

DENSO OSGR

2016 ver.

Heavy Duty Starter Parts

*For 2.5kw, 3.0kw, 4.0kw,
4.5kw, 5.5kw, 7.5kw*



METRO AUTO

specialize replace units and parts for DENSO
Tractor, Forklift, Pick Up Truck,
Harvest, Cotton Picker, Wheel Loader

Starter:

- Caterpillar
- Clark
- Daewoo
- Daihatsu
- Hyster
- Iseki
- Ishikawajima
- Isuzu
- JCB
- JLG
- John Deere
- Komatsu
- Kubota
- Marelli
- New Holland
- TCM
- Teledyne
- Toro
- Toyota
- Yale
- Yanmar

Alternator :

- Caterpillar
- Ishikawajima
- John Deere
- Komatsu
- Kubota
- Rigmaster
- Toyota

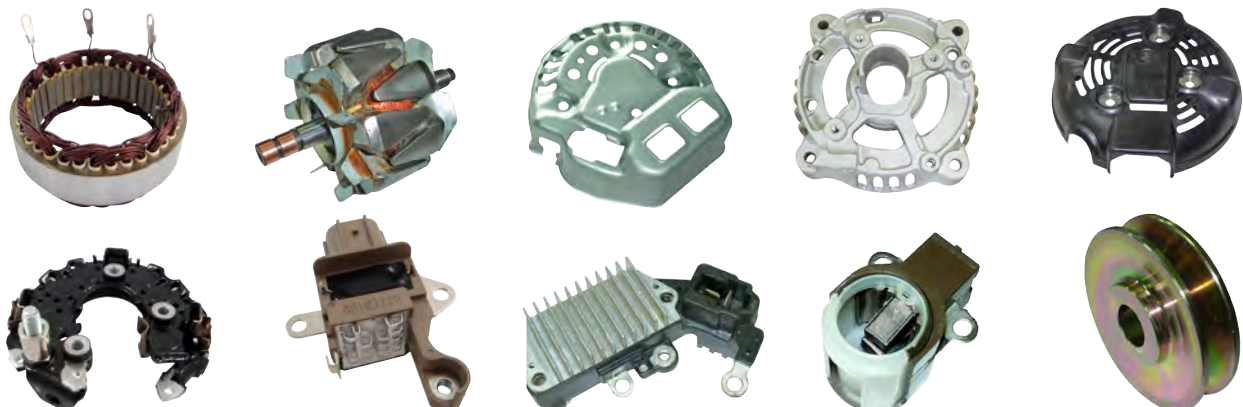


Table of Contents

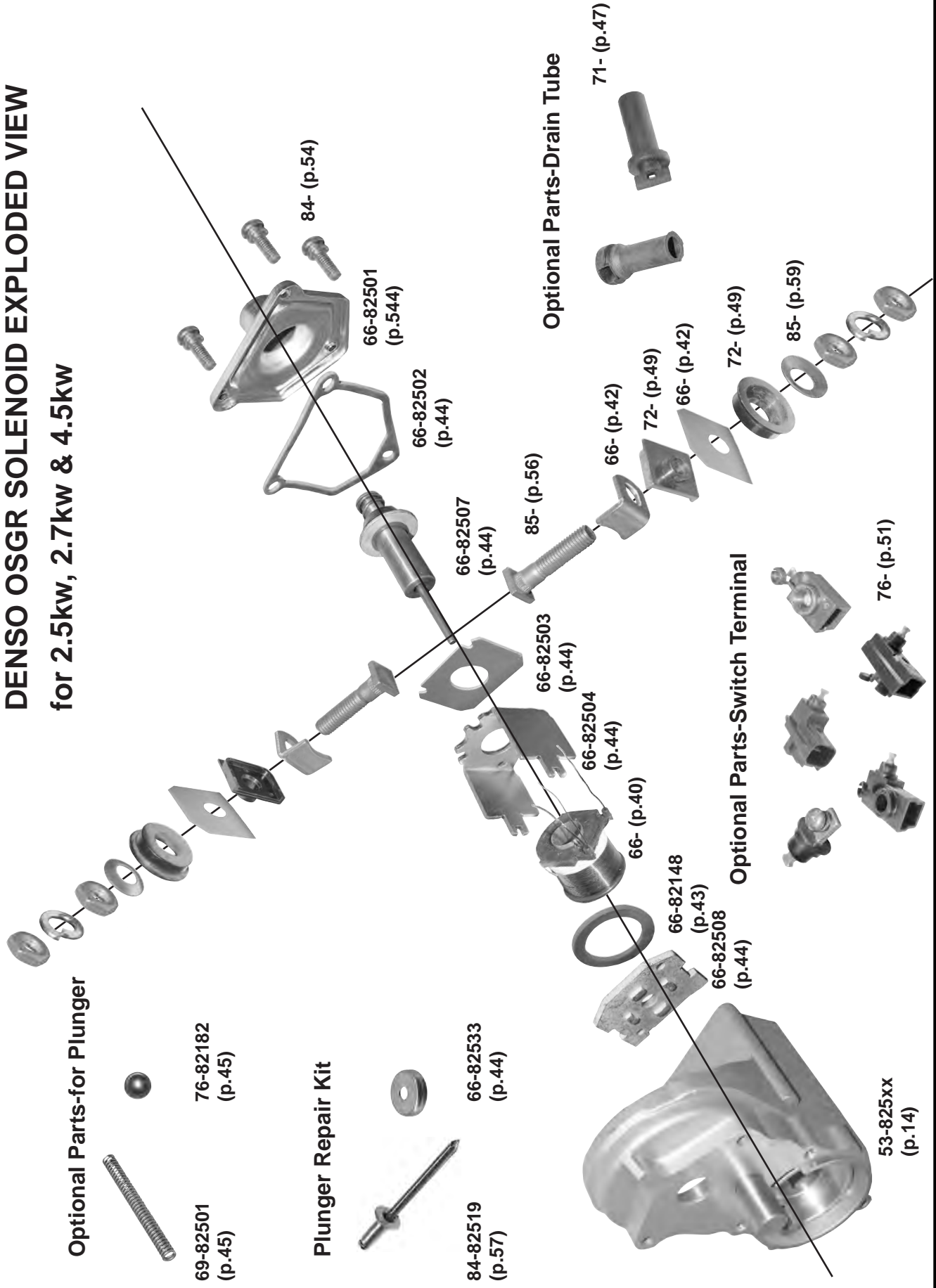
Solenoid Switch Index	I
Exploded View for Solenoid	II
Drive End Housing (51-)	
2.5, 4.5kw	1
3.0, 5.5kw	8
Commutator End Housing (52-)	12
Center Housing (53-)	13
Solenoid Housing (53-)	14
Solenoid Switch (66-)	17
Drive (54-)	32
Clutch (54-)	33
Drive Parts (54-)	34
Field Case (57-)	38
Field Coil (59-)	38
Bearing (6-)	38
Armature (61-)	39
Armature Parts (61-)	39
Solenoid Parts (66-)	
Coil	40
Contact	42
Insulator	43
Miscellaneous	43
Brush (68-)	46
Brush Holder Assy. & Parts (69-)	46
Rubber Parts (71-)	
Drain Tube	47
Grommet	47
Boot	47
O-Ring	48
Oil Seal	48
Miscellaneous	48
Insulator (72-)	49
Misc. Parts (76-)	
Switch Terminal	51
Miscellaneous	52
Bolt & Screw (84-)	54
Repair Kit (84-)	55
Ground Post (84-)	55
Terminal Post (84-)	56
Nut & Washer (85-)	58
Cross Reference	
Main Parts List with Lester#	60
Main Parts List with OEM#	62
Index by Metro Parts Number	65

Solenoid Switch Index

12V 2.5kw	Pg	24V 4.5kw	Pg	12V 3.0kw	Pg	24V 5.5kw	Pg
	17		22		25		30
	18		22		26		31
	18		23		27		31
	19		23		28		
	20		24		29		
	20						
	21						
	21						

DENSO OSGR SOLENOID EXPLODED VIEW

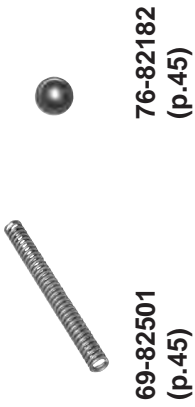
for 2.5kw, 2.7kw & 4.5kw



DENSO OSGR SOLENOID EXPLODED VIEW

for 3.0kw, 4.0kw, 4.8kw, 7.5kw

Optional Parts-for Plunger



69-82501
(p.45)

76-82182
(p.45)

Plunger Repair Kit



84-82519
(p.57)

66-82533
(p.44)

Optional Parts-Drain Tube



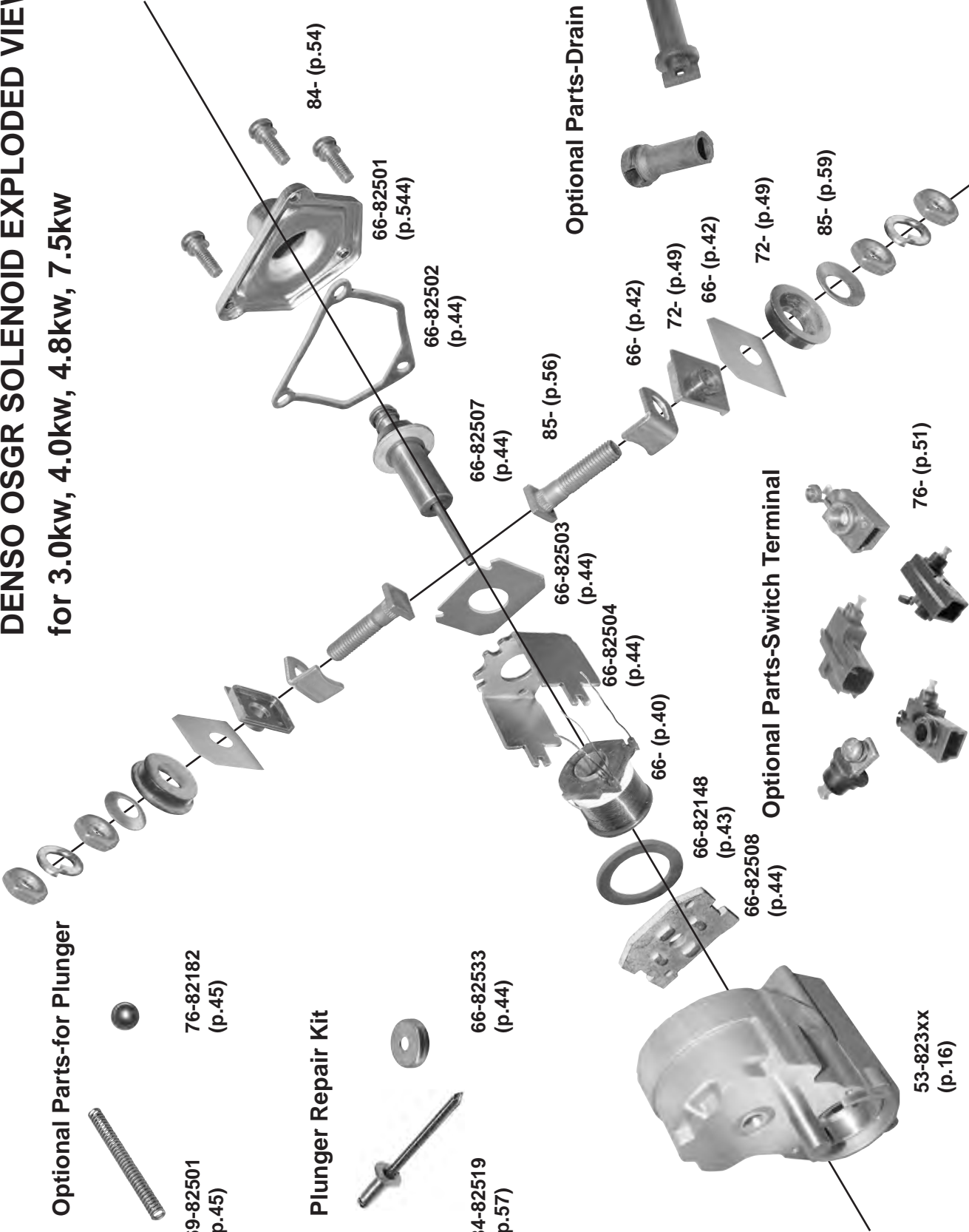
71- (p.47)

Optional Parts-Switch Terminal



53-823xx
(p.16)

76- (p.51)



84- (p.54)

66-82501
(p.544)

66-82502
(p.44)

66-82507
(p.44)

85- (p.56)

66-82503
(p.44)

66-82504
(p.44)

66- (p.40)

66-82148
(p.43)

66-82508
(p.44)

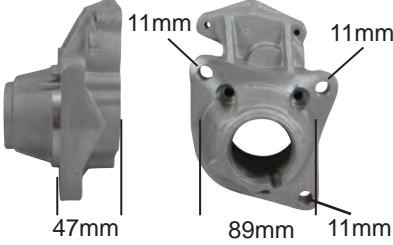
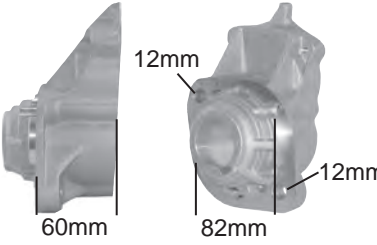
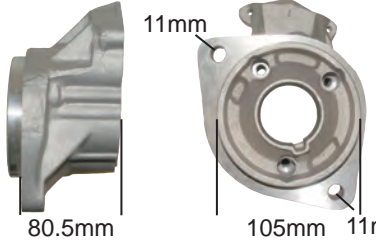
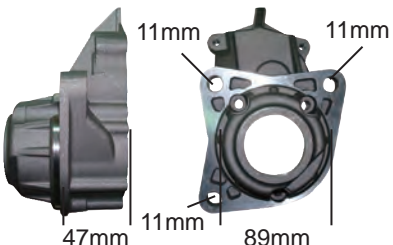
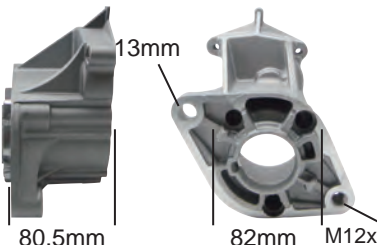
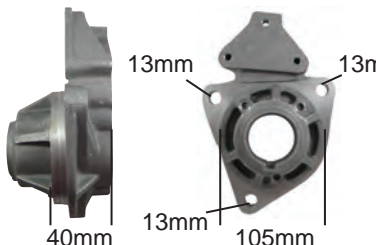
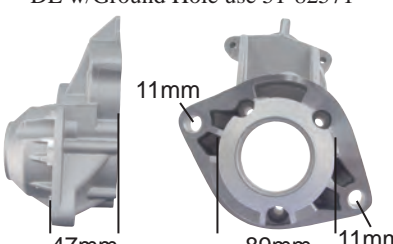
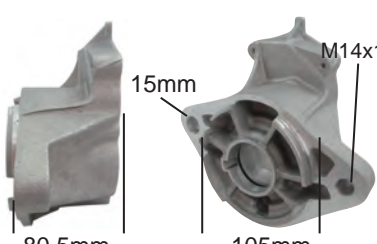

66- (p.42)

72- (p.49)

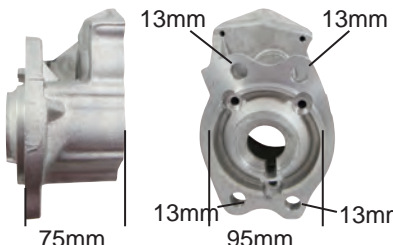
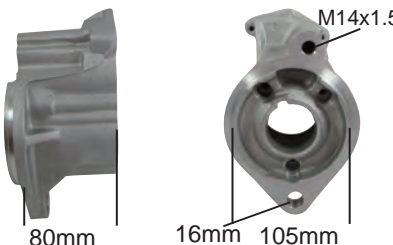
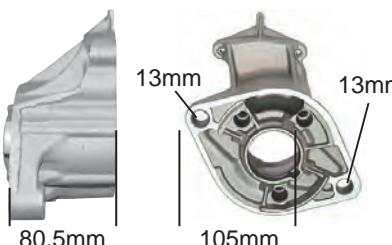
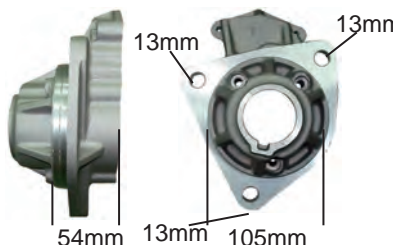
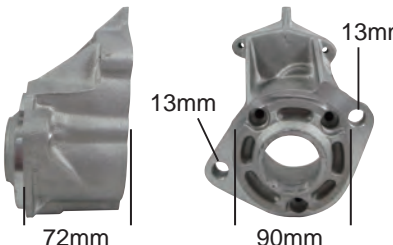
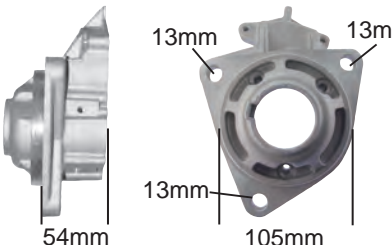
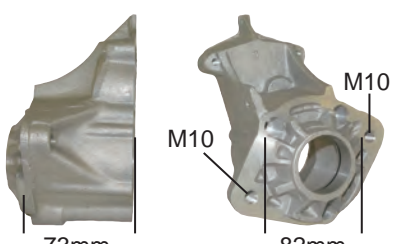
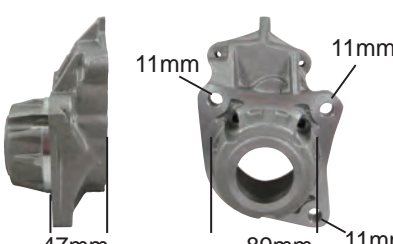
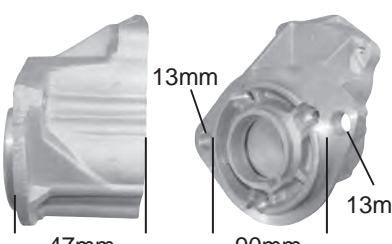
66- (p.42)




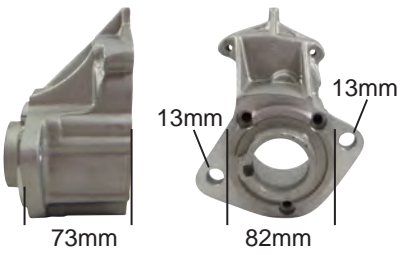
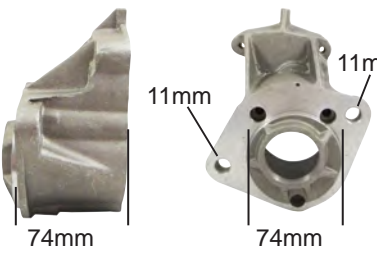

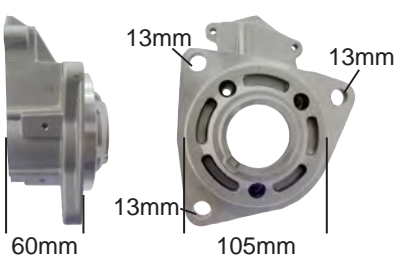
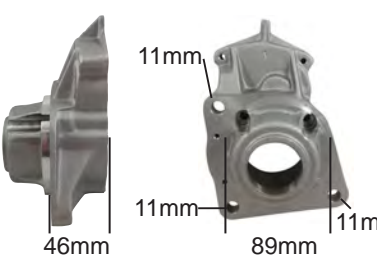
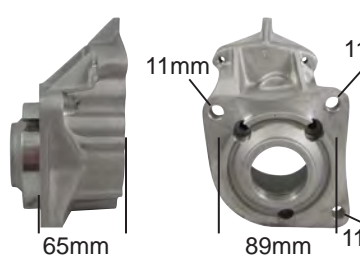
72- (p.49)

85- (p.59)

Drive End Housing	Drive End Housing	Drive End Housing
 <p>51-82501 Drive End Housing For: Denso 2.5kw G/R Starters Replaces: 028401-5420 Lester: 16658 OEM: 028000-588 Note: Refer to PIC 190-800</p>	 <p>51-82504 Drive End Housing For: Denso 2.5kw G/R Starters Replaces: 028401-7520, 228401-6470 Lester: 17362 OEM: 028000-840 Note: PIC 190-830. This is 11 Teeth version For 13 Teeth version please use 51-82564.</p>	 <p>51-82507 Drive End Housing For: Denso 24V, 4.5kw G/R Starters Replace: 028401-5990 Lester: 18558 OEM: 028000-722, 028000-723 Note: PIC 190-776 Similar to 51-82550, but 51-82550 w/13mm Mounting Hole.</p>
 <p>51-82502 Drive End Housing For: Denso 2.5kw G/R Starters Replaces: 128401-4080, -8291, -8292, -9610 Lester: 17198, 17399, 17458, 17548, 17589 17630, 17892, 18560, 19965 OEM: 128000-408, -829, -961; 228000-229, 228000-494, -521, -640, -119...etc Note: PIC 190-465, 190-6355, 190-798, 190-799, 190-799A, 190-804, 190- 806, 190-828, 190-804A, 190-842 DE w/Ground Hole use 51-82571</p>	 <p>51-82505 Drive End Housing For: Denso 2.5kw G/R Starters Replaces: 028401-6200 Lester: 16830 OEM: 028000-558, -686, -687, -688, -689 -690, -691, -807, -038, -682, -683; 128000-792, -793, -958; 228000-035, -057, -159, -266 Note: Refer to PIC 190-159, 190-159A 190-159B</p>	 <p>51-82508 Drive End Housing For: Denso 2.5kw, 4.5kw G/R Starters Replaces: 028401-5090 Lester: 17286 OEM: 028000-530, 028000-856 Note: Refer to PIC 190-201, 190-813</p>
 <p>51-82503 Drive End Housing For: Denso 2.5kw, 4.5kw G/R Starters Replaces: 128401-0210, -0211; 228401-0633, -7310 Lester: 16990, 17390, 18402, 18510, 18936, 19553 OEM: 128000-248; 228000-063, -175, -195, -467, -499, -576, -664, -667, -731, -790, -820, -846, -933, -950; 428000-019 Note: PIC 190-6040, 190-6067...etc</p>	 <p>51-82506 Drive End Housing For: Denso 2.5kw, 4.5kw G/R Starters Replaces: 128401-1790 OEM: 128000-179, 128000-180, 128000-308, 128000-332, 128000-332 Lester: 16898, 31376 Note: PIC 190-642, 904-339</p>	 <p>51-82509 Drive End Housing For: Denso 12V, 2.5kw G/R Starters Replaces: 028401-5550 OEM: 028000-606 Lester: 19746 Note: Refer to PIC 190-835</p>

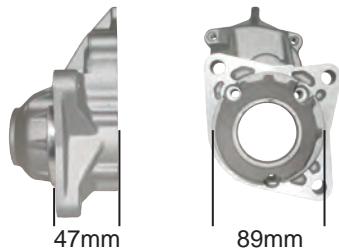
Drive End Housing (51-)

