CN-20MP
Quick Start Guide

Guía de inicio rápido Guide de démarrage rapide

CN-20MP
20 A Maximum

CN-20MP Shown with Phoenix type connectors removed and security cover attached.

For Full Instructions go to:
Para obtener instrucciones completas, visite:
Pour des instructions complètes allez à:

www.furmancontractor.com

For more information call:
Para más información llame al:
Pour plus de renseignements:

877-486-4738

FURMAN

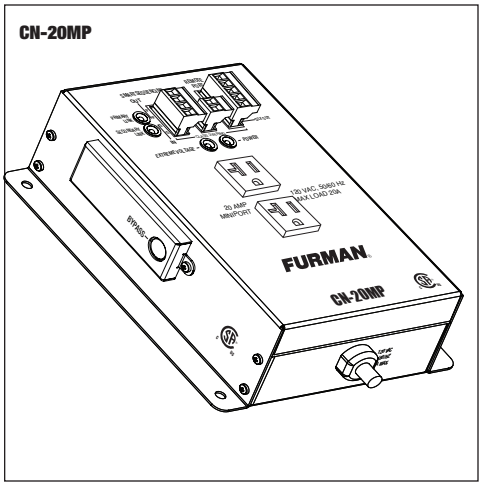
INTRODUCTION

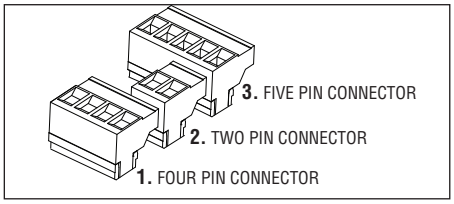
Congratulations and thank you for choosing a Furman Contractor Series Sequencer / AC Duplex Mini Port. Key to Furman's CN Series is SmartSequencing technology, which offers an unprecedented level of AC control-switching options, streamlining installations from conception to finish. We can assure you that this Furman Contractor Series Sequencer / AC Duplex MiniPort will perform as intended and provide many years of operation.

BEFORE YOU BEGIN, INSPECT UPON RECEIPT

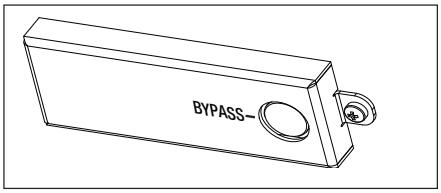
Please read IMPORTANT SAFETY INSTRUCTIONS

- No serviceable parts. Please see manual online for details.
- Full instructions at: www.furmancontractor.com/manuals
- Please inspect the Furman Contractor Series unit thoroughly.
- Please contact Furman Customer Service at 707.763.1010, if there is any noticeable damage to product or product does not operate out of box.
- Contents of this package include:





3 Phoenix Type Connectors



Removable Cover Shield

NOTE:
The box contains no other instructions except this quick start guide.
Please visit **www.furmancontractor.com** or **www.furmancontractor.com/manuals**

IMPORTANT SAFETY INSTRUCTIONS

1. Please read and follow all instructions.

2. Keep these instructions.

3. Heed all warnings.

4. WARNING: This device is intended for indoor use only. Do not use this device near water. To reduce the risk of fire or electric shock, do not expose this device to rain or moisture.

5. CAUTION: Functioning **Always On** receptacles (depending on switching-sequence mode utilized). To reduce risk of shock, please disconnect the CN-20MP AC Duplex Miniport from AC power before servicing any equipment connected to the CN-20MP.

6. Clean only with dry cloth.

7. CAUTION: Do not install near any heat sources such as radiators, heat registers, stoves, or other equipment that may produce heat.

8. Protect the power cord from being walked on or pinched, particularly at plugs, convenience receptacles, and the point where they exit the device.

9. Please, only use accessories specified by the manufacturer.

10. Refer all servicing to qualified personnel. Servicing is required when the unit has been damaged in anyway or fails to operate.

11. WARNING: Do not use power cord as the main power disconnect. The device is intended for AC power sequencing.

13. Do not defeat the safety purpose of the polarized plug. A polarized plug has two blades, with one wider than the other. The wide blade is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet. (*See next page for 20A plug)

14. Do not defeat the safety purpose of the grounding prong. A ground type plug has two blades and a third grounding prong. The third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

15. WARNING: This device must be connected to an AC outlet with a protective earth ground connection.

FEATURES

SmartSequencing™ is a command response non-polarized bidirectional current loop. It is a technology that allows large complex A/V systems to be safely power cycled on and off with a simple key turn or press of a button (when utilized with the Furman RS-1, RS-2 remote switches or any Furman Sequencer-Controller-Conditioner). Detailed information on SmartSequencing™ can be found at www.furmancontractor.com.

