



# WALK BEHIND ROTARY MOWER

Shandha Stern

1646 #

## Mfg's. No's.

- 490 PUSH TYPE MANUAL START
- 491 SELF PROPELLED MANUAL START
- 534 PUSH TYPE WITH ELECTRIC START
- 535 SELF PROPELLED WITH ELECTRIC START
- 492 GRASS CATCHER ACCESSORY (FITS ALL ABOVE MODELS)



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SIMPLICITY MANUFACTURING COMPANY, INC.

### WARRANTY

The company warrants Simplicity Products to be free from defects in material and workmanship except the company makes no warranty express or implied with respect to tires, engines and engine accessories which generally are warranted by their respective manufacturers. Any part covered by this warranty which is proven defective within one year, under normal use, from date of purchase, will be replaced free of charge, f.o.b. Port Washington, Wisconsin, provided such part is returned to factory transportation charges prepaid and is found to be defective upon examination at the factory. The company is not obligated under this warranty to bear cost of labor or delivery charges in replacement of defective parts. This warranty does not apply to any Simplicity Products altered outside of Simplicity's factory. Such replacement of defective parts shall be the exclusive remedy and in no event shall Simplicity be liable for consequential damages, EXCEPT AS SPECIFICALLY PROVIDED HEREIN, THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE DESCRIPTION ON ANY SIMPLICITY PRODUCT.

Congratulations on your purchase of this new Simplicity mower. As you use it, you will find that it has been engineered with imagination and built with integrity.

To take advantage of all of the fine features built into this machine for your benefit, read and study this instruction booklet thoroughly before operating the mower. The few minutes you spend studying it will repay you many times over in the time you save in mowing and the pleasure you experience in using it properly and safely.

Should warranty service be necessary, the information below should be presented to the authorized SIMPLICITY Dealer.

Customer's Name

Address						
Mfg. No	1.1.1.1			- =		
Date Purchased						
Purchased From	·				· · · · · · · · · · · · · · · · · · ·	
Address		<u></u>			· · · · · · · · · · · · · · · · · · ·	•
Engine Model No		Serial I	No.	Τνρε	No.	

To obtain replacement parts from dealer, advise quantity, part number and description.



# BY FOLLOWING THESE SIMPLE RULES

# Protect yourself and others by following these Safety Steps.

- 1 Know your controls-Read the owner's manual carefully-Learn how to stop engine quickly in emergency.
- 2 Make sure the lawn is clear of sticks, stones, wire and debris-They could be thrown by the blade.
- 3 Never add fuel to a running engine. Use an approved safety container and remember that gasoline is a hazard to your home.
- 4 Keep children and pets away a good, safe distance.
- 5 Disengage drive before starting engine.
- 6 Start the engine carefully with left foot well away from blade and right foot on deck where indicated when starting engine.
- 7 Do not operate engine where carbon monoxide fumes can collect.
- 8 Stop the engine whenever you leave the mower, even for a moment. Remove the key on electric start models.
- **9** Always properly maintain the mower, frequently checking all fasteners, guards, and parts. Built in safety arrangements are effective only if maintained.
- 10 Stop the engine before pushing mower across drives, walks, or roads.
- **11** Do not allow any one to operate mower without instruction,
- 12 On slopes or wet grass, be extra careful of your footing.
- 13 Never cut grass by pulling the mower towards you.
- 14 Stop the engine and disconnect spark wire before checking or working on the mower.
- **15** *Do not over speed* the engine or alter governor settings. Excessive speed is dangerous. Shortens mower life.
- **16** *Never operate the mower* without either the catcher assembly or the cover plate in place.
- **17** Abways stop & inspect the mower for damage after striking a foreign object and repair any damage before restarting and operating the mower.

### ADJUSTMENTS

Simplicity mowers are completely assembled at the factory, but certain adjustments are necessary to suit your particular needs. CAUTION: Never make any adjustments (except engine speed) with the engine running. Check to make sure the speed control is in the off position before making adjustments.

