



TOTAL ECLIPSE Quick Start Guide

for the TOTAL ECLIPSE CHEMICAL MANAGEMENT SYSTEM



The TOTAL ECLIPSE Controller is an integral part of the TOTAL ECLIPSE Chemical Management System, that also includes:

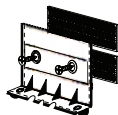
- **The Machine Interface** – Accepts washer signals and converts them to safe, low-voltage inputs.
- **The Pump Module** – Provides product transfer to the wash machine. The TOTAL ECLIPSE Controller is compatible with any Nova Controls' modular pumpstand, including the Eclipse, Orion or any of the Large Laundry dispensers.
- **The Flush Manifold (optional)** – Available for water flush chemical transfer applications.

Designed for maximum versatility in OPL or large laundry machines, the TOTAL ECLIPSE Controller's selectable Operating Modes allow the system to work with trigger signals from fully-programmable washers or with manually triggered signals (or cycle time extenders) from non-programmable, fixed-time washers. The Controller's easy-to-understand, plain-text LCD display (available in English and Spanish), make operator training simple. Installation time and cost is significantly reduced with the computer-based Formula Editor program that allows an off-site technician to create sets of up to 20 industry-specific, efficient and cost-effective formulas that are loaded onto a controller with a customer-supplied USB flash drive (16 GB or smaller). Summary Reports can be saved to the same USB flash drive, providing usage and programming information to effectively analyze and manage each machine.

Components Supplied



TOTAL ECLIPSE Controller
(P/N 01-08500-00, Lt. Grey/Teal)
(P/N 01-08900-00, Black/Red)



Wall Mount Bracket, Kit
(P/N 13-08462-00, Grey)
(P/N 13-08916-00, Black)



Quick Start Guide
(P/N 20-08808-00)

DOWNLOAD from the Hydro Systems website, <http://www.hydrosystemsco.com> and click the NOVA logo 

- **Formula Editor Software** – for Windows 2000/XP/Vista/7, & Mac OS 10.4
(Minimum requirements: Java JRE 1.5 or higher [90 MB disc space]; 1024 x 768 screen resolution; 128 MB RAM; 10 MB disc space; USB 2.0 and a USB flash drive [16 GB or smaller] for data transfer to TOTAL ECLIPSE controller)
- **TOTAL ECLIPSE Reference Manual** – Click photo of Total Eclipse Controller, then click  Total Eclipse Manual

How to Use the TOTAL ECLIPSE Quick Start Guide

Use this Quick Start Guide if you are already familiar with installing and using dispensing systems. Please refer to the TOTAL ECLIPSE Reference Manual for detailed instructions, including information on the optional Relay, Event, Occurrence and Group Operating Modes. Refer also to the Installation and Operations manual that is included with your pumpstand or upgrade kit for additional instructions.

IMPORTANT NOTE: Quick Start instructions assume that Formula/Setup files will be loaded via a USB flash drive, which may override the following factory default settings: Standard Operation; Eclipse Flush P.I.; Flush Time=0 sec.; Cycle Time=00 min.(Off); Signal Filter Time=2 sec.; User Prime= Disabled; Units of Measure = SAE. Default Passwords are Installer = 01234; Manager = 0123. It is recommended that default passwords are changed via the controller's keypad (and noted) after installation and system setup are complete. To change formulas, settings or passwords using controller keys, or to add a machine or company name, see the *Guide to Keypad and Menus* (p. 5) and *Initial Setup on Installer Menus* (p. 6).

TOTAL ECLIPSE Controller Specifications

Size	5.2" W x 4.5" H x 2.5" D (13.2 cm W x 11.4 cm H x 6.4 cm D)
Weight	0.65 lb. (0.30 kg)
Power Rating	SELV — Power source is pumpstand
Data Input Field Size	15 characters maximum input for custom names
Pump Capacity	99.99 oz. (2999 ml.) 8 pump (with 3 amount settings per pump) maximum
Environmental	IP Rating – 44 Pollution Category – 2 Installation Category – II
Temperature	10° to 49° C (50° to 120° F) maximum
Humidity	95% relative humidity, maximum
Indoor Installation	Approved for indoor use only. Must not be installed outdoors.
Altitude	Install at or below 6,500 ft. (2000 m) maximum
Specifications subject to change without notice.	

