FORM NO. 3322–198

TORO®

MODEL NO. 30394

OPERATOR'S MANUAL

CRUISE CONTROL
GROUNDSMASTER 3000 SERIES

1. Remove screws and knobs securing control panel and compartment cover to traction unit frame. Remove throttle control knob.

2. Locate cruise control switch mounting position on left front corner of control panel.

3. Cut out decal in panel to expose mounting hole.

4. Press switch into mounting hole. Position switch as shown in figure 1.

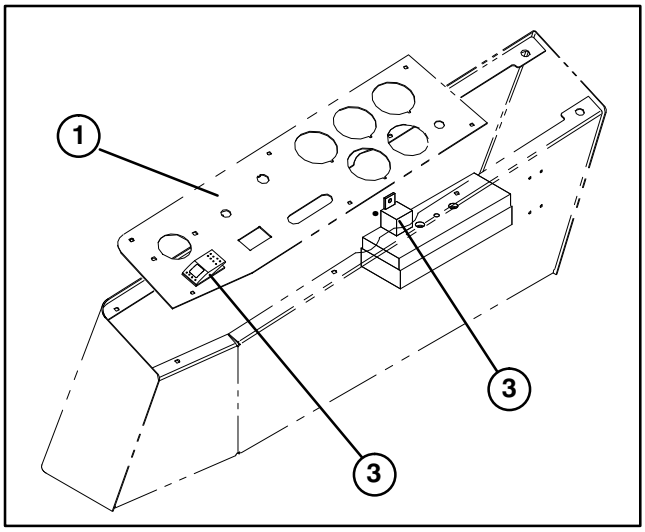


Figure 1
1. **Control panel**
2. **Switch**
3. **Relay**

5. Locate wire harness under control panel. Plug wire harness connector into switch.

6. Plug new relay into opening next to fuses.

7. Re–install control panel, compartment cover and throttle control knob.

8. Raise seat and locate wire harness with plug in connector and ring terminal connector.

9. Mount field core coil, coil mount and ring terminal from harness to inside right side of traction unit frame, above front axle with (3) M6 x 50mm capscrews and locknuts. Position coil and coil mount as shown in figure 2. RIng terminal to be positioned between head of lowest rear capscrew and field core coil housing.

10. Mount clutch plate, compression spring, and (2) flange bushings to frame with a 1/2–20 x 3.00" lg. capscrew and jam nut. Position components as shown in figure 3. Tab on bottom of clutch plate to be toward coil. Tighten capscrew until there is a .06" gap between clutch plate and coil. Tighten jam nut.

