KF200
PORTABLE
MANUAL

THIS MANUAL CONTAINS:

KF200 OPERATORS MANUAL
KF200 GRAIN SOFTWARE MANUAL

SPECIAL NOTE

READ THIS ENTIRE BOOKLET
BEFORE PROCEEDING WITH
THE INSTALLATION

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KF200
OPERATORS
MANUAL

STARTUP

When you turn on the KF200 by pressing <ON/OFF> the opening screen will appear:

BOONE KF200

If a date appears below the KF200, it corresponds to the last time a cable in the system was read.
Press ⇑ or ⇓ to step through the KF200 menus.
Pressing <CLEAR> is mainly used to step you backwards through whatever you have previously selected, finally arriving at the opening screen.

Pressing <OPTIONS+CLEAR> is mainly used to abort what you are doing and brings you back to the opening screen.

STARTUP - KF200

The first thing you need to do with the KF200 is enter your facility name, bin names, and cable names. This is accomplished through menu item, EDIT BIN-CABLE CONFIGURATION. This is used if you are entering names for the first time, adding or deleting facilities, bins, or cables.

Press ⇑ to step to the EDIT BIN-CABLE CONFIGURATION and follow the instructions under that menu.

STARTUP - SOFTWARE

If you purchased the BCS1000/KF200 software package for viewing and printing your cable data, follow the instructions below to install the serial cable and software.

The 9 pin serial - RS232 port, located at the top right side of the KF200 is used to communicate with your computer. Connect the serial cable between the top right 9 pin connector on the KF200 and a RS232 port on your computer.

Insert the floppy disk in drive A.
In Windows press START then RUN.
In the Open window type a:\setup and click OK.
The Installation Program Menu will now come up.
Click on Install for program installation.
The program will now ask you to enter your name and company name.
Press Next to continue the installation.
The program will now show you the Name, Company and Serial Number.
Press Next to continue the installation
The program will now show the path where the program will be located as C:\KFW. Do not change the path.
Press Next to continue the installation.
The program is now copied to your hard disk. This may take a few minutes.

To run the program:
Click on the KF 200 System Icon.

CONVENTIONS USED IN THIS MANUAL

AUTO SCAN CABLE
TEMPERATURES

KF200 DISPLAY....Standard menu and display.

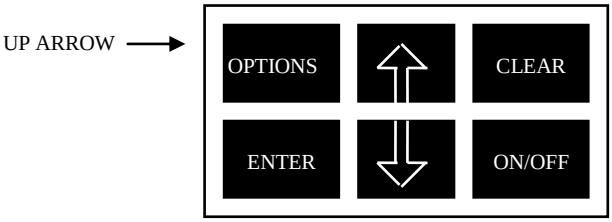
CHOOSE MODE
TEMPERATURE

KF200 DISPLAY....*ITALICIZED* print represents the display of a flashing field which asks for adjustment or confirmation.

BIN 101
101 2 18 TC'S

KF200 DISPLAY....Sub-menu and display for repetitive procedures.

KF200 KEYBOARD....Darkened square represents key or combination of keys pressed for resultant action.



ARROWS....Represent program flow after key entry.

<ENTER> KF200 KEY ENTRY

⇑ ⇓ KF200 KEY ENTRY....Up arrow or down arrow.

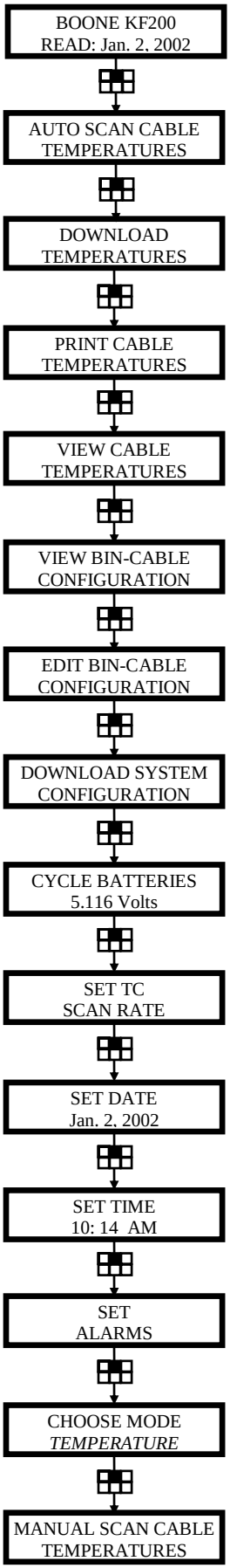
<OPTIONS+ENTER> KF200 COMBINATION KEY ENTRY....Press and hold first key shown in brackets and then while holding, press the second key.

KF200 AUTOMATICALLY
ADVANCES TO NEXT CABLE

DIALOG BOX....Provides description of action of KF200.

OUTPUT....Represents output to printer or PC.

KF200 MAIN MENUS



OPENING SCREEN.....Pressing **<OPTIONS+CLEAR>** returns you to this screen from anywhere in program. Displays last date data was saved. First shown when powered on.

AUTO SCAN....Automatically scan and save temperature/resistance data. KF200 will store internally up to five histories of temperature data. **See page #2.**

DOWNLOAD....Send saved temperature/resistance data to optional BCS1000/KF200 PC software package. **See page #3** and BCS1000/KF200 Software Manual.

PRINT CABLE....Send saved temperature/resistance data to compatible parallel printer for a hard copy of historical data including highlighted alarms. **See page #4.**

VIEW CABLE....View last stored temperature/resistance data by facility, bin, cable, and thermocouple. **See page #5.**

VIEW CONFIGURATION....Confirm system configuration entered in **EDIT CONFIGURATION** by facility, bin, cable, and thermocouple (TC). **See page #6.**

EDIT CONFIGURATION....Enter system configuration with unique names by facility, cable, and number of thermocouples per cable. **See page #7.**

DOWNLOAD CONFIGURATION....Send system configuration to optional BCS1000/KF200 PC software package. **See page #8** and BCS1000/KF200 Software Manual.

CYCLE BATTERIES....Once every 60 days the rechargeable batteries should be drained to ensure longevity and then recharged for 12 hours. Displays battery voltage. **See page #9.**

SET TC SCAN RATE....Adjust speed of thermocouple scanning. **Auto** recommended for most efficient speed and optimal accuracy. **See page #10.**

SET DATE....The KF200 includes a battery backed clock/**calendar** which once the date has been set, will automatically adjust for the current date. **See page #11.**

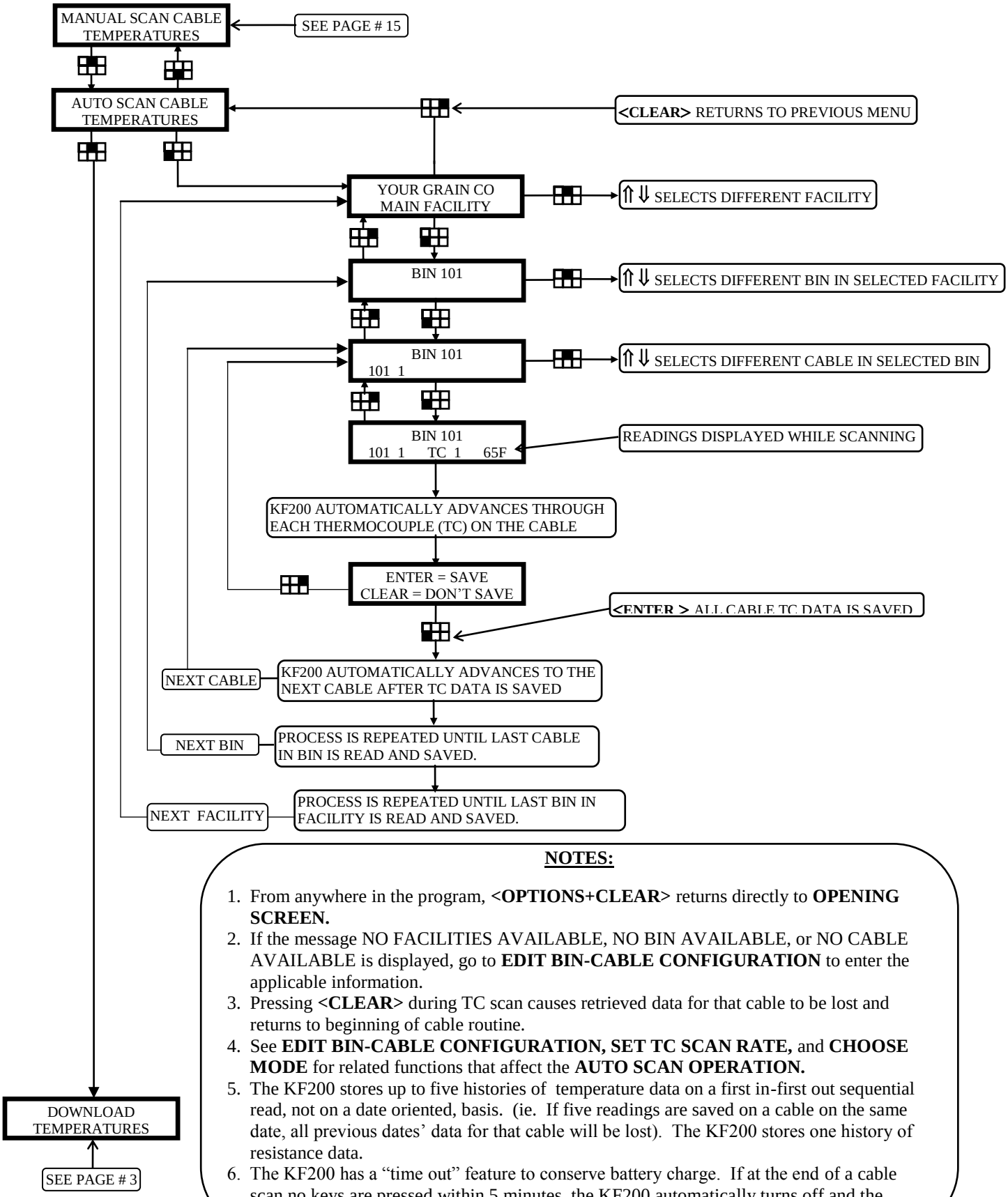
SET TIME....The KF200 includes a battery backed **clock**/calendar which once the time has been set, will automatically adjust for the current time. **See page #12.**

SET ALARMS....Enter maximum rise over previous readings and maximum value for highlighting during printing of temperature/resistance data. **See page #13.**

CHOOSE MODE....Select whether temperature or resistance is to be scanned/analyzed. Resistance mode allows checking integrity of thermocouple signal. **See page #14.**

MANUAL SCAN....Manually scan thermocouple cable temperature/resistance without resultant data. Displays values as they are read. **See page #15**.

AUTO SCAN MENU OPERATION

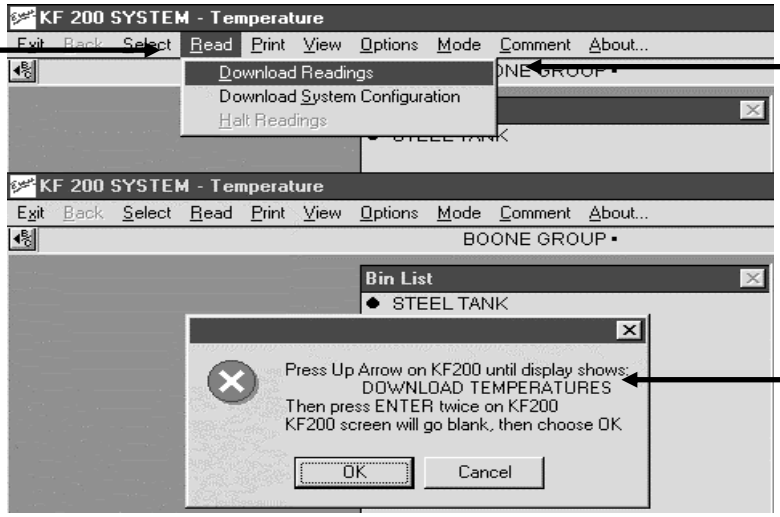


NOTES:

1. From anywhere in the program, **<OPTIONS+CLEAR>** returns directly to **OPENING SCREEN.**
2. If the message NO FACILITIES AVAILABLE, NO BIN AVAILABLE, or NO CABLE AVAILABLE is displayed, go to **EDIT BIN-CABLE CONFIGURATION** to enter the applicable information.
3. Pressing **<CLEAR>** during TC scan causes retrieved data for that cable to be lost and returns to beginning of cable routine.
4. See **EDIT BIN-CABLE CONFIGURATION, SET TC SCAN RATE,** and **CHOOSE MODE** for related functions that affect the **AUTO SCAN OPERATION.**
5. The KF200 stores up to five histories of temperature data on a first in-first out sequential read, not on a date oriented, basis. (ie. If five readings are saved on a cable on the same date, all previous dates' data for that cable will be lost). The KF200 stores one history of resistance data.
6. The KF200 has a "time out" feature to conserve battery charge. If at the end of a cable scan no keys are pressed within 5 minutes, the KF200 automatically turns off and the just scanned cable's data will be lost.

