

# FG7C CONTROLLER for DRUID 25/28 NETWORKS

# **INSTALLERS MANUAL**

Revision 1.3 11 December 2018

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# Introduction

### **INTRODUCTION**

The Nemtek FG7 platform is a platform used for providing a graphical interface and connectivity to a network of Nemtek Energizers and Input/Output Cards (IO Cards).

The platform may be configured with different internal printed circuit boards, and software, to provide the required functionality.

#### Warning:

Test the functionality of the system after configuration and before commissioning.

### **OPENING THE FG7C**

### Panel mount type

On one of the long sides of the FG7C are two slots. Insert a 6.5mm screw driver into one of the slots and turn the screw driver until the lid with the display pops up on that side. Now repeat this with the other slot. You should now be able to carefully remove the lid.



# **OPENING THE FG7C**

### Wall mount type

On one of the long sides of the FG7C are two openings with retaining clips. Insert a 6.5mm screw driver into the bottom part of one of the openings and push the retainer clip back until the lid with the display pops up on that side. Now repeat this with the other opening. You should now be able to carefully remove the lid.



# HARDWARE

### HARDWARE

The lid of the FG7C contains a green printed circuit board IOT1711JM and a dark blue control unit as well as the touch screen.

The IOT1711JM board is responsible for generating the supply voltage for the control unit as well as the display. The board also monitors and process the different communication signals before sending the information to the control unit.

Under the dark blue control unit is the battery which is required for the clock during power failures.

You will find jumpers, connectors and led's on the board for selecting, connecting and indicating. The control unit host the software and has all communication ports on board.

The touchscreen is the standard display used on the stand-alone units, without Druid FenceProbe or third party software.



In the base of the FG7C a communication board has to be installed, there are two communication boards available.

#### The FG7C communication board with Nemlink/Taut wire

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The FG7C communication board with RS485/Taut wire/TTL



### INSTALLING THE COMMUNICATION BOARD

The communication board should be mounted in the bottom of the base of the FG7C with the screws supplied with the board. The terminals on the board should be facing inwards once mounted.

After mounting, the ribbon cables of the display board should be connected to the two white terminals on the communication board (con1 and con2)

### **INSTALLING THE WALL MOUNT FG7C**

The base of the FG7C has several counter sunk mounting holes at bottom of the unit, these can be used to mount the unit on a wall with 4mm screws. The holes are spaced 100 x100 mm or 75 x 75 mm so that the unit can also be mounted at the back of HD monitor if so required.

Cable entries are available by means of a pushout at the bottom of the base or two cut outs on the side of the base.

### **INSTALLING THE PANEL MOUNT FG7C**

The panel mount FG7C is designed to be mounted flush in wooden walls or dry walling. A cut out has to be made in these walls of 195mm x 130 mm.

Before installing the base of the FG7C into the wall make sure that all cut outs required for the wiring are done on the base, that the wiring to the FG7C is fully tested and that the communication board is installed.

The base is supplied with two wing clamps (see picture), make sure that they are positioned in their base cavities. Place the base into the opening in the wall making sure that the cabling will not get in the way of the wing clamps. Turn the top wing clamp screw a quarter turn anti clockwise before turning it clockwise until the clamp is tight. Repeat this for the bottom clamp. The base should now be securely clamped into the wall. Before closing the lid ensure that all programming and all wiring to the control board and communication board is completed.

# Installing the FG7C

If removal of the base is required then first remove the lid from the base and disconnect the wiring between the lid and the base, so that it can be fully removed. Turn the top wing clamp screw anti clockwise until the wing clamp comes back into its base cavity (do not fully unscrew the wing clamp screw since it will detach and can fall inside the wall). Repeat for the bottom wing clamp and remove the base from the wall opening.



Wing clamp and Wing clamp screw

# THE DISPLAY BOARD

### THE DISPLAY BOARD



### JUMPER SETTINGS DISPLAY BOARD

Jumper setting as viewed with connectors at the bottom.