#### UNFOLDING HANDLE

To unfold the handle, loosen the two wing nuts, Fig. 1, all the way against the retaining nuts. Stand on the left side of the mower and place your foot just behind the left rear wheel. Grasp the black vinyl covered section of the handle, pull it up and back until it snaps into place. Tighten the two wing nuts with firm hand pressure.



Figure 1

FOLDING HANDLE- for Minimum Storage Space: When grass catcher is installed

- 1. Unhook the bag from the support rod.
- 2. Remove the bag support rod from the handle by removing the spring clip and pulling the support rod from the handle. See Fig. 3.

#### With or Without Grass Catcher

- 1. Loosen the wing nuts. See Fig. 3.
- 2. On self propelled models, place the control handle back (in neutral) before folding the handle.
- 3. Stand on the left side of the mower and place your foot just ahead of the left rear wheel. Grasp the top of the handle and pull it forward. Continue moving the top of the handle forward until it rests on the engine cover.





Figure 3

Handle Stand-Up Position

See Fig. 4. Lift the front end of the two handle locks and rotate the handle fully forward. The Handle will remain in this position until pulled back, when locks will automatically engage.



#### Handle Height Adjustment

The handle height (in operating position) may be varied to suit different heights of operators. The mower is shipped with the handle in the low position which is most comfortable for persons 5'-8" or less in height.

- 1. Remove the two spring clips holding the handle to the handle bracket. See Fig. 5.
- 2. Stand on the left side of the mower with your foot against the outside of the left rear wheel.
- 3. Raise the front end of the handle locks and rotate the handle forward until the rear edge of the locks are in line with the notches in the handle bracket. See Fig. 5.

- 4. Pull the right side of the handle toward you until the hole in the right side of the handle is free from the pin in the handle bracket.
- 5. Move the bottom end of the handle back until the pin lines up with the forward hole and slip the forward hole in the handle over the pin.
- 6. Place your foot inside of the left rear wheel and repeat steps 4 & 5 for the left side of the handle.
- 7. Install the spring clips. See Fig. 5.

Remember, for tall operators use the upper holes and for shorter operators, use the lower holes. See Fig. 5.



Figure 5

### SELECTING HEIGHT OF CUT

Most lawns should be mowed between  $1\frac{1}{2}$ " and 2" high. It is desireable to leave the grass higher when dry conditions exist. Never remove more than 1/3 of the height of the grass or a maximum of 1" in one mowing if you want the lawn to remain green.

For mowing extremely tall grass, set the cutting height at maximum for the first mowing and then reset to the desired height and mow again.

#### Cutting Height Adjustment

There are 6 positions of cutting height adjustment from 7/8" to 2-7/8". Each notch changes the height by about 3/8". The mower is shipped with all adjusters in the shortest cut position.

CAUTION: Never change height adjustment with the engine running. Make certain that the speed control is in STOP position.

To increase cutting height see Fig. 4.

Front Wheels

- 1. Grasp the underside of the front lip of the mower deck with one hand and lift the front of the mower upward.
- 2. Squeeze the adjusting tab toward the wheel and rotate the entire wheel assembly in the "raise" direction to the desired notch. Release the tab and make sure the spring enters the notch.
- 3. Repeat steps 1 & 2 for the other front wheel making sure that the spring has entered the same notch as the opposite front wheel. NOTE: The front wheel height adjusters move in opposite directions.

#### Rear Wheels

- 1. Stand at the rear on the left side of the mower.
- 2. Grasp the lower handle cross bar with one hand and lift the rear of the mower.
- 3. Grasp the rear wheel height adjuster tab and push it backward and down to the same notch you used for the front wheels.
- 4. Let the tab swing forward making certain that the tab on the handle bracket has fully entered the notch.
- 5. Check once more to make certain that all tabs are in the same notch and have entered them fully. As a final check, make sure all four wheels roll on a level surface.