DOWNLOAD MENU OPERATION

PRIOR TO OPERATING THIS MENU, FIRST START THE BCS1000/KF200 SOFTWARE - SEE BCS1000/KF200 MANUAL



CLICK

CLICK

FOLLOW INSTRUCTIONS

AUTO SCAN CABLE TEMPERATURES

SEE PAGE # 2

<CLEAR> RETURNS MAIN MENU

DOWNLOAD TEMPERATURES

ENTER TO DOWNLOAD

SAVED DATA IS DOWNLOADED TO BCS1000/KF200
KF200 PROGRAM CONTROL RETURNS TO MAIN MENU

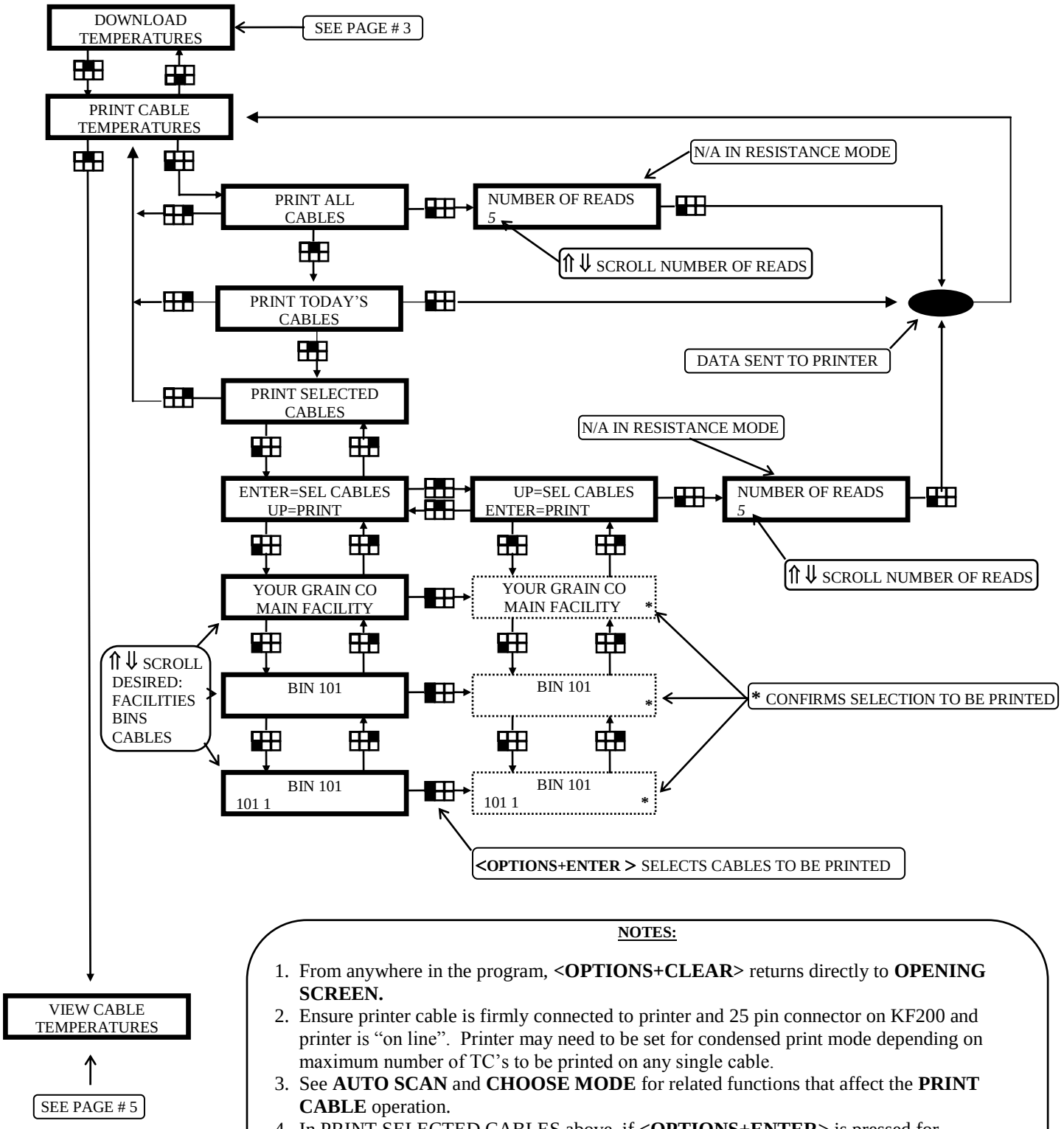
PRINT CABLE TEMPERATURES

SEE PAGE # 4

NOTES:

1. Ensure serial cable is firmly connected to PC port and to nine pin connector on KF200.
2. See **AUTO SCAN, CHOOSE MODE,** and **BCS1000/KF200 MANUAL** for related functions and further information.
3. The KF200 has a "time out" feature to conserve battery charge. If no scan keys are pressed or if there is no serial port activity for five minutes, the KF200 automatically turns off.

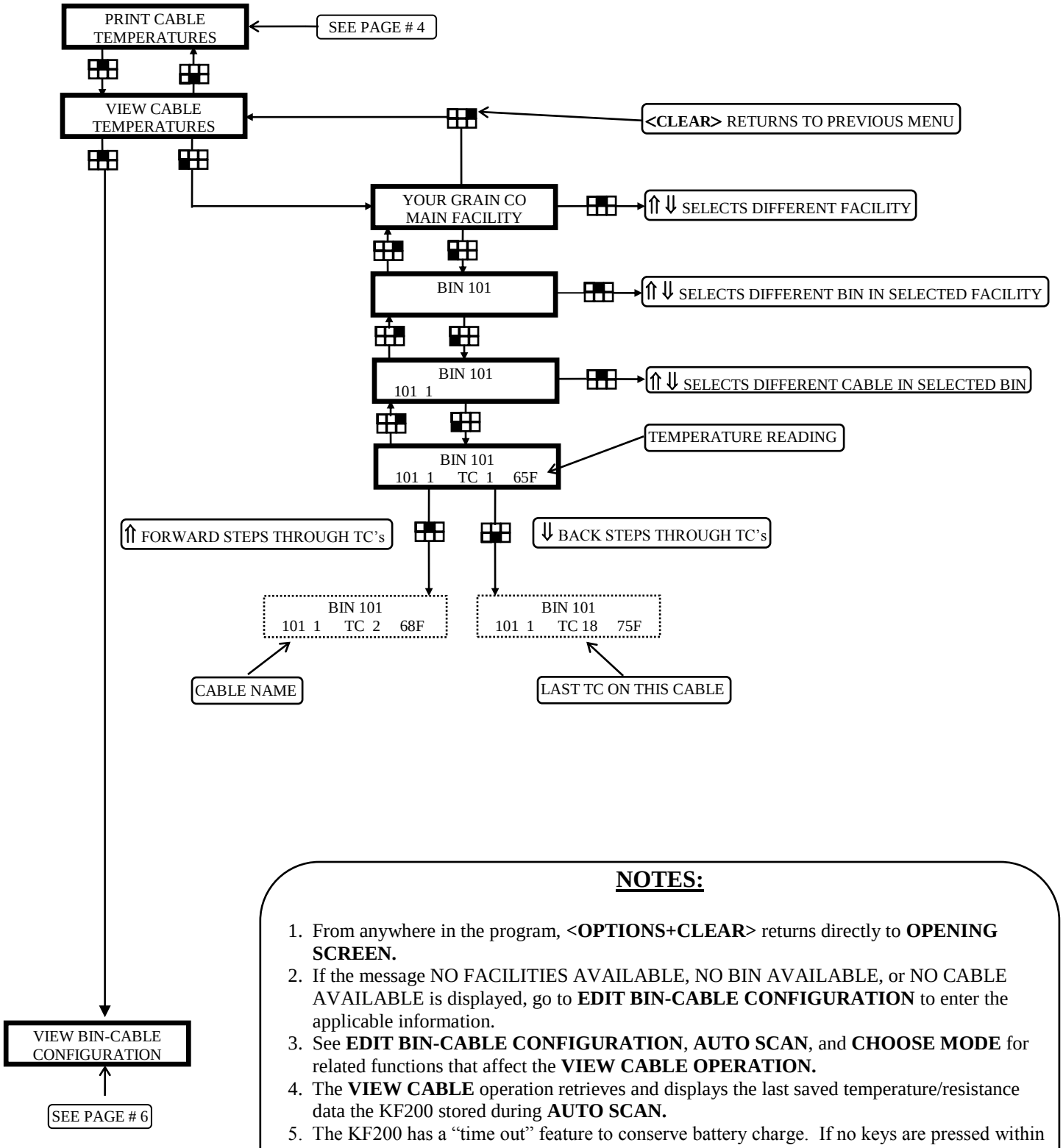
PRINT CABLE MENU OPERATION



NOTES:

1. From anywhere in the program, **<OPTIONS+CLEAR>** returns directly to **OPENING SCREEN.**
2. Ensure printer cable is firmly connected to printer and 25 pin connector on KF200 and printer is "on line". Printer may need to be set for condensed print mode depending on maximum number of TC's to be printed on any single cable.
3. See **AUTO SCAN** and **CHOOSE MODE** for related functions that affect the **PRINT CABLE** operation.
4. In PRINT SELECTED CABLES above, if **<OPTIONS+ENTER>** is pressed for FACILITY, all bins and cables in the facility will be printed. If **<OPTIONS+ENTER>** is pressed for BIN, all cables in that bin will be printed. **<OPTIONS+ENTER>** at CABLE selects individual cable(s).
5. The KF200 has a "time out" feature to conserve battery charge. If no keys are pressed or no activity is detected at the printer port within 5 minutes, the KF200 automatically turns off.

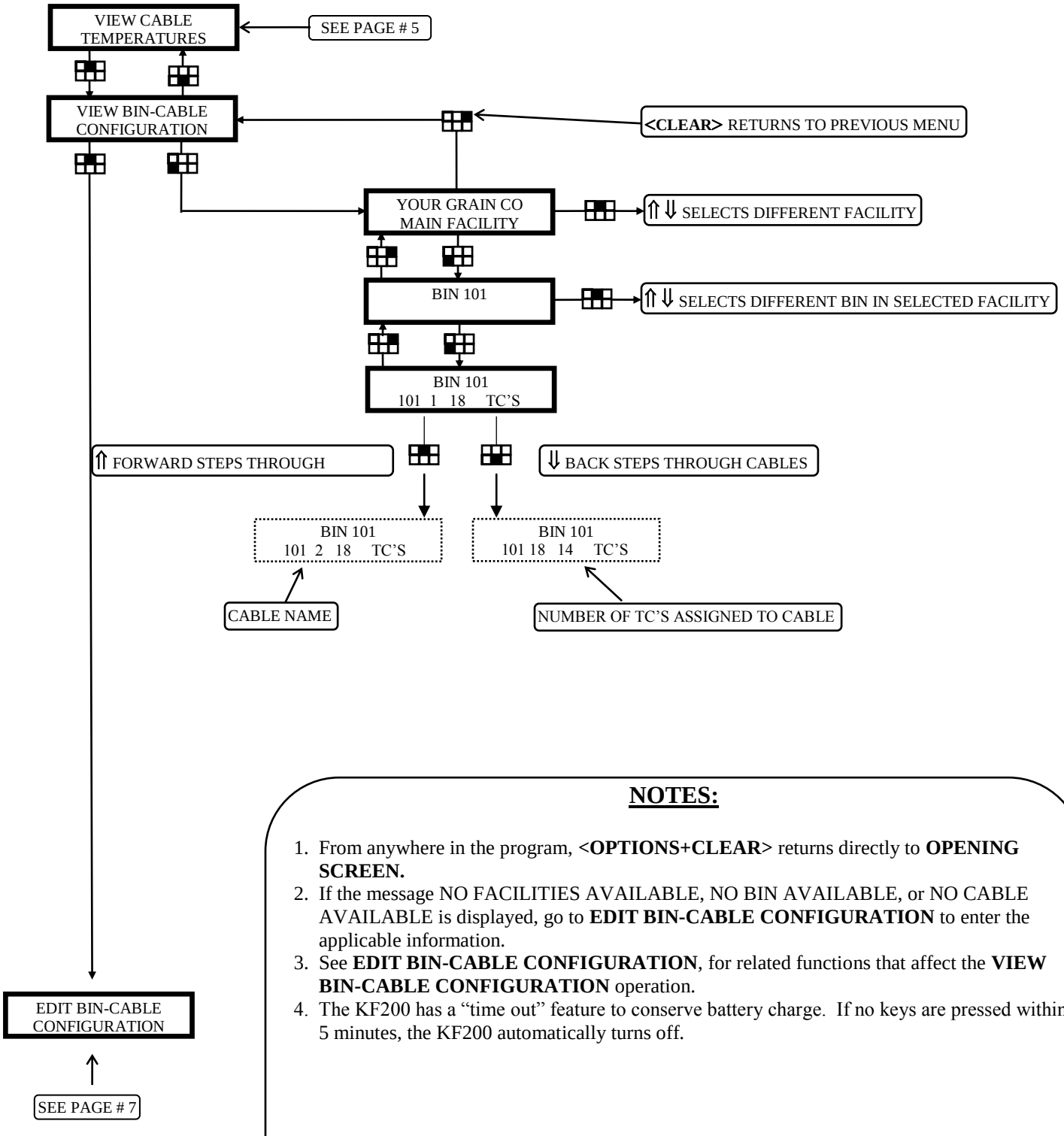
VIEW CABLE MENU OPERATION



NOTES:

1. From anywhere in the program, **<OPTIONS+CLEAR>** returns directly to **OPENING SCREEN.**
2. If the message NO FACILITIES AVAILABLE, NO BIN AVAILABLE, or NO CABLE AVAILABLE is displayed, go to **EDIT BIN-CABLE CONFIGURATION** to enter the applicable information.
3. See **EDIT BIN-CABLE CONFIGURATION**, **AUTO SCAN**, and **CHOOSE MODE** for related functions that affect the **VIEW CABLE OPERATION.**
4. The **VIEW CABLE** operation retrieves and displays the last saved temperature/resistance data the KF200 stored during **AUTO SCAN.**
5. The KF200 has a "time out" feature to conserve battery charge. If no keys are pressed within 5 minutes, the KF200 automatically turns off.

