MICRO
Wash Process
Equipment Controller

Service Manual

V4.0.1

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WASHLINK MICRO EQUIPMENT CONTROLLER SERVICE MANUAL

This document provides comprehensive operational procedures for the Washlink MICRO Equipment Controller. In this manual, we will discuss the Setup and Operation of the MICRO Equipment Controller.

If further assistance is needed, please contact the Distributor from which the product was purchased.

When calling for assistance, you must have the following information available:

UL Number: _____
Distributor Name: _____

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Chapter 1

1 Overview

The Washlink MICRO Equipment Controller is a simple and economical way to add functions to your existing Car Wash Tunnel Controller.
Proven industrial PLC technology provide the Car Wash Operator with unmatched reliability and ease of use.

1.1 Features

The MICRO Equipment Controller has the same functionality “full size” Washlink Equipment Controllers.
The MICRO Equipment Controller is available with (4) four or (6) six Functions per Controller.
The MICRO Equipment Controller allows you to add functions to any brand car wash controller.
Link multiple MICRO Equipment Controllers together for even more functions.
Industry proven components from Siemens Worldwide.
Hand-Auto switches are provided for all Functions.
All Functions have double pole 15amp relay contacts.
The MICRO Equipment Controller has fused 24vac and 120vac outputs with blown fuse indicator.
The MICRO Equipment Controller has separate Inputs for each Function allowing Maximum flexibility.
Adjust Function Settings “on the fly” (no shutting down car wash for system changes).
The MICRO Equipment Controller has built in Counters for each Function.
The MICRO Equipment Controller is in a corrosion and rust proof enclosure with lockable hasps.
Optional Enter system, Pulse system, Entry Button Consoles are available.
The MICRO Equipment Controller has multiple Operational Modes on all Functions.

- Full Length of Car
- From Front of Car only
- From Rear of Car only
- Look Back

The MICRO Equipment Controller allows Programmable or Sequential Operation.
The MICRO Equipment Controller has a small footprint for easy installation.
The MICRO Equipment Controller is UL listed.

add functions to any brand car wash controller

Adjust “on the fly” (no shutting down car wash for system changes)

Chapter 2

2 Installation

The Washlink MICRO Equipment Controller should be mounted securely to a stable and permanent wall. Choose a location in the equipment room that is easily accessible and provides protection from the elements.

2.1 Power Requirements

The MICRO Equipment Controller requires 120vac Branch Circuit protection (provided by Customer).
An optional International Voltage kit rated at 230vac is available upon request.
This circuit should be connect to **Fuse 101 PLC**.

The MICRO Equipment Controller allows the customer to supply the multiple Output voltages.
This circuit(s) should be connected to **Fuse 121 24VAC** and/or **Fuse 122 120VAC**.

Warning: All electrical work should be performed by a qualified and licensed electrician.
All electrical work should meet or exceed National and Local codes and ordinances.

Warning: Risk of electrical shock.
More than one disconnect my be required to be de-energized before servicing equipment.

Warning: Risk of electrical shock.
More than one disconnect my be required to be de-energized before servicing equipment.

Warning: Bonding between conduit connection is not automatic and must be provided as part of the installation.

2.1.1 Inputs

The MICRO Equipment Controller Input power is supplied by the PLC.
All Inputs should be wired as a Normally Open Circuit.

Warning: All Inputs are 0vdc.
Any other voltage will damage the Controller and void warranty.

The **Enter Input** is required when operating the MICRO Equipment Controller.
The **Enter Input** is used to measure the Length of the vehicle.

Note: An interface relay may be needed if the existing **Enter Switch** does not have an extra Normally Open contact.

The **Pulse Input** is required when operating the MICRO Equipment Controller in **Conveyor Mode**.
The **Pulse Input** is used to obtain accurate Conveyor speed and vehicle Location.

Note: An interface relay may be needed if the existing **Pulse Switch** does not have an extra Normally Open contact.

When provided with a momentary closure, **Service Inputs 1-6** will enable **Functions 1-6** respectively.
The requested **Function** will be applied to the next vehicle that supplies an **Enter** Input.
If a vehicle is already supplying an **Enter** Input, the following vehicle will receive the requested **Function**.

Note: If a **Function** is needed for every car, simply jumper the corresponding Input to **0vdc**.
Example: **Input 6** jumped to **0vdc** will turn on **Function 6** for every **Enter** Input.

Note: **Input 1** can be configured as a **Clear** Input.
If configured, a momentary closure will **Clear** all Service Inputs for the next car.

2.2.2 Outputs

All **Functions** have (2) two pre-wired circuits.
Each circuit has both a Normally Open and a Normally Closed contact available.
Fuse 121 provides protection for Customer provided 24vac Output circuit.
Fuse 122 provides protection for Customer provided 120vac Output circuit.
Functions are turned on according the their **Configuration**.
Function Mode, **Location**, **Extension**, **End of Car**, and **Look Back** settings determine the operation of individual **Functions**.
Functions can be manually overridden by using the Override latch on the corresponding relay.

Note: If a **Function** is needed for every car, simply jumper the corresponding Input to **0vdc**.
Example: **Input 6** jumped to **0vdc** will turn on **Function 6** for every **Enter** Input.

Note: **Input 1** can be configured as a **Clear** Input.
If configured, a momentary closure will **Clear** all Service Inputs for the next car.

2.2.3 Field Wiring

Convenience terminals are provided for **Inputs**.
Function wiring is done directly at the corresponding Output Relay.

Warning: All electrical work should be performed by a qualified and licensed electrician.
All electrical work should meet or exceed National and Local codes and ordinances.

Warning: Risk of electrical shock.
More than one disconnect my be required to be de-energized before servicing equipment.

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More than one disconnect my be required to be de-energized before servicing equipment.

Warning: Bonding between conduit connection is not automatic and must be provided as part of the installation.

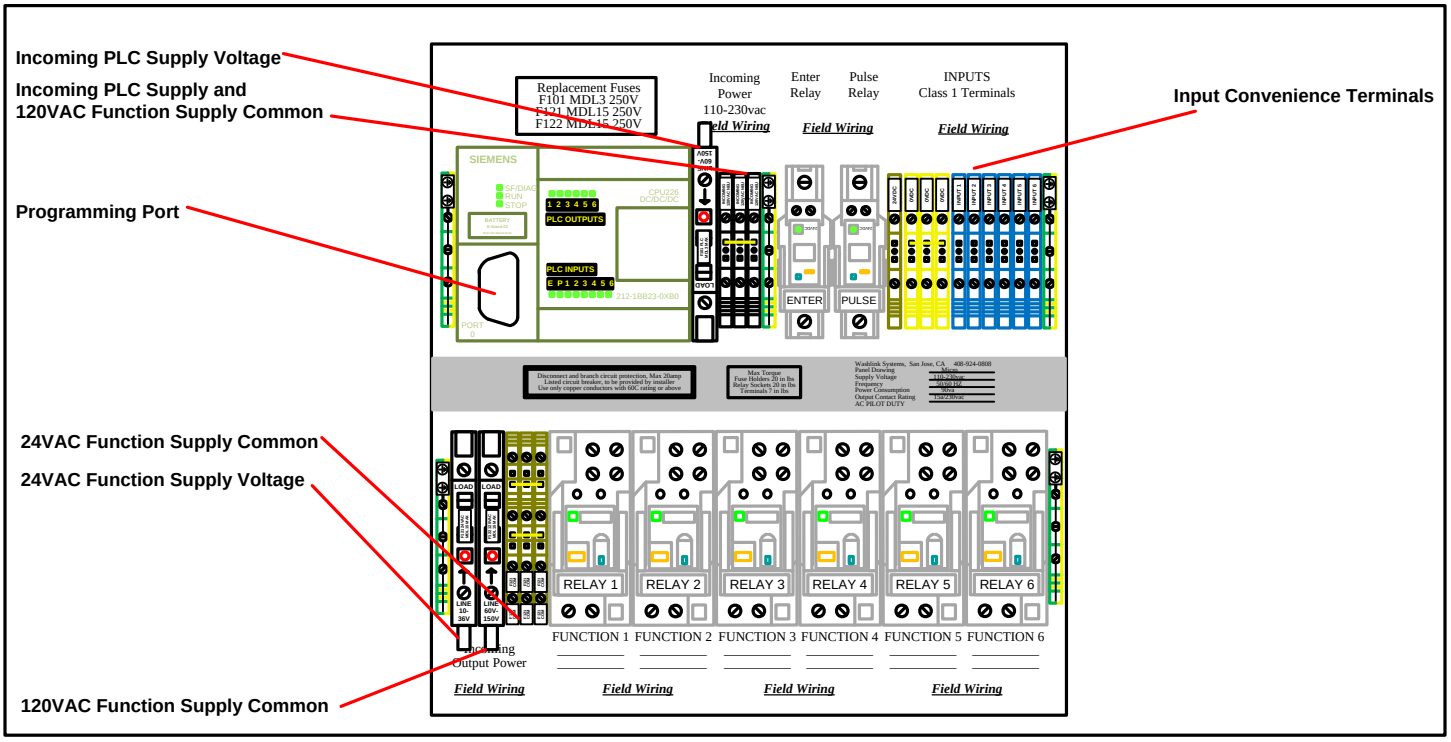

Figure 2.0 Field Wiring

Chapter 3

3 Programming

The Washlink Blue Leaf Programmer is connected to Port 0 of the MICRO Equipment Controller PLC.

