

## Section 6 – Special Procedures and Functions

### 6.1 – Resetting Unintended Movement Trip

If the system detects an unintended movement fault it will declare error 4305. The car will not be able to be run on Automatic or Inspection Operation.

To reset an unintended movement fault the car must be placed on hoistway access operation inside the car. After the car is on hoistway access, access the menu screens on the diagnostic display. From the main screen press the enter key.

After hitting the enter key, the number 10 will appear at the bottom left side of the screen. This lets you know that you are now in the parameters menu, and are currently at the 10 menu. See below:



Press the enter key again and the 10 will change to 101. This lets you know that you are now at parameter 101. See below:



Press the up arrow to get to parameter 127. With 127 displayed, hit enter and the number 0 will appear on the bottom right of the screen as shown below:

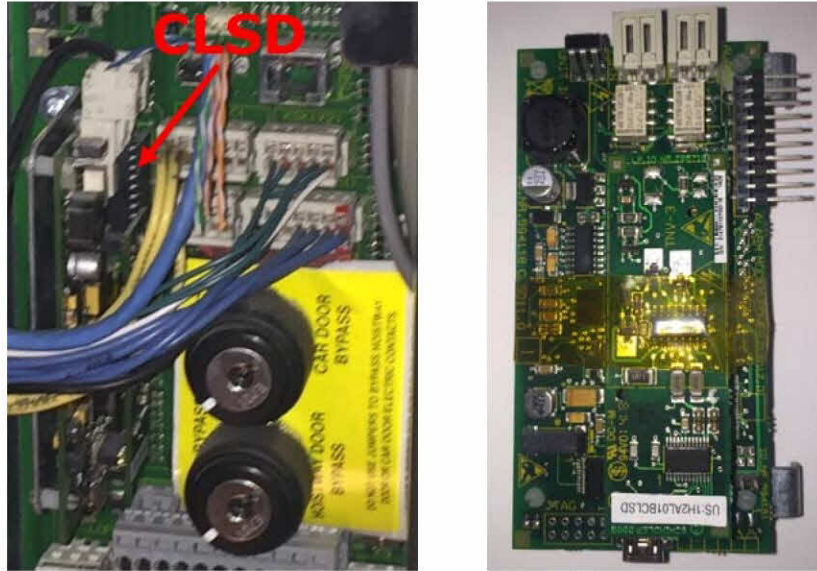


Press the up arrow to change the 0 to a 1 and then press enter. The error has now been reset. Return to the main diagnostic display by pressing escape several times.

**NOTE:** *Always verify what triggered the unintended movement fault before returning the elevator to service. There may also be other faults present, and a 101 reset may be required before the car will run on automatic operation.*

## 6.2 – Disabling Remote Monitoring

The 3300 control system utilizes remote monitoring. To disable this function, all that has to be done is to remove the modem board. The modem board is called the CLSD (Communication & Line Switching Device) and is located in the control panel immediately to the left of the Car and Hoistway Door Bypass switches. It is plugged into the WDPNA board (Wiring Distribution Panel, North America) and secured with 2 Philips-head screws. See pictures below;



To remove the CLSD board, remove power to the controller by opening the disconnect or opening the JHS breaker in the control panel.

Unplug the 2 connectors at the top of the board. One connector is the phone line from the building, and the other connector is from the traveling cable going to the Rath phone on the car top.

Tie the wires from the 2 connectors together, pin 1 from the phone line to pin 1 for the traveling cable, and pin 2 from the phone line to pin 2 for the traveling cable.

Using a long Philips-head screw driver, carefully remove the screws holding the CLSD board. Be careful not to drop the screws, as they are not secured to the CLSD board.

After removing the CLSD board, tuck the phone line into the space where the board used to be located. The system can be powered up and the elevator returned to service.

