

**F640A, F640AH,  
F640AH SPECIAL,  
F650A, F650AH,  
F650AH SPECIAL  
DRAWN MOLDBOARD PLOWS**



**JOHN DEERE**

**OPERATORS MANUAL**

F640A, F640AH, F640AH SPECIAL, F650A,  
F650AH, F650AH SPECIAL DRAWN MOLDBOARD  
PLOWS

OMA15889 F7 English

**OMA15889 F7**

LITHO IN THE U.S.A.  
ENGLISH



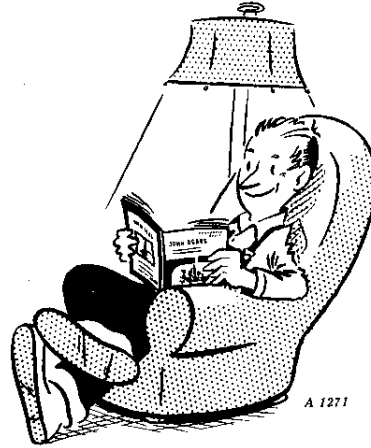
## YOUR NEW PLOW

Behind your new plow is an organization that has specialized in designing and building plows for over 125 years. This plow was built in the world's largest plow factory by experienced men, many who have worked in this large plant for from 10 to 45 years. Their experience assures the utmost in good design, high-grade workmanship and thorough inspection, so essential to the production of good plows.

High quality materials, precision production methods, and accurately controlled heat-treating assure maximum strength and long life for every part.

This manual has been carefully prepared and illustrated, so that you may make the necessary adjustments for adapting your plow to work properly in practically all types of soil and field conditions. These adjustments, such as proper hitching and adjusting for width and depth of cut, are fully covered in this manual.

Study this manual carefully. Keep it handy, in a safe place, for future reference.



Occasionally your plow may need new parts, or require service not covered in this manual. If so, we suggest that you take advantage of the facilities offered by your John Deere dealer, which assure you of genuine JOHN DEERE Parts and prompt "know-how" service in the field or shop.

If you will furnish your dealer with the information which should be recorded at the bottom of this page, when the plow is delivered, he can give you prompt and efficient service.

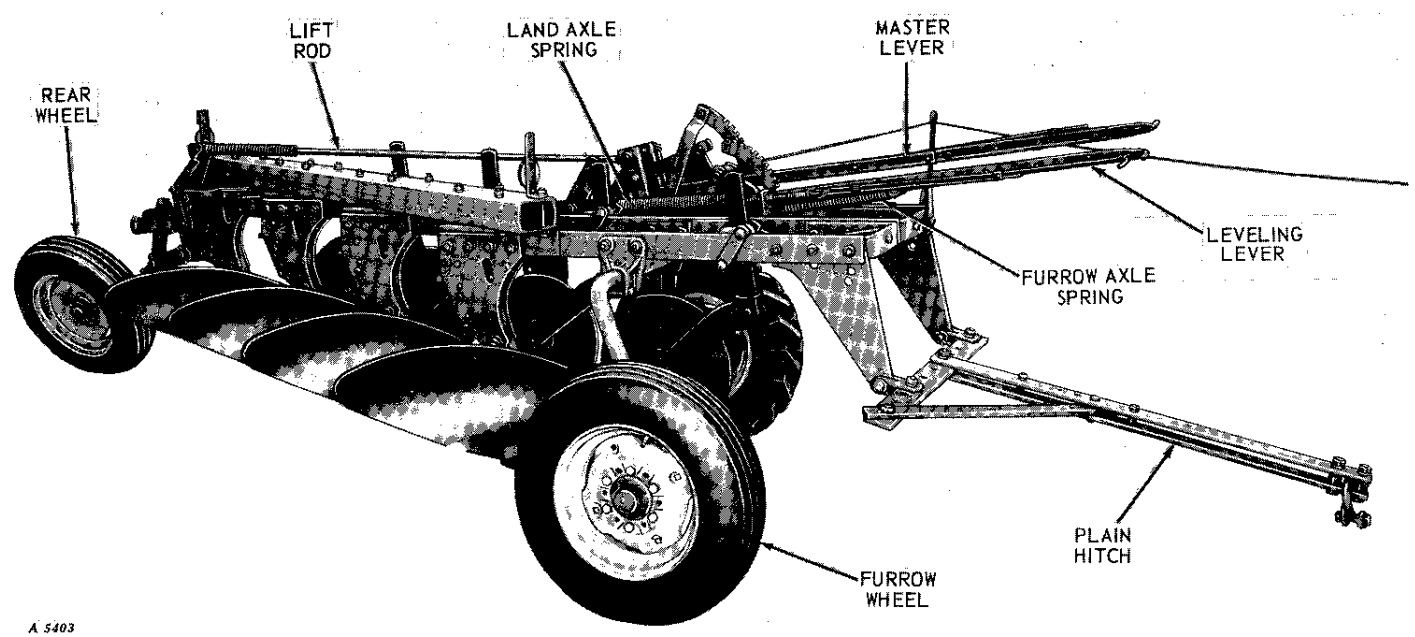
JOHN DEERE  F640A  F640AH  F640AH SPECIAL  
 F650A  F650AH  F650AH SPECIAL

