

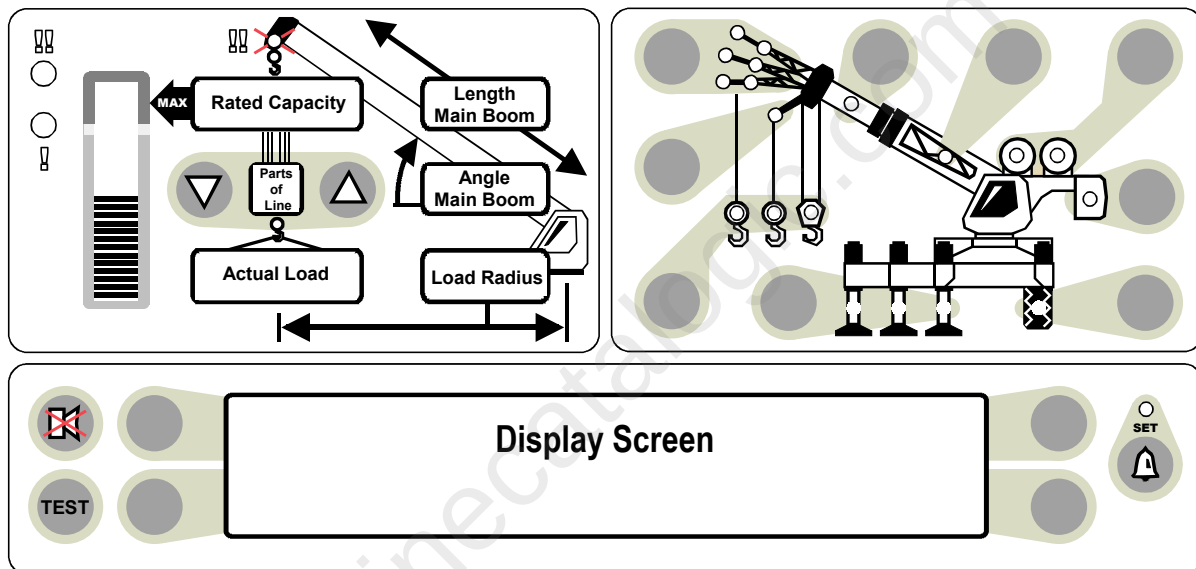
GREER COMPANY

Crane Systems

MICROGUARD[®]

