Thank you for purchasing the TOPCON Data Collector FC-100. For superior product performance, please read this instruction manual carefully and keep it in a convenient place for future reference.

GENERAL HANDLING PRECAUTIONS

Before starting work or operation, be sure to check that the instrument is functioning correctly with normal performance.

- Always make sure instrument is dry before putting it in the soft case. Never store a damp instrument.
- Do not leave the instrument under strong sunlight for a long time. It may cause the instrument to malfunction.
- When waterproofness is necessary, close all the caps securely. However, the serial connector has a waterproof structure, so it will remain waterproof even if its cap is not closed.

DISPLAY FOR SAFE USE

In order to ensure the safe use of this product, prevent any danger to the operator or others, or damage to property, important warnings are placed on the product and inserted in this instruction manual. We recommend that you become familiar with the meaning of these Warnings and Cautions before continuing.

SAFETY CAUTIONS

- There is a risk of fire, electric shock or physical harm if you attempt to disassemble or repair the instrument yourself.
- High temperature may cause fire.
- Do not use a wet battery or charger.
- Battery can cause explosion or injury.
- Keep the instrument clear of gasoline, liquid fuel, and do not use near a coal mine.
- If you are using the instrument near flammable gases, liquid fuel, and do not use near a coal mine.
- Do not use if the instrument is near flammable gas, liquid fuel, and do not use near a coal mine.

Exceptions from Responsibility

1. The manufacturer, or its representatives, assumes no responsibility for any damage, and loss of profits caused by usage other than explained in the user manual.
2. The manufacturer, or its representatives, assumes no responsibility for consequential damage, and loss of profits by any act of a third party and/or a usage in other than usual conditions.
3. The manufacturer, or its representatives, assumes no responsibility for results of a faulty or intentional usage or misuse including any direct, indirect, consequential damage, and loss of profits.
4. The user of this product is expected to follow all operating instructions and make periodic checks of the product's performance.
5. Do not leave the instrument under strong sunlight for a long time. It may cause the instrument to malfunction.
6. Do not use any other type of charger other than the one specified.

NOMENCLATURE AND FUNCTIONS

- Display: Enter key, Speaker, Charge LED, Escape key, Cursor keys, Alt key, Home key, Microphone, Connector caps, Power key, Windows key, Handstrap
- Card slot cap: CF card eject button, Hard reset switch, SD slot, USB Connector (Mini-B), AC adapter Connector

CONNECTORS

- Serial connector: No.1 DCD (IN), No.2 RXD (IN), No.3 TXD (OUT), No.4 DTR (OUT), No.5 GND, No.6 DSR (IN), No.7 RTS (OUT), No.8 CTS (IN), No.9 RI (IN)
- USB Connector (Type Mini-B): No.1 VDD, No.2 V-, No.3 V+, No.4 NC, No.5 GND
**PREPARATION FOR USE**

- **Battery**
  - **Battery Charging**: 1. After installing the battery, plug the connector of AD-9B/AD-7C in the FC-100. 2. Plug the AD-9B/AD-7C in an outlet. Then the charge LED will light. Charging is completed after approximately 5 hours. The display can be turned on or off by the power key.
  - **The charge LED of FC-100 will indicate charging status:**
    - Red ON: Charging
    - Green ON: Charging completed
    - Red Flashing: Charging error

- **Touch Screen**
  - **Adjust Touch Screen**: 1. Turn on the instrument after hard-reset or tap [Start], [Setting], [Control Panel], [Stylus], [Calibration], [Recalibrate]. 2. Using a stylus pen, touch the center of the target. 3. After touching all targets(5 points), press [ENT] key or tap the display.
  - **Reference software for Connectivity**: See the WEB page as follows. http://www.microsoft.com/windowsmobile/

- **SPECIFICATIONS**
  - **Microprocessor**: XScale PXA 255
  - **Processor speed**: 400MHz
  - **Operating system**: Microsoft® Windows® CE.NET 4.2
  - **Memory**: 64MB RAM
  - **Display**: 3.5 inch TFT Transflective type, LED backlight
  - **Keyboard**: 10 keys (power key included)
  - **Pen touch screen**: Resistive touch screen/passive Pen digitization
  - **Interface**: RS-232 serial (D-sub-9) USBRev1.1( McB MINI-B)
  - **Dimensions**: 182x103x59(mm)
  - **Weight**: 0.6kg(with battery)
  - **Temperature**: -20°C to +50°C (-4°F to +122°F)
  - **Droppings withstand**: 1 meter

