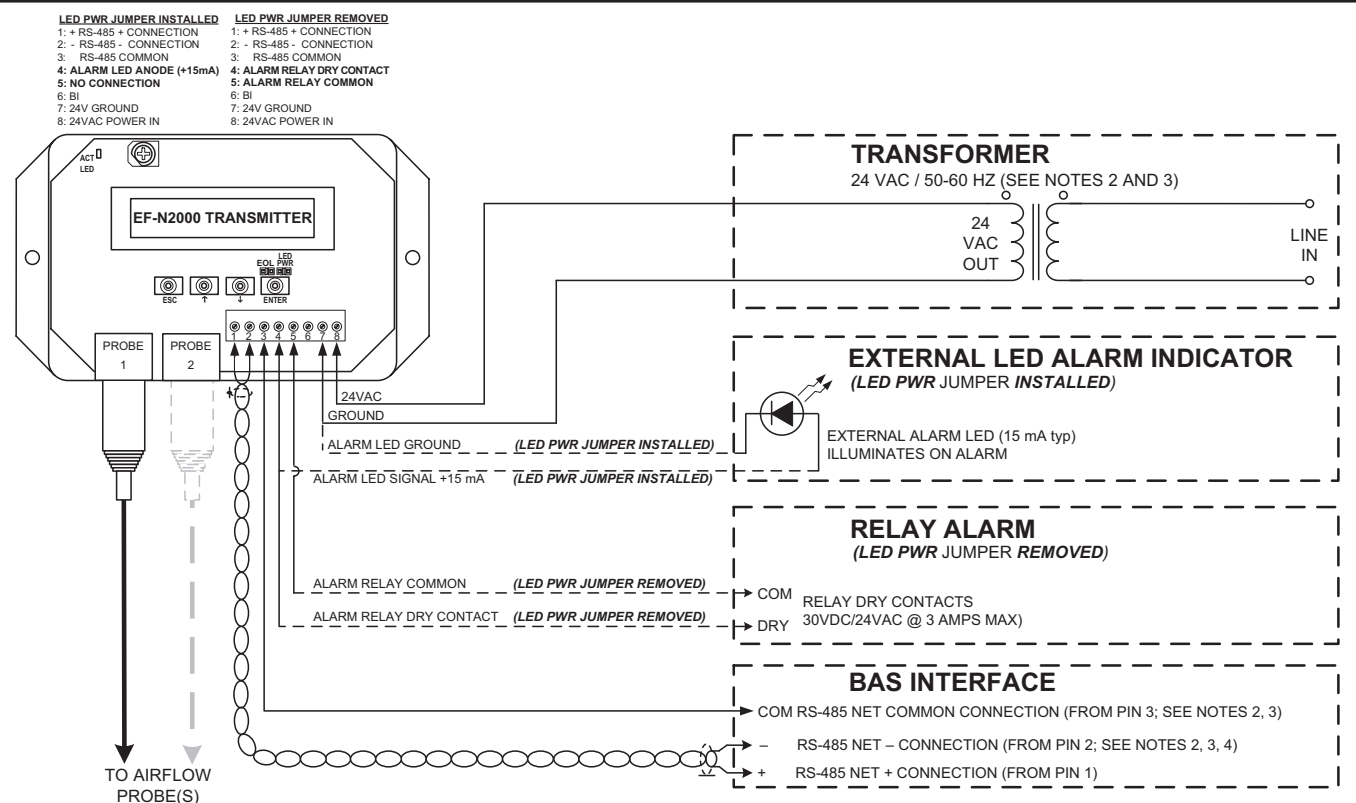




EF-N2000-T TYPICAL WIRING DIAGRAM



- | | |
|---------------------------------|-------------------------------|
| LED PWR JUMPER INSTALLED | LED PWR JUMPER REMOVED |
| 1: + RS-485 + CONNECTION | 1: + RS-485 + CONNECTION |
| 2: - RS-485 - CONNECTION | 2: - RS-485 - CONNECTION |
| 3: RS-485 COMMON | 3: RS-485 COMMON |
| 4: ALARM LED ANODE (+15mA) | 4: ALARM RELAY DRY CONTACT |
| 5: NO CONNECTION | 5: ALARM RELAY COMMON |
| 6: BI | 6: BI |
| 7: 24V GROUND | 7: 24V GROUND |
| 8: 24VAC POWER IN | 8: 24VAC POWER IN |