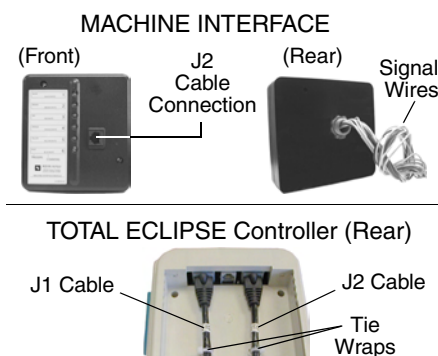
Installation

WARNING  ADVERTENCIA	Disconnect all power to the pumpstand during installation, service, and/or any time pump cabinet is opened. The TOTAL ECLIPSE should be installed by a qualified technician only, in accordance with all applicable electrical and plumbing codes. Desconecte toda la corriente eléctrica al dosificador durante la instalación, servicio y / o siempre que se abra el gabinete de la bomba. El equipo TOTAL ECLIPSE debe ser instalado sólo por técnicos calificados y de acuerdo con todas las normas de plomería y eléctricas que apliquen.
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Step 1. Install the Machine Interface (MI)

WARNING  ADVERTENCIA	Keep MI and communication cable away from high voltage wires and relays. NEVER parallel the cable with high voltage lines. Mantenga M.I. y los cables de comunicación separados de los cables de alta tensión y relés. NUNCA instale el cable paralelo con las líneas de alta tensión.
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1. Route MI signal wires through 1/2 inch knock-out on washer (within the wiring area). Secure MI to washer with lock nut (provided).
2. Plug J2 cable into MI. Bundle excess J2 cable outside washer and connect other end to J2 connector on rear of Controller.
3. Connect J1 cable from pump module to J1 connector on Controller. The maximum distance for a J1 cable is 75 ft. (22.9 m.) unless using a break out box and hard wiring. Contact Nova Controls for additional cables, a coupler or detailed instructions.
4. Secure J1 and J2 cables to controller tie-down posts with tie wraps.



Step 2. Connect Signal Wires

Voltage

The Machine Interface will work with any signal voltage between 24 – 240VAC or 22 – 24VDC. With DC signals, polarity must be observed. Common is negative. The signals should be positive voltages.

CAUTION  CUIDADO	Always verify all voltage sources with a meter. Electrical wiring connections for supply triggers are to be done inside the junction box. Siempre verifique la alimentación de corriente con un voltímetro. Las conexiones eléctricas a los disparadores de suministro (supply) deben hacerse dentro del recinto donde se encuentran los suministros (supply).
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Supply Trigger Wiring

Identify the washer supply signals. In Standard or Group Mode of Operation, use appropriate terminal connectors to connect signal wires to the Machine Interface wires, per table at right. (Do not use table for Event or Occurrence Modes; see Manual.)

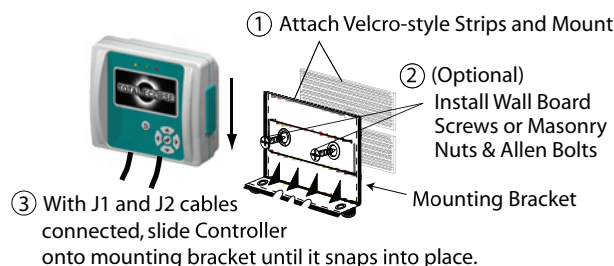
Trigger Signal Wiring Notes:

- If one or more pump signals are not used, they do not need to be connected.
- If you are triggering more than one pump from a single signal, connect all MI signal wires for those pumps to that signal.
- Wire nut unused wires. If washer has a single common, wire nut all commons together.

Trigger	Supply Signal	Signal Common	Connect to:	
			Standard (US)	Group (EU)
Signal 1	Black wire	White/Black	Pump 1	Group 1
Signal 2	Brown wire	White/Brown	Pump 2	Group 1
Signal 3	Red wire	White/Red	Pump 3	Group 2
Signal 4	Orange wire	White/Orange	Pump 4	Group 2
Signal 5	Yellow wire	White/Yellow	Pump 5	Group 3
Signal 6	Blue wire	White/Blue	Pump 6	Group 4

Step 3. Mount the Controller

1. Mount bracket with velcro-style strips, according the directions at right. Install wall board screws or nuts and allen bolts, if needed.
2. Slide controller down onto mounting bracket until it snaps in place.
3. Install pump module and make all electrical and plumbing connections for the system, but do not apply power to the TOTAL ECLIPSE until you are ready to select a language of operation.