Watch Dog timer 1	JP1 (1)	Positioned to the left for auto reset of the power supply with transmission failure of the control unit Positioned to the right for no auto reset of the power supply
Watch Dog timer 2	JP3 (1)	Positioned to the left for auto reset with transmission failure of the control unit Positioned to the right for no auto reset of the control unit

### PUSH BUTTONS ON DISPLAY BOARD

There are two push buttons on the green board. The one is marked SW2 "5V\_RESET" and the other SW1 "B3\_RESET". The 5V\_RESET button is used to manually power the control unit on and off, this is usually required when programming the settings on the FG7C. The B3 RESET button is used to manually reset the FG7C control unit.

# THE DISPLAY BOARD

### LED'S ON DISPLAY BOARD

Shows that the FG7C is On
5V supply indicator
When flashing, indicates that the watchdog timer is operational
Not in use

### **CONNECTORS**

Con 1	Ribbon cable connection to Con1 of communication board
Con 2	Ribbon cable connection to Con2 of communication board
Con 3	Not in use

### **USB PORT**

The USB port is used for downloading logs and can also be used for a mouse, so that a pointer can be used on the touch screen display.

### **HDMI PORT**

The HDMI port is a standard micro-HDMI connector. The activation of the HDMI port can be done via the web interface (see the FG7 web interface). A USB mouse connected to the USB port of the FG7 should be used for operating the system when using an HDMI display or the USB port can be used for the touch screen part of a touch screen monitor. The resolution of the display if possible should be set to 1920 x 1080. The picture of the site image should be 1000 x 650 pixels.

### **ETHERNET PORT**

The Ethernet port is used for communication with a computer loaded with Druid FenceProbe or third party software and it is also used for connecting to the web interface of the FG7.

Note:

The control unit hosts the software and gives outputs via the touch screen, HDMI, Ethernet or USB port. All other ports should not be used by the installer.

# **COMMUNICATION BOARDS**

### THE NEMLINK/TAUT WIRE COMMUNICATION BOARD



### JUMPER SETTINGS COMMUNICATION BOARD

Jumper setting as viewed with connectors at the bottom.

Nemlink programming	JP3 (1)	Down to enable programming of the Nem	
		Up standard operational mode	

### LED'S ON COMMUNICATION BOARD

LED1	If flashing, indicates receiving of data from the Nemlink to the control
LED2	If flashing, indicates transmission of data from the control unit to the
LED3	Nemlink If flashing, indicates receiving of data from the taut wire to the control
	unit
LED4	taut wire
LED5	5V supply indicator

### **CONNECTORS**

Con 1	Ribbon cable connection to Con1 of display board
Con 2	Ribbon cable connection to Con2 of display board
Con 3	Ethernet port for connection to data network
J1	Two way connector for 12Vdc supply
J6	Three way connector for connection to the taut wire system

### THE RS485/TAUTWIRE/TTL COMMUNICATION BOARD



### JUMPER SETTINGS COMMUNICATION BOARD

Jumper setting as viewed with connectors at the bottom.

TTL Serial	JP1 (2)	Down if serial TTL is selected (For Nemlink communication) Up if RS 485 or RS 232 communication is required
Line Bias	JP3 (2)	Up to have line bias (star configurations) Down for no line bias (daisy chain configuration)

### LED'S ON COMMUNICATION BOARD

LED1	If flashing, indicates transmission of data from RS485 or TTL lines to
	the control unit.
LED2	If flashing, indicates receiving of data from the control unit to the
	RS 485 or TTL lines
LED3	If flashing, indicates receiving of data from the taut wire to the control unit
LED4	If flashing, indicates transmission of data from the control unit to the taut wire

### **CONNECTORS**

Con 1	Ribbon cable connection to Con1 of display board
Con 2	Ribbon cable connection to Con2 of display board
J1	Two way connector for 12Vdc supply
J2	Four way connector for TTL connection to a Nemlink card

# Programming the FG7C

- J3Four way connector for TTL connectionJ4Three way connector for RS 485 (out)
- J5 Three way connector for RS 485 (in)
- J6 Three way connector for connection to the taut wire system

The connectors on the communication board are self-explanatory. However, if communication will be made through a separate NemLink card, then the connector J2 should be used (jumper selection TTL Serial). Also note that the FG7-Druid does not support RS485 multidrop, only daisy chain, so there are RS485 OUT and RS485 IN terminals. The TAUT Wire terminal is not used in the FG7 Druid controller.