TEREX RCI 510/400 SYSTEM

TELESCOPIC BOOM CRANE

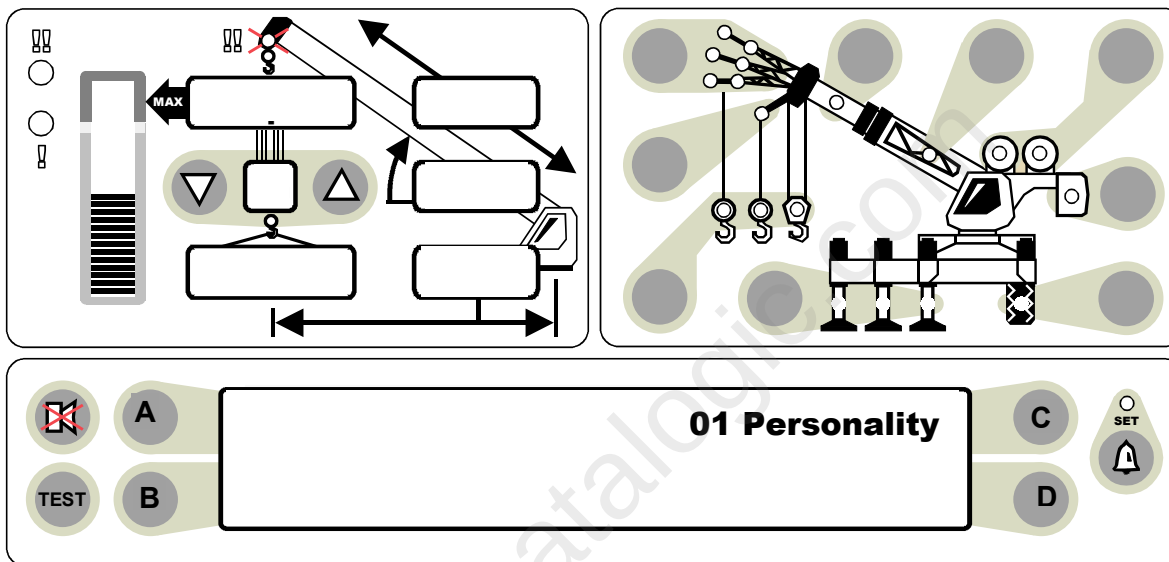


CALIBRATION PROCEDURE



COMMAND 01/2 INITIALIZE

Command 01/2 is used only when calibrating the System **for the first time**. The use of this command causes all previously entered “A” side calibration data to be erased. If the system has been previously calibrated and data from a previous calibration is to be accessed or changed, proceed directly to the command to be changed. Do not perform the initialization command below.

**COMMAND 01/2 INITIALIZE ROUTINE**

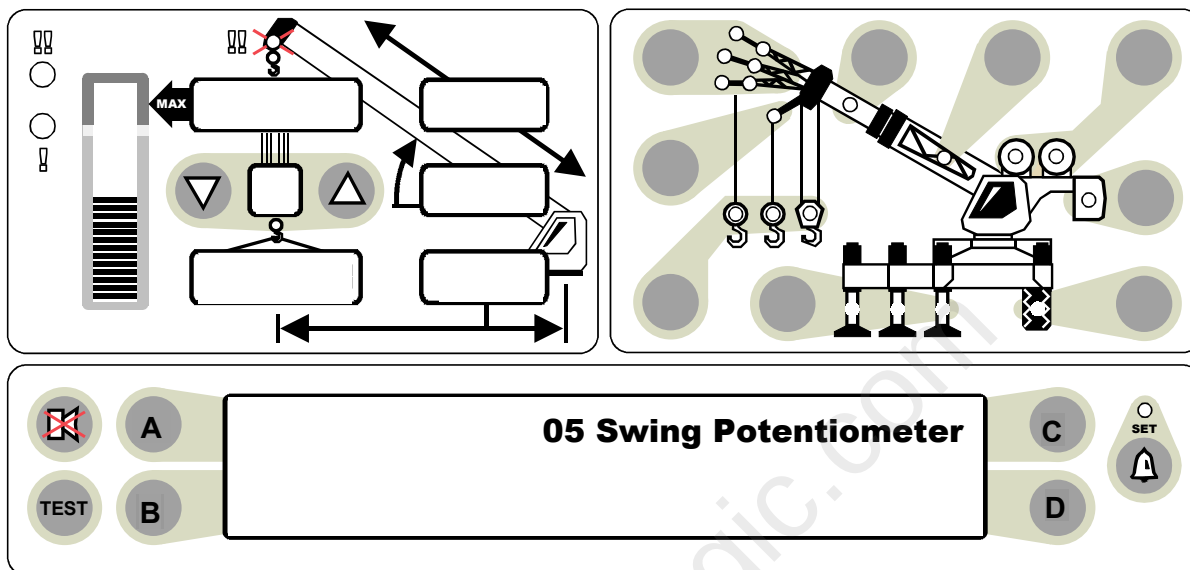
This Procedure Completely Erases All Previous Data From “A” Personality.
To cancel this routine, PRESS D, ABORT before completing Step 5.

- 1) **PRESS A TO 01 PERSONALITY.**
- 2) **PRESS C TO START THE COMMAND.**
- 3) **PRESS A TO 2 INIT PERS A ONLY.**
- 4) **PRESS C TO START THE CALIBRATION.**
- 5) **PRESS C TO CALIBRATE OR PRESS D TO ABORT THE CALIBRATION.**
- 6) **PRESS 1234 (CALIBRATION SECURITY CODE)**

AFTER THE MESSAGE, “CALIBRATING” ENDS, THE DISPLAY SHOULD READ:
“AGOOD BGOOD SAME” (See page 6).

- 7) **PRESS D TO EXIT ROUTINE. THE SYSTEM WILL RETURN TO THE MONITOR MODE BUT WILL REMAIN IN THE CALIBRATION ROUTINE.**

COMMAND 05/0 SWING POT SCALE



Please **review the notes on page 25** before performing any of the swing routines. It is essential that the crane upper be rotated **slowly** during the **scale** procedure. This is especially important at the nodes which occur at 180° and 360°. These points can be observed on the display during the procedure.