- NOTES:**
- CONNECT OUTPUT SIGNAL CABLE DRAINS TO EARTH GROUND AT ONE END OF CABLE ONLY.
 - EF-N2000 IS A NON-ISOLATED DEVICE USING A HALF-WAVE RECTIFIER ON THE 24VAC POWER INPUT. IF MULTIPLE DEVICES ARE POWERED BY THE SAME TRANSFORMER OUTPUT, ALL GND CONNECTIONS MUST BE COMMON, OR AN ISOLATION TRANSFORMER MUST BE USED TO PREVENT EQUIPMENT DAMAGE.
 - ALL DEVICES ON MULTIPLE EF-N2000 INSTALLATIONS WITH A COMMON POWER 24VAC SOURCE MUST BE WIRED IN-PHASE TO THE SAME TERMINALS (PIN 7 TO PIN 7, PIN 8 TO PIN 8).
 - RS-485 SHIELDED TWISTED PAIR (STP) WIRING (SUPPLIED BY OTHERS) IS RECOMMENDED FOR NETWORK CONNECTIONS.
 - NETWORK CONNECTIONS MUST BE MADE IN A DAISY CHAIN CONFIGURATION. T-CONNECTIONS AND STUBS ARE NOT PERMITTED.
 - WHEN EF-N2000 IS WIRED AS THE LAST DEVICE ON A NETWORK, APPLY JUMPER ACROSS EOL JUMPER TERMINALS.

EF-N2000-T BACNET OBJECTS AND MODBUS REGISTER MAP

EF-N2000-T BACnet Objects

Analog Inputs

Type, ID	Name
Device	EF-N2000
AI, 1	Airflow
AI, 2	Temperature
AI, 3	Alarm Status: 0=No alarm, 1=High Alarm, 2=Low Alarm, 3=Both

Analog Values and Binary Outputs

AV, BO, 1	Value/Output
AV, 1	Duct Area
AV, 3	Traverse Status: 0=None, 1=Flow, 2=Temp, 3=Both
AV, 4	Flow Ins 1
AV, 5	Flow Ins 2
AV, 6	Temp Ins 1
AV, 7	Temp Ins 2
BO, 1	Relay

Notes:

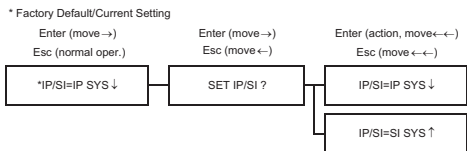
- Number of AV objects is dependent on the probe count.
- User Executed Services Supported:
Subscribe COV, Read Property, Write Property,
Device Communication Control, Who-Is.

EF-N2000-T Modbus Register Map

Function	Address	Type	Units	Description	Range/Value
2	10001	boolean		Trouble Status	0:OK, 1:Trb1
4	30001-30002	float	FPM	Average Airflow	0 to 3,000
4	30003-30004	float	°F	Average Temp	-20 to 160
4	30005-30006	float	Sq.Ft	Duct Area	0 to 999.99
4	30007-30008	float	FPM	Insert 1 Flow	0 to 3,000
4	30009-30010	float	FPM	Insert 2 Flow	0 to 3,000
4	30011-30012	float	°F	Insert 1 Temp	-20 to 160
4	30013-30014	float	°F	Insert 2 Temp	-20 to 160
4	30101	word		Alarm Status	0: No alarm 1: High Alarm 2: Low Alarm 3: Both
4	30148	word		Firmware Revision	
4	300202	word		Float word order. Writeable	0: high word first; 1: low word first

SYSTEM OF UNITS MENU

Simultaneously depress/release ENTER + ESC keys during normal operation to select