### INSTALLING CATCHER

- 1. Disconnect the spark plug wire.
- 2. Remove 4 screws and coverplate. See Fig. 6.
- 3. Install the grass deflector plate across the chute opening with bolts and nuts as shown in Fig. 7, and tighten securely. Replace the spark plug wire.
- 4. Install the grass catcher chute with 4 screws as shown in Fig. 2.
- 5. Insert the two legs of the bag support rod into the holes in the lower handle cross bar as shown in Fig. 3.
- 6. Install the spring clip in the hole in the left leg of the bag support rod.
- 7. Stand on the right side of the mower and insert the bottom of open end of bag between lugs on deck and catcher chute. See Fig. 2.
- Lift bag retaining clip and swing top of open end of bag forward against lugs on catcher chute. Release spring clip and make sure it is through button hole in the bag neck.
- 9. Hook loop at zipper end of bag over the hook on bag support rod.
- 10. Install bag guard as shown on Page 9.

CAUTION: Never run the mower with the catcher chute installed without the bag in place and the zipper closed.



### MOWING PATTERN

#### Dispersing

If the clippings are to remain on the lawn, mow with the discharge chute dispersing the clippings toward the cut portion.

If clippings are to be raked up later and the grass is at normal height of 3" or less, it is practical to disperse the clippings into the uncut portion. They will all be concentrated in the center of the lawn for minimum raking.

#### Catching

The mowing pattern while catching the clippings can be varied to suit the lawn arrangement. Best lawn appearance will result if the direction of mowing is alternated each mowing and a diagonal mowing pattern is used every 4th time.

### ENGINE

Please read the engine manual and understand it thoroughly before using the mower.

#### Preparing for Operation

- 1. Make sure the speed control is set at STOP. See Fig. 2.
- 2. Tip the starter handle toward the rear and grasp the underside of the front of the engine cover and tip it back. On self-propelled models, separate the control rods to allow the cover to go fully back.
- 3. Remove the fill plug, Fig. 6, from the crankcase by rotating counter-clockwise and fill the crankcase with SAE 30 oil grade MS until the oil is level with the top of the filler neck. Re-install the filler plug with firm hand pressure.
- 4. Fill the fuel tank with regular grade of gasoline and replace the tank cap. CAUTION: Gasoline is highly inflamable, avoid overfilling, wipe up any spilled fuel, and have no open flame cigarette, etc. in the area.
- 5. Swing cover forward, pulling the starter handle back to enter the hole in cover, and press the front end down firmly until it latches.

#### Starting

- 1. The engine will not start if the blade is in deep grass. Place the mower on sidewalk or mown lawn to start.
- 2. Make sure the touch-o-matic control handle is all of the way back (self propelled models).
- 3. Set the speed control at start. This positions the automatic choke.

#### Manual Start Models

- 1. Place your right foot on the mower deck where indicated with your left foot well away from the mower.
- 2. Grasp the starter handle firmly with your right hand and pull upward sharply. Return the starter handle to the top of engine. Do NOT release the handle with the rope extended.

#### **Electric Start Models**

- 1. Insert the key and turn clockwise to engage starter. NOTE: The engine speed control must be in the start position.
- Release the key as soon as the engine starts and it will automatically return to the running position.

#### Flooding

The automatic choke automatically provides the proper mixture for starting with outside temperatures from  $30^{\circ}$  F. to  $100^{\circ}$  F., the first start of the day or just after shut down. If the engine fails to start after 5 pulls or 5 seconds of electric starter cranking, it may be flooded.

Flooding may occur if the mower is tipped to one side.

To clear a flooded engine, rotate the speed control, Fig. 2, to the stop position. This blocks the choke open. Pull the starter 6 times or crank electrically for 6 seconds. Set the control at start and follow the steps under starting listed above.

### ENGINE SPEED CONTROL

The engine speed may be set anywhere in the mow range for most mowing.

The lowest speed (toward stop) of the mow range is satisfactory for most grasses of normal height. Operating at this speed reduces noise and fuel consumption and is recommended for average conditions.

Very light wispy grasses such as bahaia and rye may require full engine speed for clean cutting. Very heavy or tall grasses should also be cut at higher engine speeds.

If the grass is damp, the bag will fill better at higher engine speed.