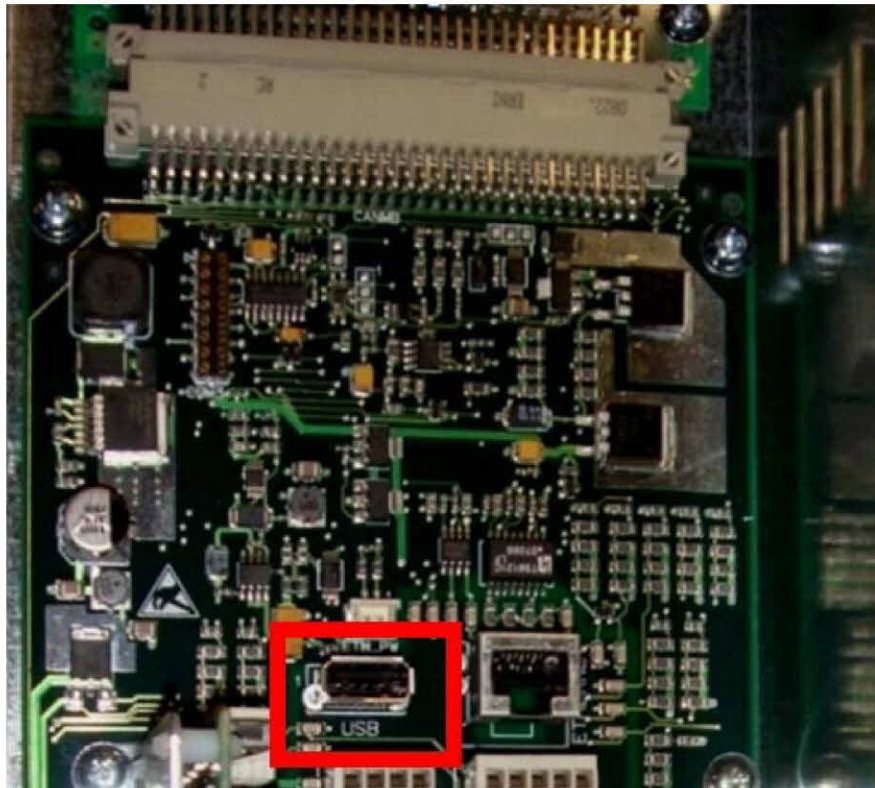
**NOTE:** *To program the emergency phone in the elevator, follow the instructions printed on the Rath phone on the car top. The Rath phone is a standard emergency phone, and no special procedures are necessary other than the instructions from the manufacturer.*

### 6.3 – Software and Parameter Backup

The software on the 3300 control system can be archived by loading it onto a thumb drive. Also, the current parameters can be archived as well. In the event of a failure of the 3300 processor (CM11 board) the software can be reloaded from the thumb drive, and the parameters can be viewed to re-program the system.

#### 6.3.1 – Preparation

In order to back up the data, a thumb drive that is **8 GB or less** must be used. A larger drive will not be recognized by the system. The thumb drive is plugged into the “USB” slot on the WDPNA PC board. The WDPNA board is located immediately below the board that has the LCD display (CANMB board), and they are connected by a plug. See picture below:



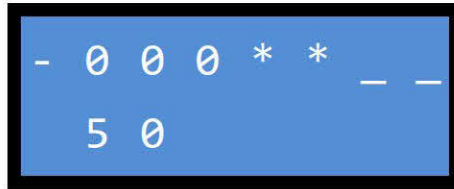
WDPNA USB Slot

#### 6.3.2 – Archiving Parameters

**NOTE:** *Before attempting to upload the software or archive the parameters the elevator must be placed on controller inspection, and the stop button in the control panel pressed. The upload will not occur if the control system is not disabled in this manner.*

With the thumb drive plugged in, you will need to access the parameters menu. To do this, use the keypad and press the enter key. This is the far right button on the CANMB PC board and is marked ↵.

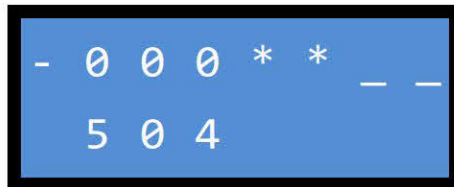
After hitting the enter key, the number 10 will appear at the bottom left side of the screen. This lets you know that you are now in the parameters menu, and are currently at the 10 menu. Press the up button several times to change the 10 to a 50. See below:



Once 50 is displayed, press enter and the 50 will change to 501. See below:



Press the up key (second from the left) several times to get to parameter 504. See below:



Press the enter key and a 0 will appear on the lower right side of the screen. Press the up button to change the 0 to 1. See below:



Once the 1 is displayed, press enter.

