

### Overview:

For retrofit of T1831901 Linz brand generator onto machine with either Mecc Alte or Markon brand generators. This kit contains the new generator and includes brackets, hardware and instructions which will allow the old generator cowling to be refitted. This kit is for machines equipped with ground fault circuit interrupter (GFCI) as well as those without GFCI.

**NOTE:** If regulations require equipment to have GFCI equipped on the machine, there is a GFCI retrofit kit (AT1819601) available for those machines without GFCI.

### Parts included in kit:

Part Number	Description	Qty.
MAB00003	1/4-20NC X 3/4" HEX CAP SCREW	6
MAB00065	3/8-16NC X 1-1/4LG HHCS	4
MBA00005	1/4-20NC HEX NUT	6
MBE00005	1/4 SPLIT LOCK WASHER	6
MBE00007	3/8 REG SPLIT LOCK WASHER STL PL	4
MBF00005	1/4 FLAT WASHER	6
T1831901	GENERATOR MODIFICATION	1
T1824302	GENERATOR COWLING OUTBOARD SIDE BRACKET	1
T1824303	GENERATOR COWLING INBOARD SIDE BRACKET	1
T1824401	GENERATOR COWLING FRONT BRACKET	1
MLI00011	1/2 CORRUGATED FLEX CONDUIT	5.5 FT
MLJ00047	1/2 STRAIGHT CONDUIT FITTING	1
MLJ00048	1/2 X 45° CONDUIT FITTING	1
MLL00189	12 AWG UL3173 WIRE, BLACK	9 FT
MLL00190	12 AWG UL3173 WIRE, RED	9 FT
MLL00191	12 AWG UL3173 WIRE, GREEN	8.5 FT
MLL00192	12 AWG UL3173 WIRE, WHITE	9 FT
MLM00008	10-12 X #10 RING TERMINAL	2
MLM00173	10-12 AWG X 1/4 RING TERMINAL	1
MLM00340	10-12 AWG X #10 FORK TERMINAL	4
MLN00113	5.5" X .095" CABLE TIE	15
T183230101	INSTRUCTION SHEET	1

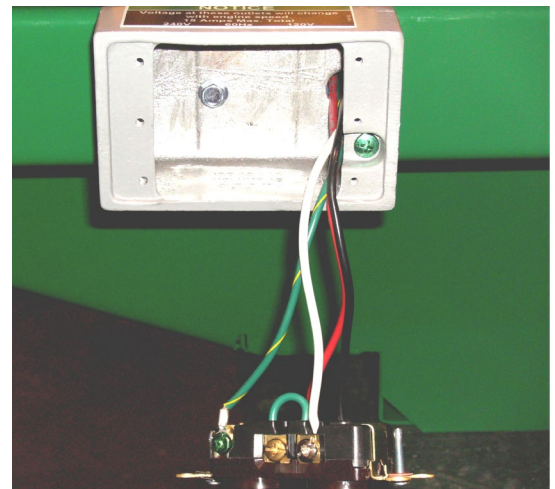
### Tools required:

- Torque Wrench
- Assorted Sockets
- Ratchet Wrench
- Assorted Hand Tools
- Saw
- 7/16" drill bit
- Size "P", 0.323 drill bit
- Medium Strength Loctite
- Wire Cutters
- Wire Strippers
- Wire Terminal Crimpers

### Procedure:

#### INITIAL DISASSEMBLY

1. Remove carriage assembly.
2. Disconnect battery cables.
3. Remove generator cowling.
4. Remove cover from the ground fault circuit interrupter (GFCI) box, or the heater receptacle box if your machine is not equipped with a GFCI.



Note the routing and connections of Black, Red, Green & White wires that enter box from flexible conduit.

5. Cut these wires from their connection points in the GFCI / receptacle box. Leave a short length of wire at each connection point to indicate wire color for reconnection.
6. Remove bolts attaching GFCI/receptacle box so that the back side can be accessed.
7. Remove conduit fitting, conduit and remaining wire from GFCI/receptacle box and set it aside.
8. If your machine is equipped with a Markon® generator skip to step 15.