### **STOPPING THE ENGINE**

Manual start engines should be stopped by rotating the speed control counter-clockwise to the stop position. See Fig. 2.

Electric start models should be stopped by rotating the key, see Fig. 9. counter-clockwise to the stop position. Leave the engine speed control at your favorite mowing speed. CAUTION: Always remove the key from electric start machines when leaving them unattended.

### **SELF PROPELLED OPERATION**

The over-the-ground speed with the touch-o-matic control fully engaged and the engine speed control fully clockwise is 2.75 miles per hour. With the engine speed control at the low end of the mow range, it is 2.15 miles per hour.

Over-the-ground speed can be reduced for any engine speed by applying less pressure to the touch-o-matic control bar and permitting the drive rollers to slip on the tires. The mower is designed to operate under these conditions. The touch-o-matic control bar can also be pushed all of the way forward to an "over-center" position to reduce effort on long stretches. You then merely guide the mower and pull back on the control bar to stop forward travel.

#### Turning

To turn, pull the touch-o-matic control bar all the way back. This disengages the rollersfrom the wheels and permits them to turn freely for pivoting the mower. Raise the front wheels just above the ground by applying downward pressure on the control bar and pivot the mower. When the turn is complete, release the downward pressure and push the control bar forward. The mower will smoothly come to speed.

### PREPARATION FOR MOWING

Walk over the entire area to be mowed, and remove any foreign objects.

2. Move all people and pets from around the mowing area and keep them away until mowing is finished.

### MAINTENANCE

To keep your Simplicity mower operating at peak efficiency follow these simple steps.

- 1. Each time you finish mowing, wash off the top of the mower and the underside of the deck with a garden hose. CAUTION: Always turn the speed control to OFF and disconnect the spark plug wire from the plug before tipping the mower. Always lift the spark plug side of the mower up when tipping it, to prevent damage to the engine.
- 2. Check engine oil supply and add oil to the top of the filler neck ( if required) each time the mower is used. Put a drop of oil on the handle pivot points and height adjusters once a month or every 10 hours of mowing, whichever occurs first. See Fig. 3. The wheel bearings and the self-propelled shaft and pulley bearings are greased and sealed so require no lubrication.
- 3. Air Cleaner See engine owners manual for instructions.
- 4. Blade Inspect the blade after each use. Sharpen and remove small nicks with a file or stone.CAUTION: Remove the spark plug wire and tip mower with the spark plug side up to check blade.

Deep nicks in the blade cutting edge can only be corrected by grinding which requires that the blade be removed and balanced. See Your Simplicity Dealer for this service.

CAUTION: If you feel severe vibration, the blade is unbalanced. See your Simplicity Dealer and have the blade balanced before using the mower.

### ADJUSTMENTS

#### Touch-o-matic Self Propelled Drive

A properly adjusted touch-o-matic drive will spin the wheels on dry pavement with the control bar fully forward and the operator holding back on the handle. If the rollers slip on the tires rather than the tires slipping on the pavement, the touch-o-matic drive requires adjustment.

Note: If the rollers don't turn, the belt is slipping usually because it is wet. If this occurs, running the drive a few minutes will dry out the belt.

To correct the roller slipping on the tire, procede as follows: 1. Determine which roller is slipping

- Loosen the locknuts on the turn-buckle on the side of the mower with the slipping roller. Note that the locknut on the top of the turn-buckle has a left hand thread and must be rotated clockwise (viewed from the top) to loosen it. See Fig. 5.
- 3. Rotate the turnbuckle clockwise (viewed from the top) 2 turns at a time until the roller stops slipping.
- 4. Re-tighten locknuts against turn-buckle.

### BLADE REMOVAL AND REPLACEMENT

Do not attempt to remove the blade unless you have box, socket, or open-end wrenches which fit the bolts. If you have such equipment procede as follows:

#### Removing Blade

- 1. Remove the spark plug wire.
- 2. Tip the mower on its side with the spark plug up.
- 3. Remove 2 hex nuts from the blade stiffner to remove blade bolts. See Fig. 7.
- Remove blade from blade stiffner. Note: Bolt holding the blade stiffner to the crankshaft should not be removed.

