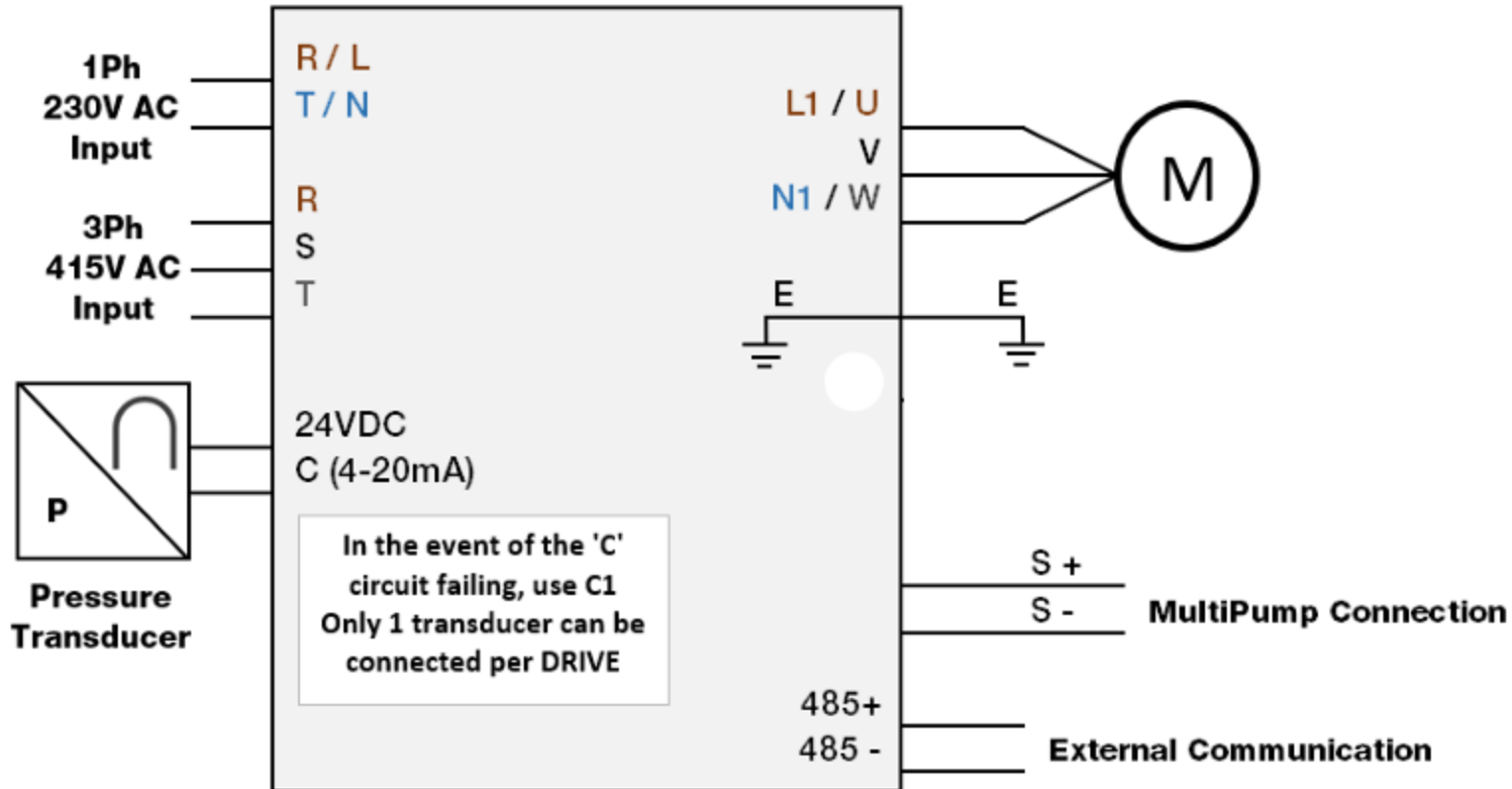


# BIA-NXT-DRIVES

## Wiring & Programming Wizard



# Wiring



## Notes:

### Pressure Transducer:

Red wire to **24V**

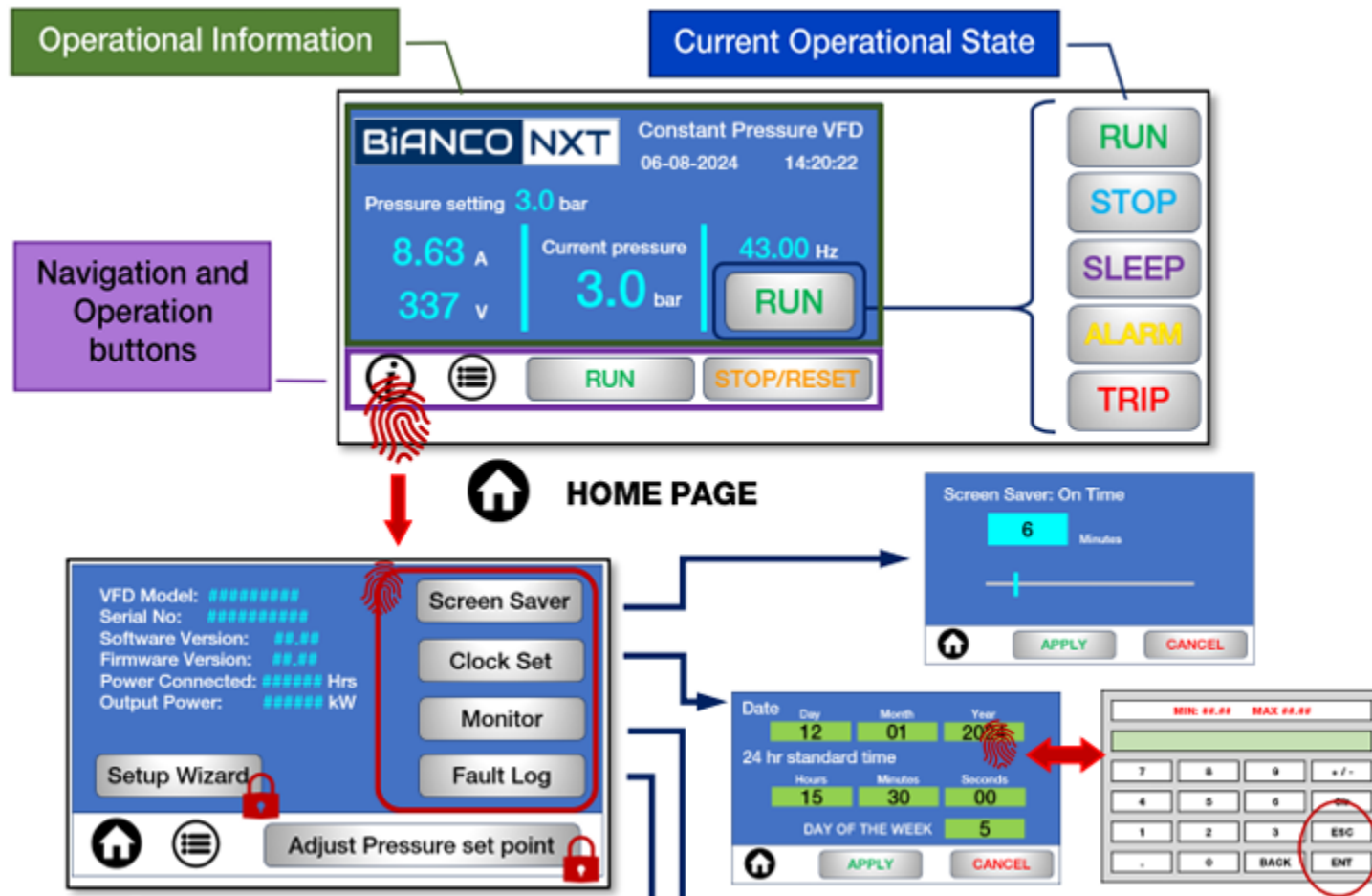
Black wire to **C**