Drive End Housing	Drive End Housing	Drive End Housing
 <p>13mm 13mm 75mm 13mm 95mm 13mm</p> <p>51-82510 Drive End Housing For: Denso 2.5kw G/R Starters Replaces: 028401-5270 Lester: 16656, 17377 OEM: 028000-566, 028000-641; 128000-079 Note: PIC 190-831 (Early), 190-831A (Late), 190-833</p>	 <p>M14x1.50 80mm 16mm 105mm</p> <p>51-82513 Drive End Housing For: Denso 2.5kw, 4.5kw G/R Starters Replaces: 028401-5250, 028401-5251 Lester: 16897, 16967 OEM: 028000-555, 028000-583, 028000-585, 028000-784 Note: PIC 190-788, 190-815, 901-185</p>	 <p>13mm 13mm 80.5mm 105mm</p> <p>51-82518 Drive End Housing For: Denso 2.5kw, 4.5kw G/R Starters Replaces: 028401-6510, 028401-6710 Lester: 16896, 17283 OEM: 028000-745, 028000-781 Note: Refer to PIC 190-817, 190-896</p>
 <p>13mm 13mm 54mm 13mm 105mm</p> <p>51-82511* Drive End Housing For: Denso 2.5kw G/R Starters Replaces: 028401-5160 Lester: 17301, 17302 (Late), 18068* OEM: 0-21000-1460, -3640, -3641, -3650, 028000-549, -656 (Early); 128000-775 (Late) Note: *PIC 190-805, 190-810 (Early), 190-810A (Late), 185-200 *This DE can replace to Nikko OSGR *For 17302 Early version please use 51-82519</p>	 <p>13mm 13mm 72mm 13mm 90mm</p> <p>51-82514 Drive End Housing For: Denso 2.8kw, 4.5kw G/R Starters Replaces: 128401-6910 Lester: 18188, 18189 OEM: 128000-691, 128000-692 Note: PIC 190-897, 190-898. This DE w/Key Lock Hole, w/Key Lock Hole please use 51-82520.</p>	 <p>13mm 13mm 54mm 13mm 105mm</p> <p>51-82519 Drive End Housing For: Denso 2.5kw, 4.5kw G/R Starters Replaces: 028401-5681 Lester: 16649, 17304 OEM: 02800-487, 028000-664, 028000-850 (Kubota Marine) Note: Refer to PIC 190-814</p>
 <p>M10 M10 73mm 82mm</p> <p>51-82512 Drive End Housing For: Denso 2.5kw G/R Starters Replaces: Lester: 17397 OEM: 128000-3030, 128000-3032 Note: PIC 190-303</p>	 <p>11mm 11mm 47mm 89mm 11mm</p> <p>51-82517 Drive End Housing For: Denso 2.5kw G/R Starters Replaces: 128401-2250, 128401-7040 Lester: 16981, 17388 OEM: 128000-225, 128000-409, 128000-704, 428000-249 Note: PIC 190-792, 190-792A, 190-809, 190-6359</p>	 <p>13mm 13mm 47mm 90mm 13mm</p> <p>51-82520 Drive End Housing For: Denso 2.5kw, 4.5kw G/R Starters Replaces: 028401-5480, -5482, -5740, -5741 Lester: 16614, 17290, 17311, 18180, 19811 OEM: 028000-586, -589, -601, -602; 128000-097, -411; 228000-371, -372 Note: PIC 190-832, 190-834, 190-834A, 190-845, 90-895, 190-6077. This DE w/Key Loch Hole, wo/ Key Lock Hole please use 51-82514.</p>

Drive End Housing	Drive End Housing	Drive End Housing
 <p>51-82521 Drive End Housing For: Denso 2.5kw G/R Starters Replaces: 228401-3810, 228401-3811 Lester: 18506 OEM: 228000-381, 228000-416, 228000-466 Note: PIC 190-825, 190-825A, 190-825B. DE w/Ground Hole, please use 51-82575.</p>	 <p>51-82524* Drive End Housing For: Denso 2.5kw, 4.5kw G/R Starters Replaces: Lester: 19763* OEM: 0-24000-0178 Note: *Refer to PIC 185-356 *This DE can be used to replace to Nikko PLGR, 24, 5.0kw, Lester 19763 unit.</p>	 <p>51-82527* Drive End Housing For: Denso 2.7kw G/R Starters Replaces: Lester: 17578* OEM: M8T50071, M8T50071A, M8T50072 Note: *Refer to PIC 103-339 *This DE can be used to replace to Mitsubishi PLGR starters.</p>
 <p>51-82522 Drive End Housing For: Denso 2.5kw G/R Starters Replaces: 028401-7100 Lester: 19186 OEM: 028000-780, 028000-7801, 028000-7802, 028000-7803 Note: PIC 190-6058</p>	 <p>51-82525 Drive End Housing For: Denso 4.5kw G/R Starters Replaces: 128401-6440 Lester: OEM: 128000-644 Note: PIC 190-770</p>	 <p>51-82528 Drive End Housing For: Denso 2.5kw, 4.5kw G/R Starters Replaces: 128401-8300, 128401-8301, 128401-0841 Lester: 17631, 18456, 19962, 19963 OEM: 128000-830, 228000-084, 228000-623, 228000-781 Note: PIC 190-749, 190-780, 190-780A, 190-9027</p>
 <p>51-82523* Drive End Housing For: Denso 2.5kw G/R Starters Replaces: Lester: 18326* OEM: S13-68, S13-68A, S13-68C Note: *Refer to PIC 104-258 *This DE can be used to replace to Hitachi OSGR starters. For Yanmar application.</p>	 <p>51-82526 Drive End Housing For: Denso 4.5kw G/R Starters Replaces: 128401-7600 Lester: 19789 OEM: 128000-760 Note: PIC 190-9016</p>	 <p>51-82529 Drive End Housing For: Denso 2.7kw, 4.5kw G/R Starters Replaces: 228401-1350 Lester: 17418, 18505 OEM: 228000-135, 228000-142, 228000-183; 428000-112, 428000-166 Note: PIC 190-761, 190-783, 190-822, 190-6351</p>

Drive End Housing (51-)

Drive End Housing

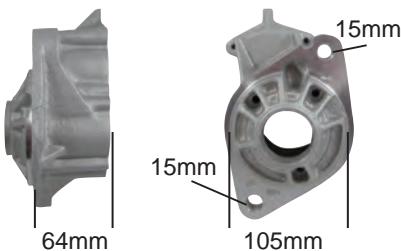


51-82530

Drive End Housing

For: Denso 2.5kw G/R Starters
Replaces: 228401-5810
Lester: 17462
OEM: 228000-581
Note: PIC 190-793

Drive End Housing

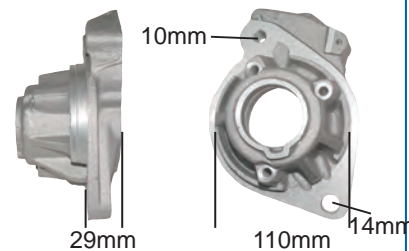


51-82549

Drive End Housing

For: Denso 2.5kw, 4.5kw G/R Starters
Replaces: 028401-5300, 028401-8540, 028401-8541
Lester: 17292, 19955
OEM: 028000-558, 028000-976, 028000-977; 128000-509, 128000-530; 228000-318
Note: PIC 190-159, 190-840, 190-840A, 190-840B, 190-6302.
 Can use to replace to Sawafuji 19954.

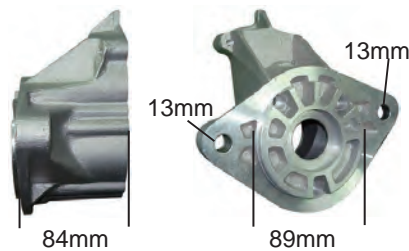
Drive End Housing



51-82553*

Drive End Housing

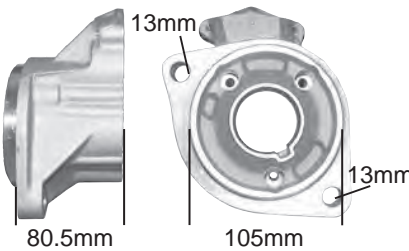
For: Denso 4.5kw G/R Starters
Replaces: 028401-6450
Lester: 18242*
OEM: 028000-488, 028000-714
Note: *Refer to PIC 190-9019, 190-9075, 901-171.
 *This DE can be used to replace to Mitsubishi M3T56071, M3T56072, M4T50071, M4T50072



51-82535

Drive End Housing

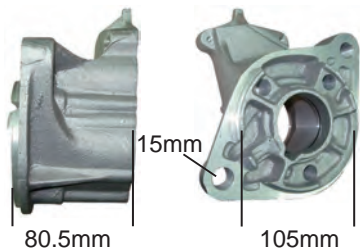
For: Denso 2.5kw, 4.5kw G/R Starters
Replaces: 128401-8620
Lester: 18197, 18424, 32893
OEM: 128000-862, 128000-864; 228000-160, 228000-161, 228000-203, 228000-629
Note: PIC 190-519, 190-769, 190-6003, 190-6330



51-82550

Drive End Housing

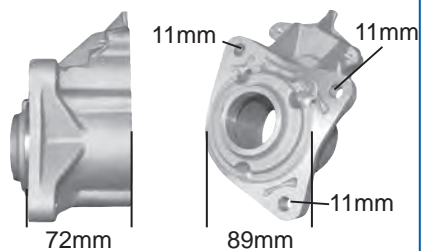
For: Denso 4.5kw G/R Starters
Replaces: 128401-5130
Lester: 31369
OEM: 028000-551
Note: PIC 190-641
 Similar to 51-82507, but 51-82507 w/11mm Mounting Hole.



51-82554

Drive End Housing

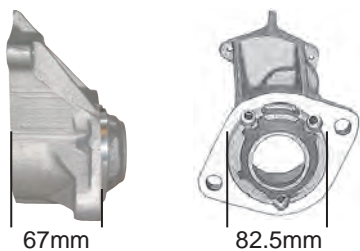
For: Denso 2.5kw, 4.5kw G/R Starters
Replaces: 028401-5140, 028401-5141
Lester: 18181
OEM: 028000-552, 028000-553, 028000-562, 028000-569
Note: PIC 190-899



51-82547

Drive End Housing

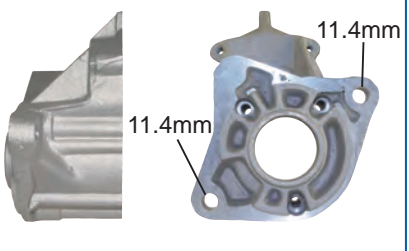
For: Denso 2.5kw G/R Starters
Replaces: 128401-1060
Lester: 17380
OEM: 128000-106
Note: PIC 190-818



51-82551

Drive End Housing

For: Denso 2.5kw G/R Starters
Replaces: 128401-5380
Lester: 17380
OEM: 128000-538
Note: Toyota Industrial 28100-96502

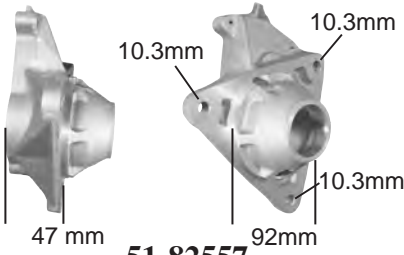
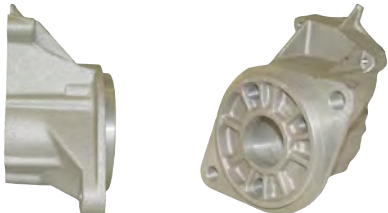
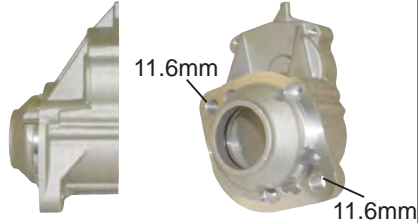
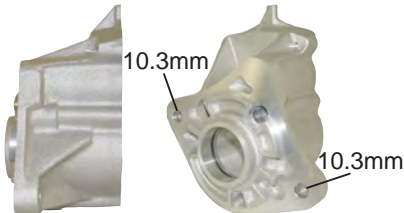
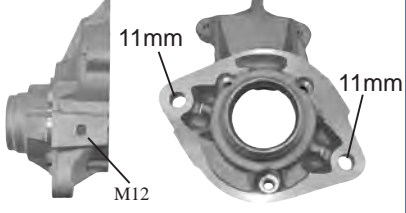
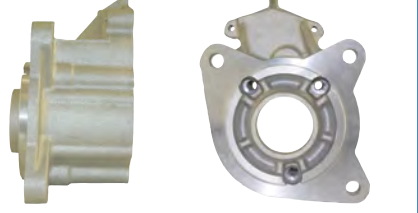
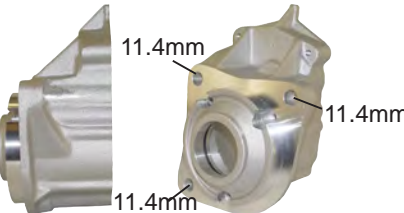




51-82556

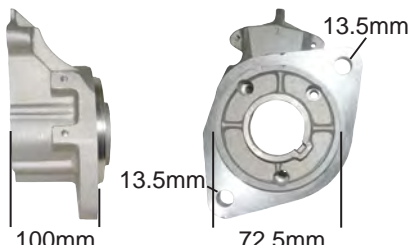

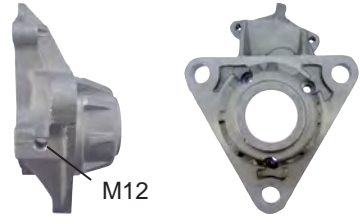
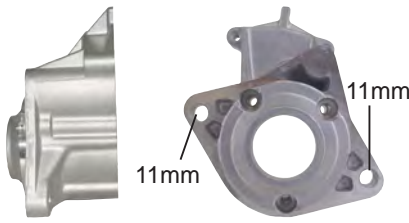

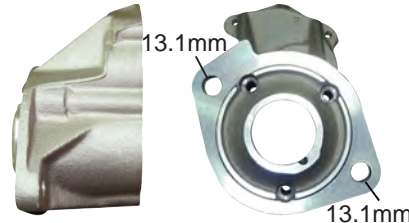
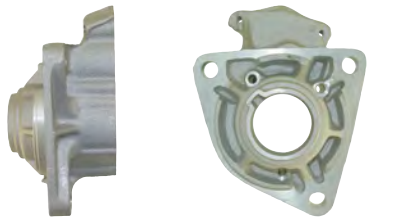
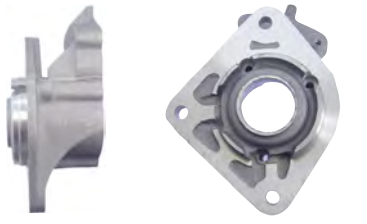
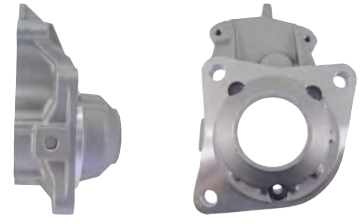
Drive End Housing

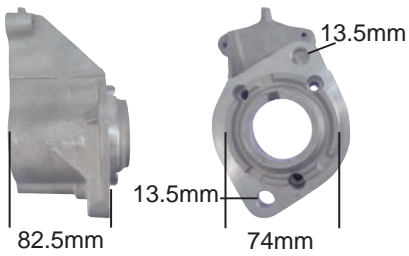

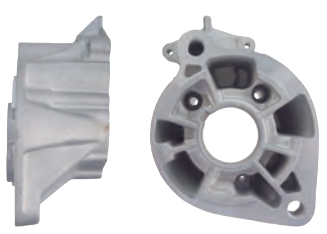
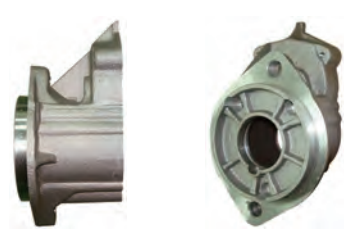
For: Denso 2.5kw G/R Starters
Replaces: 128401-1780, 128401-3030
Lester: 17385, 17393, 19905
OEM: 128000-178, 128000-303; 228000-605
Note: PIC 190-303, 190-824, 190-6361

Drive End Housing (51-)

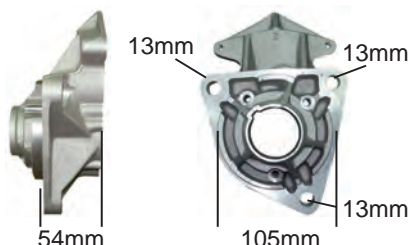
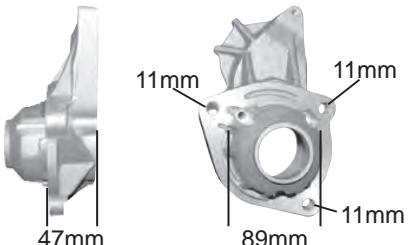
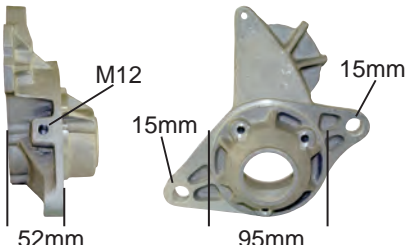
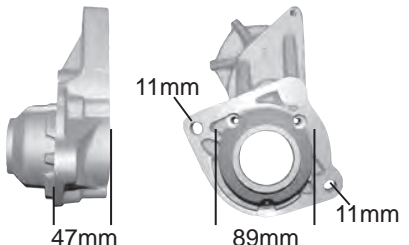
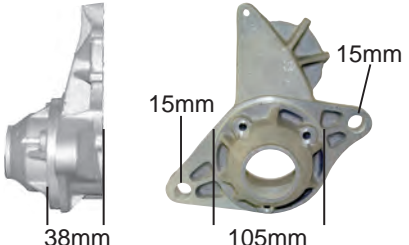
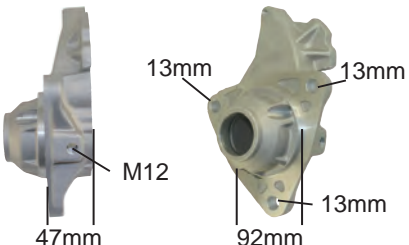
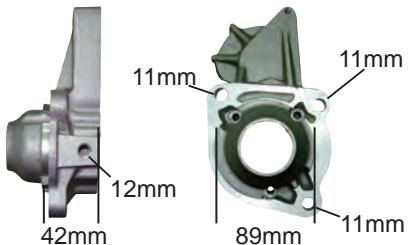
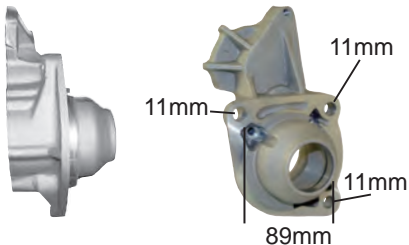
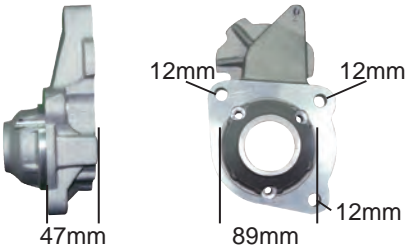
Drive End Housing	Drive End Housing	Drive End Housing
 <p>10.3mm 10.3mm 10.3mm 10.3mm 47 mm 92mm</p> <p>51-82557 Drive End Housing For: Denso 2.5kw G/R Starters Replaces: 028401-6730 Lester: 17348 OEM: 028000-678 Note: PIC 190-816</p>	 <p>51-82560 Drive End Housing For: Denso 4.5kw G/R Starters Replaces: 128401-1000, 128401-1001, 128401-1010, 128401-1011 Lester: 17376, 19960 OEM: 128000-100, 128000-101; 228000-143 Note: PIC 190-748, 190-779, 190-795</p>	 <p>11.6mm 11.6mm</p> <p>51-82564 Drive End Housing For: Denso 2.5kw G/R Starters Replaces: 228401-6470 Lester: 17362A OEM: 228000-647 Note: PIC 190-9006 This is 13 Teeth version, for 11 Teeth version please use 51-82504.</p>
 <p>10.3mm 10.3mm</p> <p>51-82558 Drive End Housing For: Denso 2.5kw G/R Starters Replaces: 128401-5600 Lester: 17613, 18137, 18138 OEM: 128000-560; 228000-002, 228000-119 Note: PIC 190-794, 190-826, 190-891</p>	 <p>11mm 11mm M12</p> <p>51-82561 Drive End Housing For: Denso 2.5kw G/R Starters Replaces: 428401-1600 Lester: 16990, 18559, 18936, 19618 OEM: 228000-062; 428000-160, -185, -186, 428000-287, 428000-291, -292 Note: PIC 190-801J, 190-801JA, 190-801K, 190-6102, 190-6368. DE w/Ground Stud Hole, Ground Stud use 84-82523. DE Plug can use 71-82125.</p>	 <p>51-82565* Drive End Housing For: Denso 2.5kw, 4.5kw G/R Starters Replaces: Lester: 16608* OEM: Note: *Refer to PIC 180-300, 180-300A, 180-300C. *This DE is modify to replace to Bosch & Lucas 16608. We also have Denso OSGR, 2.0kw Gold Case type.</p>
 <p>11.4mm 11.4mm 11.4mm</p> <p>51-82559 Drive End Housing For: Denso 2.7kw G/R Starters Replaces: 228401-7501 Lester: 18992 OEM: 228000-750 Note: PIC 190-763</p>	 <p>51-82562* Drive End Housing For: Denso 2.5kw, 4.5kw G/R Starters Replaces: Lester: 19679* OEM: 0-001-368-070* Note: *Refer to PIC 120-6057A, used w/53-82510 CS Housing. *This DE can use to replace to Bosch 19679.</p>	 <p>51-82566* Drive End Housing For: Denso 4.5kw G/R Starters Replaces: Lester: 18193*, 19770* OEM: 0-21000-4720, 0-21000-4721, 0-21000-4933, 0-21000-4934 Note: *Refer to PIC 185-112, 185-113 *This is modify DE to replace Nikko DD starters.</p>

Drive End Housing (51-)

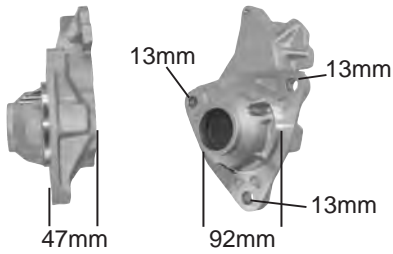
Drive End Housing	Drive End Housing	Drive End Housing
 <p>51-82567* Drive End Housing For: Denso 2.5kw, 4.5kw G/R Starters Replaces: Lester: 18099*, 18544* OEM: M3T90271, M3T95171 Note: *This DE is modify to replace to Mitsubishi 18544 OSGR starters. *Refer to PIC 103-363, 103-460</p>	 <p>51-82570 Drive End Housing For: Denso 2.5kw G/R Starters Replaces: 028401-6741, 128401-9960, 128401-9971 Lester: 17357, 19747 OEM: 028000-754; 128000-996, 128000-997; 228000-019 Note: PIC 190-781, 190-782, 190-784.</p>	 <p>51-82573 Drive End Housing For: Denso 4.5kw G/R Starters Replaces: 128401-4970 Lester: 17609 OEM: 128000-497 Note: Refer to PIC 190-796 DE w/Ground Stud Hole to side left</p>
 <p>51-82568 Drive End Housing For: Denso 2.7kw, 4.5kw G/R Starters Replaces: 428401-1690, 428401-1691 Lester: 19614, 19855, 19857 OEM: 428000-169, 428000-258, 428000-314 Note: PIC 190-847, 190-6235, 190-6320</p>	 <p>51-82571 Drive End Housing For: Denso 2.5kw G/R Starters Replaces: 428401-0310 Lester: 18503 OEM: 428000-031 Note: PIC 190-467. DE w/Ground Stud Hole. wo/Ground Stud Hole please use 51-82502.</p>	 <p>51-82574 Drive End Housing For: Denso 2.5kw G/R Starters Replaces: 028401-5400 Lester: 19910 OEM: 128000-410 Note: PIC 190-778</p>
 <p>51-82569 Drive End Housing For: Denso 4.5kw G/R Starters Replaces: 028401-5681, 028401-5990 Lester: 18190 OEM: 028000-620 Note: PIC 190-820 This DE also can replace to Hitachi & Nikko starters.</p>	 <p>51-82572 Drive End Housing For: Denso 2.5kw G/R Starters Replaces: 028401-7040, 128401-6860 Lester: 17359, 18150 OEM: 028000-773, 128000-686 Note: PIC 190-808, 190-892</p>	 <p>51-82575 Drive End Housing For: Denso 2.7kw G/R Starters Replaces: 228401-7300, 228400-8850 Lester: 18507, 19618 OEM: 228000-466, 228000-773, 228000-885 Note: PIC 190-825B, 190-6046, 190-9102 DE w/Ground Hole for side left. DE wo/Ground Hole, please use 51-82521.</p>

Drive End Housing	Drive End Housing	Drive End Housing
 <p>51-82576 Drive End Housing For: Denso 2.5kw G/R Starters Replaces: 028401-5940 Lester: 028000-634 OEM: 17313 Note: Refer to PIC 190-205 Replace to Mitsui-Deutz 04410711</p>	 <p>51-82579 Drive End Housing For: Denso 2.5kw G/R Starters Replaces: Lester: 16824 OEM: 128000-0550, -0560, -0562 Note: PIC 190-238</p>	
 <p>51-82577 Drive End Housing For: Denso 2.5kw, 4.5kw G/R Starters Replaces: 128401-1570 Lester: 19744, 19748 OEM: 028000-904; 128000-156, 128000-157, 128000-617, 128000-618, 128000-728, 128000-729 Note: PIC 190-6029, 190-6029A</p>	 <p>51-82581 Drive End Housing For: Denso 2.5kw G/R Starters Replaces: 028401-7670 Lester: 16882 OEM: 028000-6210, 028000-8630 028000-861, 128000-293 Note: PIC 190-841</p>	
 <p>51-82578 Drive End Housing For: Denso G/R Starters Replaces: Lester: OEM: Note:</p>		

Drive End Housing (51-)