#### Installing Blade

- 1. Make certain blade stiffner and blade are clean.
- 2. Place blade in blade stiffner with center hole in blade over bolt holding drive to crankshaft. See Fig. 7. Install with lift tabs on blade toward engine.
- 3. Install bolts holding blade to blade stiffner, tightening nuts so they contact the blade drive.
- 4. Tighten nuts alternately 2 turns at a time until both nuts are tight.
- 5. Rotate the blade by hand to make certain it clears everything and tips are running true.
- 6. Tip the mower to operating position and replace spark plug wire.



Figure 7

### **BELT REPLACEMENT**

#### Self Propelled Drive models

- 1. Put touch-o-matic control in neutral (back).
- 2. Raise the engine cover and swing it to the rear.
- 3. Push the idler arm forward, see Fig. 8, and lift belt above horizontal pulley.
- 4. Remove the spark plug wire.
- 5. Tip the mower on its side with the spark plug up.
- 6. Remove the belt shield screw shown in Fig. 7.
- 7. Push the belt shield toward crankshaft and pull crankshaft side of shield toward you.
- 8. Remove the old belt from pulley and push through the deck opening. See Fig. 7.

- 9. Insert new belt through deck opening from the rear of mower toward the front.
- 10. Place belt over pulley.
- 11. Lower mower to operating position while applying tension to belt from rear to hold it on the drive pulley.
- 12. Route the rear end of the belt under drive shaft and around the pulley on drive shaft and vertical idler pulley. See Fig. 8, and make certain that the twist matches the illustration.
- 13. Push the idler arm forward and loop the belt over horizontal idler pulley.
- 14. Release tension on the idler arm and check again to make sure the belt twists match figure 8.
- 15. Pull the starter handle and watch the belt to see that it has the proper action and that the drive rollers are turning clockwise when viewed from the left side of the mower.
- 16. Tip mower on side with spark plug up and inspect the belt to make certain it is in the driving pulley groove.
- 17. Insert the belt shield through the mower deck opening and hold against the deck. See Fig. 7.
- 18. Install the shield retaining screw and tighten securely.
- 19. Tip the mower to its operating position and install the spark plug wire.



Figure 8

### BATTERY CARE

Electric Start Models

The nickel Cadmium battery requires no water and may be placed in any position. The only maintenance required is charging, which should be done as follows:

CÁUTION: Do not charge the battery at temperature below  $40^{\circ}$  F, and use only the charger furnished with the mower, or the battery will be damaged.

- 1. Charge battery for 24 hours before using the starter.
- 2. The charger may be left on continuously without damaging the battery.

- 3. The battery need not be charged during the winter it will not be damaged by leaving it uncharged.
- 4. When the battery has insufficient charge to crank the engine, do not continue attempting to start engine or battery damage will result.

#### To charge battery procede as follows:

#### Battery on Mower

- 1. Raise engine cover.
- 2. Insert the charger plug all of the way into the battery. Note: the plug will only fit in one position, See Fig. 6.
- 3. Plug the charger into 110v-60 cycle A.C. outlet.
- 4. To use mower unplug charger from 110v receptable.
- 5. Remove charger plug from battery.
- 6. Close engine cover.

#### Battery Removal from Mower

If it is more convenient to remove the battery for charging or the temperature is below  $40^{\circ}$  F, proceede as follows: Battery Removal from Mower

- 1. Raise engine cover.
- 2. Remove plug from battery.
- 3. Rotate bottom end of battery away from engine and force it out of spring clips. See Fig. 6.

#### Battery Replacement on Mower

- 1. Raise engine cover.
- 2. Twist battery into spring clips. See Fig. 6
- 3. Insert plug into battery all the way. Note: Plug will only fit in one position. See Fig. 6.
- 4. Close engine cover.

#### **Trouble Shooting**

2.

