

5 YEAR
WARRANTY



OMEGA® User's Guide

Shop online at
omega.com®

e-mail: info@omega.com
For latest product manuals:
omegamanual.info



OM-ES-020 Ethernet-to-Serial Device Server



OMEGAnet® Online Service
omega.com

Internet e-mail
info@omega.com

Servicing North America:

U.S.A.:
ISO 9001 Certified

Omega Engineering Inc., One Omega Drive, P.O.Box 4047
Stamford, CT 06907-0047 USA
Toll-Free: 1-800-826-6342
FAX: (203) 359-7700

TEL: (203) 359-1600
e-mail: info@omega.com

Canada:

976 Bergar, Laval (Quebec) H7L 5A1, Canada
Toll-Free: 1-800-826-6342
FAX: (514) 856-6886

TEL: (514) 856-6928
e-mail: info@omega.com

For immediate technical or application assistance:

U.S.A. and Canada:

Sales Service: 1-800-826-6342/1-800-TC-OMEGA®
Customer Service: 1-800-622-2378/1-800-622-BEST™
Engineering Service: 1-800-872-9436/1-800-USA-WHEN™

Mexico/
Latin America:

TEL: 001 (203) 359-1660
e-mail: espanol@omega.com

FAX: 001 (203) 359-7700

Servicing China:

China:

1698 Yi Shan Road, Unit 102, Min Hang District, Shanghai, China 201103 P.R.C.
Hotline: 800 819 0559/400 619 0559,

e-mail: info@cn.omega.com

Servicing Europe:

Benelux:

Toll-Free: 0800 099 3344
FAX: +31 20 643 46 43

TEL: +31 20 347 21 21
e-mail: sales@omegaeng.nl

Czech Republic:

Frystatska 184, 733 01 Karviná, Czech Republic
TEL: +420-59-6311899
e-mail: info@omegashop.cz

FAX: +420-59-6311114

France:

Toll-Free: 0805 541 038
FAX: 01 57 32 48 18

TEL: +01 57 32 48 17
e-mail: esales@omega.fr

Germany/Austria:

Daimlerstrasse 26, D-75392 Deckenpfronn, Germany
Toll-Free: 0800 8266342
FAX: +49 (0) 7056 9398-29

TEL: +49 (0) 7056 9398-0
e-mail: info@omega.de

United Kingdom:

ISO 9001 Certified

OMEGA Engineering, Ltd., One Omega Drive, River Bend Technology Centre
Northbank, Irlam, Manchester M44 5BD United Kingdom
Toll-Free: 0800-488-488
FAX: +44 (0) 161 777-6622

TEL: +44 (0) 161 777-6611
e-mail: sales@omega.co.uk

It is the policy of OMEGA Engineering, Inc. to comply with all worldwide safety and EMC/EMI regulations that apply. OMEGA is constantly pursuing certification of its products to the European New Approach Directives. OMEGA will add the CE mark to every appropriate device upon certification.

The information contained in this document is believed to be correct, but OMEGA accepts no liability for any errors it contains, and reserves the right to alter specifications without notice.

WARNING: These products are not designed for use in, and should not be used, for human applications.

Contents

1. Box Contents Check List	3
2. Hardware	4
3. Network IP Addressing	5
4. Connecting your OM-ES-020	6
5. Installing your OM-ES-020 Device on Windows	7
6. Configuring your OM-ES-020 Device	10
7. Default Settings	11
8. Pin outs	12
9. LED information	13

For more information, please refer to Product Manual on CD

Information on Product Accreditations, Safety, and correct disposal of this product can be found on the Product CD

1. Box Contents Check List

Thank you for purchasing an OM-ES-020 Ethernet to Serial product. This quick start guide will help you set up your OM-ES-020 device so that you can begin experiencing the benefits of Ethernet to Serial technology.



Ethernet to Serial Device



Quick Start Guide



Product CD

2. Hardware



1.	Screw terminal block connection	6.	Reset button (use unfolded paperclip to press)
2.	Wall mount screw hole	7.	Ethernet port connection - 10BaseT / 100BaseTX
3.	Serial Port LED	8.	Status LED
4.	Ethernet LED	9.	DIN Rail kit holes
5.	Power Input 5-30V DC, 0.75-1.06W Typical	10.	Non-conducting polyamide case

3. Network IP Addressing

The OM-ES-020 device is shipped in “DHCP Mode”.