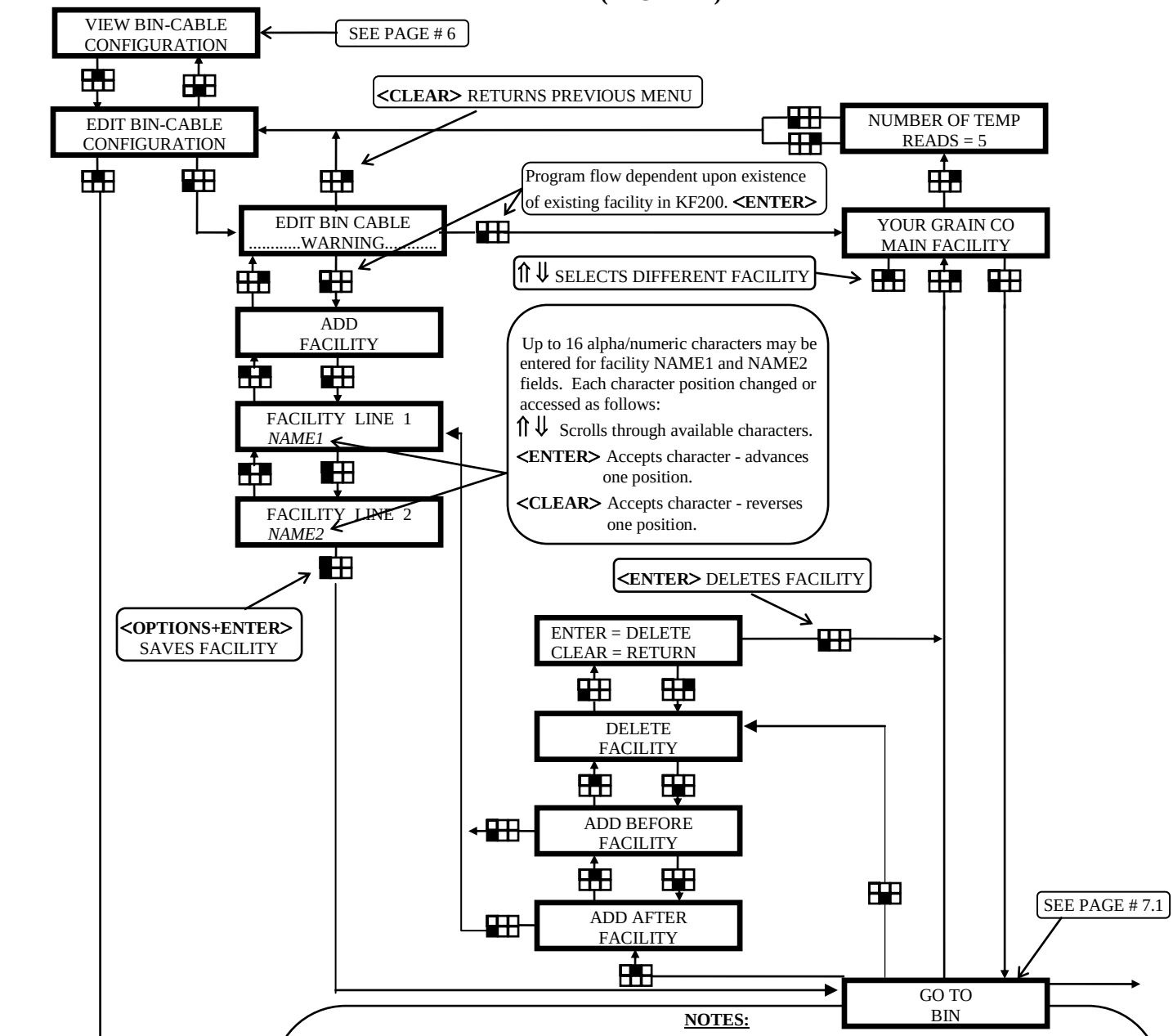
VIEW CONFIGURATION MENU OPERATION



NOTES:

1. From anywhere in the program, **<OPTIONS+CLEAR>** returns directly to **OPENING SCREEN.**
2. If the message NO FACILITIES AVAILABLE, NO BIN AVAILABLE, or NO CABLE AVAILABLE is displayed, go to **EDIT BIN-CABLE CONFIGURATION** to enter the applicable information.
3. See **EDIT BIN-CABLE CONFIGURATION**, for related functions that affect the **VIEW BIN-CABLE CONFIGURATION** operation.
4. The KF200 has a "time out" feature to conserve battery charge. If no keys are pressed within 5 minutes, the KF200 automatically turns off.

EDIT BIN-CABLE CONFIGURATION MENU OPERATION
(FACILITY)

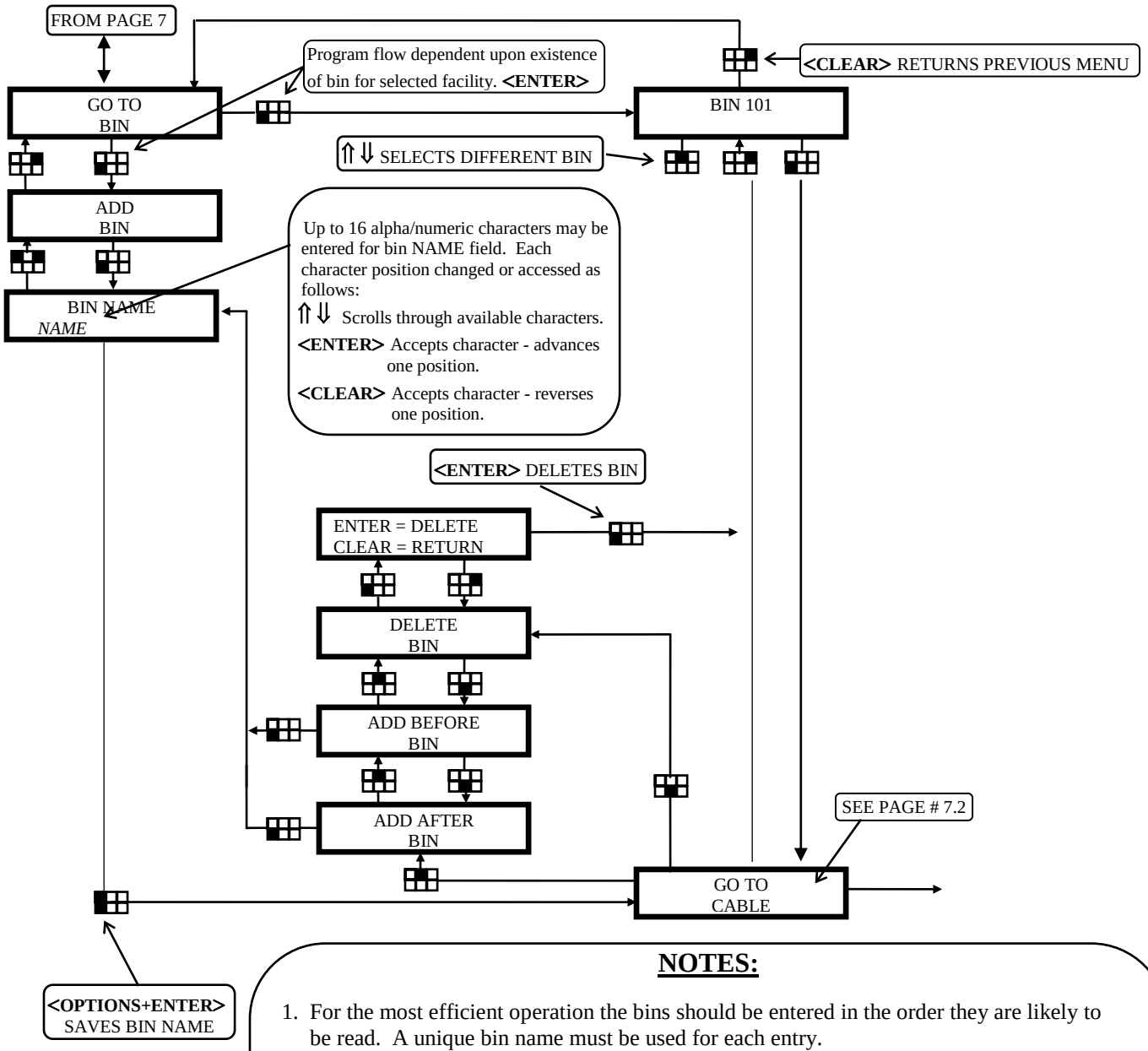


NOTES:

1. NUMBER OF TEMP READS may vary depending on the combined total number of facilities, bins, cables, and TC's configured for the KF200.
2. Up to 10 separate facilities may be entered into the KF200. For the most efficient operation these should be entered in the order they are likely to be read. A unique facility name must be used for each entry.
3. Deleting a facility will also delete it's associated bins, cables, and TC data.
4. BCS1000/KF200 users will need to perform a new **DOWNLOAD CONFIGURATION** if **EDIT BIN-CABLE CONFIGURATION** has been used. Downloading will erase all existing configuration information and TC data on the PC. See BCS1000/KF200 manual and **DOWNLOAD CONFIGURATION** for more information.
5. ADD BEFORE, ADD AFTER, and DELETE as shown above refers to the facility these routines have branched from. As an example using the illustration above, if ADD AFTER was selected and a new facility entered, in all subsequent operations of the KF200 the new facility would follow "YOUR GRAIN CO/MAIN FACILITY" in sequencing. If DELETE FACILITY was selected, "YOUR GRAIN CO/MAIN FACILITY" would be deleted.

EDIT BIN-CABLE CONFIGURATION MENU OPERATION

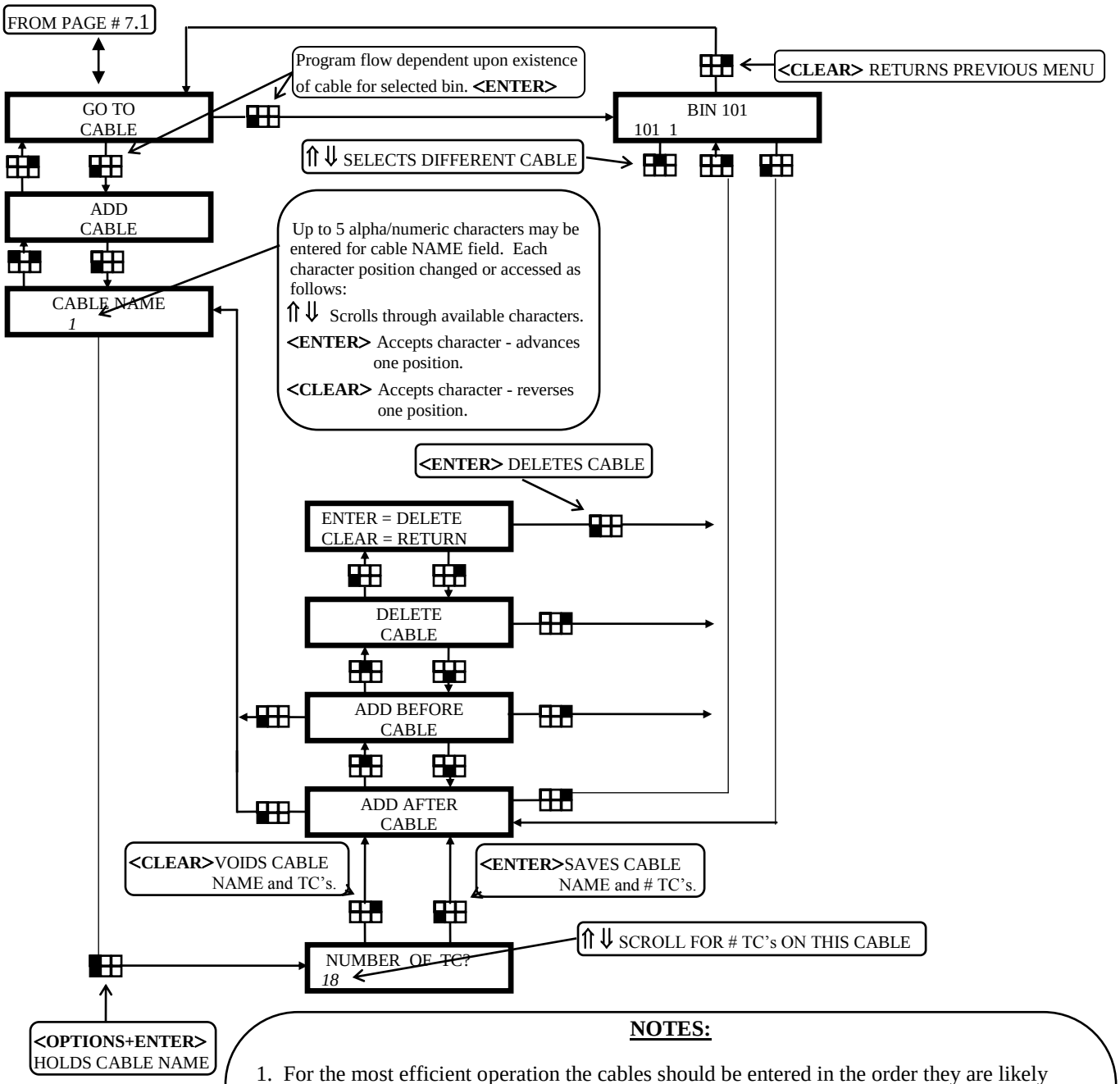
(BIN)



NOTES:

1. For the most efficient operation the bins should be entered in the order they are likely to be read. A unique bin name must be used for each entry.
2. Deleting a bin will also delete it's associated cables and TC data.
3. BCS1000/KF200 users will need to perform a new **DOWNLOAD CONFIGURATION** if **EDIT BIN-CABLE CONFIGURATION** has been used. Downloading will erase all existing configuration information and TC data on the PC. See BCS1000/KF200 manual and **DOWNLOAD CONFIGURATION** for more information.
4. ADD BEFORE, ADD AFTER, and DELETE as shown above refers to the bin these routines have branched from. As an example using the illustration above, if ADD AFTER was selected and a new bin entered, in all subsequent operations of the KF200 the new bin would follow "BIN 101" in sequencing. If DELETE BIN was selected, "BIN 101" would be deleted.
5. The KF200 has a "time out" feature to conserve battery charge. If no keys are pressed within 5 minutes, the KF200 automatically turns off.

