



Eaton Fuller F-6405B-DM3 Transmission Parts Manual

This is Eaton Fuller F-6405B-DM3 Transmission parts manual brought to you by Pro Gear and Transmission to assist you identifying the parts for your Eaton / Fuller transmission unit.

If you need any assistance identifying the correct Eaton / Fuller unit for your truck and equipment, contact your Eaton replacement parts specialists at Pro Gear and Transmission.

Pro Gear stocks every part for your Eaton transmission including: Valve Assemblies, Synchronizers, Yoke Assemblies, O-Ring Kits, Drive Gears, Gaskets, Bearing and Seal Kits, and much more.

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Illustrated Parts List

F-6405B-DM3
May 2010

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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).

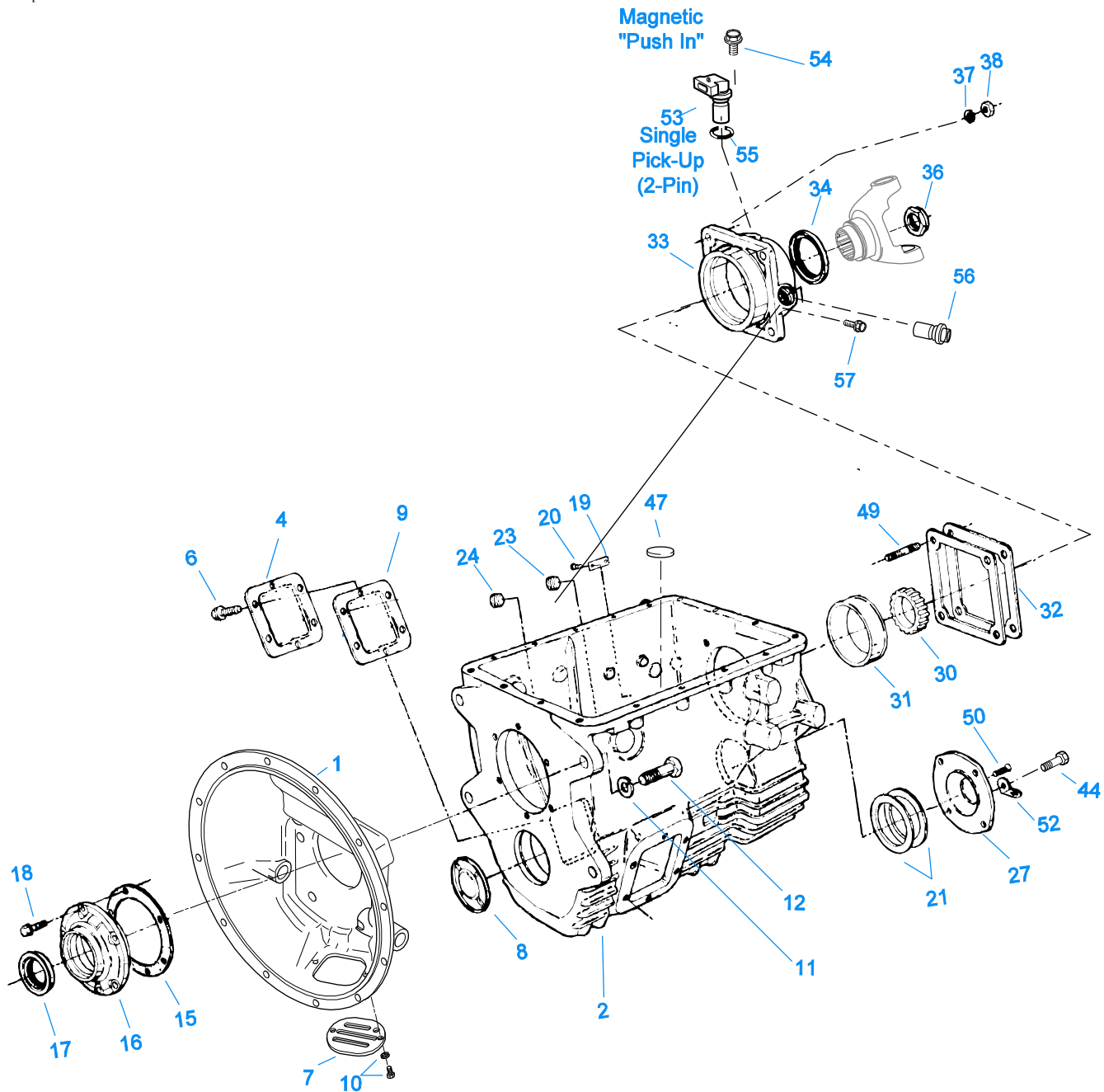
Illustrations

- 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**

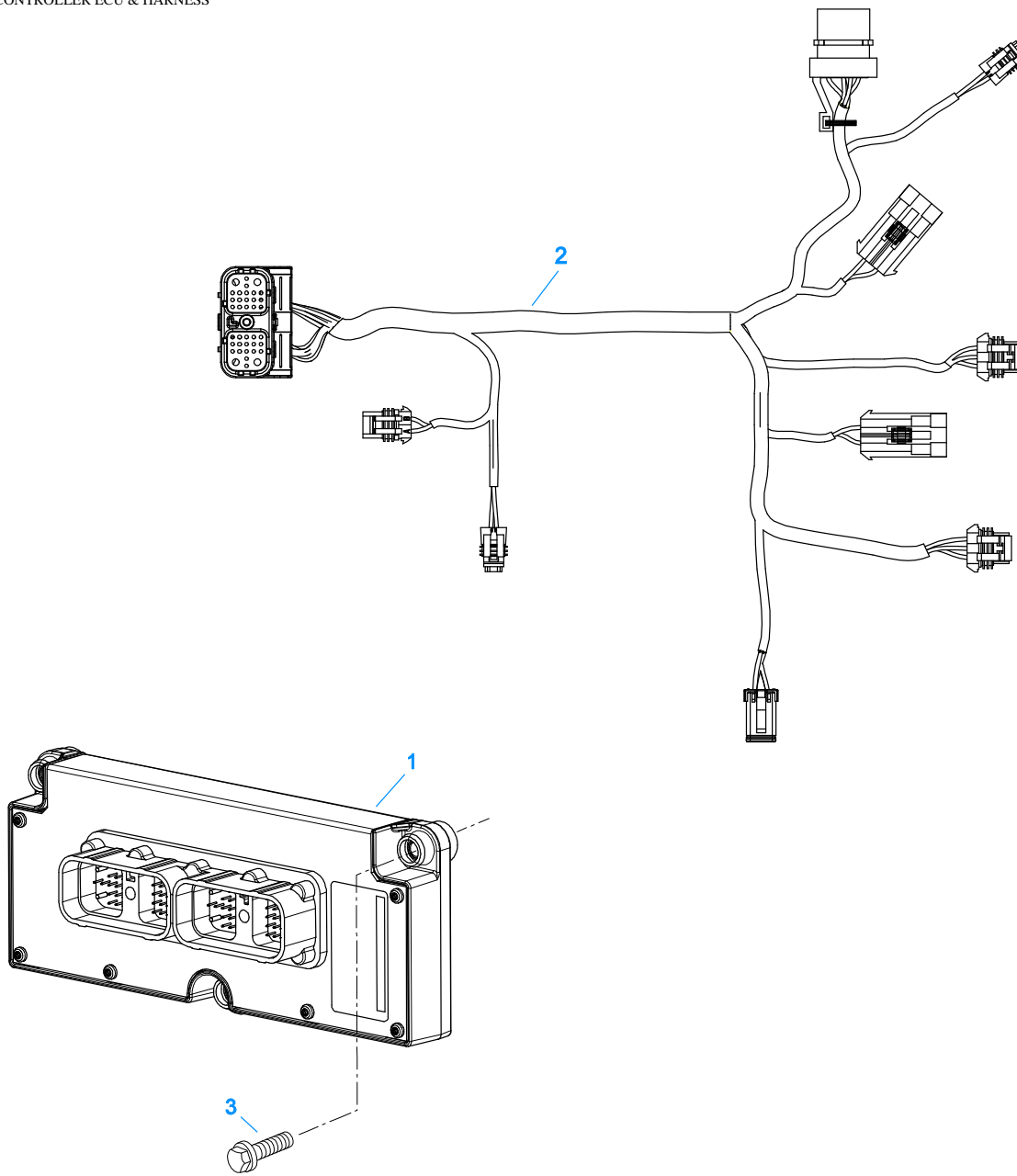


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CASE

Item	Current Part	Description	Replaced Part	Qty.	Notes	Kits/Assys Where Needed
	TA-C36-01	F-6405B-DM3 SERVICE UNIT		1	COMPLETE UNIT	
1	A-7635	CASE ASSY	4305847	1		
1	A-7636	CLUTCH HSG ASSY	4305882	1		
4	201398	PTO COVER		1		
6	239613	CAPSCREW		6	3/8"-16X5/8"	
7	4303692	HAND HOLE COVER		1		A-7636
8	3315679	PLUG		1		K-3440
9	4305309	GASKET	1684	1		K-3648,K-3738

