

**MILITARY  
MODEL - 640**

TM-10-1279

**INDIAN  
MOTORCYCLE**

**OPERATORS  
MANUAL OF CARE  
AND MAINTENANCE**

TM-10-1279

**INDIAN MOTORCYCLE COMPANY**  
SPRINGFIELD, MASSACHUSETTS U. S. A.

TM 10-1279

WAR DEPARTMENT  
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TM 10-1279, Maintenance Manual,  
Motorcycle, (Model 640 & 640B), published  
by Indian Motorcycle Company, is furnished  
for the information and guidance of all  
concerned.

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By order of the Secretary of War:

G. C. MARSHALL,  
Chief of Staff.

Official:

E. S. AIAMS,  
Major General,  
The Adjutant General.

## FOREWORD

This book contains information necessary to the proper care and maintenance of the Indian model 640 military motorcycle.

Even though you are a good driver, we suggest that you familiarize yourself with the points mentioned in this care and maintenance manual.

In view of the fact that delivery of this equipment may be made to you in a partly disassembled condition, information is contained herein to enable you to properly assemble the handlebars, controls, and other equipment to make the machine ready for use.

This motorcycle has been designed and built to deliver a maximum of trouble-free service. However, no amount of engineering ingenuity or care in the manufacture of this equipment can take the place of a reasonable amount of care and an avoidance of malpractices by the driver. A new machine requires more careful attention during the first "miles" of operation than at any other time in its life. To obtain best results, the motorcycle should not be driven at excessive speeds during these first "miles". A little extra care and attention given at this time will be fully repaid in longer service and more satisfactory performance. As the engine becomes "worked in" and operates more freely, full performance can then be expected.

Thru the proper care and maintenance as pointed out in this booklet, you can maintain the performance of your motorcycle at its highest peak of efficiency.

INDIAN MOTORCYCLE COMPANY

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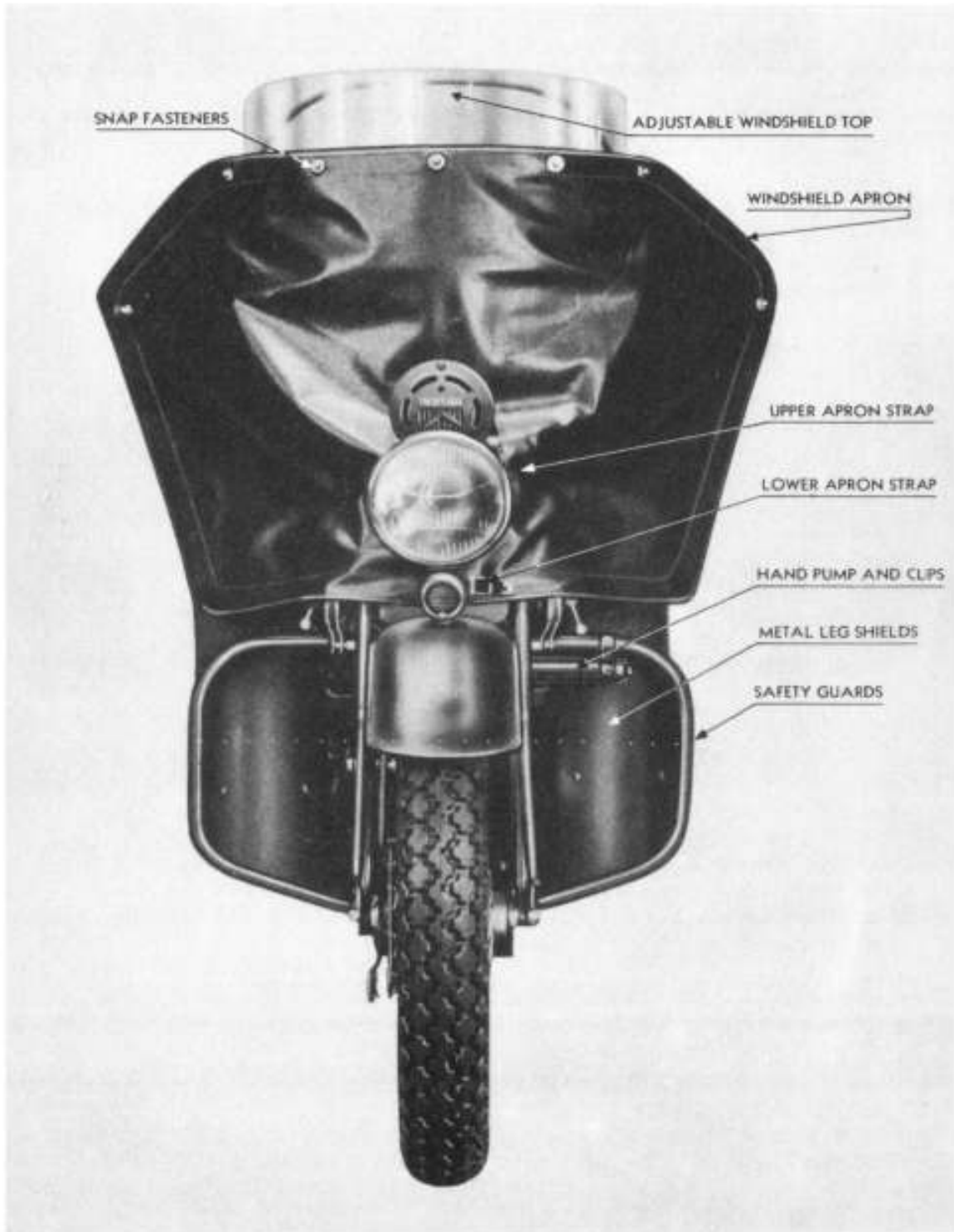


FIGURE 1 — FULLY EQUIPPED MOTORCYCLE — FRONT VIEW

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### ASSEMBLY INSTRUCTIONS FOR MOTORCYCLES DELIVERED IN PARTLY ASSEMBLED CONDITION

Model 640 Indian military motorcycle is shipped from the factory with the windshield, handlebars, headlight, safety guards, legshields, hand pump and mirror disassembled from the machine. See Figure 1, Page 4, for front view of fully equipped machine.