### **IF YOUR MACHINE HAS A MECC ALTE GENERATOR**

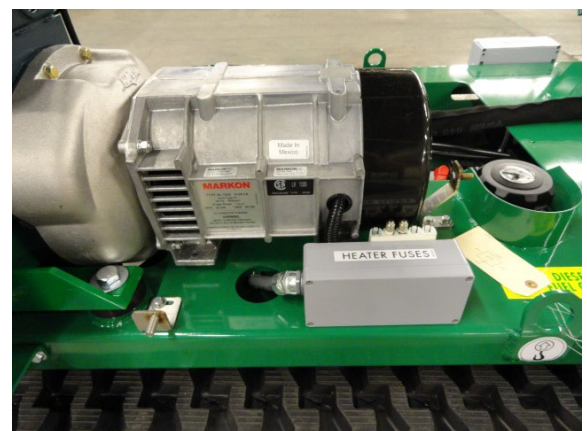
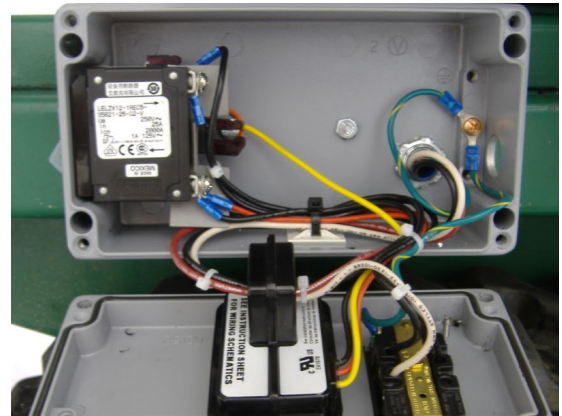
9. Remove cover from old generator.
10. Disconnect generator wires going to flexible conduit.
11. Detach flexible conduit from old generator cover.
12. Remove old generator according to McElroy Technical Bulletin TB039.
13. Remove and discard conduit and wiring between the generator and GFCI/receptacle box.

Note routing of conduit through frame as new conduit will need to be routed using the same path.

14. Skip to step 23.

### **IF YOUR MACHINE HAS A MARKON GENERATOR**

15. Remove cover of fuse box located next to generator.
16. Remove White generator wire from junction block by lifting the orange lever.
17. Remove Brown generator wire from junction block by lifting the orange lever.
18. Remove Red generator wire from right side of top fuse holder.
19. Remove Blue generator wire from right side on bottom fuse holder.
20. Remove two bolts that attach fuse box to frame.



21. Remove and discard fuse box by sliding generator wires through flexible conduit and sliding conduit going toward the fuse box out of frame.

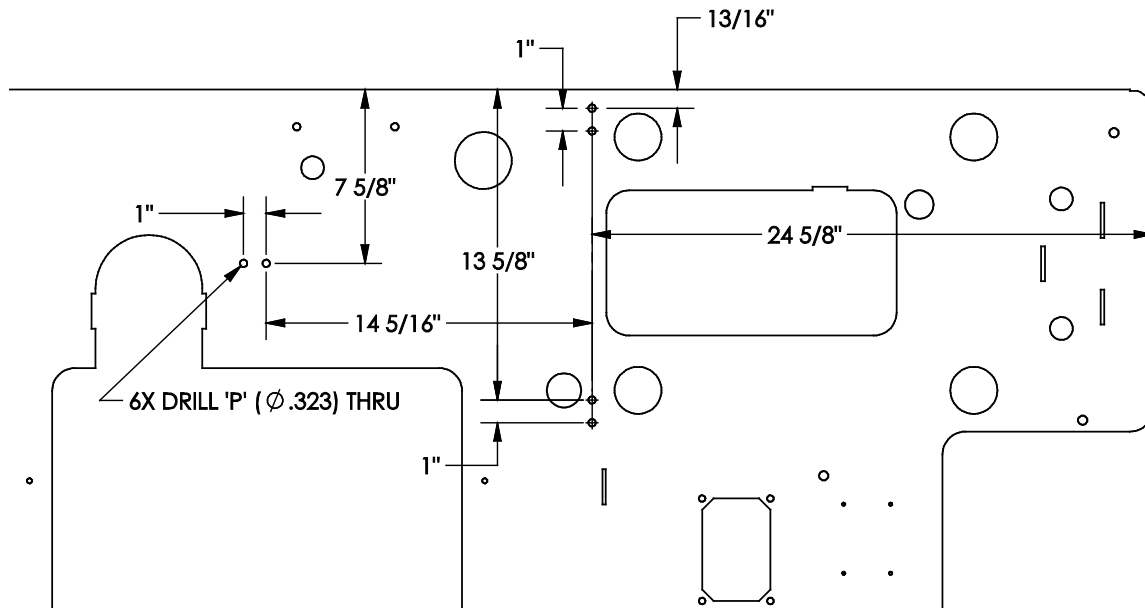
Note routing of conduit through frame as new conduit will need to be routed using the same path.