A rotating slash or 'windmill' will start rotating on the lower right corner of the screen to let you know the system is writing to the thumb drive. Once it completes writing the windmill will disappear. The parameters are now backed up on the thumb drive.

### 6.3.3 – Archiving Software

Hit the escape button several times to make sure that you are at the main diagnostic screen.

Press the enter button.

After hitting the enter key, the number 10 will appear at the bottom left side of the screen. This lets you know that you are now in the parameters menu, and are currently at the 10 menu. See below:



Press the enter key again and the 10 will change to 101. This lets you know that you are now at parameter 101. See below:



Press the up button (second from the left) to get to parameter 121. See below:



Press the enter key and a 0 will appear on the lower right side of the screen. See below:



Press the up button twice to change the 0 to a 2. See below:



Once the 2 is displayed press enter.

A rotating slash or 'windmill' will start rotating on the lower right corner of the screen to let you know the system is writing to the thumb drive. Once it completes writing the windmill will disappear. The software is now backed up on the thumb drive.

**NOTE:** *The thumb drive must be removed before you can exit parameter 121.*

### 6.3.4 – Saving the Archived Files

Once the software and parameters have been saved to the thumb drive they will need to be stored in a safe location. The files can remain on the thumb drive, but if you archive the data from any other car it may overwrite the older data with the newer files.

During the archiving process, 2 folders are created under the root directory of the thumb drive. One folder is a string of numbers, which is the serial number for the elevator. This folder contains the archived parameters. The second folder is called “upload” and contains the archived software. See picture below:

Name	Date modified	Type	Size
4413967	6/14/2016 12:14 PM	File folder	
upload	6/14/2016 12:13 PM	File folder	

Create a new folder on the thumb drive and name it with the job name and car number. Move the folders from the archive process into the new folder. The thumb drive can then be used to archive other data.

### 6.4 – Status 40 Recovery

It is extremely important to perform the backup procedures in Section 6.3 because if the software or parameters become corrupted it will make it easier to restore the software and parameters and return the elevator to service. Without the backup files the load weigh will need to be readjusted with weights. If the backup has been performed, the load weigh values are archived, and they can be read and re-entered into the system. A **TEMPORARY** set up of the load weigh values is detailed in Section 6.5. These values will allow the car to run until weights can be brought to the job site and the load weigh set up can be performed.

**NOTE:** *If the software and parameters have not been archived, follow the procedures at Section 6.3.3 – Archiving Software to download the software file from the control system. This will download the corrupted software file, but the parameter data is irretrievable so you will need to figure out the correct values for the various parameters listed below. This will prolong the reprogramming process and will result in additional work.*

#### 6.4.1 – Preparation

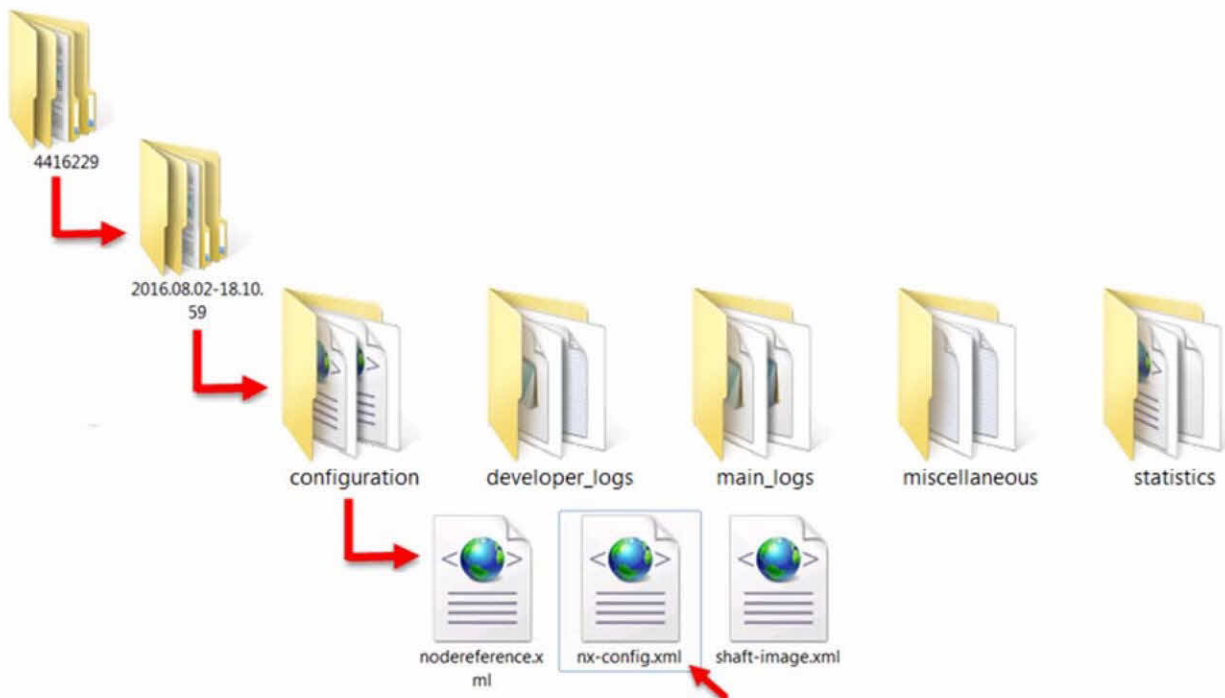
Before beginning the restoration process a **USB flash drive (thumb drive) of 4 GB or less** must be located. A larger flash drive will not be recognized by the system.