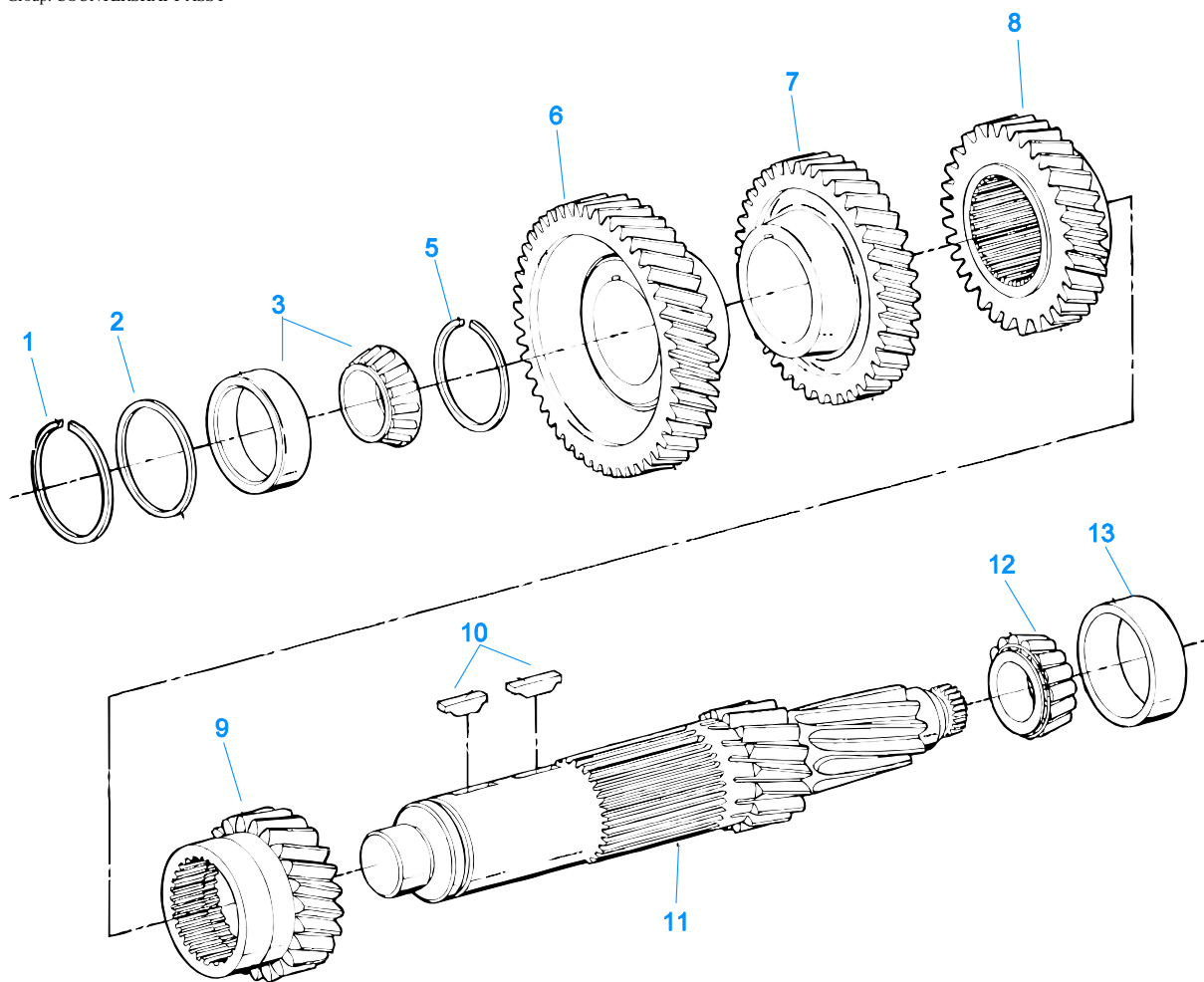
Item	Current Part	Description	Replaced Part	Qty.	Notes	Kits/Assys Where Needed
10	X-8L-408	SCREW & WASHER ASSY		2		
11	X-3-1000	LOCKWASHER		4	5/8"	
12	X-8-1013	HEX HEAD SCREW		4	.625-11 X 3.00	
15	3315659	GASKET		1		K-3738
16	4300888	FRONT BRG COVER-PULL		1		
17	4300121	OIL SEAL	3315623	1	SHAFT 1.873, WIDTH .375, OD 2.68	K-3440
18	239614	SCREW		6	3/8"-16X3/4"	
19	691808	NAME & NUMBER PLATE		1		
20	X-13-206	SELF-TAPPING SCREW	X13 229	2	5/16"	
21	3315681	SHIM .004		1		K-2183
21	3315682	SHIM .007		1		K-2183
21	3315683	SHIM .010		1		K-2183
21	3315684	SHIM .020		1		K-2183
21	4300977	SHIM .040		1		
23	X-12-1209	PIPE PLUG		1		
24	X-12-1207	PIPE PLUG	X12 1202 ,X12 1206	2	3/4" MAGNETIC	
27	4301607	C/S REAR BRG COVER		1		
30	3316160	SPEEDO ROTOR		1	16 TEETH	
31	711123	BEARING CUP		1		K-3440