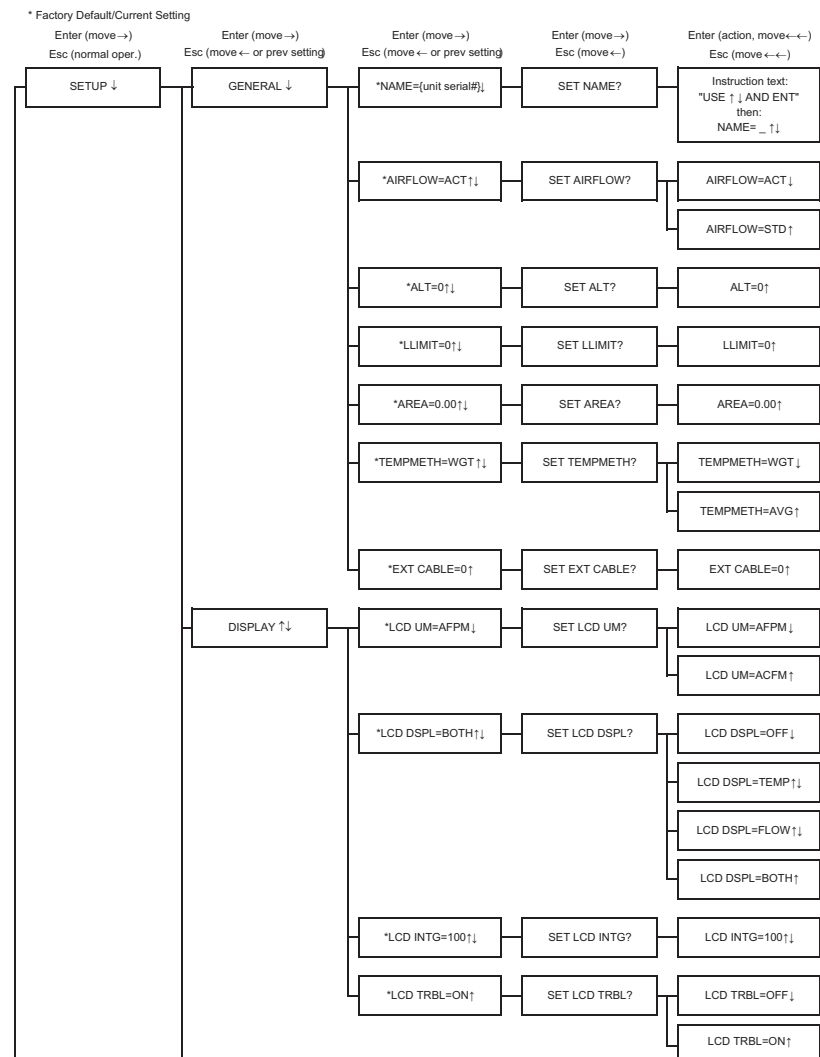


ACTION

Set system of units to I-P (FPM, CFM, sq.ft., °F) or Set system of units to S.I. (MPS, LPS, sq.M., °C).
NOTE:
Changing IP/SI SYS resets alarm settings and scaling values.

SETUP MENU

Simultaneously depress/release ↑ + ↓ keys during normal operation to select



ACTION

Custom LCD Flow Text: Blinking prompt at position of the selected character. Character is selected using the up and down arrows and then ENTER to accept and move cursor forward (right); ESC moves the cursor back (left). Use space characters for blank or unwanted text. Default is unit serial number.

Set the airflow measurement to ACTUAL airflow (AFPM/ACFM)

Set the airflow measurement to STANDARD airflow (SFPM/SCFM)

Only available when AIRFLOW=ACT; set the altitude above sea level for flow correction: 0 to 18,000 ft.

Enter airflow setpoint value below which the transmitter outputs zero flow

Enter area of duct where airflow probes are installed

Set temperature output for velocity weighted average of temperature sensors

Set temperature output for mathematical average of temperature sensors

Enter length of extension cable

Set LCD units of measure to CFM or FPM. (Note: A if ACT or S if STD measurement prefix set by AIRFLOW= setting above)

Set what is displayed on LCD

Integration samples

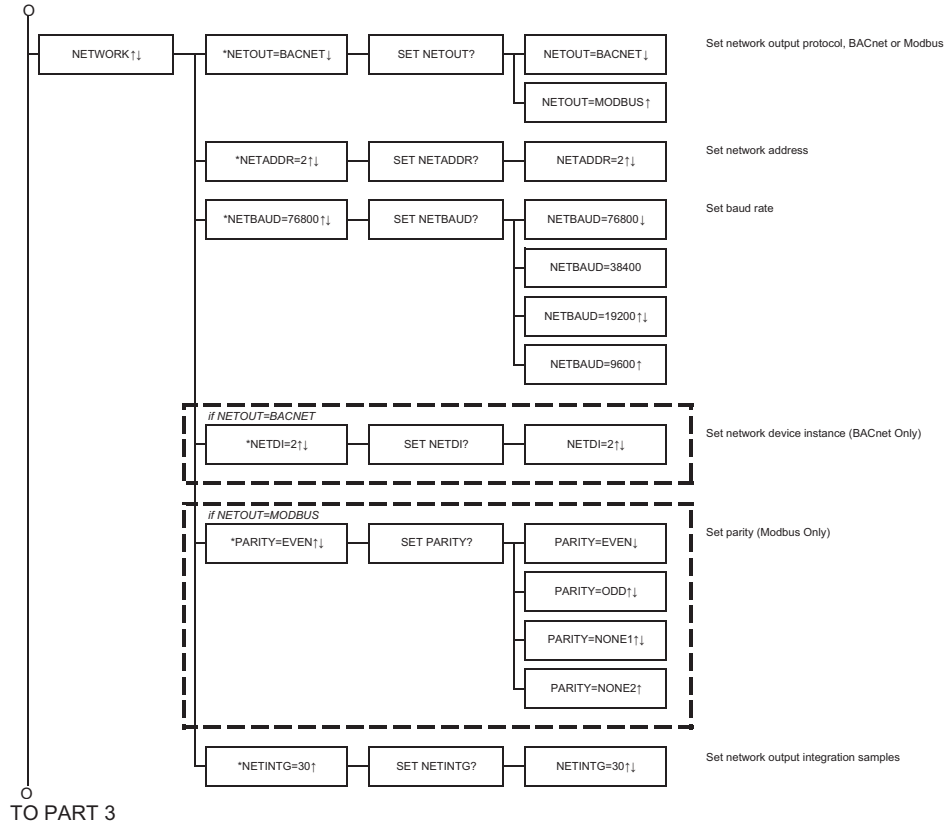
Set whether LCD will display trouble indication if trouble is detected.