### **PROGRAMMING THE FG7C-DRUID**

The FG7C-Druid should be programmed with the number of energizers as well as the IO cards in the system.

If required a graphic site image can be loaded on the FG7C-Druid and zones (sectors) as well as Gate lines can be drawn on the image.

# CONFIGURE THE NUMBER OF ENERGIZERS ON THE NETWORK

- 1) On the FG7, press the PIN tab on the top screen and select ▼ Installer, enter the appropriate PIN number and press Enter. Check that Installer stays on the screen and has not revert back to select.
- Press the System tab on the top of the screen and use the ▼ and ▲ markers next to the number of energizers to select the correct number of energizers in the network. Press Save No of Energizers.
- 3) If jumper JP1 and JP3 on the display board are set to auto reset (normal operation), then after about two minutes the application will restart. Otherwise one can push the B3-PWR button and this will close the application and after the Nemtek logo has disappeared from the screen you press the B3-PWR button again to restart the unit.
- 4) Check under the system tab that the number of energizers is now correct.

### **CONFIGURE THE NUMBER OF IO CARDS ON THE NETWORK**

- 1) On the FG7, press the PIN tab on the top screen and select ▼ Installer, enter the appropriate PIN number and press enter. Check that Installer stays on the screen and has not revert back to select.
- Press the System tab on the top of the screen and use the ▼ and ▲ markers next to the number of IO cards to select the correct number of IO cards in the network. Press Save No of IO cards.

- 3) If jumper JP1 and JP 3 on the display board are set to auto reset (normal operation), then after about two minutes the application will restart. Otherwise one can push the B3-PWR button and this will close the application and after the Nemtek logo has disappeared from the screen you press the B3-PWR button again to restart the unit.
- 4) Check under the system tab that the number of IO cards is now correct.

#### Note 1:

- 1. IO Card addresses are to start at #33 and must be sequential.
- Removing a jumper increments the address by the number screen-printed on the pcb. This address is added to an offset of 33. Example 1. If none of the 16/8/4/2/1 jumpers are removed then the card will have a net address of 33. Example 2. If jumper 1 of the 16/8/4/2/1 jumpers is removed then the IO card will have a net address of 34. Example 3. If jumper 2 of the 16/8/4/2/1 jumpers is removed then the IO card will have a net address of 35 etc.

#### Note 2:

- ▲ The FG7 scans through the network address at a rate of twenty addresses per second. The fewer the addresses utilised on the system, the faster the system response. Because an energizer only updates its own parameters once a second, there is little point in updating the FG7 display faster than that. A combination of twenty addresses on a FG7 network bus gives the optimal performance in terms of speed versus hardware utilization.
- ▲ The number of IO Cards used on the system can vary from zero to a maximum of 31.
- More than one energizer can be mapped to a single IO card. Example. One IO Card can be mapped to 19 Energizers. A Fence 1 alarm, from any energizer, can be mapped to one of the five relays on the IO card. This is useful for electrical contactors and lighting etc.
- A Only five conditions per energizer can be mapped to a relay. (Use computer network to get full access to all the information.)
- A Only the Installer can manually toggle the relay outputs.



# **Programming the FG7C**

### **USER TAB SETTINGS**

Under the user tab are several buttons for setting: Installer and User PIN numbers (see user manual) Time (see user manual) Saving the Log (see user manual) Defaulting to factory settings

### **FACTORY DEFAULT**

Under the USER Tab you can reset the FG7 to Factory default settings by pressing the default button the IP address will be reset to 10.0.0.20 and all pin settings will default back to the numbers as stated in the user manual.