11. Plug harness connector into coil lead.

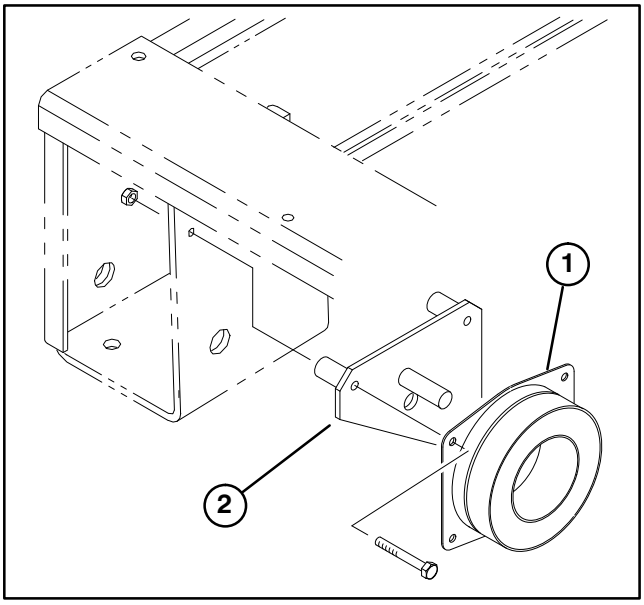


Figure 2
1. **Field core coil**
2. **Coil mount**

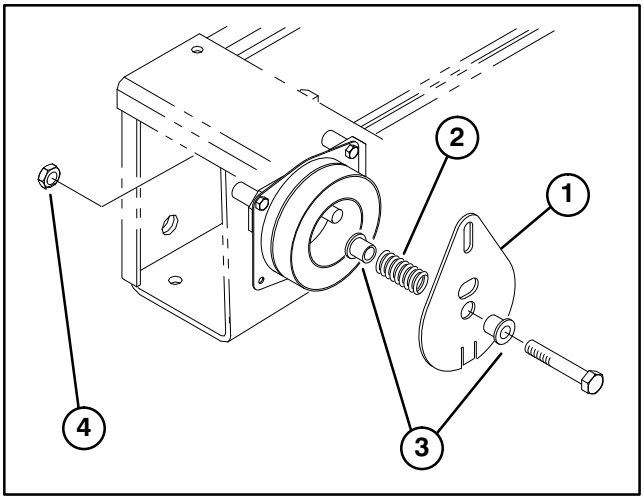


Figure 3
1. **Clutch plate**
2. **Compression spring**
3. **Flange bushing**
4. **Jam nut**

12. Loosely assemble a ball joint to end of speed adjust rod with a jam nut (Fig. 4). Ball joint end is a left hand threads.

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13. Loosely assemble a rod end to end of speed adjust rod with a jam nut (Fig. 4). Rod end is a right hand threads.

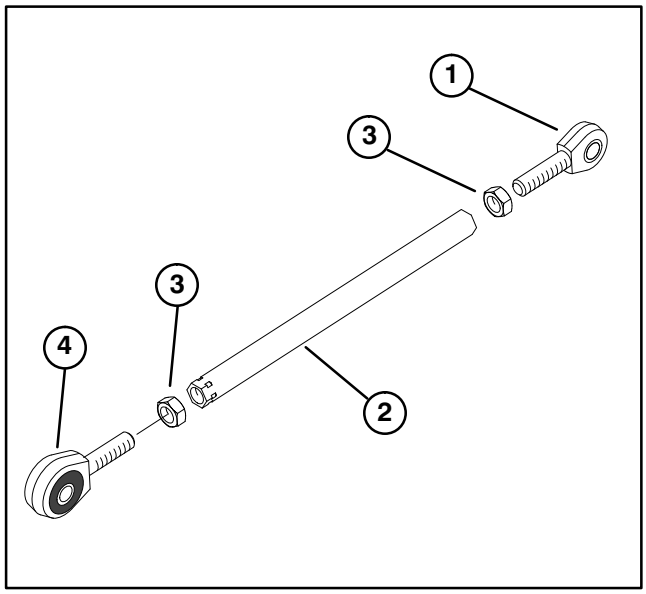


Figure 4

1. **Ball joint end (L.H. Thread)**
2. **Speed adjust rod**
3. **Jam nuts**
4. **Rod end (R.H. Thread)**

Note: Steps 14 – 17 pertain to traction units with serial numbers prior to 89999. Steps 18 – 21 pertain to traction units with serial numbers 90001 and Up.