3.1 Programming Field Definitions

Sections 3.1.1 – 3.1.9 explain all of the Configuration fields.

3.1.1 Function Location

This value represents the **Location** or **Time** that the **Function** should turn on after an **Enter** Input is received.

If the MICRO Equipment Controller is configured as a **Conveyor** System the value is a **Pulse** Feedback.
If the MICRO Equipment Controller is configured as a **Drive Thru** System the value is **Seconds** the **Function** should remain on.

3.1.2 Function Extension

This value works in conjunction with **Mode 1** and **Mode 2**.
If the **Function** is set as **Mode 1**, the value represents the additional **Pulses** or **Time** that the **Function** should remain on AFTER the FULL LENGTH of the vehicle.
If the **Function** is set as **Mode 2**, the value represents the amount of **Pulses** or **Time** that the **Function** should remain on AFTER the FRONT of the vehicle.

If the MICRO Equipment Controller is configured as a **Conveyor** System the value is a **Pulse** Feedback.
If the MICRO Equipment Controller is configured as a **Drive Thru** System the value is **Seconds** the **Function** should remain on.

3.1.3 Function From End of Car

This value works in conjunction with **Mode 3**.
If the **Function** is set as **Mode 3**, the value represents the amount of **Pulses** or **Time** that the **Function** should turn on FROM the END/REAR/BACK of the vehicle.

If the MICRO Equipment Controller is configured as a **Conveyor** System the value is a **Pulse** Feedback.
If the MICRO Equipment Controller is configured as a **Drive Thru** System the value is **Seconds** the **Function** should remain on.

3.1.4 Function Look Back

This value works in conjunction with **Mode 4**.
If the **Function** is set as **Mode 4**, the **Function** will remain on if another vehicle is within the specified distance from the leading vehicle.

If the MICRO Equipment Controller is configured as a **Conveyor** System the value is a **Pulse** Feedback.
If the MICRO Equipment Controller is configured as a **Drive Thru** System the value is **Seconds** the **Function** should remain on.

3.1.5 Function Mode

The MICRO Equipment Controller has (4) four **Function Operation Modes**.
Each **Function** can be configured to operate in its own unique **Mode**.

Mode 1: The **Function** will remain on for the FULL LENGTH of the vehicle.
Mode 2: The **Function** will remain on for a SPECIFIED value from it's **Location**.
Mode 3: The **Function** will remain on for SPECIFIED value from the REAR of the vehicle.
Mode 4: The **Function** will remain on if a second vehicle is within the distance of the SPECIFIED value.

3.1.6 Minimum Car Length

This value represents the MINIMUM acceptable vehicle Length (**Enter** Input).

3.1.7 Maximum Car Length

This value represents the MAXIMUM acceptable vehicle Length (**Enter** Input).

3.1.8 Enable Function Clear Input

Input 1 is configurable as a **Clear** Input.
If **Input 1** is configured as a **Clear** Input, a momentary closure will **Clear** all Functions for the next vehicle.

0 = No Clear Input
1 = Input 1 is a Clear Input

3.1.9 Operation Mode

The MICRO Equipment Controller can be operated as a **Conveyor** System or a **Drive Thru** System.

If the system is configured in **Conveyor** Mode, a **Pulse** Input is required.
If the system is configured in **Drive Thru** Mode, all settings will be base on **Time** in Seconds.

0 = Conveyor Mode
1 = Drive Thru Mode

3.2 Navigation

Section 3.2.1 – 3.2.9 illustrate the Mapping of all the Programming Screens.

3.2.1 Function Location

Figure 3.1 illustrates the mapping from the **Home** Screen to the **Function Location** Screen.
At the Home Screen press the **F1** button to enter the **System Setup**.
This will navigate to the **System Setup** Screen.
At the **System Setup** Screen press the **F1** button to enter the **Function Location** Screen.
This will navigate to the **Function Location** Screen.
At the **Function Location** Screen press the **F1** button to enter the **Edit** Screen.
Use the **Up** and **Down** arrow button to increment and decrement the current **Location** value.

Hint: Use the **Left** or **Right** arrow button to move the cursor to the next digit.
This will allow for faster Editing of higher values.

Note: In **Conveyor Mode** the value represents a **Pulse** Feedback. (See Sec 3.1.9)
In **Drive Thru Mode** the value represents increments of **Seconds**. (See Sec 3.1.9)

Press the **Enter** button to set the new value.
If no change needs to be applied press the **Esc** to return to the previous screen.

Hint: When at the **Function Location** screen press **F3** to return to the **System Setup** Screen.
When at the **Function Location** screen press **F5** to return to the **Home** Screen.

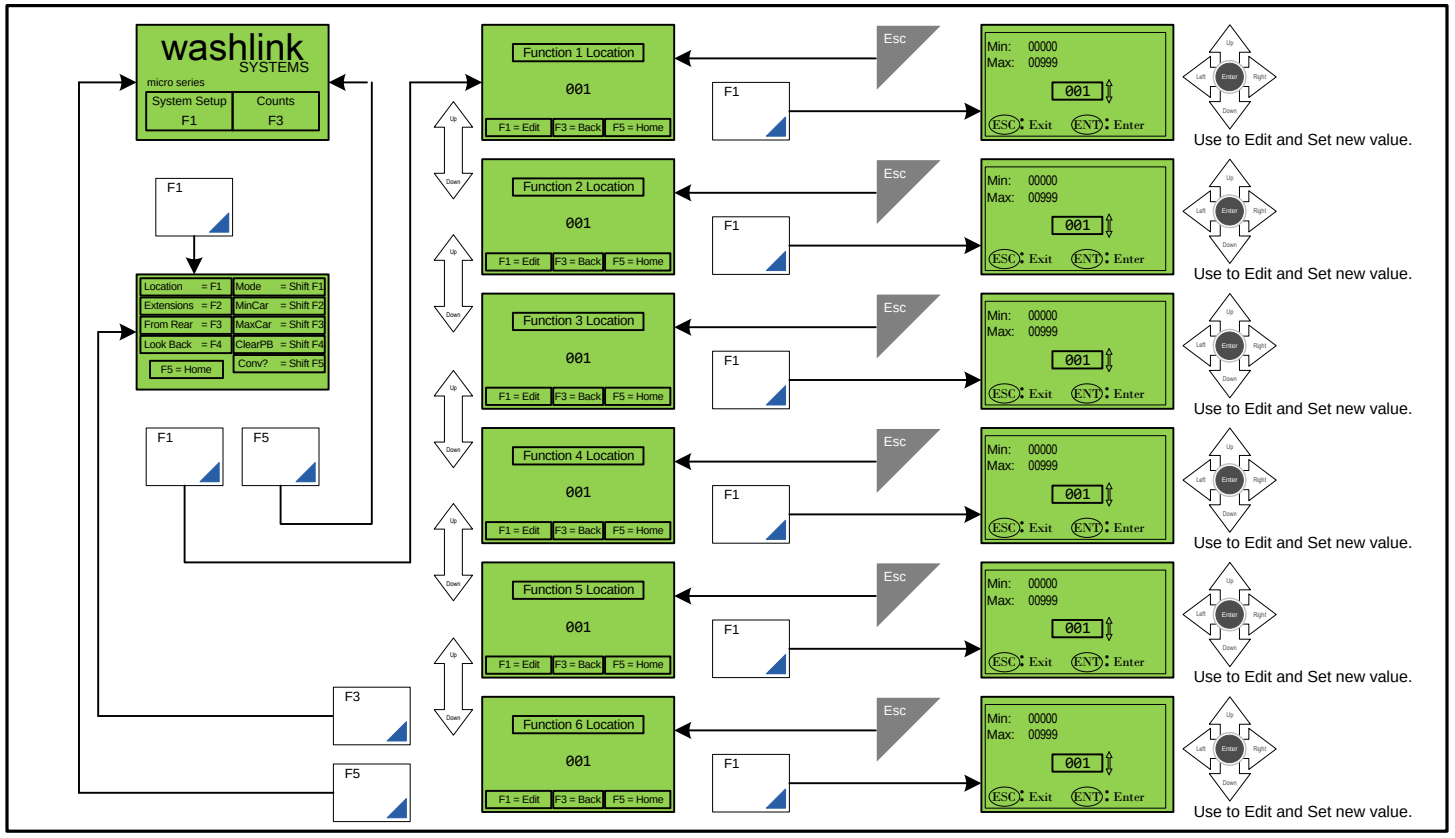

Figure 3.1 Function Location Screen

3.2.2 Function Extension

Figure 3.2 illustrates the mapping from the **Home** Screen to the **Function Extension** Screen.
At the Home Screen press the **F1** button to enter the **System Setup**.
This will navigate to the **System Setup** Screen.
At the **System Setup** Screen press the **F2** button to enter the **Function Extension** Screen.
This will navigate to the **Function Extension** Screen.
At the **Function Extension** Screen press the **F1** button to enter the **Edit** Screen.
Use the **Up** and **Down** arrow button to increment and decrement the current **Extension** value.

