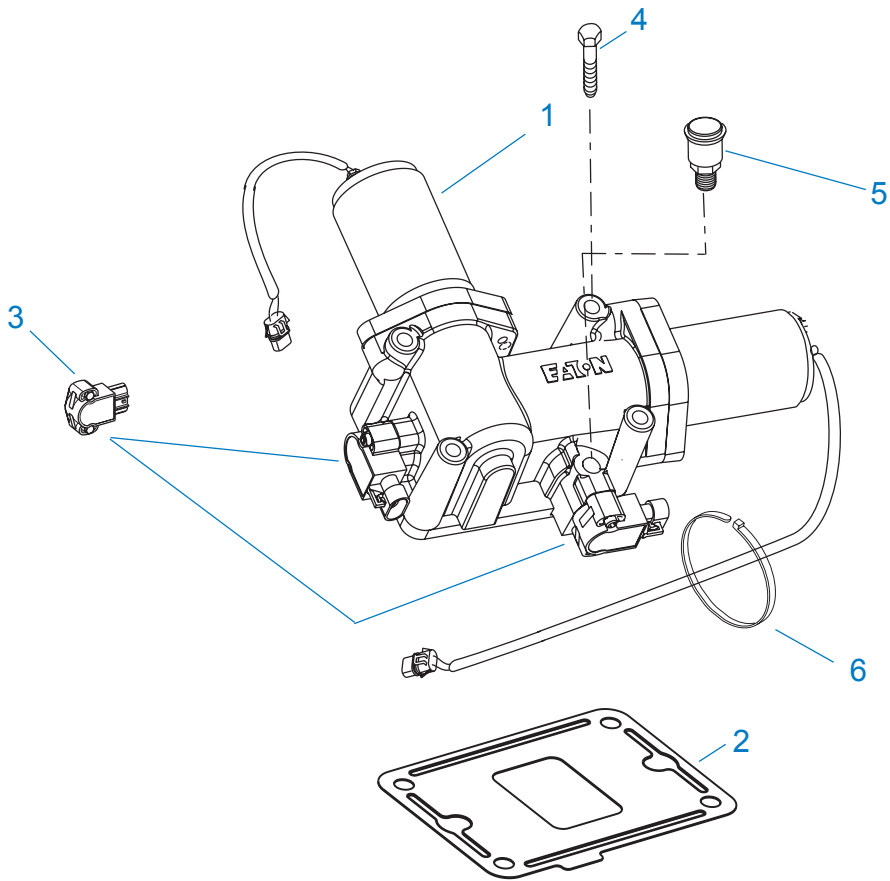
Group: TRANSMISSION HARNESS



20703-10-06

TRANSMISSION HARNESS

Item	Current Part	Description	Replaced Part	Qty.	Notes	Kits/Assys Where Needed
1	K-3781	TRANSMISSION HARNESS (HYBRID)	4306086	1	RESTRICTED PART – Only available to Authorized Eaton Hybrid Dealers	



20230-09-01

X-Y SHIFTER MODULE

Item	Current Part	Description	Replaced Part	Qty.	Notes	Kits/Assys Where Needed
1	K-3784	GEN 3 X-Y SHIFTER KIT	A - 7670, A - 7856	1		
2	4305452	GASKET	4301958	1		K-3784,K-3791
3	K-3438	POSITION SENSOR KIT	691551 ,691926	2		
4	X-8C-615	CAPSCREW		4		
5	4304602	BREATHER	23605	1	1/4" NPT	
6	5559348	TY-RAP		6		K-3781,K-3793

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