
APPLICATION: Trike conversion kit for Indian Chieftain & Roadmaster motorcycles
PRODUCT: IC-R (2014 and newer models)
VERSION: 6
GENERAL NOTES: Please don't attempt any shortcuts.

DRIVE BELT CAUTION!

- DO NOT TWIST, KINK, OR OTHERWISE DAMAGE THE BELT DURING INSTALLATION
- DAMAGING THE BELT DURING INSTALLATION WILL DRASTICALLY SHORTEN ITS SERVICE LIFE!

PASSENGER BACK REST INSTALLATIONS:

- Painted kit: If your bike is, or will be equipped, with a tourpack or passenger back rest (Indian back rest part #2879736-156), the kit should be ordered as such. The body is cut larger to accommodate these items.
- Unpainted kit, the body should come marked for both.
- This kit is designed to fit stock Indian Chieftain &/or Roadmaster motorcycles of the years 2014 to current.
- These instructions refer to diagrams and pictures which are located in the latter pages.
- These instructions assume you are installing a body painted from the factory. If not, you are required to install the lights, weather-strip, and carpeting onto the conversion body. The hardware kits accommodate either a painted or unpainted body.

- Unless otherwise noted, use medium strength Locktite on all bolts not using lock nuts

- For torque specifications not listed, please follow SAE standards.

- Please call if any questions. It's easier to correct a mistake BEFORE it happens.

1. Remove/discard: saddlebags & side stand - (leave side stand switch in place)
 - a. NOTE: If the side stand switch is removed, the engine will kill immediately upon putting transmission in gear- the two switch wires must have continuity for the system to function normally.
 - b. If the optional electric reverse **is not** being installed, and you decide to remove the side stand switch for cosmetic reasons, cut the switch wires and splice them together.
 - c. If the optional reverse **is** being installed, the reverse system uses the side stand circuit as a safety measure to prevent forward operation of the trike while the reverse lever is in the "up" position.
 - d. THE REVERSE LEVER MUST IN THE FULLY DOWN POSITION BEFORE PUTTING THE TRANSMISSION INTO GEAR, IF NOT, THE ENGINE WILL KILL.
 - e. LIFTING THE REVERSE LEVER WHEN THE TRIKE IS UNDERWAY WILL ALSO KILL THE ENGINE

2. Remove/save: seat & hardware

3. Disconnect battery

4. Remove/save:
 - a. Fuel tank & hardware
 - b. Passenger foot pegs & hardware
 - c. Left & right side covers (all four) & hardware
 - d. Four black plastic arrowheads & hardware (pic #1) OR: Remove and discard rear crash bars & hardware
 - e. Tourpack with mounting bracket (if equipped)

5. Remove/save:
 - a. antenna mast & hardware (pic #2)

6. Remove/save:
 - a. Mufflers & rear exhaust heat shields & hardware (pic #3&4)

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- b. 3 push pin fasteners from fender extension (pic #5)
7. Remove/discard:
 - a. Saddle bag mounting spools, chrome bezels & hardware (pic #6)
 - b. If bike is equipped with a tourpack or back rest, note position of, then remove & save, the 4 plastic mounting bracket bushings from the spools
8. Remove antenna cable from zip ties under fender and unplug tail lights at front of rear fender
9. Remove/discard: rear fender – leave antenna wire on bike for now
 - a. Do not discard upper right side cover ball mount (tighten it after removing fender) (pic #7)
10. Remove/discard: rear muffler/fender mounting bracket
 - a. Save the 4 upper mounting bolts (pic #8)
11. Remove/save: rear cylinder exhaust header & hardware (pic #9)
 - a. Merely loosen the front header to separate at clamp
12. Remove/save: belt guard & hardware (pic #10)
13. Loosen belt and remove from front sprocket (discard)
14. Remove/discard: all ABS wire & brake line P-clamps & hardware from swing arm (pic #11)
15. Remove rear brake caliper & unbolt ABS pickup from swing arm
 - a. Discard hardware
 - b. Do not disconnect brake line from caliper yet (pic #12)
16. Unplug the ABS wire near the swing arm pivot
17. Temporarily remove the plastic fender extension from its mounting bosses in the fender struts and set it on the battery area
 - a. You can leave the tip sensor attached
 - b. Note how/where the fender extension is held in position for later replacement
18. Remove/discard:
 - a. Snap ring and upper shock pin (pic #13)
 - b. Swing arm pivot shaft & all hardware (pic #14)
 - c. Swing arm with shock, belt and wheel (pic #15)
19. Remove/save:
 - a. ABS pickup and wiring from swing arm
 - b. You must remove shock brackets from swing arm to free it
20. Remove/save the following from trike kit chassis. Pay close attention to parts orientation/fastener type/locations for future replacement purposes
 - a. Trailer hitch/body mount assembly (pic #16)
 - b. Sway bar (pic #17)
 - c. Rear cross bar (leave swing arm & trailer hitch/body mount support bars attached) (pic #18)
 - d. Differential: (pic #19). When removing bearing caps to remove the differential, note that each bearing cap is number matched to its rail – please keep them that way when replacing
 - e. Reverse motor with spring & spring anchor (if equipped) (pic #20)