> **Hint:** Use the **Left** or **Right** arrow button to move the cursor to the next digit.
> This will allow for faster Editing of higher values.

> **Note:** In **Conveyor Mode** the value represents a **Pulse** Feedback. (See Sec 3.1.9)
> In **Drive Thru Mode** the value represents increments of **Seconds**. (See Sec 3.1.9)

Press the **Enter** button to set the new value.
If no change needs to be applied press the **Esc** to return to the previous screen.

> **Hint:** When at the **Function Extension** screen press **F3** to return to the **System Setup** Screen.
> When at the **Function Extension** screen press **F5** to return to the **Home** Screen.

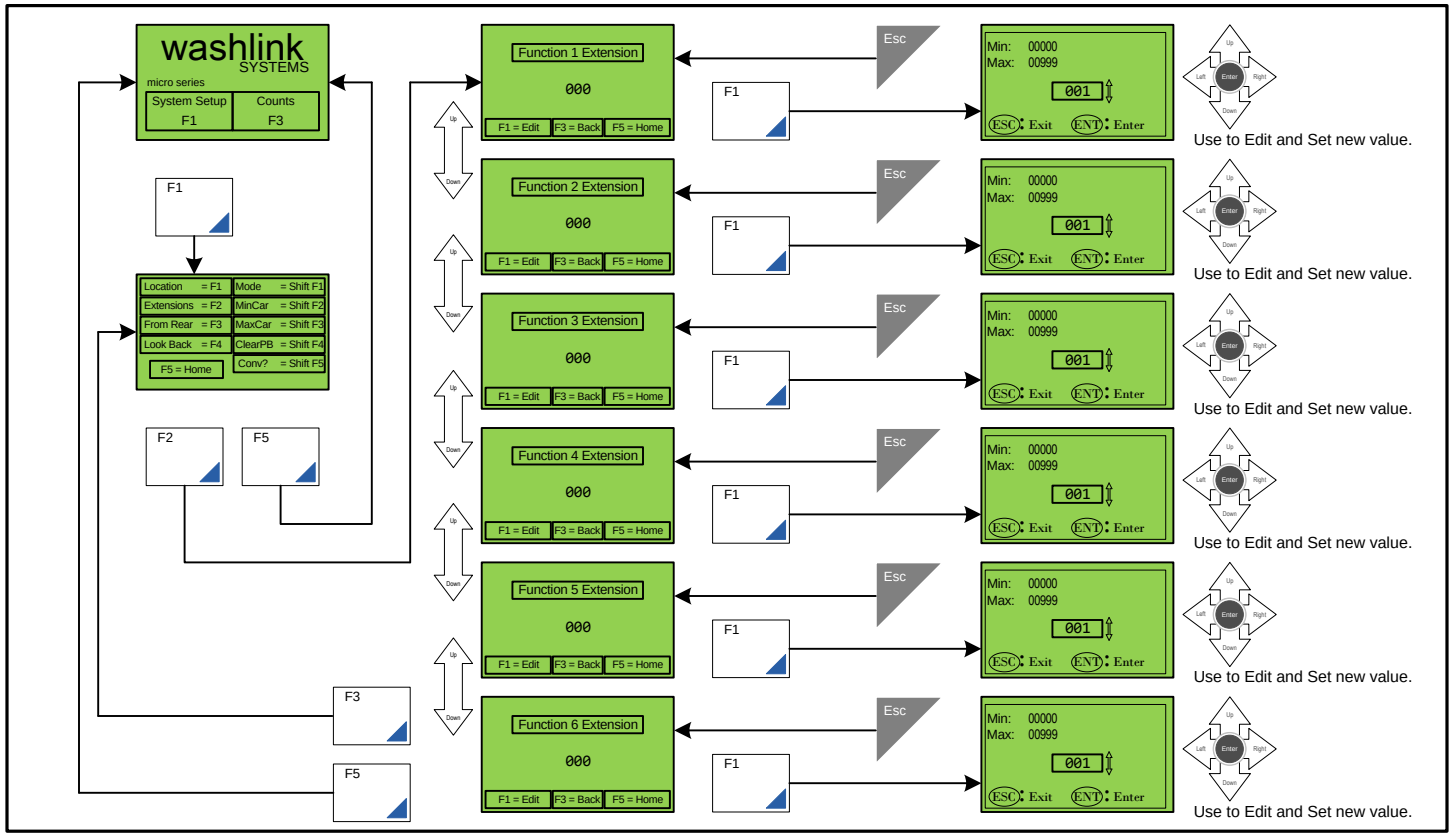

Figure 3.2 Function Extension Screen

3.2.3 From Rear of Car

Figure 3.3 illustrates the mapping from the **Home** Screen to the **From Rear of Car** Screen.
At the Home Screen press the **F1** button to enter the **System Setup**.
This will navigate to the **System Setup** Screen.
At the **System Setup** Screen press the **F3** button to enter the **From Rear of Car** Screen.
This will navigate to the **From Rear of Car** Screen.
At the **From Rear of Car** Screen press the **F1** button to enter the **Edit** Screen.
Use the **Up** and **Down** arrow button to increment and decrement the current **Rear of Car** value.

Hint: Use the **Left** or **Right** arrow button to move the cursor to the next digit.
This will allow for faster Editing of higher values.

Note: In **Conveyor Mode** the value represents a **Pulse** Feedback. (See Sec 3.1.9)
In **Drive Thru Mode** the value represents increments of **Seconds**. (See Sec 3.1.9)

Press the **Enter** button to set the new value.
If no change needs to be applied press the **Esc** to return to the previous screen.

Hint: When at the **From Rear** screen press **F3** to return to the **System Setup** Screen.
When at the **From Rear** screen press **F5** to return to the **Home** Screen.

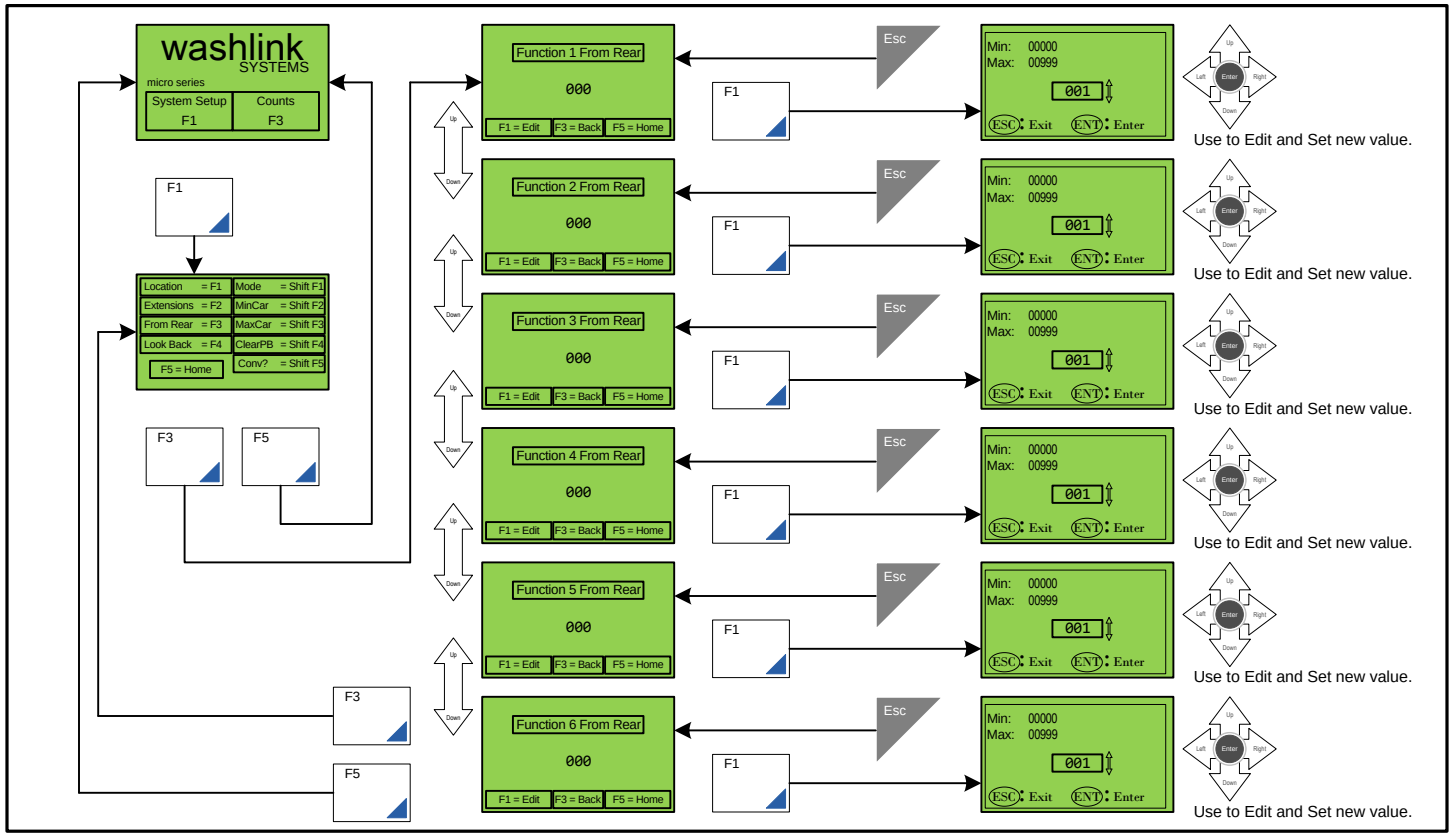

Figure 3.3. From End of Car Screen

3.2.4 Function Look Back

Figure 3.4 illustrates the mapping from the **Home** Screen to the **Function Look Back** Screen.
At the Home Screen press the **F1** button to enter the **System Setup**.
This will navigate to the **System Setup** Screen.
At the **System Setup** Screen press the **F4** button to enter the **Function Look Back** Screen.
This will navigate to the **Minimum Car Length** Screen.
At the **Function Look Back** Screen press the **F1** button to enter the **Edit** Screen.
Use the **Up** and **Down** arrow button to increment and decrement the current **Look Back** value.