### Multi Pump Connection:

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

# Programming

## Screen Layout



### Step 1

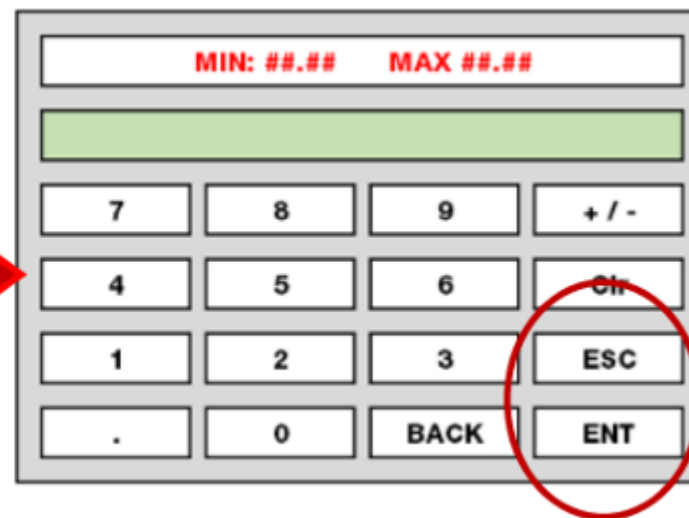
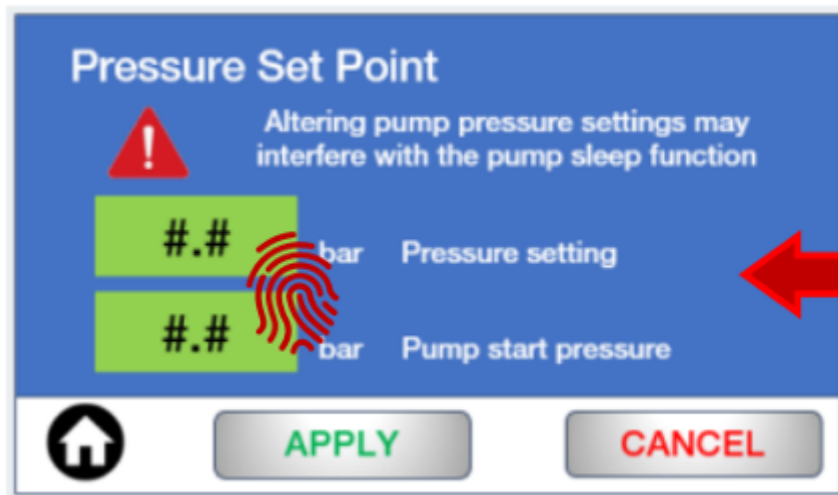
Set the Clock:

- Select the 'i' button.
- Select 'Clock Set'.
- Set Date and Time.

## Step 2

### Adjust Set Point Pressure:

- 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.





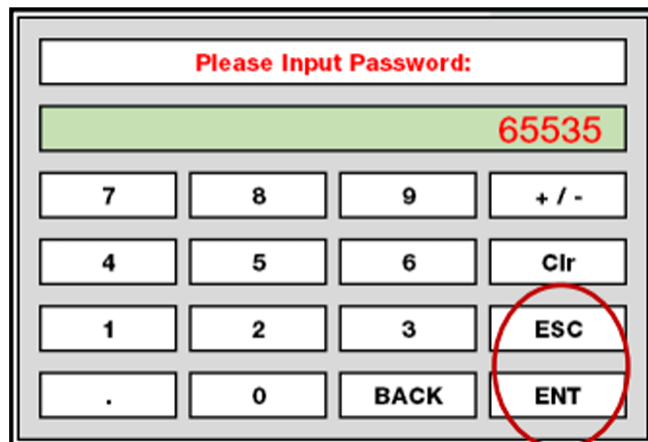
### Step 3:

#### Setup Wizard

→ Select the 'i' button.