14. Remove locknut securing traction rod hub to traction lever (Fig. 5).

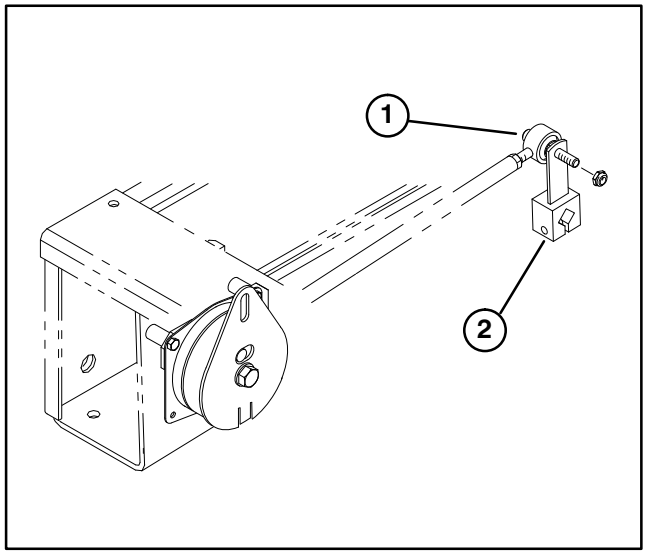


Figure 5

1. **Traction rod hub**
2. **Traction lever**

15. Secure ball joint end to traction rod stud with a .375 x .88 x .09 flat washer (included in kit) and locknut previously removed (Fig. 6).

16. Secure rod end to clutch plate with a 3/8−16 x 1−3/8" lg. capscrew, (2) .406 x .81 x .08 flat washers and locknut. Position components as shown in figure 6.

17. Adjust ball joint ends on speed adjust rod so they align with stud on traction rod and slot in top of clutch plate. Coil mount shaft must be located in front of clutch plate slot when adjusted properly. Tighten jam nuts securing adjustment (Fig. 6).

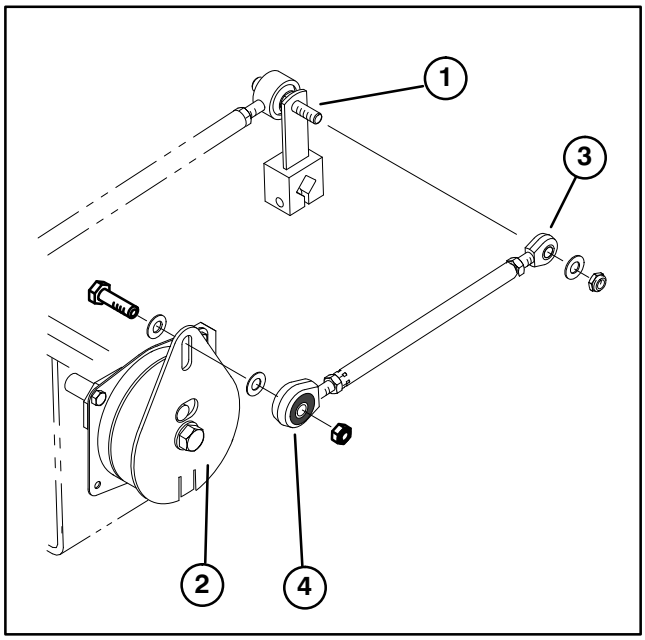


Figure 6

1. **Traction rod stud**
2. **Clutch plate**
3. **Ball joint**
4. **Rod end**
5. **Flat washer**
6. **Flat washer**

18. Remove capscrew, lockwasher and flatwasher securing traction rod pivot post to traction lever (Fig. 7).

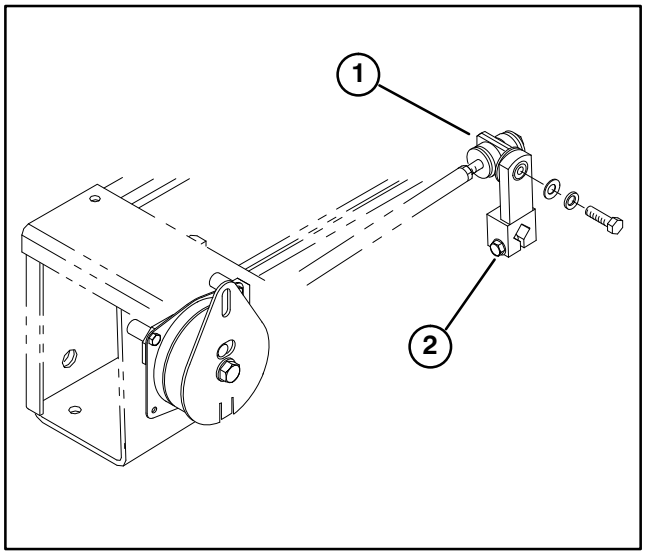


Figure 7

1. **Traction rod pivot post**
2. **Traction lever**

19. Secure ball joint end to traction rod pivot post with a flat washer (previously removed), new flat washer lockwasher and capscrew (included in kit) (Fig. 8).