On models being transported overseas to outlying possessions, the oil bath air cleaner and front tire are also disassembled in addition to the other above-mentioned equipment.

#### TO ASSEMBLE THE HANDLEBARS AND CONTROLS

1. Place the handlebars in position running the black control cable on the left side down through the top of the fork ahead of the top fork connection and in back of the lower fork connection on the left side of the machine. Do the same with the right black control cable on the right side of the machine.

#### Cables

2. The long wiring cable from the left handlebar should be to the rear of the top fork connection. Let it hang down next to the tank.
3. The wiring cable from the right handlebar should be pulled through the right of the fork the same as the right control cable.
4. Using the bolts supplied in the cloth bag with the handlebars, use the two long bolts and two lock-washers in the front handlebar holes and tighten in-place.
5. Remove the two screws holding the instrument panel cover, lift up and remove the cover.

#### 6. Wiring Harnesses

Take the wiring harness leading from the right handlebar and attach to the ammeter as follows:

##### A. Black with Yellow mark

Attach to ammeter terminal directly under the letter "I" on the ammeter dial.

##### B. Red

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Attach to terminal directly under letters "BO" on the ammeter dial.

C. Black with Green mark

Attach to terminal directly under letter "S" on the ammeter dial.

7. Replace the panel cover.

8. Connecting Control Cables

Take the right control cable.

A. Push the fabric covering up tight against the handlebar.

B. Thread the cable down ahead of the shift lever casting at the frame, then between the front cylinder and the frame looping it back through the clamp at the base of the front cylinder just in back of the front exhaust pipe. (It may be necessary to loosen the engine bolt holding this clamp to put the clamp in the right position. It can be loosened from the opposite side.) Then thread the wire back to the distributor between the front valve cover and the front exhaust pipe.

Use the small round connection block with the set screw on the block and cotter pin on the small end and connect the cable to the distributor.

Remove the small clamp at the fork head where the cable runs next to the frame. Open the clamp and bend it around the cable and attach back in place.

Turn the right grip to the left, counter clockwise, as far as possible.

Press the control arm of the distributor in toward the machine as far as it will go.

Slip the cable in the motor base clamp back or forward so that the end of the outside armored cable is about  $\frac{3}{8}$ " away from the distributor connection. Then tighten the motor base clamp so that the cable cannot slip.

Tighten the set screw holding the control wire at the distributor.

To test - turn the right grip right and left to



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make sure that full advance and full retard is obtained. The cable should buckle slightly when fully retarded or turned to the left.

9. Take the left black control cable and pass it through the clamp on the left side of the front cylinder head.

Leave the clamp loose and using the other connection block with the set screw and cotter pin, connect the control wire to the carburetor.

Push the carburetor control lever toward the front cylinder as far as it will go and slide the control outside cable back or forward through the clamp at the cylinder head until the armored end is about  $\frac{1}{2}$ " from the carburetor lever.

Tighten the cylinder head clamp.

Turn the left grip to the right, clockwise, as far as it will go, and tighten the set screw at the block. Turn the grip to right and left to check the lever throw. It should make a full throw in both directions and when fully closed should buckle the cable slightly. (The grip turned as far as it will go to the left (counter clockwise) closes the throttle.)

Remove the clip at the frame head near the fork and attach the cable to it, pushing the black covering up towards the handlebar as far as it will go.

10. Front Brake Cable  
(See Figure 10 on Page 41 )

Attach the front brake hand lever to the right handle bar between the horn button and the grip. Turn it in such a position that it is comfortable for the rider from a saddle position and tighten the clamp.

Use the black clamp in the bag of parts to fasten the front brake cable about midway on the right handlebar.

11. Steering Damper

Place the small coil spring on the steering damper handle and slip the long shaft down through the handlebar top.

Check the steering damper anchor plates under the frame head. The top plate should anchor at the stud on the right underside of the fork - the middle and

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bottom anchor plates should anchor to the pin under the frame head.

When all anchors are in position, screw down (to the right) the steering damper until it just barely starts to compress the spring under the handle.

### 12. Headlight

Mount the headlight to the casting on the front fork shield using the flat washer and lock washer underneath the casting. (Use special Indian curved Box socket headlight wrench No. 102347.)

### 13. Headlight Horn and Fender Light Wiring

Run the two longest wires from the cable leading out of the left handlebar through the rubber insulated hole in the fork shield just under the center of the horn.

Run the two short small diameter wires through the other rubber insulated hole in the fork shield.

The last wire (short large diameter) presses into the snap terminal mounting behind the fork shield.

Slide the rubber casing back to the handlebar and clamp at the lower clamp on the fork shield.

Slide the short piece of rubber covering in position so that the harness can be clamped at the other clamp behind the fork shield.

Press the two headlight wires into the headlight. Either wire in either plug is perfectly O.K.

Remove the cover plate on the back of the horn and attach the horn wires. Replace cover plate.

### TO ASSEMBLE THE SAFETY GUARDS (Refer to Figure 11, Page 43)

The safety guards should be assembled to the machine before the legshields.

- A. Take the steel plate. The end with the 4 holes is the top.
- B. Attach the two small "U" bolts through these holes, then slip one of the flat steel plates over the ends of the "U" bolt, attaching lockwashers and