TO PART 4

TO PART 2

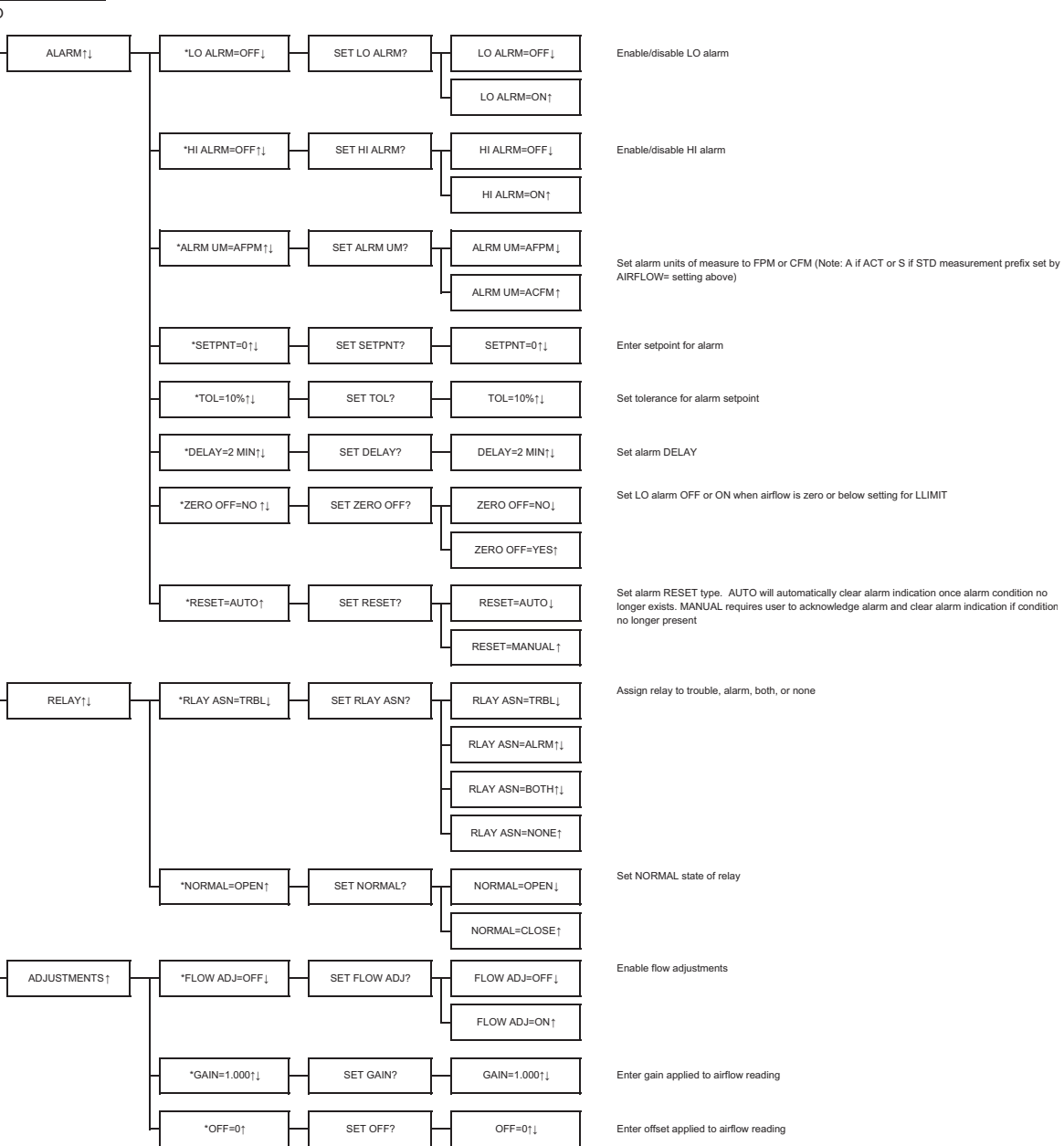
SETUP MENUS (PART 2 OF 5)