### SYSTEM TAB SETTINGS

Under the system tab there are a number of settings which can be selected by clicking on the setting required and the tick box next to the setting will then show a tick indicating that the setting is selected. The following settings can be selected: Audible alarm Alarm Sensor mode Show sync loss Nemlink Proxy AbsoluteIO Failsafe Off LV

### AUDIBLE ALARM

The buzzer inside the FG7 is enabled when the Audible Alarm tick box is ticked. The buzzer will sound when there is an alarm or service condition. If unticked the buzzer is disabled.

### **ALARM SENSOR MODE**

If the alarm sensor mode is ticked then alarm and service conditions will only show as long as the alarm or service condition is present. When the error clears the screen will show a good condition again. If Audible alarm is ticked the buzzer will sound but will require a manual energizer reset from the global screen.

### SHOW SYNC LOSS

When ticked the FG7 will alarm, log and show under service that synchronization between energizers in the system has been lost.

# Programming the FG7C

### NEMLINK

This feature should be ticked if communication goes via Ethernet or if radio frequency/ microwaves links are used in the system. They may show comms failures due to time delays in the links. By ticking Nemlink a longer time is available before the comms alarm is triggered.

### PROXY

If the FG7 is used as a proxy controller for third party software or computer application and you do not want to display the site image on the screen of the FG7 then select proxy under the tab screen. When ticked the default screen will only show the IP address of the FG7 and the software version of the unit. There is also a tick box indicating that 3th party comms is taking place, the tick in the tick box will flash at half the integration frequency.

### AbsoluteIO

When AbsoluteIO is not ticked the control of the mapped energizer(s) is either by the User of the FG7 or the input on the IO card. The last command from the User or from the IO card dictates the system state.

When AbsoluteIO is ticked the control of the mapped energizer(s) is taken away from the User of the FG7 and is now given to the input of the IO card. The only way to now give commands to the energizer(s) from the FG7 screen is to first untick AbsoluteIO on the system tab.

### FAILSAFE

When third party software or Nemtek FenceProbe is used and the connection between the application and the FG7 is lost then the FG7 will automatically reset to enable the application to reconnect. If Failsafe is not ticked than after the reset the energizer will come On in High Voltage mode, by ticking Failsafe and selecting Off and/or LV the energizers will after reset be Off and in Low or High voltage mode as selected. If Failsafe is ticked and Off is not ticked but with LV ticked the energizers will come On in Low voltage mode after the reset.

Please note that if failsafe is ticked the internal mapping files are disabled.

### LOADING A GRAPHIC SITE IMAGE

A graphic site image has to be loaded via the FG7 web interface (see the FG7 web interface).

# Programming the FG7C

### DRAWING THE ZONES AND GATES LINES

- 1) On the FG7, press the PIN tab on the top screen and Select ▼ Installer. Enter the appropriate PIN number and press Enter. Check that Installer stays on the screen and has no revert back to Select.
- 2) Press the Image tab on the top of the screen.
- 3) Use the  $\checkmark$  and  $\blacktriangle$  keys under Energ# symbol to select the desired energizer.
- 4) Use the ▼ and ▲ keys under Zone# symbol to select the desired zone.
- 5) Press "Start" and touch the screen at the desired points corresponding to that sector. Once the last point is reached press "Stop". A maximum of eight points is permissible. Press "View" to see what your sector looks like. If unhappy with the result simply press "Start" and repeat the procedure.

Please note that a USB mouse can be used to assist with drawing the lines.

- 6) A Gate can be associated with each energizer, but only has two points. Press "Gstrt" and touch the screen at the start point and end point of the gate. Press "View" to confirm your entry.
- 7) You can randomly do all energizers, zones and gates using steps 3 to 6 above.
- 8) When you are happy with the zone and gate lines press "Save"
- 9) The system will automatically load this graphic layout on power-up. You may after entering Installer mode, edit any sector independently and then re-save.
- 10) The labels E1:Z1 (Energizer Address, Zone number) and E1:Z2 etc. are placed automatically at the start of each fence sector.