A computer will be required, and a Technician that is familiar with computers and basic computer skills such as naming files, moving files, etc. must perform the restoration process.

**NOTE:** *If the Technician does not have a computer or is unfamiliar with basic computer skills this operation will not be successful.*

If the software has been archived you will need to locate the file called “nx-config.xml”. To locate this file, open the folder that is named with the installation number (usually a 7 digit number) and then open the folder that is named starting with the date the backup was performed. Open this

folder and there will be several other folders. Open the folder named "configuration" to find the nx-config.xml file. See picture below for typical file names:



Double click on the nx.config.xml file. Internet Explorer should open and allow you to view the file. Scroll down and located the follow parameters and record their values:

```
<param value="0" type="UINT16" key="MotorPhaseSequence"/>  
<param value="1" type="UINT16" key="MotorEncoderDirection"/>  
<param value="2000" type="INT32" key="HoistwayAccessZoneTop"/>  
<param value="2200" type="INT32" key="HoistwayAccessZoneBottom"/>  
<param value="16758" type="UINT16" key="ZeroCarLoadFrequency"/>  
<param value="1000" type="UINT16" key="ReferenceCarLoadWeight"/>  
<param value="15758" type="UINT16" key="ReferenceCarLoadFrequency"/>
```

The value to be recorded is the number immediately after "param value=".

After recording these values, skip to Section 6.4.3. If the job software has not been archived, proceed to Section 6.4.2.

## 6.4.2 – Recording Values from Controller

If the software has not been archived you will need to access the Configuration menu and try to retrieve the stored values. This operation is not usually successful, and even if it is, there are rarely any values available for the load weigh parameters.

Access the Configuration menu (40) as described in Section 5.4. Navigate to the following parameters and record their values:

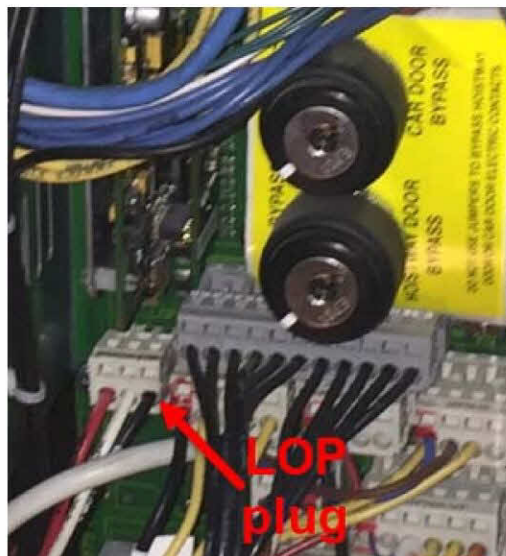
CF16 PA14 Motor Encoder Direction  
CF16 PA15 Phase Sequence

CF27 PA01 Hoistway Access Zone Bottom  
CF27 PA02 Hostway Access Zone Top  
CF96 PA01 Zero Car Load Frequency  
CF96 PA02 Reference Car Load Frequency  
CF96 PA03 Reference Car Weight

