TECHNICAL BULLETIN

BRITISH ENCODER PRODUCTS COMPANY

TB-542: Model A58E Series Quick Installation Guide for EtherCAT

This technical bulletin will give you step-by-step instructions to get started with EPC's Model A58E series of EtherCAT®-ready absolute encoders. You will learn how connect the encoder, how to navigate to the encoder's web page, and how to change the encoder IP address, subnet mask, and gateway address. For more information, see the EtherCAT® Interface Technical Reference Manual at encoder.com.

Connect the encoder

Step 1

Connect Port 1 to your EtherCAT® master or EtherCAT® coupler using a M12x1, 4-pin, D-coded male to RJ-45 cable.
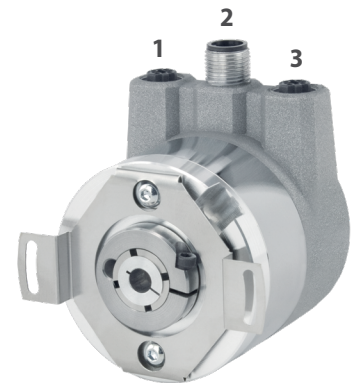
Step 2

Connect the power cable using a M12x1, 4-pin, A-coded female connector.

Step 3

(Optional) Connect Port 2 to another EtherCAT® device in your network using a M12x1, 4-pin, D-coded male connector to another EtherCAT® slave device or Ethernet switch.

Step 4

Refer to procedure on the reverse side for communication with the EtherCAT® encoder.

1 Ethernet Port 1
2 Power connection
3 Ethernet Port 2

Female Connector Port1 (IN)

Function	M12x1, 4-pin, D-coded
Tx+	1
Rx+	2
Tx-	3
Rx-	4

Power

Function	M12x1, 4-pin, A-coded
(+) Vcc	1
n. c.	2
GND	3
n. c.	4

Female Connector Port2 (OUT)

Function	M12x1, 4-pin, D-coded
Tx+	1
Rx+	2
Tx-	3
Rx-	4

EtherCAT® (Ethernet for Control and Automation Technology) is a registered trademark and patented technology, licensed by Beckhoff Automation GmbH, Germany.

EtherCAT®

**BRITISH
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Getting started with the Model A58E series EtherCAT-ready absolute encoders

Step 1. Activate the encoder

This step is necessary to put the encoder into an operational state. Without activations the encoder cannot communicate over the EtherCAT® network.

Procedure – Start your EtherCAT® master controller.

Follow the instructions provided with your EtherCAT® master to activate slave devices on the network. Check that the EtherCAT® state is OP (Operational).

Optional Additional Instructions – Steps to access the encoder web page are below.

These steps are needed when provisioning the encoder or when configuring multiple encoders on the network. The example shown is for a PC EtherCAT® master. Please contact your network administrator for assistance.

NOTE: All encoders ship with a default IP address of 192.168.1.127

Step 2. Change PC EtherCAT master IP address

Procedure – Set your EtherCAT® master or computer IP address to 192.168.1.100, set subnet mask to 255.255.255.0

Note: The IP address may be any IP address on the 192.168.1.x network, except .127

Step 3. Browse to the encoder web page

Procedure – Open a web browser and type the following command: **http://192.168.1.127**

Step 4. Change encoder IP address and netmask

Procedure – Navigate to the Configuration -> Network page

Enter new values for the IP address and Netmask.

Click the Save button. The new network values will automatically be saved to the encoder. Allow 10 seconds for the new settings to take effect.

Note: A gateway is needed only if you want to route packets to external Ethernet networks. Contact your administrator for assistance.
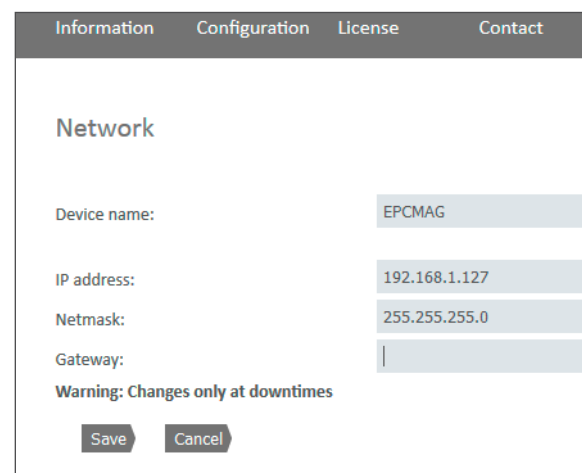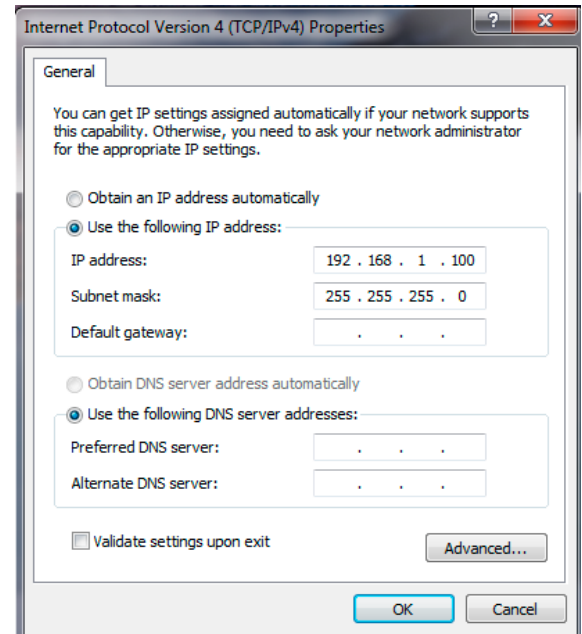
Troubleshooting: If you cannot view the encoder web page, check the network connection by typing the following command in a terminal window: **ping 192.168.1.127**