EDIT BIN-CABLE CONFIGURATION MENU OPERATION
(CABLE)

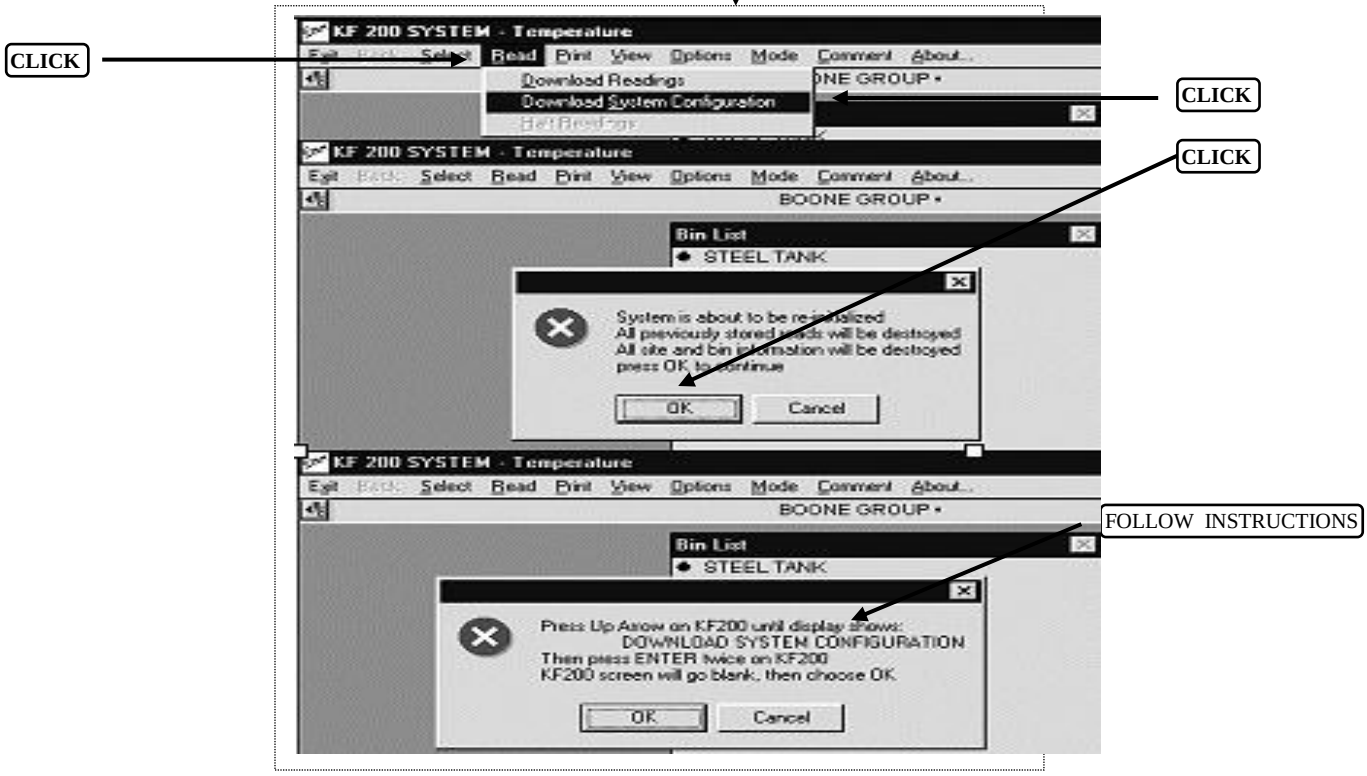


NOTES:

1. For the most efficient operation the cables should be entered in the order they are likely to be read. A unique cable name must be used for each entry. A maximum of 21 TC's may be entered for each cable.
2. Deleting a cable also deletes it's associated TC data.
3. BCS1000/KF200 users will need to perform a new **DOWNLOAD CONFIGURATION** if **EDIT BIN-CABLE CONFIGURATION** has been used. Downloading will erase all existing configuration information and TC data on the PC. See BCS1000/KF200 manual and **DOWNLOAD CONFIGURATION** for more information.
4. ADD BEFORE, ADD AFTER, and DELETE as shown above refers to the cable these routines have branched from. As an example using the illustration above, if ADD AFTER was selected and a new cable entered, in all subsequent operations of the KF200 the new cable would follow "101 1" in sequencing. If DELETE CABLE was selected, "101 1" would be deleted.
5. The KF200 has a "time out" feature to conserve battery charge. If no keys are pressed within 5 minutes, the KF200 automatically turns off.

DOWNLOAD SYSTEM CONFIGURATION MENU OPERATION

PRIOR TO OPERATING THIS MENU, FIRST START THE BCS1000/KF200 SOFTWARE - SEE BCS1000/KF200 MANUAL



EDIT BIN-CABLE CONFIGURATION

SEE PAGE # 7

<CLEAR> RETURNS MAIN MENU

DOWNLOAD SYSTEM CONFIGURATION

ENTER TO DOWNLOAD

CONFIGURATION IS DOWNLOADED TO BCS1000/KF200
KF200 PROGRAM CONTROL RETURNS TO MAIN MENU

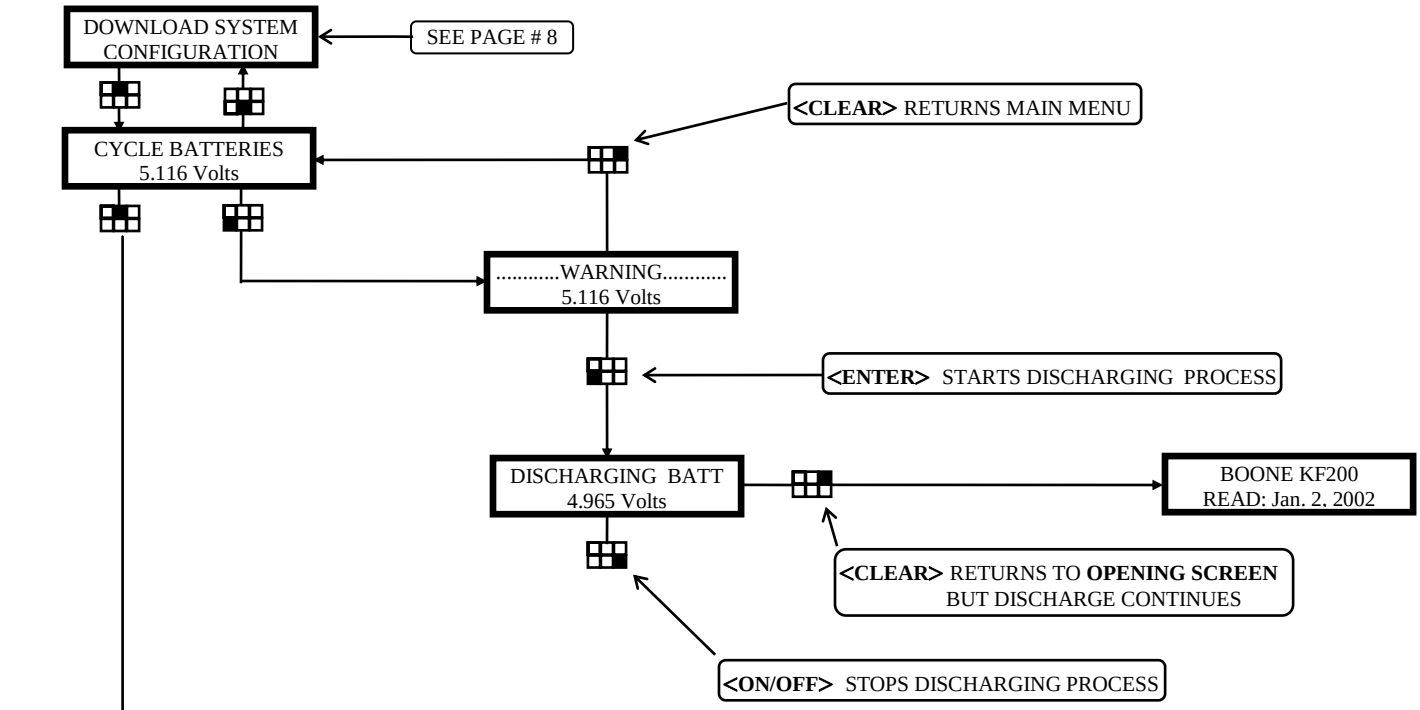
CYCLE BATTERIES
5.116 Volts

SEE PAGE # 9

NOTES:

1. Ensure serial cable is firmly connected to PC port and to nine pin connector on KF200.
2. See **EDIT BIN-CABLE CONFIGURATION** and **BCS1000/KF200 MANUAL** for related functions and further information.
3. The KF200 has a "time out" feature to conserve battery charge. If no scan keys are pressed or if there is no serial port activity for five minutes, the KF200 automatically turns off.

CYCLE BATTERIES MENU OPERATION



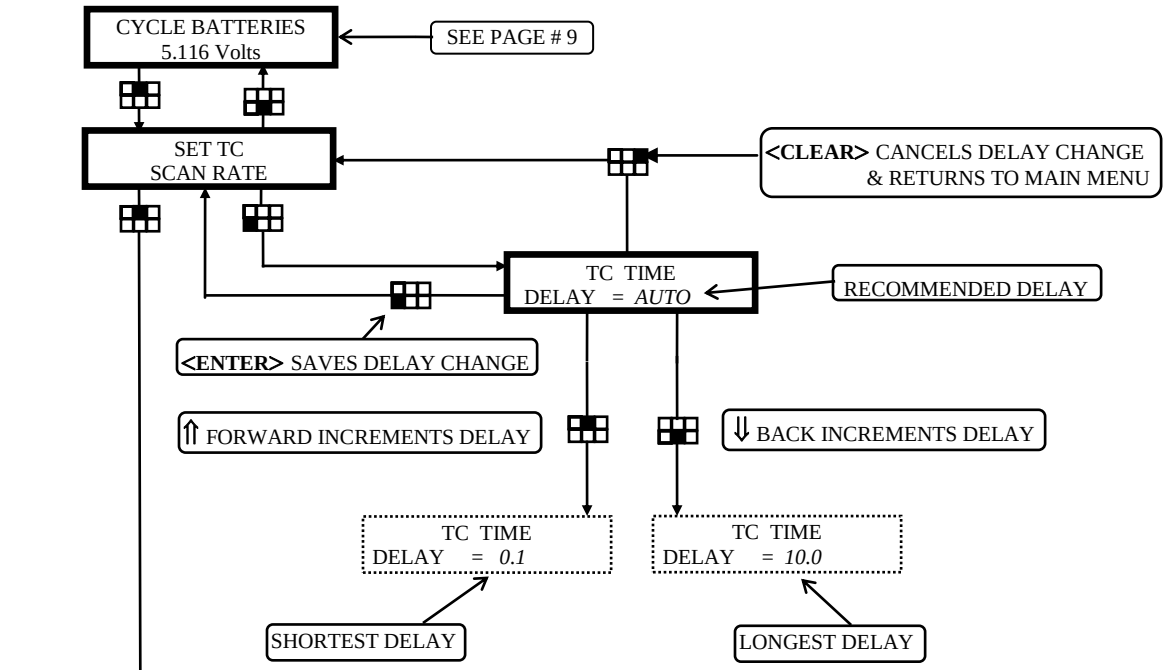
SET TC
SCAN RATE

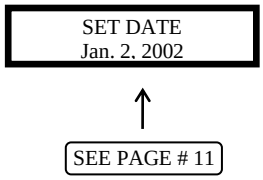
SEE PAGE # 10

NOTES:

1. Once every 60 days the batteries should be cycled. This operation drains the batteries and then recharges them. It takes 12 hours for a full discharge and charge of the batteries. No data will be lossed during this operation.
2. The KF200 must be plugged into the charger and the charger into an AC voltage source during this operation.
3. Batteries are fully charged if approximately 5.400 volts is displayed. At any time during it's operation, if the voltage drops to 4.500 volts the KF200 will beep every 30 seconds and an ! will appear in the top right corner of the display. If the voltage is allowed to drop below 4 volts, the KF200 will automatically shut down. No data is lost if this occurs. The batteries will then need to be recharged for approximately 12 hours.