- On connecting to the network, the device automatically checks if it is connected to a DHCP Server. If this is the case, the DHCP server will allocate an IP address automatically to the OM-ES-020 device.
- If no DHCP Server is detected (e.g. you are using a direct cable connection to the PC), the OM-ES-020 device will default to an IP address of 192.168.127.254 within 60 seconds. Please ensure the PC you're using for configuration can communicate with the 192.168.127.xxx IP range.

4. Connecting your OM-ES-020 Device

1. Connect the OM-ES-020 device to your local network or use a direct cable connection using a standard straight-through or crossover Ethernet cable and plugging into the Ethernet port connection.
2. Connecting to Power: Connect the power adapter or a DC power line (5-30V) to the OM-ES-020 power terminal block or jack connection *if using your own power supply please check input requirements on page 5 - Hardware
3. When the Status LED turns steady green (after 5-60 seconds), the device is ready to use.
4. Connect the serial cable from your serial device to the serial port on the OM-ES-020 device. Refer to Section 8 of this Quick Start Guide for pin outs.

Make a note of device MAC address (on side panel, 00-0a-4f-XX-XX-XX) as you will need it to identify the device on your network later.

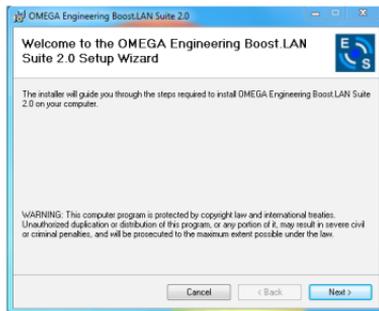
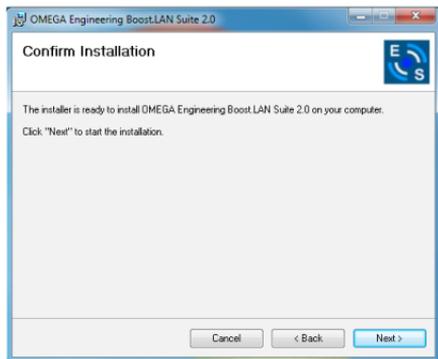
5. Installing your OM-ES-020 Device on Windows

1. Insert the CD into your PC. This should launch the Boost.LAN Navigation Page automatically.

Note: If the navigation page does not auto load, go to Start → My Computer → Right Click the CD and select Explore. This will open the CD in Windows Explorer for browsing the contents of the CD. Locate the "Setup.exe" program on the CD and double click to launch. Proceed to Step 3.

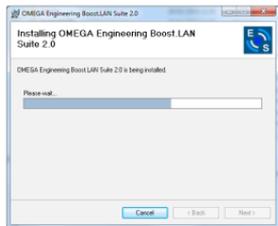
Note: If installing the software in Windows 2000 launch the "SetupW2k.exe" program on the CD.

2. Click "Install" to launch the Boost.LAN Setup.exe



5. Installing your OM-ES-020 Device Continued...

3. Follow the on screen instructions to install the Boost.LAN software.



Note: Boost.LAN software requires the Microsoft .NET framework to be installed on your machine. If it is not already installed, the Setup.exe will install it automatically. Please follow on screen instructions and reboot if prompted to continue installation.

4. When installation is complete, you should see an icon labelled Boost.LAN Manager on the desktop. Double click the link to open the application
5. Click on the "File -> Find Devices" button in the top left hand side of the window.

5. Installing your OM-ES-020 Device Continued...

6. You can find your Omega OM-ES-020 device by selecting a device and matching it with the corresponding MAC address available on the left hand panel.

Online - Device Not Installed

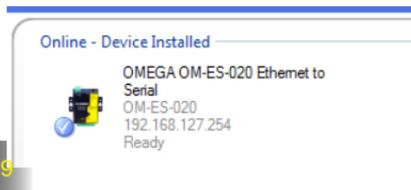


OMEGA OM-ES-020 Ethernet to
Serial
OM-ES-020
192.168.127.254
Driver Not Installed

7. Once found, select the device and scroll to the "Tasks" section on the left hand panel.
8. Click Install Device.



9. When the device is installed a pop up box will appear saying "Your new hardware is installed and ready to use."



6. Configuring your OM-ES-020 Device

Firewall Exceptions and Port Numbers

When using the OM-ES-020 devices with a firewall you may need to manually add the exception entries and port numbers to the firewall list. Listed below are the default port numbers and the firewall exceptions.