- 1. Starter doesn't crank engine
  - a. Make sure plug is fully inserted into battery.
  - b. Charge battery 24 hours.
  - Starter cranks but engine fails to start
  - a. Check fuel supply
  - b. Speed control must be set at start.
  - c. Spark plug wire must be on.
  - d. Engine flooded. See page 6



Figure 9



SIMPLICITY MANUFACTURING COMPANY, INC.

# **GRASS CATCHER ASSEMBLY**



Ref. Let.	Part No.	Description	
A.	108769	Chute Assembly	
в	108644	Chute	
C	108634	Spring Clip	
D	724601	Rivet	
Е	108709	Deflector Assembly	
F	108785	Support Rod Assembly	
G	8161045	Clip, Hairpin	
н	108788	Bag Assembly	
J.	718026	Speed Clip	
K I	705015	Hex. Hd. Screw, 1/4"-20 x 5/8" la.	
L	705030	Hex. Hd. Screw, 1/4"-20 x 3/4" lg.	
M	719006	Plain Washer, 1/4''	
N	108818	Guard, Bag	
P	719002	Plain Washer, 5/16'' Std.	
Q .	720001	Lockwasher, 5/16''	
Q R S	717001	Hex. Nut. 5/16"-18 NC	
S	108826	Clip Plate	

PUSH MODEL



# PUSH MODEL

Ref.	Part	Description
Let.	<u>No.</u>	······································
A	715089	Screw, Thread Forming $#4.40 \ge 1/4'' \lg$ .
B	108760	Shroud Assembly
C	108759	Shroud
D	108763	Hinge
E	724601	Rivet, Oval Head
₩ <b>F</b>	715101	Screw, Thread Forming, # 12-24 x 1/2" lg.
H	108777	Ring Support
J	100/07	Engine, Briggs & Stratton 3-1/2 H.P.
ĸ	108627	Plate, Cover
L	710009	Screw, Cover Plate, 1/4"-20 N.C. x 5/8"
M N	108661	Housing, 21"
P	108699 103100	Speed Nut, Special
	720002	Plate, Serial No. Lock Washer, 3/8'' Stanlus Finish
Q R	715105	Bolt Engine Mtg. Thread Form 7/02/16
K	715105	Bolt, Engine Mtg., Thread Form. 3/8"-16 N. C. x 1" lg.
U	108716	Adaptor, Blade
v	725002	Woodruff Key
Ŵ	108704	Stiffner
X	108700	Blade, 21"
	100700	
Z	715106	Bolt, Stiffner to Engine, Hex Capscrew - Sems
AA	715107	3/8"-24 N.F.x 1-1/2" Bolt, Blade to Stiff., 5/16"-18 N.C. x 1"
AA AB	108640	Plate, Adjusting
AC	705011	Screw, Cap, $3/8''$ -16 x $5/8''$ lg.
AD	108697	Pilot Nut, Twin
AE	108639	Adjuster, Height, Front
AF	108641	Spring, Height Adjusting
ÂĞ	108711	Bolt, Shoulder
AH	719002	Washer, Plain, 5/16" Std.
AJ	108702	Wheel, 6"
AK	108764	Bolt, Front Wheel
AL	108783	Hub Cap
AM	108721	Plate & Tube Assembly
AR	108766	Shoulder Bolt
AS	108638	Adjuster, Height, Rear
AT	105184	Spacer, Adj., Ht., Rear
AU	121037	Spring, Adj. Ht., Rear
AV	718050	Nut, Flange Lock 5/16 x 18 NC.
AX	108712	Washer, Wave
AY	108765	Bolt, Rear Wheel
BA	108701	Wheel, 10"
BB	108749	Bracket Assembly, R.H.
BC	715067	Screw, Thread Forming, 1/4''-20 N. C. x 3/8'' lg.
BD	108748	Bracket Assembly, L.H.
BE	717505	Nut, Lock, 3/8''-16 Std.
BF	8161045	Clip, Hair Pin
BG	108656	Handle, Lower
BH	108834	Bolt, Latch Handle
BM	108727	Latch, Handle
BN	108835	Nut, Latch Handle
BP	108778	Bolt, Curved Head, 5/16"-18 N.C. x 1-3/4"
BQ	106229	Nut, Wing
BR	717508	Nut, Hex. Jam, Lock, 5/16"-18 N.C.
BS	108745	Handle, Upper
BT	108793	Tubing, Handle
BU	108819	Seal, Wheel
BV	108820	Housing, Seal
BW	108821	Eyelet
BX	719006	Washer, Plain, 1/4" Std.
	108827	Housing, Seal
BY	100027	
BY BZ	108712	Washer, Wave