COMMAND 05 SWING ROUTINE

- 1) **PRESS A** TO **05 SWING POTENTIOMETER**.
- 2) **PRESS C** TO START THE COMMAND.
THE DISPLAY SHOULD READ: **0 SCALE SWING POT XXX.X**.
- 3) **PRESS C** TO CONFIRM SELECTION OF SCALE.
- 4) —————→ **SLOWLY** ROTATE THE UPPER STRUCTURE OF THE CRANE FOR AT LEAST 2 REVOLUTIONS.
- 5) —————→ STOP THE ROTATION.
- 6) **PRESS C** TO CALIBRATE OR **PRESS D** TO ABORT THE CALIBRATION.
AFTER THE MESSAGE, "CALIBRATING" ENDS,
THE DISPLAY SHOULD READ: **0 SCALE SWING POT. XX. X**
- 7) **PRESS D** TO EXIT THE ROUTINE OR **PRESS A** TO 1 SET SWING POT ZERO.

COMMAND 07 RADIUS/MOMENT MAIN BOOM

COMMAND 07 is used to calibrate the radius and moment of the main boom.

Before starting Command 07, ensure that the crane is appropriately configured and that the related data has been entered into the computer (see pages 29-33).

This Command requires computer entry of the radius measured with the boom retracted at both high and low angles, and the radius measured with the boom extended to the prescribed lengths at both high and low angles. The radius is the distance between the centerline of rotation and the center of the hook load.

Calibration is carried out at each length. Both high and low angle radius measurements for each length are required for the calibration to operate. This data is called "store data."

If this data is not stored, a warning message "no data" will appear requiring re-entry of this information.

Radii are entered in tenths of feet. Recommend using a surveyor's tape that is marked in tenths.

A high angle is between 60 ° and 65 ° and will have a shorter radius. A low angle is below 20 ° and will have a longer radius. Entering data outside of these limits will result in the warning message, "**poor angle.**" If entered in error, **Press D** to abort the entry. Continue the procedure using correct keyboard entries.

When this message occurs due to entry of data outside of the preferred angles, press A or B to select the desired function; then enter the radius.

The routine on pages 38-41 is used for the main boom. The routine on pages 42-45 is used for the main boom + manual. Select the appropriate routine and continue.

If and when calibrating the main boom + manual, first select main boom + manual as well as setting up the crane in that physical configuration.

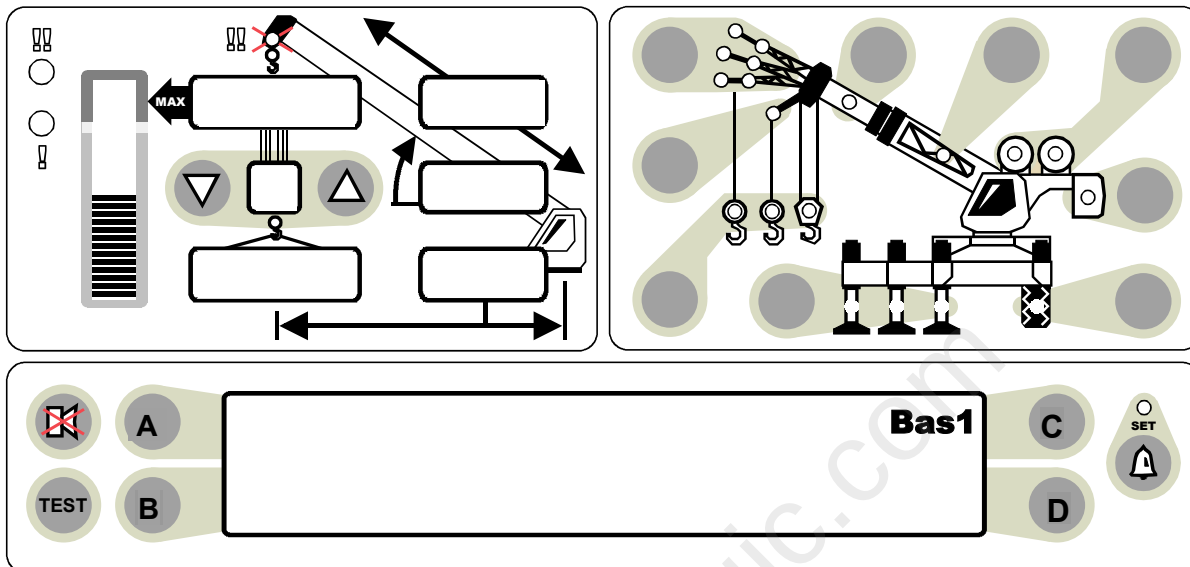
Interpretation of the display Command 07 output is as follows:

(D) = LOW ANGLE DATA ACQUIRED.

(U) = HIGH ANGLE DATA ACQUIRED.

(DU) = HIGH AND LOW ANGLE DATA ACQUIRED.

COMMAND 07 RADIUS/MOMENT MAIN BOOM continued



SECOND LENGTH CONTINUED

Maintain the same length and lower the main boom to the lowest angle listed on the load chart for a fully extended boom. If the crane has zero capabilities, lower the boom to 5°. Measure the new radius.

- 18) —————> THE DISPLAY SHOULD STILL READ: **Bas1** (U).
- 19) **PRESS C** TO STORE THE LOW ANGLE DATA. THE HOOK(S) MUST BE ABOVE THE GROUND AND SUPPORTED BY THE BOOM ONLY.
- 20) **PRESS C** USE THE NUMBER ENTRY ROUTINE (SEE PAGE 14), TO ENTER THE **NEW** RADIUS.
- 21) —————> THE DISPLAY SHOULD READ: **Bas1** (DU). (LOW/HIGH ANGLE DATA ACQUIRED.)
- 22) **PRESS C** TO START THE MOMENT CALIBRATION AT THE CURRENT LENGTH.
- 23) **PRESS C** TO CALIBRATE OR **PRESS D** TO ABORT THE CALIBRATION.
- 24) —————> THE DISPLAY SHOULD READ: **Bas2** ().

Some models with Mode A have been fully extended at this point. If so, continue with Command 08, (Boom Deflection Correction), page 46.

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COMMAND 17 AMPLIFIER GAIN

At the time of initialization the amplifier gain is set to the preferred value of 2. This value is suitable for the standard load cells and pressure transducers supplied with the systems. This gain setting may be modified, as necessary, for special application, using the following routine.

Confer with the factory before making any changes.

- 1) **PRESS A** TO **17 AMPLIFIER**.
- 2) **PRESS C** TO START THE COMMAND.
THE DISPLAY WILL READ THE CURRENT VALUE.
- 3) **PRESS C** TO START THE CALIBRATION OF AMPLIFIER GAIN.
- 4) **PRESS C** TO CALIBRATE OR **PRESS D** TO ABORT CALIBRATION OF ABOVE DATA.
- 5) **PRESS B** TO CHANGE THE SETTING.
- 6) **PRESS C** TO COMPLETE THE CALIBRATION.
- 7) **PRESS C** TO EXIT THE ROUTINE.

COMMAND 01/3 BACK-UP

After completing a calibration routine and after executing command 01/0 save, use the following procedure to obtain a permanent copy of the calibration.

- 1) **PRESS A** TO **01 PERSONALITY**.
- 2) **PRESS C** TO START THE COMMAND.
- 3) **PRESS A** TO **3 BACKUP A TO RAM**.
- 4) **PRESS C** TO START THE COMMAND.
- 5) **PRESS C** TO CALIBRATE OR **PRESS D** TO ABORT THE CALIBRATION OF ABOVE DATA.
- 6) **PRESS 1234** (CALIBRATION CODE)
- 7) **PRESS D** AFTER THE MESSAGE, "CALIBRATING" TO EXIT THE ROUTINE.

SWITCH OFF POWER TO THE SYSTEM

Full Version Available

Greer MicroGuard 510 Load Moment Indicator Service Manual

Greer MicroGuard 510 load moment indicator service manual, with calibration commands, sensor zeroing and fault testing procedures. Instant PDF download.

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