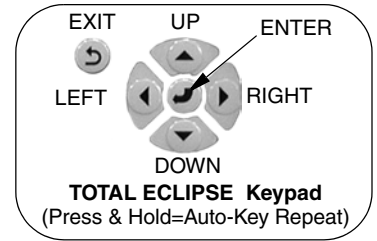


Language Options

Each TOTAL ECLIPSE is shipped with English and Spanish languages installed. Additional languages, as they become available, may be downloaded from the Hydro Systems website directly to your USB flash drive (16 GB or smaller). If changing from one of the pre-installed languages, the language-enabled USB flash drive must be connected before applying power to the controller.

Step 4. Select the Controller Menu Language

1. Apply power to pumpstand & power-up the Controller (see “*Language Options*” on page 2).
2. Select either English or Spanish LANGUAGE by moving the selection box with the **UP** or **DOWN ARROWS** until the correct language is contained within the box.
3. Press **Enter** to select a language. All menu and application items are displayed in the selected language. Any text previously input by the installer (pump and formula name, etc.) remains in the language of input.



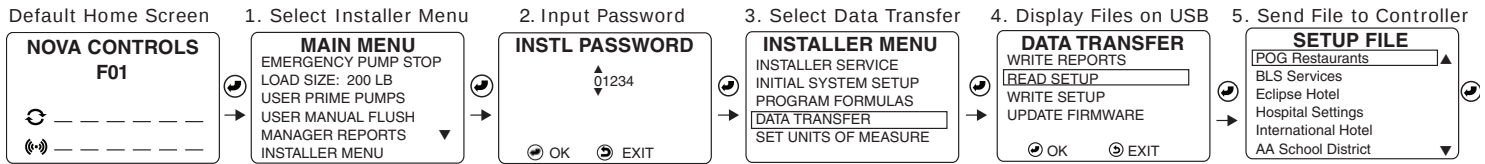
Step 5. Set the Current Date and Time

1. After the language is set, the **DATE & TIME** menu appears for 15 seconds as **YYYY-MM-DD** (Year-Month-Day) and **HH:MM** (Hour:Minute). The first number of the year is the active digit, indicated by the double-arrow cursor . Set to current date/time.
2. Press the **UP** or **DOWN ARROW** to change the active digit. Press the **RIGHT** **ARROW** to move the cursor to the next digit. Set all digits until the current Year-Month-Date and Hour:Minute display.
3. Press **ENTER** to save. The Home Screen automatically displays. (For more information, see page “*Home Screen*” on page 4.)

Step 6. Program the Controller via USB Flash Drive

The easiest way to program the controller is to load previously created set-up files from a USB flash drive onto the controller. Settings that are not transferred via a USB drive are: Passwords (Installer & Manager), Machine Name, Company Name, and Calibration.

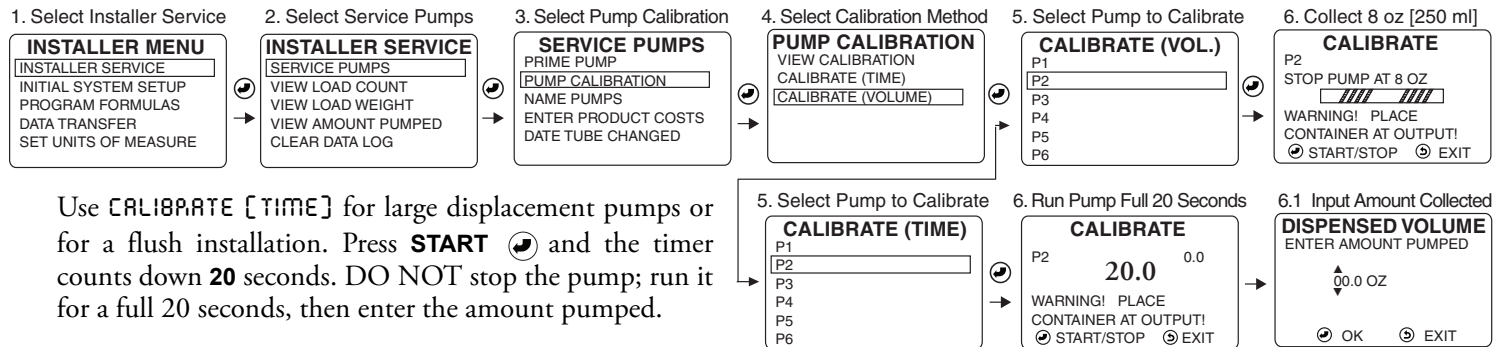
1. Connect the USB flash drive containing set up files that were created in either the Formula Editor or on another controller.
2. From the Home Screen, press **ENTER** to launch the **MAIN MENU**.
3. Move the selection box to **INSTALLER MENU** by pressing and holding the **DOWN ARROW**.
4. Press **ENTER** and input the default Installer Password of **01234**, using the **UP** **ARROW** to increment the number and the **RIGHT** **ARROW** to move the cursor.
5. Press **ENTER** to accept the password input. Select **DATA TRANSFER** from the Installer Menu and follow the sequence below:



6. Remove USB flash drive. Press **EXIT** to return to the Installer Menu, in order to calibrate (required) and prime pumps.

Step 7. Calibrate Pumps

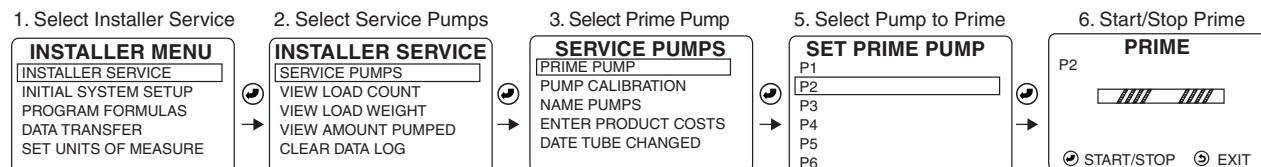
You must calibrate all pumps to be used; programmed formulas will not run if pumps are not calibrated. Use **CALIBRATE [VOLUME]** only for medium (12 or 18 oz. / 355 or 532 ml. per minute) pumps.



Use **CALIBRATE [TIME]** for large displacement pumps or for a flush installation. Press **START** and the timer counts down **20** seconds. **DO NOT** stop the pump; run it for a full 20 seconds, then enter the amount pumped.

Step 8. Prime Pumps

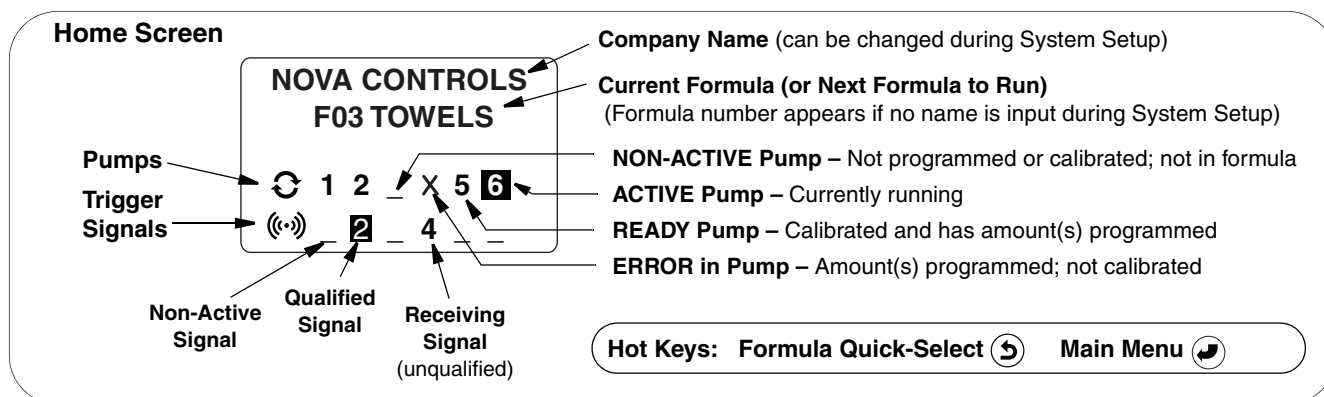
Press **Enter** to start and stop prime. After priming is complete, press the **EXIT** **KEY** until you reach the Home Screen.



