



TABLE OF CONTENTS

Chapter 1: Getting Started

Introduction	1-2
The Purpose of this Manual.....	1-2
Supplemental Manuals.....	1-2
Technical Support.....	1-2
Conventions Used	1-3
Key Topics for Each Chapter.....	1-3
Product Overview	1-4
Quick Start Steps	1-5
Step 1 – Unpack and Inspect.....	1-5
Step 2 – Install Optional Hardware Accessories.....	1-6
Step 3 – Become Familiar with Available Communication Ports.....	1-7
Step 4 – Install the Programming Software and Develop a Project.....	1-8
Step 5 – Connect Touch Panel to Computer.....	1-9
Step 6 – Provide Power to the Touch Panel.....	1-10
Step 7 – Access the Touch Panel Setup Screens.....	1-12
Step 8 – Choose Touch Panel to Device Protocol & Cables.....	1-13
Step 9 – Connect Touch Panel to PLC.....	1-16

Chapter 2: Specifications

Available Models	2-4
Model Specifications	2-5
Specifications common to all models.....	2-6
6-inch Models.....	2-7
7-inch Models.....	2-8
8-inch and 10-inch Models.....	2-9
12-inch and 15-inch Models.....	2-10

Table of Contents

EA9-T6CL-R, EA9-T6CL	2-11
Dimensions, Inches [mm].....	2-11
Ports and Memory Expansion.....	2-12
EA9-T7CL-R, EA9-T7CL	2-13
Dimensions, Inches [mm].....	2-13
Ports and Memory Expansion.....	2-14
EA9-T8CL	2-15
Dimensions, Inches [mm].....	2-15
Ports and Memory Expansion.....	2-16
EA9-T10CL	2-17
Dimensions, Inches [mm].....	2-17
EA9-T10WCL	2-18
Dimensions, Inches [mm].....	2-18
Ports and Memory Expansion.....	2-19
EA9-T12CL	2-20
Dimensions, Inches [mm].....	2-20
Ports and Memory Expansion.....	2-21
EA9-T15CL-R, EA9-T15CL	2-22
Dimensions, Inches [mm].....	2-22
Ports and Memory Expansion.....	2-23
Mounting Clearances	2-25
EA9-T15CL-R, EA9-T15CL Derating	2-26
Communications Ports	2-27
Handling External Memory Devices	2-30
Writing to External Memory Devices	2-30
Memory Device Formatting.....	2-30
Minimizing Data Errors.....	2-31
Monitoring Available Memory	2-31
File Name Limitations.....	2-32
Power Loss Retention	2-32
Chemical Compatibility	2-32

Chapter 3: Accessories

Accessories Overview..... 3-2

AC/DC Power Adapter 3-3

 AC/DC Power Adapter Dimensions 3-5

 AC/DC Power Adapter Installation..... 3-6

D-SUB 15-pin to Terminal Block Adapters..... 3-7

Non-glare Screen Covers..... 3-8

 Clear Screen Overlay Installation 3-9

SD Card 3-10

USB FLASH Drive 3-10

Chapter 4: Installation and Wiring

Safety Guidelines 4-2

Introduction..... 4-3

EA9-T6CL-R, EA9-T6CL, EA9-T7CL-R and EA9-T7CL
Cutout Dimensions 4-4

EA9-T8CL and EA9-T10WCL Cutout Dimensions..... 4-5

EA9-T12CL Cutout Dimensions 4-7

EA9-T15CL-R and EA9-T15CL Cutout Dimensions 4-8

Mounting Clearances 4-9

 EA9-T15CL-R, EA9-T15CL Derating 4-10

Wiring Guidelines 4-11

 Agency Approvals..... 4-11

 Providing Power to the Touch Panel 4-12

C-more LED Status Indicators 4-13

Chapter 5: System Setup Screens

Introduction..... 5-2

Accessing the System Setup Screens (no project loaded) 5-3

Accessing the System Setup Screens (with project loaded) 5-4

System Setup Screens – Enable Password in Software 5-6

System Setup Screens Flowchart 5-12

Main Menu..... 5-13

Information Menu	5-14
Setting Menu	5-18
Test Menu	5-25
Memory Menu	5-34

Chapter 6: PLC Communications

Introduction.....	6-2
Direct LOGIC PLCs Password Protection.....	6-2
PLC Protocol & Cables	6-3
PLC Communication Cables & Wiring Diagrams.....	6-5
AutomationDirect PLCs RS-232C Serial.....	6-7
AutomationDirect PLCs RS-422A/RS-485A.....	6-10
Direct LOGIC Universal Isolated Network Adapter, p/n FA-ISOCAN:	6-16
Direct LOGIC Universal Converter, p/n F2-UNICON:	6-17
RS-422A/RS-485A Multi-Drop Wiring Diagram Examples	6-18
Allen-Bradley	6-22
GE.....	6-27
GE VersaMax Micro.....	6-27
Mitsubishi.....	6-28
Omron	6-30
Modicon Modbus RS-232.....	6-31
Modicon Micro Series.....	6-31
Modicon Modbus with RJ45.....	6-31
Siemens.....	6-32