### SETTING THE IP ADDRESS

- 1) On the FG7, press the PIN tab on the top screen and select ▼ Installer, enter the appropriate PIN number and press enter. Check that Installer stays on the screen and has not revert back to select.
- 2) Press the System tab on the top of the screen and use the ▼ and ▲ markers next to the address boxes to set the correct IP address, Network Mask and Gateway address.
- Press the Set IP Address button on the bottom of the screen and the new IP address will be programmed into the FG7.
- 4) To ensure that the setting is correct ping the new IP address from a computer.

### MAPPING ENERGIZER ALARM(S) TO IO CARD

A text file, etoimapplus.txt, i.e. <u>energizer to io</u> card mapping file is used to map each energizer address to a relay card address.

This file can be made in notepad and has to be uploaded to the FG7 with the use of the web interface.

The notation used is that Energizer#4 corresponds to Energizer with address 4

Line Number	Function associated with the line	Lines of etoimap.txt file	Explanation
1	The IO Card Address that Energizer#1 will communicate with	33	Energizer#1 alarms via IO Card 33
2	The combination of any alarm condition(note 1) that will activate relay 1	2	Only Fence 1 Alarm activates relay 1
3	The combination of any alarm condition(note 1) that will activate relay 2	6	Fence 1 or Fence 2 alarm activates relay 2 (2+4)
4	The combination of any alarm condition(note 1) that will activate relay 3	14	Fence 1 or Fence 2 or Gate Alarm activates relay3 (2+4+8)
5	The combination of any alarm condition(note 1) that will activate relay 4	32	Only Tamper Alarm activates relay 4
6	The combination of any alarm condition(note 1) that will activate relay 5	4	Only Fence 2 Alarm activates relay 5
7	The combination of any alarm condition(note 1) that will activate relay 6	2048	Mains present activates relay 6
8	The combination of any alarm condition(note 1) that will activate relay 7	65	Comms fail or Sync fail activates relay 7 (1+64)
9	The combination of any alarm condition(note 1) that will activate relay 8	4096	Panic alarm activates relay 8
10	Latching or not latching of relays with alarm condition	38	Fence 1, Fence 2 and Tamper Alarm conditions are not latched (2+4+32)
11	The IO Card Address that Energizer#2 will communicate with	34	Energizer#1 alarms via IO Card 34
12	The above sequence repeated etc. etc.		

Table 1: How the etoimap.txt file is structured

Notes:

1) Table 2 has a number associated with each alarm condition on an energizer. Select the desired alarm condition(s) that can activate any relay and add the numbers together.



- 2) If the relay must only be activated as long as the alarm condition persist (not latching) then select the energizer condition in table 2 and add the number together for all the relays which must not latch. Zero implies everything is latching and an alarm condition has to be reset manually after an alarm occurs.
- 3) There are two types of IO card available one with 5 programmable relays and one with 8 programmable relays. If the one with 5 relays is used then line 7, 8 and 9 can be made 0.

Energizer State	Number
COMMS FAIL	1
FENCE 1 ALARM	2
FENCE 2 ALARM	4
GATE ALARM	8
SERVICE ALARM	16
TAMPER ALARM	32
SYNC FAILURE	64
ZONE 1 ON	128
ZONE 1 HIGH VOLTAGE	256
ZONE 2 ON	512
ZONE 2 HIGH VOLTAGE	1024
MAINS PRESENT	2048
PANIC ALARM	4096

Table 2: How the numbers are associated with each alarm state

Multiple energizers addresses can communicate with single IO card addresses i.e. a fence alarm on Zone 1 of any energizer could turn on a specific relay of one particular IO card and control perimeter lighting. In this case line 8 in Table 1 would have a 33. Both Energizer#1 and Energizer#2 would communicate with IO card #33.