SET TC SCAN RATE MENU OPERATION

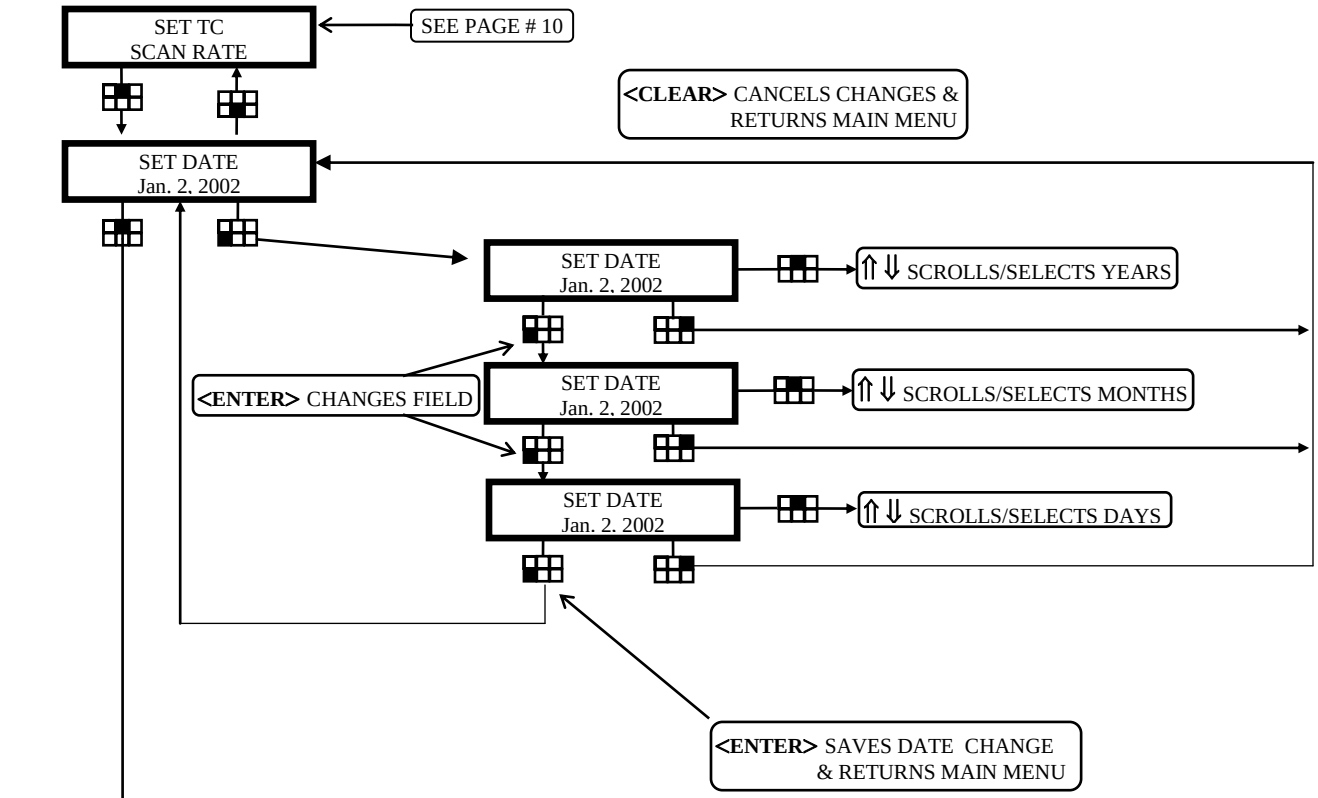


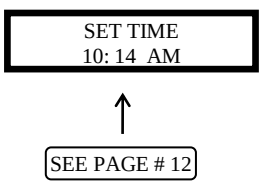


NOTES:

1. From anywhere in the program, <**OPTIONS+CLEAR**> returns directly to **OPENING SCREEN.**
2. AUTO delay is recommended for most efficient speed and optimal accuracy. However, the delay can be manually adjusted between 0.1 and 10.0 in 0.1 increments but accuracy may be compromised.
3. **SET TC SCAN RATE** only affects **AUTO SCAN** operation.
4. The KF200 has a "time out" feature to conserve battery charge. If no keys are pressed within 5 minutes, the KF200 automatically turns off.

SET DATE MENU OPERATION



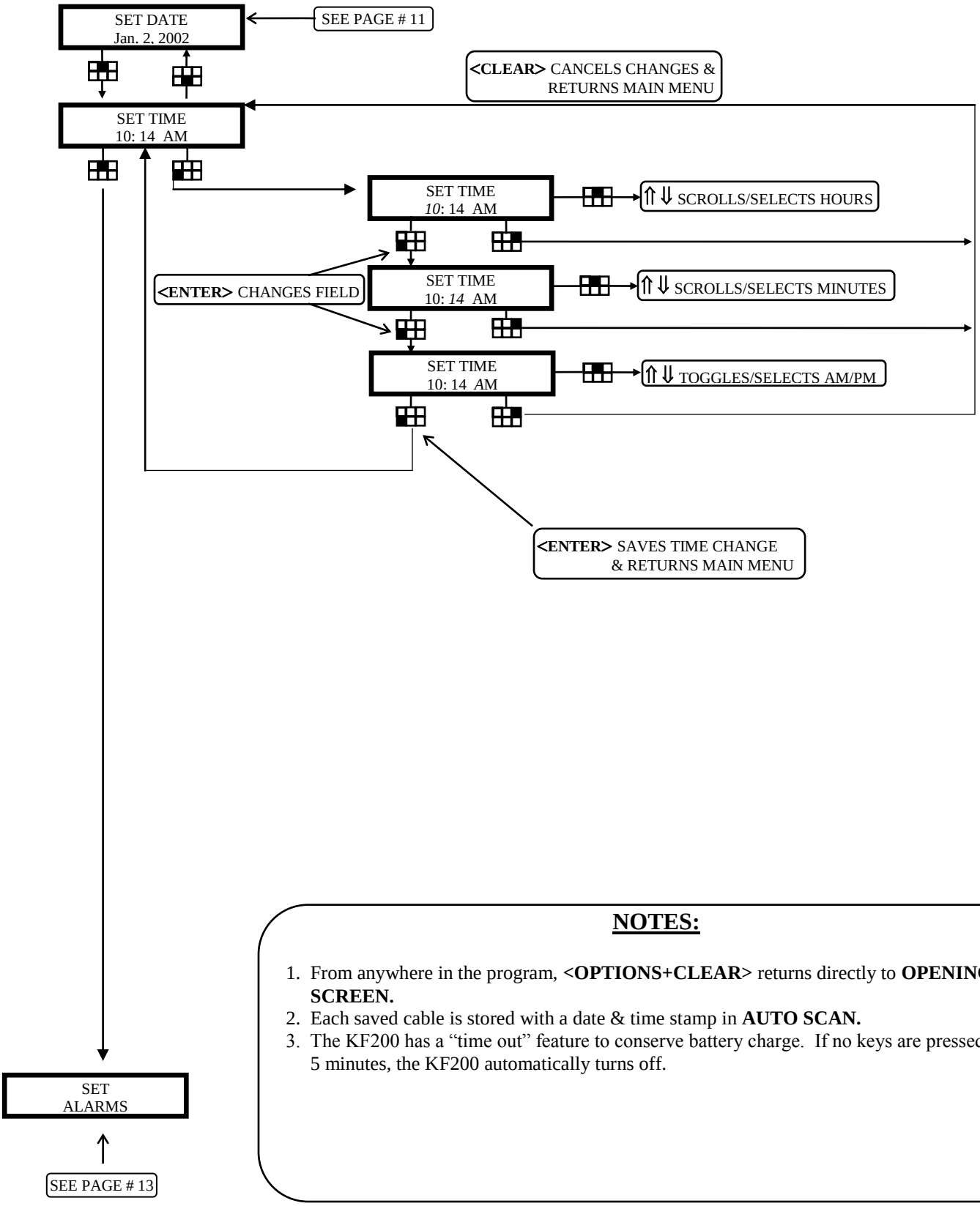


SEE PAGE # 12

NOTES:

1. From anywhere in the program, **<OPTIONS+CLEAR>** returns directly to **OPENING SCREEN.**
2. Each saved cable is stored with a date & time stamp in **AUTO SCAN.**
3. The KF200 has a "time out" feature to conserve battery charge. If no keys are pressed within 5 minutes, the KF200 automatically turns off.

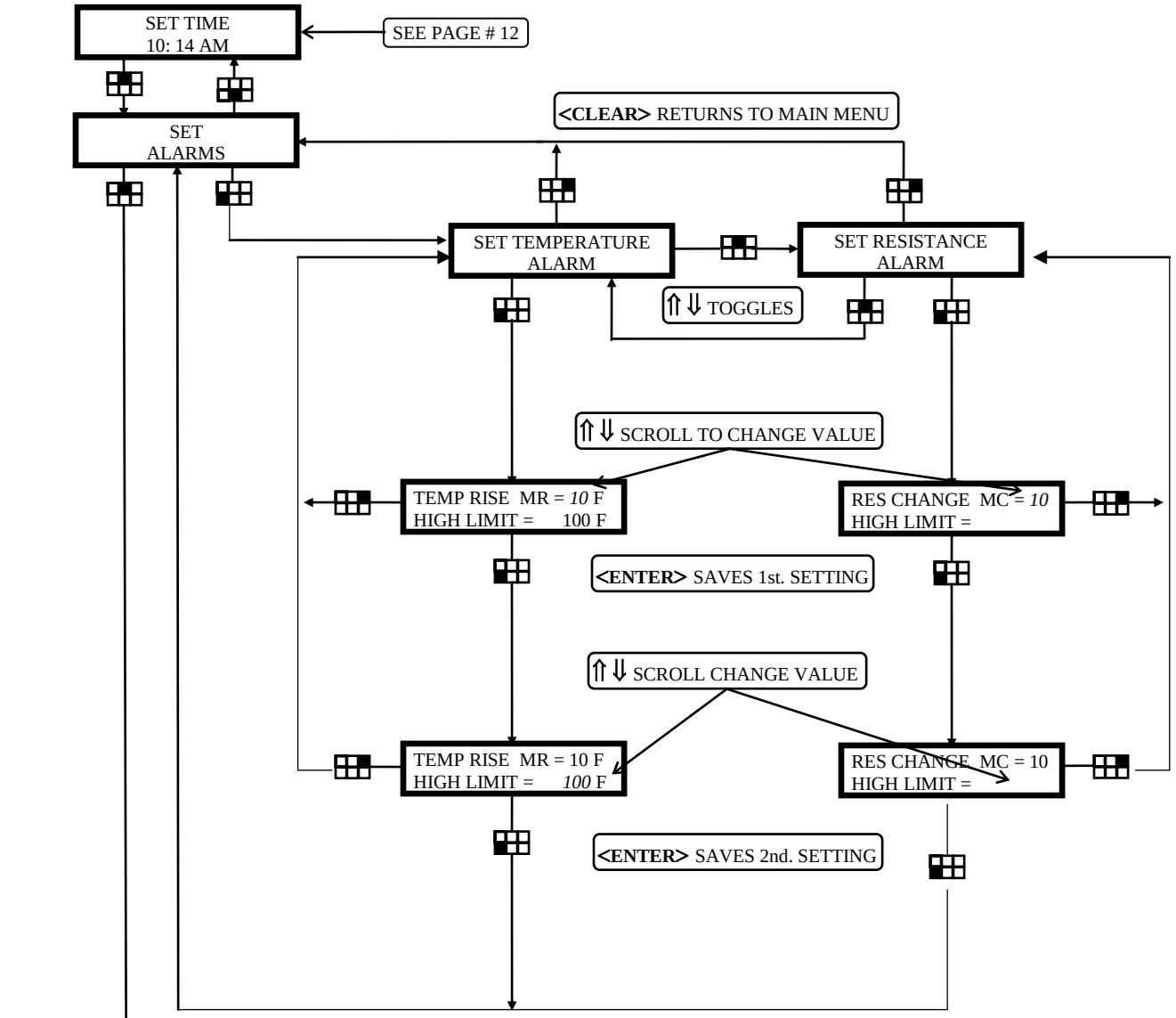
SET TIME MENU OPERATION



NOTES:

1. From anywhere in the program, **<OPTIONS+CLEAR>** returns directly to **OPENING SCREEN.**
2. Each saved cable is stored with a date & time stamp in **AUTO SCAN.**
3. The KF200 has a "time out" feature to conserve battery charge. If no keys are pressed within 5 minutes, the KF200 automatically turns off.