Hint: Use the **Left** or **Right** arrow button to move the cursor to the next digit.
This will allow for faster Editing of higher values.

Note: In **Conveyor Mode** the value represents a **Pulse** Feedback. (See Sec 3.1.9)
In **Drive Thru Mode** the value represents increments of **Seconds**. (See Sec 3.1.9)

Press the **Enter** button to set the new value.
If no change needs to be applied press the **Esc** to return to the previous screen.

Hint: When at the **Function Look Back** screen press **F3** to return to the **System Setup** Screen.
When at the **Function Look Back** screen press **F5** to return to the **Home** Screen.

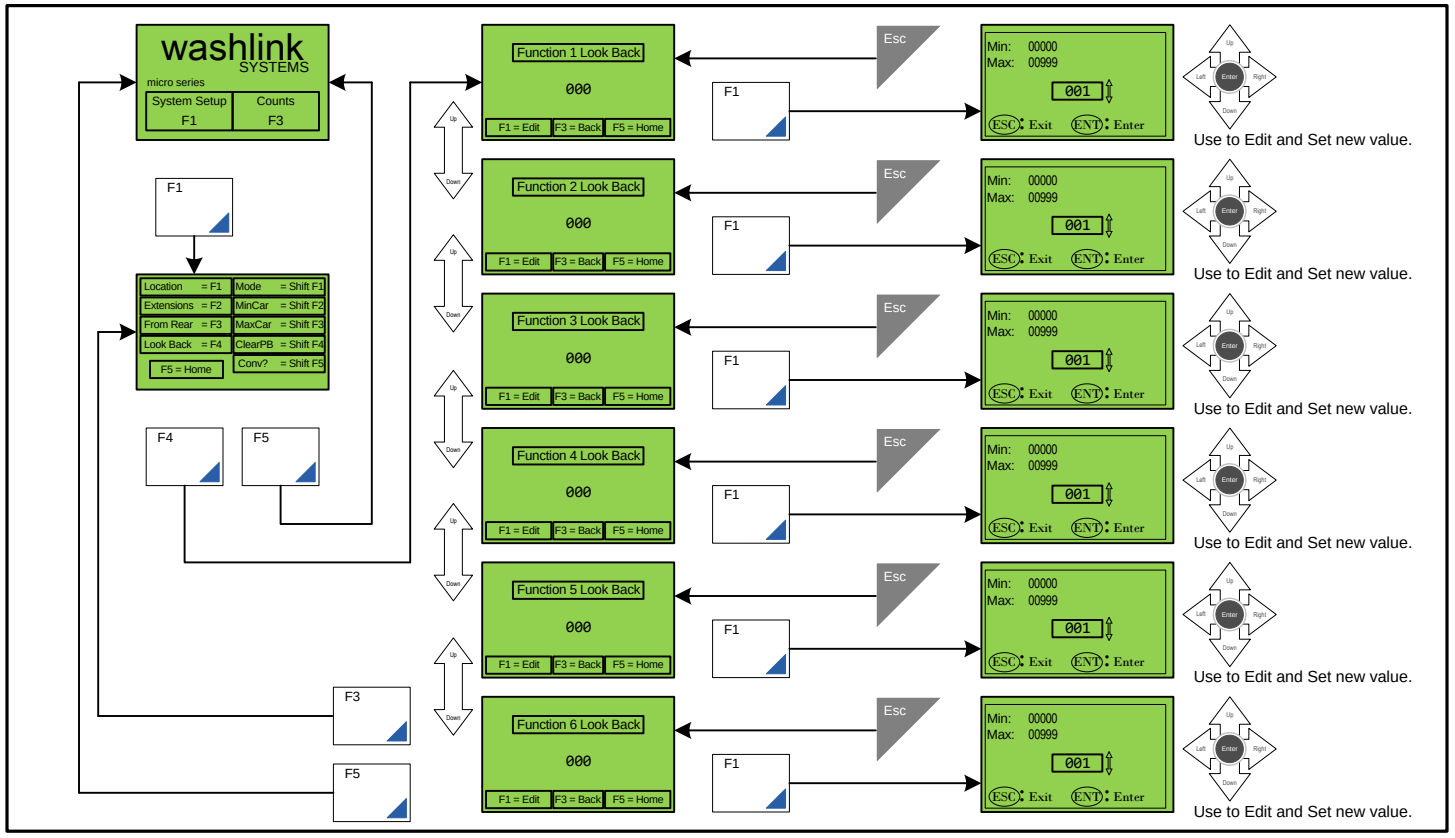

Figure 3.4 Function Look Back Screen

3.2.5 Function Mode

Figure 3.5 illustrates the mapping from the **Home** Screen to the **Function Mode** Screen.
At the Home Screen press the **F1** button to enter the **System Setup**.
This will navigate to the **System Setup** Screen.
At the **System Setup** Screen press the **Shift + F1** button to enter the **Function Mode** Screen.
This will navigate to the **Function Mode** Screen.
At the **Function Mode** Screen press the **F1** button to enter the **Edit** Screen.
Use the **Up** and **Down** arrow button to increment and decrement the current **Mode** value.

> **Hint:** Use the **Left** or **Right** arrow button to move the cursor to the next digit.
> This will allow for faster Editing of higher values.

> **Note:** In **Conveyor Mode** the value represents a **Pulse** Feedback. (See Sec 3.1.9)
> In **Drive Thru Mode** the value represents increments of **Seconds**. (See Sec 3.1.9)

Press the **Enter** button to set the new value.
If no change needs to be applied press the **Esc** to return to the previous screen.

> **Hint:** When at the **Function Mode** screen press **F3** to return to the **System Setup** Screen.
> When at the **Function Mode** screen press **F5** to return to the **Home** Screen.