Delay Adjust allows from 0.1 seconds up to 7 minutes (when used in SmartSequence mode)

EVS (switchable) Extreme Voltage Shutdown to protect against sustained over voltage from wiring faults

Forced Off immediate shutdown for safety and fire ordinance compliance.

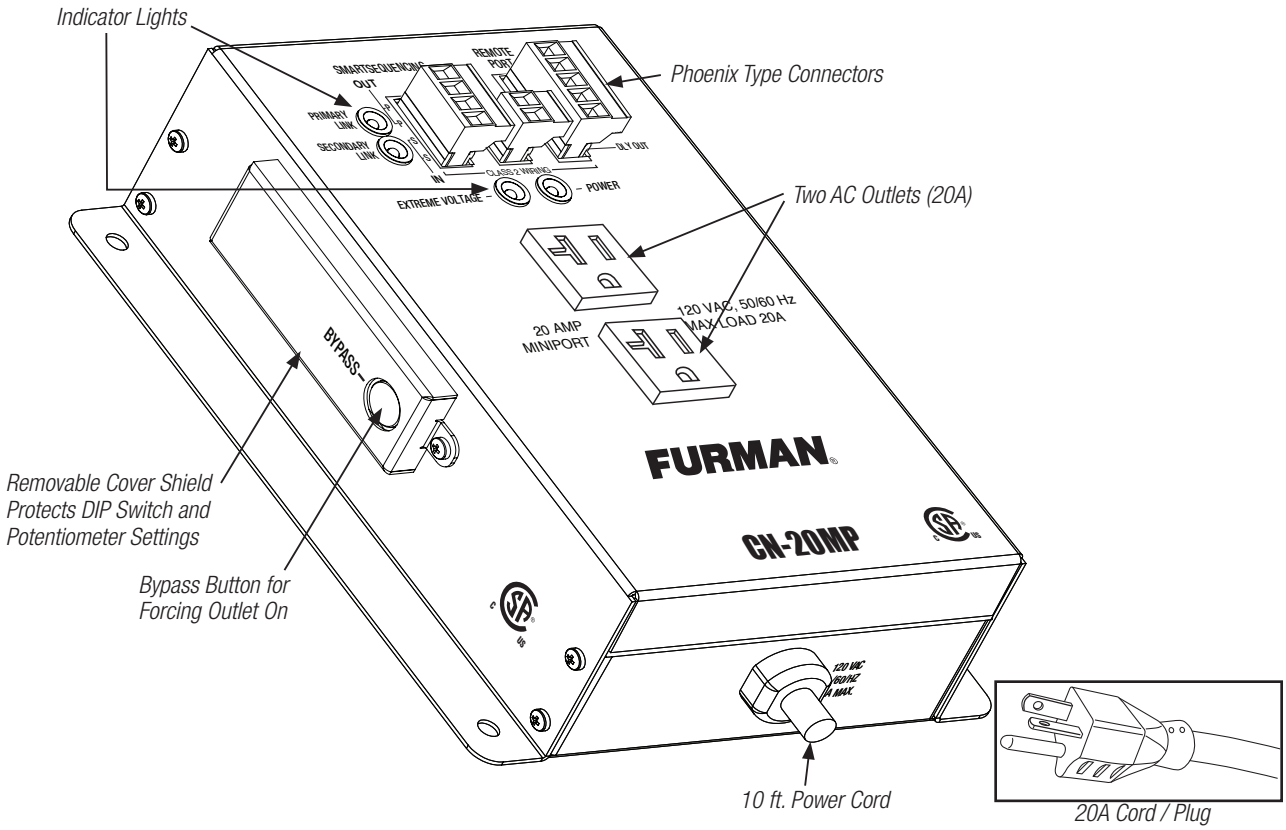
Legacy Compatible will function via dry contact maintain or momentary mode closure with any Legacy Furman MiniPort or Sequencer-Controller.