SET ALARMS MENU OPERATION



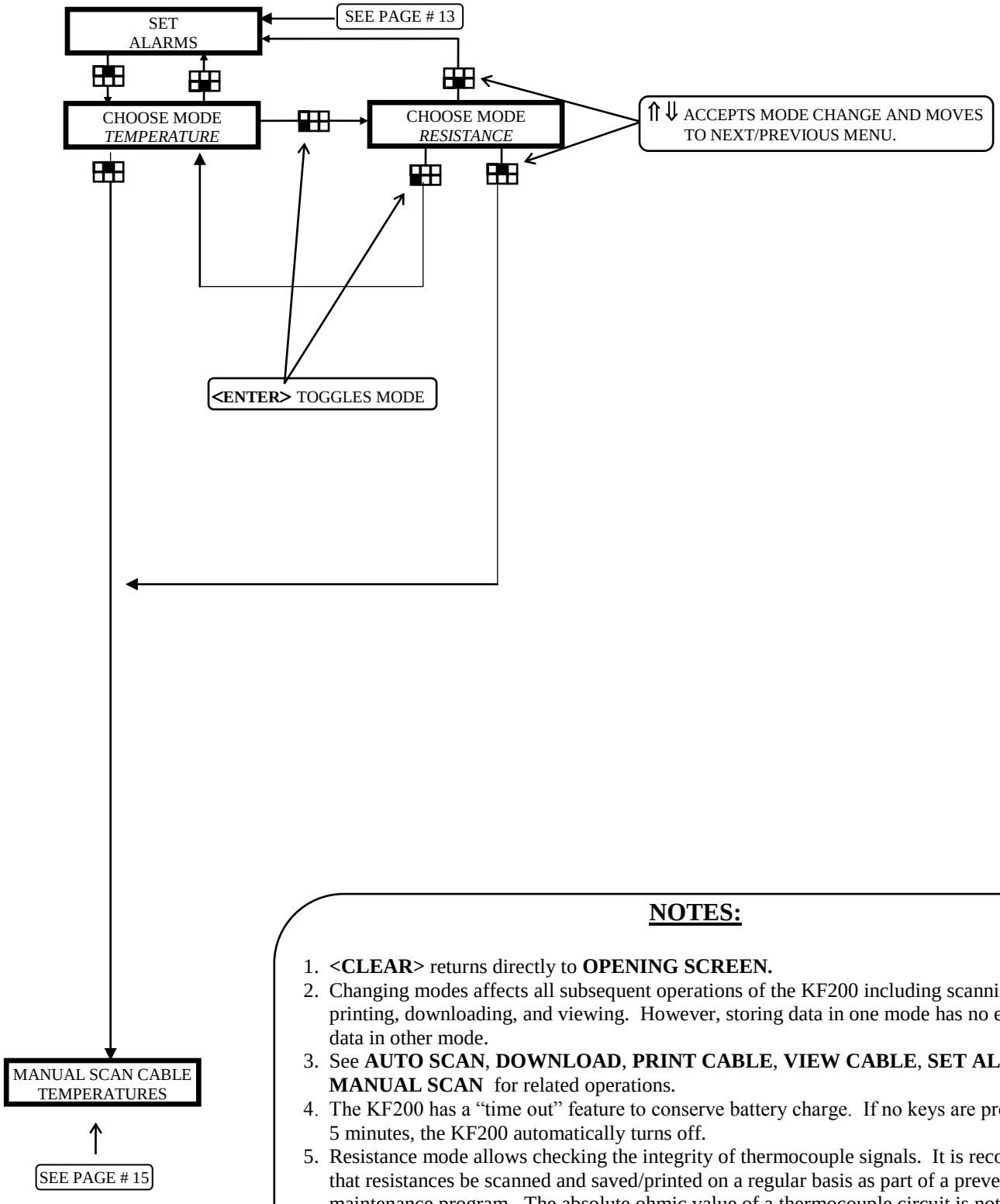
CHOOSE MODE
TEMPERATURE

SEE PAGE # 14

NOTES:

1. From anywhere in the program, **<OPTIONS+CLEAR>** returns directly to **OPENING SCREEN.**
2. The above settings are only for use in the **PRINT CABLE** operation. The settings allow the KF200 to tell the printer to highlight those readings that equal or exceed the values entered above. See **PRINT CABLE** for more information.
3. The HIGH LIMIT settings are absolute values for both temperature and resistance.
4. MR (maximum temperature rise) and MC (maximum ohm change) are relative. When in **PRINT CABLE**, the KF200 compares newer readings to readings taken just previously to them. If the newer temperature is equal to or greater than the previous reading by MR, the newer reading is highlighted. If the newer resistance is equal to, greater than, or less than the previous reading by MC, the newer reading is highlighted.
5. The KF200 has a "time out" feature to conserve battery charge. If no keys are pressed within 5 minutes, the KF200 automatically turns off.

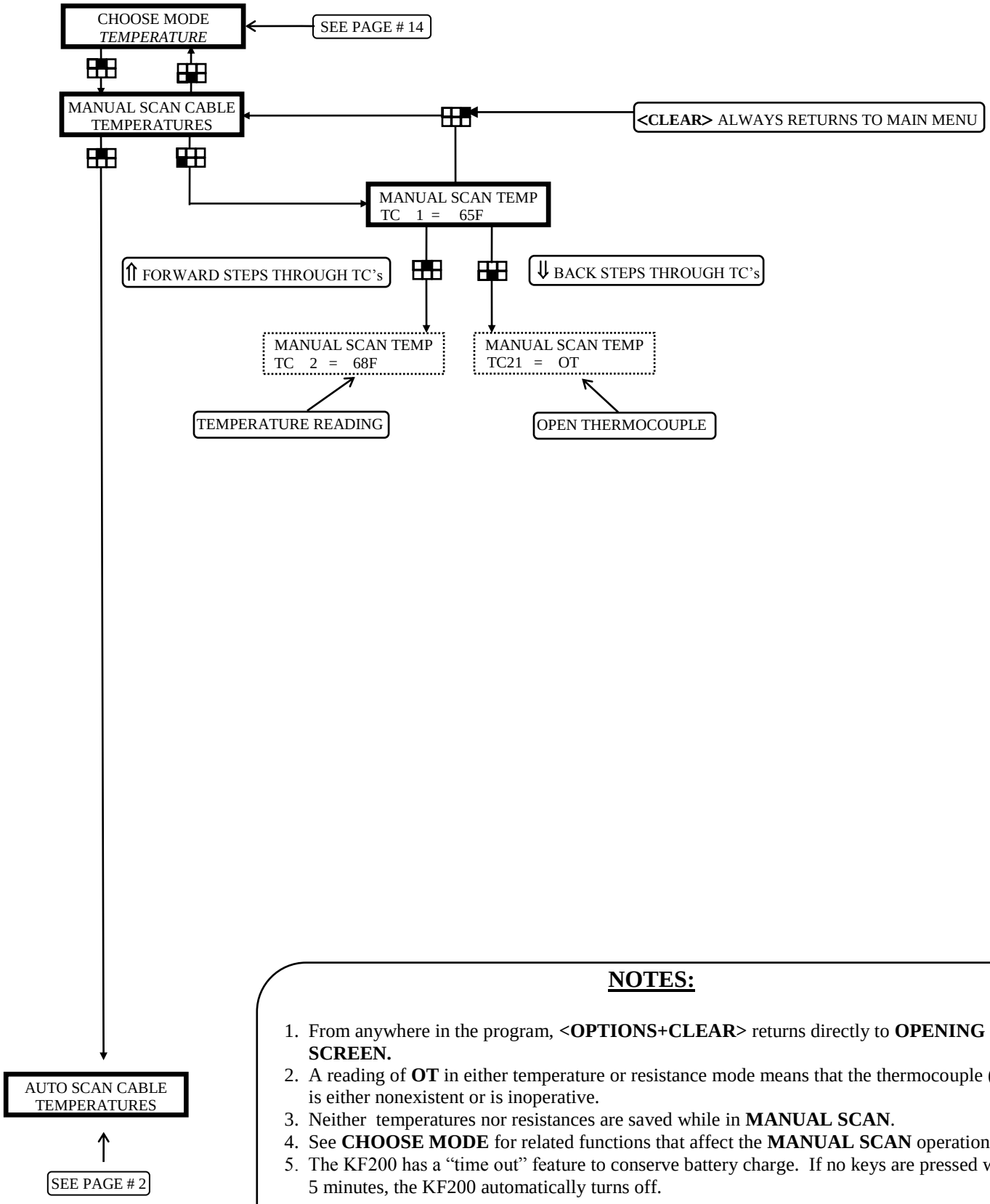
CHOOSE MODE MENU OPERATION



NOTES:

1. **<CLEAR>** returns directly to **OPENING SCREEN.**
2. Changing modes affects all subsequent operations of the KF200 including scanning, saving, printing, downloading, and viewing. However, storing data in one mode has no effect on data in other mode.
3. See **AUTO SCAN**, **DOWNLOAD**, **PRINT CABLE**, **VIEW CABLE**, **SET ALARMS**, and **MANUAL SCAN** for related operations.
4. The KF200 has a "time out" feature to conserve battery charge. If no keys are pressed within 5 minutes, the KF200 automatically turns off.
5. Resistance mode allows checking the integrity of thermocouple signals. It is recommended that resistances be scanned and saved/printed on a regular basis as part of a preventative maintenance program. The absolute ohmic value of a thermocouple circuit is not necessarily a critical factor. However, the amount of relative change in ohms between individual thermocouples on a cable or the amount of change from one date to the next are excellent indicators of the thermocouple circuit condition.

MANUAL SCAN MENU OPERATION



NOTES:

1. From anywhere in the program, <**OPTIONS+CLEAR**> returns directly to **OPENING SCREEN.**
2. A reading of **OT** in either temperature or resistance mode means that the thermocouple (TC) is either nonexistent or is inoperative.
3. Neither temperatures nor resistances are saved while in **MANUAL SCAN**.
4. See **CHOOSE MODE** for related functions that affect the **MANUAL SCAN** operation.
5. The KF200 has a "time out" feature to conserve battery charge. If no keys are pressed within 5 minutes, the KF200 automatically turns off.

KF200 GRAIN SOFTWARE MANUAL

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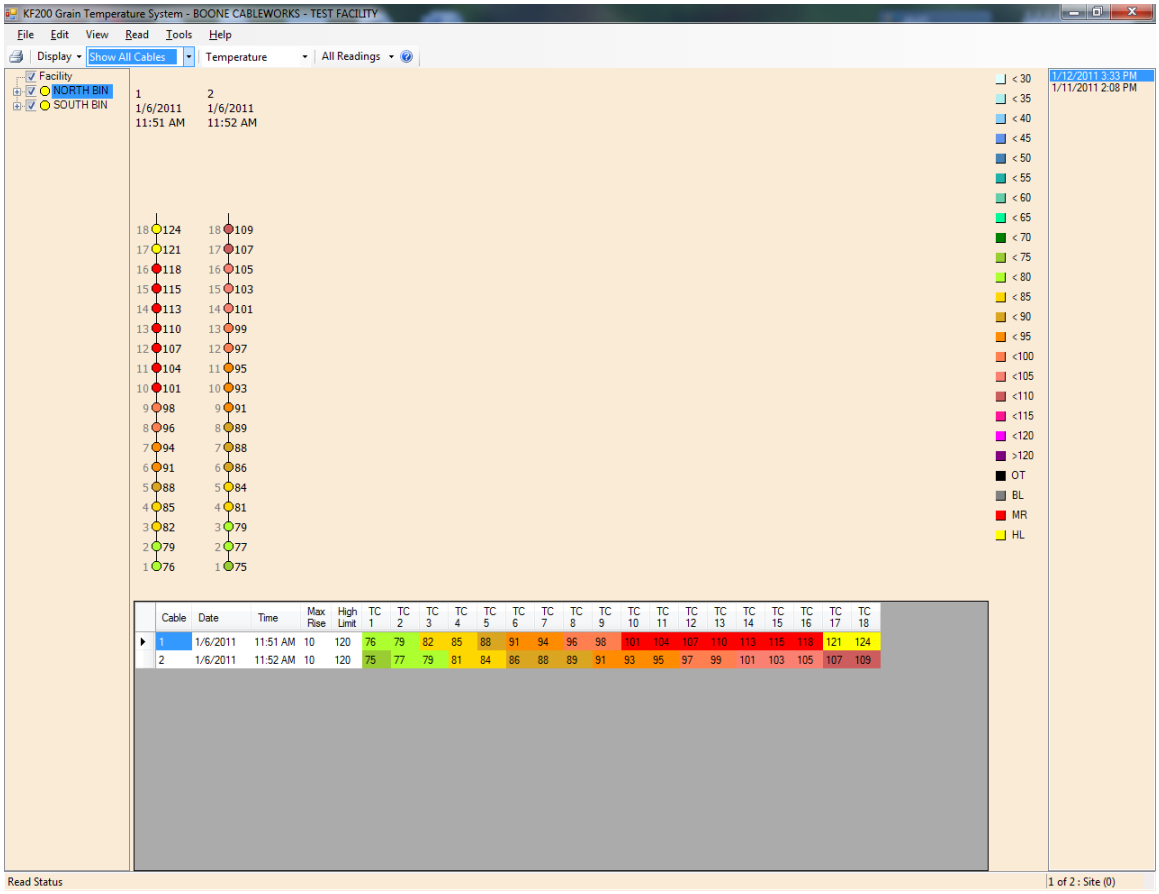
1 GENERAL

Boone Cable Works & Electronics, Inc. offers a comprehensive line of temperature monitoring equipment. Our complete product range and extensive systems experience allows us to offer effective solutions to a wide spectrum of your practical requirements. Our extensive background in temperature monitoring along with a constant program of innovation and technological development, allows us to offer cost-effective and user orientated solutions. This manual covers the Windows software version for the KF200 Systems which are P.C. based systems of commodity temperature measurement.

1.1 Main Screen



The main screen consists of the following elements

- Menu Bar
- Tool Bar
- Facility List
- Text View
- Graphics View
- Color Legend
- Date Time List

The **Facility List** shows all bin/cable groups. The data (temperature or resistance values) can be displayed in one of three ways: A Text View, 2D overview or 3D view. The Text software package offers only the text view capability. The 3D Graphics software packages offer all three options.

To go from the facility overview to the cables in a bin/cable grouping, place the mouse arrow on the selected grouping and left click.

1.2 Menu Bar

File
Save or print data reports or exit from the program.

Edit
Select all cables.

View
Access Event Log, Terminal, Comment, and Summary Screens.

Read
Download Reads, Download Configuration.

Tools
Access Options screen, Block OT Sensors, and Data Utility.

Help
Program Version

1.3 Tool Bar

Print Icon
Display
View List
Temperature/Resistance
All Readings

1.4 Facility List

Tree View that lists all bins and cable in facility. The top item (Facility) is used to select the entire facility. Items in the facility list are selected by clicking on the item name. Individual bins or cables can be included in the next read by the check box next to the item.

A colored dot located by the bin/cable in the facility list is an indication of the hottest point on the cable or an alarm condition color.