FROM PART 1



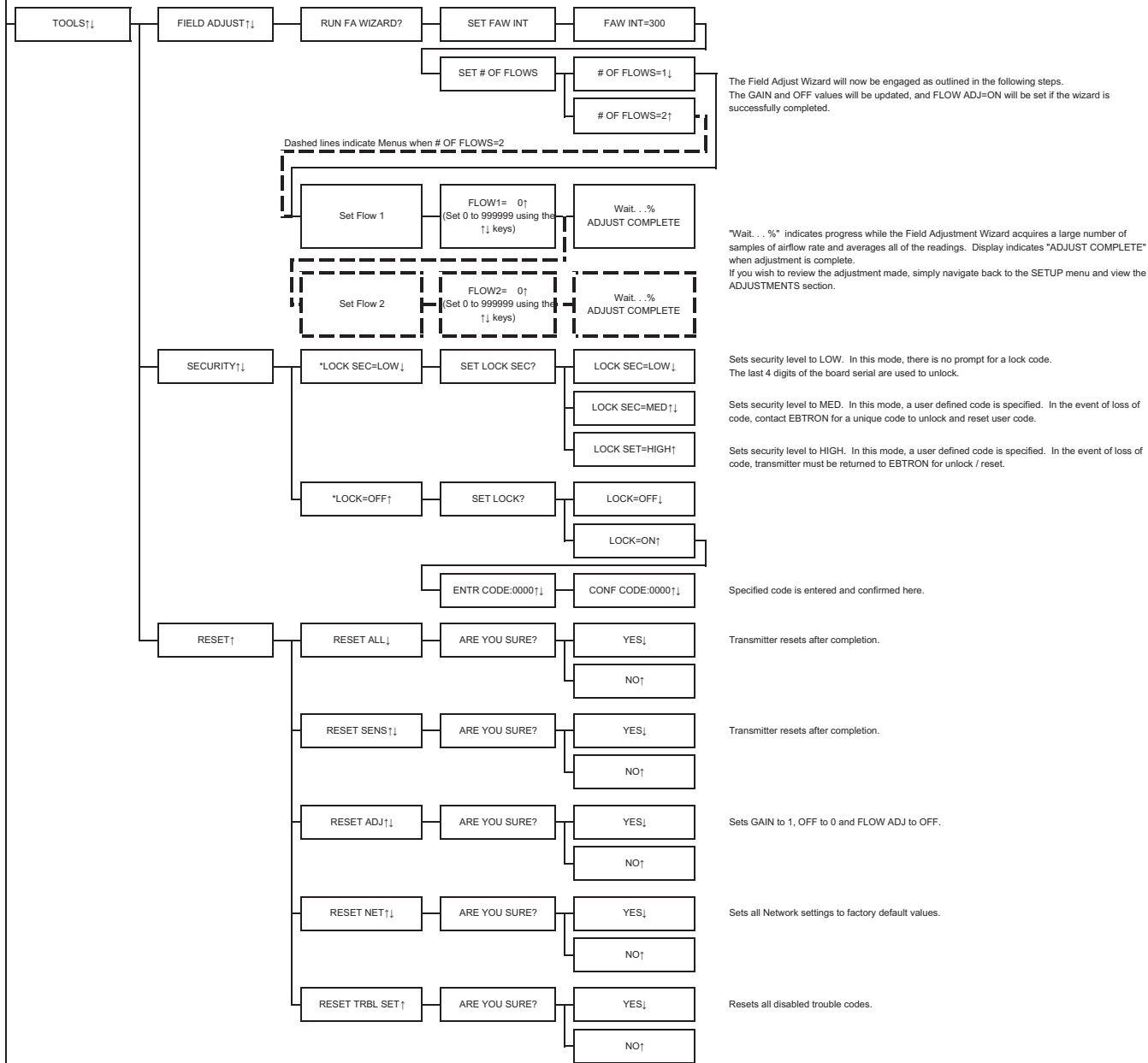
SETUP MENUS (PART 3 OF 5)

FROM PART 2



SETUP MENUS (PART 4 OF 5)

FROM PART 1



TO PART 5

FROM PART 4