2 AC Outlets

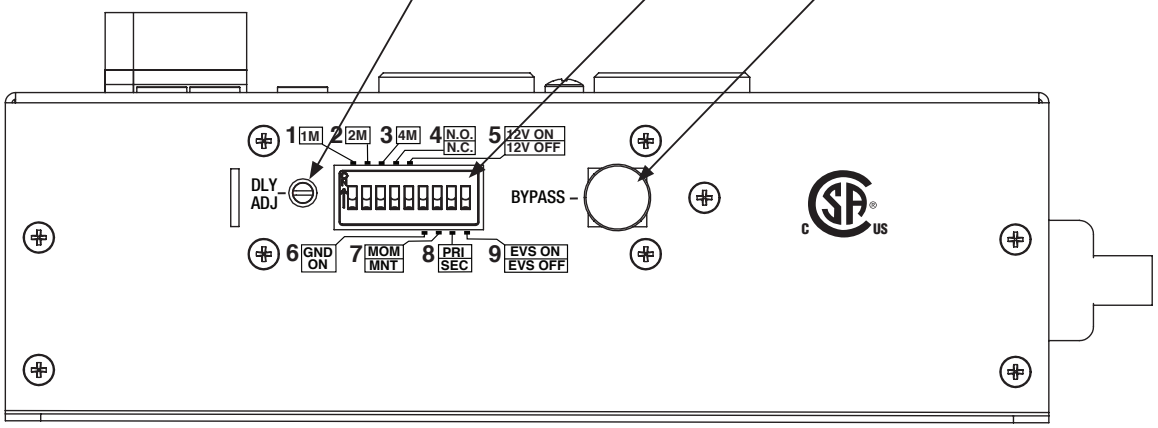
10 ft. Power Cord

15 Year Limited Product Warranty
See actual warranty documentation online at www.furmancontractor.com

CN-20MP



CN-20MP *left side view. Cover removed, Potentiometer (delay adjust), DIP Switches, and Bypass Switch for Force On.*



FRONT AND BOTTOM PANEL FEATURES DESCRIPTIONS

PHOENIX TYPE CONNECTORS

SMARTSEQUENCING
OUT
P
P
S
S
IN
CLASS 2 WIRING

SmartSequencing Barrier Strip (1)

Primary poles connect **OUT** to Secondary poles of next SmartSequencing device.

Secondary poles connect **IN** from Primary poles of previous SmartSequencing device.

NOTE: Chain units in series.

Relay Barrier Strip (2)

FORCE OFF Provides immediate shutdown by fire alarm

FORCE
OFF
CLASS 2 WIRING

REMOTE
PORT
+12V
STAT
REM
GND
DLY OUT
CLASS 2 WIRING

Remote Barrier Strip (3)

+12V - Main DC terminal output for remote triggering

STAT - DC terminal output for a remote LED indicator (ANODE)

REM - Main terminal input for remote triggering

GND - Terminal for remote LED status and/or triggering (CATHODE)

DLY OUT - Legacy Miniport compatible Delay On function

(DLY OUT port is neither needed or recommended when utilizing SmartSequencing products)

CONNECTION STATUS LIGHTS

PRIMARY LINK – Multi-color LED indicates the condition of communication between the **Secondary Link** and the **Primary Link** of the ***preceding*** unit.

GREEN **Unit is communicating** through **Secondary Link** to preceding unit's **Primary Link** OUT.

RED Unit has lost communications through **Secondary Link** to preceding unit's **Primary Link** OUT.

Please Note: A slow blinking GREEN PRIMARY LINK LED indicates the unit is configured as the MAIN Primary unit per DIP Switch 8. (Factory Default)

SECONDARY LINK – Multi-color LED indicates the condition of communication between the **Secondary Link** and the **Primary Link** of the ***following*** unit.

GREEN **Unit is communicating** through **Primary Link** to following unit's **Secondary Link** IN.

OFF **Unit has lost communications** through the **Primary Link** to following unit's **Secondary Link** IN.

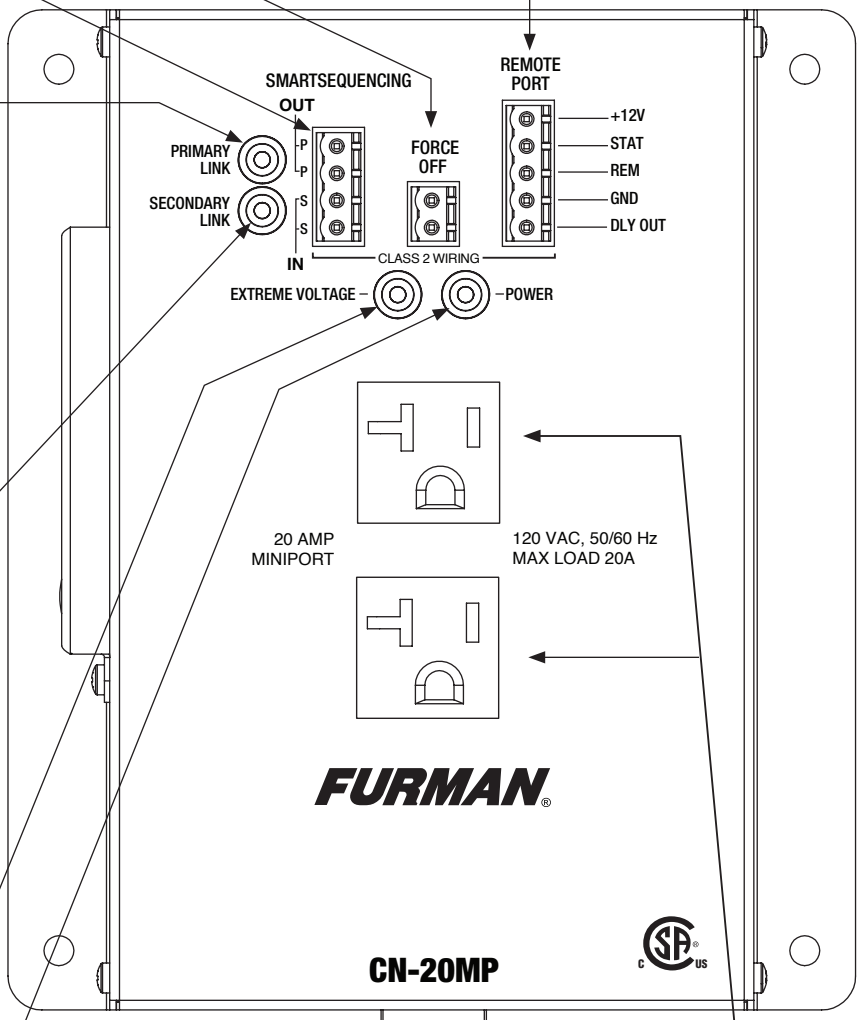
Please Note: An unlit SECONDARY LINK LED indicates last unit in sequencing chain. A single unit will have an unlit SECONDARY LINK LED.