→ Select 'Setup Wizard'.

→ Enter Password: 65535



Setup wizard: Constant Pressure, Sleep Enabled, Auto Restart

Nameplate kW	##.#	Rated kW
Nameplate Voltage	###	Rated Voltage
Rated Motor Speed	####	RPM
Rated Current	##	Amp
Max Hz	##	Hz



NEXT
Pg 1 of 4

## 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

Upper Limit Hz	50	Hz
Sleep Option	1	0 = Off. 1 = On
Sleep Freq	30	Hz
Sleep detect time	30	Sec
Sleep Delay	1.0	0.1 - 200.0 sec
Auto-Start Option	0	0 = Not allowed 1 = Start when power on



NEXT
BACK
Pg 2 of 4

**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**

Minimum Hz	30	Hz
Motor Direction	0	0 = Forward 1 = Reverse 2 = Not allowed
Acceleration time	8	Seconds
Deceleration time	8	Seconds
Low V Protection	85%	70.0 - 100.0%
W.S. detect mode	##.#	0 = Off 1 = By Current 2 = By Press 3 = Current&Press 4 = Terminal

  **NEXT** **BACK** Pg 3 of 4

**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)**


W.S detect value	0.5	Bar
W.S. detect time	50	Sec
H.P. alarm	15	Bar
H.P. detect time	3	Sec
W.S. detect current	###	Amps (suggest 85% FLC)
End of setup wizard		

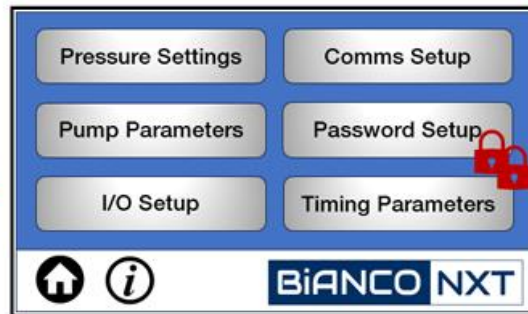
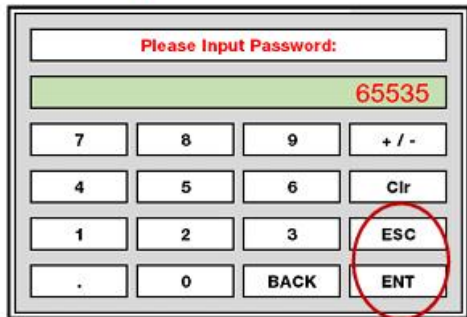
  **BACK** Pg 4 of 4





## Step 6 (only applicable for Multi pump sets)

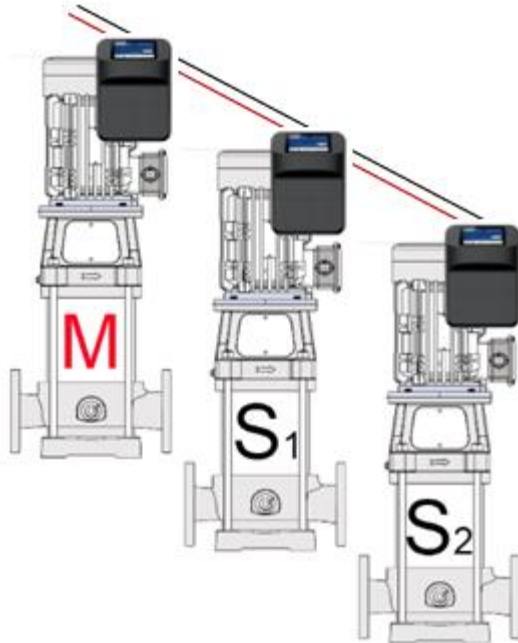
- Select the  button.
- Enter Password: 65535
- Select 'Comms Setup'



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= Simultaneous
Pump adding delay	1.0	0.1 - 600.0 sec



For Master pump, set as per below

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

For Slave/Follow pumps, set as per below

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