Chapter 7: Maintenance

Project Backup	7-2
Check Operating Environment	7-2
Check Operating Voltage	7-2
Check Status Indicators	7-2
Check Physical Conditions.....	7-3
Run Tests under System Setup Screens.....	7-3
Check Memory Usage	7-4
Check/Adjust Display Brightness.....	7-4

Check Error Log 7-4
 Adjust Touch Panel..... 7-4
 Cleaning the Display Screen..... 7-5
 Check Project Functionality 7-6
 Checks from **C-more** Programming Software 7-6
Notes:..... 7-7

Chapter 8: Troubleshooting

Common Problems 8-2
 Troubleshooting Flow Chart..... 8-3
 Touch Panel does not Power up..... 8-4
 Display is Blank 8-5
 Display is Dim 8-6
 No User Program 8-7
 Firmware Recovery Tool 8-8
 No System Found..... 8-9
 No Communications between Panel and PC (Personal Computer) via USB 8-10
 USB Driver Troubleshooting 8-12
 No Communications between Panel and PC (Personal Computer) via Ethernet 8-14
 No Communications between Panel and PLC 8-18
 IP Address in System Setup Screens displays 0.0.0.0 8-21
 Difficulty Connecting to the Panel over the Internet (Web server and Remote Access features)..... 8-22
 PLC Protocol Error Codes 8-23
 Touch Panel Runtime Errors 8-24
 Panel Constantly Displays “Initializing” when Powering up 8-25
 Data not Logging Problems 8-25
 Electrical Noise Problems..... 8-26

Chapter 9: Replacement Parts

Replacement Parts Overview 9-2
 Panel Mounting Clip Replacements – EA9-BRK..... 9-3
 Logo Label Replacement Insert - EA9-LBL 9-4
 3-wire Communications Terminal Block – EA9-3TB..... 9-5
 DC Panel Power Connector Replacement – EA-DC-CON 9-5

AC Power Adapter Connector Replacement– EA-AC-CON.....	9-6
Panel Gasket Replacements – EA9-xx-GSK	9-7
Gasket Replacement Installation Instructions:	9-7

Appendix A: Panel and PLC Error Code Tables

Introduction.....	A-2
C-more Touch Panel Error Code Table	A-3
Direct LOGIC – Panel Error Code PLC-499 Explanation	A-5
Direct LOGIC K-Sequence Protocol – PLC Error Code Table.....	A-5
Direct LOGIC Direct NET Protocol – PLC Error Codes	A-5
Modbus Protocols Error Code P499 Explanation	A-6
AutomationDirect CLICK	A-6
AutomationDirect DirectLOGIC - Modbus (Koyo).....	A-6
Modicon Modbus RTU	A-6
Entivity Modbus RTU.....	A-6
Direct LOGIC ECOM Protocol – PLC Error Codes	A-6
Productivity Error Code P499.....	A-7
AutomationDirect Do-More Error Codes.....	A-8
Allen-Bradley – Panel Error Code PLC-499 Explanation	A-9
Allen-Bradley DF1 & DH485 Protocols – PLC Error Code Tables	A-10
Allen-Bradley EtherNet/IP Protocol – Panel Error Code PLC-496, 497 and 498 Explanation	A-12
Allen-Bradley – EtherNet/IP Protocol – PLC Error Code Tables ControlLogix, CompactLogix, & FlexLogix.....	A-13
Allen-Bradley – EtherNet/IP Protocol – PLC Error Code Tables.....	A-17
Generic EtherNet IP Protocol – PLC Error Codes	A-22
GE 90-30 – Panel Error Code PLC-499 Explanation	A-23
GE 90-30 SNPX Protocol – PLC Error Code Tables.....	A-24
Mitsubishi FX Protocol – PLC Error Codes.....	A-33
Omron – Panel Error Code PLC-499 Explanation	A-33
Omron Host Link Protocol – PLC Error Code Table	A-34

Omron FINS Protocol – PLC Error Code TableA-35
 Omron – Panel Error Code P495 ExplanationA-38
 Omron CS/CJ FINS Ethernet Protocol – PLC Error Code Table.....A-39
 Siemens – Panel Error Code P499 Explanation.....A-40
 Siemens PPI Protocol – PLC Error Code Table.....A-41
 Siemens ISO over TCP Protocol – PLC Error Code TableA-42

Appendix B: Touch Panel Runtime Errors

Introduction..... B-2
 Runtime Errors..... B-3
 Log File Naming..... B-4

Appendix C: Security Considerations for Control Systems Networks

Security Considerations for Control Systems Networks..... C-2