POWER PROTECTION INDICATORS

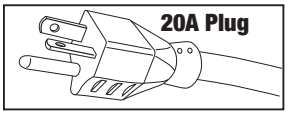
EXTREME VOLTAGE Illuminated RED when an extreme voltage condition is present (If DIP 9 = ON, all outlets will be powered off). EVS is activated or disabled by the (DIP 9) setting. EVS when utilized will automatically reset when the incoming AC voltage returns to a safe range of operation (90VAC - 130VAC).

POWER Illuminated GREEN indicates when the AC duplex is powered.

Shown with Phoenix type connectors removed.



BASIC POWER MANAGEMENT



10 FT. AC POWER CORD 3/12 AWG, NEMA 5-20P PLUG

TWO NEMA 5-20R AC RECEPTACLES

DIP SWITCH MATRIX AND TIME CALIBRATION (diagrams below)

DIP 1 **1M = 1 Minute Delay**

DIP 2 **2M = 2 Minute Delay**

DIP 3 **4M = 4 Minute Delay**

NOTE: DIP 1, 2 & 3 can be summed together up to 7 minutes.

DIP 4 **N.O. / N.C. sets Forced Off alarm poles**

The out of the box factory setting is **"normally open".** When sequence is **"ON"**. Switched outlets will be **ON** until a dry contact closure is applied across the **FORCE OFF** poles.

DIP 5 **12VDC ON/OFF sets +12V pole in Remote Mode (DIP 7 set to MNT)**

Chooses +12V to REM pole functionality. In default 12V OFF mode, a dry closed contact across +12V to REM triggers sequencer OFF. In 12V ON mode, a dry closed contact from +12V to REM triggers sequencer ON.

- **12V OFF = 12V Deactivates**
- **12V ON = 12V Activates**

DIP 6 **GROUND ON / OFF**

Activates **REM** to **GND** pole functionality.

- **REMOTE TO GROUND = ON**

DIP 7 **Maintained / Momentary**

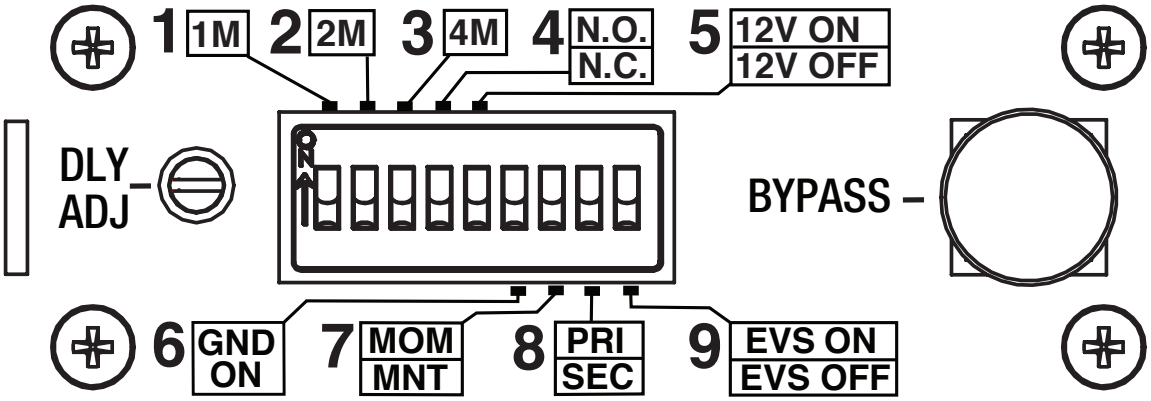
Sets contact closure preference for either **Maintained** or **Momentary** switches.
NOTE: Momentary mode overrides DIP 5 and 6.