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f. Swing arm rails (pic #21)

21. Install front chassis mount spacers into swing arm holes in bike chassis (see Diagram #1096-D)

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22. Carefully install supplied belt onto chassis then roll chassis to bike frame, loop belt around front sprocket and install front frame mount bolts, washers & nuts

a. Do not fully tighten them yet (see pic #22 & Diagram #1096-D)

23. Install left & right upper chassis mounts - turn bolts in all the way but do not tighten yet

a. 8mm-1.25 x 60mm & 8mm-1.25 x 70mm bolts and flat washers

b. The plates orient to the inside of the mating plates on the chassis) (pic #23)

c. If a backrest is being installed, push plastic insulators from backrest kit onto chassis mount plate spindles before installing plates (pic #24)

24. Install the ½" x 1 ½" bolts & flat washers through the holes in mounting plates from the inside as shown, (pic #25) then tighten all frame mounting plate bolts

25. Remove/discard banjo bolt and sealing washers from rear brake caliper and install brake line using supplied banjo bolt and sealing washers (pic #26)

26. Ensure brake line is routed so as not to damage it or related surfaces

27. Bleed rear brakes using top bleeders only

28. Replace rear cross bar- make sure to keep ¾" spacer tubes between the bar and chassis (pic #27)

29. Install rear frame mount plates

a. Use 4 stock bolts (saved earlier) & bolts, nuts & washers from kit (pic #28 & 29)

30. Replace swing arm rails

a. Tighten the four front nuts then back them off ¼ - ½ turn to allow rails to slide

b. Slightly loosen all remaining adjuster hardware (2 cam bolts & the pivot bar lock bolt on left side) and push the rails all the way forward (pic #30)

31. Replace reverse motor (if equipped) Be sure to install wave washers on each end of pivot bar

32. Do not over tighten the spring anchor (pic #31 & 32)

33. If both reverse pivot blocks were removed, they belong in the rear holes on swing arm rails

34. Position belt on sprockets, then set differential into swing arm rails,

a. Do not try to "roll" the belt onto the sprocket after differential is in place

b. Replace bearing caps on swing arm rails

i. Keep them on their correct rail

ii. Blue loc-tite on Allen bolts (pic #33 & 34)

35. Make sure bearing shoulder of the swing arm rails is flush with the outside of bearings

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- a. Push in while tightening
36. Install swing arm support bars (pic 34) (Blue Loc-Tite on bolts)
37. Verify that the two front swing arm assembly mounting bolts are tight (pic #35)
38. If equipped with reverse: check reverse gear to sprocket alignment. Align if needed by loosening bolts & sliding reverse motor/bracket on pivot bar – tighten bolts
 - i. Check reverse clevis pin alignment- refer to (diagram 1097-D) to adjust
39. Set belt tension to 1.3" deflection with 10 lbs force
 - a. Using a 1" wrench, rotate hex bar to arrive at correct belt tension (pic #36)
40. While holding hex bar, tighten center lock bolt, bottom rail lock nuts & adjuster cam bolts.
 - a. Check belt tracking
 - b. The cam adjusters will only tighten the belt
 - i. If you need to loosen the belt, back off the adjuster bar, then use a dead blow hammer to tap on the ends of the rails, sliding them forward, then repeat step "41 - a"
41. Install ABS magnetic pickup (pic #37 & 38)
 - a. Remove bracket from swing arm rail – install pickup into bracket
 - b. Replace bracket- set pickup air gap at .040 (+/- .010) (blue LocTite bolts)
 - c. Plug in and securely zip tie wiring (away from moving/hot parts)
42. Install CV axle assemblies (pic #39)
 - a. Start all bolts then tighten them in a crossing pattern (28 ft lbs)
 - b. The axles are identical – no left or right, inside or outside
43. Replace sway bar (pic 40)
 - a. Tighten end links first, then the pivot bushing brackets
 - b. Leave about $\frac{3}{4}$ " of thread showing on the end link bolts
44. Replace trailer hitch/rear body mount assembly (pic #41)
45. If equipped with reverse
 - a. To install reverse lever/cable assembly refer to (pic #42, 43 & 44)
 - b. Install reverse lever/cable assembly onto Trike frame
 - c. Route cable as shown
 - d. Install clevis onto clevis pin, install 5/16" dowel pin into right side differential bearing cap. Install "L" bracket with cable onto bearing cap and fasten to bearing cap using $\frac{1}{4}$ x 1" bolt and flat washer
 - e. Install cotter pin to retain clevis
 - f. Gently raise reverse lever to engage gear into sprocket - just before lever is fully extended, the reverse gear will mesh with the pulley and slight resistance should be felt. If not, adjust knob on the end of reverse lever until slight resistance is felt
 - g. Final adjustment to the lever should be done during test drive. Loosen the adjustment knob on the end of the lever until the reverse gear teeth "skip" under moderate load, then tighten until gear no longer skips under moderate load.
 - i. During test drive, ensure that the engine kills when the trike is put in gear with the reverse lever in the up position
 - ii. NOTE: The reverse system may be operated without the engine running

