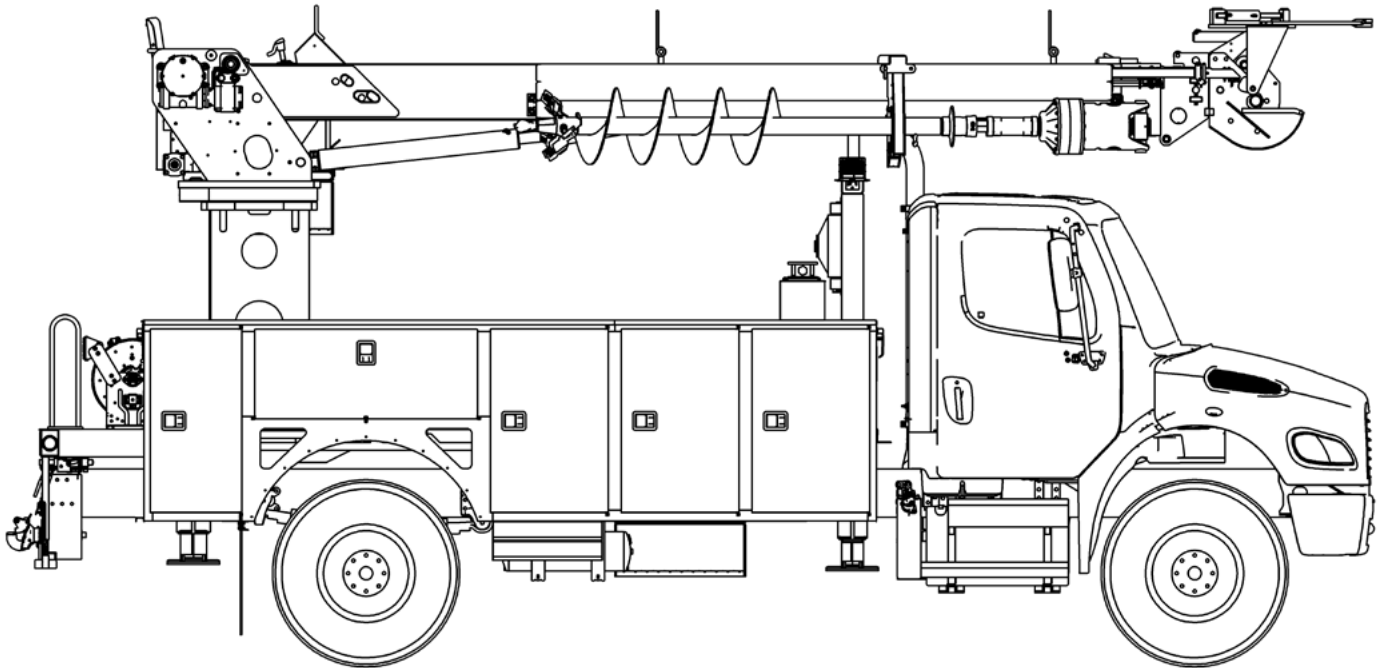




# TECH TIPS

ADJUSTING RADIO CONTROL SPEEDS

NO. 75



**SERVICE CALL:**  
ADJUSTING RADIO CONTROL  
SPEEDS



**MODEL(S):**  
ALL TEREX UTILITIES DIGGER  
DERRICKS WITH RADIO  
CONTROLS



**TOOLS NEEDED:**  
RED PROGRAMMING KEY  
SUPPLIED WITH THE UNIT

TEREX UTILITIES TECHNICAL SUPPORT TEAM

PHONE: 1-844-TEREX4U (1-844-837-3948) | EMAIL: [UTILITIES.SERVICE@TEREX.COM](mailto:UTILITIES.SERVICE@TEREX.COM)



## **DANGER**

Failure to obey the instructions and safety rules in the appropriate Operator's Manual and Service Manual for your machine will result in death or serious injury.

Many of the hazards identified in the Operator's Manual are also safety hazards when maintenance and repair procedures are performed.

## **DO NOT PERFORM MAINTENANCE UNLESS:**

- ✓ You are trained and qualified to perform maintenance on this machine.
- ✓ You read, understand and obey:
  - manufacturer's instructions and safety rules
  - employer's safety rules and worksite regulations
  - applicable governmental regulations
- ✓ You have the appropriate tools, lifting equipment and a suitable workshop.

The information contained in this Tech Tip is a supplement to the Service Manual. Consult the appropriate Service Manual of your machine for safety rules and hazards.



