SECTION H

Revision Date: 12-30-22

BACKUP or RESTORE SETUP PARAMETERS using a USB FLASH DRIVE

General Description

The USB Host Port on the SC5000 allows an operator to copy (Backup) all of the Setup Parameters from the SC5000 onto a USB Flash Drive, and then later copy (Restore) the Setup Parameters back to the same SC5000, or copy the Setup Parameter values to another SC5000.

A screen on the Touch Screen HMI, connected to the Controller, provides the operator with control and status of the Backup and Restore functions.

The Parameter values are stored on the USB Flash Drive as a text file with file name: scbackup.txt.

The backup file on the USB Flash Drive may be copied to a computer and viewed using a text editor such as Notepad.

When viewing the contents of scbackup.txt the parameter's Modbus Address will be shown on the left of the equal sign and the parameter's value will be shown to the right of the equal sign, as shown below:

```
40091 = XXXXX
40092 = XXXXX
||||||||||||||
41700 = XXXXX
```

The USB Host Port supports FAT32. When purchased USB Flash Drives are typically already formatted for FAT32, but if not you will need to use a computer to format the Flash Drive for FAT32 before inserting it into the SC5000 USB Host Port.

Please note that the USB Flash Drive used for the Backup or Restore of Setup Parameters should have no other files on it, except for scbackup.txt. While performing the Parameter Backup function, if the USB Flash Drive contains a previous copy of scbackup.txt, that file will be overwritten during the Parameter Backup process with an updated copy of scbackup.txt.

Parameter Backup

Parameter Backup performs the function of copying the SC5000 Setup Parameters to a USB Flash Drive.

To copy the Setup Parameter values from the SC5000 to a USB Flash Drive perform the following steps:

On the **SC5000-CTS-HMI** (Color Touchscreen HMI):

1. Insert the USB Flash Drive into the USB Host Port on the front of the SC5000. (The USB Flash Drive must already be formatted for FAT32 and have no files on it, except it may have an earlier copy of scbackup.txt.)
2. Go to HMI screen "Backup or Restore Parameters USB Drive".
3. Enter the Security Code into Parameters: uSCE3 : uSCE2 : uSCE1.
4. Press the "Start Backup" Button.
5. When the "Backup Complete" indicator is turned on the Backup function has been completed and it is ok to remove the USB Flash Drive.

Caution - While the Red LED near the USB Flash Drive is on Do Not Remove the USB Flash Drive.

On the **SC5000-LED-HMI**:

1. Insert the USB Flash Drive into the USB Host Port on the front of the SC5000. (The USB Flash Drive must already be formatted for FAT32 and have no files on it, except it may have an earlier copy of scbackup.txt.)
3. Enter the Security Code into Parameters: uSCE3 : uSCE2 : uSCE1.
4. While viewing Parameter PbAuP hold down the Up pushbutton for 10 seconds. After the 10 seconds, Parameter PbAup will show the Backup function's steps, starting with step 2 and ending at 5.
5. When the Parameter Backup Step parameter (PbAuP) gets to step 5 the Backup function has been completed and it is OK to remove the USB Flash Drive. Parameter PbAuP will be reset back to zero after 10 seconds.

Caution - While the Red LED near the USB Flash Drive is on Do Not Remove the USB Flash Drive.

Parameter Restore

Parameter Restore performs the function of copying the contents of the scbackup.txt file stored on a USB Flash Drive to the internal memory of the SC5000.

The Setup Parameter values are first copied to the SC5000 internal RAM (Random Access Memory) memory, and from there they are automatically copied to the SC5000 internal EEPROM (Electrically Erasable Programmable Read-Only Memory) where the Setup Parameter values are preserved during power outages.

To copy the Setup Parameter values from a USB Flash Drive to the SC5000 perform the following steps:

On the **SC5000-CTS-HMI** (Color Touch Screen HMI):

1. Insert the USB Flash Drive (containing only a copy of the file: scbackup.txt) into the USB Host Port on the front of the SC5000.
2. Go to HMI screen “Backup or Restore Parameters USB Drive”.
3. Enter the Security Code into Parameters: u SCE3 : u SCE2 : u SCE1.
4. Press the “Start Restore” Button.
5. When the “Restore Complete” indicator is turned on the Restore function has been completed and it is ok to remove the USB Flash Drive.

Caution - While the Red LED near the USB Flash Drive is on Do Not Remove the USB Flash Drive.

On the **SC5000-LED-HMI**:

1. Insert the USB Flash Drive (containing only a copy of the file: scbackup.txt) into the USB Host Port on the front of the SC5000.
3. Enter the Security Code into Parameters: u SCE3 : u SCE2 : u SCE1.
4. While viewing Parameter Prtor press & hold the Up pushbutton for 10 seconds. After the 10 seconds, Parameter Prtor will show the Restore function’s steps, starting with step 2 and ending at 6.
5. When the Parameter Restore Step parameter (Prtor) gets to step 6 the Restore function has been completed and it is OK to remove the USB Flash Drive. Parameter Prtor will be reset back to zero after 10 seconds.

Caution - While the Red LED near the USB Flash Drive is on Do Not Remove the USB Flash Drive.