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- h. NOTE: If, for any reason the cable assembly is dis-assembled follow the steps below to re-assemble
 - i. Install "L" bracket onto bearing cap – (long side of "L" forward)
 - j. Insert cable into "L" bracket & replace the forward cable housing lock nut – adjust so housing is all the way forward and tighten lock nuts.
 - k. Install compression spring, then cup washer onto cable followed by the clevis lock nut and clevis - spin clevis onto cable until the measurement between front of "L" bracket and center of clevis pin is approx. 7 ¼. With reverse lever all the way down. Tighten clevis lock nut.
 - l. Fasten cable to trailer hitch using supplied "p" clamp
 - m. Install clevis onto reverse clevis pin
 - n. Gently raise reverse lever to engage gear into sprocket- if clevis is in the right spot, just before lever is fully extended, slight resistance is felt. If not, adjust clevis accordingly, then tighten clevis jam nut & install cotter pin
 - i. Final adjustment to the lever should be done during test drive. Loosen the adjustment knob on the end of the lever until the reverse gear teeth "skip" under moderate load, then tighten until gear no longer skips under moderate load.
 - ii. During test drive, ensure that the engine kills when the trike is put in gear with the reverse lever in the up position
 - iii. NOTE: The reverse system may be operated without the engine running
46. If equipped – Install reverse wiring (see diagram #1080-D (rev D) (pic's #45, 46, 47 & 48)
- a. Carefully route and zip tie reverse motor wire to reverse lever and plug in – leave enough slack in wire to allow reverse motor movement
 - b. Remove voltage regulator to access side stand switch plug (pic #48-A)
 - c. Unplug and remove side stand switch (pic #48-B)
 - d. Carefully route, plug in, and zip tie reverse interconnect harness. Follow wire routing closely as shown in (pic #48-C) for wire leading to side stand harness (pic #48-D)
 - e. Install supplied radio antenna extension cable from radio to battery area under seat following the same path as the stock cable (which you will remove to be installed in the trike body) The stock cable will now connect to extension cable under the seat in order to provide enough length to re-mount the stock antenna on the Trike body.
 - f. Replace voltage regulator
47. If installing a steering kit on this Trike
- a. Install the reverse push button switch onto the handlebar during the steering kit install procedure (pic #48-E)
 - b. Follow the plug wiring/connection instructions in diagram #1305-D
48. If not installing a steering kit (see complete diagram #1305-D)
49. Replace belt guard
50. Replace exhaust header
51. Install exhaust extension pipes and mufflers (pic #49,50,51 & 52)
- a. Slide heat shield spacers on extension pipes before installing extension pipes
 - b. Use stock bolts to hang mufflers
 - c. Install stock heat shields
52. Trim/install lower right side cover (pic #53, 54 & 55)
- a. Cut bottom tab off of side cover