Date Purchased . . . . . 19 . . .

*(To be filled in by Purchaser)*

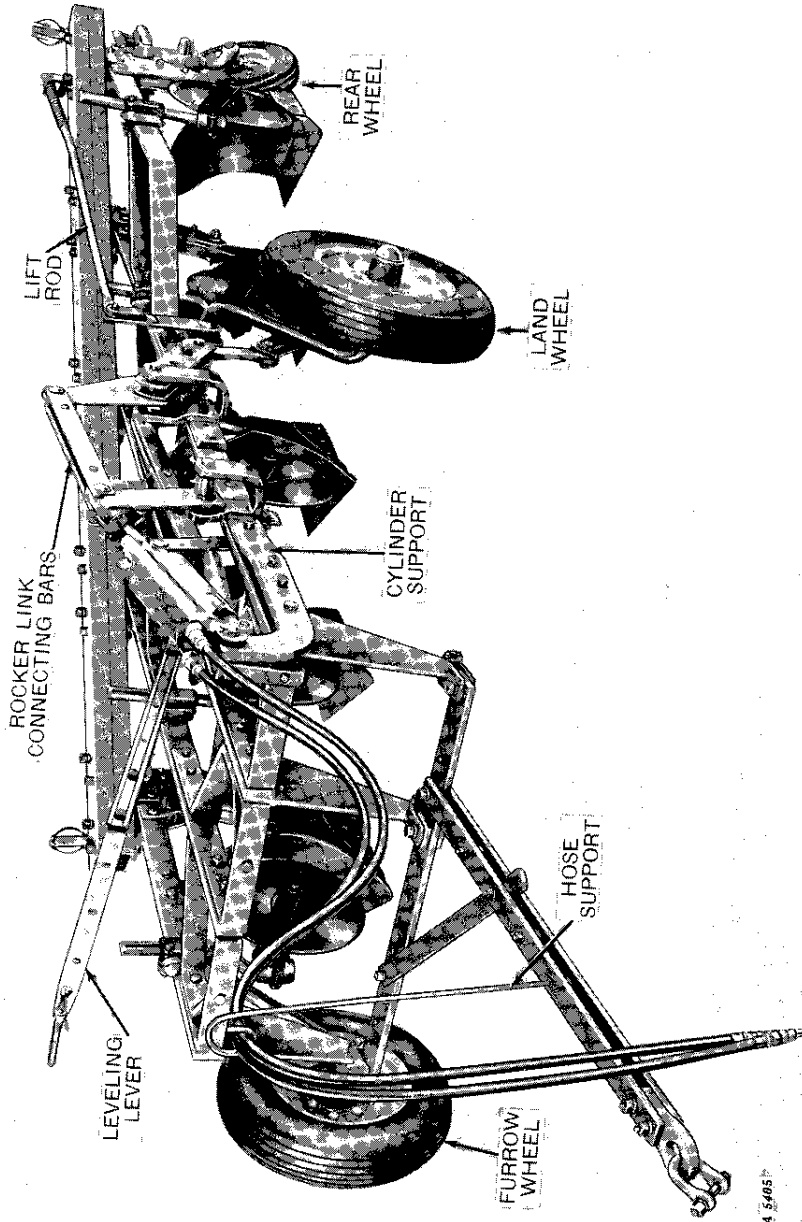
## CONTENTS

	Page
IDENTIFICATION VIEWS .....	2-4
SPECIFICATIONS .....	5-7
OPERATION .....	8-31
Importance of Proper Adjustment .....	8
Preparing the Plow .....	8
Preparing and Adjusting Tractor .....	9
Hitching Plow to Tractor .....	10-13
Types of Hitches .....	14
Hydraulic Control .....	15-16
Mechanical Control .....	16
Leveling .....	17
Depth of Plowing .....	17
Rear Axle and Wheel .....	18-19
Rear Wheel Lift Rod .....	19
Lifting Springs .....	20
Trip Lever Adjusting Spring .....	20
Safety-Trip Standards .....	21-22
Rolling Coulters .....	23-25
Special Equipment .....	26-30
Landing Lever .....	26-27
Gauge Wheel .....	27
