

C2-NRED OPTION SLOT MODULE

- CLICK PLUS Intelligent Module
- Node-RED and JavaScript functionality

General Specifications	
Operating Temperature	32°F to 131°F [0°C to 55°C]
Storage Temperature	-4°F to 158°F [-20°C to 70°C]
Ambient Humidity	30% to 95% relative humidity (non-condensing)
Altitude	Up to 2,000m
Environmental Air	No corrosive gases Pollution Degree 2 (UL840)
Environment	For Indoor Use Only
Vibration	5-9 Hz: 3.5 mm amplitude; 9-150 Hz: 1.0 G 10 sweep cycles per axis on each of 3 mutually perpendicular axes.
Shock	15G peak, 11ms duration, 3 shocks in each direction per axis, on 3 mutually perpendicular axes.
Weight	41g [1.45 oz.]
Bus Power Required	Max 3W (USB low power mode NOT supported)
Agency Approvals	UL61010 (File No. E157382); CE (EN61131-2); CUL Canadian C22.2
Other	RoHS 2011/65/EU Amendment (EU)2015/863

NOTE: Due to large current consumption, the C2-NRED module does not support USB low power mode. Requires 24V power supply.

Please read and understand the information in these installation instructions prior to installation, operation, or servicing this equipment. This module is intended to be used with a CLICK PLUS CPU. Ensure the CPU is installed in accordance with its installation and safety instructions.

PLEASE REVIEW SAFETY WARNINGS ON PAGE 2!

New Node-RED Nodes for CLICK	
	CLICK Write Write to any relay/register in the PLC
	CLICK Read Read from any relay/register in the PLC
	CLICK SystemInfo Read Read a value from any special relay/register in the PLC


SD Card Slot Specifications	
Supported Card Type	microSDHC
Format	FAT32
Capacity	32GB maximum
Recommended Card	MSD-SLC16G


Micro USB Port Specifications	
Communications Rating	USB 2.0 High speed (480Mbps)
Connector	Micro USB Type B
5V Bus Power	No
USB Cable	Maximum length 3m [9.8 ft] Shielded cable recommended
Communication Method	Virtual Ethernet over USB
Default Settings	IP address acquisition by APIPA. PC-side IP address automatically assigned by DHCP server function.
Protocols	Node-RED TCP/UDP DHCP Client

Ethernet Port Specifications	
Communications Rating	10/100Base-T
Cable Specification	Category 5
Auto MDI/MDI-X	Yes
Connector	RJ45
IP Address	DHCP (default), fixed address, manual address
Protocols	Node-RED TCP/UDP SNTP Client DHCP Client DNS

Safety Warnings

Please follow these instructions for personal and operational safety.

 **WARNING** Notes marked WARNING indicate hazardous conditions that may result in severe injury or death.

 **CAUTION** Notes marked CAUTION indicate hazardous conditions that may result in medium or slight injury, or may cause equipment damage.

WARNING

- Don't use this equipment in a flammable or explosive environment; accidental injury or fire may occur.
- You should use external electromechanical devices that are independent of the PLC (Programmable Logic Controller) system to provide protection for any part of the system; otherwise malfunction or output failures may result in a hazardous accident.
- 24VDC power must come from a secondary circuit or a specific power supply unit only.
- Ensure the Ground Terminal of the Power Supply (C0-00AC/ C0-01AC) for the CLICK PLUS CPU is connected to Earth Ground to avoid electric shock or equipment damage during a short circuit.
- Don't operate the equipment with a nonconforming external power supply; electric shock, equipment damage or fire may occur.
- Don't intentionally fault the wiring; this may cause equipment damage or fire.
- To avoid electric shock or malfunctions which might result in an accident, don't touch any terminal while the PLC power is on.
- Don't put metal objects (e.g. screwdriver) into vent holes or drop trash or foreign objects (e.g. wire cut-offs) into the device; electric shock or equipment damage may occur.
- If the equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be invalidated.

CAUTION

- For use in Pollution Degree 2 Environment. Use and store the equipment in an environment described in the specifications (regarding temperature, humidity, vibrations, shock, etc.) in order to avoid equipment damage or fire.
- Ensure all wiring has strain reliefs; this avoids damage to insulation that might result in electric shock or fire.
- Ensure secondary external power circuits are only live after PLC control program is started; otherwise a malfunction or output failure may result in a hazardous accident.
- Don't block the vent holes. This may cause an increase in internal temperature, resulting in equipment damage or fire.
- Don't disassemble or modify equipment; electric shock, equipment damage, or fire may occur.
- Cut off all phases of the external power source before maintenance work, thus avoiding electric shock or equipment damage.

System Requirements

HARDWARE

- The C2-NRED module is compatible with any CLICK PLUS PLC with one or two option slots.
- It can be inserted in either slot 0 or 1 of the CLICK PLUS PLC.

SOFTWARE

- Requires CLICK Programming software version 3.70 or above.
- Compatible with Google Chrome v128+ or Microsoft Edge v128+.

NETWORK

- USB2.0 compatible port on Windows PC, or
- 10/100 Ethernet TCP/IP network.