Drive End Housing	Drive End Housing	Drive End Housing
 <p>13mm 13mm 13mm 54mm 105mm</p> <p>51-82301</p> <p>Drive End Housing For: Denso 3.0kw, 5.5kw G/R Starters Replaces: 128401-0490 Lester: 16881 OEM: 128000-049 Note: PIC 190-803</p>	 <p>11mm 11mm 11mm 47mm 89mm</p> <p>51-82305</p> <p>Drive End Housing For: Denso 3.0kw G/R Starters Replaces: 128401-4910 Lester: 17215 OEM: 128000-491 Note: PIC 190-504</p>	 <p>M12 15mm 15mm 52mm 95mm</p> <p>51-82309</p> <p>Drive End Housing For: Denso 3.0kw G/R Starters Replaces: 228401-2800, 228401-9760 Lester: 18136 OEM: 228000-280, 228000-976 Note: PIC 190-819, 190-6461. DE w/Ground Stud Hole, Stud use 84-82523</p>
 <p>11mm 11mm 11mm 47mm 89mm</p> <p>51-82302</p> <p>Drive End Housing For: Denso 3.0kw G/R Starters Replaces: 128401-4220 Lester: 17600 OEM: 128000-422; 228000-267, 228000-331, 228000-332 Note: PIC 190-507, 190-507A, 190-827, 190-827A. This DE wo/Ground Stud Hole. w/Ground Stud Hole please use 51-82339.</p>	 <p>15mm 15mm 15mm 38mm 105mm</p> <p>51-82306</p> <p>Drive End Housing For: Denso 3.0kw, 5.5kw G/R Starters Replaces: 128401-2450, 128401-4250 Lester: 17306, 18156, 19516 OEM: 128000-247, 128000-274, 128000-425, 128000-551; 228000-247 Note: PIC 190-740, 190-823, 190-823A, 190-894</p>	 <p>13mm 13mm 13mm M12 47mm 92mm</p> <p>51-82313*</p> <p>Drive End Housing For: Denso 3.0kw, 5.5kw G/R Starters Replaces: 228401-5310 Lester: 18508, 18084*, 19774*, 18412 OEM: 228000-531, -561, -562, -563, -590; 428000-006; 0-23000-3150, -3152, -3153; 0-23000-3180, -3184, -3185, -3185 Note: *PIC 190-751, -6037, 185-206*, -254* *Can replace to Nikko OSGR starters. Stud use 84-82518. wo/Ground Stud Hole use 51-82316</p>
 <p>11mm 11mm 11mm 42mm 89mm 11mm</p> <p>51-82304</p> <p>Drive End Housing For: Denso 3.0kw, 5.5kw G/R Starters Replaces: 128401-2560, 128401-5720 Lester: 17615, 17616, 18514, 19961 OEM: 128000-572, 128000-573; 228000-422, 228401-7490 Note: Refer to PIC 190-764, 190-787, 190-811. DE w/Ground Stud Hole, Stud use 84-82518</p>	 <p>11mm 11mm 11mm 11mm 89mm</p> <p>51-82308</p> <p>Drive End Housing For: Denso 3.0, 5.5kw G/R Starters Replaces: 128401-2562, 128401-5260, 128401-5620 Lester: 17199, 17391, 17611, 17614, 18007, 18342, 19873 OEM: 128000-537, 128000-562; 228000-220, -256, -500, -501, -505, -537, -573, -852, -857 Note: PIC 190-750, -797, -844, -886, -6036. DE w/Ground Stud Hole please use 51-82304.</p>	 <p>12mm 12mm 12mm 47mm 89mm 12mm</p> <p>51-82314*</p> <p>Drive End Housing For: Denso 3.0kw, 5.5kw G/R Starters Replaces: 228401-6551, 228401-6560, 228401-6561 Lester: 18455, 18569, 18978, 18458*, 18993* OEM: 228000-655, 228000-657 Note: *PIC 190-785, 190-9043, 190-6064*. This DE wo/Ground Stud Hole. 18458 & 18993 DE w/Ground Stud Hole to back.</p>

Drive End Housing



51-82316

Drive End Housing

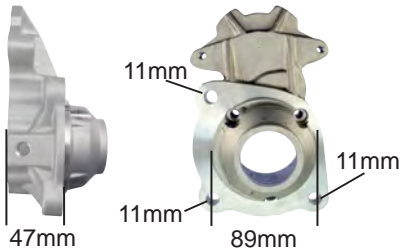
For: Denso 3.0kw, 4.0kw, 5.5kw, 7.5kw G/R Starters

Replaces: 228401-5600, 228401-8510

Lester: 18405, 18406, 18408, 18412, 18343, 18509, 18535

OEM: 228000-560, -561, -562, -563, -590, -651, -738, -851, -890; 428000-269

Note: PIC 190-752, -766, -837, -844, 190-6037, -6038, -6039, -6043, -6048 DE w/Ground Stud Hole please use 51-82313.



51-82317

Drive End Housing

For: Denso 3.0kw G/R Starters

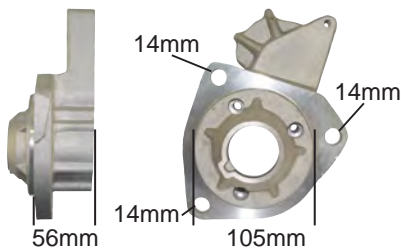
Replaces: 228401-7120

Lester: 18997

OEM: 228000-712

Note: PIC 190-760

DE w/Ground Stud Hole, Stud use 84-82518



51-82326*

Drive End Housing

For: Denso 4.0kw G/R Starters

Replaces:

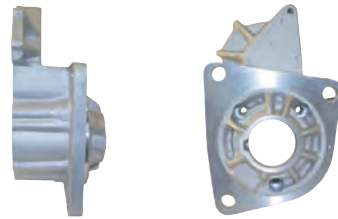
Lester: 18213*

OEM: S15-02

Note: *Refer to PIC 104-234

*This DE is use to replace to Hitachi DD starters, Nissan Truck UD.

Drive End Housing



51-82327*

Drive End Housing

For: Denso 5.5kw G/R Starters

Replaces:

Lester: 18935, 19946*, 19947*

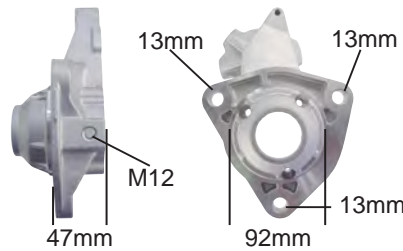
OEM: 128000-468;

0350-602-0130, -0131, -0132, -0133, -0134, -0135.. etc;

0350-552-0510, -0511, -0512... etc.

Note: PIC 190-773, 186-103*, 186-103A*

*This DE also can use modify to Sawafuji OSGR starters.



51-82328*

Drive End Housing

For: Denso 4.0kw G/R Starters

Replaces: 228401-6350, 228401-6352

Lester: 18517, 6297*

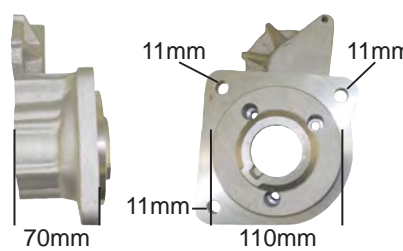
OEM: 228000-635, 228000-737;

10461170, 10478890, 10479214

Note: PIC 190-6041, 141-327*

DE w/Ground Stud Hole, Stud use 84-82518.

*This DE also can modify to replace to Delco 37MT starters.



51-82330*

Drive End Housing

For: Denso 4.0kw, 5.5kw G/R Starters

Replaces:

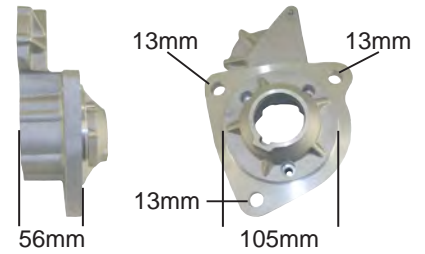
Lester: 16659*, 17111*, 17323*

OEM: 63216827, 63213853, 63213855, 63214376, 63216333

Note: *PIC-102-311*, 102-316*, 102-318*

*This DE is modify to replace to Marelli DD starters

Drive End Housing



51-82331*

Drive End Housing

For: Denso 3.0kw, 5.5kw G/R Starters

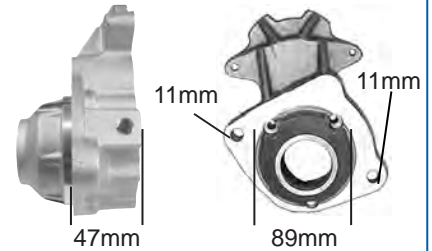
Replaces:

Lester: 18082*

OEM: 0-21000-4690*

Note: *PIC 185-191*

*This modify DE used to replace to Nikko starters



51-82332

Drive End Housing

For: Denso 3.0kw G/R Starters

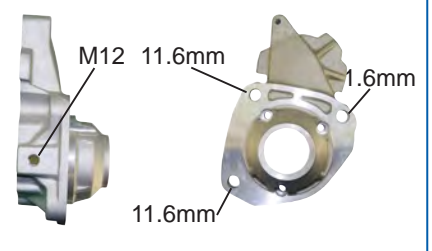
Replaces: 228401-5850

Lester: 18989, 18994

OEM: 228000-585; 428000-610

Note: PIC 190-6042

DE w/Ground Stud Hole, Stud use 84-82518



51-82333

Drive End Housing

For: Denso 3.0kw G/R Starters

Replaces: 228401-5280, 228401-6540

Lester: 18534

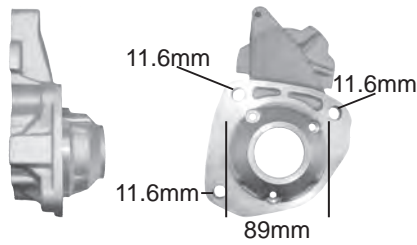
OEM: 228000-528, 228000-546

Note: PIC 190-6051, 190-6052, 190-9040

DE w/Ground Stud Hole, Stud use 84-82518

Drive End Housing (51-)

Drive End Housing



51-82334

Drive End Housing

For: Denso 4.0kw, 4.8kw, 7.5kw G/R Starters

Replaces: 228401-5280, 228401-6531

Lester: 18018, 18454, 18534, 18566

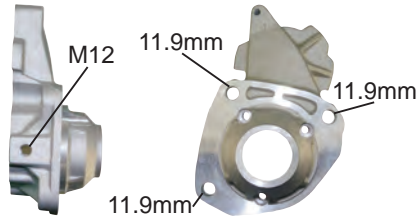
OEM: 228000-528, 228000-546,

228000-653, 228000-656,

228000-741, 228000-808

Note: PIC 190-836, -890, -9038, -6052

DE w/Ground Stud Hole please use 51-82335



51-82335

Drive End Housing

For: Denso 3.0kw, 7.5kw G/R Starters

Replaces: 228401-7412

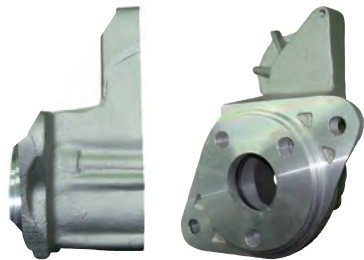
Lester: 18457, 18567, 19847

OEM: 228000-787

Note: PIC 190-9040, 190-6057, 190-9037

This DE w/Ground Stud Hole toward side. wo/Ground Stud Hole please use 51-82334.

*OE DE w/Ground Stud Hole toward side left



51-82336*

Drive End Housing

For: Denso 5.5kw G/R Starters

Replaces:

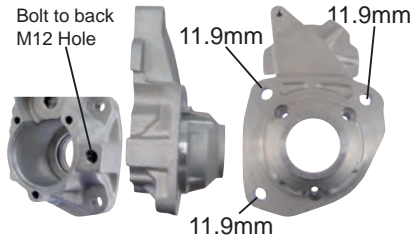
Lester: 18104*, 18521*

OEM: 0-23000-1290, -1291, -1292, -1293; 0-23000-1750

Note: *Refer to PIC 185-204, 185-204A, 185-209, 185-209A, 185-209B

*This modify DE used to replace to Nikko OSGR starters.

Drive End Housing



51-82337

Drive End Housing

For: Denso 4.8kw, 7.8kw G/R Starters

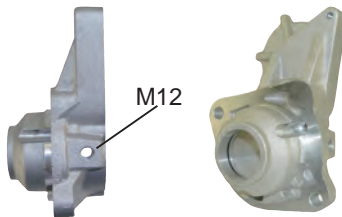
Replaces: 228401-9140

Lester: 18568, 19872

OEM: 228000-914, 228000-915

Note: PIC 190-6363, 190-890B

DE w/Ground Stud Hole to left back.



51-82339

Drive End Housing

For: Denso 3.0kw G/R Starters

Replaces: 228401-7280

Lester: 18996, 19551, 19552

OEM: 228000-728, 228000-729;

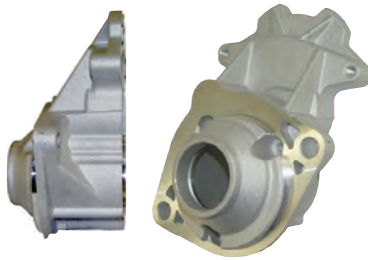
428000-286, 428000-288

Note: PIC 19-507B, 190-762, 190-6373

DE w/Ground Stud Hole to right side.

wo/Ground Stud Hole please use

51-82302



51-82340

Drive End Housing

For: Denso 3.0kw G/R Starters

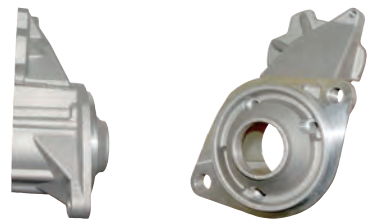
Replaces: 228401-8420

Lester: 17802

OEM: 228000-842

Note: PIC 190-839

Drive End Housing



51-82341

Drive End Housing

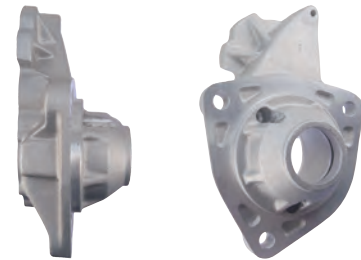
For: Denso 4.0kw G/R Starters

Replaces:

Lester: 19966

OEM: 428000-251

Note: PIC 190-6356



51-82342*

Drive End Housing

For: Denso 5.5kw, 7.5kw G/R Starters

Lester: 18072*, 18076*, 18077*, 18081*,

18083*, 18085*, 18105*, 18106*,

18128*, 19773*

OEM: 0-21000-411, -419, -487, -488;

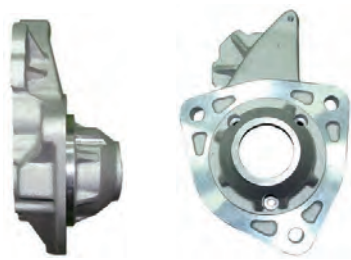
0-23000-116, -123, -1270, -3160,-317

-634, -651, -659

Note: PIC 185-197, -197A, -202, -208, -215, -219,

-226, -228, -232, -236

* This modify DE used on Denso OSGR to replace to Nikko



51-82343*

Drive End Housing

For: Denso 7.5kw G/R Starters

Replaces:

Lester: 18070*, 18074*

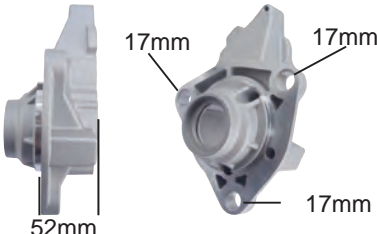

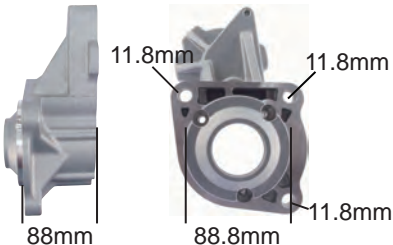
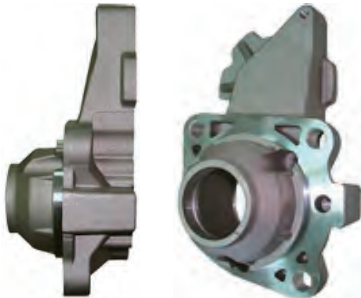
OEM: 0-21000-266, 0-21000-341,

0-21000-413, 0-21000-421,

0-21000-485, 0-21000-486

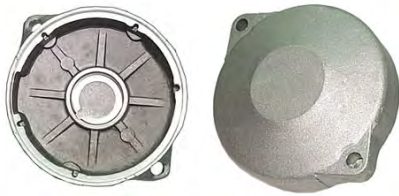
Note: * PIC 185-210A, 185-210B, 185-221

* This modify DE used on Denso OSGR to replace to Nikko

Drive End Housing	Drive End Housing	
 <p>51-82344 Drive End Housing R5 & R8 Type For: Denso 12V/24V 5.0kw, 8.0kw G/R Starters Replaces: 428401-4440 Lester: 19501 OEM: 428000-444 Note: PIC 190-9051</p>	 <p>51-82347 Drive End Housing For: Denso 3.0kw G/R Starters Replaces: 228401-7002 Lester: 18407, 18500 OEM: 228000-700, 228000-818 Note: PIC 190-6054, 190-6061</p>	<p>No Photo Available</p> <p>51-82350 Drive End Housing For: Denso G/R Starters Replaces: 228401-9020 Lester: OEM: 228000-9020 Note: PIC 190-6362</p>
<p>No Photo Available</p> <p>51-82345 Drive End Housing R5 Type For: Denso 12V, 5.0kw G/R Starters Replaces: 428401-3321 Lester: 19851, 19852 OEM: 428000-332, 42800-408 Note: PIC 190-6365, 190-890C M12 x 3 Mounting Hole DE w/Ground Stud Hole to left back</p>	<p>No Photo Available</p> <p>51-82348 Drive End Housing For: Denso 3.0kw, 4.0kw G/R Starters Replaces: 428401-1880 Lester: 18554 OEM: 428000-188 Note: PIC 190-6158</p>	
 <p>51-82346 Drive End Housing For: Denso 7.8kw G/R Starters Replaces: 428401-2591 Lester: 19515 OEM: 428000-2590, 428000-2591 Note: PIC 190-6234</p>	 <p>51-82349 Drive End Housing For: Denso 3.0kw, 4.0kw G/R Starters Replaces: 228401-7011, 428401-2370 Lester: 18993, 18458, 19871, 10913 OEM: 228000-9750, 22800-701 22800-963, 42800-237 Note: PIC 190-6220, 190-6364 DE similar to 51-82314, but 51-82314 w/Ground Stud Hole</p>	

Commutator End Housing (52-)

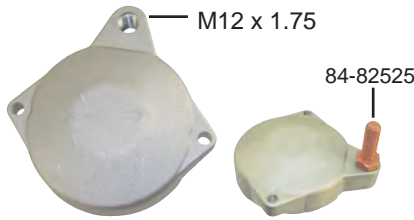
Commutator End Housing	Commutator End Housing
------------------------	------------------------



52-82301

Commutator End Housing

For: Denso 3.0kw, 5.5kw G/R Starters
Replaces: 028501-5270
Lester: 16881,17215,17391,17600...etc
OEM:
Note: w/o Drain Hole



52-82304

Commutator End Housing

For: Denso 4.0kw, 5.0kw G/R Starters
Replaces: 028501-9511
Lester: 18509, 19501, 19502, 19503, 19504, 19505, 19506, 19507
OEM: 428000-269, 428000-442, 428000-443, 428000-444, 428000-445, 428000-519, 428000-543, 428000-573
Note: Ground Stud use 84-82525



52-82302

Commutator End Housing

For: Denso 4.0kw, 7.5kw G/R Starters
Replaces: 028501-8810
Lester: 18408, 18535
OEM: 228000-5600, 228000-5601, 228000-5602, 228000-5612, 228000-5630, 228000-5631, 228000-7380, 228000-7381, TG228000-7381
Note:



52-82501

Commutator End Housing

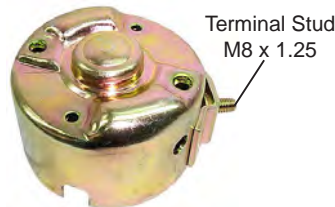
For: Denso 2.5kw, 4.5kw G/R Starters
Replaces:
Lester: 16523,16830,17302
OEM:
Note:



52-82303

Commutator End Housing

For: Denso 3.0kw G/R Starters
Replaces:
Lester: 17391
OEM: 228000-2561,128000-5620, 128000-5623
Note:



52-82502

Commutator End Housing

For: Denso 2.5kw, 4.5kw G/R Starters
Replaces:
Lester: 16824,16830, 18548, 19168
OEM: 128000-055,128000-056
Note:

Center Housing



53-82510*

51-82562

Center Housing

For: Denso 2.5kw, 4.5kw G/R Starters

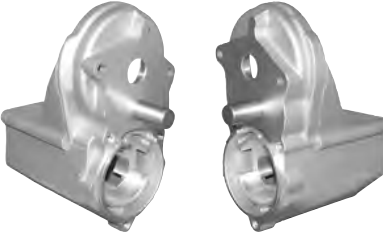








Replaces:

Lester: 19679*

OEM: 0-001-368-070*

Note: Used w/51-82562 Rotatable DE Housing.
Modify to Bosch 19679 Type DD Starters.