Share-Frog Brace .....	27
Moldboard Pad .....	27
Independent Jointers .....	28
Moldboard Extension .....	29
Trash Board .....	29
Root Cutter .....	29
Weed Hook .....	30
Transporting .....	30
Safety Rules .....	30
Procedure for Field Adjusting Plow .....	31
MAINTENANCE .....	32-35
LUBRICATION .....	36-37
REDUCING A 4-BOTTOM PLOW TO A 3-BOTTOM PLOW .....	38
REDUCING A 5-BOTTOM PLOW TO A 4-BOTTOM PLOW .....	39-42
PLOWING DIFFICULTIES AND REMEDIES .....	43-46
ASSEMBLY .....	47-72
SHIPPING BUNDLES .....	47-54

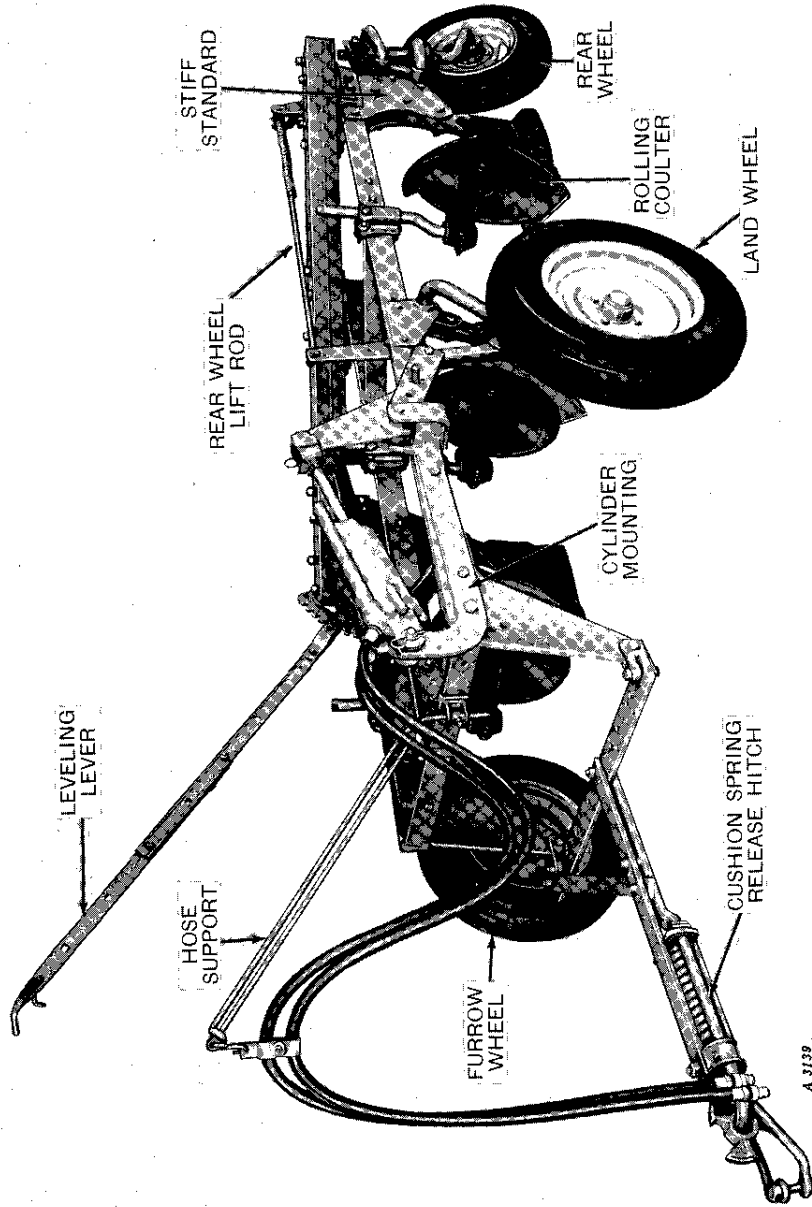


A 5403

*John Deere F650A 4-Bottom 16-Inch Drawn Moldboard Plow*



John Deere F650AH 5-Bottom 16-Inch Drawn Moldboard Plow  
(Round Shank Coulters, Special Equipment)