Program Name	Default Port Number
Device Web Server	80
Serial Port 1	9001
Serial Port 2	9002
Firmware Upgrade	67 (BOOTP Server) 68 (BOOTP Client) 69 (TFTP Port)

Default Windows Firewall Exception entries:

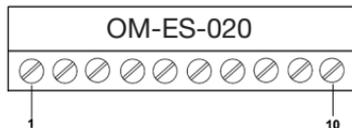
- Boost.LAN Suite
- Boost.LAN Suite (Device discovery)
(except Windows XP,32 & 64 bits)
- UPnP Framework (Windows XP 32 & 64 bits)
- Network Discovery (Windows 7 or later)

7. Default Settings

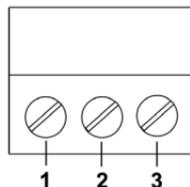
Network Settings	
Device Network Address	DHCP mode
Web Server Port	80
Port Settings -RS232	
Baudrate	115200
Databits	8
Stop Bits	n
Parity	1
Flow Control	None
Duplex Mode	N/A
Protocol Settings	Telnet + COM port control Mode (Server)
TCP/UDP Port Numbers	
Device Web Server	80 (TCP)
Serial Ports 1-8	9001-9008 (TCP)
Firmware Upgrade	67 (UDP) - BOOTP Server 68 (UDP) - BOOTP Client 69 (UDP) - TFTP Port

8. Pin Outs

Serial Terminal Block Pin outs / Power Terminal Block Pin outs



Pin 1	TxD
Pin 2	RxD
Pin 3	RTS
Pin 4	CTS
Pin 5	GND
Pin 6	DTR
Pin 7	DSR
Pin 8	DCD
Pin 9	RI
Pin 10	GND



Pin 1	V+ Power Supply
Pin 2	V- Power Supply
Pin 3	Earth/Chassis Ground

9. LED Information

LED Information		
Status LED	Green Light on	Device Ready
	Flashing Yellow	Changing Settings
	Flashing between Red & Green	Querying IP
	Flashing between Green & Red/Yellow	IP Problem
	Flashing Green/Red	Performing Hard Reset
	Flashing between Green & Yellow	Problem during initialization (e.g. Firmware Problem)
Serial Port LED	Green light on	Port Open
	Flashing light on	Data RX/TX
Ethernet LED	Green light on	Link established
	Flashing Green	Data RX / TX

For further configuration details, or technical information on the OM-ES-020 product, please refer to Product Manual on CD

WARRANTY/DISCLAIMER

OMEGA ENGINEERING, INC., warrants this unit to be free of defects in materials and workmanship for a period of 61 months from date of purchase. OMEGA's WARRANTY adds an additional one (1) month grace period to the normal five (5) year product warranty to cover handling and shipping time. This ensures that OMEGA's customers receive maximum coverage on each product.

If the unit malfunctions, it must be returned to the factory for evaluation. OMEGA's Customer Service Department will issue an Authorized Return (AR) number immediately upon phone or written request. Upon examination by OMEGA, if the unit is found to be defective, it will be repaired or replaced at no charge. OMEGA's WARRANTY does not apply to defects resulting from any action of the purchaser, including but not limited to mishandling, improper interfacing, operation outside of design limits, improper repair, or unauthorized modification. This WARRANTY is VOID if the unit shows evidence of having been tampered with or shows evidence of having been damaged as a result of excessive corrosion; or current, heat, moisture or vibration; improper specification; misapplication; misuse or other operating conditions outside of OMEGA's control. Components in which wear is not warranted, include but are not limited to contact points, fuses, and triacs.

