

# Installation Instructions DRO Retrofit Kit

For Jet Planer Models: JWP-15CS, JWP-208 For Powermatic Planer Models: 15, 15S, 208, 209



DRO shown on Model JWP-15CS Planer

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# **Table of Contents**

Table of Contents	
Unpacking	.3
Shipping Contents	.3
Installation on 15" Planer	
Alignment	
Installation on a 20" Planer	.5
Reversing the Lock Knob	.5
DRO Installation	.5
Alignment	.6
Maintenance	
Maintenance	.4
Functions of the Digital Scale	.7
Setting The DRO	
Parts	.8
Exploded View	.8
Parts List	.8
Ordering Replacement Parts	

# **Unpacking**

Open the Retrofit Kit box and check for shipping damage. Report any damage immediately to your distributor and shipping agent. Do not discard any shipping material until the Retrofit Kit is assembled and running properly.

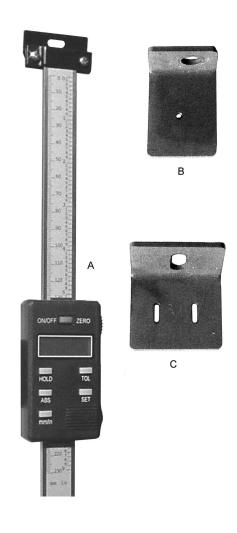
Compare the contents of your container with the following parts list to make sure all parts are intact. Missing parts, if any, should be reported to your distributor. Read this manual thoroughly for correct assembly procedures.

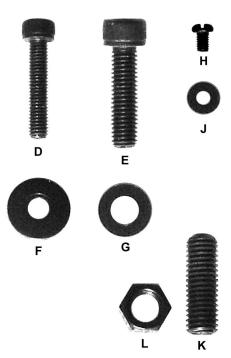
# **Shipping Contents**

- 1 Scale (A)
- 1 Upper Mounting Bracket (B)
- 1 Lower Mounting Bracket (C)
- 1 Spare Battery (not shown)

# Mounting Hardware for 15/20: Planers

- 1 M6x30 Socket Head Cap Screw for 15" Planer (D)
- 1 M8x30 Socket Head Cap Screw for 20" Planer (E)
- 1 M10x30 Socket Setscrew (K)
- 1 M10 Hex Nut (L)
- 1 M6 Washer for 15" Planer (F)
- 1 M8 Washer for 20" Planer (G)
- 1 M4x6 Screw (H)
- 1 M4 Washer (J)





Mounting Hardware for 15/20" Planers

# Installation on 15" Planer

Refer to Figures 1 and 2.

- 1. Lower the planer table by rotating the handwheel (A) counterclockwise. This will provide unhindered access under the gearbox during installation.
- 2. Remove setscrew (B) from the head casting and the lower socket head cap screw (C) in the table casting with a 5mm hex wrench.
- 3. Replace the short setscrew in the head casting with the long *setscrew* (D) from the hardware kit. Do not over tighten.
- 4. Place the *upper bracket* (E) on the *setscrew* (D). Thread the *hex nut* (F) on the setscrew and secure just enough so the bracket can freely swivel.
- Mount the lower bracket (K) on the table casting, securing it with the washer (H) and socket head cap screw (J) from the hardware kit and secure just enough so the bracket can freely swivel.
- 6. Locate the two *screws* (G) pre-assembled on the back of the *DRO* (L) and remove them with a cross-point screwdriver.
- 7. Secure the *DRO* (L) to the *lower bracket* (K) using the two *screws* (G) that were removed in the previous step. Do not tighten at this time.
- 8. Secure the top of the DRO (P) to the top bracket (E) using the small washer (O) and screw (N) from the hardware kit. Do not tighten at this time.
- 9. Proceed to the Alignment section.

# **Alignment**

- Using line of sight, align the front face of the scale (M) with the front edge of the right front post (Q).
- 2. Tighten the *nut* (F) securing the *top bracket* (E) with a 14mm socket wrench.
- 3. Tighten the socket head cap screw (J) securing the lower bracket (K) with the 5mm hex wrench.
- 4. With a measuring device, adjust the top and bottom of the *scale* (M) to be the same distance from the *post* (Q).
- 5. Tighten three *screws* (N and G) securing the DRO to the top and lower brackets.

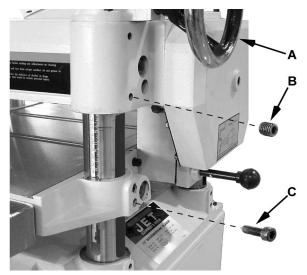
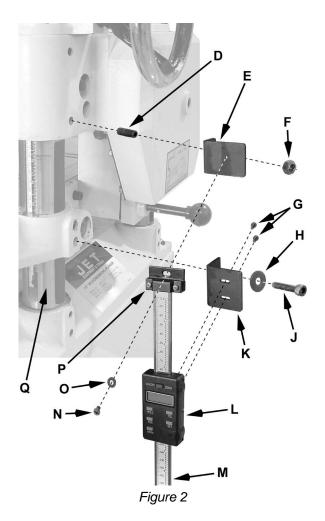


Figure 1



#### Maintenance

- Check occasionally that the screws holding the device to the planer are tight.
- Perform realignment if needed.