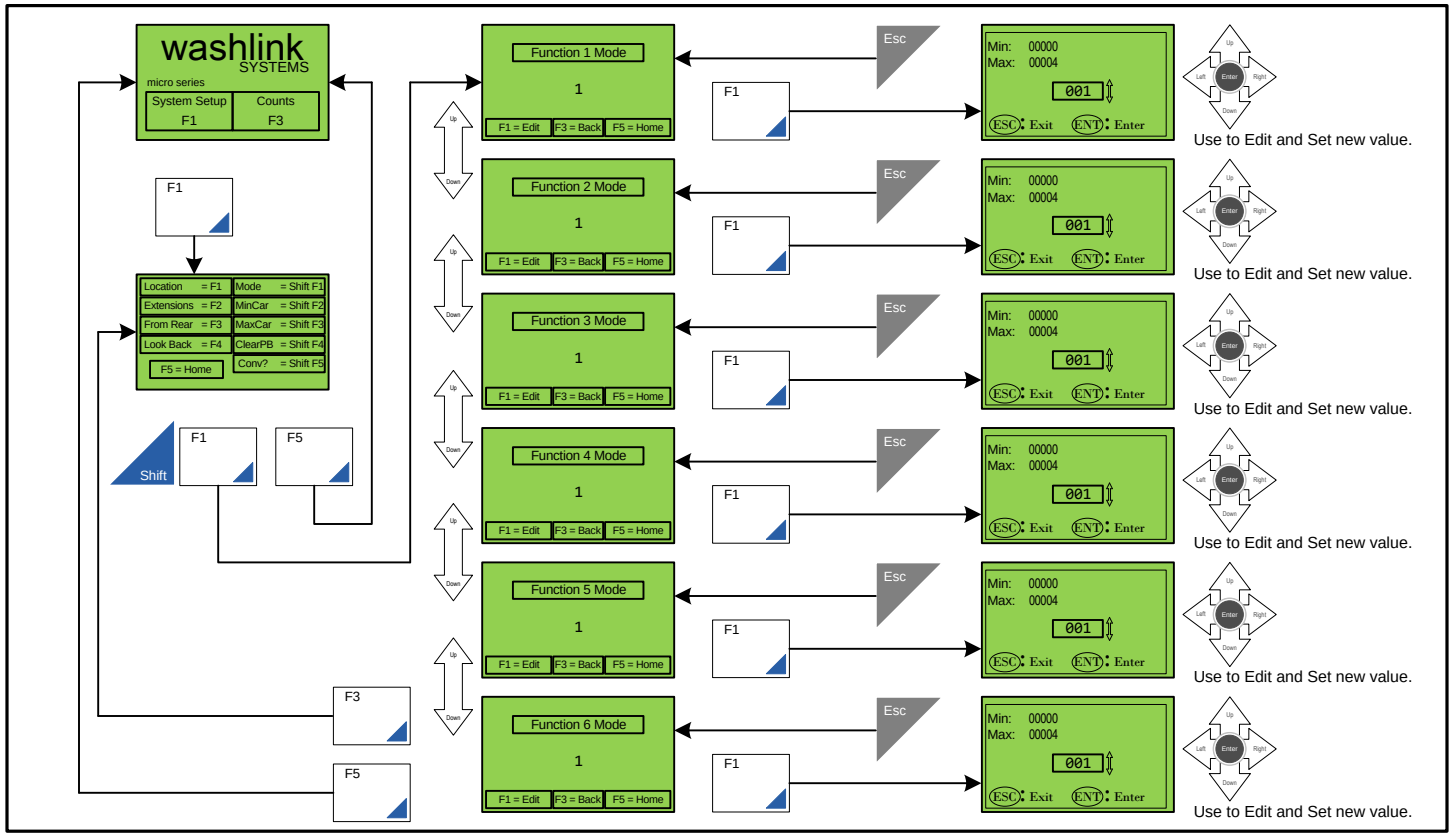

Figure 3.5 Function Mode Screen

3.2.6 Minimum Car Length

Figure 3.6 illustrates the mapping from the **Home** Screen to the **Minimum Car Length** Screen.
At the Home Screen press the **F1** button to enter the **System Setup**.
This will navigate to the **System Setup** Screen.
At the **System Setup** Screen press the **Shift + F2** button to enter the **Minimum Car Length** Screen.
This will navigate to the **Minimum Car Length** Screen.
At the **Minimum Car Length** Screen press the **F1** button to enter the **Edit** Screen.
Use the **Up** and **Down** arrow button to increment and decrement the current **Minimum Car Length** value.

> **Hint:** Use the **Left** or **Right** arrow button to move the cursor to the next digit. This will allow for faster Editing of higher values.

> **Note:** In **Conveyor Mode** the value represents a **Pulse** Feedback. (See Sec 3.1.9)
> In **Drive Thru Mode** the value represents increments of **Seconds**. (See Sec 3.1.9)

Press the **Enter** button to set the new value.
If no change needs to be applied press the **Esc** to return to the previous screen.

> **Hint:** When at the **Minimum Car Length** screen press F3 to return to the **System Setup** Screen.
> When at the **Minimum Car Length** screen press F5 to return to the **Home** Screen.

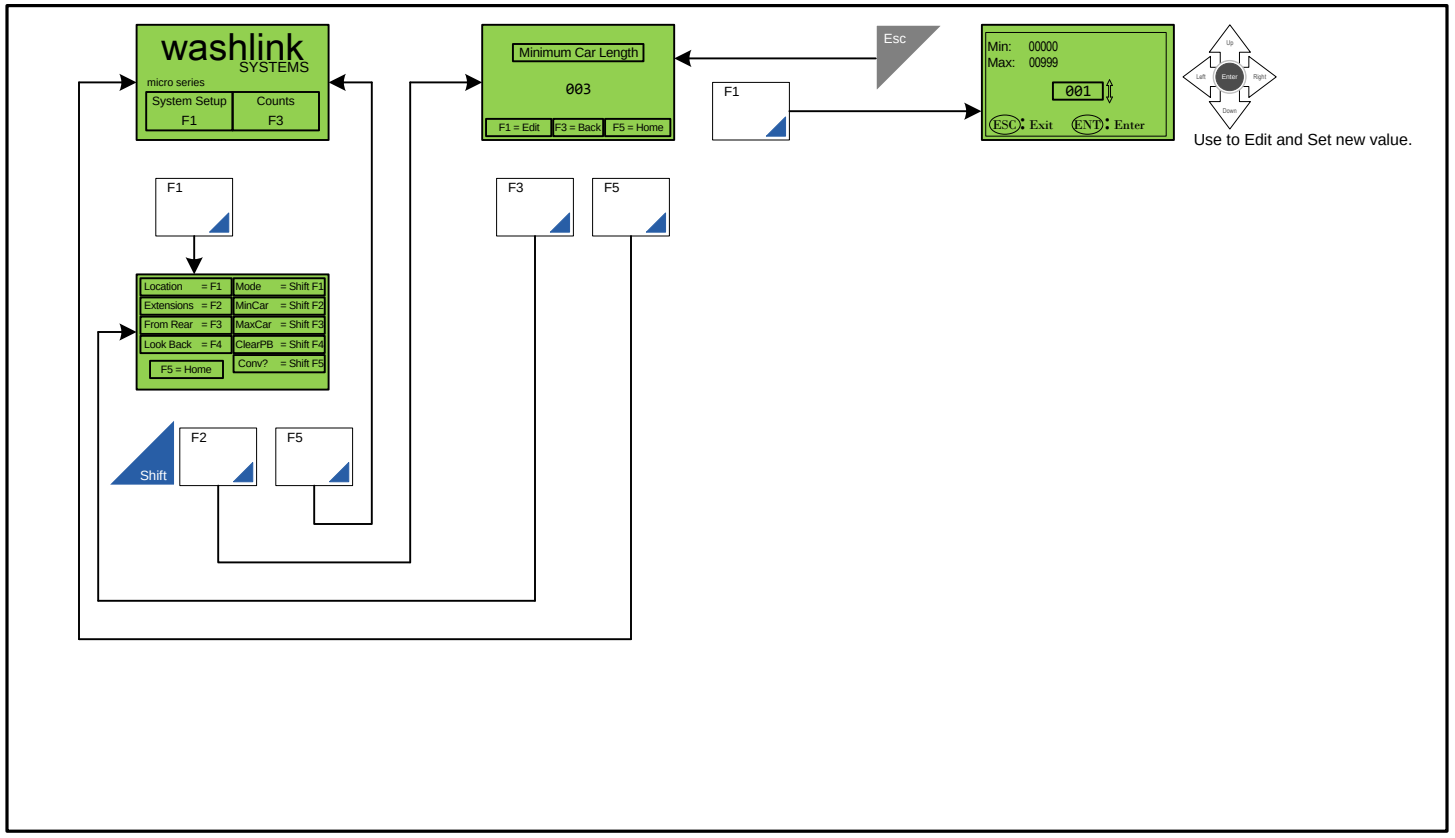

Figure 3.6 Minimum Car Length Screen

3.2.7 Maximum Car Length

Figure 3.7 illustrates the mapping from the **Home** Screen to the **Maximum Car Length** Screen.
At the Home Screen press the **F1** button to enter the **System Setup**.
This will navigate to the **System Setup** Screen.
At the **System Setup** Screen press the **Shift + F3** button to enter the **Maximum Car Length** Screen.
This will navigate to the **Maximum Car Length** Screen.
At the **Maximum Car Length** Screen press the **F1** button to enter the **Edit** Screen.
Use the **Up** and **Down** arrow button to increment and decrement the current **Maximum Car Length** value.

> **Hint:** Use the **Left** or **Right** arrow button to move the cursor to the next digit. This will allow for faster Editing of higher values.

> **Note:** In **Conveyor Mode** the value represents a **Pulse** Feedback. (See Sec 3.1.9)
> In **Drive Thru Mode** the value represents increments of **Seconds**. (See Sec 3.1.9)

Press the **Enter** button to set the new value.
If no change needs to be applied press the **Esc** to return to the previous screen.

> **Hint:** When at the **Maximum Car Length** screen press F3 to return to the **System Setup** Screen.
> When at the **Maximum Car Length** screen press F5 to return to the **Home** Screen.