DIP 8 **PRIMARY / SECONDARY**

Delegates unit's role in command sequence.

DIP 9 **EVS AUTO / NO EVS setting**

Enables / Disables Extreme Voltage Shutdown.

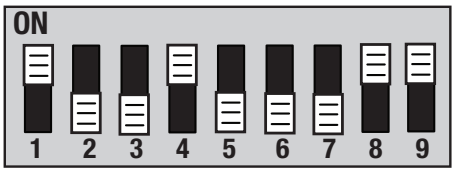


FACTORY DEFAULT SETTINGS - SET FOR 30 SECOND DELAY

Time Delay Adjustment ranges from 0.0% to 100%. The percentage is multiplied with the DIP switch selections 1, 2 and 3.

POTENTIOMETER DEFAULT SETTING
- Time Delay Adjustment is set at 12:00 o'clock (50%)

DIP SWITCH DEFAULT SETTING - Switches are factory pre-set as shown below. Switches **1, 4, 8**, and **9** are up (ON) position all others are OFF.

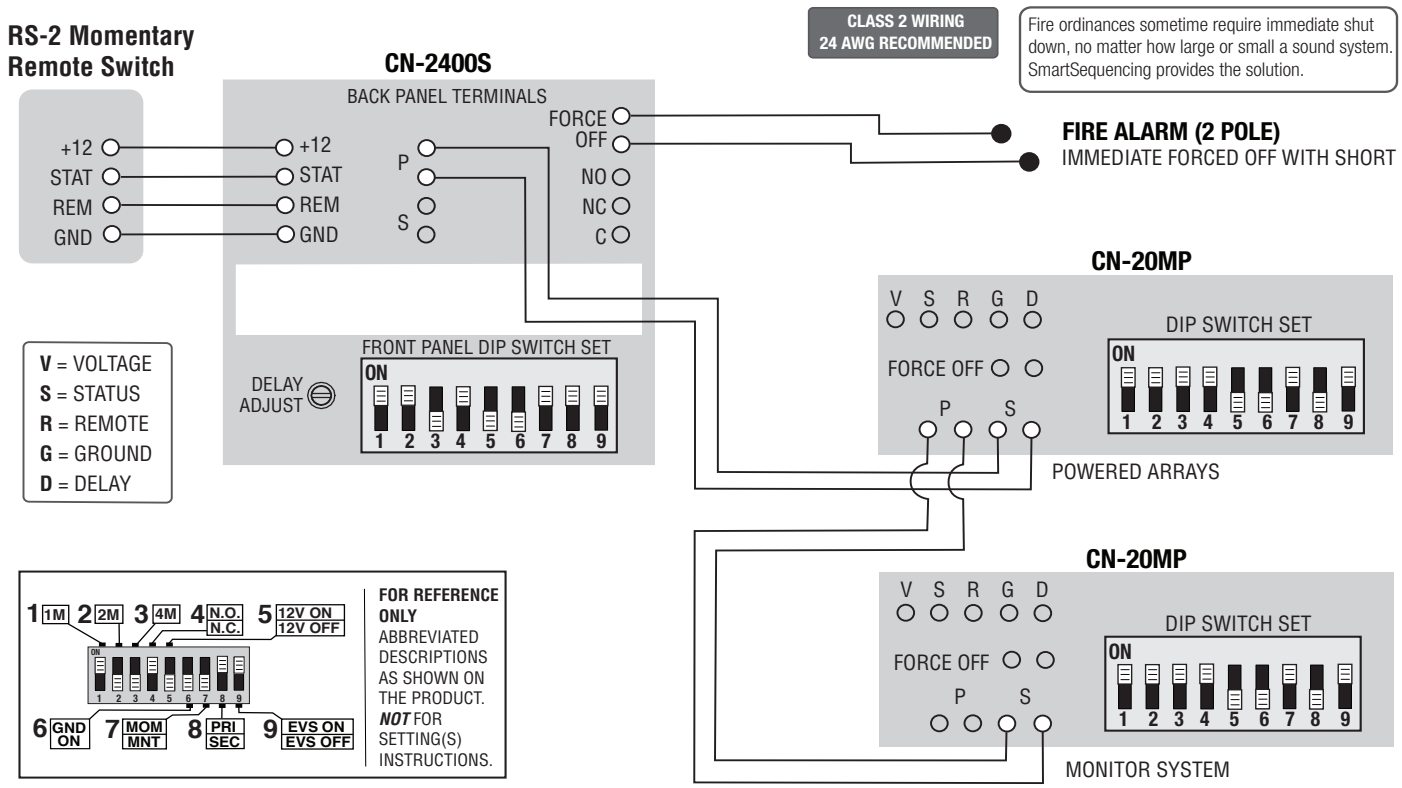


NOTE: The DIP switch ON / OFF settings are indicated as shown below throughout this manual.