22. Remove old generator according to McElroy Technical Bulletin TB128.

23. If your generator cowling mounts to the generator and engine mount, there are brackets included in this kit to improve mounting of generator cowling to the frame. If your machine does not require this change skip to step 29.

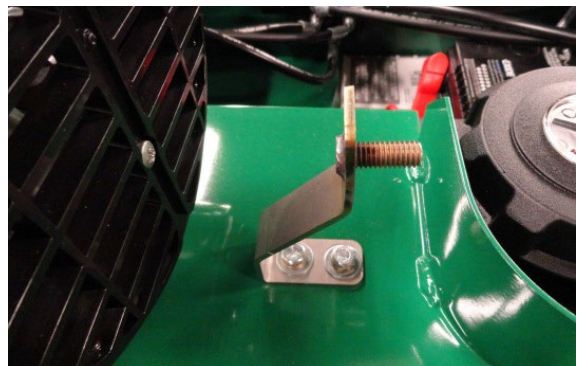
### INSTALL NEW MOUNTS

24. Using a drill and the 0.323" 'P' drill bit, drill the six holes into the deck of the machine at the locations specified in the illustration below. The fuel tank will need to be removed to prevent accidental drilling of the tank.



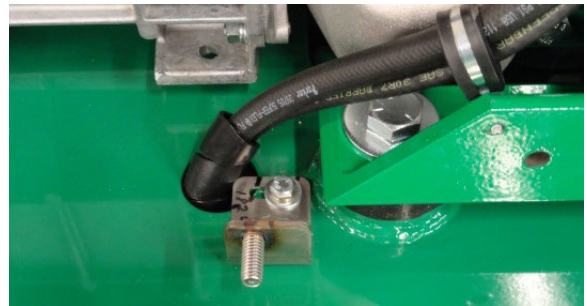
### GENERATOR COWLING

25. Install front generator cowling bracket (T1824401) on chassis with two each 1/4-20 x 3/4" cap screws (MAB00003), 1/4-20 nuts (MBA00005), lock washers (MBE00005), and flat washers (MBF00005).



