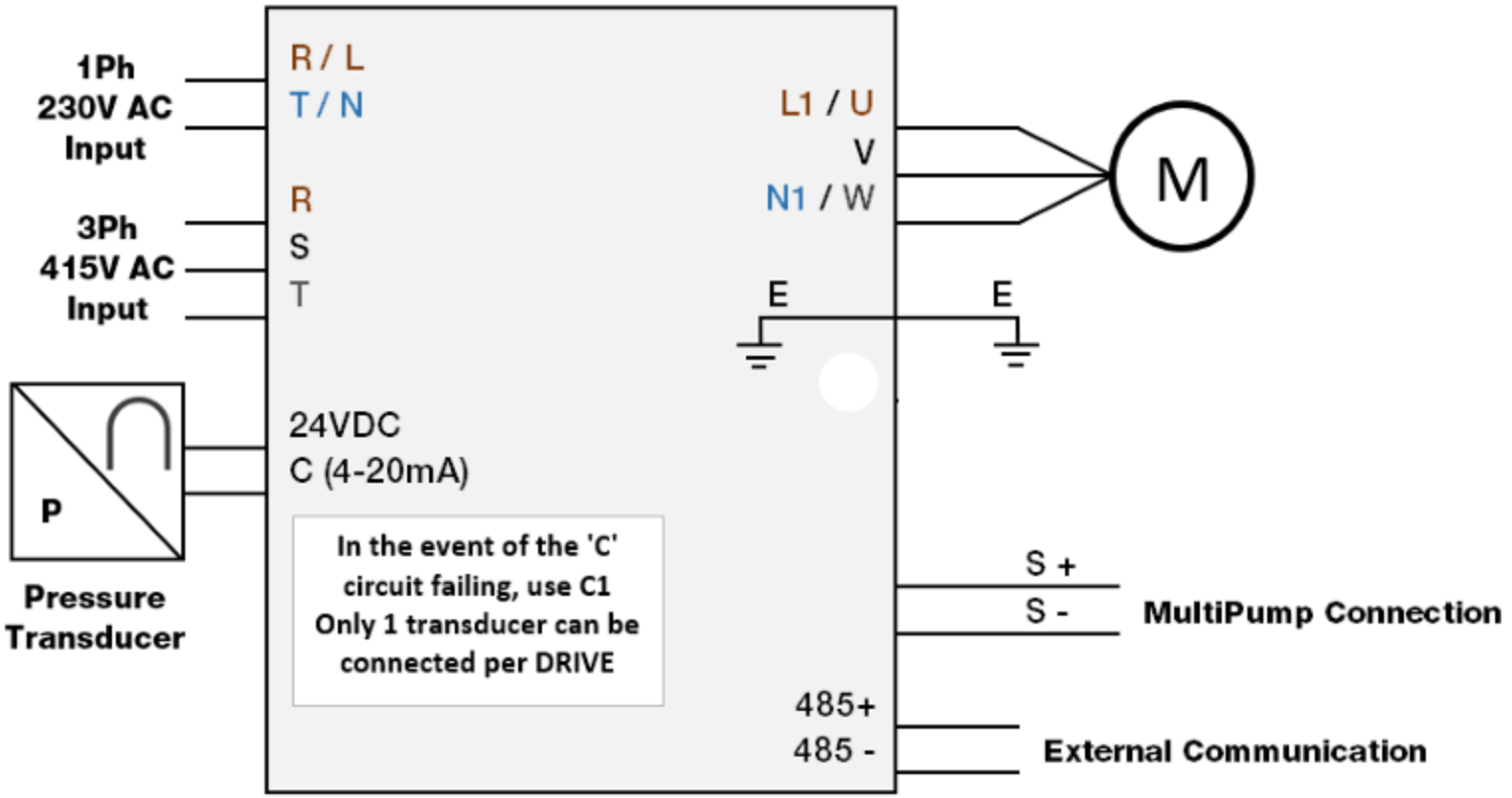
BIA-NXT-DRIVES

Wiring & Programming Wizard

Wiring



Notes:

Pressure Transducer:

Red wire to **24V**

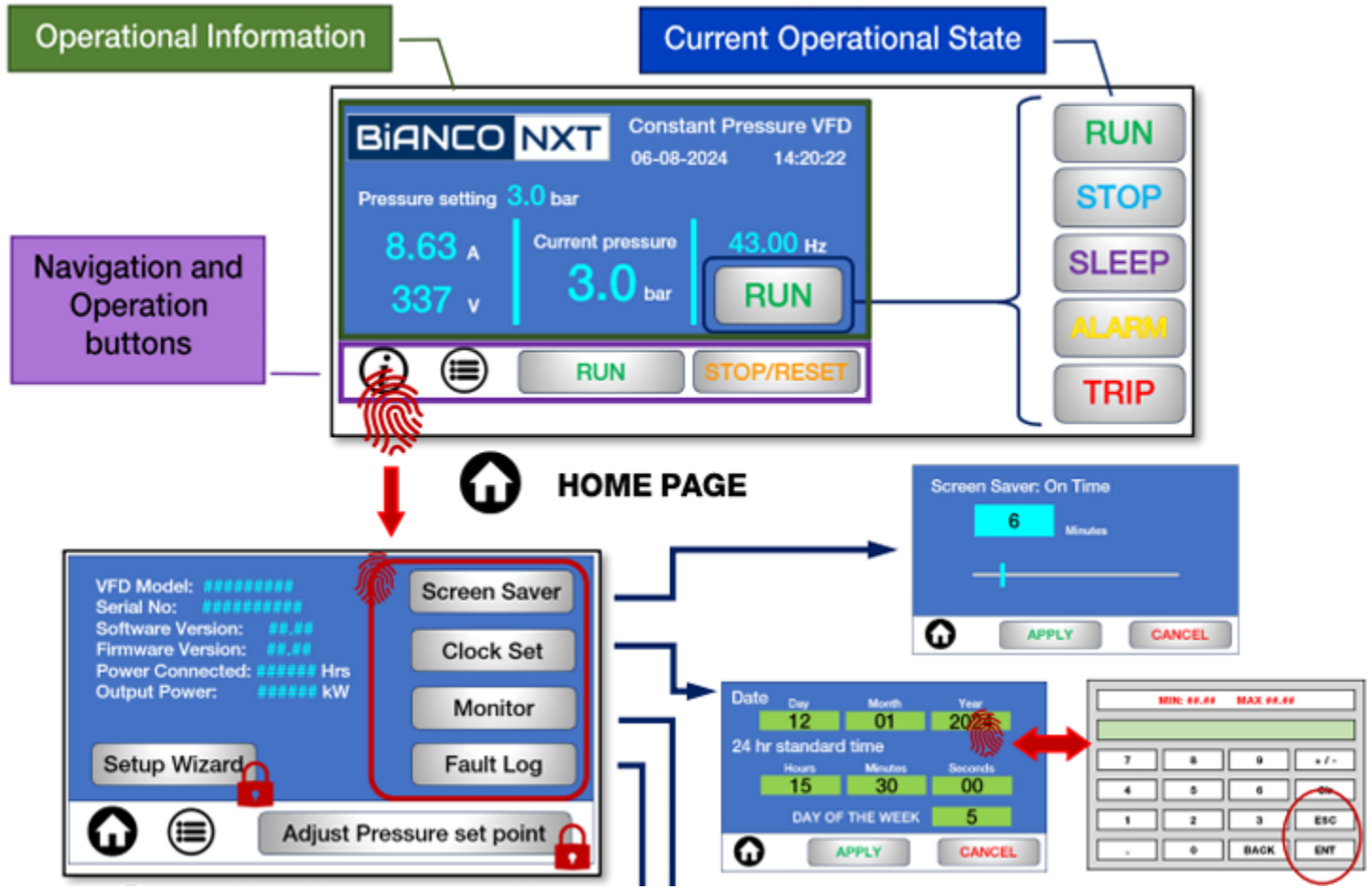
Black wire to **C**

Multi Pump Connection:

S+ to S+ & S- to S- in series

Programming

Screen Layout



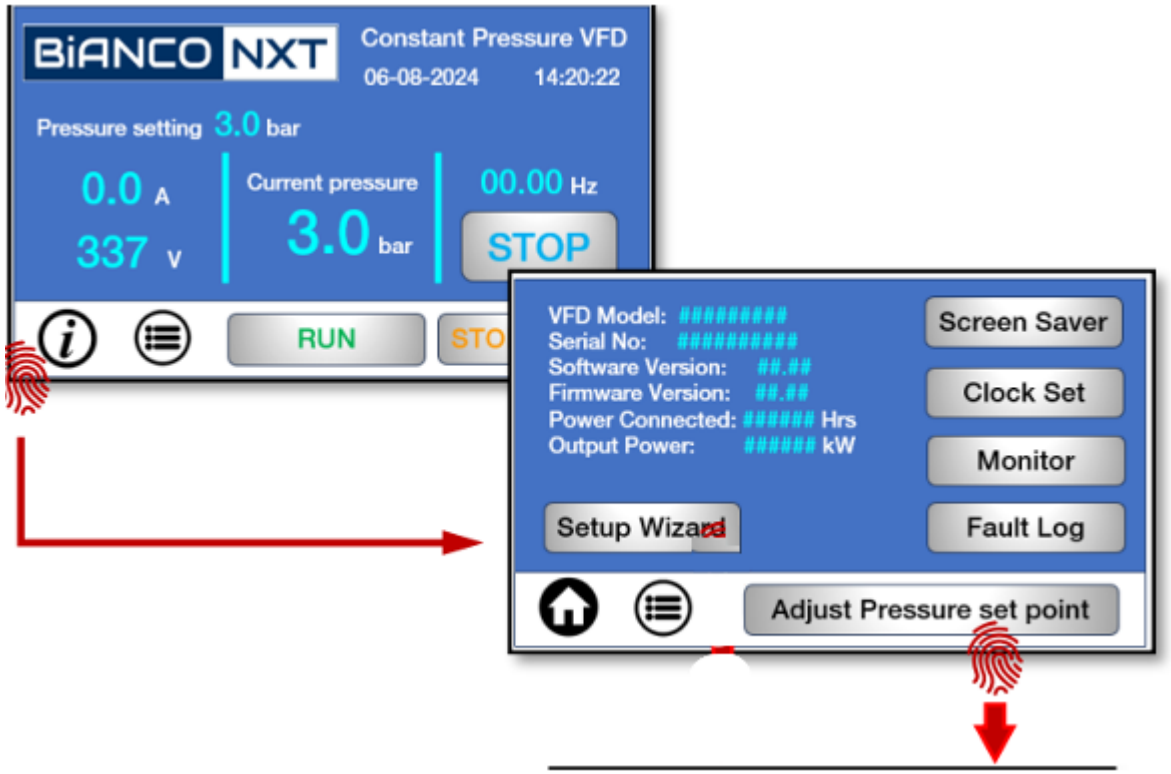
Step 1

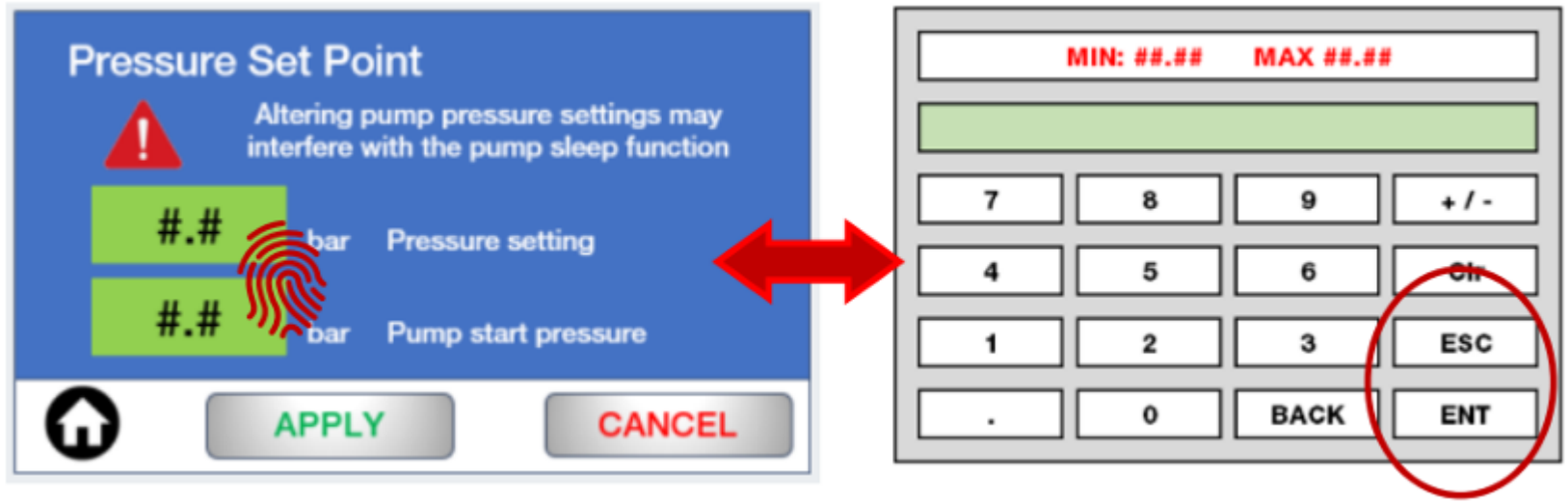
<u>Set the Clock:</u>

→ Select the '***i***' button.