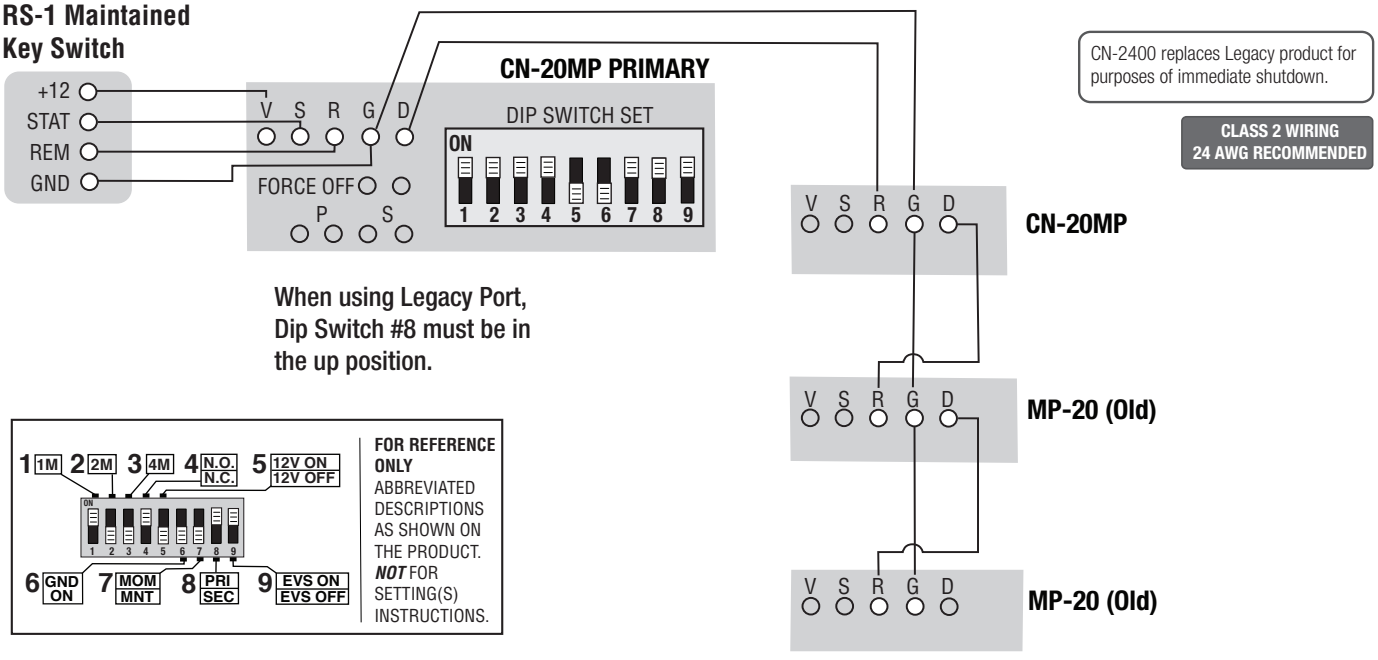
BYPASS BUTTON

Forces the outlet to be ON.