Software Installation

INSTALL CLICK PROGRAMMING SOFTWARE

1. Download the CLICK Programming Software Version 3.7 or above from the AutomationDirect webstore: <https://www.automationdirect.com/support/software-downloads?itemcode=CLICK>
2. Unzip/extract all files.
3. Review the Readme.pdf for details on this release.
4. Double click the Click_Setup.exe file to begin installation.
5. Follow the instructions provided by the installer.
6. Refer to the CLICK PLUS application help files for more information: [CLICK Help Version 3.70 - Introduction](#)




FIRST TIME USE

1. Ensure you have 24VDC wired to the CLICK (do not use the USB low power mode).
2. BEFORE you install the C2-NRED card, connect to the C2 CPU and update the firmware.
3. Power off the CPU.
4. Install the C2-NRED slot module as described in the Hardware Installation section of this document.
5. Restore power to the CPU.
6. Update the firmware again – this time it will update the C2-NRED firmware. **This process can take up to 20 minutes.**

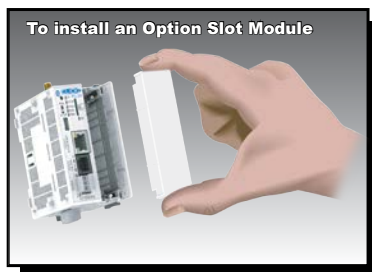
YOUR FIRST PROJECT

Our [Node-RED Resources](#) help topic provides links to CLICK-specific and general Node-RED resources to get you started with your first project.

Hardware Installation

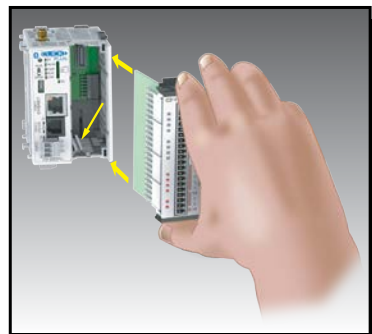
-  **CAUTION** Discharge static electricity before installation or wiring to avoid electric equipment damage.
-  **CAUTION** Cut off all phases of the power source externally and wait **5 seconds** before installing or removing the Option Slot Module of a running system.
-  **CAUTION** Update the CLICK PLUS PLC Firmware to at least version 3.7 prior to installing the C2-NRED module.

INSTALL OR REMOVE THE OPTION SLOT MODULE

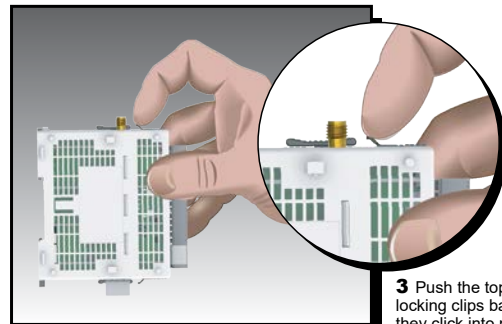


To install an Option Slot Module

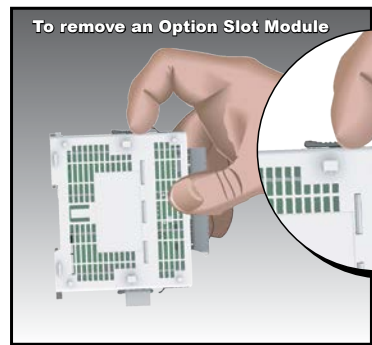
1 Remove the Option Slot Cover (#C2-FILL) if it was installed in the CPU, by grasping its top and bottom front edges, squeezing and pulling it forward.



2 Hold the Option Slot Module by the top and bottom front edges, align the PCB card edge with the guide slots in the CPU, and slide the module into its slot. Press the module into place until it is fully seated.



3 Push the top and bottom locking clips backward until they click into place.



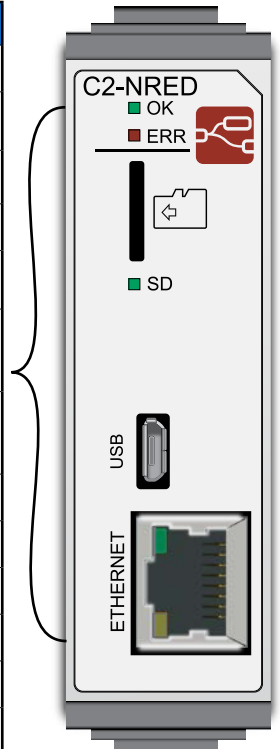
To remove an Option Slot Module

Lift slightly on the locking clips until they release, then slide each clip forward. Reverse the procedure.

LED INDICATORS

LED Indicators		
OK	ON	Application operating
	FAST BLINK*	5/s: Factory default 2.5/s: Application disabled
	SLOW BLINK*	U-boot/kernel booting Application booting
	OFF	Power off
ERR	ON	Self-diagnostic Error (ERROR)
	SLOW BLINK*	Self-diagnostic Error (WARNING) or Application disabled
	OFF	Power off Operating Application (no error)
SD	ON	SD card mounted
	BLINK	SD card activity
	OFF	No SD card mounted
LINK/ACT	ON	Link established
	BLINK	Activity
	OFF	No link
SPEED	ON	100Mbps
	OFF	10Mbps


*Fast blink: 5/s or 2.5/s; slow blink: 1/s



ACCESSORIES

Recommended Accessories	
MicroSD Card	MSD-SLC16G industrial 16GB memory card
MicroUSB Cable	USB-CBL-AMICB6 (6ft) or USB-CBL-AMICB15 (15ft)
Ethernet Cable	See our Ethernet Patch Cables store page for recommended Cat5e cables

Symbols listed on the equipment are shown below.

Name	Description	Symbol
CAUTION	<ul style="list-style-type: none"> • Refer to QR code link for product handling • Use copper conductor only 	 ISO 7000 No.0434B



For programming and operations, see the **CLICK PLUS User Manual**.
For additional technical support or questions, call our Technical Support team at 1-800-633-0405 or 770-844-4200.