32	3315662	SHIM .004		1		K-2183
32	3315663	SHIM .007		1		K-2183
32	3315664	SHIM .010		1		K-2183
32	3315665	SHIM .020		1		K-2183
32	4300978	SHIM .040		1		
33	S-2864	REAR BRG COVER ASSY	691423 ,691666	1		
34	4300119	OIL SEAL		1	SHAFT 2.753, WIDTH .5	K-3440,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		2		
53	K-3231	SPEED SENSOR KIT	A - 6398 ,A - 6724	1	SINGLE PICK-UP (2 PIN)	
54	X-8C-409	CAPSCREW		1	1/4"-20X5/8"	
55	14142	-O- RING		1		K-3125,K-3638,S-2864
56	K-3125	SPEEDO PLUG KIT	4302707	2		
57	X-8C-409	CAPSCREW		2	1/4"-20X5/8"	



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CONTROLLER ECU & HARNESS

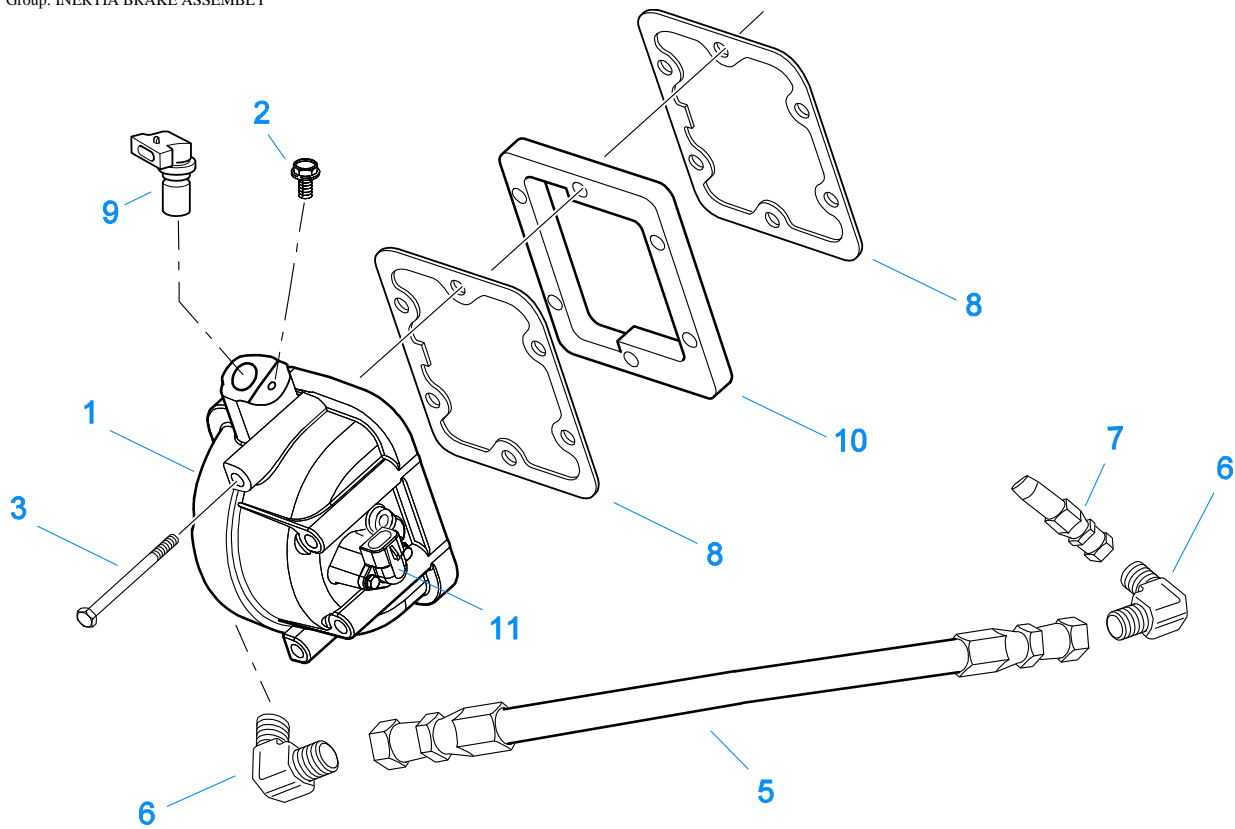
Item	Current Part	Description	Replaced Part	Qty.	Notes	Kits/Assys Where Needed
1	K-3712	TRANS CONTROLLER KIT		1		
2	K-3743	TRANS HARNESS KIT	4306024	1		
3	X-8C-455	HEX HEAD WASHER/SCREW		3		