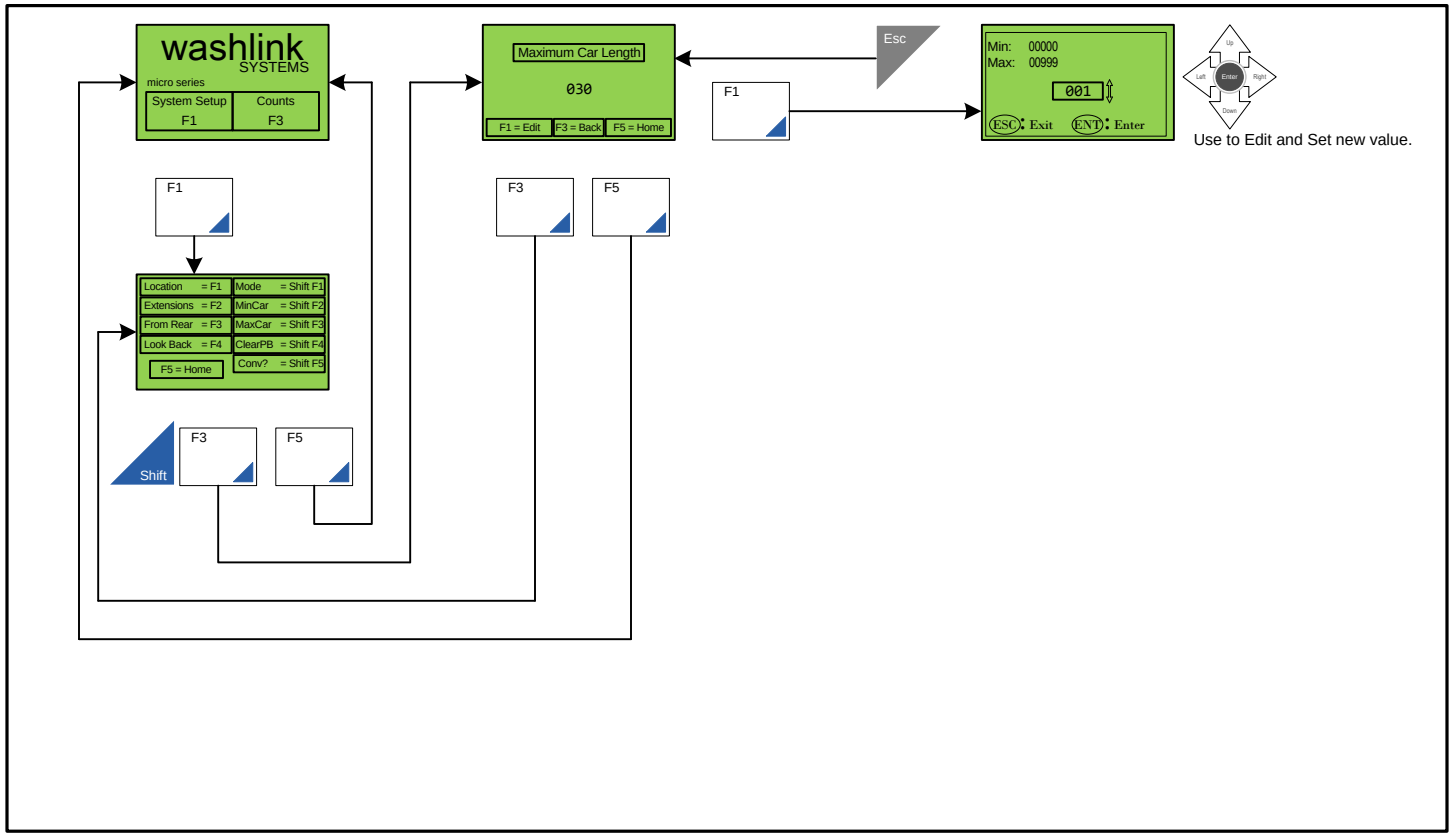

Figure 3.7 Maximum Car Length Screen

3.2.8 Function Clear

Figure 3.8 illustrates the mapping from the **Home** Screen to the **Function Clear** Screen.
At the Home Screen press the **F1** button to enter the **System Setup**.
This will navigate to the **System Setup** Screen.
At the **System Setup** Screen press the **Shift + F4** button to enter the **Function Clear** Screen.
This will navigate to the **Function Clear** Screen.
At the **Function Clear** Screen press the **F1** button to enter the **Edit** Screen.
Use the **Up** and **Down** arrow button to increment and decrement the current **Enable Clear Button** value.

> **Hint:** Use the **Left** or **Right** arrow button to move the cursor to the next digit. This will allow for faster Editing of higher values.

> **Note:** To DISABLE the **Function Clear Button** set the value to (0) zero. (See Sec 3.1.8)
> To ENABLE the **Function Clear Button** set the value to (1) one. (See Sec 3.1.8)

Press the **Enter** button to set the new value.
If no change needs to be applied press the **Esc** to return to the previous screen.

> **Hint:** When at the **Enable Clear Button** screen press **F3** to return to the **System Setup** Screen
> When at the **Enable Clear Button** screen press **F5** to return to the **Home** Screen.

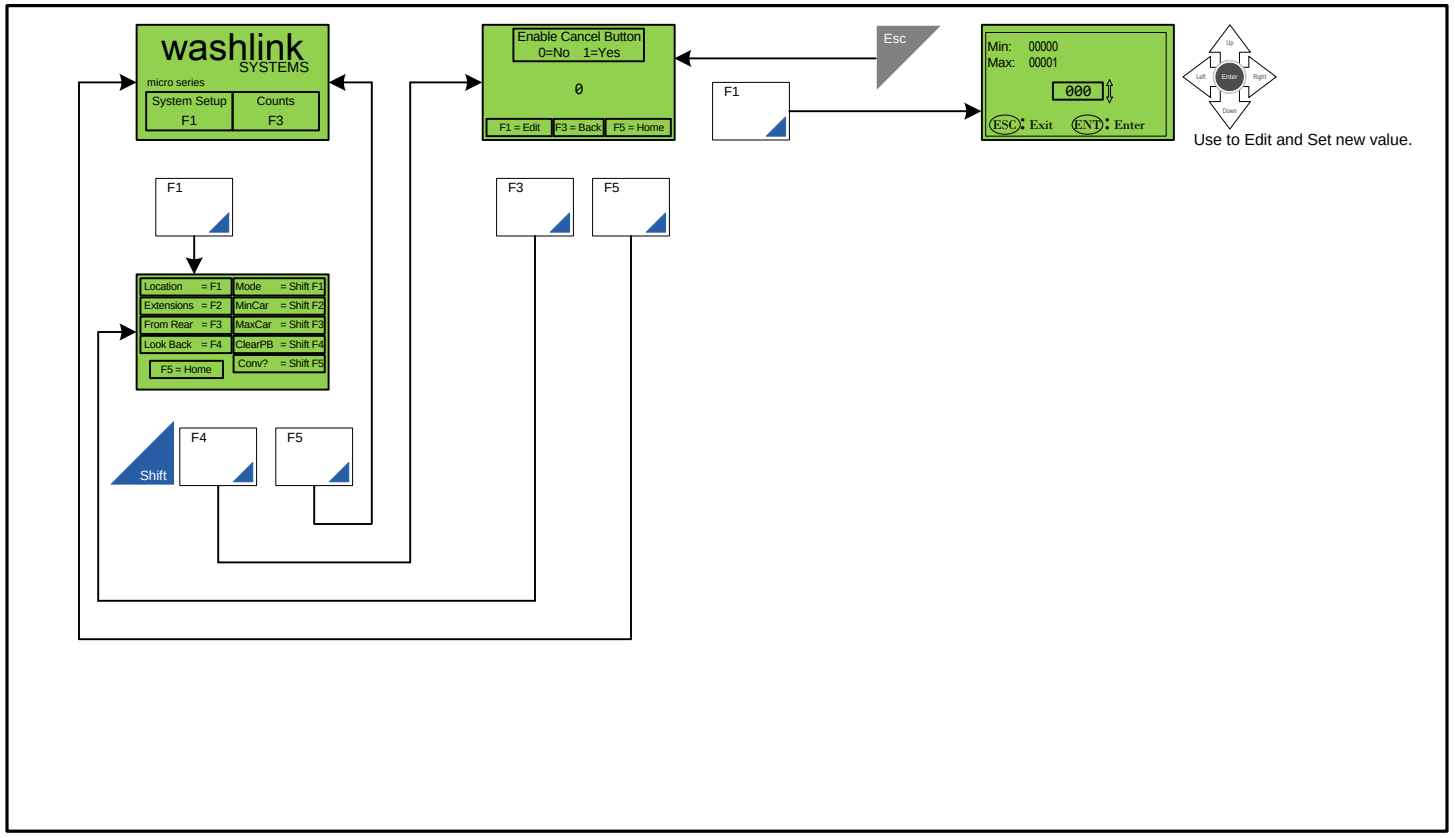

Figure 3.8 Enable Function Clear Screen

3.2.9 Operation Mode

Figure 3.9 illustrates the mapping from the **Home** Screen to the **Operation Mode** Screen.
At the Home Screen press the **F1** button to enter the **System Setup**.
This will navigate to the **System Setup** Screen.
At the **System Setup** Screen press the **Shift + F5** button to enter the **Operation Mode** Screen.
This will navigate to the **Operation Mode** Screen.
At the **Operation Mode** Screen press the **F1** button to enter the **Edit** Screen.
Use the **Up** and **Down** arrow button to increment and decrement the current **Operation Mode** value.

> **Hint:** Use the **Left** or **Right** arrow button to move the cursor to the next digit.
> This will allow for faster Editing of higher values.

> **Note:** To ENABLE **Conveyor Mode** set the value to (0) zero. (See Sec 3.1.9)
> To ENABLE **Drive Thru Mode** set the value to (1) one. (See Sec 3.1.9)

Press the **Enter** button to set the new value.
If no change needs to be applied press the **Esc** to return to the previous screen.

> **Hint:** When at the **Operation Mode** screen press **F3** to return to the **System Setup** Screen.
> When at the **Operation Mode** screen press **F5** to return to the **Home** Screen.