Description of Controls and Operator Menu

Home Screen

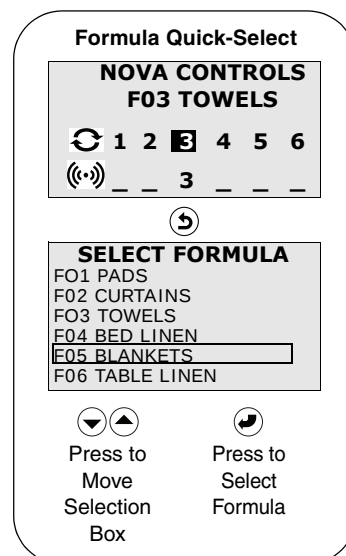
The Home Screen appears after the controller language has been selected or whenever the controller is active. If no key is pressed for 15 minutes, Power Save turns off the display's backlight. Press any key to turn the backlight on and resume normal operation. If the controller is powered off, the last formula selected is the active formula on the Home Screen when power is turned back on. See the following graphic for an explanation of the information and symbols that may appear on the Home Screen.



Formula Quick-Select

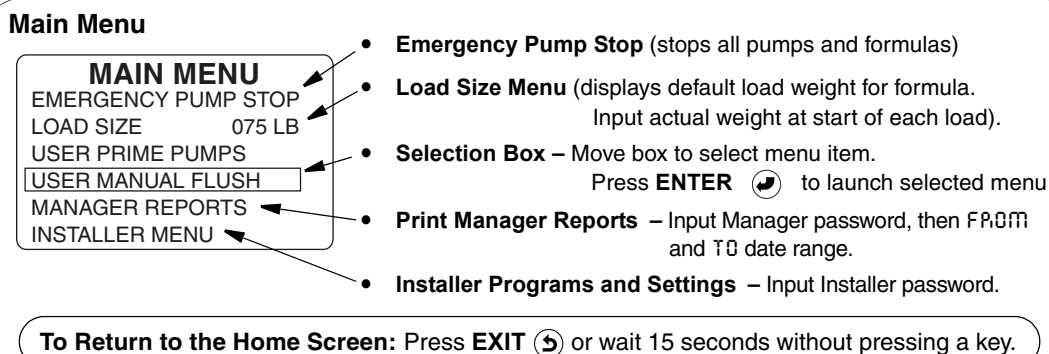
To prevent errors in data logging or chemical dispensing: Select the correct formula before washer operation starts and be sure that all programmed pumps are triggered during the cycle.

1. (↺) From the **Home Screen**, press the **EXIT** key (also called **FORMULA SELECT**).
2. (↑) (↓) Press the **UP** or **DOWN ARROW** to move the selection box to the correct formula. All formulas appear, but only formulas with programmed pumps are selectable.
3. (↵) Press **ENTER** to start the formula and return to the **Home Screen**.
4. (Optional) Press **ENTER** (↵) to reach the load size or bleach defeat settings.



Operator Main Menu

To reach the Main Menu from the Home Screen, press any key (*except* the **EXIT** key).



Limited Warranty

SELLER warrants solely to BUYER the Products will be free from defects in material and workmanship under normal use and service for a period of one year from the date of completion of manufacture. This limited warranty does not apply to (a) hoses; (b) and products that have a normal life shorter than one year; or (c) failure in performance or damage caused by chemicals, abrasive materials, corrosion, lightning, improper voltage supply, physical abuse, mishandling or misapplication. In the event the Products are altered or repaired by BUYER without SELLER'S prior written approval, all warranties will be void. NO OTHER WARRANTY, ORAL, EXPRESS OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE, IS MADE FOR THESE PRODUCTS, AND ALL OTHER WARRANTIES ARE HEREBY EXPRESSLY EXCLUDED.