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COUNTERSHAFT ASSY

Item	Current Part	Description	Replaced Part	Qty.	Notes	Kits/Assys Where Needed
1	3315686	SNAP RING		1		K-3440
2	3315687	WASHER		1		
3	K-3795	COUNTERSHAFT BRG KIT	1313645, 791943	1		
4	3315752	SNAP RING	3315751	1		
5	4304541	DRIVE GEAR-CNTRSHFT		1		
6	4304542	5TH GEAR-CNTRSHFT		1		
7	4304097	4TH GEAR-CNTRSHFT	4304099	1		
8	4304056	3RD GEAR-CNTRSHFT	4304062	1		
9	230292	KEY		2		
10	4303868	COUNTERSHAFT		1		
11	658981	BEARING CONE		1		K-3440
12	660181	BEARING CUP		1		K-3440

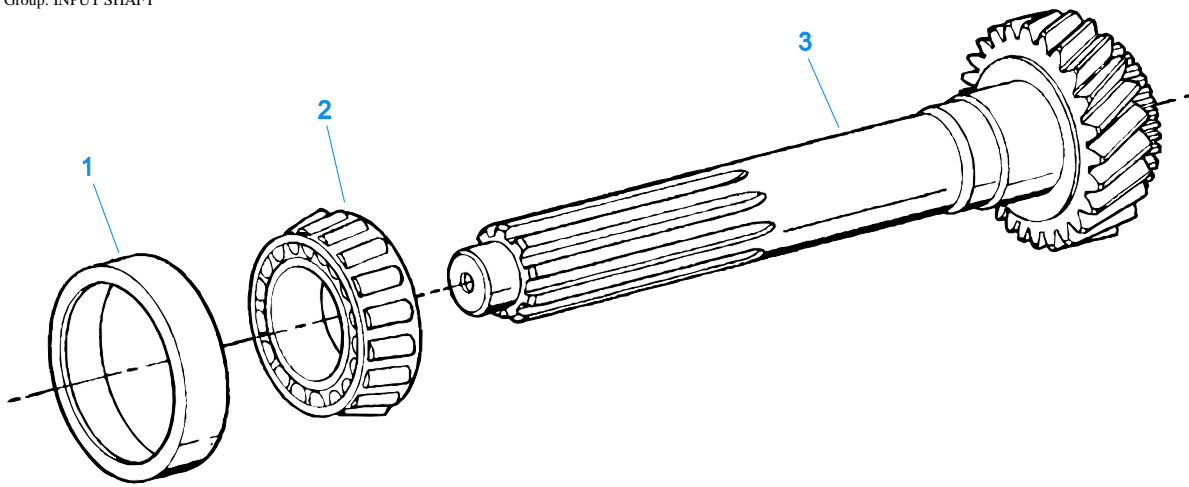


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INERTIA BRAKE ASSEMBLY

Item	Current Part	Description	Replaced Part	Qty.	Notes	Kits/Assys Where Needed
1	K-3648	INERTIA BRAKE KIT	A - 7434 ,K - 3508, A-7828	1		
2	X-8C-409	CAPSCREW		1	1/4"-20X5/8"	
3	X-8C-690	CAPSCREW		6		
4	4303677	ELBOW		1		
5	5588207	OIL HOSE ASSY (12.70")		1		
6	691651	ELBOW, 90 DEG MALE		2		
7	691517	FILTER FITTING		1		
8	4305309	GASKET	1684	2		K-3648,K-3738
9	K-3231	SPEED SENSOR KIT	A - 6398 ,A - 6724	1	SINGLE PICK-UP (2 PIN)	
10	691732	PLATE-ADAPTER6 BOLT PTO	691519	1		
11	K-3638	I-BRAKE CONNECTOR KIT	691499	1		