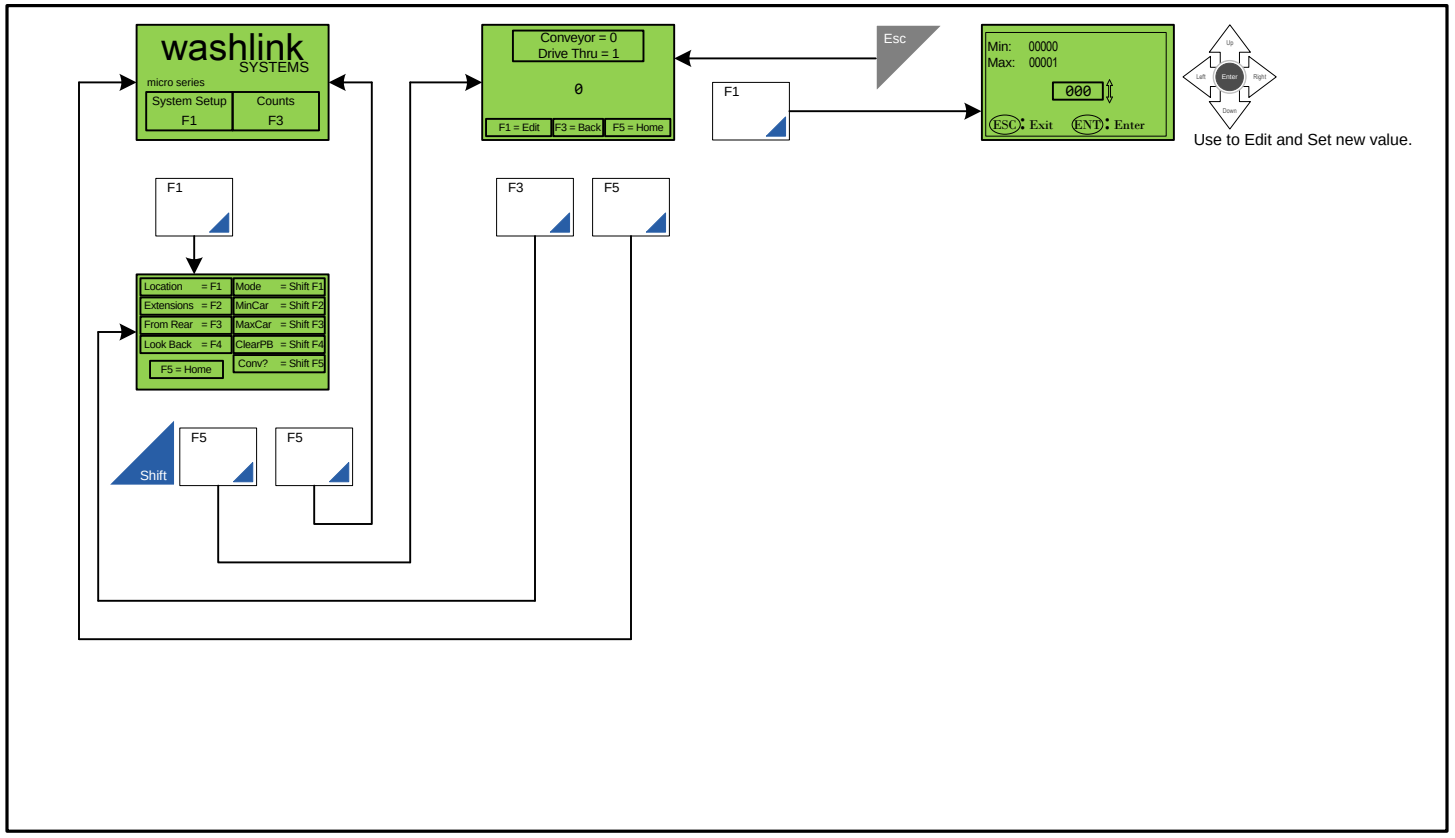

Figure 3.9 Operation Mode Screen

3.3 Configuration Setting Worksheet

Conveyor or Drive Thru Mode _____

Minimum Car Length _____

Maximum Car Length _____

Clear Input Enable _____

Function 1
Mode _____
Location _____
Extension _____
From Rear _____
Look Back _____

Function 2
Mode _____
Location _____
Extension _____
From Rear _____
Look Back _____

Function 3
Mode _____
Location _____
Extension _____
From Rear _____
Look Back _____

Function 4
Mode _____
Location _____
Extension _____
From Rear _____
Look Back _____

Function 5
Mode _____
Location _____
Extension _____
From Rear _____
Look Back _____

Function 6
Mode _____
Location _____
Extension _____
From Rear _____
Look Back _____

Function 1
Mode _____
Location _____
Extension _____
From Rear _____
Look Back _____

Function 2
Mode _____
Location _____
Extension _____
From Rear _____
Look Back _____

Function 3
Mode _____
Location _____
Extension _____
From Rear _____
Look Back _____

Function 4
Mode _____
Location _____
Extension _____
From Rear _____
Look Back _____

Function 5
Mode _____
Location _____
Extension _____
From Rear _____
Look Back _____

Function 6
Mode _____
Location _____
Extension _____
From Rear _____
Look Back _____

Installed by _____

Date Installed _____

Chapter 4

5 General System Notes

Chapter 5

4 Function Counts

The MICRO Equipment Controller logs the amount of times a **Function** is activated an and stores the value for viewing in each **Function's Counts** screen.

Note: The Washlink Blue Leaf Programmer is required in order to view **Function Counts**.

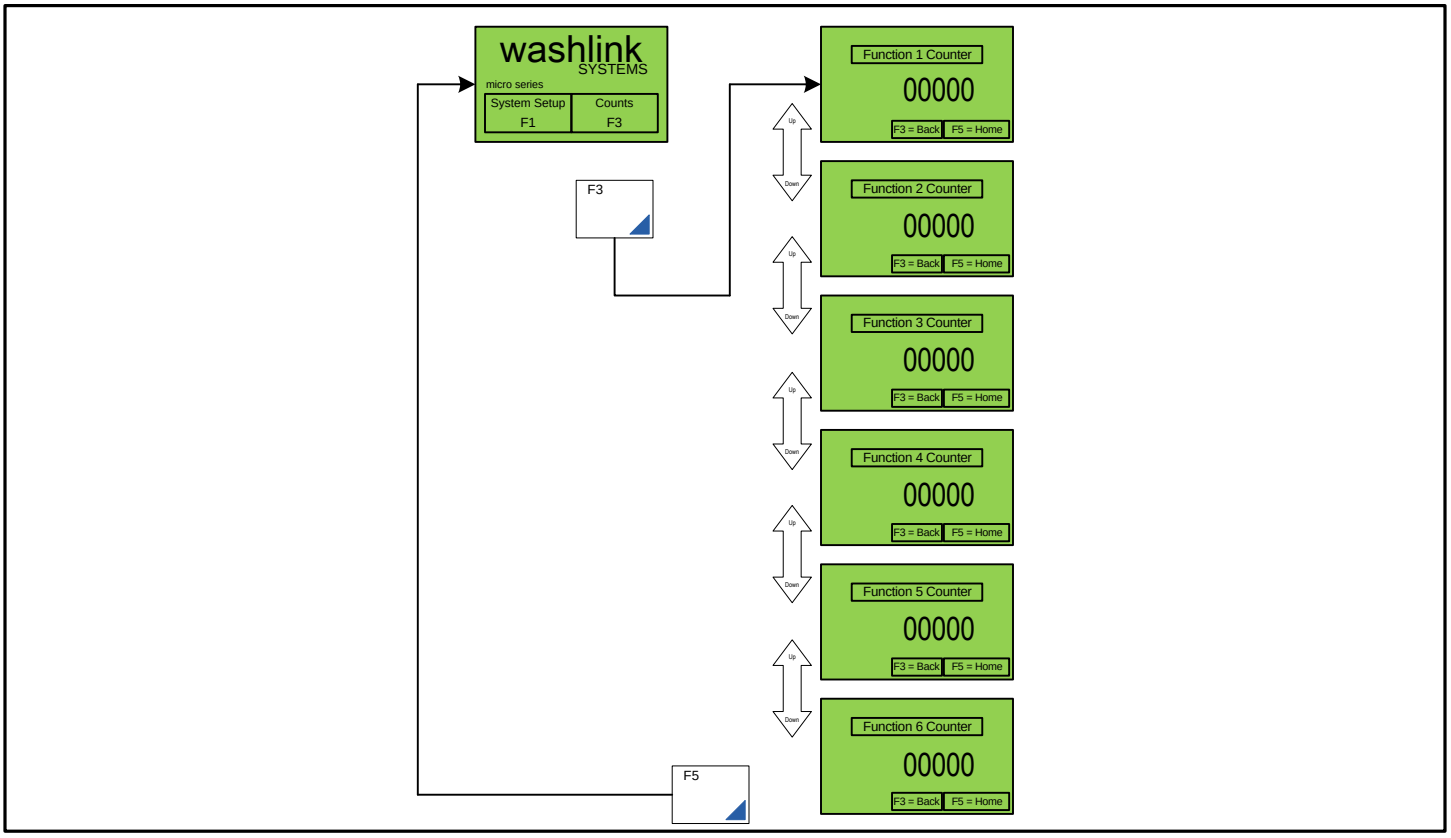

Figure 4.0 Function Counts Screen

Chapter
6

6 Wiring Diagram

The following pages are dedicated to the wiring diagram for the MICRO Equipment Controller.