**NOTE:** *It is unlikely that any values will be found for the load weigh parameters at Configuration menu CF96. If there are no values and the software has not been archived it will be necessary to get weights to the job site to perform the final set up. Refer to Section 6.5 for a TEMPORARY set up of the load weigh values.*

### 6.4.3 – Restore Software

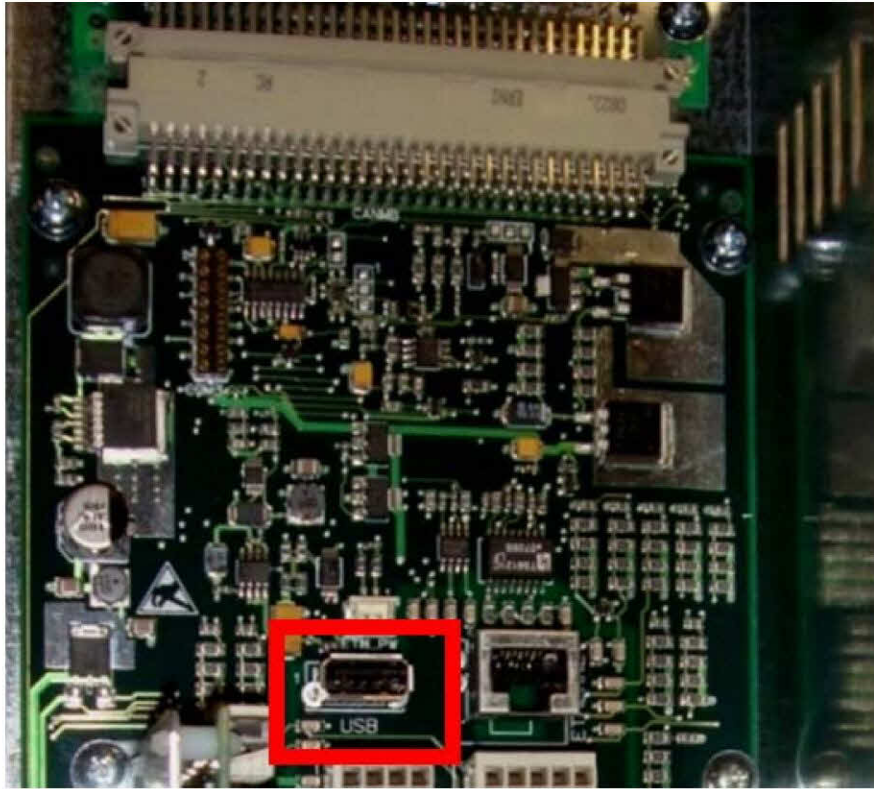
1. Unplug the “LOP” connector from the WDPNA board. This plug is located to the left and slightly below the Car Door and Hoistway Door Bypass switches. See picture below:



WDPNA LOP Plug

2. Place the car on inspection and press the stop switch located on the inspection run box in the LDU.
3. Insert a USB flash drive that is **4 GB or less** into the USB port on the WDPNA board. See picture below:





WDPNA USB Plug

4. Access the 10 menu, and press enter.
5. Press the up arrow to navigate to parameter 121. Press enter.
6. A 0 will appear at the lower right part of the screen. Press the up button to change the 0 to a 2. Press enter.
7. A rotating slash will appear at the bottom right part of the screen. This indicates that the system is writing the file to the USB flash drive. When the process is complete a 1 will appear at the lower right part of the screen. The flash drive can now be removed from the system.

**NOTE:** There are several errors that may occur while attempting to write the file to the flash drive. They are:

4501	The stop button on the inspection station is not pressed.
4502	The flash drive is not seen. Make sure the LOP plug has been removed, and that the flash drive is 4 GB or less.
4505	The information on the flash drive is not configured correctly. Make sure that "2" was entered in step 6 above, and that the flash drive is 4 GB or less.

8. Insert the flash drive into a computer. Open Windows Explorer and view the flash drive.
9. There will be a folder named "upload" on the flash drive under the root directory. Rename this folder "BOD".