→ Select 'Clock Set'.

→ Set Date and Time.





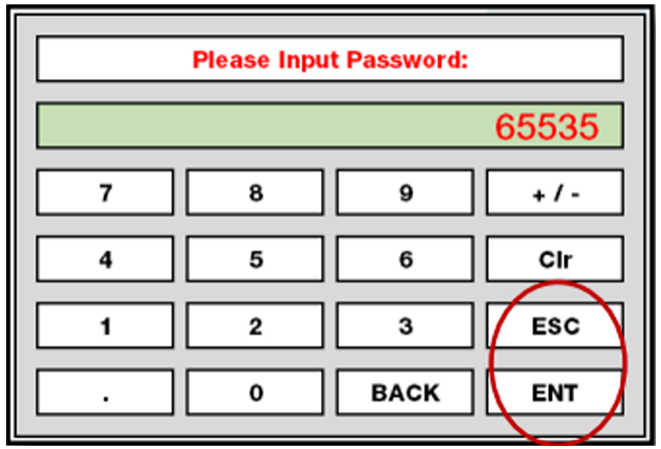
Step 2

<u>Adjust Set Point Pressure:</u>

→ Enter Password: 65535

→Adjust Pressure Setting to 5bar
(unless specified by customer on the PO)

→ Adjust Pump Start Pressure to 4bar OR 1bar below the specified Pressure Setting.



Step 3:

Setup Wizard

→ Select the '***i***' button.

→ Select 'Setup Wizard'.

→ Enter Password: 65535

Step 4

Pg 1.
Set data as per Nameplate of the motor.

Pg 2.
Upper Limit Hz = Match Max Hz of the motor

Sleep Option = 1

Sleep Frequency =
* Set to 23Hz for Vertical Multistage / Surface Pumps
* Set to 30hz for Bore pumps
(refer to pump curves to set accurately)

Sleep Detect Time = 30Sec

Sleep Delay = 1 sec

Auto Start Option = 1

Pg 3.

Minimum Hz =
* Set to 25Hz for Vertical Multistage pumps/Surface Pumps
* Set to 32hz for Bore pumps
(refer to pump curves to set accurately)

Motor Direction = 0

Acceleration =
* Set to 8 sec for Vertical Multistage pumps/Surface Pumps
* Set to 2 sec for Bore pumps

Deceleration =
* Set to 8 sec for Vertical Multistage pumps/Surface Pumps
* Set to 2 sec for Bore pumps

Low Voltage Protection = 85%

Water Shortage Detect Mode = 2

Pg 4.

Water Shortage Detect Value = 0.5bar

Water Shortage Detect Time = 50Sec

High Pressure Alarm = 8bar
(Or 3bar higher than Set point pressure)
Unless specified by the customer.