# Installation on a 20" Planer

# **Reversing the Lock Knob**

# Referring to Figure 3:

The first step in the installation of the DRO is to reverse the table lock knob assembly so the *lock knob* (A), which is located on the right side of the table as shown in Figure 3, is moved to the left side.

#### Proceed as follows:

- 1. Remove the front *lock knob* (A) by turning counterclockwise.
- 2. Remove the unthreaded lock bushing (B).
- The bar lock (F) is threaded and is screwed on to the lock bolt (bar – item D). Remove as one unit from the left side of the table and insert into the right side of the table. Make sure that the bevel on the bar lock (F) rests against the column.
- 4. Insert the unthreaded *lock bushing* (B) into the left side of the table, sliding it onto the protruding *lock bolt* (D). Make sure that the bevel on the *lock bushing* (B) rests against the column.
- 5. Screw the *lock knob* (A) clockwise onto the threaded end of the *lock bolt* (D) on the *left side* of the table. Tighten all the way (locked position), then turn about 1/2 turn counterclockwise to unlock.
- 6. Repeat steps 1–4 for the rear lock knob assembly.

#### **DRO** Installation

- 1. Lower the planer table by rotating the handwheel (A) counterclockwise. This will provide unhindered access under the gearbox during installation.
- With a 3mm hex wrench, unscrew the hex cap screw (B) securing the pointer (C) and remove both.
- 3. Using a cross-point screwdriver, unscrew the two *screws* (D) securing the *scale* (E) to the head casting and remove both.
- 4. In the head casting, remove the short *setscrew* (F) using a 5 mm hex wrench.
- 5. In the table casting, remove the lower *hex cap screw* (G) using a 6mm hex wrench.

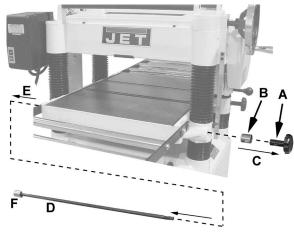


Figure 3

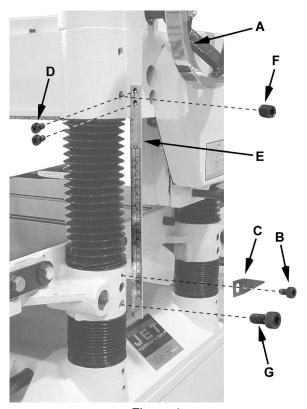


Figure 4

#### Referring to Figure 5:

- 6. Insert the long *setscrew* (A) from the hardware kit into the head casting. Secure with a 5mm hex wrench, but do not over-tighten.
- 7. Place the *upper bracket* (B) on the setscrew (A). Thread the *hex nut* (C) on the setscrew and secure just enough so the bracket can freely swivel
- Mount the *lower bracket* (D) on the table casting, securing it with the *washer* (E) and socket head cap screw (F) from the hardware kit just enough so the bracket can freely swivel.
- 11. Locate the two *screws* (G) pre-assembled on the back of the *DRO* (H) and remove them with a cross-point screwdriver.
- 12. Secure the *DRO* (H) to the *lower bracket* (D) using the two *screws* (G) that were removed in the previous step. Do not tighten at this time.
- 13. Secure the top of the DRO (J) to the top bracket (B) using the small washer (K) and screw (L) from the hardware kit. Do not tighten at this time.

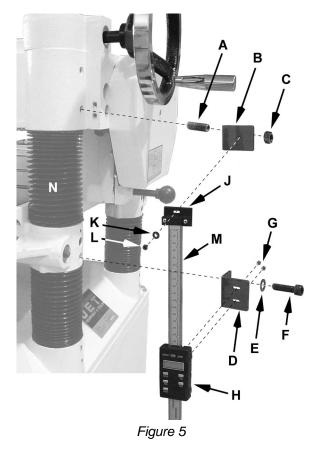
# **Alignment**

Referring to Figure 5:

- 6. Using line of sight, align the front face of the scale (M) with the front edge of the right front post (N).
- 7. Tighten the *nut* (C) securing the *top bracket* (B) with a 14mm socket wrench.
- 8. Tighten the socket head cap screw (F) securing the lower bracket (D) with the 6mm hex wrench.
- 9. With a measuring device, adjust the top and bottom of the *scale* (M) to be the same distance from the *post* (N).
- 10. Tighten three *screws* (G and L) securing the DRO to the top and lower brackets.

#### **Maintenance**

- □ Check occasionally that the screws holding the device to the planer are tight.
- Perform realignment if needed.