Solenoid Housing (53-)

Solenoid Housing	Solenoid Housing	Solenoid Housing
 <p>53-82501 Solenoid Housing For: Denso 2.5kw, 4.5kw G/R Starters Replaces: Lester: OEM: Note: w/o Terminal & Drain Holes; Universal Type</p>	 <p>53-82504 Solenoid Housing For: Denso 2.5kw, 4.5kw G/R Starters Replaces: Lester: OEM: Note: Motor M10, Battery M10</p>	 <p>53-82507 Solenoid Housing For: Denso 2.5kw, 4.5kw G/R Starters Replaces: Lester: 17362, 17362A OEM: 028000-8400; 228000-647 Note: Motor M10, Battery M10</p>
 <p>53-82502 Solenoid Housing For: Denso 2.5kw, 4.5kw G/R Starters Replaces: Lester: 17892 OEM: Note: Motor M10, Battery M10</p>	 <p>53-82505 Solenoid Housing For: Denso 2.5kw, 4.5kw G/R Starters Replaces: Lester: OEM: Note: Motor M10, Battery M10 Assembly for 66-82613, 66-82623</p>	 <p>53-82507-1 Solenoid Housing For: Denso 2.5kw, 4.5kw G/R Starters Replaces: Lester: OEM: Note: Motor M10, Battery M10 Similar to 53-82507, but 53-82507 bottom w/Drain hole</p>
 <p>53-82503 Solenoid Housing For: Denso 2.5kw, 4.5kw G/R Starters Replaces: Lester: 16824 OEM: 028000-861, 128000-055, 128000-056 Note: Motor M10, Battery M10 Assembly for 66-82614</p>	 <p>53-82506 Solenoid Housing For: Denso 2.5kw, 4.5kw G/R Starters Replaces: Lester: OEM: Note: Motor M10, Battery M10 Similar to 53-82502, but The Drain Hole in Different Position. Assembly for 66-82611</p>	 <p>53-82508 Solenoid Housing For: Denso 2.5kw, 4.5kw G/R Starters Replaces: Lester: OEM: Note: Motor M10, Battery M10</p>

Solenoid Housing



53-82509

Solenoid Housing

For: Denso 2.5kw, 4.5kw G/R Starters

Replaces:

Lester:

OEM:

Note: Motor M10, Battery M12

Solenoid Housing (53-)

Solenoid Housing



53-82301

Solenoid Housing

For: Denso 3.0kw, 5.5kw G/R Starters

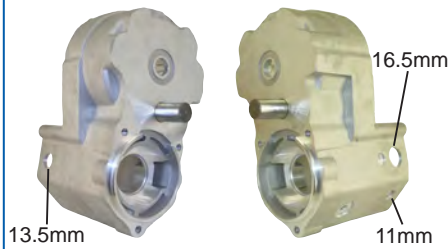
Replaces:

Lester:

OEM:

Note: w/o Terminal & Drain Holes. Universal Type

Solenoid Housing



53-82303

Solenoid Housing

For: Denso 3.0kw, 5.5kw G/R Starters

Replaces:

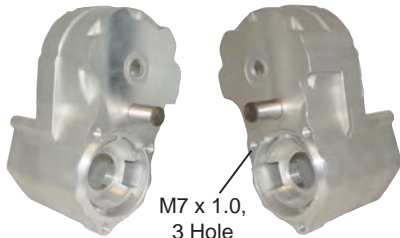
Lester: 18408, 18405, 18509

OEM: 228000-5600, 228000-5610;

428000-269

Note: PIC 190-6038, 190-6039, 190-6043

Motor M10, Battery M12



53-82301-1

Solenoid Housing

For: Denso 3.0kw, 5.5kw G/R Starters

Replaces:

Lester:

OEM:

Note: Similar to 53-82301, but Mounting hole to DE

53-82301 is M6x1.0

53-82301-1 is M7 x 1.0



53-82304

Solenoid Housing

For: Denso 3.0kw G/R Starters

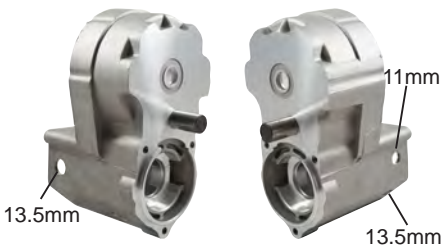
Replaces:

Lester: 16881

OEM: 128000-0490, 128000-2560,

128000-2561

Note: Assembly For 66-82631



53-82302

Solenoid Housing

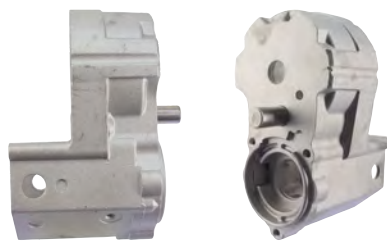
For: Denso 3.0kw G/R Starters

Replaces:

Lester: 17614

OEM: 128000-5623

Note: Motor M10, Battery M10



53-82305

Solenoid Housing

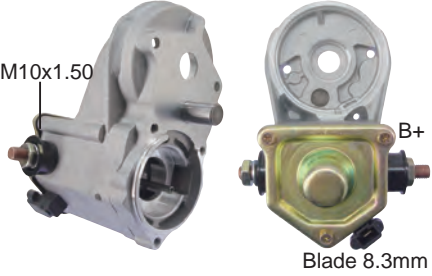
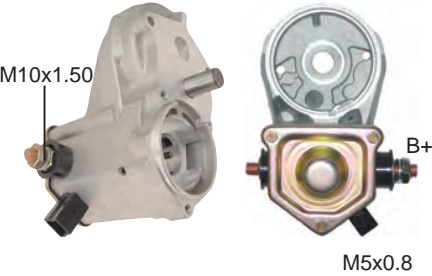
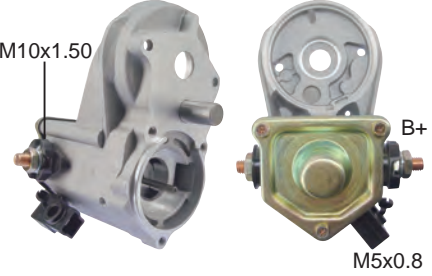
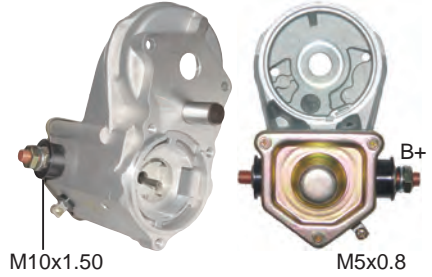


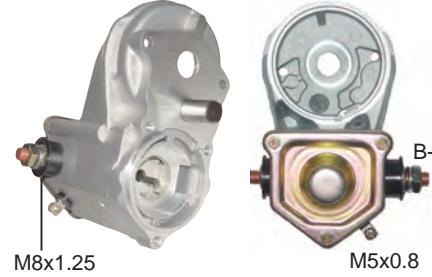
For: Denso 12V/24V 5.0kw/8.0kw G/R Starters

Replaces:

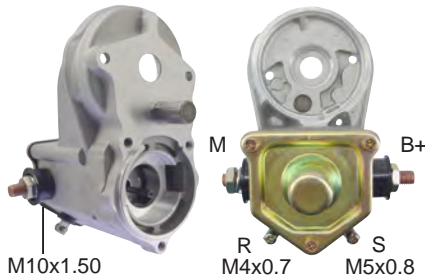
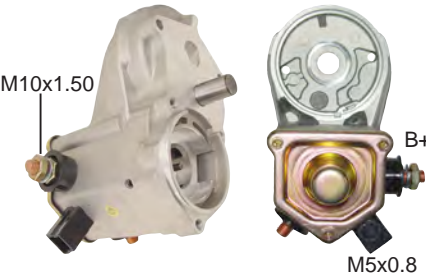
Lester: 19851

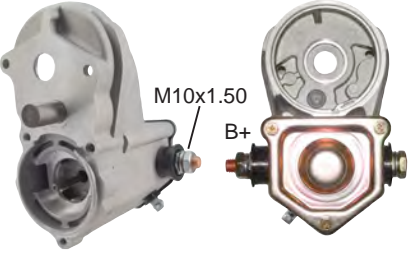
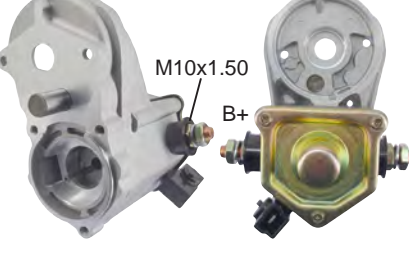
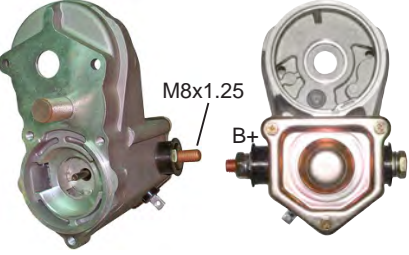
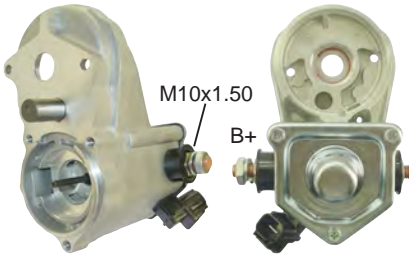
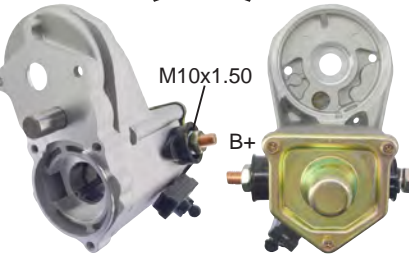
OEM: 428000-332

Note:

Solenoid Switch	Solenoid Switch	Solenoid Switch
 <p>M10x1.50 Blade 8.3mm B+</p> <p>66-82617 Solenoid Switch Assembly 3-Terminals, M10 Battery Post</p> <p>For: Denso 2.5kw CW G/R Starters Replaces: 053400-6480, 053400-6481 Lester: 16656 (Late) OEM: 128000-079 DIM: Battery Terminal: M10 x 1.5 Motor Terminal: M10 x 1.5 S. Terminal 76-82188 (8.3mm) Note: PIC 190-831A (Late Type). For Early Type, use 66-82618</p>	 <p>M10x1.50 B+</p> <p>66-82619 Solenoid Switch Assembly 3-Terminals, M10 Battery Post</p> <p>For: Denso 2.5kw CW G/R Starters Replaces: 153400-2640 Lester: 17630 OEM: 128000-829 DIM: Battery Terminal: M10 x 1.5 Motor Terminal: M10 x 1.5 S. Terminal M5x0.8 76-82514 Note: PIC 190-806 Similar to 66-82618, only S. Terminal different.</p>	 <p>M10x1.50 B+</p> <p>66-82654 Solenoid Switch Assembly 3-Terminals, M10 Battery Post</p> <p>For: Denso 2.5kw, 2.7kw CW G/R Starters Replaces: 153400-5970 Lester: 18992 OEM: 228000-750 DIM: Battery Terminal M10 x 1.50 Motor Terminal M10 x 1.50 Switch Terminal M5x0.8 76-82519 Note:</p>
 <p>M10x1.50 B+</p> <p>66-82618 Solenoid Switch Assembly 3-Terminals, M10 Battery Post</p> <p>For: Denso 2.5kw CW G/R Starters Replaces: 053400-3070, 053400-3071 Lester: 16656 (Early), 16824, 16882, 17359, 17377, 17399, 18150, 18197, 18424, 19186, 19746, 30721 OEM: 028000-552, 028000-566 DIM: Battery Terminal: M10 x 1.5 Motor Terminal: M10 x 1.5 S. Terminal M5x0.8 76-82511 Note: PIC 190-831 (Early Type) For Late Type, use 66-82617. Similar to 66-82619, only S. Terminal different. Also can be used on 028000-552 (Denso, OSGR 12V, 2.5kw)</p>	 <p>M10x1.50 B+</p> <p>66-82620 Solenoid Switch Assembly 3-Terminals, M10 Battery Post</p> <p>For: Denso 2.7kw CW G/R Starters Replaces: 153400-2670, 153400-2671 Lester: 17548, 19965 OEM: 228000-229; 428000-250 DIM: Battery Terminal M10 x 1.50 Motor Terminal M10 x 1.50 Switch Terminal M5x0.8 76-82131 Note: PIC 190-805, 190-810, 190-810A Also use on 175481-1, 175481-2. For 24V, use 66-82658.</p>	<div style="text-align: center;">  <p>New Design</p> </div>  <p>M8x1.25 B+</p> <p>66-82655* Solenoid Switch Assembly 3-Terminals, M8 Battery Post</p> <p>For: Denso 2.5kw, 2.7kw CW G/R Starters Replaces: Lester: 18326*, 18099* OEM: S13-68, S13-68A, S13-68C; M3T90271 DIM: Battery Terminal M8 x.125 84-82526 Motor Terminal M10 x 1.50 Switch Terminal M5x0.8 76-82511 Note: *To replace to Hitachi OSGR 18326 (2.5kw) Mitsubishi OSGR 18099 (3.5kw). Can use 66-82618 (B+ M10)</p>

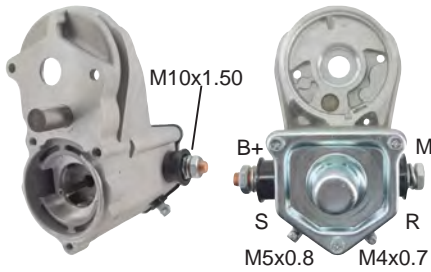
Solenoid Switch (66-)

Solenoid Switch	Solenoid Switch	Solenoid Switch
 <p>66-82634 Solenoid Switch Assembly 4-Terminals, M10 Battery Post For: Denso 2.7kw CW G/R Starters Replaces: 053400-818 Lester: 17393 OEM: 128000-303 DIM: Battery Terminal M10 x 1.50 Motor Terminal M10 x 1.50 Switch Terminal M5x0.8 76-82511 Relay Terminal M4x0.7 76-82101 Note: Similar to 66-82624, only S. Terminal on the different side.</p>	 <p>66-82616 Solenoid Switch Assembly 3-Terminals, M10 Battery Post For: Denso 2.5kw CW G/R Starters Replaces: 053400-3100,053400-4220; 153400-0070 Lester: 17301,17302 OEM: 028000-549, 028000-656; 128000-775 DIM: Battery Terminal: M10 x 1.5 Motor Terminal: M10 x 1.5 S. Terminal M5x0.8 Note: PIC 190-805, 190-810, 190-810A S. Terminal use 76-82514 or 76-82511</p>	

Solenoid Switch	Solenoid Switch	Solenoid Switch
 <p>66-82611 Solenoid Switch Assembly 3-Terminals, M10 Battery Post</p> <p>For: Denso 2.5kw CW G/R Starters Replaces: 053400-2790, -3060, -3061, -3062, -4090, -4091, -4100, -4790, -5640, -5800, -6230, -6290, -7050, -7120, -8800, -9130, -9560, -9561, -9640, -9670; 153400-8360 Lester: 16651, 16830, 16897, 16990, 17290, 17292, 17304, 17311, 17348, 17380, 17390, 17394, 18137, 18188, 18190, 18510, 18558, 18559, 18936, 18937, 19104, 19618, 17377, 19855, 19910, 19962, 19963, 30722, 19746, 19811 OEM: 028000-500, -556, -664; 128000-021, -054, -227, -248, -312; 428000-160 DIM: Battery Terminal M10 x 1.5 Motor Terminal M10 x 1.5 Switch Terminal M5 x 0.8 76-82511</p>	 <p>66-82657 Solenoid Switch Assembly 3-Terminals, M10 Battery Post</p> <p>For: Denso 2.5kw CW G/R Starters Replaces: Lester: 10705 OEM: 428000-166 DIM: Battery Terminal M10 x 1.5 Motor Terminal M10 x 1.5 Switch Terminal M5 x 0.8 76-82519</p> <p>Note: PIC 190-6437 Perkins Engine. Similar to 66-82652, but 66-82652 is 24V.</p>	<p style="text-align: center;">New Design</p>  <p>66-82656* Solenoid Switch Assembly 3-Terminals, M8 Battery Post</p> <p>For: Denso 2.5kw CW G/R Starters Replaces: Lester: 16608* OEM: DIM: Battery Terminal M8 x 1.25 84-82526 Motor Terminal M10 x 1.5 Switch Terminal M5 x 0.8 76-82514</p> <p>Note: *Replace to Lucas, Bosch 16608, 2.5kw type Can use 66-82622 (B+ M10)</p>
 <p>66-82615 Solenoid Switch Assembly 3-Terminals, M10 Battery Post</p> <p>For: Denso 2.5kw CW G/R Starters Replaces: 153400-8240 Lester: 17892 OEM: 428000-119 DIM: Battery Terminal M10 x 1.5 Motor Terminal M10 x 1.5 Switch Terminal 76-82515 Note: PIC 190-799A</p>	<p style="text-align: center;">New Design</p>  <p>66-82666 Solenoid Switch Assembly 3-Terminals, M10 Battery Post</p> <p>For: Denso 2.5kw CW G/R Starters Replaces: 153400-8770 Lester: 19614 OEM: 428000-169 DIM: Battery Terminal M10 x 1.5 Motor Terminal M10 x 1.5 Switch Terminal 76-82520 Note: PIC 190-847</p>	

Solenoid Switch (66-)

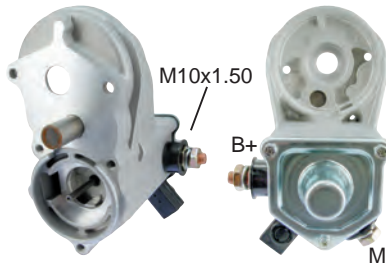
Solenoid Switch	Solenoid Switch	Solenoid Switch
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66-82624

**Solenoid Switch Assembly
3-Terminals, M10 Battery Post**

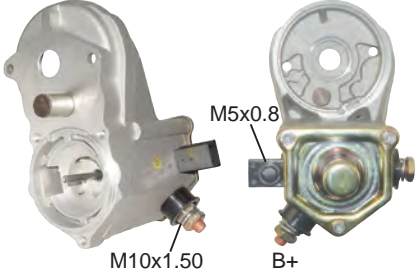
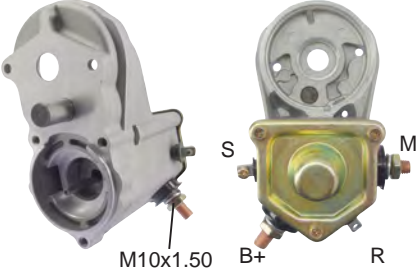
For: Denso 2.5kw CW G/R Starters
Replaces: 053400-8040, 053400-8180, 053400-9280;
 153400-1100, 153400-1990
Lester: 17385, 17462, 17613, 19744
OEM: 028000-904, 228000-581;
 128000-156, 128000-178, 12800-560
DIM: Battery Terminal M10 x 1.5
 Motor Terminal M10 x 1.5
 Switch Terminal M5 x 0.8 **76-82511**
 R. Term. M4 x 0.7 **76-82101**
Note: *Similar to 66-82634, only S. Terminal on the opposite side



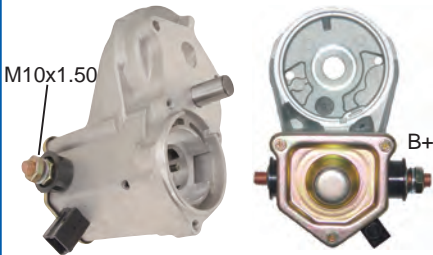
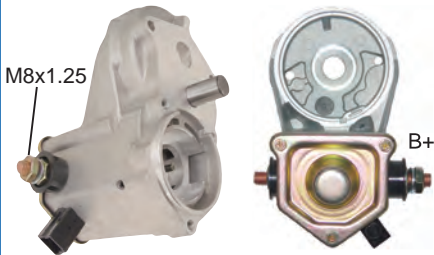
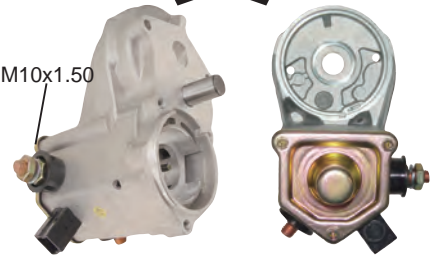

66-82644

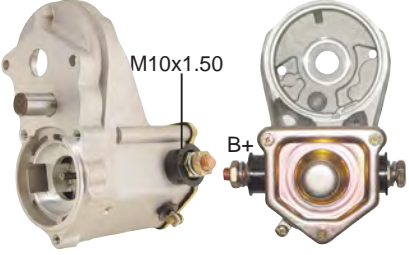
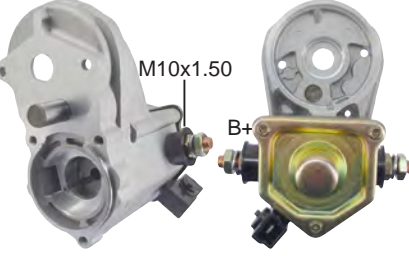
**Solenoid Switch Assembly
3-Terminals, M10 Battery Post**

For: Denso 2.7kw CW G/R Starters
Replaces: 153400-2661
Lester: 16981, 17388, 18456
OEM: 128000-225, 128000-704, 228000-084
DIM: Battery Terminal M10 x 1.5
 Motor Terminal M10 x 1.5
 Switch Terminal M5 x 0.8 **76-82514**
Note: Similar to 66-82662, but 66-82662 is 24V
 Motor Terminal on the left bottom.

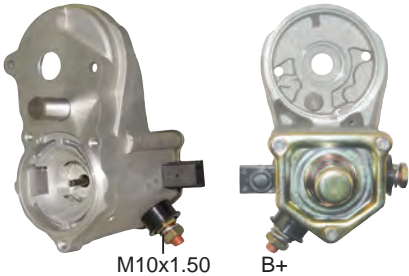
Solenoid Switch	Solenoid Switch	Solenoid Switch
 <p>66-82613 Solenoid Switch Assembly 3-Terminals, M10 Battery Post For: Denso 2.5kw CW G/R Starters Replaces: 053400-3480, 053400-3481, 053400-7580 Lester: 16658 OEM: 028000-588 DIM: Battery Terminal M10 x 1.5 Motor Terminal M10 x 1.5 Switch Terminal M5 x 0.8 76-82514 Note: *For 24V please use 66-82623</p>	 <p>66-82653 Solenoid Switch Assembly 3-Terminals, M10 Battery Post For: Denso 2.7kw CW G/R Starters Replaces: 153400-1100, 153400-1102 Lester: 18138 OEM: 228000-002 DIM: Battery Terminal M10 x 1.5 Motor Terminal M10 x 1.5 Switch Terminal M5 x 0.8 76-82511 Relay Terminal M4x0.7 76-82101 Note:</p>	

Solenoid Switch (66-)

Solenoid Switch	Solenoid Switch	Solenoid Switch
 <p>M10x1.50</p> <p>B+</p> <p>66-82614 Solenoid Switch Assembly 3-Terminals, M10 Battery Post</p> <p>For: Denso 4.5kw CW G/R Starters Replaces: 053400-1950, 053400-2600, 053400-4700, 053400-8112, 053400-0570, 053400-9950 Lester: 17286, 17376, 18181 OEM: 028000-530, 028000-553, 028000-856; 128000-100, 128000-101, 128000-644, 128000-760 DIM: Battery Terminal M10 x 1.5 Motor Terminal M10 x 1.5 Switch Terminal M5 x 0.8 76-82514 Note: *Similar to 66-82634, only S. Terminal on the opposite side</p>	<p style="text-align: center;">New Design</p>  <p>M8x1.25</p> <p>B+</p> <p>66-82659* Solenoid Switch Assembly 3-Terminals, M10 Battery Post</p> <p>For: Denso 4.5kw CW G/R Starters Replaces: Lester: 18193*, 18544* OEM: M3T95171; 0-21000-4933 DIM: Battery Terminal M8 x 1.25 84-82526 Motor Terminal M10 x 1.5 Switch Terminal M5 x 0.8 76-82514 Note: *For Metro unit 18193N-ND, 18544N- ND use. *Replace to Nikko, DD, 3.5kw. *Replace to Mitsubishi, OSGR, 5.5kw.</p>	<p style="text-align: center;">New Design</p>  <p>M10x1.50</p> <p>B+</p> <p>66-82660 Solenoid Switch Assembly 3-Terminals, M10 Battery Post</p> <p>For: Denso 4.5kw CW G/R Starters Replaces: 153400-4672 Lester: 32957 OEM: 228000-564 DIM: Battery Terminal M10 x 1.5 Motor Terminal M10 x 1.5 Switch Terminal M5 x 0.8 76-82514 Note: *Similar to 66-82616, but 66-82616 is 12V</p>
<p style="text-align: center;">New Design</p>  <p>M10x1.50</p> <p>66-82658 Solenoid Switch Assembly 3-Terminals, M10 Battery Post</p> <p>For: Denso 4.5kw CW G/R Starters Replaces: Lester: 175841-24 OEM: 228000-229 DIM: Battery Terminal M10 x 1.5 Motor Terminal M10 x 1.5 Switch Terminal M5 x 0.8 76-82131 Note: This is custom made</p>		

Solenoid Switch	Solenoid Switch	Solenoid Switch
 <p>66-82622 Solenoid Switch Assembly 3-Terminals, M10 Battery Post</p> <p>For: Denso 4.5kw CW G/R Starters Replaces: 053400-2520, -2530, -3090, -3550, -3940, -4200, -4210, -4560, -4770, -5490, -7311, -7330, -7331, -9050, -9240, -9950; 153400-2410, -3140, -3150, -4240, -5240, -7311 Lester: 16614, 16896, 18402, 18548 OEM: 028000-557, -586, -724; 228000-664, -667, -790 DIM: Battery Terminal M10 x 1.5 Motor Terminal M10 x 1.5 Switch Terminal M5 x 0.8 76-82511 Note: Can used on 19870N-ND (replcae Nikko)</p>	<p style="text-align: center;">New Design</p>  <p>66-82662 Solenoid Switch Assembly 3-Terminals, M10 Battery Post</p> <p>For: Denso 4.5kw CW G/R Starters Replaces: Lester: 17631 OEM: 128000-830 DIM: Battery Terminal M10 x 1.5 Motor Terminal M10 x 1.5 Switch Terminal M5 x 0.8 76-82511 Note: *Similar to 66-82644, but 66-82644 is 12V. Can used on: 19870N-ND (replcae to Nikko). 19954 (Sawafuji, OSGR, 24V, 4.5kw). 19955 (ND, OSGR, 24V, 4.5kw). 18548, 228000-790-1 (ND, OSGR, 24V, 4.5kw).</p>	
 <p>66-82652 Solenoid Switch Assembly 3-Terminals, M10 Battery Post</p> <p>For: Denso 4.5kw CW G/R Starters Replaces: 153400-0810, 153400-0811; 153400-2431 Lester: 18505 OEM: 228000-183, 428000-112 DIM: Battery Terminal M10 x 1.5 Motor Terminal M10 x 1.5 Switch Terminal M5 x 0.8 76-82519 Note: *Similar to 66-82657, but 66-82657 is 12V</p>		

Solenoid Switch (66-)

Solenoid Switch	Solenoid Switch	Solenoid Switch
 <p>66-82623 Solenoid Switch Assembly 3-Terminals, M10 Battery Post</p> <p>For: Denso 4.5kw CW G/R Starters Replaces: 053400-9950, 153400-2210 Lester: 166581-24*, 173621-24*, 19789 OEM: 128000-760 DIM: Terminal M10 x 1.5 Motor Terminal M10 x 1.5 Switch Terminal M5 x 0.8 76-82514</p> <p>Note: *166581-24 & 173621-24, this is modify to replace Delco 1113277, 1113291. *for 12V please use 66-82613</p>		