Group: INPUT SHAFT



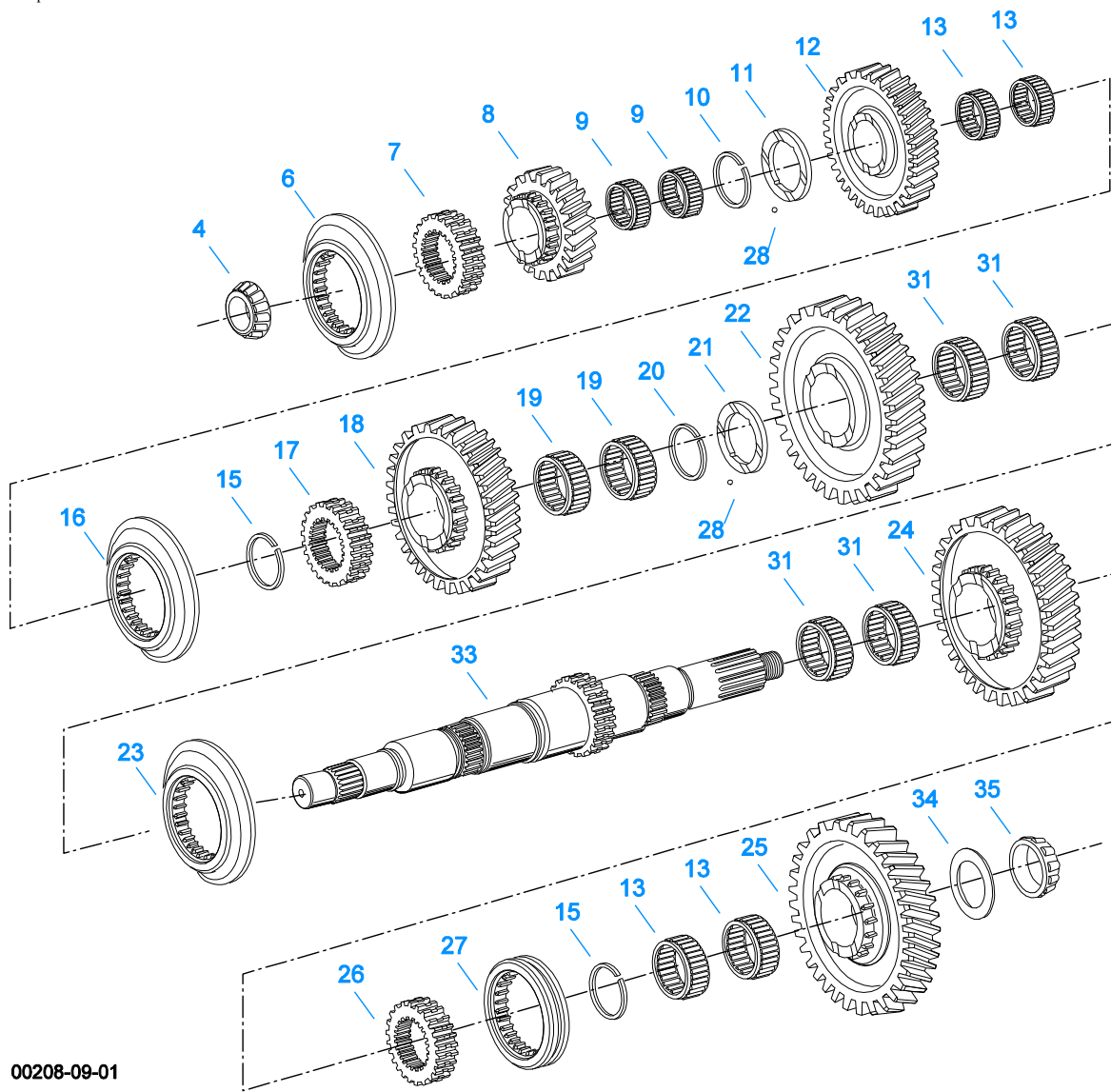
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INPUT SHAFT

Item	Current Part	Description	Replaced Part	Qty.	Notes	Kits/Assys Where Needed
1	675250	BEARING CUP		1	1.75" INPUT	K-3440
2	742259	BEARING CONE		1	1.75" INPUT	K-3440
3	4304539	INPUT SHAFT-1.75" PULL		1	PILOT 30MM	

KITS & ASSEMBLIES

Item	Current Part	Description	Replaced Part	Qty.	Notes	Kits/Assys Where Needed
K-2183		SHIM KIT		1		K-3440
K-3125		SPEEDO PLUG KIT	4302707	1		
K-3231		SPEED SENSOR KIT	A - 6398 ,A - 6724	1	SINGLE PICK-UP (2 PIN)	
K-3411		NUT KIT	21937 ,4301920 ,4304690	1		
K-3438		POSITION SENSOR KIT	691551 ,691926	1		
K-3440		BASIC REBUILD KIT		1		
K-3638		I-BRAKE CONNECTOR KIT	691499	1		
K-3648		INERTIA BRAKE KIT	A - 7434 ,K - 3508	1		
K-3712		TRANS CONTROLLER KIT		1		
K-3738		GASKET KIT		1		K-3440
K-3743		TRANS HARNESS KIT	4306024	1		
K-3784RX		REMAN EXCH GEN 3 X-Y SHIFTER KIT	A - 7670, A - 7856,K-3784	1		
K-3795		COUNTERSHAFT BRG KIT	1313645, 791943	1		
S-2864		REAR BRG COVER ASSY	691423 ,691666	1		
S-2865		SHIFT BAR HOUSING ASSY	691655 ,A - 7053	1		
TA-C36-01		F-6405B-DM3 SERVICE UNIT		1	COMPLETE UNIT	