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TOTAL ECLIPSE Operator Menus

Home Screen

NOVA CONTROLS
F02 CURTAINS
↻ 1 2 3 X 5 6 7 8
(()) _ 2 _ _ _

Formula Select

SELECT FORMULA
F01 PADS
F02 CURTAINS
F03 TOWELS
F04 BED LINEN
F05 BLANKETS
F06 TABLE LINEN

Select & Return to Home Screen

Guide to Keypad & Menus

SELECTION BOX

[Box] = [Up/Down Arrows] → [Enter Key] → [Enter also Starts/Stops Action]

UP/DOWN Arrows Move Selection Box ENTER Key Launches Menu Item ENTER also Starts/Stops Action

EDIT VALUE

350 LBS = [Up/Down Arrows] → [Left/Right Arrows] → [Enter] or [Exit]

UP/DOWN Arrows Input Value (0-9, A-Z) LEFT/RIGHT Arrows Move Cursor ENTER Saves & Exits EXIT Only

MENU SYMBOLS

F02 ▲
F03
F04 ▼

More Items Pumping (Flush Off) Steady On Flushing Pumping & Flushing

HOME SCREEN

↻ Pump Icon (()) Trigger Signal Icon

Main Menu

MAIN MENU
EMERGENCY PUMP STOP
LOAD SIZE 275 LB
USER PRIME PUMPS
USER MANUAL FLUSH
MANAGER REPORTS
INSTALLER MENUS

Emergency Pump Stop

EMERGENCY STOP
STOP ALL PUMPS AND FORMULAS
⏻ STOP ⏻ EXIT

Main Menu

MAIN MENU
EMERGENCY PUMP STOP
LOAD SIZE 275 LB
USER PRIME PUMPS
USER MANUAL FLUSH
MANAGER REPORTS
INSTALLER MENUS

Input Actual Load Weight

LOAD WEIGHT
▲
220 LB
(SINGLE LOAD)
⏻ OK ⏻ EXIT

Main Menu (User Prime Pump)

MAIN MENU
EMERGENCY PUMP STOP
LOAD SIZE 220 LB
USER PRIME PUMPS
USER MANUAL FLUSH
MANAGER REPORTS
INSTALLER MENUS

Select Pump to Prime (if enabled)

SET PRIME PUMP
P1 PRE-WASH
P2 DETERGENT
P3 LIQUID BLEACH
P4 BLEACH ALTERNATIVE
P5 SOUR/CONDITI
P6 ENZYME LIFT

Start / Stop Prime Pump

PRIME
P3 LIQUID BLEACH
[Progress Bar]
⏻ START/STOP ⏻ EXIT

Installer Menu Access

MAIN MENU
EMERGENCY PUMP STOP
LOAD SIZE 180 LB
USER PRIME PUMPS
USER MANUAL FLUSH
MANAGER REPORTS
INSTALLER MENUS

↓

INSTL PASSWORD
▲
0 1 2 3 4
⏻ OK ⏻ EXIT

Main Menu (User Manual Flush)

MAIN MENU
EMERGENCY PUMP STOP
LOAD SIZE 220 LB
USER PRIME PUMPS
USER MANUAL FLUSH
MANAGER REPORTS
INSTALLER MENUS

Start/Stop Flush (if flush enabled)

MANUAL FLUSH
[Progress Bar]
⏻ START/STOP ⏻ EXIT

Main Menu (Manager Reports)

MAIN MENU
EMERGENCY PUMP STOP
LOAD SIZE 220 LB
USER PRIME PUMPS
USER MANUAL FLUSH
MANAGER REPORTS
INSTALLER MENUS

Input Manager Password

MGR PASSWORD
▲
0 1 2 3
⏻ OK ⏻ EXIT

Report Data Range "FROM" (Start Date)

REPORT DATE
FROM:
▲
2009-06-01
⏻ OK ⏻ EXIT

Report Data Range "TO" (End Date)

REPORT DATE
TO:
▲
2009-07-31
⏻ OK ⏻ EXIT

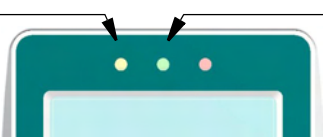
Set "SAVE AS" File Name*

REPORT NAME
▲
WASH23
INSERT USB DRIVE
⏻ OK ⏻ EXIT

* Display returns to Main Menu after data transfer is complete.