Solenoid Switch	Solenoid Switch	Solenoid Switch
 <p>M10x1.50</p> <p>66-82635 Solenoid Switch Assembly 3-Terminals, M10 Battery Post</p> <p>For: Denso 3.0kw CW G/R Starters Replaces: 153400-2943, 153400-7110, 153400-5721 Lester: 17802, 18136, 18407 OEM: 228000-280, 228000-841, 228000-842, 228000-700 DIM: Battery Terminal M10 x 1.5 Motor Terminal M10 x 1.5 Switch Terminal M5 x 0.8 76-82511</p> <p>Note: *Also replace to Nissan, DD, 18213 (18213N-ND). *Also replace to Marelli, DD, 16659, 17111 (17111N-ND). *Same as 66-82636, only S. Terminal different.</p>	 <p>M10x1.50</p> <p>66-82641 Solenoid Switch Assembly 3-Terminals, M10 Battery Post</p> <p>For: Denso 3.0kw CW G/R Starters Replaces: Lester: 19966 OEM: 428000-251 DIM: Battery Terminal M10 x 1.5 Motor Terminal M10 x 1.5 Switch Terminal M5 x 0.8 76-82131</p> <p>Note:</p>	 <p style="text-align: center;">New Design</p> <p>M10x1.50</p> <p>66-82661 Solenoid Switch Assembly 3-Terminals, M10 Battery Post</p> <p>For: Denso 3.0kw CCW G/R Starters Replaces: 153400-6360 Lester: 18500 OEM: 228000-818 DIM: Battery Terminal M10 x 1.5 Motor Terminal M10 x 1.5 Switch Terminal 76-82515</p> <p>Note:</p>
 <p>M10x1.50</p> <p>66-82636 Solenoid Switch Assembly 3-Terminals, M10 Battery Post</p> <p>For: Denso 3.0kw CW G/R Starters Replaces: Lester: 18934 OEM: 228000-625 DIM: Terminal M10 x 1.5 Motor Terminal M10 x 1.5 Switch Terminal M5 x 0.8 76-82514</p> <p>Note: *Similar to 66-82635, only S. Terminal different. Also can be used on: 18082N-ND (replace to Nikko). 18018N-M10 (B+ M10). 18029N-ND (replace to Bosch, Iskra DD)</p>	 <p>M10x1.50</p> <p>66-82649 Solenoid Switch Assembly 3-Terminals, M10 Battery Post</p> <p>For: Denso 3.0kw CW G/R Starters Replaces: Lester: OEM: DIM: Battery Terminal M10 x 1.5 Motor Terminal M10 x 1.5 Switch Terminal M5 x 0.8 76-82520</p> <p>Note: *Similar to 66-82648, but 66-82648 w/ M12 B+</p>	

Solenoid Switch (66-)

Solenoid Switch	Solenoid Switch	Solenoid Switch
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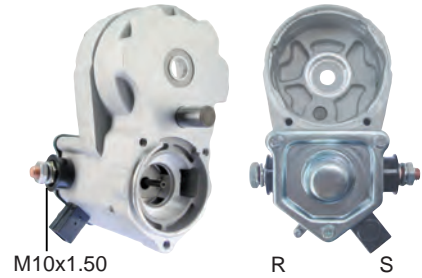
66-82645
Solenoid Switch Assembly
3-Terminals, M12 Battery Post

For: Denso 3.0kw CW G/R Starters
Replaces:
Lester: 18516, 18997, 19550
OEM: 228000-626, 228000-712;
 428000-284
DIM: Battery Terminal M12 x 1.75
 Motor Terminal M10 x 1.5
 Switch Terminal M5 x 0.8 **76-82514**
Note: *same as 66-82645-1, but 66-82645-1
 w/Battery Terminal Extension



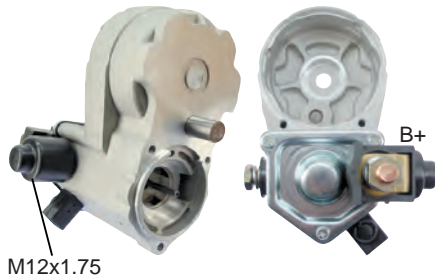
66-82648
Solenoid Switch Assembly
3-Terminals, M12 Battery Post

For: Denso 3.0kw CW G/R Starters
Replaces: 153400-5320, 153400-5321
Lester: 18018, 18457, 18534, 18566, 18567,
 18568
OEM: 228000-546, 228000-653, 228000-
 654, 228000-787, 228000-808,
 228000-914
DIM: Battery Terminal M12 x 1.75
 Motor Terminal M10 x 1.5
 Switch Terminal M5 x 0.8 **76-82520**
Note: *Similar to 66-826489, but 66-82649
 w/M10 B+.
 *for Battery Terminal Extension use:
 72-82501 Cover-Insulator
 72-82511 Insulator
 76-82516 Connector & Stud



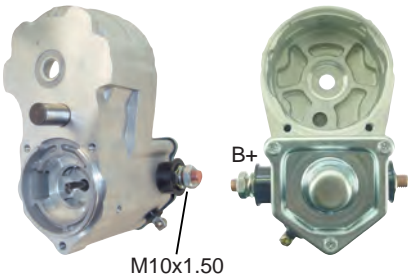
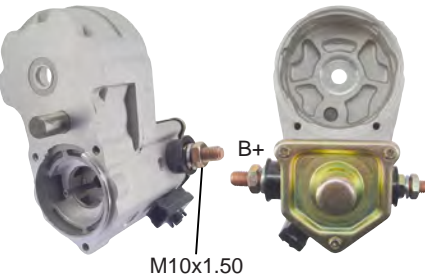
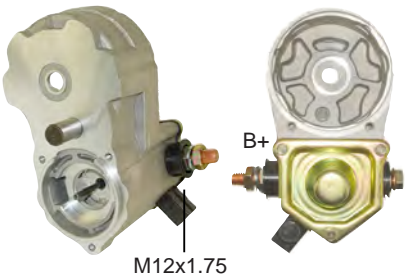
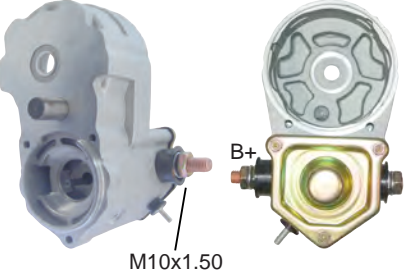
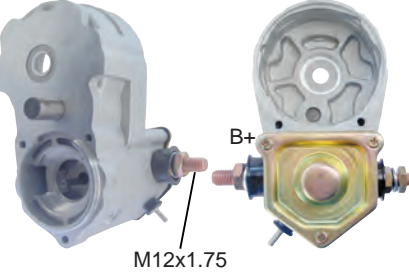
66-82640
Solenoid Switch Assembly
3-Terminals, M12 Battery Post

For: Denso 3.0kw CW G/R Starters
Replaces: 153400-4610
Lester: 17250
OEM: 228000-551
DIM: Battery Terminal M10 x 1.50
 Motor Terminal M10 x 1.5
 Switch Terminal M5 x 0.8 **76-82514**
 Relay Terminal M4x0.7 **76-82502**
Note:



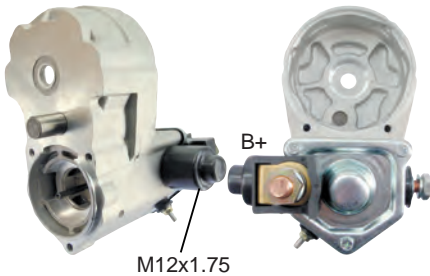
66-82645-1
Solenoid Switch Assembly
3-Terminals, M12 Battery Post

For: Denso 3.0kw CW G/R Starters
Replaces:
Lester: 18516, 18997
OEM: 228000-626, 228000-712
DIM: Battery Terminal M12 x 1.75
 Motor Terminal M10 x 1.5
 Switch Terminal M5 x 0.8 **76-82514**
Note: *Similar to 66-82645, but 66-82645
 wo/Battery Terminal Extension.
 *for Battery Terminal Extension use:
 72-82501 Cover-Insulator
 72-82511 Insulator
 76-82516 Connector & Stud

Solenoid Switch	Solenoid Switch	Solenoid Switch
 <p>M10x1.50</p> <p>66-82632 Solenoid Switch Assembly 3-Terminals, M10 Battery Post</p> <p>For: Denso 3.0kw CW G/R Starters Replaces: 053400-6440, 053400-7840, 053400-8280, 053400-9030, 053400-9170, 053400-9200, 153400-2870, 153400-3300 Lester: 16881, 17306, 17611; 17199 (3-Terminal Version) OEM: 12800-049, 128000-537, 128000-551, 228000-267, 228000-332; 228000-573 (3-Terminal Version) DIM: Battery Terminal M10 x 1.5 Motor Terminal M10 x 1.5 Switch Terminal M5 x 0.8 76-82511 Note: Also used on 17615N-M10 & 17616N-M10</p>	 <p>M10x1.50</p> <p>66-82651 Solenoid Switch Assembly 3-Terminals, M10 Battery Post</p> <p>For: Denso 3.0kw CW G/R Starters Replaces:</p> <p>Lester: OEM: DIM: Battery Terminal M10 x 1.5 Motor Terminal M10 x 1.5 Switch Terminal M5 x 0.8 76-82520 Note: *Similar to 66-82663, but 66-82663 B+ is M12.</p>	 <p>M12x1.75</p> <p>66-82638 Solenoid Switch Assembly 3-Terminals, M12 Battery Post</p> <p>For: Denso 3.0kw CW G/R Starters Replaces: 053400-9400, 053400-9402, 053400-9403 Lester: 17615 OEM: 128000-572 DIM: Battery Terminal M12 x 1.75 Motor Terminal M10 x 1.5 Switch Terminal M5 x 0.8 76-82514 Note: *Similar to 66-82637, but 66-82637 is 24V</p>
 <p>M10x1.50</p> <p>66-82633 Solenoid Switch Assembly 3-Terminals, M10 Battery Post</p> <p>For: Denso 3.0kw CW G/R Starters Replaces: 053400-9030</p> <p>Lester: 17215 OEM: 128000-491 DIM: Battery Terminal M10 x 1.5 Motor Terminal M10 x 1.5 Switch Terminal M5 x 0.8 76-82131 Note:</p>		 <p>M12x1.75</p> <p>66-82642 Solenoid Switch Assembly 3-Terminals, M12 Battery Post</p> <p>For: Denso 3.0kw CW G/R Starters Replaces: 153400-9200 Lester: 18509, 18517 OEM: 428000-269, 228000-737 DIM: Battery Terminal M12 x 1.75 Motor Terminal M10 x 1.5 Switch Terminal M5 x 0.8 76-82131 Note: Similar to 66-82644, but 66-82644 is 24V. *w/Battery Terminal Extension, please use 66-82642-1</p>

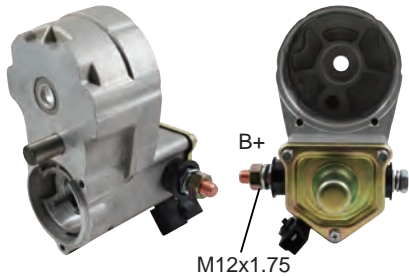
Solenoid Switch (66-)

Solenoid Switch	Solenoid Switch	Solenoid Switch
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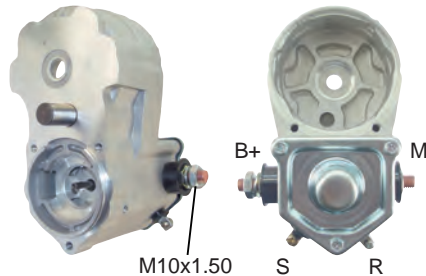
66-82642-1
Solenoid Switch Assembly
3-Terminals, M12 Battery Post

For: Denso 3.0kw CW G/R Starters
Replaces: 153400-9200
Lester: 18509
OEM: 428000-269
DIM: Battery Terminal M12 x 1.75
 Motor Terminal M10 x 1.5
 Switch Terminal M5 x 0.8 **76-82131**
Note: *Similar tp 66-82644, but 66-82644 is 24V.
 *Battery Terminal Extension:
 72-82510 Cover-Insulator
 72-82511 Insulator
 76-82516 Connector & Stud



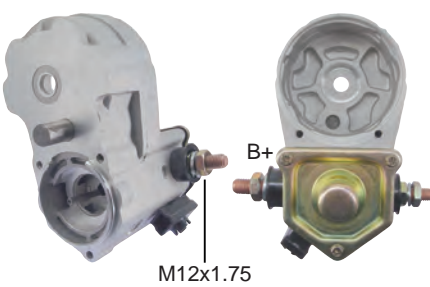
66-82663
Solenoid Switch Assembly
3-Terminals, M10 Battery Post

For: Denso 3.0kw CW G/R Starters
Replaces:
Lester: 19817, 19961
OEM: 228000-370, 228000-422, 228000-902
DIM: Battery Terminal M12 x 1.75
 Motor Terminal M10 x 1.5
 Switch Terminal M5 x 0.8 **76-82519**
Note: *Similar to 66-82651, but 66-82651 B+ is M10.
 *Can use 66-82651+76-82519 swap to 66-82663.



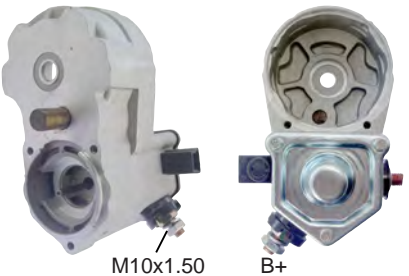
66-82639
Solenoid Switch Assembly
3-Terminals, M10 Battery Post

For: Denso 3.0kw CW G/R Starters
Replaces: 153400-3300
Lester: 17199
OEM: 228000-573
DIM: Battery Terminal M12 x 1.75
 Motor Terminal M10 x 1.5
 Switch Terminal M5 x 0.8 **76-82511**
 Relay Terminal M4 x 0.7 **76-82502**
Note:







66-82650
Solenoid Switch Assembly
3-Terminals, M12 Battery Post

For: Denso 3.0kw CW G/R Starters
Replaces:
Lester: 18455, 18978, 18993
OEM: 228000-655, 228000-847, 228000-975, 228000-902
DIM: Battery Terminal M12 x 1.75
 Motor Terminal M10 x 1.5
 Switch Terminal M5 x 0.8 **76-82520**
Note: *Similar tp 66-82644, but 66-82644 is 24V

Solenoid Switch	Solenoid Switch	Solenoid Switch
 <p>66-82643 Solenoid Switch Assembly 3-Terminals, M10 Battery Post</p> <p>For: Denso 3.0kw CW G/R Starters Replaces: 053400-9344 Lester: 17614 OEM: 128000-562 DIM: Battery Terminal M10 x 1.5 Motor Terminal M10 x 1.5 Switch Terminal M5 x 0.8 76-82514</p> <p>Note:</p>		

Solenoid Switch (66-)

Solenoid Switch	Solenoid Switch	Solenoid Switch
 <p>M10x1.50</p> <p>66-82646 Solenoid Switch Assembly 3-Terminals, M10 Battery Post For: Denso 5.5kw CW G/R Starters Replaces: 053400-7830, 053400-7831, 053400-7832 Lester: 18156, 18935 OEM: 128000-274, 128000-468 DIM: Battery Terminal M10 x 1.5 Motor Terminal M10 x 1.5 Switch Terminal M5 x 0.8 76-82514 Note: *Similar to 66-82646-1, only 66-82646-1 use different Switch Terminal Can used on 18105N-ND (replace to Nikko 18105)</p>	 <p>M12x1.75</p> <p>66-82647 Solenoid Switch Assembly 3-Terminals, M12 Battery Post For: Denso 5.5kw CW G/R Starters Replaces: 153400-5530, 153400-5531, 153400-5331, Lester: 18454, 19847, 19848, 19872 OEM: 228000-656, 228000-741, 228000-915 DIM: Battery Terminal M12 x 1.75 Motor Terminal M10 x 1.5 Switch Terminal M5 x 0.8 76-82520 Note: *Similar to 66-82647-1, only 66-82647-1 use different Switch Terminal</p>	
 <p>M10x1.50</p> <p>66-82646-1 Solenoid Switch Assembly 3-Terminals, M10 Battery Post For: Denso 5.5kw CW G/R Starters Replaces: 053400-7830, 053400-7831, 053400-7832 Lester: 18156, 18935 OEM: 128000-274, 128000-468 DIM: Battery Terminal M10 x 1.5 Motor Terminal M10 x 1.5 Switch Terminal M5 x 0.8 76-82511 Note: *Similar to 66-82646, only 66-82646 use different Switch Terminal</p>	 <p>M12x1.75</p> <p>66-82647-1 Solenoid Switch Assembly 3-Terminals, M12 Battery Post For: Denso 5.5kw CW G/R Starters Replaces: 153400-5530, 153400-5531 Lester: 16655N-1*, 18454, 19847, 19848, 19872, 18213N-24* OEM: 228000-656, 228000-741, 228000-915 DIM: Battery Terminal M12 x 1.75 Motor Terminal M10 x 1.5 Switch Terminal M5 x 0.8 76-82502 Note: *Similar to 66-82647, only 66-82647 Switch Terminal use 76-82520 (OE type). *16655N-1 & 18213N-24 is a replacement unit</p>	






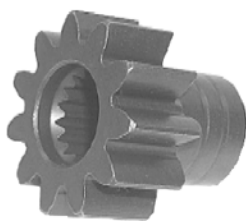
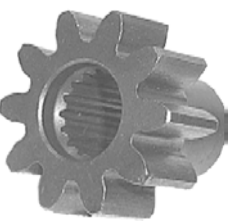


Solenoid Switch	Solenoid Switch	Solenoid Switch
<div data-bbox="224 310 597 568" data-label="Image"> <p>M10x1.50 B+</p> </div> <div data-bbox="241 608 599 697" data-label="Section-Header"> <p>66-82631 Solenoid Switch Assembly 3-Terminals, M10 Battery Post</p> </div> <div data-bbox="196 702 612 1023" data-label="Text"> <p>For: Denso 5.5kw CW G/R Starters Replaces: 053400-7720, 053400-7830, 053400-7890, 153400-2600, 153400-2750, 153400-6740 Lester: 17391, 18007, 18155, 18342 OEM: 128000-245, 128000-256; 228000-220, 228000-247, 228000-500, 228000-505 DIM: Battery Terminal M10 x 1.5 Motor Terminal M10 x 1.5 Switch Terminal M5 x 0.8 76-82514 Note:</p> </div>	<div data-bbox="646 310 1062 568" data-label="Image"> <p>M12x1.75 B+</p> </div> <div data-bbox="686 608 1040 697" data-label="Section-Header"> <p>66-82637 Solenoid Switch Assembly 3-Terminals, M12 Battery Post</p> </div> <div data-bbox="639 702 1071 1055" data-label="Text"> <p>For: Denso 5.5kw CW G/R Starters Replaces: 053400-9410, 053400-9412, 053400-9413 Lester: 17616, 18535, 19515, 18213N-24 OEM: 128000-573; 228000-563, 228000-738; 42800-259 DIM: Battery Terminal M12 x 1.75 Motor Terminal M10 x 1.5 Switch Terminal M5 x 0.8 76-82514 Note: *Similar to 66-82638, but 66-82638 is 12V. Can used on 228000-423 (ND, OSGR, 24V, 5.5kw)</p> </div>	<div data-bbox="1094 214 1511 591" data-label="Image"> <p>New Design</p> <p>M10x1.50 B+</p> </div> <div data-bbox="1133 608 1487 697" data-label="Section-Header"> <p>66-82667 Solenoid Switch Assembly 3-Terminals, M10 Battery Post</p> </div> <div data-bbox="1083 702 1503 940" data-label="Text"> <p>For: Denso 5.5kw CW G/R Starters Replaces: 153400-6800 Lester: 32958 OEM: 228000-755 DIM: Battery Terminal M10 x 1.5 Motor Terminal M10 x 1.5 Switch Terminal M5 x 0.8 76-82514 Note: PIC#190-6306</p> </div>
	<div data-bbox="695 1138 1019 1229" data-label="Image"> <p>New Design</p> </div> <div data-bbox="646 1240 1062 1498" data-label="Image"> <p>M12x1.75 B+</p> </div> <div data-bbox="686 1544 1040 1634" data-label="Section-Header"> <p>66-82664 Solenoid Switch Assembly 3-Terminals, M12 Battery Post</p> </div> <div data-bbox="639 1638 1071 1932" data-label="Text"> <p>For: Denso 5.5kw CW G/R Starters Replaces: Lester: 18458, 18569, 19871 OEM: 228000-657 DIM: Battery Terminal M12 x 1.75 Motor Terminal M10 x 1.5 Switch Terminal M5 x 0.8 76-82520 Note: *Similar to 66-82650, but 66-82650 is 12V. Can used on 17626N-ND (replace to Denso DD)</p> </div>	


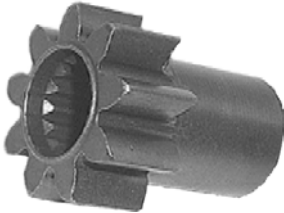


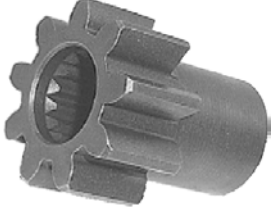


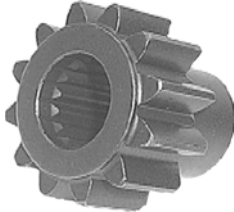

Drive (54-)

Drive	Drive	Drive
 <p>54-8521 Drive - CW 13T Replaces: 028300-2040, 028300-5650 028300-5651, 028300-5670 028300-5671, 028300-5921 028300-6731, 028300-7802 Lester: 16658, 16990, 17215, 17390, 17394, 17548, 17600, 17802, 17818, 17892, 18507, 18559, 19553 DIM: Gear OD: 39.5mm Note: Use 54-82521 Pinion Gear</p>	 <p>54-8525 Drive - CW 11T Replaces: 028300-1730, -2011, -2070, 028300-4550, -4551, -5090, 028300-1730, -2011, -2070, 028300-4550, -4551, -5090 028300-5921, -8750 Lester: 16614, 16824, 16830, 16881, 16896, 16897, 16967, 17283, 17286, 17290, 17292, 17301, 17302, 17304, 17306, 17311, 17313, 17376, 17462, 18018, 18136, 18155, 18156, 18180, 18181, 18188, 18189, 18190, 18454, 18455, 18457, 18458, 18554, 19748, 19789, 19851, 19853, 19910, 19960, 19973, 30721, 30722, 31369 DIM: Gear OD: 40mm OAL Length: 146mm Note: Use 54-82525 Pinion Gear</p>	 <p>54-8527 Drive - CW 9T Replaces: 028300-1811, 028300-1810 Lester: 16651, 17357, 17359 DIM: Gear OD: 35.5mm Gear Length: 40mm OAL Length: 146mm Note: Use 54-82540 Pinion Gear. This is to replace to Nikko Starters</p>
 <p>54-8522 Drive - CW 10T Replaces: 028300-3690, 028300-5450, 028300-6550, 028300-6551, 028300-6610, 028300-6690 Lester: 16981, 17199, 17348, 17380, 17385, 17388, 17391, 17393, 17399, 17418, 17589, 17609, 17611, 17613, 17614, 17615, 17616, 17630, 18137, 18138, 18342, 18402, 18406, 18408, 18456, 18505, 18508, 18509, 18510, 18517, 18560, 18989, 18994, 18997, 19168, 19817, 19878, 19961, 19962, 19963, 32958 DIM: Gear OD: 40.5mm Note: Use 54-82522 Pinion Gear</p>	 <p>54-8526 Drive - CW 13T Replaces: 028300-6731 Lester: 17362A DIM: Gear OD: 40mm Gear Length: 40mm OAL Length: 146mm Note: Use 54-82544 Pinion Gear Use 54-17362A Shaft</p>	 <p>54-8528 Drive - CW 12T Replaces: 128099-5160 Lester: 18197, 18424, 32893 DIM: Gear OD: 44.5mm Gear Length: 36mm OAL Length: 146mm Note: Use 54-82520 Pinion Gear</p>

