



TRANSCELL TECHNOLOGY, INC.



MODEL TI-500 FDI

Force Data Instrument

User Manual

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THIS EQUIPMENT CONTAINS NO USER SERVICEABLE COMPONENTS.

- Servicing of the equipment must only be carried out by trained and authorized personnel.
- Use only the AC adapter supplied with the instrument. Other adapters may cause damage.



Routine maintenance

- Harsh abrasives, solvents, scouring cleaners and alkaline cleaning solutions should not be used; especially on the display window.
- The outside of the product may be wiped down with a clean cloth, moistened with water containing a small amount of soap.

BASIC OPERATION

Getting Started

1. Press and hold the ON/PRINT key on the force data instrument for two seconds.
After a brief initialization period, the instrument will revert to a zero ("0") display.

Your instrument is now ready for operation!

Operation

Before measuring it is necessary to check if the instrument is unloaded and indicating zero force in the desired unit of measure, for example lb for pounds.

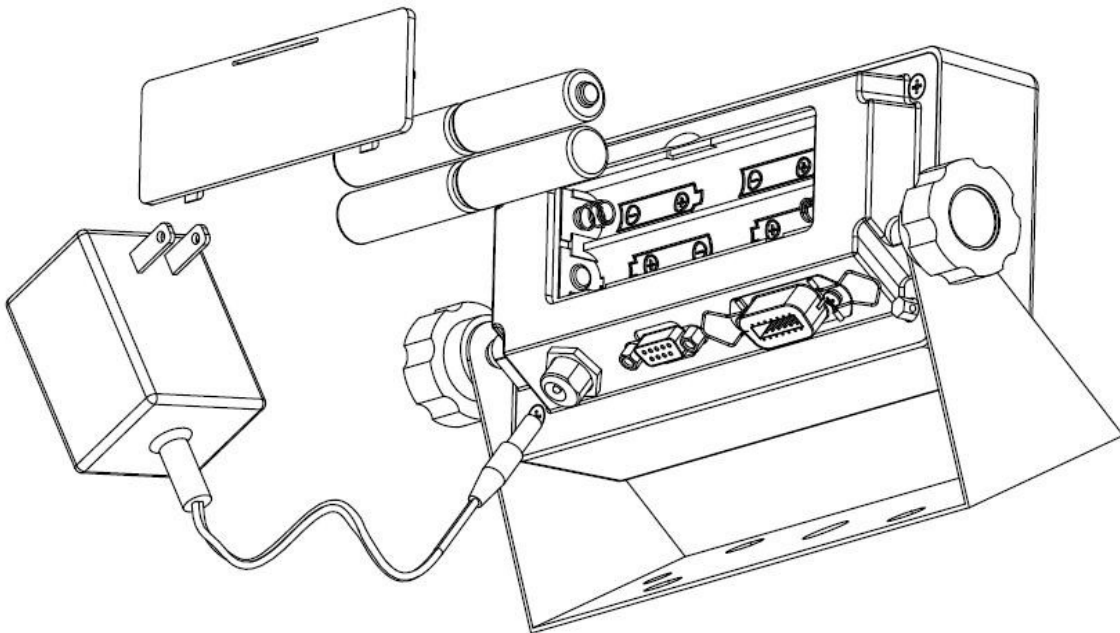
If the instrument is not displaying the desired unit of measure, press the UNITS key repeatedly until it is indicated, e.g. lb for pounds, kg for kilograms, etc.

The instrument features an automatic zero correction meaning that small deviations will be zeroed automatically. If the instrument does not automatically determine the zero point, please press the ZERO key once briefly.

Replacing the batteries

The TI-500 FDI force data instrument can operate either from its AC adaptor or from 4-AA batteries.



1. Remove the plastic battery cover from the rear panel.
2. Remove four AA batteries and discard.
3. Observing the proper direction (polarity), install the new batteries.
4. Replace the battery cover.



DISPLAY & KEYPAD DETAILS

This model utilizes a 6-digit LCD (Liquid Crystal Display) with adjustable LED backlight. The Table below summarizes the display annunciators.



Symbol	Display Indication
→0←	Displays when the instrument is at Zero.
P	Indicates that the instrument is in PEAK HOLD mode
lb	Indicates that the unit of the displayed force is in pounds
kg	Indicates that the unit of the displayed force is in kilograms
g	Indicates that the unit of the displayed force is in grams
oz	Indicates that the unit of the displayed force is in ounces
	Indicates that the unit of the displayed force is in Newtons
	This light is on whenever the instrument is at rest (stable reading).
	When blinking, indicates that battery life of the instrument has reached its useful end and <u>needs to be replaced</u> soon. More information below

The keypad is composed of a total of five (5) function keys.



Marking	Keypad Function
Units	This key toggles the instrument between lb, kg and N.
Zero/Off	This key sets the instrument to display zero force. Press and hold for five seconds to shut the unit OFF.
Net/Gross	This key toggles the instrument between live, positive peak and negative peak modes.
Tare	No function
On/Print	Press and hold for two seconds to turn the unit ON. This key is also used to send force data out to the serial communication port

ADVANCED OPERATION

Peak Hold Mode

This mode of operation is enabled by setting F30 to "5" in the Setup Menu (see separate installer's guide for more information). This mode is used to indicate and hold the peak force recorded during a specific process. The most common application is testing the breaking point of a part or assembly. The TI-500 FDI records both positive and negative peak forces.