LED Indicators

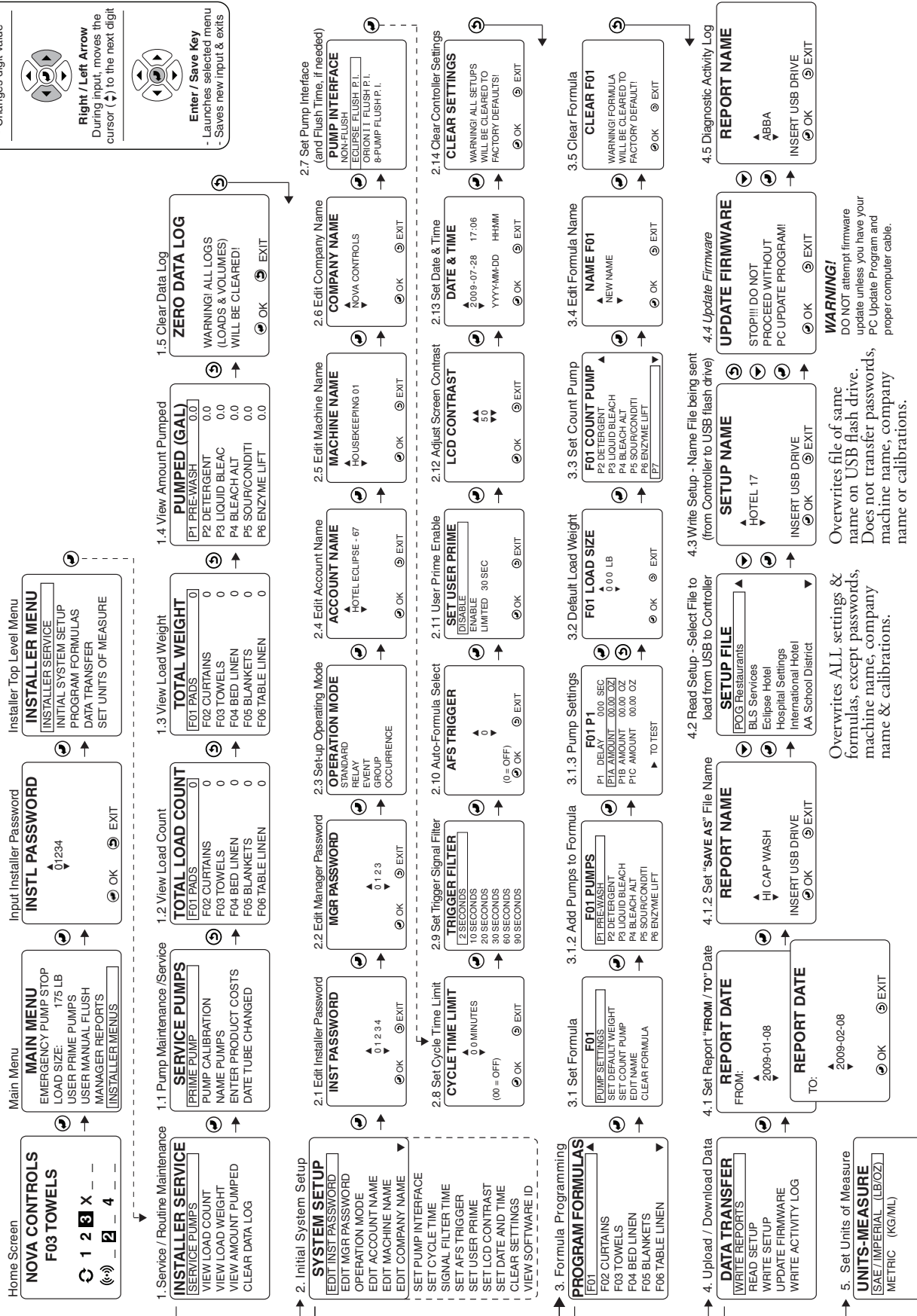
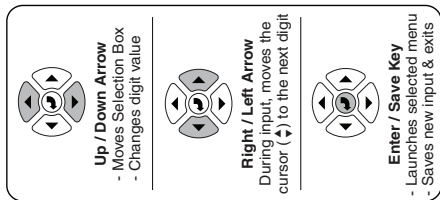
Yellow LED
when lit, indicates
Writing to USB Flash Drive



Green LED
when lit, indicates
Power On

TOTAL ECLIPSE Top Level Installer Menus

(factory default settings shown in selection boxes)



WARNING!
DO NOT attempt firmware update unless you have your PC Update Program and proper computer cable.

Overwrites file of same name on USB flash drive. Does not transfer passwords, machine name, company name or calibrations.