20. Secure rod end to clutch plate with a 3/8−16 x 1−3/8" lg. capscrew, (2) .406 x .81 x .08 flat washers and locknut. Position components as shown in figure 8.

21. Adjust ball joint ends on speed adjust rod so they align with mounting hole on traction rod pivot post and slot in top of clutch plate. Coil mount shaft must be located in front of clutch plate slot when adjusted properly. Tighten jam nuts securing adjustment (Fig. 8).

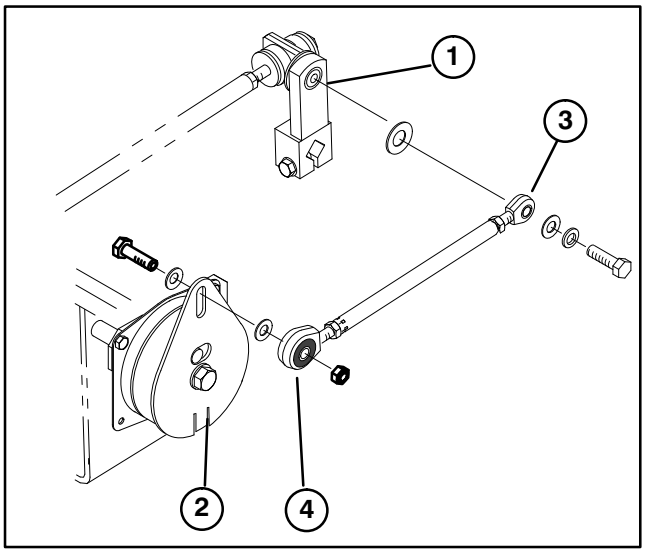


Figure 8

1. **Traction rod mounting hole**
2. **Clutch plate**
3. **Ball joint**
4. **Rod end**
5. **Flat washer**
6. **Flat washer**

22. Remove (2) flange head capscrews securing tube cover to traction unit floor (in front of brake pedals) (Fig. 9). Remove cover.

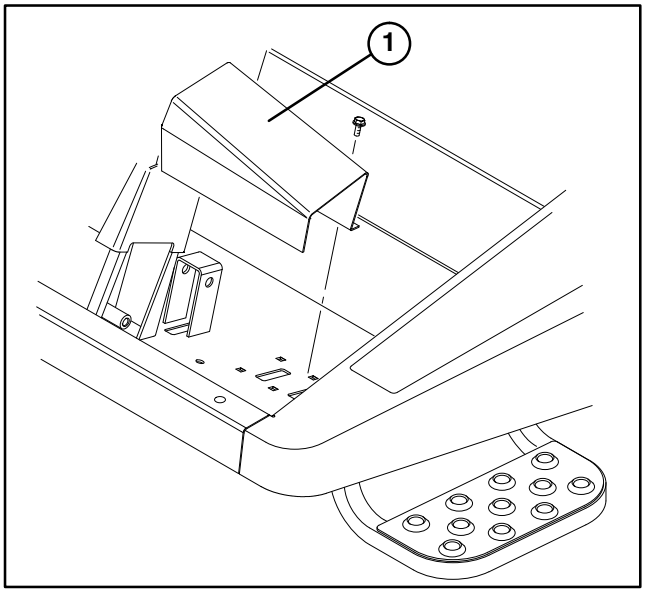


Figure 9

1. **Tube cover**

23. Mount a actuator bracket to the outside of each brake pedal with a M6 x 1.00 x 20 capscrew and nut. Position brackets and fasteners as shown in figure 10.