OMEGA is pleased to offer suggestions on the use of its various products. However, OMEGA neither assumes responsibility for any omissions or errors nor assumes liability for any damages that result from the use of its products in accordance with information provided by OMEGA, either verbal or written. OMEGA warrants only that the parts manufactured by the company will be as specified and free of defects. OMEGA MAKES NO OTHER WARRANTIES OR REPRESENTATIONS OF ANY KIND WHATSOEVER, EXPRESSED OR IMPLIED, EXCEPT THAT OF TITLE, AND ALL IMPLIED WARRANTIES INCLUDING ANY WARRANTY OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE HEREBY DISCLAIMED. LIMITATION OF LIABILITY: The remedies of purchaser set forth herein are exclusive, and the total liability of OMEGA with respect to this order, whether based on contract, warranty, negligence, indemnification, strict liability or otherwise, shall not exceed the purchase price of the component upon which liability is based. In no event shall OMEGA be liable for consequential, incidental or special damages.

CONDITIONS: Equipment sold by OMEGA is not intended to be used, nor shall it be used: (1) as a "Basic Component" under 10 CFR 21 (NRC), used in or with any nuclear installation or activity; or (2) in medical applications or used on humans. Should any Product(s) be used in or with any nuclear installation or activity, medical application, used on humans, or misused in any way, OMEGA assumes no responsibility as set forth in our basic WARRANTY/DISCLAIMER language, and, additionally, purchaser will indemnify OMEGA and hold OMEGA harmless from any liability or damage whatsoever arising out of the use of the Product(s) in such a manner.

RETURN REQUESTS/INQUIRIES

Direct all warranty and repair requests/inquiries to the OMEGA Customer Service Department. BEFORE RETURNING ANY PRODUCT(S) TO OMEGA, PURCHASER MUST OBTAIN AN AUTHORIZED RETURN (AR) NUMBER FROM OMEGA'S CUSTOMER SERVICE DEPARTMENT (IN ORDER TO AVOID PROCESSING DELAYS). The assigned AR number should then be marked on the outside of the return package and on any correspondence. The purchaser is responsible for shipping charges, freight, insurance and proper packaging to prevent breakage in transit.

FOR WARRANTY RETURNS, please have the following information available BEFORE contacting OMEGA.

1. Purchase order number which the product was PURCHASED,
2. Model and serial number of the product under warranty, and
3. Repair instructions and/or specific problems relative to the product.

FOR NON-WARRANTY RETURNS, consult OMEGA for current repair charges. Have the following information available BEFORE contacting OMEGA.

1. Purchase Order number to cover the COST of the repair,
2. Model and serial number of the product and
3. Repair instructions and/or specific problems relative to the product.

OMEGA's policy is to make running changes, not model changes, whenever an improvement is possible. This affords customers the latest technology and engineering. OMEGA is a registered trademark of OMEGA ENGINEERING, INC.

© COPYRIGHT 2013 OMEGA ENGINEERING, INC. All rights reserved. This document may not be copied, photocopied, translated, or reduced to any electronic medium-readable form, in whole or in part, without the prior written consent of OMEGA ENGINEERING, INC.

Where Do I Find Everything I Need for Process Measurement and Control? **OMEGA... Of Course!**

Shop online at omega.comSM

TEMPERATURE

Thermocouple RTD & Thermister Probes
Connectors, Panels & Assemblies
Wire: Thermocouple, RTD & Thermister
Calibrators & Ice Point References
Recorders, Controllers & Process
Monitors
Infrared Pyrometers

PRESSURE, STRAIN AND FORCE

Transducers & Strain Gages
Load Cells & Pressure Gages
Displacement Transducers
Instrumentation & Accessories

FLOW/LEVEL

Rotameters Gas Mass Flowmeters & Flow
Computers
Air Velocity Indicators
Turbine/Paddlewheel Systems
Totalizers & Batch Controllers

PH/CONDUCTIVITY

pH Electrodes Testers & Accessories
Benchtop/Laboratory Meters
Controllers, Calibrators, Simulators &
Pumps
Industrial pH & Conductivity Equipment

DATA ACQUISITION

Data Acquisition & Engineering Software
Communications-Based Acquisition
Systems
Plug-in Cards for Apple, IBM, &
Compatibles
Data Logging Systems
Recorders, Printers, & Plotters

HEATERS

Heating Cable
Cartridge & Strip Heaters
Immersion & Band Heaters
Flexible Heaters
Laboratory Heaters

ENVIRONMENTAL MONITORING AND CONTROL

Metering & Control Instrumentation
Refractometers
Pumps & Tubing
Air, Soil & Water Monitors
Industrial Water & Wastewater Treatment
pH Conductivity & Dissolved Oxygen
Instruments