Dixie Part Numbers:

S-80195	S-80259	TS-1808	TS-1750	201-39111
S-80240	S-80260	TS-1809	TS-1751	201-39201
S-80241	S-80261	S-8962	TS-1757	201-39202
S-80242	S-80262	S-8963	TS-1758	201-39203
S-80243	S-80263	S-80130	TS-1791	201-39204
S-80244	S-80264	S-80131	TS-1804	201-39205
S-80245	TS-1679	S-80153	201-38101	201-39206
S-80246	TS-1754	S-80199	201-38102	243-39101
S-80247	TS-1755	S-80210	201-38103	243-39201
S-80248	TS-1756	S-80211	201-38104	243-39202
S-80249	TS-1778	S-80214	201-38201	243-39204
S-80250	TS-1779	S-80216	201-38202	243-39205
S-80251	TS-1780	TS-1708	201-39102	243-39206
S-80252	TS-1782	TS-1743	201-39104	243-39207
S-80253	TS-1783	TS-1744	201-39105	243-39208
S-80254	TS-1784	TS-1745	201-39106	243-39209
S-80255	TS-1785	TS-1746	201-39107	6701-3810
S-80256	TS-1805	TS-1747	201-39108	6701-3820
S-80257	TS-1806	TS-1748	201-39109	6701-3910
S-80258	TS-1807	TS-1749	201-39110	6701-3920

Applications:

Various medium, heavy duty, agricultural and industrial applications.

Condition:

The integrated magnetic switch, or IMS, needs replacing and/or was not installed from the factory when the vehicle was manufactured.

Cause:

The IMS feature was not included on some applications when originally released. The IMS is basically a small solenoid that mounts on the starter to use the battery voltage at the starter to power the solenoid switch terminal and reduce the current load on the ignition wiring on the vehicle.

Correction:

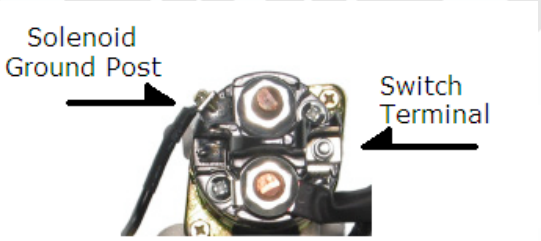
Warning: Always follow the manufacturer's safety precautions. Batteries contain acid, failure to use proper eye protection can result in **serious and permanent** eye damage. Always disconnect the negative battery cable from the battery post before performing any work on the starter motor. Failure to disconnect the battery can result in fire or serious injury. Follow the vehicle manufacturers procedures when disconnecting the battery. Some applications require a power source for the onboard computer systems and electronics.

Disconnect the negative battery cable(s) from the battery

- Identify all terminals/leads on the starter and/or IMS and label them, refer to the sketches below for assistance.

Save all bolts, nuts and washers when removing the existing IMS. If installing the IMS on a starter that did not previously have one 2 M6X1.0 - 12mm long bolts will be required.

- Disconnect the battery positive cable from the starter.
- Disconnect the switch lead from the IMS if replacing one or from the solenoid if no IMS was on the starter.
- Disconnect the IMS switch lead if the starter was fitted with an IMS.
- Disconnect the IMS ground lead from the solenoid ground post, shown on the right (if the IMS is equipped with one, typically on 39MT type starters).



- Before connecting the wires dielectric contact gel should be applied to each connector. On some extremely harsh applications it is recommended that the access dielectric grease be wiped off and sealant applied.

- Connect all the wires as appropriate.
  - Begin with the largest terminal on the thick lead, it goes on the solenoid battery positive post.
  - Second, connect the thick lead with the smaller terminal to the switch terminal on the starter solenoid.
  - Third, if applicable connect the small terminal on the thin wire to the solenoid ground post. Torque all hardware as identified in the table below.

	Switch Terminal on Solenoid	Solenoid Battery Post	IMS Ground (On solenoid)	IMS Switch (switch lead from vehicle)	IMS Mounting screws (M6 bolts)	Starter Ground Post (when applicable)
Imperial Units (lb in)	18 – 20	217 – 243 18 – 20 (lb ft)	18 – 20	17 – 21	49 - 57	217 – 243 18 – 20 (lb ft)
Metric Units (N m)	2.0 – 2.25	24.5 – 27.5	2.0 – 2.25	1.9 – 2.4	5.5 - 6.5	24.5 – 27.5

- Attach the IMS switch to the appropriate mounting boss (some applications have a variety of possible locations). If installing an IMS where the starter did not previously have one and there are multiple mounting bosses it is recommended to install the IMS and position the starter in the engine to ensure there is adequate clearance around the IMS. Once the IMS is located on the appropriate mounting position torque the mounting screws as identified in the table above.