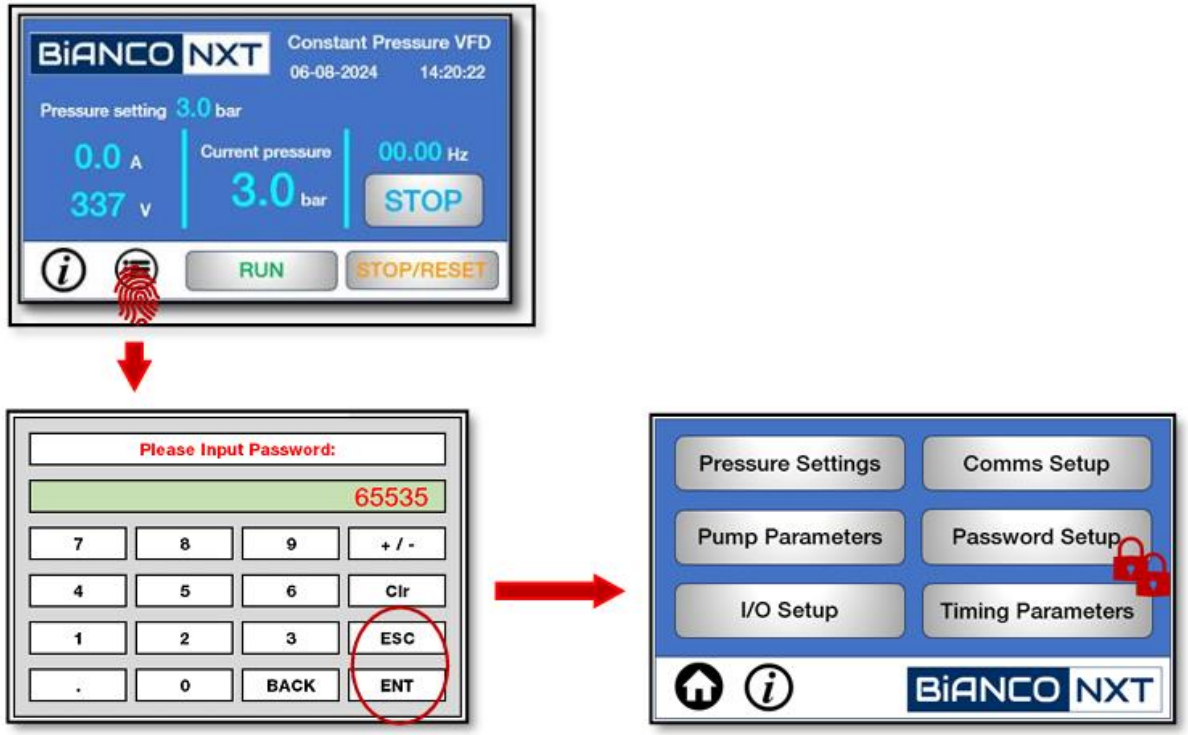
High Pressure Detect Time = 3 Sec

Sleep Delay = 1 sec

Water Shortage Detect Current = 85% of Rated current from pg1.

Step 5

Press the HOME button
(note settings will autosave once entered)

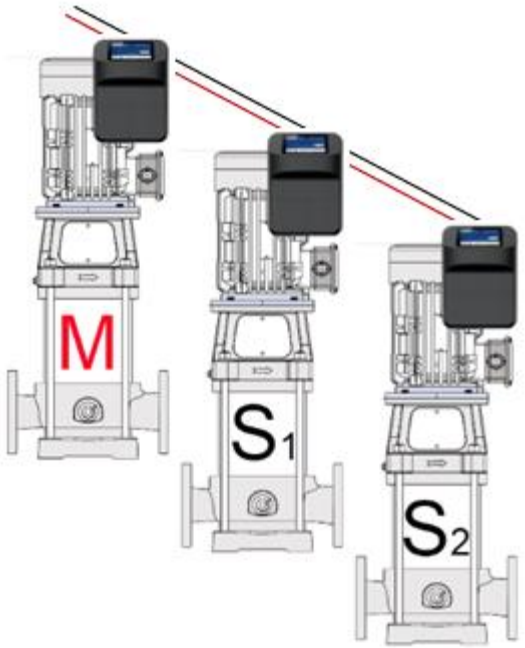


Step 6 (only applicable for Multi pump sets)

→ Select the ☰ button.
→ Enter Password: 65535
→ Select 'Comms Setup'

Setup always as 1 master and remaining as Auxiliary/Slave.
Example: For a triple pump set, 1 Master, 2 Slaves

Function	Value	Unit
Comm. Address	x	1,2 for Loader 3~5 for Follow
Alternation time	480	0 - 60000 min
Follow Qty	x	0 - 4
Multi-pump control	x	0=Loader/Follow 1= Simultanious
Pump adding delay	1.0	0.1 - 600.0 sec



For Master pump, set as per below

Pump 1 **Master** controller COMM GROUP Parameters		
#4	Multi Pump Control 0 = Master / Slave	0
#1	Comm Address (Master)	1
#3	Follow/ Slave Quantity Set according to system	0 - 4

For Slave/Follow pumps, set as per below

Set every **slave** controller as follows	
Pump 2 Slave 1	COMM GROUP / Parameter #1: [Comm Address] = 1 PUMP GROUP / Parameter #9: [Stop/Start] = 2 (Communication) PUMP GROUP / Parameter #10: [Freq Input] = 2 (Communication)
Pump 3 Slave 2	COMM GROUP / Parameter #1: [Comm Address] = 2 PUMP GROUP / Parameter #9: [Stop/Start] = 2 (Communication) PUMP GROUP / Parameter #10: [Freq Input] = 2 (Communication)