Drive	Drive	Clutch
 <p style="text-align: center;">54-8529 Drive - CW 15T</p> <p>Replaces: 028099-2390 Lester: 16656 OEM: 028000-566 DIM: Gear OD: 44.5mm Gear Length: 40mm OAL Length: Note: Use 54-82531 Pinion Gear</p>	 <p style="text-align: center;">54-8531 Drive - CCW 11T</p> <p>Replaces: 028300-8950 Lester: 18407, 18500 OEM: 228000-700, 228000-818 DIM: Gear OD: Gear Length: OAL Length: Note:</p>	 <p style="text-align: center;">54-82021 Clutch-Drive 5SPL</p> <p>For: Denso 2.5kw-7.5kw G/R Starters DIM: 92mm L Replaces: 028300-1971, 128099-5060 Lester: 10913, 16651, 16656, 16824, 16882, 16981, 17199, 17348, 17359, 17362, 17362A, 17377, 17380, 17385, 17388, 17391, 17393, 17418, 17609, 17611, 17613, 17630, 18007, 18181, 18424, 18456, 18508, 18517, 18559, 18978, 19186, 19746, 19747, 19805, 19806, 19846, 19847, 19848, 19857, 19872, 19873, 19904, 31376, 32957 Ref: 54-82400</p>
 <p style="text-align: center;">54-8530 Drive - CW 11T</p> <p>Replaces: 028300-7651, -7660, -7661 Lester: 19747 OEM: 128000-997 DIM: Gear OD: 38mm Gear Length: 36mm OAL Length: Note: Use 54-82527 Pinion Gear</p>	 <p style="text-align: center;">54-8532 Drive - CW 11T</p> <p>Replaces: 028300-3950, 028300-3951, 028300-3952 Lester: 17362, 17377 OEM: 028000-840 DIM: Gear OD: 34.5mm Gear Length: 40mm OAL Length: 146.5mm Note: Use 54-82524 Pinion Gear</p>	 <p style="text-align: center;">54-82021W Clutch-Drive WET, 5SPL</p> <p>For: Denso 2.5kw-7.5kw G/R Starters DIM: 92mm L Replaces: 028300-4170, 028300-5380, 028300-5381, 028300-5390, 028300-5391, 028300-6750, 028300-6751 Lester: 16990, 17283, 17292, 17390, 17399, 18197, 18510, 19104, 19168, 19515, 19790, 19805, 19851, 19852 Note: w/71-82509 Oil Seal Ref: 54-82409</p>






Drive Parts (54-)

Pinion Gear	Pinion Gear	Pinion Gear
 <p>54-82520 Pinion Gear-Drive 12 Teeth, CW, 16 SPL For: Denso 2.5kw G/R Starters DIM: Gear OD: 44.5mm Length : 36.0mm Replaces: 028371-6640 Lester: 16913</p>	 <p>54-82523 Pinion Gear-Drive 11 Teeth, CW, 16SPL For: Denso 2.5kw G/R Starters DIM: Gear OD: 34.5mm Length : 40.0mm Replaces: 028099-3250 Lester: 17377</p>	 <p>54-82526 Pinion Gear-Drive 12 Teeth, CW, 16SPL For: Denso 2.5kw G/R Starters DIM: Gear OD: 43.5mm Length : 36.0mm Replaces: Lester:</p>
 <p>54-82521 Pinion Gear-Drive 13 Teeth, CW, 16SPL For: Denso 2.5kw, 3.0kw G/R Starters DIM: Gear OD: 39.5mm Length : 36.0mm Replaces: 028099-3230 Lester: 16658,16990,17215,17390,17394,17548,17600,17802,17818,18506,18559,18936,18936,19618</p>	 <p>54-82524 Pinion Gear-Drive 11 Teeth, CW, 16SPL For: Denso 2.5kw G/R Starters DIM: Gear OD: 34.5mm Length : 40.0mm Replaces: 028099-6200 Lester: 17362</p>	 <p>54-82527 Pinion Gear-Drive 11 Teeth, CW, SPL For: Denso 2.5kw G/R Starters DIM: Gear OD: 38.0mm Length : 36.0mm Replaces: 128099-525 Lester:</p>
 <p>54-82522 Pinion Gear-Drive 10 Teeth, CW, 16SPL For: Denso 2.5kw, 3.0kw, 4.5kw G/R Starters DIM: Gear OD: 40.5mm Length : 36.0mm Replaces: 028099-3270,028099-4000,028371-3200 Lester: 16981,17615,17616</p>	 <p>54-82525 Pinion Gear-Drive 11 Teeth, CW, 16SPL For: Denso 2.5kw, 3.0kw, 4.5kw G/R Starters DIM: Gear OD: 40mm Length : 36mm Replaces: 028099-3310,028099-5460 Lester: 16614,16681,16830,16881,16910,16911,16967,17302,17304,17311,17462</p>	 <p>54-82528 Pinion Gear-Drive 11 Teeth, CW, 16 SPL For: Denso 2.5kw G/R Starters DIM: Gear OD: 41.5mm Length : 40mm Replaces: 028099-3300 Lester: 19746</p>

Pinion Gear	Pinion Gear	Pinion Gear
 <p>54-82529 Pinion Gear-Drive 13 Teeth, CW, SPL For: Denso 2.5kw G/R Starters DIM: Gear OD: 45.5mm Length : 36mm Replaces: Lester:</p>	 <p>54-82532 Pinion Gear-Drive 9 Teeth, CW, SPL For: Denso G/R Starters DIM: Gear OD: 32.0mm Length : 40.0mm Replaces: Lester:</p>	 <p>54-82535 Pinion Gear-Drive Teeth, CW, SPL For: Denso G/R Starters DIM: Gear OD: 40.0mm Length : 40.0mm Replaces: 028099-3240 Lester: 16882 OEM: 028000-6210, 028000-8630</p>
 <p>54-82530 Pinion Gear-Drive 13 Teeth, CW, SPL For: Denso G/R Starters DIM: Gear OD: 46.5mm Length : 36mm Note: used on PIC# 190-6075 (ND, 24V) for modify unit use</p>	 <p>54-82533 Pinion Gear-Drive 9 Teeth, CW, SPL For: Denso G/R Starters DIM: Gear OD: 35.5mm Length : 40.0mm Replaces: Lester:</p>	 <p>54-82540 Pinion Gear-Drive 9 Teeth, CW, 16 SPL For: Denso 2.5kw G/R Starters DIM: Gear OD: 35.5mm Length : 36.0mm Replaces: 028099-3210, 028300-4390 Lester: 16651, 16922, 16971, 17359, 31299 OEM: 028000-5000, 028000-5001, 028000-5002, 028000-5003, 028000-7730, 028000-7731, 028000-7732, 028000-7733</p>
 <p>54-82531 Pinion Gear-Drive 15 Teeth, CW, 16 SPL For: Denso 2.5kw G/R Starters DIM: Gear OD: 44.0mm Length : 40.0mm Replaces: 028099-3220, 028371-1760 Lester: 16656</p>	 <p>54-82534 Pinion Gear-Drive 12 Teeth, CW, SPL For: Denso 2.5kw G/R Starters DIM: Gear OD: 37.0mm Length : 35.5mm Replaces: Lester: OEM:</p>	 <p>54-82544 Pinion Gear-Drive 13 Teeth, CW, SPL For: Denso G/R Starters DIM: Gear OD: 40.0mm Length : 40.5mm Replaces: 128099-5340 Lester: 17362A OEM: 228000-6470, 228000-6471</p>

Drive Parts (54-)

Spring	Shaft	Sleeve
 <p>54-82851 Spring-Roller Clutch For: Denso 2.5kw-5.5kw G/R Starters DIM: 5.3mm x 12mm x 15mmL 0.75mm Wire Dia Replaces: 028306-0070</p>	 <p>54-82855 Shaft-Drive For: Denso 2.5kw-5.5kw G/R Starters DIM: 146.10mmOAL</p>	 <p>54-82856 Sleeve-Drive For: Denso 2.5kw-5.5kw G/R Starters DIM: 92mm OAL, 29.1mmOD, 10-SPL</p>
 <p>54-82852 Spring-Shaft For: Denso 2.5kw-5.5kw G/R Starters DIM: 19.4mm OD x 92mm L 1.3mm Wire Dia. Replaces:</p>	 <p>54-17362A Shaft-Drive For: Denso 2.5kw-5.5kw G/R Starters Lester: 17362, 17362A 146.10mmOAL Modify for 17362 aftermarket use DIM: Note:</p>	 <p>54-82856-1 Sleeve-Drive w/ Seal For: Denso 2.5kw-5.5kw G/R Starters DIM: 92mm OAL, 28mmOD, 10-SPL</p>
 <p>54-82853 Spring-Pinion Gear For: Denso 2.5kw-5.5kw G/R Starters DIM: 15mm OD x 17.3mm L 1.8mm Wire Dia. Note: Use with 54-82854 Retainer 76-82512 Retainer Ring 76-82513 Stop Collar</p>		

Idle Gear	Drive parts	
 <p>54-82552 Armature Gear 13Teeth For: Denso 3.0kw, 5.5kw G/R Starters DIM: Gear OD: 24.5mm Thickness: 18.0mm</p>	 <p>54-82009 Roller For: Denso G/R Starters DIM: 7.6mm OD x 13mm L Note: Used with 54-82551 2.5kw, 4.5kw Idle Gear 54-82301 3.0kw, 5.5kw Idle Gear 76-82506 Plastic Retainer</p>	
 <p>54-82551 Idle Gear 31Teeth, CW For: Denso 2.5kw, 4.5kw G/R Starters DIM: Gear OD: 49.5mm Thickness: 17.3mm Note: Used with 54-82009 Roller 76-82506 Plastic Retainer</p>	 <p>54-82854 Retainer For: Denso G/R Starters DIM: 15.1mmOD x 11.3mmID Note: Used with 54-82853 Spring-Pinion Gear 76-82512 Retainer Ring 76-82513 Stop Collar</p>	
 <p>54-82301 Armature Gear 31Teeth, CW For: Denso 3.0kw, 5.5kw G/R Starters DIM: Gear OD: 50.3mm Thickness: 17.3mm Note: Used with 54-82009 Roller 76-82506 Plastic Retainer</p>		

Field Case (57-)

Field Coil (59-)

Bearing (6-)

Field Case	Field Coil	Bearing
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57-8231

F.C. Assembly - 12V

For: Denso 3.0kw G/R Starters
DIM: 100mm OD
Replaces: 028100-4410



59-82301

F.C. Coil - 12V

For: Denso 3.0kw G/R Starters
Replaces:



6-1034

Bearing

For: Denso 2.5kw, 4.5kw G/R Starters
DIM: 17mm ID x 35mm OD x 10mm W
REF: 6003
Note: Fit w/ 61-82501



57-8232

F.C. Assembly - 24V

For: Denso 5.5kw G/R Starters
DIM: 100mm OD
Replaces: 028100-5410



59-82302

F.C. Coil - 24V

For: Denso 5.5kw G/R Starters
Replaces:



6-2004

Bearing

For: Denso 2.5kw - 5.5kw G/R Starters
DIM: 10mm ID x 30mm OD x 9mm W
REF: 6200
Note: Fit w/ 61-82501, 61-82504, 61-82301,61-82302



57-8251

F.C. Assembly - 12V

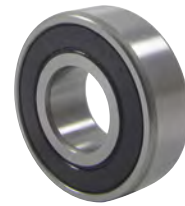
For: Denso 2.5kw G/R Starters
DIM: 90mm OD
Replaces: 028100-3001



59-82501

F.C. Coil - 12V

For: Denso 2.5kw G/R Starters
Replaces: 028100-3001,028100-3810, 028100-5330,028100-6410



6-2024

Bearing

For: Denso 3.0kw, 5.5kw G/R Starters
DIM: 15mm ID x 35mm OD x 11mm W
REF: 6202



57-8252

F.C. Assembly - 24V








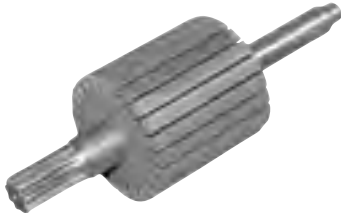
For: Denso 4.5kw G/R Starters
DIM: 90mm OD
Replaces: 028100-2881



59-82502





F.C. Coil - 24V

For: Denso 4.5kw G/R Starters
Replaces: 028100-2881,028100-3310, 028100-3600,028100-3800, 028100-6320,028100-6400

Armature	Armature	Armature Parts
 <p>61-82501 Armature - 12V For: Denso 2.5kw G/R Starters Replaces: 028200-1780,028200-1900, 028200-6200,028200-6220, 028200-6230 DIM: Commutator Bar 23 60mm Body OD 187mm OAL</p>	 <p>61-82505 Armature - 12V For: Denso 5.0 kw G/R R5 Starters Replaces: 028200-8680 Lester: 19501, 19502, 19505, 19506, 19507, 19851, 19852, 19853, 19854 DIM: Commutator Bar 23 64.7mm Body OD 210.9mm OAL</p>	 <p>61-82502 Commutator For: Denso 2.5kw 4.5kw G/R Starters DIM: 14mm ID 36.7mm OD 43.4mm Height</p>
 <p>61-82504 Armature - 24V For: Denso 4.5kw G/R Starters Replaces: 028200-1590,028200-2230 DIM: Commutator Bar 23 60mm Body OD 187mm OAL</p>		 <p>61-82503 Insulator-Lamination For: Denso 2.5kw 4.5kw G/R Starters Note: Used with 61-82502</p>
 <p>61-82301 Armature - 12V For: Denso 3.0kw G/R Starters Replaces: 028200-2800 DIM: Commutator Bar 23 65mm Body OD 211mm OAL</p>		
 <p>61-82302 Armature - 24V For: Denso 5.5kw G/R Starters Replaces: 028200-5250 DIM: Commutator Bar 23 65mm Body OD 211mm OAL</p>		 <p>61-82501S Shaft-Armature For: Denso G/R Starters Note: Used on 61-82501, 61-82504</p>





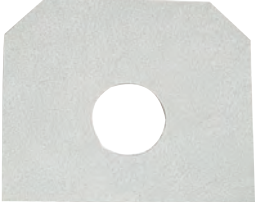
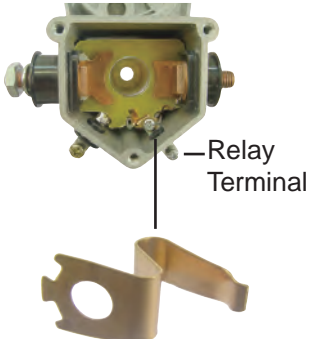
Solenoid Parts (66-)

Coil	Coil	Coil
 <p>66-82506 Solenoid Coil - 12V For: Denso 2.5kw 3.0kw G/R Starters Note: Center : Double Wire Left Side : Single Wire Note: For 24Volt, please use 66-82541</p>	 <p>66-82537 Solenoid Coil - 12V For: Denso 2.5kw 3.0kw G/R Starters Note: Center : Single Wire Left Side : Double Wire Note: For 24Volt, please use 66-82540</p>	 <p>66-82529 Solenoid Coil - 24V For: Denso 4.5kw 5.5kw G/R Starters Lester: 16614, 16896, 16967, 17283, 17391, 17609, 17616, 18155, 18180, 18181, 18190 Note: Right Side: Single Wire Left Side : Double Wire Ref: For 12Volt, please use 66-82506</p>
 <p>66-82525 Solenoid Coil - 12V For: Denso 2.5kw 3.0kw G/R Starters Note: Right Side : Single Wire Left Side : Double Wire Note: For 24Volt, please use 66-82543 Ref: 66-82540</p>	 <p>66-82538 Solenoid Coil - 12V For: Denso 2.5kw 3.0kw G/R Starters Note: Right Side : Double Wire Center : Single Wire Note: For 24Volt, please use 66-82544</p>	 <p>66-82540 Solenoid Coil - 24V For: Denso 4.5kw 5.5kw G/R Starters Note: Center : Single Wire Left Side : Double Wire Note: For 12Volt, please use 66-82537</p>
 <p>66-82531 Solenoid Coil - 12V For: Denso 2.5kw 3.0kw G/R Starters Lester: 16656, 16824, 17302, 17362, 17462, 17548, 17630, 18197, 18407 Note: Right Side: Double Wire Left Side : Single Wire Note: For 24Volt, please use 66-82542 Ref: 66-82452</p>	 <p>66-82523 Solenoid Coil - 24V For: Denso 4.5kw 5.5kw G/R Starters Note: Right Side: Double Wire Left Side : Single Wire</p>	 <p>66-82541 Solenoid Coil - 24V For: Denso 4.5kw 5.5kw G/R Starters Note: Center : Double Wire Left Side: Single Wire Note: For 12Volt, please use 66-82506</p>

Coil	Coil	
 <p>66-82542 Solenoid Coil - 24V For: Denso 4.5kw 5.5kw G/R Starters Note: Right Side: Double Wire Left Side : Single Wire Note: For 12Volt, please use 66-82531</p>	 <p>66-82545 Solenoid Coil - 24V For: Denso 4.5kw 5.5kw G/R Starters Note: Right Side: Single Wire Center : Double Wire</p>	
 <p>66-82543 Solenoid Coil - 24V For: Denso 4.5kw 5.5kw G/R Starters Note: Right Side : Single Wire Left Side : Double Wire Note: For 12Volt, please use 66-82525</p>		
 <p>66-82544 Solenoid Coil - 24V For: Denso 4.5kw 5.5kw G/R Starters Note: Right Side: Double Wire Center : Single Wire Note: For 12Volt, please use 66-82538</p>		

Solenoid Parts (66-)





Contact	Contact	Contact
 <p>66-82509 Copper Contact - Motor, Battery For: Denso 2.5kw-5.5kw G/R Starters DIM: 10mm Hole Replaces: 053660-0443</p>	 <p>66-82512 Copper Contact-Battery For: Denso 2.5kw, 4.5kw G/R Starters DIM: 10mm Hole Note: Similar with 66-82509 but increase contact area, heavy duty use</p>	 <p>66-82515 Contact For: Denso 3.0kw, 5.5kw G/R Starters DIM: 12mm Hole Note: Similar with 66-82510 but 66-82510 is 10mm Hole</p>
 <p>66-82510 Copper Contact-Battery For: Denso 2.5kw-2.7kw G/R Starters DIM: 10mm Hole Replaces: 16658, 17301, 17302, 17304, 17362 Note: Used with 66-82509 Similar with 66-82515 but 66-82515 is 12mm Hole</p>	 <p>66-82513 Contact For: Denso 3.0kw, 5.5kw G/R Starters DIM: 12mm Hole Note: Similar with 66-82509 but 66-82509 is 10mm Hole</p>	 <p>66-82536 Contact For: Denso 3.0kw, 5.5kw G/R Starters DIM: 12mm Hole Replaces: 053513-779 Lester: 16824, 16830, 17215, 17548, 16881 Note: Similar with 66-82510 but 66-82510 is 10mm Hole</p>
 <p>66-82511 Copper Contact-Battery For: Denso 3.0kw, 5.5kw G/R Starters DIM: 10mm Hole Replaces: Note: Copper Contact w/Silver Alloy for Longer Life</p>	 <p>66-82514 Contact-Motor For: Denso 2.5kw, 4.5kw G/R Starters DIM: 10mm Hole Note: Similar with 66-82510 but Contact have different direction</p>	 <p>66-82547 Contact For: Denso 3.0kw, 5.5kw G/R Starters DIM: 12.2mm x 14.1mm Oval Hole Note: Used w/72-82512 Insulator (EXT). Used w/84-82520 M12 Battery Post. (ND Kit# 128099-5371)</p>

Contact	Insulator	Miscellaneous
 <p>66-82548 Contact For: Denso 2.5kw, 2.7kw G/R Starters DIM: 10mm Oval Hole Lester: 17462 Note: Used w/72-82513 Insulator (EXT). Ref 66-82777</p>	 <p>66-82144 Insulator Paper -Battery Terminal For: Denso 5.5kw G/R Starters DIM: Width: 28 mm Length: 33 mm ID: 14 mm</p>	 <p>66-82148 Rubber Gasket -Solenoid Coil For: Denso 2.5kw - 5.5kw G/R Starters DIM: 25mm ID x 38mm OD, 1.9mm Thickness</p>
 <p>66-82532H Movable Contact For: Denso 2.5kw, 3.0kw, 4.5kw G/R Starters DIM: OD : 39.8mm</p>	 <p>66-82147 Insulator Paper -Battery Terminal For: Denso 2.5kw G/R Starters DIM: Width: 40 mm Length: 48 mm ID: 13 mm Lester: 16658,16824,16830</p>	 <p>66-82108 Contact-Relay Terminal For: Denso 2.5kw - 5.5kw G/R Starters DIM: 4mm Hole Note: Used w/76-82101 Relay Terminal</p>

Solenoid Parts (66-)

Miscellaneous	Miscellaneous	Miscellaneous
 <p>66-82501 End Cover-Solenoid Switch For: Denso 2.5kw-5.5kw G/R Starters Replaces: 053505-0290</p>	 <p>66-82504 Bracket For: Denso 2.5kw-5.5kw G/R Starters Replaces: 053404-0240</p>	 <p>66-82508H Back Plate For: Denso 2.5kw-5.5kw G/R Starters</p>
 <p>66-82502 Gasket For: Denso 2.5kw-5.5kw G/R Starters Replaces: 053404-0240 Note: Rubber</p>	 <p>66-82505 Bobbin For: Denso 2.5kw, 3.0kw, 4.5kw G/R Starters Note: Used w/66-82527 Sleeve</p>	 <p>66-82527 Sleeve-Coil For: Denso G/R Starters DIM: OAL 41.5mm OD : 22mm Note: Used w/66-82505 Bobbin</p>
 <p>66-82503 Insulator-Solenoid For: Denso 2.5kw-5.5kw G/R Starters Note: Thickness 1.6mm</p>	 <p>66-82507 Contact & Plunger For: Denso 2.5kw-5.5kw G/R Starters DIM: 119mmOAL, 39.8mmOD Replaces: 053660-0443 Note: Fit with 66-82532H</p>	 <p>66-82533 Repair Retainer-Plunger For: Denso G/R Starters DIM: 5mm Hole Note: Use with 84-82519</p>

Solenoid Parts (66-, 69, 76-)

Miscellaneous	Miscellaneous	Miscellaneous
 <p>66-82534 Insulator-Solenoid For: Denso 2.5kw, 3.0kw, 4.5kw G/R Starters DIM: 1.6mm Thickness Note: Similar to 66-82535 but 66-82535 is 1.8mm</p>		 <p>69-82501 Return Spring-Plunger For: Denso 1.4kw - 5.5kw G/R Starters DIM: 72mm L Replaces: 949170-4070</p>
 <p>66-82535 Insulator-Solenoid For: Denso 2.5kw, 3.0kw, 4.5kw G/R Starters DIM: 1.8mm Thickness Note: Similar to 66-82534 but 66-82534 is 1.6mm</p>		 <p>76-82182 Ball-Plunger For: Denso 1.0kw - 5.5kw G/R Starters DIM: 8.7mm Dia. Replaces: 128961-0010, 949120-0240</p>




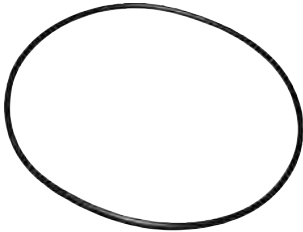




Brush Parts (68-)

Brush Holder Assy. & Parts (69-)

Brush	Brush Holder	Brush Holder Spring
 <p>68-82007 Brush-Field For: Denso 2.5kw, 4.5kw G/R Starters Replaces: 028099-3560, 028099-3570 Lester: 16494, 16824, 16896, 16897, 16967, 16990, 17198, 17286, 17302, 17313, 17362, 17362A, 17376, 17380, 17399, 17418, 17462, 17548, 17609, 17892, 18138, 18181, 18190, 18507, 18548, 18559, 18560, 18936, 19168, 19553, 19614, 19618, 19748, 19789, 19806, 19857, 19905, 19924...etc</p>	 <p>69-82502 Brush Holder Assembly, CW For: Denso 2.5kw, 4.5kw G/R Starters Replaces: 028510-0500 Lester: 16614, 16651, 16656, 16656, 16658, 16824, 16830, 16882, 16896, 16897, 16967, 16981, 16990, 16990, 16990, 16990, 16990, 16990, 16990, 16990, 16990, 16990, 17198, 17283, 17286, 17290, 17292, 17292, 17292, 17301, 17302, 17302, 17304, 17311, 17311, 17313, 17348, 17357, 17359, 17362, 17362A...etc</p>	 <p>69-82503 Spring-Brush For: Denso 2.5kw, 4.5kw G/R Starters Note: Use in 69-82502</p>
 <p>68-82016 Brush-Ground For: Denso 3.0kw, 5.5kw, 7.5kw G/R Starters Replaces: 028530-1100 Lester: 10913, 16881, 17199, 17215, 17306, 17391, 17600, 17611, 17614, 17615, 17616, 17802, 17818, 18007, 18018, 18136, 18155, 18156, 18342, 18406, 18407, 18408, 18454, 18455, 18457, 18458, 18500, 18508, 18509, 18517, 18535, 18554, 18566, 18568, 18935, 18978, 18989, 18993, 18994...etc</p>	 <p>69-82505 Brush Holder Assembly, CW For: Denso 3.0kw, 5.5kw G/R Starters Replaces: 028510-0880 Lester: 10913, 16881, 17199, 17215, 17306, 17306, 17391, 17600, 17600, 17600, 17600, 17600, 17611, 17614, 17615, 17616, 17802, 17818, 18007, 18018, 18018, 18136, 18155, 18156, 18342, 18406, 18408, 18454, 18455, 18457, 18458, 18508, 18509, 18517, 18535, 18566, 18568, 18935, 18978, 18989...etc</p>	 <p>69-82506 Spring-Brush For: Denso 3.0kw, 5.5kw G/R Starters Note: Use in 69-82505</p>
 <p>68-82017 Brush-Field For: Denso 3.0kw, 5.5kw, 7.5kw G/R Starters Replaces: 028530-1090 Lester: 10913, 16881, 17199, 17215, 17306, 17391, 17600, 17611, 17614, 17615, 17616, 17802, 17818, 18007, 18018, 18136, 18155, 18156, 18342, 18406, 18407, 18408, 18454, 18455, 18457, 18458, 18500, 18508, 18509, 18517, 18535, 18554, 18566, 18568, 18935, 18978, 18989, 18993, 18994...etc</p>	 <p>69-82507 Brush Holder Assembly, CCW For: Denso 4.0kw G/R Starters Replaces: 228000-700, 228000-818 Lester: 18407, 18500</p>	

