

### Configure Screen: (SafeScan software, continued)

- **COM Port:** Select the COM Port for the PC Data Cable: "USB Serial Port".  
Note: The PC Data Cable must be plugged in to see it listed.
- **Save Preferences:** Select if you want the Reports to be saved to the "My Documents/SafeScan Reports" folder or to your "Desktop".
- **Configure the SafeScan Scanner:** (see screenshot below)

### IMPORTANT: Follow these steps if the unit is not already configured:

1. Select CONFIGURE from the menu in the SafeScan software.
1. Enter the total number of Bins (Silos/Buildings/Rows/etc.) to be scanned.
2. Select the Bin that you wish to configure.
3. Enter a name for the Bin.
4. Enter the number of Cables and number of TCs for the cables in the Bin.  
Enter individually, or enter rings/rows of cables as a "Group" of cables.

### Configuration changes must be transferred to the handheld Scanner:

1. Press the SETUP key on the Scanner, scroll down to select CONFIGURE then press SCAN. "Waiting" will appear on screen.
2. Click the "Transfer Configuration..." button on the Configure screen in the software (see below) to start the transfer. Note: All previous data on the Scanner will be erased when the configuration is changed.

**Configure SafeScan Scanner:**

Facility Name:

Total Number of Bins\*:

Select the Bin to Configure: ID #  COPY

Click "COPY" to duplicate the layout from the previous Bin.

Enter a NAME for Bin #1:  (12 Characters max.)

\*A "Bin" can represent an individual Bin or Silo, a row of cables in flat storage, a group of concrete silos, a building, etc.

**Cable Layout for DRY1 (#1):**  
Enter the cable configuration for this Bin:  
- Enter individual cables, or  
- Groups of cables (rings, rows...)

| Group | #Cables | #TCs |
|-------|---------|------|
| 1     | 4       | 18   |
| 2     | 12      | 16   |
| 3     |         |      |

Number of cables in this Bin:   
Total cables in system:  (200 Max.)

**Transfer Configuration to SafeScan Scanner**

### SPECIFICATIONS:

- Model:** Handheld Scanner: #809.051200  
12TC Jack Handle: #809.051212  
18TC Jack Handle: #809.051218  
PC Data Cable: #811.770000
- Batteries:** 3 x AA Alkaline Optional: Rechargeable low-discharge NiMH
- Temperature Cables:** For use with Type-T thermocouples cables only  
18 TC sensors max. per cable.  
200 cable maximum for the SafeScan system
- Operating Temperature:** 0F(-18C) to 105F(41C)
- Dimensions:** Handheld Scanner: 6.3"H x 3"W x 1.8"D (160x78x47mm)  
Jack Handle: 6.5" L x 1.75" Dia. (165x44x1067mm)
- Jack Handle Cable:** 42" PVC cable, 22 AWG, 4 conductor, M12 connector
- Scanner Connector:** RS-485, M12, 4-pins: 1=3.3V, 2=Data A-, 3=0V, 4=Data B+
- Approval:** Handheld Scanner: IP67, NEMA 4
- Shipping weight:** 2 pounds (.9 Kg)

# SafeScan™

## Handheld Temperature Scanner

### User Manual

### GENERAL DESCRIPTION

SafeScan Digital Scanner is a handheld portable device for monitoring grain temperatures using the Safe-Grain Central Reading Station (CRS). Together with the SafeScan software, it provides a complete and economical grain quality solution.



### The SafeScan Advantage:

- Easy to read color display
- Fast scanning
- Saves 7 temperature scans plus an Ohms scan
- Rugged construction
- SafeScan PC software for Archiving, Reporting, and Graphing.



## IMPORTANT:

☞ **Allow the SafeScan Jack Handle to stabilize at the outside ambient temperature before using (the handheld Scanner doesn't need to stabilize). An outside ambient temp of 95°F needs 25 minutes to stabilize; 50°F ambient=25 mins.; 32°F ambient=35 mins.; 0°F ambient=45 mins.**

☞ **Keep the SafeScan Jack Handle dry.**

## SafeScan Digital Handheld Scanner

The SafeScan Scanner quickly scans the temperature cables connected to a Safe-Grain Central Reading Station (CRS). It automatically saves the 7 most recent temperature scans and an Ohms scan.

## Scanner Operation

### POWER:

Press and hold the Power button to turn the unit on or off. The display will dim after 30 seconds of non-use. Pressing any key will brighten the display. The unit will automatically turn off after 1 minute of non-use.

The most recent temperature data will display when the unit is turned on or when the Bin/Cable is changed. The Date and Time will be highlighted yellow if the data is old (not today's data).