The choice of relay number and energizer condition(s) is totally arbitrary. Not all the relays have to be configured.

# MAPPING NEMTEK IO CARDS TO ENERGIZER(S)

Inputs on a Nemtek IO card may be used to control a specific energizer or all i.e. global energizers on a network. A text file, itoemap.txt, i.e. <u>io</u> card <u>to</u> <u>energizer</u> <u>mapping</u> file, is used to map each IO card address to an energizer.

This file can be made in notepad and has to be uploaded to the FG7 with the use of the web interface.

Line Number	Function Associated with the line	Lines of itoe.txt file	Explanation
1	The energizer address that IO card#33 will communicate with (unless global)	1	Energizer#1
2	Energizer specific inputs from this IO card (note 3 and 5)	131	Input 1 from IO card#33 will turn On/Off Zone 1. Input 2 will turn On/Off Zone 2 of energizer#1 (1+2+128)
3	Global Energizer inputs from this IO card (note 3 and 5)	176	Input 5 from IO card#33 will turn On/Off all energizers. Input 6 will turn all energizer in HV/LV mode (16+32+128)
4	Inputs that are valid on this IO card (note 4)	51	Inputs 1,2,5 and 6 are used (1+2+16+32)
5	The Energizer Address that IO card#34 will communicate with (unless global)	2	Energizer#2
6	The above sequence repeated etc. etc.		

TABL	E 3:	How	the	itoeman.	txt	file	is	structured
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#### Notes:

- 4) Table 4 has a number associated with each IO card input.
- 5) Select the appropriate numbers and add them for the inputs to be recognized. If the number is set to 0 the all inputs are ignored.
- 6) This number must be added when using either a Selective energizer control or Global energizer control in rows 2 and 3 of Table 3. I.e. if the total number is less than 128 for a given row, then that particular row will be ignored.
- Global inputs and specific inputs cannot be used on the same IO card so either line 2 or line 3 should be zero.

#### Warning

 If multiple IO Cards are used, with multiple identical global inputs enabled you could end up with energizers turning On and Off every second. If the one global input dictates that all energizers should be On and the other global input on another IO card dictates that all energizers should be Off, you will have a non-functioning network.

Mapping

Mapping

<b>TABLE 4:</b> How the numbers relate to the IO Card Inputs					
INPUT	INPUT FUNCTION	NUMBER			
Input 1	ZONE 1 ON/OFF	1			
Input 2	ZONE 2 ON/OFF	2			
Input 3	ZONE 1 HIGH/LOW VOLTAGE	4			
Input 4	ZONE 2 HIGH/LOW VOLTAGE	8			
Input 5	GLOBAL ON/OFF	16			
Input 6	GLOBAL HIGH/LOW VOLTAGE	32			
ADD	SEE NOTE 5	128			
Input 7	Can only be utilized through application software				
Input 8	Can only be utilized through application software				

### LOADING A MAPPING FILE

The mapping files can be loaded on to the FG7 through the web interface (see the FG7 web interface)

Please note that if failsafe is ticked the mapping files are disabled.

### FIRMWARE UPGRADE

A firmware upgrade can be done with through the web interface (see the FG7 web interface)

# **FG7 WEB INTERFACE**

### THE FG7 WEB INTERFACE

The FG7 has a web interface which can be used for:

- 1) Viewing mapping files loaded in the FG7
- 2) Uploading new mapping files
- 3) Uploading new site images
- 4) Switching between LCD touchscreen and HDMI display
- 5) Up loading new program files

To use the web interface you will need the IP address of the control unit in the FG7 which is displayed under the NET tab in the FG7 as well as the installer pass word and a computer set to the correct IP range for the IP address of the control unit.