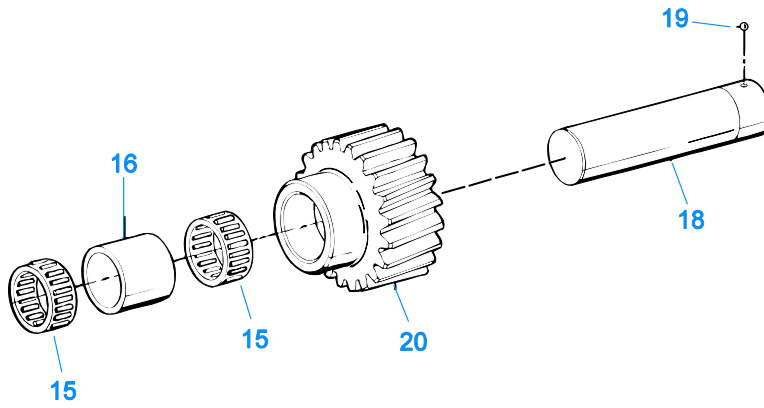


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MAINSHAFT ASSY

Item	Current Part	Description	Replaced Part	Qty.	Notes	Kits/Assys Where Needed
4	710787	BEARING CONE		1		K-3440
6	691415	SLIDING CLUTCH (5TH/6TH)		1		
7	4301476	CLUTCH HUB 5/6		1		
8	4304543	5TH GEAR-MAINSHAFT		1		
9	3315737	BEARING		2		K-3440
10	3315728	SNAP RING	3315729	1		
11	3315727	WASHER		1		
12	4304098	4TH GEAR-MAINSHAFT	4304401	1		
13	4124075	BEARING		4		K-3440
15	3315725	SNAP RING		2		K-3440
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		K-3440
20	3315717	SNAP RING	3315718	1		
21	3315719	WASHER		1		
22	4303231	2ND GEAR-MAINSHAFT	4301482	1		
23	4301852	SLIDING CLUTCH 1ST/REV		1		

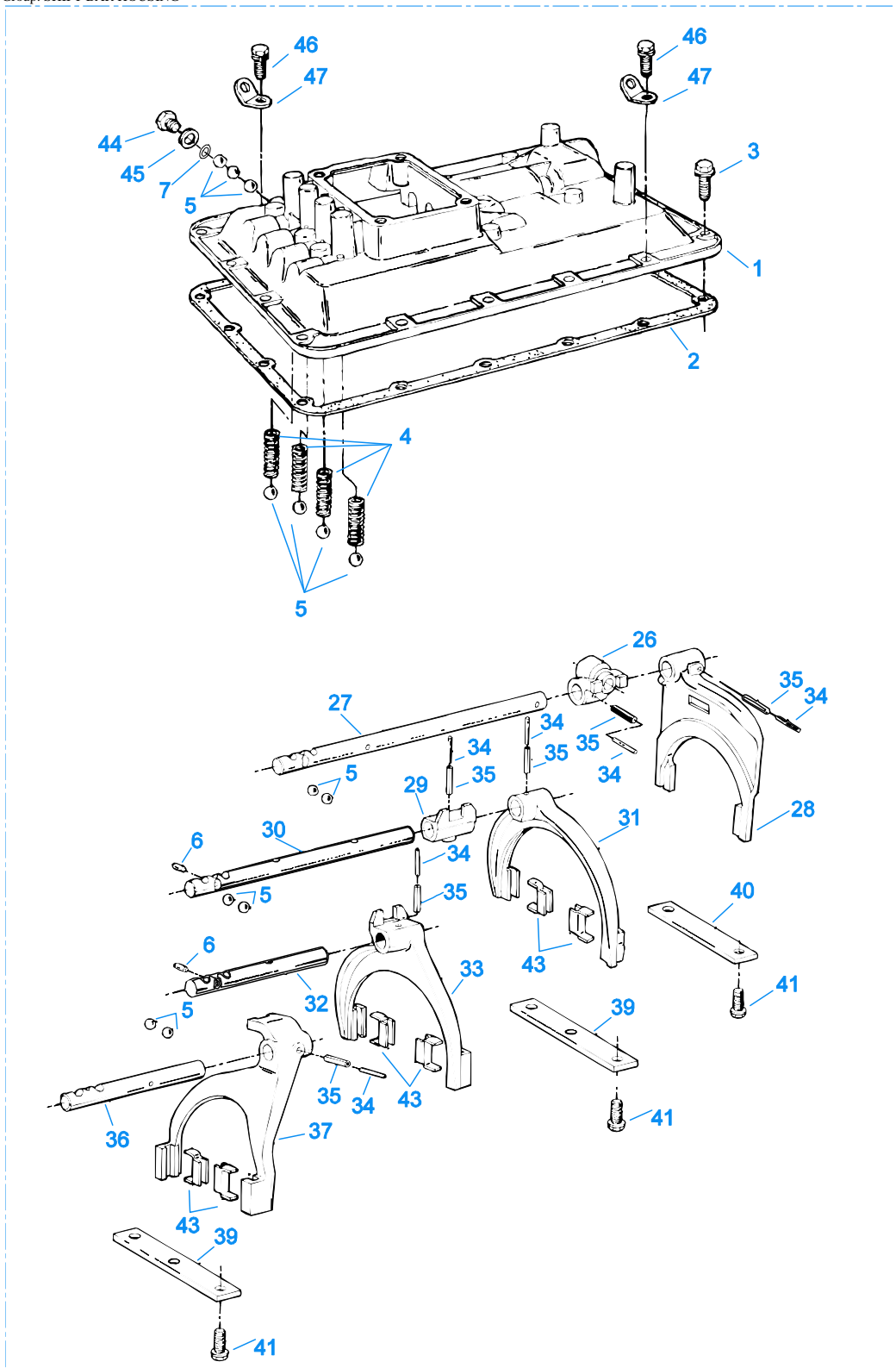
Item	Current Part	Description	Replaced Part	Qty.	Notes	Kits/Assys Where Needed
24	4303298	1ST GEAR-MAINSHAFT		1		
25	4303301	REVERSE GEAR- MAINSHAFT		1		
26	4301474	CLUTCH HUB-REV		1		
27	4301473	SLIDING CLUTCH-REV		1		
28	10J06	STEEL BALL		2	3/16"	
31	3315703	BEARING		4		K-3440
33	4301468	MAINSHAFT		1		
34	4301492	WASHER		1		
35	5557003	BEARING CONE		1		K-3440