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# CONTENTS

## TECH TIP #75

### TOC

4

| *Verify pressure settings*

| *Insert Red Key*

**STEP 1 - STEP 3**

5

| *Adjust winch speeds*

**STEP 4 - STEP 8**

6

**STEP 9**

7

| *Adjust featherability*

**STEP 10 - STEP 12**

8

| *Reboot the transmitter*

**STEP 13 - STEP 15**

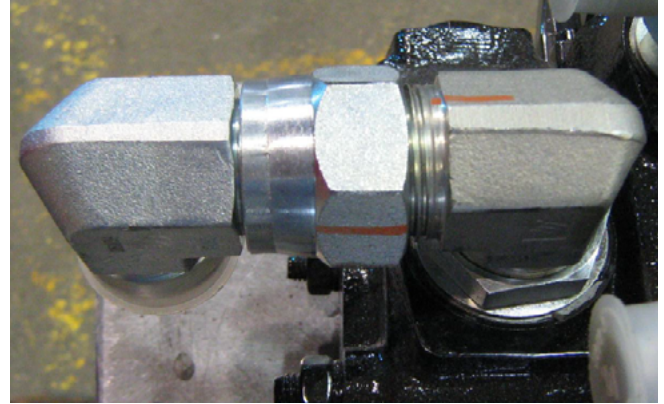
## STEP 1

Verify that all hydraulic pressure settings are correct before starting this procedure.

Reference the following tech-tips:

- **Tech-tip #38 for adjustable valves**
- **Tech-tip #2 for adjusting system pressure**
- **Tech-tip #8 for setting reduced pressure**

The reduced pressure value for radio control units is 300 psi



**FIGURE 1**

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## STEP 2

During this procedure, all boom functions are active. Verify the unit is set-up properly for the ground conditions with wheel chocks and outrigger pads. Check for overhead obstructions before operation.

## STEP 3

Using a fully charged battery, insert and turn the Red Key 90 degrees to the ON position. Let the transmitter go through the automatic self-check sequence before proceeding.



## STEP 4

Push and hold the start button firmly for one second. Keep the transmitter level for the remainder of this procedure. If the internal tilt switch is activated, turn the Red Key off and repeat steps 3, 4, and 5 before continuing.



## STEP 5

Turn red key another 90 degrees to Program position.



## STEP 6

In this tech-tip, the winch function is used to demonstrate the adjustment procedure for all of the functions controlled by a paddle or joystick lever.

Raise boom up to a 45o boom angle and extend the second or third stage. This position will provide enough distance to raise and lower the winch line while adjusting speeds.

## STEP 7

When adjusting speeds, always set the maximum speed first. If the maximum speed is adjusted second, it will affect the feather-ability adjustment on the function.

## STEP 8

The first adjustment will be on the Winch Up function. Before beginning the adjustment, lower the load line until the hook is almost touching the ground.

## STEP 9

Deflect the “Winch Up” paddle all the way toward the Up direction and evaluate the speed of the winch line. **Figure 4**

The RPM Toggle Switch is used to program the speed of the function. The RPM can either be bumped repeatedly or the toggle switch can be pushed and held until the desired speed is reached.

If speed is too fast, deflect the RPM toggle switch toward “-” to decrease the speed while running Winch Up.

If speed is too slow, deflect the RPM toggle toward “+” to increase the speed while running Winch Up. If the speed of the function stops increasing, you can verify that the maximum function speed has been reached by observing whether the control handles physically go full stroke. On units with joysticks, the maximum speed is obtained when an increase in speed stops. **Figure 5**

When the desired maximum speed is reached, release the paddle and allow it to return to neutral. Wait at least 10 seconds before starting next adjustment. This allows the system to store the new values in memory.



**FIGURE 4**



**FIGURE 5**

## STEP 10

We will adjust the feather-ability by setting the threshold of the winch movement in relation to the winch control paddle. **Figure 6**

Slowly start to deflect the “Winch Up’ paddle while carefully listening to the hydraulic system. When the Dump Manifold activates, typically with a thump sound, stop moving the paddle and hold it in position. In this position there should be no Winch movement.

If there is movement, deflect the RPM toggle switch to “-“ to bring the winch to a stop (Minimum Speed). Release the RPM toggle and the Winch paddle, allowing both to return to neutral.



**FIGURE 6**

## STEP 11

Continue to adjust the function until the function just begins to move when the control is pushed slightly past the point where the minimum speed was set. After adjustment, wait at least 10 seconds before continuing to ensure the settings were retained in memory.

On units with control handles, the handle will be just off neutral. Joystick handle unit, you may hear oil starting to be directed in the control manifold.

## STEP 12

Only 1 function should be programmed at a time. Now that we’ve completed the programming for Winch Up, power off the transmitter by turning the Red Key 180 degrees counter-clockwise. Wait 10 seconds before initializing to adjust another function.



## STEP 13

Follow Steps 3 and 4 to reboot the transmitter. Once the transmitter is operational, verify the function can be feathered, reaches the desired maximum speed, and operates correctly throughout the range of operation (minimum to maximum).

## STEP 14

If there are more functions that require adjustment, repeat steps you wish to fine tune, repeat steps 5 through 13 for each function.

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## STEP 15

Once all functions have been programmed, remove the red key and insert the black key. Power up and initialize the radio control system. Perform a final check of all functions in both directions for speed and feather-ability. Return the red key to the appropriate individuals authorized to make adjustments.





FOR FURTHER ASSISTANCE,  
CONTACT THE TEREX UTILITIES TECHNICAL SUPPORT TEAM  
PHONE: **1-844-TEREX4U (1-844-837-3948)** | EMAIL: **[UTILITIES.SERVICE@TEREX.COM](mailto:UTILITIES.SERVICE@TEREX.COM)**

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