10. Open the newly named “BOD” folder. There will be several files in this folder, and one of them is named “0.xml”. Rename the “0.xml” file to “bod.xml”. Remove the flash drive from the computer.
11. Insert the flash drive into the USB port on the CLSD board.
12. Press the enter button to access the menus if the screen is not there already. Access the 10 menu and navigate to parameter 121. Press enter and a 0 will appear at the lower right part of the screen.
13. Press the up arrow to change the 0 to a 3. When 3 is displayed, press enter.
14. A rotating slash will appear at the bottom right part of the screen. This indicates that the system is loading the file from the USB flash drive. When the process is complete a 1 will appear at the bottom right part of the screen.
15. Remove the flash drive from the system.
16. Install the LOP plug that was removed in step 1 above.
17. Press enter, and the system should reboot.

The system has now been reloaded with the software file, and will need to be reprogrammed.

#### **6.4.4 – System Reprogramming**

1. After rebooting, access the Configuration Menu at 40 as described in Section 5.4.
2. Navigate to the following parameters and enter the values that had previously been recorded:
  - CF16 PA14 Motor Encoder Direction
  - CF16 PA15 Phase Sequence
  - CF27 PA01 Hoistway Access Zone Bottom
  - CF27 PA02 Hostway Access Zone Top
3. Navigate to CF16 PA99 and press enter. A 0 will appear at the bottom right of the screen. Press the up arrow to change the 0 to a 1, and press enter. This sends the parameters to the drive.
4. Exit the 40 menu as described in Section 5.4.
5. If the car is near the top of the hoistway you will need to run it down so it doesn’t roll back into the overhead. If it is away from the top floor go to step 9.
6. Access the 10 menu, and navigate to parameter 102. Press enter. A 0 will appear at the bottom right part of the screen. Press the up arrow to change the 0 to a 1. Press enter. This puts the drive into open loop mode, and will allow the car to run on inspection without pretorque activated.

7. Using the inspection station in the controller, run the car down to a point away from the top floor.
8. Access parameter 102 and press enter. A 1 should appear at the bottom right of the screen. Press the down arrow to change the 1 to a 0. Press enter. The 0 should shift slightly to the right, indicating that it has been saved.
9. The load weigh now needs to be disabled. Go to the 10 menu and access parameter 107. Press enter. A 0 will appear at the bottom right of the screen. Press the up arrow to change the 0 to a 1. Press enter. The 1 will shift slightly to the left indicating it has been accepted. The load weigh is now disabled.
10. If the car is on inspection on the controller inspection bank return it to Normal Operation. If the stop switch is pressed, return it to normal.
11. Access the 10 menu and navigate to parameter 116. Press the enter button, and a 0 will appear at the bottom right part of the screen. Press the up arrow to change the 0 to a 1, and press enter. The elevator should start performing a learn trip, as indicated by a rotating slash at the bottom right part of the screen. The learn trip is fully automated and should take several minutes to perform. The car will run up and down several times during the learn trip. If any errors are logged during the learn trip they will flash at the bottom left part of the screen.
12. If the learn trip has been successful a 1 will appear at the bottom right of the screen. Hit the escape button several times to get back to the main diagnostic screen. The status of the elevator (shown at the bottom right of screen) should now be either 11 or 42. This indicates that the car has an invalid load weigh set up (status 42) or is on load weigh disable operation (status 11).
13. Access the menus by pressing enter. Access the 10 menu and navigate to parameter 107. Press enter. A 1 will appear at the bottom right of the screen. Press the down arrow to change the 1 to a 0. Press enter. The 0 will shift slightly to the left indicating it has been accepted. The load weigh is now enabled.
14. Use the up arrow to navigate to menu 40. Press enter and a 0 should appear at the bottom right of the screen. Press the up arrow to change the 0 to a 1, and press enter. The elevator is now in Configuration mode and will run to floor where the controller is and open the doors. Once the doors open the 1 at the bottom right of the screen will stop flashing and CF00 will appear. Press the down arrow to navigate to CF97. Press enter and PA01 will appear.
15. Press enter and PA01 will disappear and a number will be displayed, probably 0. Press enter and the number will start flashing. Use the arrow buttons and enter the value one digit at a time that was previously recorded for "Zero Load Frequency". After entering the last digit, press the escape button.
16. Press the up arrow to change PA01 to PA02. Press enter. PA02 will disappear and a number will be displayed, probably 0. Press enter and the number will start flashing. Use the arrow buttons and enter the value one digit at a time that was previously recorded for "Reference Car Load Frequency". After entering the last digit, press the escape button.