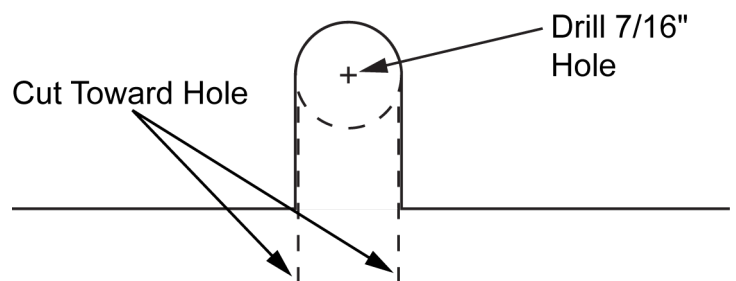
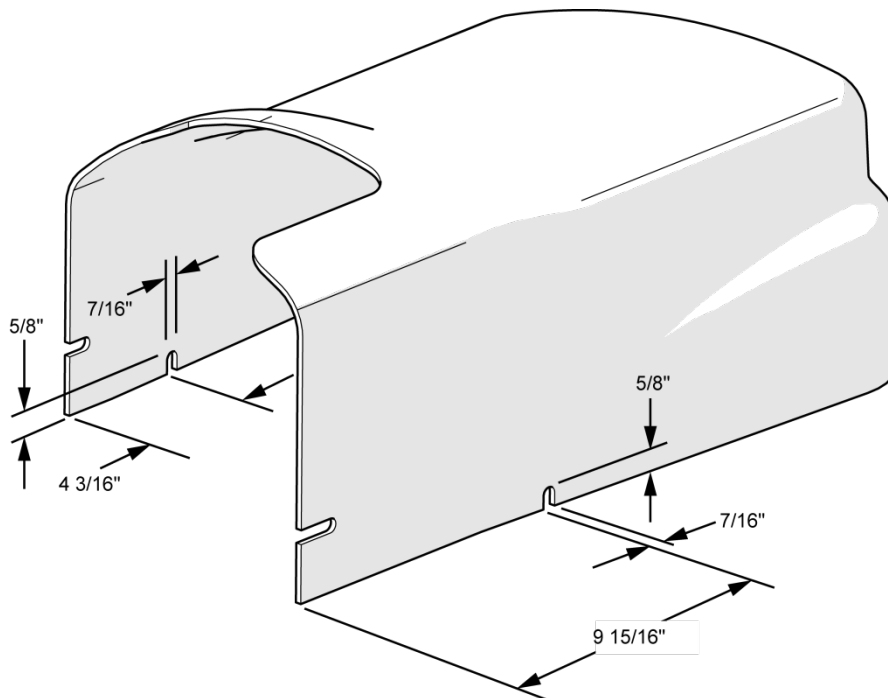
26. Install outboard generator cowling bracket (T1824302) on chassis with two each 1/4-20 x 3/4" cap screws (MAB00003), 1/4-20 nuts (MBA00005), lock washers (MBE00005), and flat washers (MBF00005).

27. Install inboard generator cowling bracket (T1824303) on chassis with two each 1/4-20 x 3/4" cap screws (MAB00003), 1/4-20 nuts (MBA00005), lock washers (MBE00005), and flat washers (MBF00005).



28. If your cowling does not have slots to fit side mounting brackets, cut slots per instructions below.

Use a 7/16" Drill Bit and drill two holes in the cowling at the locations indicated in the illustration. Use a saw to cut a slot in the cowling, cutting toward the drilled hole.





### INSTALL GENERATOR

29. Install generator mounting adapter on engine bell housing with 3/8-16NC x 1-1/4" bolts (MAB00065) and 3/8 lock washers (MBE00007).

**IMPORTANT:** Use medium strength Loctite on all fasteners as assembled.

**NOTICE:** The 3/8-16 x 1-1/4" bolts (MAB00065) must be torqued to 15 lb/ft.

30. Remove and save the louvered cover from new generator (T1831901).

31. Position new generator on mounting adapter with cover on outboard side of machine.

Use nuts and washers supplied with mounting adapter to secure generator to mounting adapter.

32. Apply medium strength Loctite to threaded end of threaded stud.

33. Install threaded stud and locking nut through bearing end of generator.

34. Torque locking nut to 15.5 lb/ft.

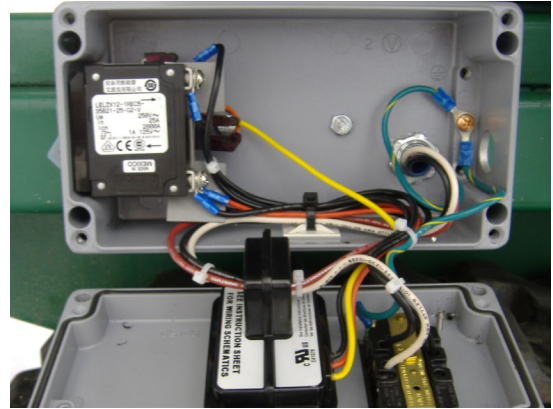
35. Reinstall the louvered cover onto end of generator.