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- b. Mark and cut a small radius to clear chassis tube
 - c. Install side cover
53. Trim/install lower left side cover (pic #56 & 57)
- a. Hold cover over mounting holes to mark area to be removed
 - b. Carefully grind away a small section to clear swing arm rail
 - c. Install side cover
54. Install supplied tail light wiring harness (diagram 1488-D) (pic #59 & 60)
- a. Cut wiring clearance slots in plastic fender extension (pic #58)
 - b. Include antenna wire when routing wire
 - c. Route and zip tie as shown. If equipped with reverse, connect orange wire from reverse lever harness to orange wire from tail light module (diagram #1488-D, 1080-D & pic #59)
55. Replace fender extension
- a. Install supplied rear fender portion (pic #61) (Use supplied bolts and washers)
 - b. After fender bolts are tight, drill holes (21/64") in fender for push in plastic pins using holes in fender extension as a drill guide
 - c. Install plastic push pins
 - d. Install rear wheels if not already done (torque to 75 ft lbs)
56. UN-PAINTED KIT BODY PREPARATION (steps A thru F are typically installed on factory-painted kits)
- a. Install tail lights (pic #62 & 63)
 - b. Install provided 5mm studs 3-4 turns into tail lights (use blue Loc-Tite)
 - c. Install lights on body – 5mm nuts & flat washers
 - d. Attach wiring to exterior trunk walls – (pre-drilled holes) – use provided 10-24 screws, nuts & plastic loom clamps
 - e. Plug in & connect tail light & license plate light wires (diagram #1488)
 - f. Install rubber edge trim on inside opening of body
 - i. Rubber trim has pre-applied glue in it
 - ii. Thoroughly clean edge before installing trim
 - iii. During installation, lightly tapping on trim helps to break glue membrane for better adhesion
 - g. If ordered with optional reverse, install reverse boot
 - h. If ordered with optional backrest – install backrest – install locking bolts in backrest quick release levers...this cannot be used as a quick release backrest without cutting an extremely large hole in the body.
57. Roadmaster tourpack pre-installation prep
- a. Install previously saved plastic bushings onto supplied tourpack mounting spindles (see diagram #1117-D) and install in rear chassis mounting brackets as shown
 - b. Bend the two quick release levers on the tourpack mounting rack toward the inside about 45 deg.
58. Install body with the help of an assistant
- a. Carefully set body onto chassis
 - b. If ordered with optional reverse - guide lever through hole and set body down on chassis
 - c. If ordered with optional reverse and backrest – temporarily remove lower reverse bracket bolt & reverse cable P-clamp from trailer hitch, then loosen upper reverse bracket bolt to allow lever to pivot on upper bolt
 - d. While having reverse lever pointing up, guide lever through hole and set body down on chassis over backrest – replace & tighten reverse bracket bolts

59. Plug in tail lights (Connect the two flat four plugs)
 - a. Route antenna wire thru hole in trunk wall, behind carpet and connect to antenna mast (saved earlier) – install it in holes on right side of trunk opening
 - b. Install supplied grommet to seal cable/hole

60. Install tourpack (Roadmaster models)
 - a. Due to the weight of the tourpack assembly, we advise you to temporarily remove the tourpack from the rack, install the rack, then replace the tourpack on the rack
 - b. Some adjustment to the amount of bend (from step #57-b) to the quick release levers may be required to provide adequate clearance
 - c. Be sure to replace the quick release lever locking screws- installing them from the inside out makes this easier to access. If you do it this way make sure the

NOTE: This is no longer considered a “quick release” tourpack due to the confines of the trike body.

61. Connect battery and check function of all lights

62. Check that all wiring is tied to prevent damage from moving/hot parts

63. Install front and rear body mount bolts through pre-drilled holes in body
 - a. Pre-drilled body mount holes should be very close - there should not be much adjustment needed
 - b. Install front bolts pointing up - install rear bolts pointing down
 - c. Put washers between fastener and fiberglass
 - d. Before tightening bolts - check body position - adjust if needed - tighten all six body mount bolts

64. After bolting down body, open and close door - making sure that door latches on second detent of latch - adjust latch if needed - a somewhat firm push on door to make it latch is normal as over time, the weather stripping tends to conform to its mating surface

65. Replace fuel tank

66. Replace seat
 - a. On Roadmaster models, loosen the lower bolster pad on the tourpack enough to slide the sticky end of the supplied Velcro tapes between the bolster and the tourpack. (One strip on each side on the raised portion of tourpack) Stick the ends to the tourpack, under the bolster, then tighten the bolster, sandwiching the sticky ends of the tapes. Lift up the rear seat flap and apply the two Velcro tapes to the Velcro patches on the seat flap. This holds the seat flap in place to nicely fill the gap between the seat and tourpack.

67. Install upper side covers and (4) plastic arrowheads

68. Replace passenger foot pegs
 - a. On Roadmaster models, install supplied passenger footrest offset blocks
 - b. Separate the footrest from the bracket- save the bolts, discard the nuts
 - c. Install offset block onto bracket using supplied buttonhead screws- offset toward the front
 - d. Install footrest onto offset block using stock bolts

69. Test drive

70. A break-in procedure is necessary for optimum brake function. Using the rear brakes only, perform several firm stops. Pads are seated once proper brake function is achieved.

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- a. Pads contain a unique break-in material – squeaking of brakes may be heard during the first 500 miles of use.