FORM NO. 3316-264

TORO_®

PART NO. 92-6020

INSTALLATION INSTRUCTIONS

ELECTRIC STARTER MOTOR KIT (For 1990 CCR 1000 Electric Start Snowthrower Model No. 38195)

Since this instruction sheet covers only a small portion of the information necessary to maintain and operate your snowthrower, we suggest that you keep this material with your Operator's Manual so that both may be referred to for instructions concerning safe operation and proper maintenance procedures.

INSTALLATION INSTRUCTIONS

1. Remove (2) two bolts from front of upper shroud (Fig. 1).



Figure 1

1. Upper shroud 2. Bolt (2)

2. Remove (3) three carriage bolts securing discharge chute and chute handle to chute ring. Set chute, handle and fasteners aside.



4. Locknut

5. Carriage bolt

- 1. Discharge chute
- 2. Chute handle
- 3. Washer

3. Remove (2) two screws from control panel (Fig. 3) and allow panel to hang from recoil rope.



Figure 3

- 1. Control panel 2. Capscrew (2) 3. Gas cap
- 4. Remove gas cap (Fig. 3) and save.
- 5. Tilt front of shroud up toward handle.

6. Remove (3) three screws securing switch assembly to upper shroud (Fig. 4). Save screws for later reinstallation.



1. Switch assembly 2. Screw (3) 3. Upper shroud

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INSTALLATION INSTRUCTIONS

7. Remove screw and r-clamp (Fig. 5) and save for reinstallation.



8. Remove (2) two screws securing starter motor to motor mounting bracket (Fig. 6). Discard motor and (2) two screws.

9. Remove (3) three fasteners securing motor mounting bracket to engine.

A If bracket was secured to engine with studs and nuts (Fig. 7), remove (3) three nuts and bracket. Then remove right hand stud (nearest to flywheel) (Fig. 7) using a vise grip.





B If bracket was secured to engine with (3) three screws (Fig. 8), remove screws and bracket.



Figure 6

- 1. Motor mounting bracket 3. Screw (2)
- 2. Starter motor



1. Screw

10. Discard old motor mounting bracket.

INSTALLATION INSTRUCTIONS

11. Install new motor mounting bracket (Fig. 9) with correct fasteners. For units with studs, you will need (2) two new 1/4-20 nuts and a screw provided in kit. For units without studs, you will need (3) three new 1/4-20 screws provided in kit.



Figure 9
1. New motor mounting bracket

12. Before installing new motor, route electrical wiring **under** motor as shown in Figure 10.



13. Slide boss on right end of motor (Fig. 10) into hole in bracket and then seat left side of motor onto bracket. Secure motor with (2) two screws.

14. Fasten wiring cable to engine with R-clamp and screw (Fig. 10), making sure wire routing clears the flywheel.

15. Attach new switch assembly using screws removed from old switch assembly (Fig. 11).



1. Switch assembly 2. Screw (3) 3. Upper shroud

16. Using a sharp knife, trim inside rib of shroud to height of 3/8" and length of 1.00" as shown in Figure 12.



1. Trim rib to $3/_8$ inch height and 1.00 inch length

17. Reinstall shroud, control panel, discharge chute and gas cap.

OPERATING INSTRUCTIONS

STARTING/STOPPING ENGINE (Fig. 13)

1. CONTROLS—Key switch, primer, electric start button, and recoil starter are located on the control panel. The choke lever is just below the lower left corner of the control panel.



Figure 13

- 1. Key switch
- 2. Primer
- 3. Recoil start 4. Choke

6. Cord connection* *ELEC. START MODEL

5. Elec. start button*

2. Turn key to ON and move choke lever to ON (far right position).

3. Cover hole in center of primer with thumb and push primer twice slowly (1 to 2 seconds per prime) for temperatures above $0^{\circ}F$ ($-18^{\circ}C$). Push primer slowly three times for temperatures below $0^{\circ}F$ ($-18^{\circ}C$). **DO NO NOT PRIME IF THE ENGINE HAS BEEN RUNNING AND IS HOT**

Note: When starting engine for first time or after running out of fuel, more priming may be required to start engine.

4a. RECOIL STARTING—Hold snowthrower with one hand and pull recoil starter vigorously with other hand. If engine does not start after three pulls, push primer once more and pull recoil starter vigorously again.

4b. ELECTRIC STARTING—Connect extension cord to snowthrower and standard household power outlet. Push starter button. When engine starts, disconnect extension cord from snowthrower and outlet.

IMPORTANT: Excessive running of the electric starter could damage the starter due to overheating. If you are having difficulty starting the engine, ONLY TRY THIS STARTING PROCEDURE TWICE. Run the electric starter no more than 10 times at intervals of 5 seconds ON, 5 seconds OFF. Make sure starter motor rotation stops completely between each attempt. If engine does not start after trying this starting procedure once, wait more than 40 minutes to allow starter to cool before trying to run starter again. Before repeating engine starting procedure, check that ignition key switch is ON, and make sure there is fresh fuel in fuel tank. If engine still will not start after a second attempt, bring the snowthrower to an Authorized Toro Service Dealer for servicing.

5. When engine starts, move choke lever to middle position after a few seconds of running time. After engine has warmed up, move choke lever to OFF (far left) position.

6. TO START/STOP ROTOR—To start rotor, squeeze control bar to handle. When the control bar handle is released, the rotor blades stop, but the engine continues to run.

7. TO STOP ENGINE—Release control bar to stop rotor, turn key to OFF, and wait for all moving parts to stop before leaving operator's position.