1.5 Text View

Text View is a grid (spreadsheet) view of the currently selected read data. It includes the cable name, date and time of read, Max Rise, High Limit, and the data read for each thermocouple.

1.6 Graphics View

Graphics view is a 2D or 3D representation of the actual facility or bin. In the Facility list select Facility to show the overview of the entire facility or select any bin or cable to zoom into a view of an individual bin.

1.7 Color Legend

On the right side of the screen is a vertical row of colors and numbers. The colors beside the numbers indicate the color that the temperature will be displayed. Below the last temperature is OT. **OT** represents an Open Thermocouple. BL is for Blocked Cables. MR stands for Maximum Rise alarm. HL stands for the High Limit alarm. Change the color by right clicking on the color block and selecting a new color.

1.8 Date Time List

The list of Date Times is on the far right of the screen. It is used to select the current read. The top item in the list is the last read taken.

2 Menu Bar

2.1 File

2.1.1 Save

Save current data to a text file on the computer. The file name includes the date and time of the read.

2.1.2 Save As

Save the text file to any folder on the computer.

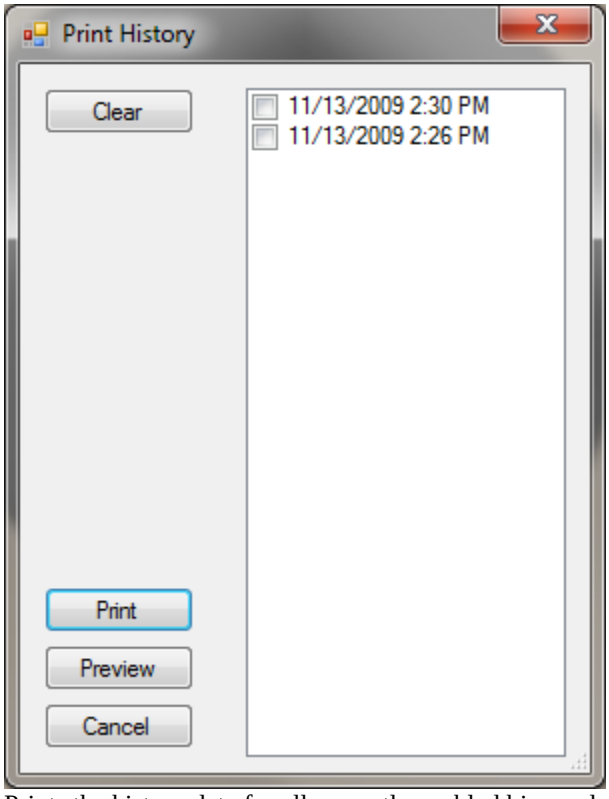
2.1.3 Page Setup

Open the standard Page Setup dialog for setting the paper size, source, orientation, and margins.

2.1.4 Print

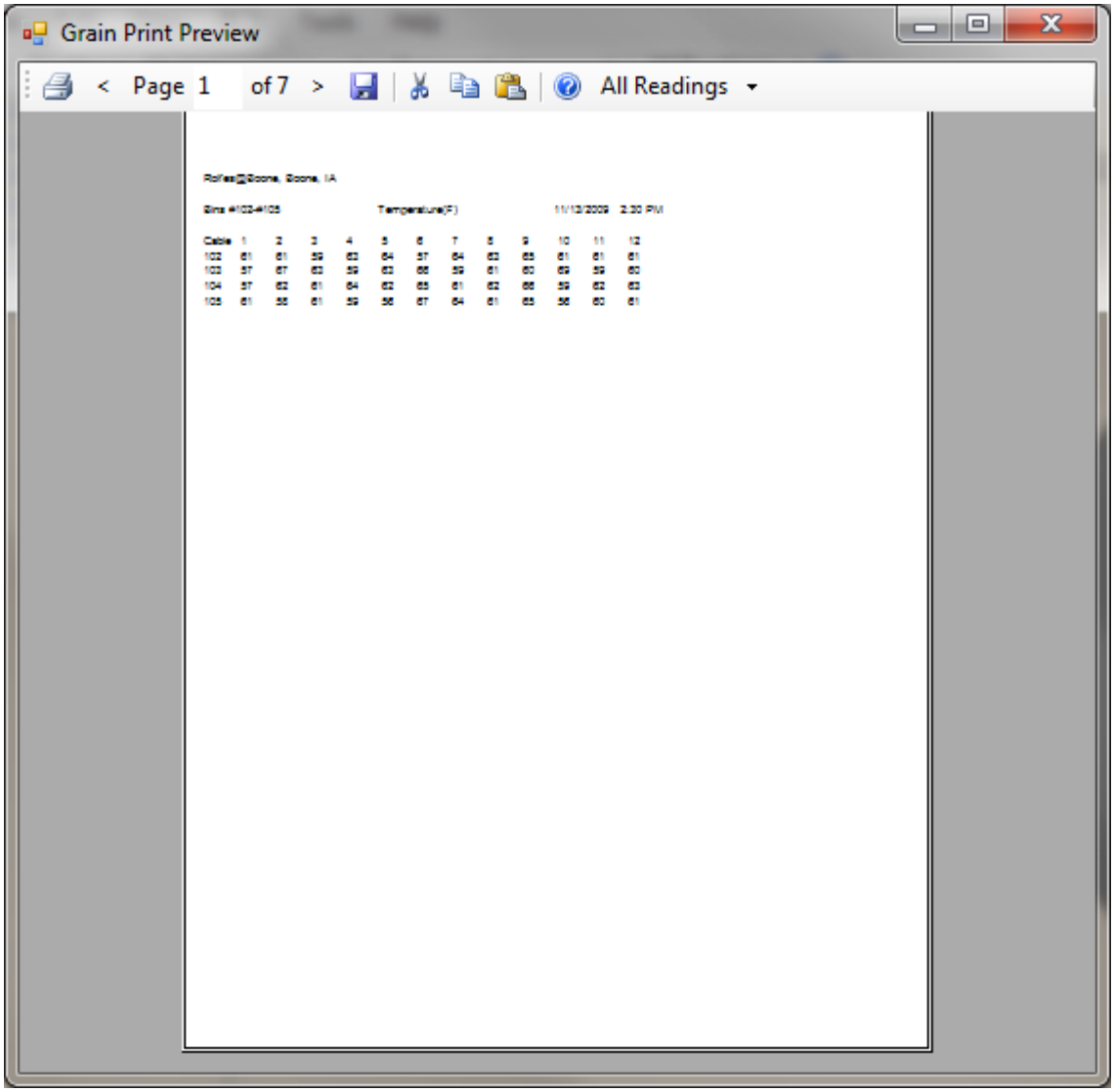
Prints the temperature or resistance of the cables enabled in the facility list. The print dialog box is used to select the current printer. In temperature mode, temperature data will be printed and in resistance mode, resistance data will be printed.

2.1.5 Print History



Prints the history data for all currently enabled bins and cables. Check the dates in the date time list, and then select Print or Preview.

2.1.6 Print Preview



Open a Print Preview Screen with the same data as the Print button. The data can be previewed before printing. Toggle between All Readings and Alarms Only by clicking on the button in the toolbar.

2.2 Edit

2.2.1 Select All

Check this to select all the bins/cable in the facility.

2.3 View

2.3.1 Event Log

All Events are displayed in this log screen. Events are temperature alarms and system events.

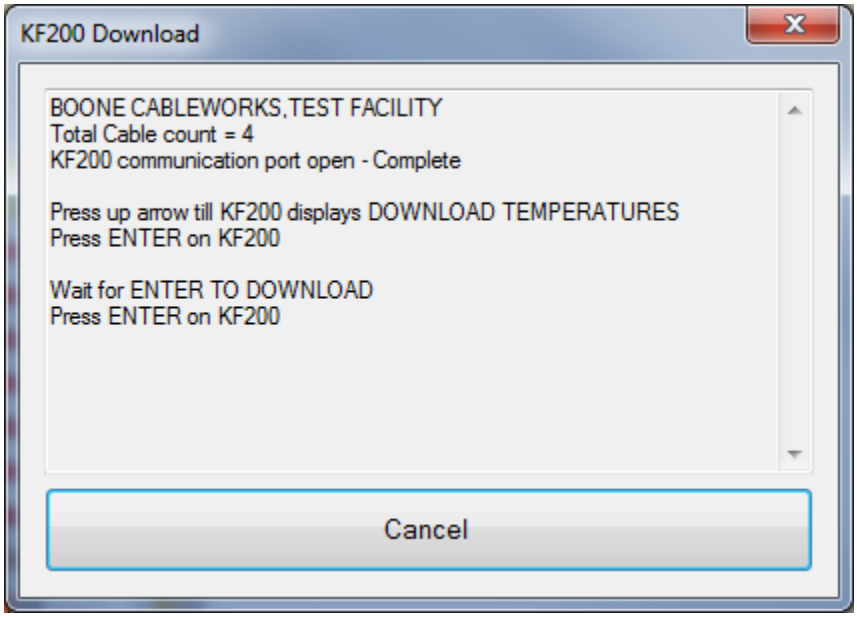
2.3.2 COMMENT (Cable Comment Area)

Select this option and a notepad window opens on the screen. This allows notes on each cable to be stored in the system. In the facility level the notes are about the whole facility. At the bin level the notes are for the cable displayed at the right side of the screen. The comments will be shown in the bottom right area of the screen.

2.3.3 Summary

Display summary information for the currently selected read. This is the same information that can be emailed after each read. The summary data can also be sent directly from this screen.

2.4 READ



2.4.1 Download

Download cable read data to the computer. These readings will be stored in the BCS Grain database on the computer. A report can be printed or emailed after the read is completed. Enable these features in the Grain Options dialog box in Tools menu.

2.4.2 Download Conf

Downloading system configuration. This will create a new GrainSite.datx data file.

2.5 Tools

2.5.1 Block OT

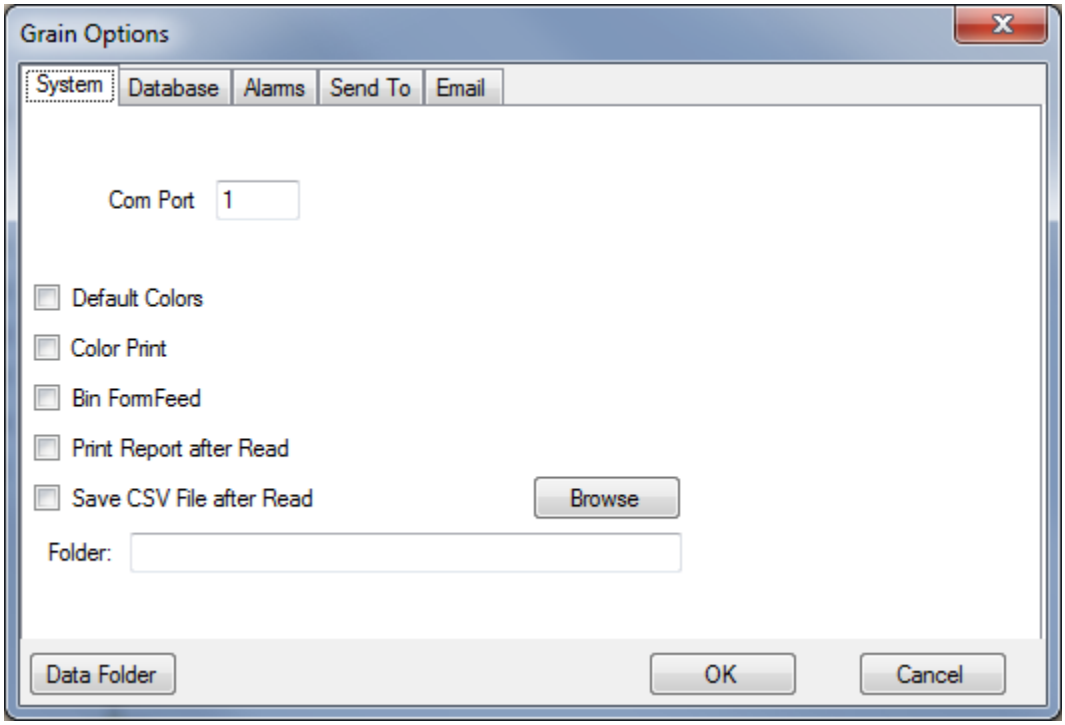
Automatically blocks all cables/thermocouples that are currently in OT.

2.5.2 Data Utility

Opens a dialog box to check, backup, or create a new database

2.5.3 Options

2.5.3.1 System



2.5.3.1.1 Com Port

Com port used to communicate with KF200.

2.5.3.1.2 Default Colors

Check this option, and then click on OK to restore default settings for all temperature, resistance, and alarm colors.

2.5.3.1.3 Color Print

Enables color printing. The default is black and white.

2.5.3.1.4 Bin FormFeed

Print a separate page for each bin. Increases the total number of pages printed.