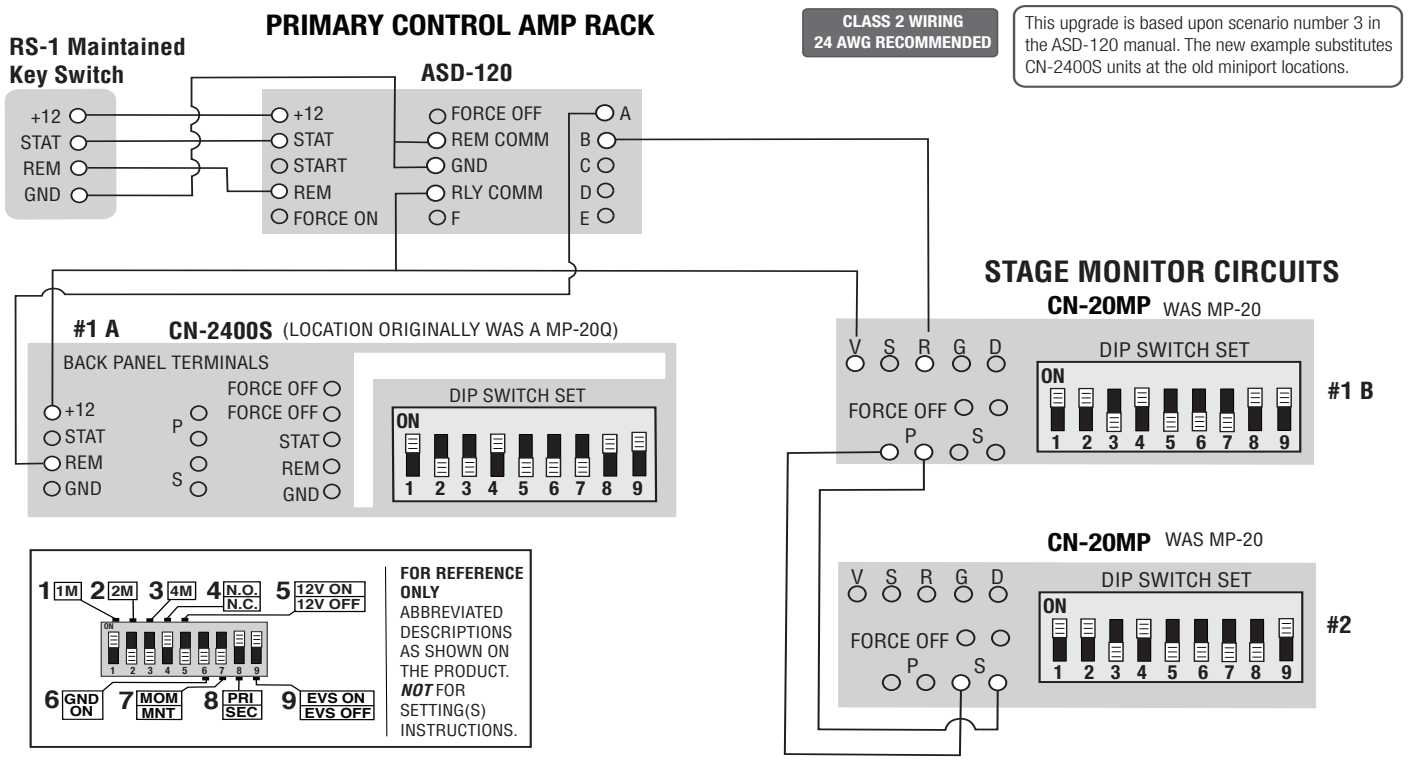
EXAMPLE 1 DIAGRAM - SMALL SmartSequencing SET-UP (Typical)