### SELF PROPELLED DRIVE

# SELF PROPELLED DRIVE

Ref.	Part	Description
Let.	No.	*
А	108689	Pulley, Engine
С	725007	Key, Woodruff, # 5 1/8 x 5/8'' dia.
D	108703	Cover, Lower Drive
Е	718009	Clip, Speed
F	715101	Screw
Ğ	108694	Bracket, Idler Support
н	715067	Screw, Thread Forming, 1/4"-20 N.C. x 3/8" lg.
J		Screw, Thread Forming, 1/4"-20 N.C. x 3/4" lg.
-	715085	
К	108693	"U" Bolt, Idler
L	108729	Spring, Idler Torsion
М	108698	"E" Ring
N	108731	Bearing, Idler
Р	108730	Pulley Assembly, Idler
-		
R ·	718049	Nut, Flange Lock ¼ x 20 NC.
S	108732	Belt, Drive
Ť	108652	Bracket Assembly, R.H.
U	108635	Bracket Assembly, L.H.
V	722016	Pin, Cotter, 3/32 x 5/8 lg.
W	108823	Shaft and Pulley Assembly
Х	108636	Plate and Tube Assembly
Y	108666	Shaft, Drive Wheel
Z	108688	Drive Pulley
AA	8301042	Set Collar
AB	713502	Set Screw, Soc. Hd. 5/16"-18 N.C. x 1/4" lg.
AC	108696	Grease Seal
AD	108667	Bearing and Retainer Assembly
AE	108664	Driver, Wheel
AF	108630	Bellcrank, R.H.
AG	108736	Bellcrank, L.H.
AH	718048	Nut, Hex. $\#$ 10 -24 L.H. Thread
AJ	108669	Rod, Engaging, Lower
AK	717023	Hex. Nut # 10-24
AL	108775	Turnbuckle
AM	108670	Rod, Engaging, Upper
AN	108791	Spring, Rod Retainer, L.H.
AQ	108776	Spring, Rod Retainer, R.H.
112	100//0	opring, roa roannor, roar.
AS	108757	Stop, Handle
AT		· · ·
	718050	Nut, Flange Lock 5/16 x 18 NC.
AU	108734	Bolt, Shoulder, Handle
AV	108755	Anchor, Engaging Rod, L.H.
AW	108756	Anchor, Engaging Rod, R.H.
AX	108812	Clip
AY	108784	Tubing, Engaging Handle
AZ	108657	Handle, Engaging
BA	108825	Spring, Tension
BB	108655	Handle, Upper
BC	108793	Tubing, Handle
	1 100/80	

## ELECTRIC START



Ref. Let.	Part No.	Description
А	108808	Mounting Panel, Switch
В	108813	Simplicity Start Decal
С	122201	Starting Switch
D	108814	Starting Decal
E E	721505	Lockwasher, Internal Tooth, 5/8''
F	122234	Hex. Nut, Special
G	122203	Key & Ring Assembly (Service Only)
Н	715067	Self Threading Screw, 1/4"-20 N.C. x 3/8" lg.
J	108830	Harness Assembly
K	108812	Clamp, Cable
L	108811	Clamp, Cable
M	108805	Ring Support Assembly
N	108804	Ring, Support
P	108806	Clip, Battery
Q R	729001	Rivet, Clip
R	108807	Charger, Battery
S	108810	Battery
] Т	715089	Screw, Thread Forming $#4-40 \times 1/4'' \lg$
່ ບ	108655	Handle, Upper
V	108793	Tubing, Handle