Drain Tube	Grommet	Boot
 <p>71-82117 Drain Tube-C.E. Frame For: Denso 2.5kw-5.5kw G/R Starters Replaces: 028062-5790, 028062-6240, 028065-0010, 028065-0290 Note: For 2.2 mm Wall Thickness Ref: 71-82312</p>	 <p>71-82151 Grommet For: Denso 3.0kw-7.8kw G/R Starters DIM: 7.25mm hole ID, 48mm tube L Lester: 16600, 16657, 16696, 16737, 16790, 16800, 16802, 16823, 16829, 16834, 16835, 16837, 16839, 16884, 16905, 16906, 16978, 16979, 17002, 17003, 17020, 17083, 17084, 17091, 17117, 17125, 17129, 17169, 17255, 17256, 17297, 17422, 17494, 17523, 17525, 17619</p>	 <p>71-82503 Motor Lead-Boot For: Denso 2.5kw-5.5kw G/R Starters Replaces: 028062-0130, 028062-0180 Note: Fits motor terminal insulators w/ 30mm OD Ref: 71-82303</p>
 <p>71-82118 Drain Tube-C.E. Frame For: Denso 2.5kw-5.5kw G/R Starters Replaces: 028065-0250 Note: For 5 mm Wall Thickness Ref: 71-82326</p>	 <p>71-82504 Motor Lead-Grommet For: Denso 2.5kw,4.5kw G/R Starters Lester: 16656, 16656, 16658, 16824, 16830, 16830, 16981, 16990, 16990, 16990, 16990, 16990, 17302, 17302, 17362, 17548 Ref: 71-82322</p>	
 <p>71-82120 Drain Tube-C.E. Frame For: Denso 1.2kw, 1.4kw, 3.0kw G/R Starters DIM: 12mm Hole Replaces: 028062-0500, 028062-5150, 028062-5670 Note: For 3.2 mm Wall Thickness Ref: 71-82311</p>		
 <p>71-82502 Drain Tube-C.E. Frame For: Denso 1.4kw, 1.6kw, 2.5kw, 4.5kw G/R Starters Replaces: 028062-0200 Note: For 2 mm Wall Thickness Ref: 71-82302</p>		

Rubber Parts (71-)

O-Ring	Oil Seal	Miscellaneous
 <p>71-82501 O-Ring Battery, Motor Terminal</p> <p>For: Denso 2.5kw-5.5kw G/R Starters DIM: 9.8mmID X 13.8mmOD X 1.9mm W Note: can use 71-82141</p>	 <p>71-82509 Oil Seal-Drive</p> <p>For: Denso 2.5kw, 3.0kw G/R Starters DIM: 15.5mm, 21.5mm OD, 3mm W Replaces: 028901-502 Note: for Wet Clutch use</p>	 <p>71-82125 Plug-Rubber</p> <p>For: DE with Stud hole M12 or Solenoid Housing unused hole. DIM: 9mm Neck size Note: used on 51-82304, 51-82309, 51-82313, 51-82328, 51-82333, 51-82335, 51-82339, 51-82561..</p>
 <p>71-82505 O-Ring-Field Case</p> <p>For: Denso 3.0kw, 5.5kw G/R Starters DIM: 95mm ID x 99mm OD x 2mm W Replaces: 028901-0361</p>	 <p>71-82510 Oil Seal-Drive</p> <p>For: Denso 4.0kw, 5.5kw G/R Starters DIM: 12.5mm ID, 15.5mm OD, 1.8mm W Note: for R4, R5 unit use.</p>	 <p>71-82511 Gasket-Insulator</p> <p>For: Denso 4.0kw, 5.5kw G/R Starters DIM: 25.3mm ID, 29.5mm OD, 1.5mm W Note: for R4, R5 unit use.</p>
 <p>71-82506 O-Ring-D.E. Housing</p> <p>For: Denso 2.5kw-5.5kw G/R Starters DIM: 48mm ID x 53mm OD x 2.5mm W Replaces: 028901-5190, 908012-0470</p>		
 <p>71-82507 O-Ring DE to Solenoid HSG</p> <p>For: Denso 2.5kw-5.5kw G/R Starters DIM: 5.2mmID x 9.1mmOD OEM: 128000-5623 Note: can use 71-82129</p>		

Insulator	Insulator	Insulator
		
<p>72-82501 Insulator(Ext) - Terminal For: Denso 2.5kw-4.5kw G/R Starters DIM: 14mm ID x 4.5mm H Lester: 16990, 16990, 17101, 17215, 17286, 17301, 17302, 17306, 17306, 17365, 17374, 17376, 17378, 17379, 17384, 17388, 17390, 17391, 17392, 17392, 17394, 17600, 17600, 17600, 17611, 17612, 17614, 17622, 18018, 18136, 18155, 18181, 18342, 32958 Note: Used w/72-82503 or 72-82504</p>	<p>72-82504 Insulator(Int) - Terminal For: Denso 2.5kw-5.5kw G/R Starters DIM: 10mm ID Lester: 16739, 16739, 16822, 17100, 17189, 17189, 17314, 17360, 17365, 17373, 17387, 17547, 18139, 18139, 18151, 18153, 18154, 18157, 18178, 18275, 19915 Note: Used w/72-82501 or 72-82502</p>	<p>72-82508 Insulator(Ext) - Terminal For: Denso 2.5kw, 3.0kw G/R Starters DIM: 13.4mm ID x 14mm H</p>
		
<p>72-82502 Insulator(Ext) - Terminal For: Denso 2.5kw-5.5kw G/R Starters DIM: 14mm ID x 10 mm H Lester: 16990, 17215, 17286, 17301, 17306, 17376, 17394, 17600, 17611, 18136, 18155, 18181, 19960, 30722 Note: Used w/72-82503 or 72-82504</p>	<p>72-82505 Insulator(Ext) - Terminal For: Denso 2.5kw-5.5kw G/R Starters DIM: 16.3mm ID x 10 mm H Note: Used w/72-82506 Use on M12 Battery Post type</p>	<p>72-82510 Cover-Terminal Extension For: Denso 5.0kw, 8.0kw G/R Starters Replaces: 028062-6650 Lester: 18018, 18457, 18509, 18566, 18567, 19501, 19502, 19503, 19851, 19852, 19904 Note: For R5 and R8, Use with Insulator 72-82511 Connector & Stud 76-82516 Split Lock Washer 85-82018 Nut (2 pieces) 85-82513 Conical Washer 85-82508</p>
		
<p>72-82503H Insulator(Int) - Terminal For: Denso 2.5kw-5.5kw G/R Starters DIM: 10mm ID Lester: 16990, 16990, 17101, 17215, 17286, 17301, 17302, 17306, 17306, 17365, 17374, 17376, 17378, 17379, 17384, 17388, 17390, 17391, 17392, 17392, 17394, 17600, 17600, 17600, 17611, 17612, 17614, 17622, 18018, 18136, 18155, 18181, 18342, 32958 Note: Used w/72-82501 or 72-82502</p>	<p>72-82506 Insulator(Ext) - Terminal For: Denso 2.5kw-5.5kw G/R Starters DIM: 13mm ID Note: Used w/72-82505 Use on M12 Battery Post type</p>	<p>72-82511 Insulator-Terminal Extension For: Denso 5.0kw, 8.0kw G/R Starters Replaces: 028033-5370 Lester: 18018, 18457, 18509, 18566, 18567, 19501, 19502, 19503, 19851, 19852, 19904 Note: For R5 and R8, Use with Cover 72-82510 Connector & Stud 76-82516 Split Lock Washer 85-82018 Nut (2 pieces) 85-82513 Conical Washer 85-82508</p>

Insulator Parts (72-)

Insulator



72-82512

Insulator(Ext) - Terminal










For: Denso 2.5kw, 3.0kw G/R Starters

DIM: 16.2mm ID x 14.1mm H

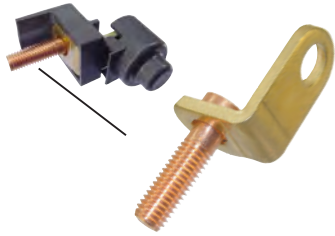
Note: Used on R4 & R5 unit.

Switch Terminal	Switch Terminal	Switch Terminal
 <p>76-82131 Switch Terminal For: Denso 3.0kw G/R Starters DIM: M5 x 0.8 Post : 35mm OAL Replaces: 053404-0240 Lester: 17548, 18509, 19965, 19966</p>	 <p>76-82514 Switch Terminal For: Denso 3.0kw, 4.5kw G/R Starters Replaces: 053480-7560 Lester: 17362A, 17630, 17703, 18007, 18342, 18343, 18402, 18405, 18408, 18412, 18456, 18510, 18535, 18548, 19097, 19104, 19515, 19873 Note: Fits Hole Size 11.20mm Cap please use 76-82514A</p>	 <p>76-82519 Switch Terminal For: Denso 2.5kw, 4.5kw G/R Starters DIM: M5 x 0.8, 40mm L, 11.2mm Neck OD Replaces: 053480-7590 Lester: 17418, 18505, 18992, 19817, 19961</p>
 <p>76-82502 Switch Terminal For: Denso 2.5kw, 5.5kw G/R Starters DIM: M4 x 0.7, 10.9mm Neck OD Replaces: 053480-011 Lester: 16651, 16656, 16824, 16830, 16881, 16882, 16990, 16990, 16990, 16990, 17198, 17199, 17290, 17302, 17306, 17311, 17311, 17462, 17600, 17600, 17600, 17613, 17614, 17818, 18180, 18181, 18197, 18402, 18407...etc Note: Includes Screw 84-82023</p>	 <p>76-82514A Cap For: Denso 3.0kw, 4.5kw G/R Starters Note: Cap for 76-82514</p>	 <p>76-82520 Switch Terminal For: Denso 3.0kw, 4.0kw, 4.8kw, 7.5kw G/R Starters DIM: M5 x 0.8, 40mm L, 11.2mm Neck OD Replaces: 053480-7990 Lester: 18018, 18454, 18455, 18457, 18458, 18566, 18567, 18568, 18569, 18993, 19847, 19852, 19871, 19872</p>
 <p>76-82511 Switch Terminal For: Denso 2.5kw, 3.0kw, 4.5kw G/R Starters DIM: M5 x 0.8 Thread Hole Replaces: 053480-0110 Lester: 16651, 16656, 16824, 16830, 16881, 16882, 16990, 17198, 17199, 17290, 17302, 17306, 17311, 17462, 17600, 17613, 17614, 17818, 18180, 18181, 18197, 18402, 18407, 18424, 18506, 18508, 18559, 18935, 19168...etc Note: Includes Screw 84-82141</p>	 <p>76-82515 Switch Terminal For: Denso 2.7kw, 3.0kw G/R Starters Replaces: 053480-7901 Lester: 17892, 18500</p>	

Misc Parts (76-)

Miscellaneous	Miscellaneous	Miscellaneous
 <p>76-82101 Relay Terminal For: Denso G/R Starters DIM: M4 x 0.7 Threaded Hole 9mm Neck OD Replaces: 053480-0270, 053480-0271 Lester: 16248, 16251, 16578, 16585, 16760, 17199, 17385, 17393 Note: Used w/66-82108 Relay Contact. Ref: 76-82551</p>	 <p>76-82505 Roller-Plastic Retainer For: Denso 2.5kw - 5.5kwG/R Starters DIM: 15mm ID x 40mm OD 0.52mm Thickness</p>	 <p>76-82510 Retainer Ring For: Denso 2.5kw, 5.5kw G/R Starters DIM: 13mm ID x 16.2mm OD 1.6mm Wire Dia.</p>
 <p>76-82501 Connector-Motor For: Denso 2.5kw/3.0kw G/R Starters DIM: 10.30mm ID, 0.6mm Thickness</p>	 <p>76-82506 Roller-Plastic Retainer For: Denso 2.5kw - 5.5kwG/R Starters DIM: 28.7mm OD x 16.5mm L</p>	 <p>76-82512 Retaining Ring -Starter Drive For: Denso 2.5kw - 5.5kw G/R Starters DIM: 8.75mm ID x 12mm OD 1.6mm Wire Dia. Note: Used with 54-82853 Spring-Pinion Gear 54-82854 Retainer 76-82513 Stop Collar</p>
 <p>76-82503 Connector Wire For: Denso 3.0kw,4.0kw, 4.8kw, 7.5kw G/R Starters DIM: M5 x 0.8, 40mm L, 11.2mm Neck OD Replaces: 053680-0922, 053680-0760 Lester: 16830</p>	 <p>76-82507 Connector For: Denso 2.5kw - 5.5kwG/R Starters</p>	 <p>76-82513 Stop Collar -Starter Drive For: Denso 2.5kw - 5.5kw G/R Starters DIM: 11mm ID x 20mm OD x 5.5mm W Note: Used with 54-82853 Spring-Pinion Gear 54-82854 Retainer 76-82512 Retaining Ring</p>

Miscellaneous



76-82516

Connector & Stud

For: Denso 3.0kw - 7.5kw G/R Starters

DIM: M5 x 0.8, 40mm L, 11.2mm Neck OD

Replaces: 028008-5490, 128950-0500

Lester: 18018, 18454, 18455, 18457, 18458,
18566, 18567, 18568, 18569, 18993,
19847, 19852, 19871, 19872

Note: For R5 and R8, Use with

Cover 72-82510












Insulator 72-82511

Split Lock Washer 85-82018









Nut (2 pieces) 85-82513

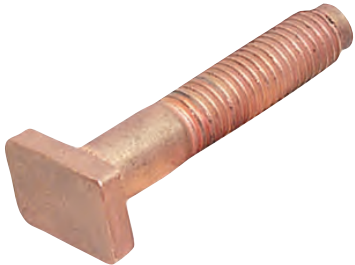
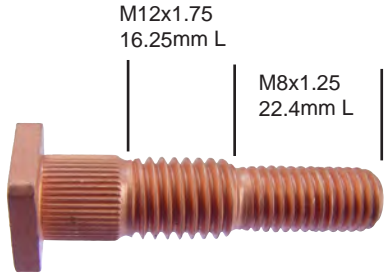
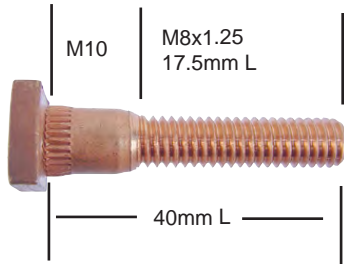
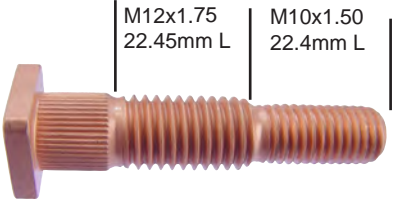
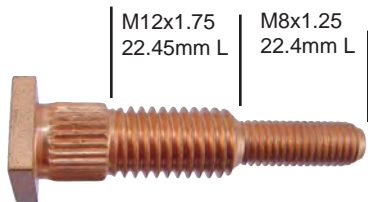

Conical Washer 85-82508

Bolt & Screw (84-)

Screw	Screw	Thru Bolt
 <p>84-82501 Screw Phillips Flat Head For: Denso 2.5kw - 5.5kw G/R Starters DIM: M10 x 1.5 x 12mm L Replaces: Note: Pole Shoe for Field Case</p>	 <p>84-82517 Screw Phillips Flat Head For: Denso 2.5kw - 5.5kw G/R Starters DIM: M10X1.5X10mm, 13.15mm OAL Replaces: Note: Pole Shoe for Field Case</p>	 <p>84-82503 Thru Bolt Hex Washer Head For: Denso 2.5kw, 2.7kw, 4.5kw G/R Starters DIM: M6 x 1.0 x 182mm L Replaces: 128950-0520 Note: CE to DE Plate Ref: 85-1383</p>
 <p>84-82502 Screw Phillips/Slotted Pan Head For: Denso G/R Starters DIM: M6 x 1.0 x 49mm L Replaces: 028099-2520 Note: DE to Solenoid Housing w/O-Ring 71-82507</p>	 <p>84-82141 Screw Phillips/Slotted Pan Head W/Lock washer For: Denso G/R Starters DIM: M5 x 0.8 x 9.3mm L Replaces: Note: for Brush Holder use</p>	 <p>84-82145 Thru Bolt Socket Head W/ Flat Washer For: Denso 2.5kw, 4.5kw G/R Starters DIM: M6 x 1.0 x 75.5mm L Replaces: Note: DE to Solenoid Housing</p>
 <p>84-82504 Screw Phillips/Slotted Pan Head W/Lock washer For: Denso G/R Starters DIM: M5 x 0.8 x 12.4mm L Dog Point: 2mm Replaces: Note: for Brush Holder use</p>	 <p>84-82118 Screw Phillips Hex Head W/Split Lock Washer For: Denso 2.5kw - 7.8kw G/R Starters DIM: M5 x 0.8 x 14mm L Drive: 8mm Replaces: Note: Used on Solenoid Cover (3 pcs per Cover), also used on ND OSGR 1.0kw Steel type and Gold Case type.</p>	 <p>84-82521 Thru Bolt Hex Washer Head For: Denso 3.0kw, 5.5kw, 7.5kw G/R Starters DIM: M7 x 1.0 x 205mm L Replaces: Note: DE to CE Plate (long)</p>
 <p>84-82507 Screw Phillips/Slotted Pan Head W/Lock Washer For: Denso 2.5kw, 4.5kw G/R Starters DIM: M5 x 0.8 x 14mm L Replaces: Note:</p>		 <p>84-82522 Thru Bolt Hex Washer Head For: Denso 3.0kw, 5.5kw, 7.5kw G/R Starters DIM: M7 x 1.0 x 143.5mm L Replaces: Note: DE to CE Plate (short)</p>

Terminal Post (84-)

Terminal Post	Terminal Post	Terminal Post
 <p>84-82505 Terminal Post-Battery Copper For: Denso G/R Starters DIM: M10 x 1.5 x 40mm L OD : 10.7mm Knurl OAL : 46mm Replaces: 028099-2790, 028099-5080 028099-5090 Note: similar with 84-82515 except 84-82515 material is copper-plated steel</p>	 <p>84-82510 Terminal Post-Battery Copper-Plated Steel For: Denso G/R Starters DIM: 3/8 x 16UNC x 32.5mm L OD : 10.7mm Knurl OAL : 36.5mm Replaces: 028099-3200, 028099-3010, 028099-3580, 028099-3190 Note:</p>	 <p>84-82515 Terminal Post-Battery Copper-Plated Steel For: Denso G/R Starters DIM: M10 x 1.5 x 40mm L OD : 10.7mm Knurl OAL : 46mm Replaces: Lester: 16824, 16830, 16881, 17215, 17548 Note: similar with 84-82505 except 84-82505 material is sopper</p>
 <p>84-82506 Terminal Post-Motor Copper For: Denso 2.5kw, 4.5kw G/R Starters DIM: M10 x 1.5 x 30mm L OD : 10.7mm OAL : 33mm Replaces: 028099-3170, 028099-3160, 028099-5100 Note: Similar with 84-82516 except 84-82516 material is copper-plated Steel</p>	 <p>84-82511 Terminal Post-Battery Copper-Plated Steel For: Denso G/R Starters DIM: M10 x 1.5mm x 35mm L OD : 10.7mm Knurl OAL : 39.8mm Replaces: 028099-3190, 028099-2690, 028099-5070, 028099-5620, 028099-5620 Note:</p>	 <p>84-82516 Terminal Post-Battery Copper-Plated Steel For: Denso G/R Starters DIM: M10 x 1.5 x 30mm L OD : 10.7mm Knurl OAL : 33mm Replaces: Lester: 16824, 16830, 16881, 17215, 17548 Note: similar with 84-82506 except 84-82506 material is sopper</p>
 <p>84-82509-1 Terminal Post-Battery Copper For: Denso 3.0kw, 5.5kw G/R Starters DIM: M12 x 1.75 x 48mm L OD : 13.3mm Knurl OAL : 53mm Replaces: 028099-6320 Note:</p>	 <p>84-82512 Terminal Post-Battery Copper For: Denso G/R Starters DIM: 3/8 x 16UNC x 35mm L OD : 10.7mm Knurl OAL : 39mm Replaces: 028099-3580, 028099-5620 Note:</p>	

Terminal Post	Terminal Post	Terminal Post
 <p>84-82520 Terminal Post-Battery Copper-Plated Steel For: Denso G/R Starters DIM: M12 x 1.75 x 57mm L Note:</p>	 <p>M12x1.75 16.25mm L M8x1.25 22.4mm L</p> <p>84-82520-2 Terminal Post-Battery Copper-Plated Steel For: Denso G/R Starters DIM: M12 x 1.75 x 16.25mm L M8 x 1.25 x 22.40mm L OAL : 59.25mm Note: This is a special designed for after market use. w/M12 Hole, this is most for convert from M12 to M8.</p>	 <p>M10 M8x1.25 17.5mm L 40mm L</p> <p>84-82526 Terminal Post-Battery Copper-Plated Steel For: Denso G/R Starters DIM: 10mm x 22.50mm L M8 x 1.25 x 17.5mm L OAL : 44.65mm Note: Used on Solenoid Housing w/M10 Hole, this is most for convert from M10 to M8.</p>
 <p>M12x1.75 22.45mm L M10x1.50 22.4mm L</p> <p>84-82520-1 Terminal Post-Battery Copper-Plated Steel For: Denso G/R Starters DIM: M12 x 1.75 x 22.45mm L M10 x 1.50 x 22.4mm L OAL : 59.2mm Note: This is a special designed for after market use. w/M12 Hole, this is most for convert from M12 to M10.</p>	 <p>M12x1.75 22.45mm L M8x1.25 22.4mm L</p> <p>84-82520-3 Terminal Post-Battery Copper-Plated Steel For: Denso G/R Starters DIM: M12 x 1.75 x 22.45mm L M8 x 1.25 x 22.40mm L OAL : 59.25mm Note: This is a special designed for after market use. w/M12 Hole, this is most for convert from M12 to M8.</p>	 <p>84-82527 Terminal Post-Battery Copper-Plated Steel For: Denso 3.0kw, 5.5kw G/R Starters DIM: M12 x 1.75 53mm L Note:</p>

Nut & Washer (85-)

Nut & Washer	Nut & Washer	Nut & Washer
 <p>85-82501 Hex Nut Steel For: Denso G/R Starters DIM: M10 x 1.5 x 6mm W Drive: 17mm Replaces:</p>	 <p>85-82504 Hex Nut Steel For: Denso 2.5kw G/R Starters DIM: 3/8-16 UNC x 12mm W Drive: 17mm Replaces:</p>	 <p>85-82508 Curve Washer For: Denso 3.0kw, 5.5kw G/R Starters DIM: 12.4mm ID x 22.0mm OD x 1.0mm W Replaces:</p>
 <p>85-82502 Curve Washer For: Denso G/R Starters DIM: 10.4mm ID x 20.0mm OD x 1.0mm W Replaces: 949017-1290</p>	 <p>85-82505 Hex Nut Brass For: Denso 2.5kw G/R Starters DIM: 3/8-16 UNC x 12mm W Drive: 17mm Replaces:</p>	 <p>85-82509 Hex Nut Steel For: Denso 2.5kw G/R Starters DIM: M10 x 1.5 x 12mm W Replaces:</p>
 <p>85-82503 Split Washer For: Denso G/R Starters DIM: 10.4mm ID x 16.5mm OD x 2.0mm W Replaces:</p>	 <p>85-82507 Hex Nut Brass For: Denso G/R Starters DIM: 3/8-16 UNC x 6mm W Drive: 17mm Replaces:</p>	