- **STORAGE PRECAUTIONS**
  - **Always clean the instrument after use.**
  - **Use a clean cloth moistened with neutral detergent or water. Never use an abrasive cleaner, ether, thinner benzene, or other solvents.**
  - **Always make sure the instrument is completely dry before storing. Dry any moisture with a soft, clean cloth.**

- **Battery Installation**
  1. Using a coin, loosen the cover screw on the battery cover.
  2. Remove the battery cover.
  3. Install the battery pack.
  4. (Confirm the direction of battery installation.) 5. Using a coin, install the battery cover. Tighten the cover screw firmly.

- **Battery terminal**
  - **Replacement of Battery**: When the battery is replaced, the data recorded in memory will be lost.
    - To protect the data, first execute "RAM Data Backup", then replace the battery.

- **Touch Screen**
  - **Adjust Touch Screen**: 1. Turn on the instrument after hard-reset or tap [Start], [Setting], [Control Panel], [Stylus], [Calibration], [Recalibrate]. 2. Using a stylus pen, touch the center of the target. 3. After touching all targets(5 points), press [ENT] key or tap the display.
  - **Reference software for Connectivity**: See the WEB page as follows. http://www.microsoft.com/windowsmobile/

- **TRANSMISSION DATA TO THE PC**
  - **Interface Cable**: 1. Install ActiveSync in your PC (if it is not already installed). 2. Connect the FC-100 to your PC with an interface cable F-25 as shown below:

- **Battery**
  - **Battery Charging**: 1. After installing the battery, plug the connector of AD-9B/AD-7C in the FC-100. 2. Plug the AD-9B/AD-7C in an outlet. Then the charge LED will light. Charging is completed after approximately 5 hours. The display can be turned on or off by the power key.
  - **The charge LED of FC-100 will indicate charging status:**
    - Red ON: Charging
    - Green ON: Charging completed
    - Red Flashing: Charging error

- **Touch Screen**
  - **Adjust Touch Screen**: 1. Turn on the instrument after hard-reset or tap [Start], [Setting], [Control Panel], [Stylus], [Calibration], [Recalibrate]. 2. Using a stylus pen, touch the center of the target. 3. After touching all targets(5 points), press [ENT] key or tap the display.
  - **Reference software for Connectivity**: See the WEB page as follows. http://www.microsoft.com/windowsmobile/

- **SPECIFICATIONS**
  - **Microprocessor**: XScale PXA 255
  - **Processor speed**: 400MHz
  - **Operating system**: Microsoft® Windows® CE.NET 4.2
  - **Memory**: 64MB RAM
  - **Display**: 3.5 inch TFT Transflective type, LED backlight
  - **Keyboard**: 10 keys (power key included)
  - **Pen touch screen**: Resistive touch screen/passive Pen digitization
  - **Interface**: RS-232 serial (D-sub-9) USBRev1.1( McB MINI-B)
  - **Dimensions**: 182x103x59(mm)
  - **Weight**: 0.6kg(with battery)
  - **Temperature**: -20°C to +50°C (-4°F to +122°F)
  - **Droppings withstand**: 1 meter

- **STORAGE PRECAUTIONS**
  - **Always clean the instrument after use.**
  - **Use a clean cloth moistened with neutral detergent or water. Never use an abrasive cleaner, ether, thinner benzene, or other solvents.**
  - **Always make sure the instrument is completely dry before storing. Dry any moisture with a soft, clean cloth.**

- **Battery**
  - **Battery Charging**: 1. After installing the battery, plug the connector of AD-9B/AD-7C in the FC-100. 2. Plug the AD-9B/AD-7C in an outlet. Then the charge LED will light. Charging is completed after approximately 5 hours. The display can be turned on or off by the power key.
  - **The charge LED of FC-100 will indicate charging status:**
    - Red ON: Charging
    - Green ON: Charging completed
    - Red Flashing: Charging error

- **Touch Screen**
  - **Adjust Touch Screen**: 1. Turn on the instrument after hard-reset or tap [Start], [Setting], [Control Panel], [Stylus], [Calibration], [Recalibrate]. 2. Using a stylus pen, touch the center of the target. 3. After touching all targets(5 points), press [ENT] key or tap the display.
  - **Reference software for Connectivity**: See the WEB page as follows. http://www.microsoft.com/windowsmobile/