00455-02-03

REVERSE IDLER GEAR ASSY

Item	Current Part	Description	Replaced Part	Qty.	Notes	Kits/Assys Where Needed
15	3315674	BEARING		2		K-3440
16	3315676	SPACER		1		
18	3315672	REVERSE IDLER SHAFT		1		
19	10J06	STEEL BALL		1	3/16"	
20	4304319	REVERSE IDLER GEAR		1		



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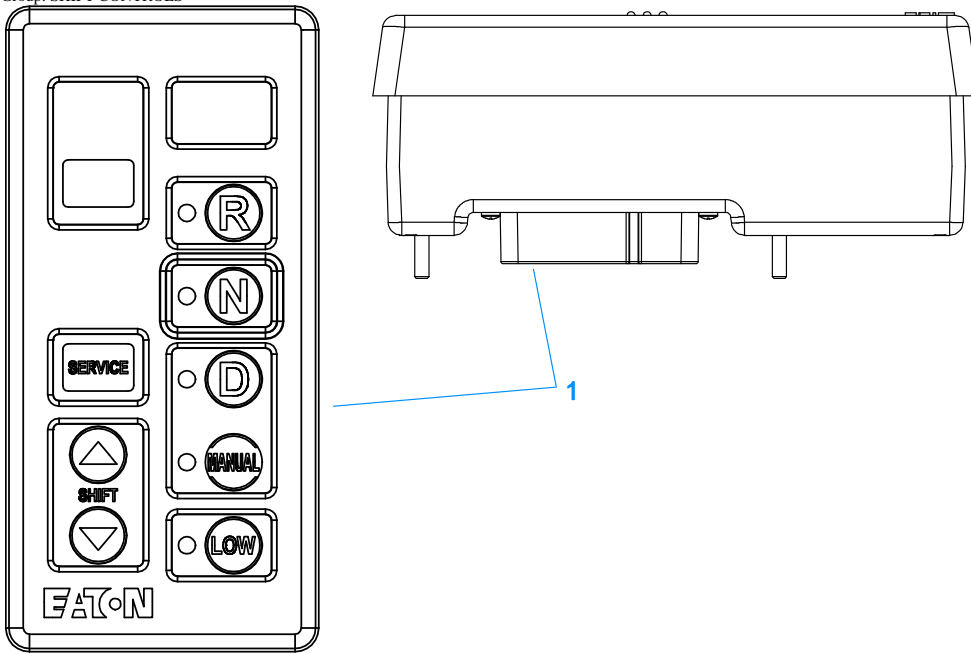
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SHIFT BAR HOUSING

Item	Current Part	Description	Replaced Part	Qty.	Notes	Kits/Assys Where Needed
1	S-2865	SHIFT BAR HOUSING	691655 .A - 7053	1		

Item	Current Part	Description	Replaced Part	Qty.	Notes	Kits/Assys Where Needed
		ASSY				
2	4300854	GASKET	3315678	1		K-3738,S-2865
3	X-8C-600	CAPSCREW	239611	12	3/8"-16X1"	
4	691644	SPRING		4		K-3440
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-3738,S-2865
46	X-8-688	CAPSCREW		3	3/8"-16X1"	
47	238370	LIFTING EYE		3		
999	S-2865	SHIFT BAR HOUSING ASSY	691655 ,A - 7053	1		

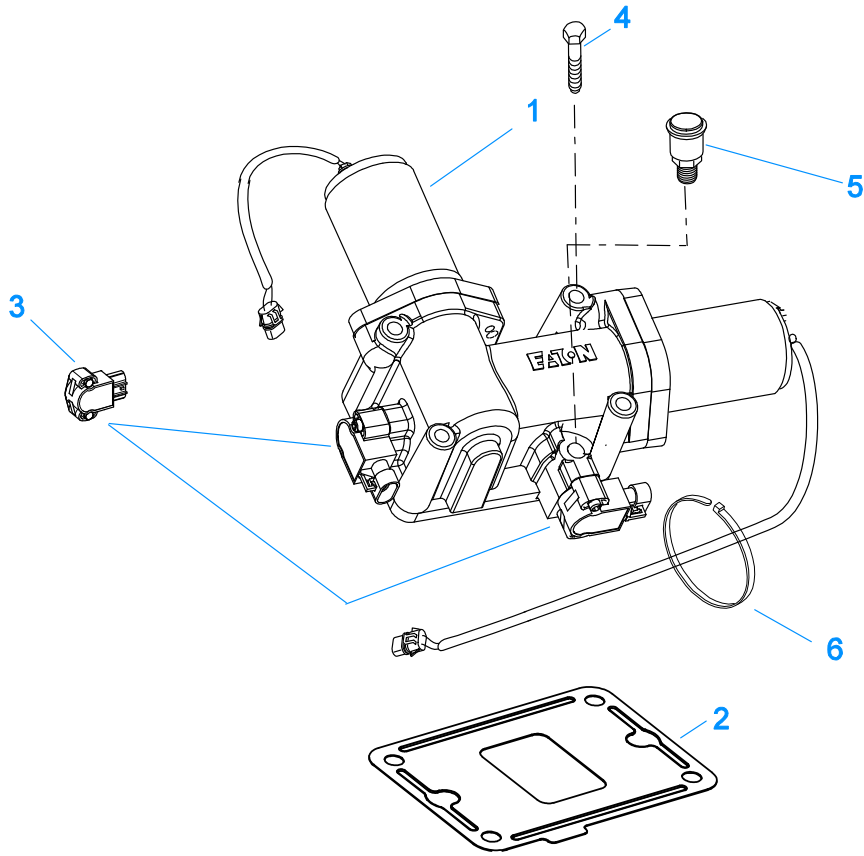
Group: SHIFT CONTROLS



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SHIFT CONTROLS

Item	Current Part	Description	Replaced Part	Qty.	Notes	Kits/Assys Where Needed
1	4306043	PUSHBUTTON ASSY	A - 7466,S-3007	1		



20230-09-01

X-Y SHIFTER MODULE


Item	Current Part	Description	Replaced Part	Qty.	Notes	Kits/Assys Where Needed
1	K-3784RX	REMAN EXCH GEN 3 X-Y SHIFTER KIT	A - 7670, A - 7856,K-3784	1		
2	4305452	GASKET	4301958	1		K-3738
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-3743

Appendix

Air Line Tubing

Choosing nylon tubing for air lines

Use the following chart to specify the Eaton Fuller nylon tube appropriate to your vehicle's air system.