A 3139

John Deere F640AH Special 3-Bottom Drawn Moldboard Plow

## SPECIFICATIONS

<p>TYPES . . . . .</p>	<p>The F640A Clutch-Lift and F640AH Hydraulic-Lift 14- and 16-Inch Frames with Stiff Standards are furnished in the following sizes: 3-, 4-, and 5-bottom. The 5-bottom plow is reducible to 4 bottoms. The 4-bottom plow is reducible to 3 bottoms.</p> <p>The F650A Clutch-Lift and F650AH Hydraulic-Lift 14- and 16-Inch Frames with Safety-Trip Standards are furnished in the following sizes: 3-, 4-, and 5-bottom. The 5-bottom plow is reducible to 4 bottoms. The 4-bottom plow is reducible to 3 bottoms.</p> <p>F640AH Special Hydraulic-Lift 3-Bottom Stiff Standard, 14- and 16-Inch Frames.</p> <p>F650AH Special Hydraulic-Lift 3-Bottom Safety-Trip Standard, 14- and 16-Inch Frames.</p>
<p>DEPTH RANGE. . . . .</p>	<p>Up to 12 inches, depending on type and size of bottoms and ground conditions.</p>
<p>BOTTOMS . . . . .</p>	<p>Various types available as ordered.</p>
<p>LANDSIDES . . . . .</p>	<p>Bottoms with short landsides (No. 4 for conventional-type bottoms and No. 9 for high-speed bottoms except rear bottom which requires a No. 10 landside).</p>
<p>WHEELS:</p>	
<p>  FURROW:</p>	
<p>    F640A, F640AH,     F650A, F650AH. . . . .</p>	<p>Equipped with anti-friction bearing. Regular less tire. Special with 6.70-15 tire. 14-inch wheel less tire, special. Steel wheel, special.</p>
<p>    F640AH and F650AH     Special . . . . .</p>	<p>Equipped with Anti-Friction bearing. Regular less tire. Steel wheel with wheel lugs, special. wheel less tire, special.</p>
<p>  LAND:</p>	
<p>    F640A and F650A . . .</p>	<p>Equipped with anti-friction bearing. Regular less tire. Special with 7.60-15 tire. Steel wheel with wheel lugs, special.</p>
<p>    F640AH and F650AH .</p>	<p>Equipped with anti-friction bearing. Regular less tire. Special with 6.70-15 tire. 14-inch wheel less tire, special. Steel wheel, special.</p>

6 Specifications

LAND—Continued

F640AH and F650AH

Special . . . . . Equipped with anti-friction bearing. Regular less tire. Special with 5.90-15 tire. 14-inch wheel less tire, special.

REAR:

F640A, F640AH,  
F650A, and F650AH..

Equipped with anti-friction bearing. For but less 5.90-15 tire, regular; with tire, special. 14-inch wheel less tire, special. Cast wheel, special.

F640AH and F650AH

Special . . . . . Equipped with anti-friction bearing. For but less 5.90-15 tire, regular; with tire, special. 14-inch wheel less tire, special.

HITCH:

F640A and F640AH. . . .

Cushion spring release, regular.

F640AH Special . . . . .

Cushion spring release, regular.

F650A and F650AH. . . .

Plain hitch for wheel-type tractors, regular. Plain hitch for crawler tractors, special. Connecting loop and clevis for plain hitches or wheel-type tractors, special. Clevis with bushing and bolts for wheel tractor with straight drawbar, regular.

F650AH Special . . . . .

Plain hitch, regular. Clevis with bushing and bolts for wheel tractors with straight drawbar, regular.

LIFT. . . . .

Reduction gear lift clutch for the F640A and F650A Plows. Remote hydraulic cylinder for the F640AH and F650AH and special plows.

LEVERS . . . . .

Adjustable for length.