17. Press the up arrow to change PA02 to PA03. Press enter. PA03 will disappear and a number will be displayed, probably 0. Press enter and the number will start flashing. Use the arrow buttons and enter the value one digit at a time that was previously recorded for "Reference Car Load Weight". After entering the last digit, press the escape button.
18. Press the escape button several times to get back to the top of the 40 menu. A 1 will be displayed at the bottom right of the screen. Press the down arrow to turn the 1 to a 0, and press enter. The 0 will shift slightly to the left indicating it has been accepted.
19. Press the escape button several times to get back to the main diagnostic screen. The status (displayed on the bottom right of the screen) should be 01, indicating it is on automatic operation. If not, refer to Section 4.2 to determine what mode of service the elevator is in.

The elevator is now reprogrammed and will run on Automatic Operation.

**NOTE:** If there are additional I/O signals wired to any BIOGIO boards they will need to be reprogrammed. Contact Technical Support for assistance programming the BIOGIO boards.

## 6.5 – Temporary Set Up of Load Weigh

If the load weigh settings are lost they can be adjusted for temporary operation by estimating several values.

**NOTE:** The following set up will allow for **TEMPORARY** operation of the elevator, but may cause the car to fault or go into the pit if it is loaded. This procedure should only be used if the correct values are lost and the control system parameters were not backed up. Refer to Section 6.3 for the archiving procedure.

1. Access the menus by pressing enter. A 10 should appear on the lower part of the screen. Use the up arrow to navigate to menu 40. Press enter and a 0 should appear at the bottom right of the screen. Press the up arrow to change the 0 to a 1, and press enter. The elevator is now in Configuration mode and will run to floor where the controller is and open the doors. Once the doors open the 1 at the bottom right of the screen will stop flashing and CF00 will appear. Press the down arrow to navigate to CF97. Press enter and PA01 will appear.
2. Press enter and PA01 will disappear and a number will be displayed, probably 0. Press enter and the number will start flashing. Use the arrow buttons and enter the value "16700" one digit at a time. After entering the last digit, press the escape button.
3. Press the up arrow to change PA01 to PA02. Press enter. PA02 will disappear and a number will be displayed, probably 0. Press enter and the number will start flashing. Use the arrow buttons and enter the value "15700" one digit at a time. After entering the last digit, press the escape button.
4. Press the up arrow to change PA02 to PA03. Press enter. PA03 will disappear and a number will be displayed, probably 0. Press enter and the number will start flashing. Use the arrow buttons and enter the value "1000" one digit at a time. After entering the last digit, press the escape button.

5. Press the escape button until the display shows CF96. Press the up arrow to navigate to CF98 and press enter. The screen will change to show the present load in the car in kilograms (kg).
6. Press enter again to start the recalibration procedure. The recalibration procedure takes about 1 minute. The CPU will take five readings from the load weigh device and adjust the load values accordingly.
7. After the five readings are complete, press the enter button. The display should read CF98.
8. Press the escape button to get back to the top of the 40 menu. Change the 1 to a 0 to leave the configuration mode.
9. Press the escape button several times to get back to the main diagnostic screen. The status (displayed on the bottom right of the screen) should be 01, indicating it is on automatic operation.

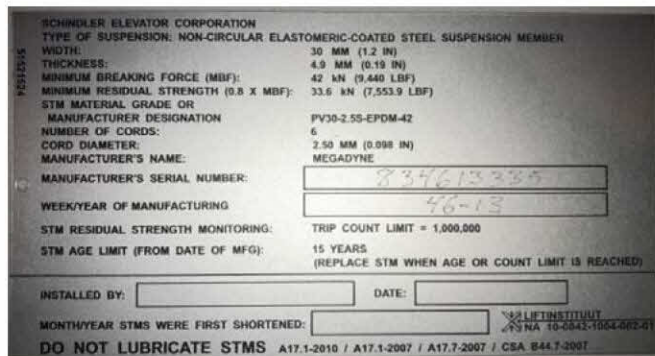
## **6.6 – System Reprogramming after Replacement of Belts**

After new belts have been installed, the system must be reprogrammed with the information from the new belts and the trip counter must be reset.

Start the following procedure with the car on inspection operation in the controller and the stop button pressed.