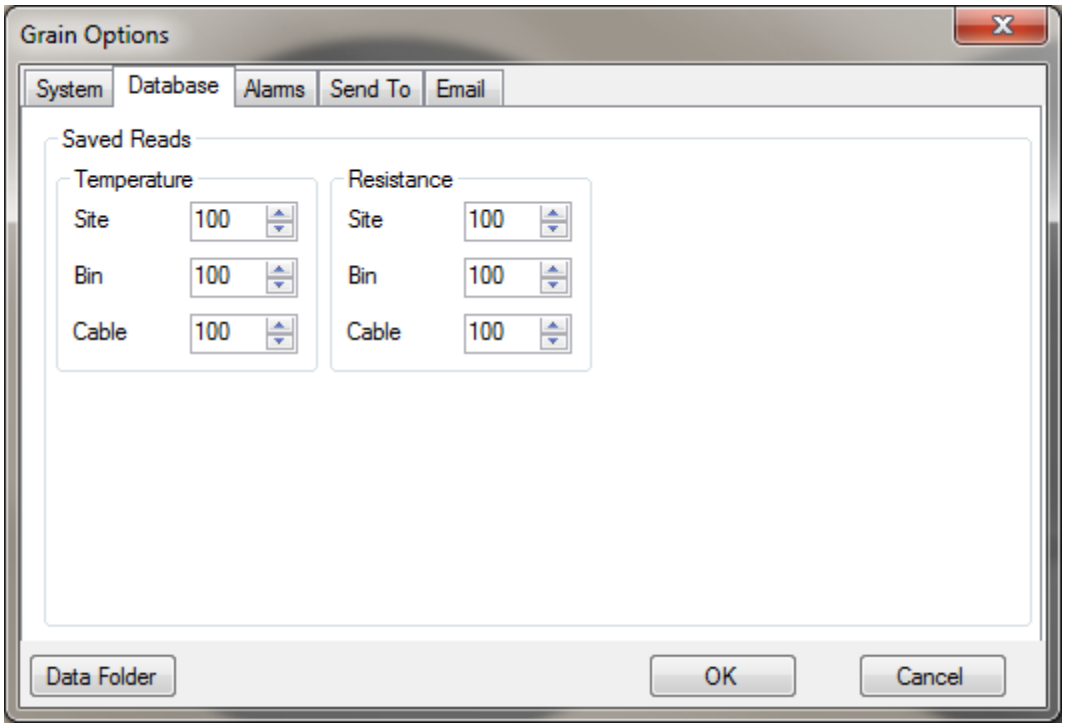
2.5.3.1.5 Print Report after Read

Enables a report to be printed after each read.

2.5.3.1.6 Save CSV File after Read

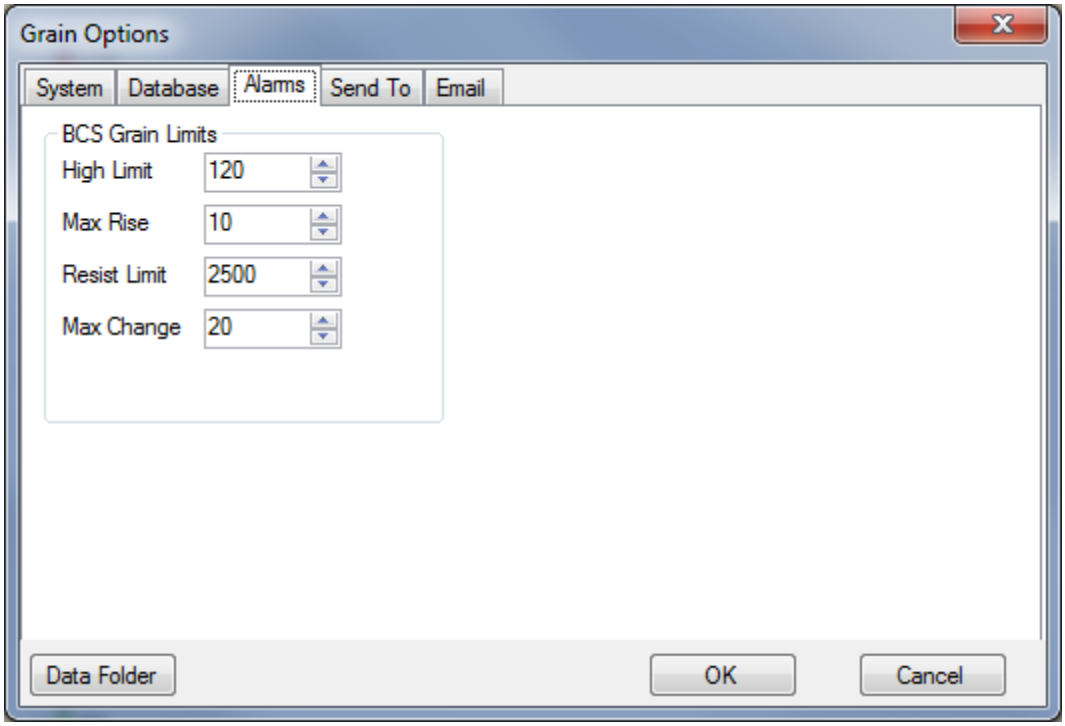
Save CSV File to folder after read is complete. Use Browse button to select folder.

2.5.3.2 Database



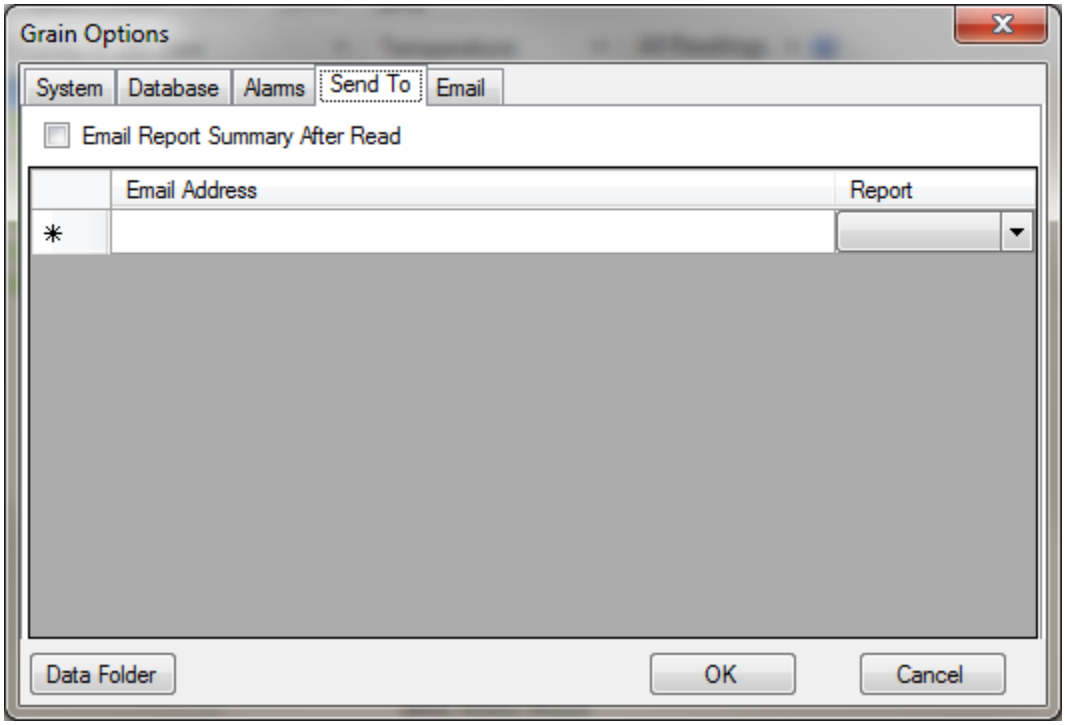
This option sets the number of saves that will be stored in the database.

2.5.3.3 Alarms



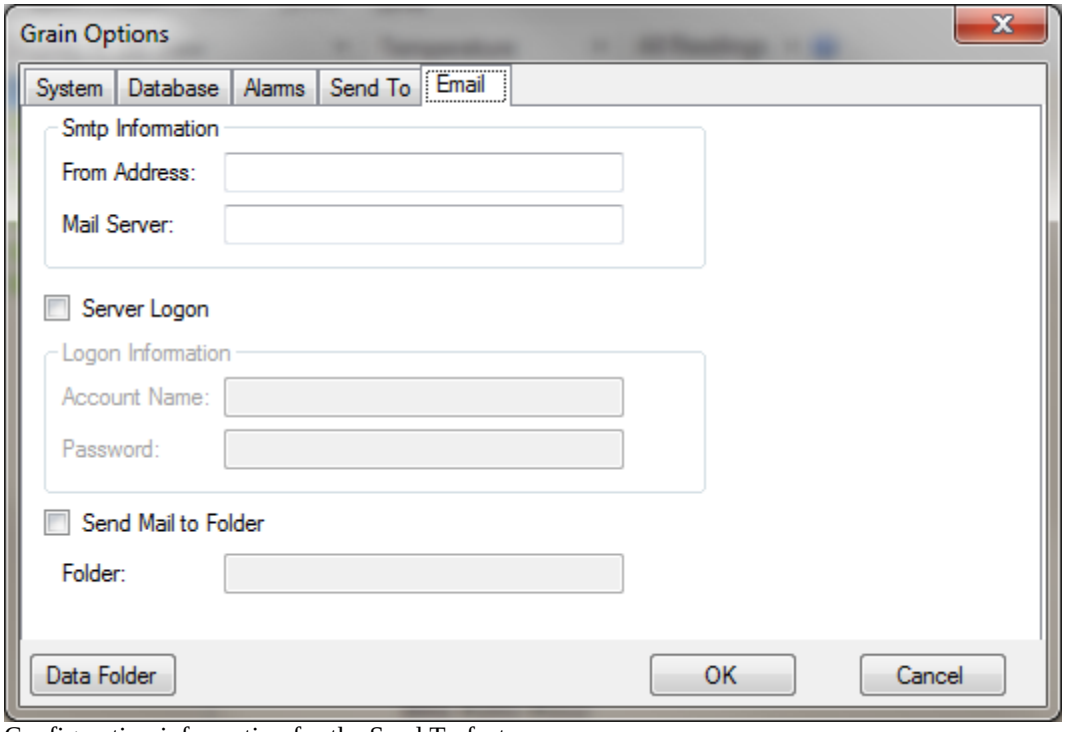
Alarm set points of high limit and maximum rise can be changed. The high limit is an absolute number; if any readings are above it an alarm will be activated. The maximum rise is a check on the temperature rise on the cable. If the temperature has risen more than the maximum rise number since the last reading an alarm will be activated.

2.5.3.4 Send To



Enable Email Report Summary After Read. Email address list for the Send to feature.

2.5.3.5 Email



Configuration information for the Send To feature.

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3 Tool Bar

3.1 Print Icon

Selecting this is the same as selecting Print in the main menu.

3.2 Display

Display a list of items and features on the screen that can be toggled Hide or Show.

3.2.1 Read in Progress

While the system is reading, the readings can be displayed in real time. To stop the readings from being displayed as they are read, click on this option and the readings will stop updating on the screen.

3.2.2 Temperature Legend

Hide/Show the temperature legend on right side of screen.

3.2.3 Date Time List

Hide/Show the Date Time list on right side of screen.

3.2.4 Cable View

Hide/Show the Cable View in Graphics View (2D or 3D only).

3.3 Tool Bar List

The temperature/resistance data can be shown in a variety of views. This list shows the current view type and allows the view to be changed.

3.3.1 Text

The Text view shows the currently selected read data in a spreadsheet type view. The data can be changed by selecting a new date time from the Date Time list on the right side of the screen.

3.3.2 2D View

On the Graphics View shows a 2D overview of the site if Facility is selected. Shows a 2D overview of the bin selected. This is only available if the 3D color overview software package was purchased.

3.3.3 3D View

On the Graphics View shows a 3D view of the site. The mouse can be used to rotate the facility and adjust the vertical viewing angle. This is only available if the 3D color overview software package was purchased.

3.3.4 Show All Cables

The cables in the selected bin/cable grouping will be displayed across the screen. Use the scroll bar on the bottom of the view to show more cables.

3.3.5 Show Cable History

In the graphics view, a single cable is located on the right side with its two last readings. This cable is selected by clicking on the desired cable in the facility list. Select this option, then that cable is listed across the entire screen with its readings back in history. The most current read is on the left with each previous read to the right. Use the scroll bar on the bottom of the right view to show more cables.

3.4 Temperature/Resistance

Switch between the temperature and resistance display modes. In temperature mode, temperature readings can be taken and displayed. In resistance mode, resistance readings can be taken and displayed.

3.5 All Readings/Alarms Only

Toggle between all readings and alarms only. Alarms Only shows reads that have at least one alarm in the read data.

4 Facility List

The **Facility** list allows selected cables to be read or printed. Jump around the system selecting individual cables and/or bin/cable groupings

4.1 Enable Entire Site

Check the top item in the facility list to enable all bins/cables in the entire site. To disable all bins/cables, clear the box.

4.2 Select TC(s) to Block/Unblock

Right click on any cable/thermocouple to bring up a menu. Select Block on menu to enable or disable block.

5 Text View

Text view (spreadsheet format) of all data for currently selected read.

6 Graphics View

6.1 Home 3D View

Use the mouse to rotate/zoom the view of the facility or bin. Click the H key in the center for the screen to default back to a preset rotation angle.

7 Color Legend

7.1 Change Temperature Colors

The colors associated with various temperatures, resistances and alarms can be changed by clicking on the desired color in the color legend. A standard color dialog will appear where the colors can be changed. Click **OK** to accept or **Cancel** to reject the color changes. The default colors can be restored view the Options menu.

8 Date Time List

The **Date/Time List** moves through all of the saved reads on the cables. The last read is on the top of the list. Use the mouse or arrow keys to select a new Date Time, the current view will be updated with the data from that read.

9 Help

9.1 ABOUT

Clicking on the option brings up a dialog box displaying the version, Boone Cable Work's address and phone number, user information, and serial number.

10 TYPICAL APPLICATION

To read and then print the entire facility:

Click Read on main menu.
Click on Download.
Follow Instruction to download data.
Click on **Print.**
Verify all printer options and select printer.
Click on **Print.**
The system prints the reading for the entire facility.