COULTERS . . . . .

17-inch plain, regular.  
17-inch rippled edge, optional.  
17-inch cushion coultter, plain or rippled edge, chilled-cone bearing, for round shank; optional.  
18-inch plain, optional.  
Round Shank, regular for F640AH and F650AH Special Plows, optional for F640A, F640AH, F650A, and F650AH Plows.



COULTERS—Continued	Flat Shank, regular for F640A, F640AH, F650A, and F650AH Plows. Optional for F640AH and F650AH Special Plows. Chilled-Cone Bearing, regular. Anti-Friction Bearing, optional.
JOINTERS . . . . .	Independent cast or steel available as special equipment.
LANDING LEVER . . . . .	Special equipment.
MOLDBOARD EXTENSION	Special equipment. Two types—for conventional bottoms or HS400 Series High-Speed Bottoms.
MOLDBOARD PAD . . . . .	Special equipment for HS400 Series High-Speed Bottoms only.
ROOT CUTTER . . . . .	Special equipment.
WEED HOOKS . . . . .	Special equipment.
TRASH BOARDS . . . . .	Special equipment for high-speed bottoms, high-speed slat bottoms, and SDT546 FC Semi-Deep Tillage Bottoms.
SHARE-FROG BRACE . . . . .	Special equipment. To attach 16-inch high-speed shares to 14-inch high-speed bottoms.
GAUGE WHEEL . . . . .	Special equipment, for the 4- and 5-bottom† F640A, F640AH, F650A, and F650AH Plows. Available less tire or with 5.90-15 tire. 14-inch wheel available less tire.

*(Specifications and design subject to change without notice.)*

*NOTE: When the term "right" or "left" is used, it means from a position behind the plow and facing the front.*

## OPERATION

### IMPORTANCE OF PROPER ADJUSTMENT

Your new plow is fully adjustable and, when properly adjusted to operate in the type of soil and field conditions on your farm, it will do a good job of plowing at a minimum of expense. A well-adjusted plow pulls lighter; its furrow slices are uniform in width and depth; it covers trash; it leaves the soil in proper condition to be worked down into the best type seedbed.

Improper adjustment results in rapid wear and possible breakage of parts, and inefficient operation.

### PREPARING THE PLOW

#### PLOW BOTTOMS

The polished surfaces of the plow bottoms have been painted with protective black paint.

In most cases it is not necessary to remove the black paint because it will wear off quickly upon contact with the soil. In those soils where the black paint will not wear off, remove with gasoline, kerosene, or diesel fuel.



Be careful when using any of these fuels so they do not ignite. Plow should be in a well-ventilated area and away from any sparks or flames.

If the plow is not to be used immediately, protect the polished surfaces by applying a coat of cup or gun grease. If plow is to be put in storage for a considerable length of time, see pages 32 through 34.

#### BOLTS AND SET SCREWS

Before starting to work with a new plow or one which has been stored, check to see that all bolts and set screws are tight and all cotter pins spread to keep them from falling out. Check the bolts that hold the plow bottoms to see that they are drawn up very tight.

#### TIRE INFLATION

Check plow tires to be sure they are inflated properly as shown below:

Recommended New Implement Tires	Inflation Pressure
4.00-12-4-Ply	36 psi.
5.90-15-4-Ply	28 psi.
6.70-15-4-Ply	26 psi.
7.60-15-4-Ply	24 psi.

#### LUBRICATION

Be sure plow has been properly lubricated. See Lubrication Chart on pages 36 and 37.

## PREPARING AND ADJUSTING TRACTOR

For complete tractor operating instructions, refer to your tractor operator's manual.

### TIRE INFLATION

Inflate the tractor tires as recommended in the tractor operator's manual. For plowing, best results are generally obtained by taking one weight from the furrow wheel and adding it to the land wheel. Tilting of the tractor places more weight than normal on the furrow wheel. Addition of weight to the land wheel provides more uniform weight distribution over the rear wheels.

### ROCKSHAFT SELECTOR LEVER

On John Deere Tractors equipped with a 3-Point Hitch and Load-and-Depth Control, set the selector lever in the "D" position. Keep the selector lever in this position while operating.

### TRACTOR DRAWBAR

On wheel-type tractors set the tractor drawbar in the **short high position** and, except where off-hitching is required, bolt it exactly in the center of the tractor, midway between rear wheels.