1. Push the NET/GROSS key to activate positive peak mode; the instrument briefly displays "HoLd P" and then the "P" annunciator turns ON.
2. Apply force to the piece – the display indicates and holds the positive peak force applied.
3. To activate negative peak mode, press the NET/GROSS key again; the instrument briefly displays "HoLd U".
4. To reset both peak values to zero, press and hold the NET/GROSS key for about 3 seconds until the display shows "Clr P".
5. To exit peak hold mode, press the NET/GROSS key again; the instrument briefly displays "LiVE" and then the "P" annunciator turns OFF.

Printer

If the measuring system has been equipped with a printer, then measuring and time & date data can be printed.

Here is an example of a possible printout:

ID.NO.	123456
DATE	01/28/11
TIME	10:23 AM
GROSS	1067 lb

NOTES:

1. Some fields may not appear on your printout, depending upon your configuration settings

Adjusting the Time and Date on the Printout

Your instrument will keep track of the current time and date for you, which can then be printed on the print ticket. To adjust the time and date, you must first enter the User Menu Mode.

1. Switch off the RF force data instrument by pressing and holding down the ZERO/OFF key for about 5 seconds.
2. Press and hold down the ON/PRINT key (about 20 seconds) until the screen shows "-F-".
3. Press the ON/PRINT (right) key once. The screen displays "-A-".

4. Scroll down using the ZERO/OFF (down) key to reach the parameter level. The instrument shows "A 1".
5. Move from A1 to A20 by pressing the TARE (left) key repeatedly until the screen shows "A 20".
6. Once you have arrived at A20 press the ZERO/OFF (down) key once. The screen displays "ho_xx" where 'xx' is the current hour, e.g. "15". One digit will be flashing.
7. Use the four directional keys to adjust the displayed value to the actual hour value. Increase the flashing digit by pressing the UNITS key. Decrease the flashing digit by pressing the ZERO/OFF key. Pressing the TARE key or the ON/PRINT key will change the position of the flashing digit.
8. After entering the exact value, press the NET/GROSS key to save the value. The screen displays "n_xx" where 'xx' is the current minute, e.g. "55". One digit will be flashing.
9. Use the four directional keys to adjust the displayed value to the actual minute value. Increase the flashing digit by pressing the UNITS key. Decrease the flashing digit by pressing the ZERO/OFF key. Pressing the TARE key or the ON/PRINT key will change the position of the flashing digit.
10. After entering the exact value, press the NET/GROSS key to save the value. The screen displays "dA_xx" where 'xx' is the current day of the month, e.g. "14". One digit will be flashing.
11. Use the four directional keys to adjust the displayed value to the actual day value. Increase the flashing digit by pressing the UNITS key. Decrease the flashing digit by pressing the ZERO/OFF key. Pressing the TARE key or the ON/PRINT key will change the position of the flashing digit.
12. After entering the exact value, press the NET/GROSS key to save the value. The screen displays "n_xx" where 'xx' is the current month of the year, e.g. "02". One digit will be flashing.
13. Use the four directional keys to adjust the displayed value to the actual month value. Increase the flashing digit by pressing the UNITS key. Decrease the flashing digit by pressing the ZERO/OFF key. Pressing the TARE key or the ON/PRINT key will change the position of the flashing digit.
14. After entering the exact value, press the NET/GROSS key to save the value. The screen displays "yE_xx" where 'xx' is the current month of the year, e.g. "11". One digit will be flashing.
15. Use the four directional keys to adjust the displayed value to the actual year value. Increase the flashing digit by pressing the UNITS key. Decrease the flashing digit by pressing the ZERO/OFF key. Pressing the TARE key or the ON/PRINT key will change the position of the flashing digit.
16. After entering the exact value, press the NET/GROSS key to save the value and revert back up to the parameter level, e.g. "A 20".
17. In order to save all parameter settings, it is imperative to exit all menus in the following manner: At the parameter level, press the UNITS (up) key twice (two times) to exit the User Menu. The instrument displays 'SAvE' and then automatically powers off.

ERROR MESSAGES



Batteries need to be replaced.

Err 24

Value for SP1 is greater than value for SP2.

Err 99

Parameter menus blocked. Toggle calibration switch back to its original position.

No-ad

A signal from the load sensors has not been detected

SPECIFICATIONS

Force data instrument Specifications – TI-500 FDI

- Aluminum/ABS enclosure
- 0.8", 6 digit LCD w/LED backlight
- Operating temperature 14°F to 104°F (-10°C to 40°C)
- External DSUB9 connection port for optional printer
- Tilt adjustable bracket included

Optional Bluetooth Specifications

- 2.0, Class I
- Up to 100m unobstructed
- (ISM) band at 2.4 to 2.485 GHz

Force data instrument Battery – TI-500 FDI

- 4 AA alkaline
- User replaceable
- 85+ continuous hours of operation under typical operating conditions

TROUBLESHOOTING

Issue / Recommendation

“Low Battery” icon blinks on the digital readout, then the instrument powers off.

Replace the batteries.

Instrument turns off on its own.

The instrument has a power conservation feature, set to automatically power off the instrument after 30 minutes of non-use. If your needs require a different setting, call Transcell Tech Support or installer.

Display is erratic.

- A battery may be fully depleted. If so, this condition can cause erratic displays. Power off the instrument and replace or recharge the battery.
- Check the testing machine load cell for any obstructions or foreign debris

Transcell Tech Support: 847.419.9180

Limited 12 month Warranty

This product is warranted by Transcell Technology against manufacturing defects in material and workmanship under normal use for twelve (12) months from the date of purchase. For complete warranty details and service information, please contact us at the address below.

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