# Functions of the Digital Scale

Figure 6 identifies the parts of the digital scale. The button functions are discussed below, followed by a section giving practical examples of how to calibrate your settings, and how these functions can be used for daily planer operations.

Before using the device, wipe down the vertical scale with a dry, soft cloth. Do not use cleaning solutions. Do not allow any liquids (such as machine oil) to contact the body of the digital display. Keep the device clean.

This device uses a 1.5-volt battery cell (SR44 or G-13A). If it needs replacing, slide off the battery cover and insert the battery, with the positive pole of the battery facing out.

**Note:** After replacing a battery, the digital display setting defaults to zero and needs to be reset as described in the *Setting the DRO* section.

#### ON/OFF

Press *ON/OFF* button no longer than 3 seconds to power on.

Press *ON/OFF* button at least 3 seconds to shut off the digital display.

### **Setting The DRO**

Setting the DRO sets the distance from the table to the cutterhead (*Absolute* measurement) which represents the thickness of the planed board.

- Take a board of arbitrary thickness, plane it and measure the thickness with a caliper. Make note of this measurement for use below.
- Without moving the table, press the SET button on the DRO – the indicator will flash "SET".
- 3. Press and hold the SET button.

Each digit will flash in turn. When the digit you want flashes, release the SET button.

Press SET button once (no longer than 1 second) and that digit will increase by one each time SET is pressed.

#### When finished:

5. Press and hold the SET button until indicator "SET" flashes,

6. Press SET again (no longer than 1 second). The indicator "SET" disappears and the value you just input is displayed on the LCD.

From this point on, any table movement will be based off this setting. The setting will be kept in the device's memory, even when the digital display is turned off and only needs resetting after a battery has lost charge and needs replacing.

#### **Relative Mode**

Periodically during planing operations, it may be desirable to display the amount of material to be removed from a previously planed board.

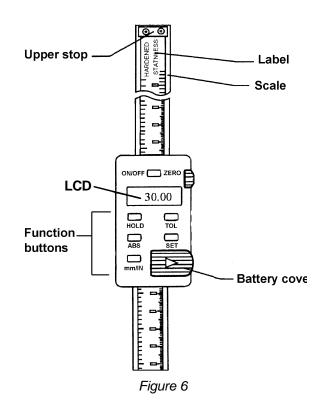
With a planer at the last thickness setting for that board:

- 1. Press ABS until "INC" appears. This toggles the DRO from *Absolute* to *Relative* mode.
- 2. Press the ON/OFF button for less than three seconds. The digital display resets to zero.

Raising the table will represent the additional material to be removed from a board from the previous setting.

3. To toggle back to *Absolute* mode, press ABS again.

**IMPORTANT:** Always place the digital display in *relative* ("INC") mode before turning it off. If you turn it off while in *absolute* ("ABS") mode, your absolute setting will default to zero.



#### MM/INCH

Pressing this button toggles back and forth between standard (inches) and metric (mm), and can be done at any time without affecting saved settings.

#### **HOLD**

The *Hold* button is used to record a critical setting for reference for the purpose of later resetting to that same setting.

For example: In the event that a board being planed becomes jammed due to taper, twist, etc.:

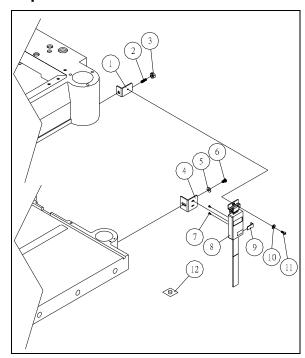
- 1. Press the HOLD button. The dimension is "frozen" in the display.
- 2. Lower the table to remove the jammed board. After the jammed board is removed...
- 3. Make a mental note of the "frozen" dimension (from Step 1).
- Press HOLD again to return to normal measurements
- 5. Adjust the table back to its original (frozen display) position.

#### TOL

Tolerance is an intrinsic feature of the DRO and is not used in planer operation.

# **Parts**

#### **Exploded View**



#### **Parts List**

Index No. Part No.	Description	Size	Qty
1JWPDRO-01	Upper Plate		1
	Set Screw		
3TS-1540071	Hex Nut	M10	1
4JWPDRO-04	Lower Plate		1
5TS-1550041	Flat Washer (For 15" Planer)	M6	1
	Flat Washer (For 20" Planer)		
6TS-1503071	Socket Head Cap Screw (For 15" Planer)	M6×30	1
TS-1504061	Socket Head Cap Screw (For 20" Planer)	M8×30	1
	Screw		
8JWPDRO-08	Digital Readout Body and Scale		1
	Battery Cover		
10TS-1550021	Flat Washer	M4	1
11TS-2171012	Screw	M4×6	1
1215S-600	Battery	1.5 Volt	2

# **Ordering Replacement Parts**

To order parts or reach our service department, call 1-800-274-6848 between 7:30 a.m. and 5:30 p.m. (CST), Monday through Friday. Having the Model Number and Serial Number of your machine available when you call will allow us to serve you quickly and accurately.