### Connecting to the web interface

- 1) Open the FG7 and connect a network cable from the computer to the network connector on the control board inside the FG7.
- Open the internet browser on the computer and enter on the address bar the IP address which is displayed under the NET tab of the FG7 (make sure the that the computers IP range is suitable for this IP address)
- 3) The FG7 configuration screen should now show on the computer

### Viewing of mapping files

You can view the mapping files which are present in the FG7 by entering on the address bar in the browser the IP address followed by /itoemap.txt or /etoimapplus.txt depending on which file is required.

As an example with the IP address of the control unit being 10.0.0.20 one would enter in the browser 10.0.0.20/itoemap.txt or alternatively 10.0.0.20/etoimapplus.txt

The requested map will appear on the computer screen. Please note one cannot change the mapping here you would have to upload a new mapping file if so required.

### Loading of files

To load files through the web interface enter on the address bar in the browser the IP address followed by /nemupload.cgi.

As an example with the IP address of the control unit being 10.0.0.20 one would enter in the browser 10.0.0.20/nemupload.cgi

The FG7 installer configuration screen will appear on the computer screen.

- 1) Enter the installer password and a new screen will appear
- 2) Under select a file use the browse button to find the required file on the computer. Be aware that not always all files are shown, to see all files select the custom tab on the bottom right of the screen and then select all files.

# **FG7 WEB INTERFACE**

You can only load guf5e files for firmware updates, image13r370.png files for site images and the mapping files itoemap.txt or etoimapplus.txt

3) Once the file is selected you have two options:

Press "Get File" and re-enter the installer password and the selected file will be down loaded into the FG7 or

Click on "View File Only" and press "Get File". In this case the file chosen will be displayed on the computer screen but not downloaded to the FG7. If you are satisfied with the file, press the back button on your browser un-tick the "View File Only" and press the "Get File". Enter the installer password and the file will be uploaded to the FG7.

4) After the file is loaded one has to reset the FG7 and this can be accomplished by pressing "Reset FG7 and Use Files". The FG7 will reset and after restarting ready for use.

### LCD touchscreen or HDMI

Through the web interface one can change the LCD touchscreen display to an HDMI display or vice versa.

- Enter on the address bar of the browser after the IP address /nemupload.cgi. As an example with the IP address of the control unit being 10.0.0.20 one would enter in the browser 10.0.0.20/nemupload.cgi
- 2) Enter the installer password
- The installer configuration screen will appear.
- Click on HDMI or LCD screen as required. The display will change to HDMI or LCD touchscreen.

### ENERG APP / TW APP / TWNODE APP

It is possible to toggle through the web interface the application in the FG7. The FG7 should have been set for the use with energizers (ENERG APP) but by clicking on TW APP or TWNODE APP it can be set for use with Taut-wire sensors instead of energizers.

### THIRD PARTY INTEGRATION

The FG7 can communicate with third party software such as Nemtek Druid FenceProbe. The communication is done through the Ethernet port on the blue control board of the FG7. The IP of the computer running the software should be in the same range as the IP of the FG7 (the IP of the FG7 can be changed under the Net tab).

Once connected the third party software will take control of the system, however the FG7 can still issue commands and the third party will see the change in the system and can accept it or override it by reversing the command of the FG7.

If there are IO cards in the system then the mapping of the third party software is followed. It is however advisable to load the identical mapping into the FG7 so that if the communication to the software is lost the commands from inputs and the relay outputs on the IO card(s) will remain

# **Document Revision History**

identical to the mapping in the third party software, the system would not change due to the communication break.

If the AbsoluteIO option has been ticked under the system tab the third party software would still have control but if the communication to the FG7 fails then control would be given to the mapping of the inputs of the IO card(s) and not to the FG7 User (see AbsoluteIO). Please also read the section Failsafe of this manual if third party integration or Nemtek FenceProbe is used.

### **DOCUMENT REVISION HISTORY**

Revision 1.0 26 April 2018

Revision 1.1 Added Failsafe 24 May 2018

Revision 1.2 Removed calibration 6 June 2018

Revision 1.3 Removed uploads via flash drive added comment on node and tautwire

End of document