Nut & Washer	Nut & Washer	
 <p>85-82511 Washer For: Denso G/R Starters DIM: 6.2mm ID x 14.85mm OD x 2.65mm W Replaces: 949011-5700 Note:</p>	 <p>85-82018 Split Lock Washer For: Denso G/R Starters DIM: 12.5mm ID x 21mm OD x 3.25mm W Drive: Replaces: Note: used w/B+ or Ground M12 Bolt</p>	
 <p>85-82512 Washer For: Denso G/R Starters DIM: 6.5mm ID x 12.6mm OD x 1.0mm W Replaces: 90200-06241 Note: Flat Washer for 84-82502 Thru Bolt</p>	 <p>85-82020 Hex Nut Steel For: Denso G/R Starters DIM: M12 x 1.75 x 7mm W Drive: 19mm Replaces: Note:</p>	
 <p>85-82513-1 Hex Nut Steel, Yellow Zinc For: Denso G/R Starters DIM: M12 x 1.75 x 12mmW Drive: 17mm Replaces: Note:</p>		

CROSS REFERENCE

Lester	DE	Solenoid Switch	Drive	Pinion Gear
16614	51-82520	66-82622	54-8525	54-82525
16651	51-82563	66-82611	54-8527	54-82540
16656	51-82510	66-82618	54-8529	54-82531
16658	51-82501	66-82613	54-8521	54-82521
16824	51-82579	66-82617	54-8525	54-82522
16830	51-82505	66-82611	54-8525	54-82525
16881	51-82301	66-82632	54-8525	54-82525
16882	51-82581	66-82617	54-8525	54-82525
16896	51-82518	66-82622	54-8525	54-82525
16897	51-82513	66-82622	54-8525	54-82525
16898	51-82506	66-82616	54-8525	54-82525
16967	51-82513	66-82622	54-8525	54-82525
16981	51-82517	66-82616	54-8522	54-82522
16990	51-82503	66-82611	54-8521	54-82521
17198	51-82502	66-82617	54-8522	54-82522
17199	51-82308	66-82639	54-8522	54-82522
17215	51-82305	66-82632	54-8521	54-82521
17250	51-82334	66-82640	54-8522	54-82522
17283	51-82518	66-82622	54-8525	54-82525
17286	51-82508	66-82614	54-8525	54-82525
17290	51-82520	66-82611	54-8525	54-82525
17292	51-82549	66-82611	54-8525	54-82525
17301	51-82511	66-82616	54-8525	54-82525
17302	51-82511	66-82616	54-8525	54-82525
17304	51-82519	66-82611	54-8525	54-82525
17306	51-82306	66-82632	54-8525	54-82525
17311	51-82520	66-82611	54-8525	54-82525
17313	51-82576	66-82614	54-8525	54-82525
17348	51-82557	66-82611	54-8522	54-82522
17357	51-82566	66-82617	54-8527	54-82540
17359	51-82572	66-82617	54-8527	54-82540
17362	51-82504	66-82613	54-8532	54-82524
17362A	51-82564	66-82613	54-8526	54-82544
17376	51-82560	66-82614	54-8525	54-82525
17377	51-82510	66-82611	54-8532	54-82523
17380	51-82547	66-82611	54-8522	54-82522
17385	51-82556	66-82624	54-8522	54-82522
17388	51-82517	66-82644	54-8522	54-82522
17390	51-82503	66-82611	54-8521	54-82521
17391	51-82308	66-82631	54-8522	54-82522
17393	51-82556	66-82624	54-8522	54-82522
17394	51-82503	66-82611	54-8521	54-82521
17399	51-82502	66-82618	54-8522	54-82522
17418	51-82529	66-82657	54-8522	54-82522
17458	51-82502	66-82618	54-8522	54-82522
17462	51-82530	66-82624	54-8525	54-82525
17548	51-82502	66-82620	54-8521	54-82521
17589	51-82502	66-82617	54-8522	54-82522
17600	51-82302	66-82632	54-8521	54-82521
17609	51-82573	66-82614	54-8522	54-82522
17611	51-82308	66-82632	54-8522	54-82522
17613	51-82558	66-82624	54-8522	54-82522
17614	51-82308	66-82632	54-8522	54-82522
17615	51-82304	NA	54-8522	54-82522
17616	51-82304	66-82637	54-8522	54-82522
17630	51-82502	66-82618	54-8522	54-82522
17631	51-82528	66-82662	54-8522	54-82522
17636	51-82313			
17802	51-82340	66-82635	54-8521	54-82521
17818		66-82635	54-8521	54-82521

Lester	DE	Solenoid Switch	Drive	Pinion Gear
17892	51-82502	66-82615	54-8521	54-82521
18007	51-82308	66-82631	54-8522	54-82522
18018	51-82334	66-82648	54-8525	54-82525
18136	51-82309	66-82635	54-8525	54-82525
18137	51-82558	66-82611	54-8522	54-82522
18138	51-82558	66-82653	54-8522	54-82522
18150	51-82572	66-82618	54-8527	54-82540
18155	51-82306	66-82631	54-8525	54-82525
18156	51-82306	66-82631	54-8525	54-82525
18180	51-82520	66-82622	54-8525	54-82525
18181	51-82513	66-82614	54-8525	54-82525
18188	51-82514	66-82611	54-8525	54-82525
18189	51-82514	66-82622	54-8525	54-82525
18190	51-82569	66-82622	54-8525	54-82525
18197	51-82535	66-82617	54-8528	54-82520
18342	51-82308	66-82631	54-8522	54-82522
18343	51-82316	66-82638	54-8522	54-82522
18402	51-82503	66-82622	54-8522	54-82522
18405	51-82316	66-82637	54-8522	54-82522
18406	51-82316	66-82638	54-8522	54-82522
18407	51-82347	66-82635	54-8531	
18408	51-82316	66-82638	54-8522	54-82522
18412	51-82313	66-82638	54-8522	54-82522
18424	51-82535	66-82618	54-8528	54-82520
18454	51-82334	66-82647-1	54-8525	54-82525
18455	51-82314	66-82632	54-8525	54-82525
18456	51-82528	66-82644	54-8522	54-82522
18457	51-82335	66-82648	54-8525	54-82525
18458	51-82348	66-82664	54-8525	54-82525
18500	51-82347	66-82661	54-8531	
18503	51-82571	66-82618	54-8525	54-82525
18507	51-82575	66-82617	54-8521	54-82521
18505	51-82529	66-82622	54-8522	54-82522
18506	51-82521	66-82617	54-8521	54-82521
18508	51-82313	66-82638	54-8522	54-82522
18509	51-82316	66-82642	54-8522	54-82522
18510	51-82503	66-82611	54-8522	54-82522
18514	51-82304	66-82632	54-8522	54-82522
18516		66-82635	54-8521	54-82521
18517	51-82328	66-82642	54-8522	54-82522
18534	51-82337	66-82635	54-8522	54-82522
18535	51-82316	66-82637	54-8522	54-82522
18548	51-82503	66-82622	54-8522	54-82522
18554		66-82632	54-8525	54-82525
18558	51-82507	66-82611	54-8525	54-82525
18559	51-82561	66-82611	54-8521	54-82521
18560	51-82502	66-82617	54-8522	54-82522
18566	51-82334	66-82635	54-8525	54-82525
18567	51-82337	66-82648	54-8525	54-82525
18568	51-82337	66-82635	54-8525	54-82525
18569	51-82314	66-82637	54-8525	54-82525
18935	51-82327	66-82646	54-8525	54-82525
18936	51-82561	66-82611	54-8521	54-82521
18978	51-82314	66-82650	54-8525	54-82525
18989	51-82332	66-82638	54-8522	54-82522
18992	51-82559	66-82654	54-8522	54-82522
18993	51-82348	66-82650	54-8525	54-82525
18994	51-82332	66-82638	54-8522	54-82522
18996	51-82339	66-82632	54-8522	54-82522
18997	51-82317	66-82635	54-8522	54-82522

CROSS REFERENCE

OEM	DE	Solenoid Switch	Drive	Pinion Gear
028000-5000	51-82563	66-82611	54-8527	54-82540
028000-5001	51-82563	66-82611	54-8527	54-82540
028000-5002	51-82563	66-82611	54-8527	54-82540
028000-5003	51-82563	66-82611	54-8527	54-82540
028000-5004	51-82563	66-82611	54-8527	54-82540
028000-5300	51-82508	66-82614	54-8525	54-82525
028000-5301	51-82508	66-82614	54-8525	54-82525
028000-5490	51-82511	66-82616	54-8525	54-82525
028000-5492	51-82511	66-82616	54-8525	54-82525
028000-5510	51-82550	66-82622	54-8525	54-82525
028000-5520	51-82554	66-82617	54-8525	54-82525
028000-5540	51-82513	66-82622	54-8525	54-82525
028000-5550	51-82513	66-82622		
028000-5551	51-82513	66-82622		
028000-5552	51-82513	66-82622		
028000-5553	51-82513	66-82622		
028000-5560		66-82611	54-8525	54-82525
028000-5580	51-82505	66-82611	54-8525	54-82525
028000-5581	51-82505	66-82611	54-8525	54-82525
028000-5660	51-82510	66-82618	54-8529	54-82531
028000-5661	51-82510	66-82618	54-8529	54-82531
028000-5662	51-82510	66-82618	54-8529	54-82531
028000-5860	51-82520	66-82622	54-8525	54-82525
028000-5861	51-82520	66-82622	54-8525	54-82525
028000-5862	51-82520	66-82622	54-8525	54-82525
028000-5864	51-82520	66-82622	54-8525	54-82525
028000-5880	51-82501	66-82613	54-8521	54-82521
028000-5881	51-82501	66-82613	54-8521	54-82521
028000-5882	51-82501	66-82613	54-8521	54-82521
028000-5883	51-82501	66-82613	54-8521	54-82521
028000-5884	51-82501	66-82613	54-8521	54-82521
028000-6010	51-82520	66-82622	54-8525	54-82525
028000-6012	51-82520	66-82622	54-8525	54-82525
028000-6060	51-82509	66-82611		54-82528
028000-6061	51-82509	66-82611		54-82528
028000-6062	51-82509	66-82611		54-82528
028000-6063	51-82509	66-82611		54-82528
028000-6200	51-82569	66-82622	54-8525	54-82525
028000-6202	51-82569	66-82622	54-8525	54-82525
028000-6210	51-82581	66-82617	54-8525	54-82525
028000-6290	51-82512	66-82617	54-8525	54-82525
028000-6291	51-82512	66-82617	54-8525	54-82525
028000-6310	51-82550	66-82622	0	54-82525
028000-6340	51-82576	66-82614	54-8525	54-82525
028000-6410	51-82510	66-82611	54-8532	54-82523
028000-6412	51-82510	66-82611	54-8532	54-82523
028000-6640	51-82519	66-82611	54-8525	54-82525
028000-6780	51-82557	66-82611	54-8522	54-82522
028000-6781	51-82557	66-82611	54-8522	54-82522
028000-6782	51-82557	66-82611	54-8522	54-82522
028000-6860	51-82505	66-82611	54-8525	54-82525
028000-6870	51-82505			
028000-6871	51-82505			
028000-6872	51-82505			
028000-6880	51-82505	66-82611	54-8525	54-82525
028000-6881	51-82505	66-82611	54-8525	54-82525
028000-6882	51-82505	66-82611	54-8525	54-82525
028000-6891	51-82505	66-82611		
028000-6892	51-82505	66-82611		
028000-6893	51-82505	66-82611		

OEM	DE	Solenoid Switch	Drive	Pinion Gear
028000-7240	51-82518	66-82622	54-8525	54-82525
028000-7241	51-82518	66-82622	54-8525	54-82525
028000-7242	51-82518	66-82622	54-8525	54-82525
028000-7450	51-82518	66-82622	54-8525	54-82525
028000-7451	51-82518	66-82622	54-8525	54-82525
028000-7453	51-82518	66-82622	54-8525	54-82525
028000-7540	51-82566	66-82617	54-8527	54-82540
028000-7541	51-82566	66-82617	54-8527	54-82540
028000-7542	51-82566	66-82617	54-8527	54-82540
028000-7543	51-82566	66-82617	54-8527	54-82540
028000-7730	51-82572	66-82617	54-8527	54-82540
028000-7731	51-82572	66-82617	54-8527	54-82540
028000-7732	51-82572	66-82617	54-8527	54-82540
028000-7733	51-82572	66-82617	54-8527	54-82540
028000-7800	51-82522	66-82617	54-8525	54-82525
028000-7801	51-82522	66-82617	54-8525	54-82525
028000-7802	51-82522	66-82617	54-8525	54-82525
028000-7803	51-82522	66-82617	54-8525	54-82525
028000-7810	51-82518	66-82622	54-8525	54-82525
028000-7811	51-82518	66-82622	54-8525	54-82525
028000-7812	51-82518	66-82622	54-8525	54-82525
028000-7840	51-82513	66-82622	54-8525	54-82525
028000-7841	51-82513	66-82622	54-8525	54-82525
028000-8070	51-82505	66-82611	54-8525	54-82525
028000-8071	51-82505	66-82611	54-8525	54-82525
028000-8072	51-82505	66-82611	54-8525	54-82525
028000-8073	51-82505	66-82611	54-8525	54-82525
028000-8400	51-82504	66-82613	54-8532	54-82524
028000-8401	51-82504	66-82613	54-8532	54-82524
028000-8630	51-82581	66-82617	54-8525	54-82525
028000-8840	51-82563		54-8525	54-82525
028000-8841	51-82563		54-8525	54-82525
028000-8843	51-82563		54-8525	54-82525
028000-9040	51-82577	66-82624	54-8525	54-82525
028000-9140		66-82614	54-8525	54-82525
028000-9330	51-82554	66-82614		
028000-9331	51-82554	66-82614		
028000-9760	51-82549	66-82622	54-8525	54-82525
028000-9770	51-82549	66-82611	54-8525	54-82525
028000-9771	51-82549	66-82611	54-8525	54-82525
028000-9774	51-82549	66-82611	54-8525	54-82525
128000-0490	51-82301	66-82632	54-8525	54-82525
128000-0491	51-82301	66-82632	54-8525	54-82525
128000-0492	51-82301	66-82632	54-8525	54-82525
128000-0494	51-82301	66-82632	54-8525	54-82525
128000-0550	51-82579	66-82617	54-8525	54-82522
128000-0560	51-82579	66-82617		
128000-0562	51-82579	66-82617		
128000-0790	51-82510	66-82617	54-8529	54-82531
128000-0791	51-82510	66-82617	54-8529	54-82531
128000-0792	51-82510	66-82617	54-8529	54-82531
128000-0793	51-82510	66-82617	54-8529	54-82531
128000-0970	51-82520	66-82611	54-8525	54-82525
128000-0971	51-82520	66-82611	54-8525	54-82525
128000-0972	51-82520	66-82611	54-8525	54-82525
128000-0973	51-82520	66-82611	54-8525	54-82525
128000-0974	51-82520	66-82611	54-8525	54-82525
128000-1010	51-82560	66-82614	54-8525	54-82525
128000-1011	51-82560	66-82614	54-8525	54-82525
128000-1012	51-82560	66-82614	54-8525	54-82525

CROSS REFERENCE

OEM	DE	Solenoid Switch	Drive	Pinion Gear
128000-1060	51-82547	66-82611	54-8522	54-82522
128000-1061	51-82547	66-82611	54-8522	54-82522
128000-1062	51-82547	66-82611	54-8522	54-82522
128000-1560	51-82577	66-82624	54-8525	54-82525
128000-1561	51-82577	66-82624	54-8525	54-82525
128000-1562	51-82577	66-82624	54-8525	54-82525
128000-1564	51-82577	66-82624	54-8525	54-82525
128000-1565	51-82577	66-82624	54-8525	54-82525
128000-1566	51-82577	66-82624	54-8525	54-82525
128000-1570	51-82577	66-82622	54-8525	54-82525
128000-1780	51-82556	66-82624	54-8522	54-82522
128000-1781	51-82556	66-82624	54-8522	54-82522
128000-1782	51-82556	66-82624	54-8522	54-82522
128000-1790	51-82506	66-82660	54-8525	54-82525
128000-1800	51-82506	66-82616	54-8525	54-82525
128000-1801	51-82506	66-82616	54-8525	54-82525
128000-2250	51-82517	66-82616	54-8522	54-82522
128000-2251	51-82517	66-82616	54-8522	54-82522
128000-2252	51-82517	66-82616	54-8522	54-82522
128000-2253	51-82517	66-82616	54-8522	54-82522
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128000-2740	51-82306	66-82631	54-8525	54-82525
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128000-3032	51-82556	66-82624	54-8522	54-82522
128000-3080	51-82506			
128000-3081	51-82506			
128000-4090	51-82517	66-82644	54-8522	54-82522
128000-4091	51-82517	66-82644	54-8522	54-82522
128000-4092	51-82517	66-82644	54-8522	54-82522
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128000-4972	51-82573	66-82614	54-8522	54-82522
128000-5090	51-82549	66-82611	54-8525	54-82525
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128000-5300	51-82549	66-82611	54-8525	54-82525
128000-5301	51-82549	66-82611	54-8525	54-82525
128000-5303	51-82549	66-82611	54-8525	54-82525

OEM	DE	Solenoid Switch	Drive	Pinion Gear
128000-5370	51-82308	66-82632	54-8522	54-82522
128000-5371	51-82308	66-82632	54-8522	54-82522
128000-5372	51-82308	66-82632	54-8522	54-82522
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128000-5602	51-82558	66-82624	54-8522	54-82522
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128000-6922	51-82514	66-82622	54-8525	54-82525
128000-7040	51-82517	66-82644		
128000-7041	51-82517	66-82644		
128000-7042	51-82517	66-82644		
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128000-7601	51-82526	66-82614	54-8525	54-82525
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128000-9610	51-82502	66-82617	54-8522	54-82522
128000-9820	51-82313			
128000-9821	51-82313			
128000-9960	51-52512	66-82617	54-8530	54-82527
128000-9962	51-52512	66-82617	54-8530	54-82527
128000-9970	51-82570	66-82617	54-8530	54-82527

CROSS REFERENCE

OEM	DE	Solenoid Switch	Drive	Pinion Gear
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128000-9972	51-82570	66-82617	54-8530	54-82527
228000-0840	51-82528	66-82644	54-8522	54-82522
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228000-0843	51-82528	66-82644	54-8522	54-82522
228000-0844	51-82528	66-82644	54-8522	54-82522
228000-1190	51-82558	66-82611	54-8522	54-82522
228000-1600	51-82535		54-8528	54-82520
228000-1601	51-82535		54-8528	54-82520
228000-1610	51-82535	66-82617	54-8528	54-82520
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228000-6571	51-82314	66-82637	54-8525	54-82525
228000-6572	51-82314	66-82637	54-8525	54-82525
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228000-7011	51-82348	66-82664	54-8525	54-82525
228000-7012	51-82348	66-82664	54-8525	54-82525
228000-7280	51-82339	66-82632	54-8521	54-82521
228000-7281	51-82339	66-82632	54-8521	54-82521
228000-7290	51-82339	66-82632	54-8521	54-82521

OEM	DE	Solenoid Switch	Drive	Pinion Gear
228000-7291	51-82339	66-82632	54-8521	54-82521
228000-7300	51-82575	66-82617	54-8521	54-82521
228000-7301	51-82575	66-82617	54-8521	54-82521
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428000-0191	51-82503	66-82611	54-8521	54-82521
428000-0310	51-82571	66-82618	54-8525	54-82525
428000-1190	51-82502	66-82615	54-8521	54-82521
428000-1340	51-82313	66-82637	54-8522	54-82522
428000-1600	51-82561	66-82611	54-8521	54-82521
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428000-1690	51-82568	66-82666	54-8522	54-82522
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428000-2500	51-82502	66-82620	54-8525	54-82525
428000-2501	51-82502	66-82620	54-8525	54-82525
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428000-2510	51-82341	66-82641	54-8525	54-82525
428000-2511	51-82341	66-82641	54-8525	54-82525
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428000-2860	51-82339	66-82632	54-8522	54-82522
428000-2880	51-82339	66-82632	54-8522	54-82522
428000-5940	51-82502	66-82615	54-8521	54-82521

CROSS REFERENCE

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51-82304	8	51-82549	4	54-82523	34	66-82504	44	66-82645-1	26	76-82182	45				
51-82305	8	51-82550	4	54-82524	34	66-82505	44	66-82646	30	76-82501	52				
51-82306	8	51-82551	4	54-82525	34	66-82506	40	66-82646-1	30	76-82502	51				
51-82308	8	51-82553	4	54-82526	34	66-82507	44	66-82647	30	76-82503	52				
51-82309	8	51-82554	4	54-82527	34	66-82508H	44	66-82647-1	30	76-82505	52				
51-82313	8	51-82556	4	54-82528	34	66-82509	42	66-82648	26	76-82506	52				
51-82314	8	51-82557	5	54-82529	35	66-82510	42	66-82649	25	76-82507	52				
51-82316	9	51-82558	5	54-82530	35	66-82511	42	66-82650	28	76-82510	52				
51-82317	9	51-82559	5	54-82531	35	66-82512	42	66-82651	27	76-82511	51				
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51-82328	9	51-82562	5	54-82534	35	66-82515	42	66-82654	17	76-82514	51				
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51-82331	9	51-82565	5	54-82540	35	66-82525	40	66-82656	19	76-82515	51				
51-82332	9	51-82566	5	54-82544	35	66-82527	44	66-82657	19	76-82516	53				
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51-82334	10	51-82568	6	54-82552	37	66-82531	40	66-82659	22	76-82520	51				
51-82335	10	51-82569	6	54-82851	36	66-82532H	43	66-82660	22	84-82118	54				
51-82336	10	51-82570	6	54-82852	36	66-82533	44	66-82661	25	84-82141	54				
51-82337	10	51-82571	6	54-82853	36	66-82534	45	66-82662	23	84-82145	54				
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51-82340	10	51-82573	6	54-82855	36	66-82536	42	66-82664	31	84-82502	54				
51-82341	10	51-82574	6	54-82856	36	66-82537	40	66-82666	19	84-82504	54				
51-82342	10	51-82575	6	54-82856-1	36	66-82538	40	66-82667	31	84-82505	56				
51-82343	10	51-82576	7	54-8521	32	66-82540	40	68-82007	46	84-82506	56				
51-82344	11	51-82577	7	54-8522	32	66-82541	40	68-82016	46	84-82507	54				
51-82345	11	51-82578	7	54-8525	32	66-82542	41	68-82017	46	84-82509-1	56				
51-82346	11	51-82579	7	54-8526	32	66-82543	41	69-82501	45	84-82510	56				
51-82347	11	51-82580	7	54-8527	32	66-82544	41	69-82502	46	84-82511	56				
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51-82506	1	53-82301	16	57-8232	38	66-82615	19	71-82120	47	84-82520	57				
51-82507	1	53-82301-1	16	57-8251	38	66-82616	18	71-82125	48	84-82520-1	57				
51-82508	1	53-82302	16	57-8252	38	66-82617	17	71-82151	47	84-82520-2	57				
51-82509	1	53-82303	16	59-82301	38	66-82618	17	71-82501	48	84-82520-3	57				
51-82510	2	53-82304	16	59-82302	38	66-82619	17	71-82502	47	84-82521	54				
51-82511	2	53-82305	16	59-82501	38	66-82620	17	71-82503	47	84-82522	54				
51-82512	2	53-82501	14	59-82502	38	66-82622	23	71-82504	47	84-82523	55				
51-82513	2	53-82502	14	6-1304	38	66-82623	24	71-82505	48	84-82525	55				
51-82514	2	53-82503	14	61-82301	39	66-82624	20	71-82506	48	84-82526	57				
51-82517	2	53-82504	14	61-82301	39	66-82631	31	71-82507	48	84-82527	57				
51-82518	2	53-82505	14	61-82501	39	66-82632	27	71-82509	48	85-82018	59				
51-82519	2	53-82506	14	61-82501S	39	66-82633	27	71-82510	48	85-82020	59				
51-82520	2	53-82507	14	61-82502	39	66-82634	18	71-82511	48	85-82501	58				
51-82521	3	53-82507-1	14	61-82503	39	66-82635	25	72-82501	49	85-82502	58				
51-82522	3	53-82508	14	61-82504	39	66-82636	25	72-82502	49	85-82503	58				
51-82523	3	53-82509	14	61-82505	39	66-82637	31	72-82503	49	85-82504	58				
51-82524	3	53-82510	13	6-2004	38	66-82638	27	72-82504	49	85-82505	58				
51-82525	3	54-17362A	36	6-2024	38	66-82639	28	72-82505	49	85-82507	58				
51-82526	3	54-82009	37	66-82108	43	66-82640	26	72-82506	49	85-82508	58				
51-82527	3	54-82021	33	66-82144	43	66-82641	25	72-82508	49	85-82509	58				
51-82528	3	54-82021W	33	66-82147	43	66-82642	27	72-82510	49	85-82511	59				
51-82529	3	54-82301	37	66-82148	43	66-82642-1	28	72-82511	49	85-82512	59				
51-82530	4	54-82520	34	66-82501	44	66-82643	29	72-82512	49	85-82513-1	59				

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