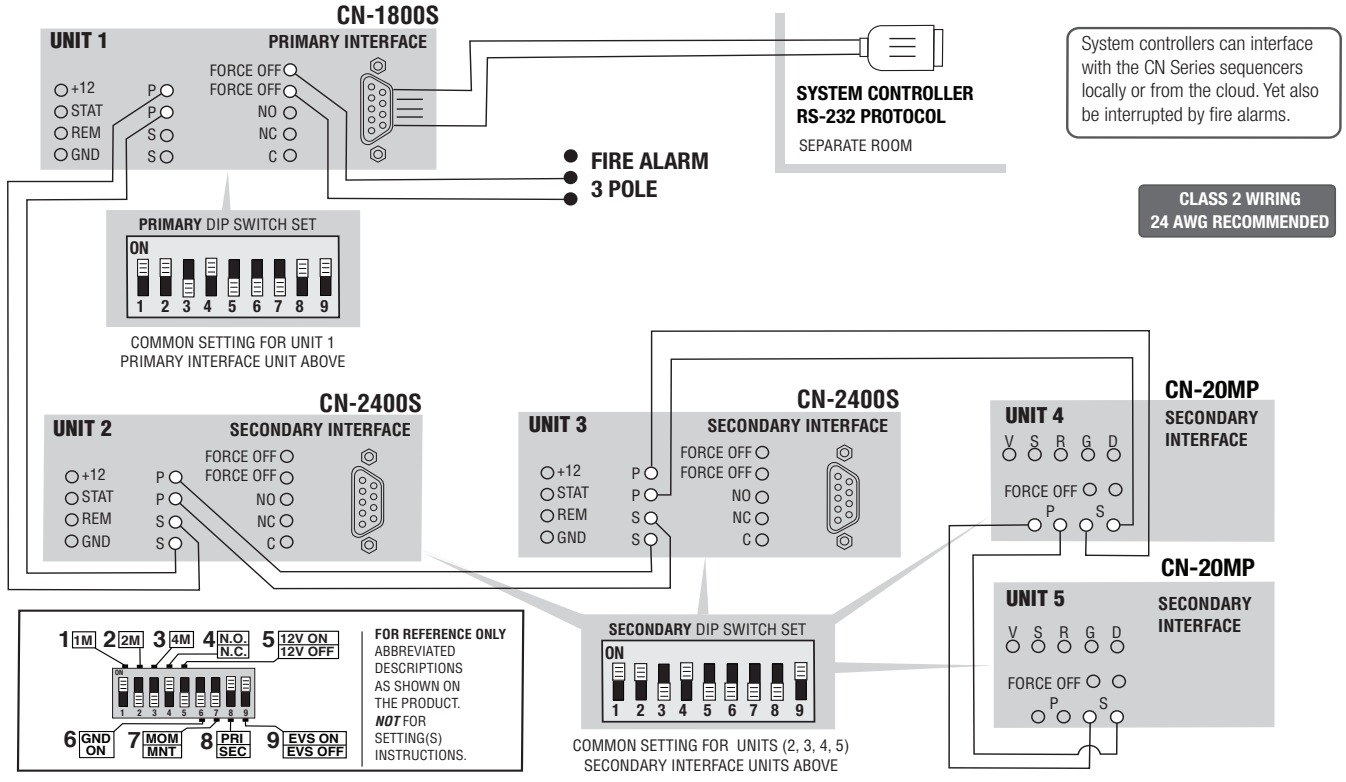
EXAMPLE 2 DIAGRAM - SMARTSEQUENCING SET-UP - SAMLL LEGACY UPGRADE



EXAMPLE 3 DIAGRAM - LARGE LEGACY UPGRADE



EXAMPLE 4 DIAGRAM - LARGE SET-UP PRIMARY CONTROLLED VIA RS-232



SPECIFICATIONS

Maximum AC Current Rating:

- 20 Amps, 120 VAC

AC Cord:

- 3/12 AWG, 10 feet, black, fixed, NEMA 5-20P plug

AC Receptacles:

- AC Outlets: 2 Switched NEMA 5-20R (1 duplex)

Surge/Under-Overvoltage Protection:

- AC Undervoltage Protection: EVS, 77VAC+/-3VAC
- AC Overvoltage Protection: EVS, 145VAC+/-5VAC
- AC Under-Overvoltage Activate/Deactivate Modes: ON or OFF DIP 9 (configurable)

Operating Temperature Range:

- 5C (40F) to 40C (105F) degrees

Humidity Range:

- <90% rH (Relative Humidity)

User Interface:

- Front panel diagnostic indicators: Primary link, Secondary link, Power, Extreme Voltage
- Side Panel DIP Switches: Hidden by security cover, 1 Minute Delay, 2 Minute Delay, 4 Minute Delay, Force Off NO/NC, 12V Mode ON/OFF, GND Mode On, Momentary/Maintained, Primary/Secondary, EVS ON/OFF
- Potentiometer: Side panel, time calibration hidden by security cover, fine tune delay adjust

Control/Status/Triggering (Front Panel):

- Remote Terminal: +5-30VDC IN, 12VDC (12mA) OUT
- SmartSequencing: Phoenix type 4-Pin Connector, with Screw Terminals, Primary & Secondary Links (Current Loop - 1000' nominal)
- Remote Terminal: Phoenix type 5-Pin Connector with Screw Terminals; +12V, STAT, REM, GND, DLY OUT (Class 2 Wiring)
- Force Off: Phoenix type 2-Pin Connector with Screw Terminals, (Class 2 Wiring)

Power Consumption (No Load): 10 Watts

Safety Compliance:

Specifications subject to change due to product upgrades and improvements.

WARRANTY INFORMATION

15 YEAR LIMITED PRODUCT WARRANTY*

Furman warrants to the original purchaser of this product for a period of fifteen (15) years from the date of purchase, that the unit shall be free of defects in design, material or workmanship, and Furman will repair or replace any defective unit.

Full Warranty and Policy information available at
www.furmancontractor.com

CAUTION! WARRANTY LIMITATION FOR INTERNET PURCHASERS

Furman products purchased through the Internet do not carry a valid Product Warranty unless purchased from an Authorized Furman Internet Dealer and the original factory serial numbers are intact (they must not have been removed, defaced or replaced in any way). Purchasing from an Authorized Furman Internet Dealer insures that the product was intended for consumer use, has passed all quality inspections and is safe. Buying through auction sites or unauthorized dealers may result in the purchase of salvaged, failed and/or products not intended for use in the US. In addition, Authorized Furman Internet dealers have demonstrated sufficient expertise to insure warranty compliant installations.

For a list of Authorized Furman Internet Dealers
go to www.furmansound.com