24. Loosely mount switch to switch bracket with (2) #10−24 x 1/2" lg. capscrews and lock nut, as shown in figure 10.

25. Locate pillow block bearing secured to under side of floor plate between brake pedals. Remove (2) carriage bolts, flat washers and nuts securing bearing to floor plate.

26. Using carriage bolts, flat washers and nuts, removed in previous step, mount switch bracket and spring arm to floor plate (Fig. 10).

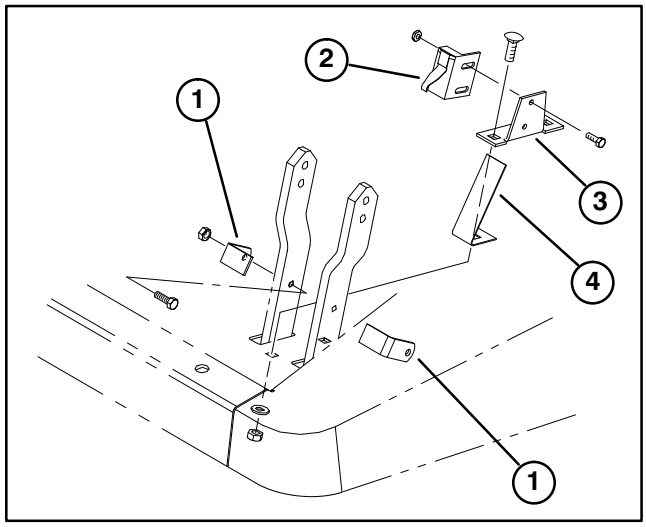


Figure 10

1. **Actuator bracket**
2. **Switch**
3. **Switch bracket**
4. **Spring arm**

27. Move switch into spring arm until switch actuates, then tighten switch mounting nuts. Do not over−tighten.

IMPORTANT: Make sure switch actuates with slight motion of either right or left brake pedal.

28. Locate remaining wire harness under seat.

29. Route harness forward along hydraulic lines for steering and up thru floor plate to switch. Plug harness into switch.

30. Secure harness to lines with wire ties.

31. Reinstall tube cover to floor plate with (2) flange head capscrews previously removed. Route harness thru slot in back of cover.

Note: If there is not a slot in back of tube cover, locate, mark and cut one using dimensions shown in figure 11.

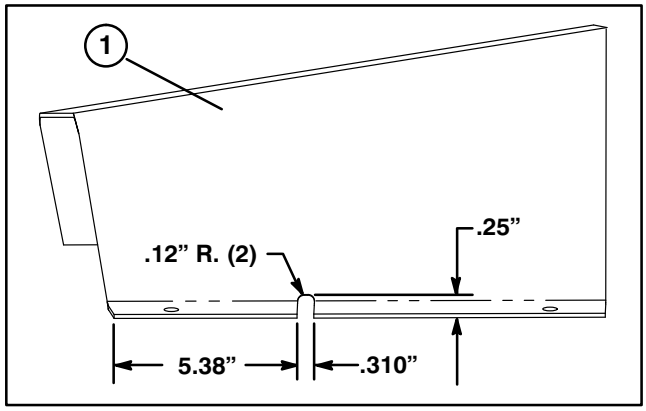


Figure 11

1. **Tube cover**

OPERATING PROCEDURES

1. Sit on seat, operate machine in normal manner.

2. Position traction pedal so machine is operating at desired ground speed.

3. Hold pedal in position, depress cruise control switch. Switch will illuminate when in “ON” position.

4. Machine will now operate with traction pedal in set position or operator can change pedal position by applying an over−riding force.

To disengage control:

1. Actuate brake pedal; this breaks electrical circuit and allows normal traction pedal operation.

or:

2. Depress cruise control switch.