**IMPORTANT:** A small plastic cover for generator fan vents is included with the mounting kit. This cover is not used for this installation.



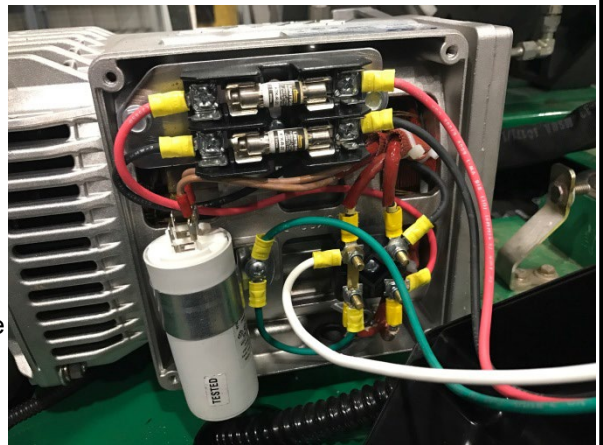
### NEW WIRES

36. Feed new wires into flexible conduit and through straight fitting (MLJ00047) and attach flexible conduit to fitting.
37. Feed wires into GFCI/receptacle box which was removed earlier and install the straight fitting in the box.
38. In the GFCI/receptacle box, install ring terminal (MLM00173) on green wire.
39. If machine is equipped with GFCI, install fork terminals (MLM00340) on Red and Black wires.
40. Strip insulation from end of white wire.
41. Route new wires inside GFCI / Receptacle box and connect to same locations as wires cut off in previous step.



**IMPORTANT:** Use cable ties (MLN00113) to bundle red, white, and black wires from conduit that pass thru GFCI sensor. These wires must be tight against each other to prevent nuisance tripping.

42. Feed conduit through hole in frame and route conduit using same path that previous conduit used and bring it up through hole in frame next to the generator.
43. Reinstall GFCI/receptacle box to frame.
44. Bundle all wires in GFCI / Receptacle box and reinstall cover.
45. Remove cover that is on the side of the generator.
46. Feed wires and through the (MLJ00048) elbow and attach the conduit to the elbow and the elbow to the generator cover.
47. Install ring terminal (MLM0008) on White conduit wire and connect to top left stud on terminal block.
48. Install fork terminal (MLM00340) on Red conduit wire and connect to right side of top fuse holder.
49. Install fork terminal (MLM00340) on Black conduit wire and connect to right side of bottom fuse holder.
50. Install ring terminal (MLM00008) on Green conduit wire.
51. Remove screw on capacitor clamp and install green wire onto that screw and reinstall the screw.
52. **NON GFCI ONLY:** Remove short green wire installed between capacitor clamp and lower left lug on generator terminal block.



53. Install cover on generator.
54. Place spare fuses in fuse holder.
55. Re-connect battery cables.
56. Start engine and push "Test" button on GFCI (if equipped) to verify proper operation. Turn engine off.
57. Install generator cowling.
58. Install carriage assembly.

## INSTRUCTION SHEET REVISION HISTORY LISTING

**PART NO:** T183230101

**DESCRIPTION:** TracStar® SUPER 28, SUPER 250, 412, AND 618 GENERATOR RETROFIT KIT

**ORIGINATOR:** ERA

**CHECK:** SRB

**APPRV'D:** JBC

**RELEASED:** 6/2/17

<u>CHK/APR</u>	<u>REV</u>	<u>DATE</u>	<u>BY</u>	<u>DESCRIPTION OF REVISION</u>
ERA/JBC	A	8/17/18	RLT	ON SHEET 1 ADDED MLJ00048 TO KIT PART NUMBER LIST & ON SHEET 6, STEP 46, REVISED "GENERATOR" TO "(MLJ00048)". CHANGE MADE DUE TO THE ELBOW BEING REMOVED FROM THE GENERATOR MODIFICATION.
BWJ/BWJ	B	4/19/22	BAH	REVISED TORQUE VALUE IN STEP 34 FROM 25.8 ft/lb TO 15.5 ft/lb TO MATCH MANUFACTURING SPEC AND ASSEMBLY DRAWINGS.