 5/32" Air Line and Harness Combinations			
Line Type	Line Color	Order Part No.	Length
Supply + Port	Red (S) + Black (P)	52601	50 ft
Splitter + Deep Reduction	Blue (SP) + Green (H/L)	52701	50 ft
Supply + Splitter + Port	Red(S)+Blue(SP)+ Black(P)	74601	50 ft

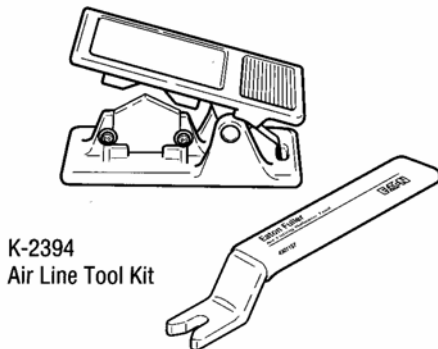
5/32" Air Lines			
Line Type	Line Color	Order Part No.	Length
Supply	Red (S)	75120	50 ft
Port	Black (P)	75320	50 ft
Splitter	Blue (SP)	75720	50 ft
Deep Reduction	Green (H/L)	75520	50 ft
Sheathing		80120	50 ft

1/8" Air Lines			
Line Type	Line Color	Order Part No.	Length
Supply	White	68526	50 ft
Port	Black	82013	50 ft
Sheathing		80000	50 ft

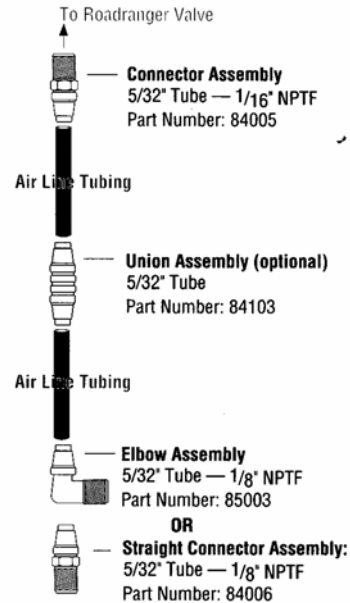
10650-1/92 AL Chart

Identifying fittings

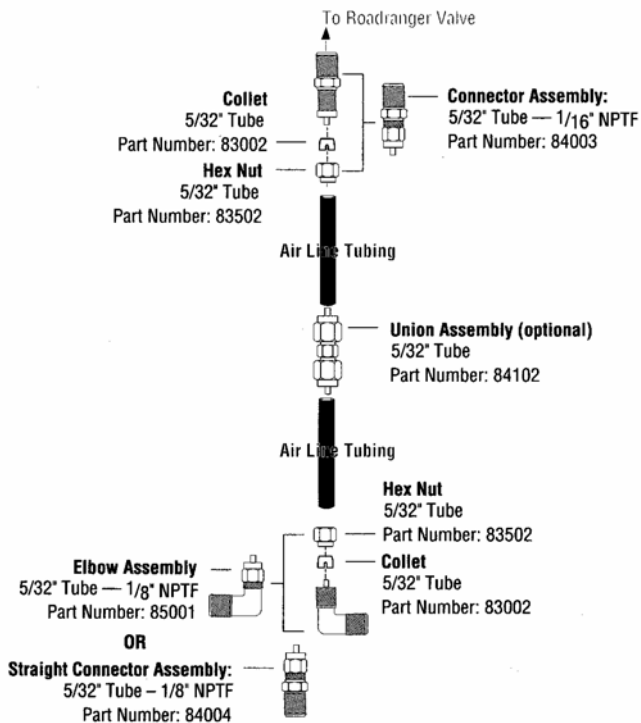
Fittings are available in 5/32" and 1/8" sizes as appropriate for vehicle air line sizes. 5/32" fittings are available as 'push to connect' or compression fittings. 1/8" fittings are available as compression fittings.



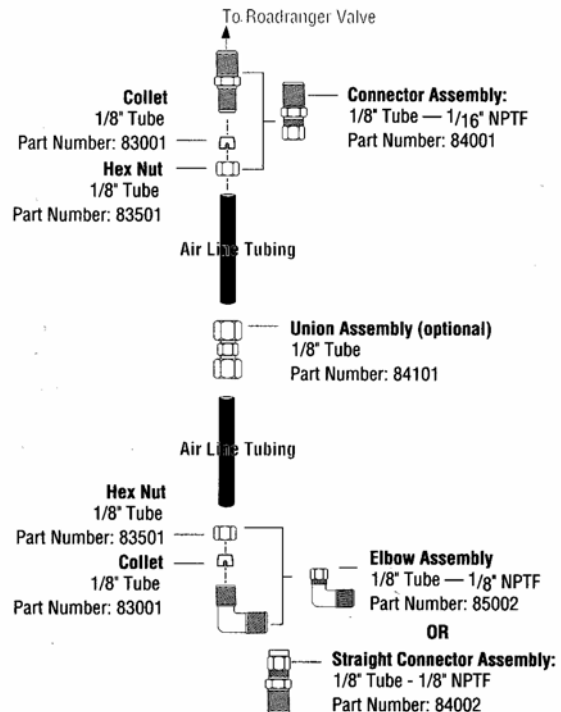
5/32" 'Push-to-Connect' Fittings



5/32" Compression Fittings



1/8" Compression Fittings



10656-10/92 Fittings RRV