On crawler tractors that work with both tracks on the land the tractor drawbar should ordinarily be free to swing.

### REAR WHEEL SETTING

Tractor rear wheel settings are determined by the location of the center line of draft in the plow. Therefore, it is necessary to first read "Hitching Plow to Tractor" on the following pages. Then adjust the wheels as explained on page 11.

### FRONT WHEEL SETTING

On wide-front-end tractors set front wheels to conform to rear wheel setting, center-to-center of tread.

### REAR WHEEL WEIGHTING

Rear wheel weights may be necessary to eliminate excessive wheel slippage or for stability in rough or hillside fields. However, weights should not be added to the point where all slippage is eliminated. To do so would hinder maximum performance of the tractor.

The ideal amount of added weight can be determined by observing the tracks of the rear wheels. When the tractor is pulling its rated load, the soil between the tire lugs should be broken or shifted. If too much weight has been added, the tread marks will be clear and distinct. If too little weight has been added, the tread marks will be entirely obliterated.

#### *Liquid Weights*

Water and calcium chloride solution is an economical means of adding weight to rear wheels. Calcium chloride is recommended rather than water as it will not freeze. See your tractor operator's manual or your John Deere dealer.

#### *Cast-Iron Weights*

Where weight in addition to or in place of liquid weight is required, cast-iron weights can be bolted to the rear wheels. This type of weight can be secured from your John Deere dealer.

For maximum ballast, refer to your tractor operator's manual.

### HITCHING PLOW TO TRACTOR

The ideal hitch is a straight line from the center point of pull on the tractor to the center point of resistance on the plow, both horizontally and vertically.

The center point of pull on the tractor is located approximately 3 inches ahead of the rear axle housing and midway between the rear wheels.

To find the center point of resistance on the plow, first find the center line of draft as explained below.

#### CENTER LINE OF DRAFT

The center line of draft is simply an imaginary line drawn from the point of pull on the tractor to the point of resistance on the plow.

The center line of draft of the plow can be located by using the following rule:

**Rule:** The center line of draft of a moldboard plow is located at a point one-fourth of the cutting width of one bottom measured to the left of the center of total cut of the plow. (This rule applies to all plows whether 3-, 4-, or 5-bottom.)

**Example:** Finding center line of draft of a 5-bottom 14-inch plow:

Total cut of plow = 70 inches.

Center of cut or one-half of 70 inches = 35 inches.

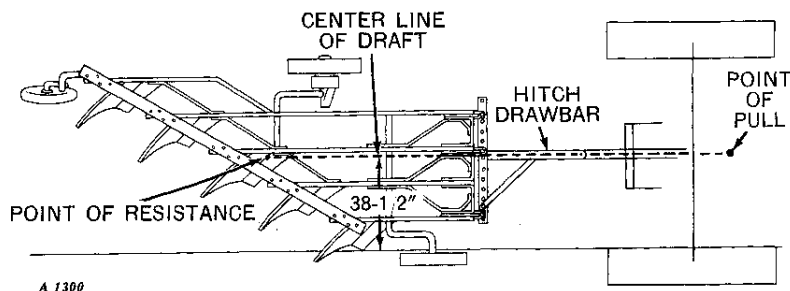
One-fourth the cutting width of one bottom = 3-1/2 inches.

3-1/2 inches added to center of cut, which is 35 inches = 38-1/2 inches.

Therefore, the center line of draft of a 5-bottom 14-inch plow is 38-1/2 inches measured to the left and at right angles from the furrow wall. See illustration below.

#### CENTER POINT OF RESISTANCE

The center point of resistance on a plow is located on the bottom intersected by the line of draft, at a point approximately one-half of the plowing depth from the bottom of the furrow. When plowing 6 inches deep, the point of resistance will be 3 inches up from the furrow bottom, or approximately at the junction of the share and moldboard. If plowing deeper than 6 inches, this point will be located farther up on the moldboard. If plowing shallower than 6 inches, the point of resistance will be farther down on the share.



A 1300

*Horizontal Hitch Adjustments on 5-Bottom, 14-Inch Plow*

Thank you so much for reading.  
Please click the “Buy Now!”  
button below to download the  
complete manual.



After you pay.

You can download the most  
perfect and complete manual in  
the world immediately.

Our support email:

[ebooklibonline@outlook.com](mailto:ebooklibonline@outlook.com)