**SCAN:** (see the last page for configuration details)

Note: Click SETUP to change the Units: °F, °C, Ohms.

1. Press BIN then CABLE to select the Bin and Cable you wish to scan.
2. Plug the Jack Handle into the appropriate plug in the CRS box.
3. Press SCAN to start the scan. The scan data is automatically saved.

Note: SafeScan will only save one set of temperature data per cable each day. If you perform another scan on the same day then the previous data from that day will be overwritten and lost. You must download the data to a PC after each scan if you wish to save multiple scans taken on the same day.

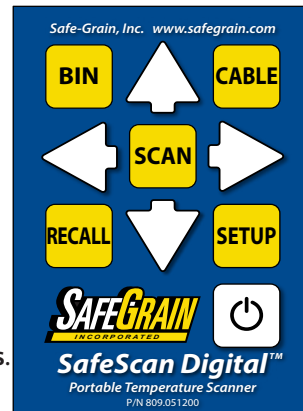
### RECALL:

Press the RECALL button to step back through the the 7 most recent scans. The Date and Time will be highlight yellow if the data is old (not today's).

**SETUP:** Press SETUP to open the Setup menu:

To select an item scroll down to it (using the arrow keys) then click SCAN.

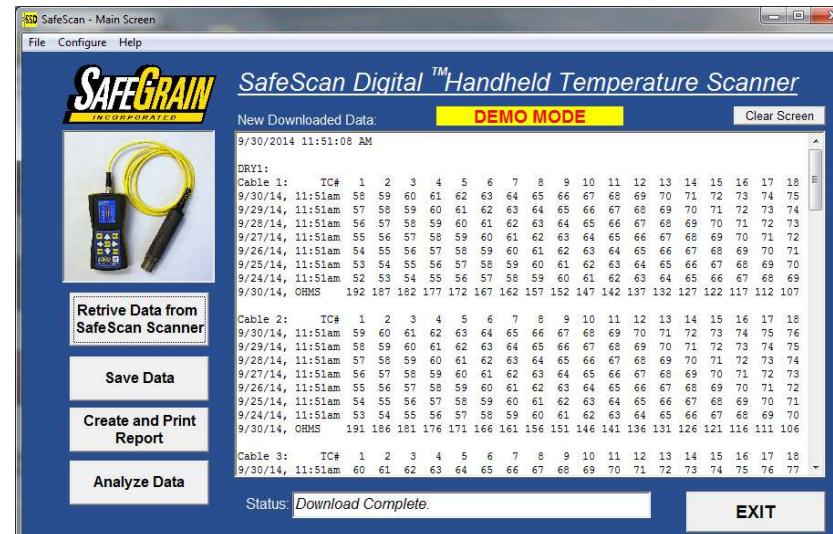
- **Download:** Download scan data to a PC running the SafeScan software. Select this option to put the unit in "download mode".
- **Configure:** Prepares the unit to receive a new cable layout from the SafeScan software: *See the last page for configuration instructions.*
- **Units:** Toggle between Fahrenheit or Celsius and Ohms units.
- **Set Time:** Set the correct time and date for the Scanner.
- **Monitor:** This is a communications monitor for diagnostic purposes.



**SafeScan PC Software:** Install on the PC using the provided CD.

The SafeScan PC software provides an easy way to:

- Configure the SafeScan handheld Scanner.
- Download temperature data from the SafeScan handheld Scanner.
- Permanently archive all temperature and Ohms data.
- Graph the temperatures and display a table with color-coded alarms.
- Create and print reports.



## Retrieving Data from the SafeScan Scanner:

1. Connect the Scanner to the computer using the USB "PC Data Cable". The first time the cable is connected to the PC the USB drivers will load.
2. To download data, the Scanner can be on the Main screen (Scan screen) or it can be in Download Mode:
  - Press the SETUP key on the Scanner then select DOWNLOAD.
3. Click the "Retrieve Data..." button on the Main screen of the software.
4. All data in the Scanner will be downloaded to the PC.

## Save Data on the PC:

Click "Save Data" to save the new temperature and Ohms data on the PC. Note: You must download the data to the PC after each scan if you wish to save multiple scans taken on the same day (duplicate data is not re-saved.)

## Create and Print a Report:

Click "Create and Print Report" to create a report of the 7 most recent scans and Ohms. The report will display in Notepad: Select FILE then PRINT to print.

## Analyze and Graph Data:

Click "Analyze Data" to display the 7 most recent readings in a graph and a color-coded table. Click "Display Ohms" to show the Ohms for that cable.