1. From the main diagnostic screen, press <ENTER> to access the menus. 10 will appear in the bottom of the display. Press <ENTER> again and the “10” will change to “101”.
2. Press the <DOWN> button to navigate to parameter 190 (one-time configuration change).
3. Press <ENTER>. A “0” will appear on the bottom right side of the display. Press the <UP> arrow to change the 0 to a 1. Press <ENTER> to accept this value acknowledging a one-time configuration change.
4. Press the <ESCAPE> button several times until the bottom of the display shows “10”.
5. Press the <UP> arrow several times until the “10” changes to a “40”.
6. Press <ENTER>. A “0” will appear at the bottom right side of the display. Press the <UP> arrow to change the “0” to a “1”. Press <ENTER> and the display will show “CF00”. This means that you are now in the Configuration menu and at Configuration Function 00.
7. Press the <UP> arrow to navigate to “CF28”. CF28 is the belt configuration function.
8. Press <ENTER> and the display will change to PA02. Press the <UP> arrow to navigate to PA04. PA04 is the manufacture date of the new belts.

9. Press <ENTER> and the display will show #1. This is where you will enter the manufacture date of the first belt. Press <ENTER>.
10. Locate the data tags that were supplied with the new belts. On the data tag there will a week and year that the belt was manufactured. See example below:



11. The value that will be programmed into the system requires the manufacture date to be in the format of "DAY (1-7), WEEK (01-53), YEAR (00-99)." The data tag will not show a day, so just program it as "1". For the example shown in the picture above, the value that needs to be programmed will be "14613".
12. To enter the value, press <ENTER> and the first digit will start flashing. This indicates that this digit can be edited. Press the <UP> or the <DOWN> arrow to change it to the a "1", and press <ENTER> to accept it. The next digit will begin flashing, indicating that it can be edited. Press the <UP> or <DOWN> arrow to change it to the desired value, and press <ENTER> to accept it. Continue this to program the remaining numbers.
13. After pressing <ENTER> to accept the last digit, the number will stop flashing. Press <ESCAPE> to exit the date programming for belt #1, and the display will show "#1". Press the <UP> arrow and the display will show "#2". Press <ENTER> to program the manufacture date for belt #2 in the same way that was just done for belt #1 in step 12.
14. After programming belt #2, program the manufacture dates for belts #3 and #4.
15. After completing the programing of belt #4, press the <ESCAPE> button and the display will change to "PA04". Press the <UP> arrow to change this to "PA05". Press <ENTER>.
16. Value PA05 is the installation date of the belts, and will be set to the current date. The date is in the European format of DD-MM-YY. Press the <ENTER> button and the first digit will start flashing, indicating that it can be edited. Press the <UP> or the <DOWN> button to set it to the correct value, and press <ENTER> to accept the value. The next digit will start flashing, indication that it can be programmed. Program the rest of the date, and after hitting <ENTER> once the final digit was set, all values will stop flashing. This indicates that the date has been set.
17. Press the <ESCAPE> button and the display will show "PA05". Press the <UP> button to change this to "PA06" and press <ENTER>.

18. PA06 is the job (commission) number. This value has previously been programmed and should not need to be edited, but you must enter it again into the system. Press <ENTER> and the first digit will begin flashing. Press <ENTER> again and the second digit will begin flashing. Press the <ENTER> button again for all remaining digits, and after programming the final digit a "1" will appear on the bottom right side of the display. This indicates that the new data for the belts has been accepted, and the trip counter has been reset.
19. Press the <ESCAPE> button several times until the bottom of the display shows "40" with a "1" at the right side. Press the <DOWN> arrow to change the "1" to a "0" and press <ENTER>. This will exit the Configuration mode. Press the <ESCAPE> button several times to exit the parameter menu and get back to the main diagnostic screen.
20. Take the car off inspection in the controller and pull the stop button. The elevator should return to service.

**NOTE:** *If power was removed from the system for an extended period of time during the belt replacement process it may need to run to the bottom floor to recover its position.*

21. Press the <ESCAPE> and <DOWN> buttons simultaneously to display the trip counter. Confirm that the trip counter has been reset and it is a 0 or a 1.

The system reprogramming with the new belt information and reset of the trip counter is now complete, and the car can be returned to service.