PAGE	DESCRIPTION
0	COVER SHEET
1	PLC WIRING
2	RELAY DETAIL
3	LAYOUT AND BILL OF MATERIALS
4	CONFIGURATION DATA
5	

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1.0.0	MTS	01.15.08	FOR APPROVAL
4.0.1	MTS	02.01.08	CHECKED AND APPROVED BY SH

NOTES:

1. STANDARD SUPPLY VOLTAGE IS 120VAC 60Hz. OPTIONAL INTERNATIONAL VOLTAGE KIT AT 220VAC 50Hz IS AVAILABLE UPON REQUEST.
2. WASHLINK SYSTEMS RECOMMENDS INDIVIDUAL HOUSE PANEL CIRCUIT. **(120VAC 15A or 220VAC 10A MAXIMUM.)**
3. ILLUMINATED LED INDICATES BLOWN FUSE.
4. WASHLINK SYSTEMS RECOMMENDS AWG 18 STRANDED COPPER WIRE FOR CIRCUITS LESS THAN 200 FEET.
5. **TO AVOID RISK OF FIRE AND PERSONAL INJURY, REPLACE ONLY WITH MANUFACTURER'S ORIGINAL RATED FUSE.**
6. **FUSE HOLDER AND INDICATING LED ARE RATED AT 60 – 150V.**
7. **FUSE HOLDER AND INDICATING LED ARE RATED AT 10 – 36V.**
8. **INPUTS ARE 0VDC ONLY. ANY OTHER VOLTAGE WILL DAMAGE CONTROLLER AND VOID MANUFACTURER'S WARRANTY.**
9. INPUT 1 CAN BE CONFIGURED AS A "CLEAR INPUT". USING THIS CONFIGURATION WILL CLEAR ALL PENDING SRVICE INPUTS FOR THE NEXT CAR.
10. IF EXISTING "ENTER" AND "PULSE" DOES NOT PROVIDE A NORMALLY OPEN CIRCUIT, AN INTERMEDIARY RELAY MAY BE NEEDED FOR THE "ENTER" AND "PULSE" INPUT.
11. IF AN OUTPUT IS NEEDED FOR EVERY CAR, SIMPLY JUMPER THE CORRESPONDING INPUT TO 0VDC.

ALL ELECTRICAL WORK SHOULD BE PERFORMED BY A QUALIFIED AND LICENSED ELECTRICIAN.
ALL ELECTRICAL WORK SHOULD MEET OR EXCEED NATIONAL AND LOCAL CODES AND ORDINANCES.

CAUTION! RISK OF ELECTRICAL SHOCK. MORE THAN ONE DISCONNECT MY BE REQUIRED TO BE DE-ENERGIZED BEFORE SERVICING THE EQUIPMENT.

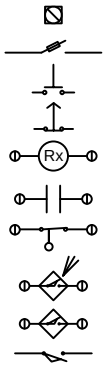
CAUTION! TO REDUCE THE RISK OF FIRE, CONNECT ONLY TO A 120VAC CIRCUIT PROVIDED WITH 15A MAXIMUM BRANCH CIRCUIT PROTECTION IN ACCORDANCE WITH THE NEC, ANSI/NFPA 70 AND LOCAL CODE AUTHORITIES.

CAUTION! BONDING BETWEEN CONDUIT CONNECTION IS NOT AUTOMATIC AND MUST BE PROVIDED AS PART OF THE INSTALLATION.

LEGEND

BK – BLACK (120/220VAC HOT)
BK/OE – BLACK W/ ORANGE TRACE (120/220VAC CONTROL CIRCUIT)
BK/YW – BLACK W/ YELLOW TRACE (120/220VAC CONTROL CIRCUIT)
WE – WHITE (120/220VAC NEUTRAL)
RD – RED (24VAC CONTROL CIRCUIT)
WE/RD – WHITE W/ RED TRACE (24VAC NEUTRAL)
BE – BLUE (24VDC POSITIVE)
WE/BE – WHITE W/ BLUE TRACE (0VDC or 24VDC COMMON)
BN – BROWN (CONTROL CIRCUIT)
OE – ORANGE (CONTROL CIRCUIT)
YW – YELLOW (CONTROL CIRCUIT)
PE – PURPLE (CONTROL CIRCUIT)
WE/BN – WHITE W/ BROWN TRACE (CONTROL CIRCUIT)
WE/OE – WHITE W/ ORNGE TRACE (CONTROL CIRCUIT)
WE/YW – WHITE W/ YELLOW TRACE (CONTROL CIRCUIT)
WE/PE – WHITE W/ PURPLE TRACE (CONTROL CIRCUIT)

FIELD WIRING ----------
ENCLOSURE WIRING ——————



ENCLOSURE CONVENIENCE TERMINAL
FUSE HOLDER
MOMENTARY N/O PUSH BUTTON
MAINTAINED N/C PUSH BUTTON
RELAY COIL
RELAY CONTACT N/O
LEVEL SWITCH N/C
PHOTO EYE N/O
PROXIMITY SWITCH N/O
LIMIT SWITCH N/O

NOT TO SCALE

EQUIPMENT CONTROLLER IS FABRICATED TO UL #508 SPECIFICATIONS

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san jose ca 95125
408.924.0808
www.washlinksystems.com

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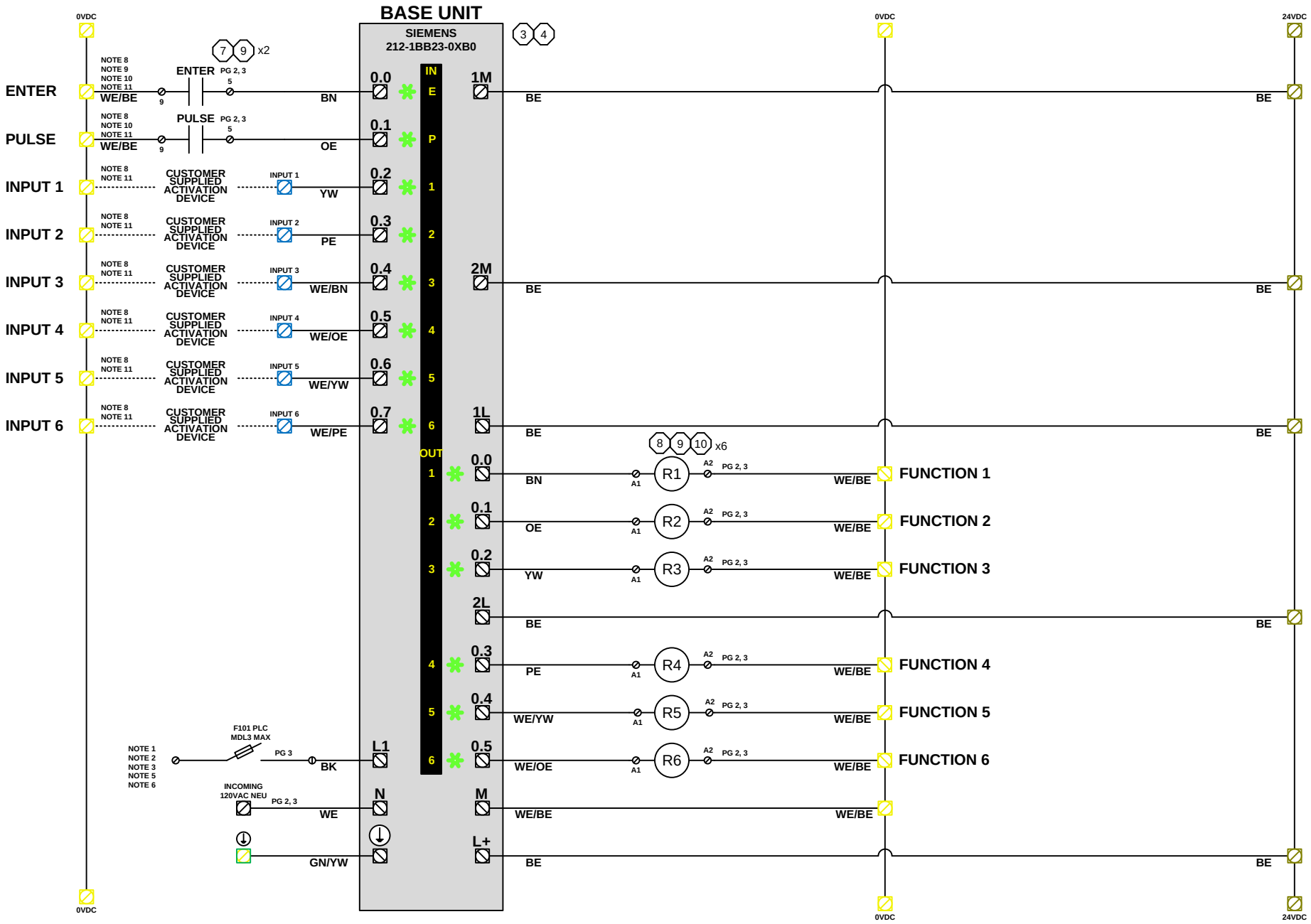

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PLC WIRING

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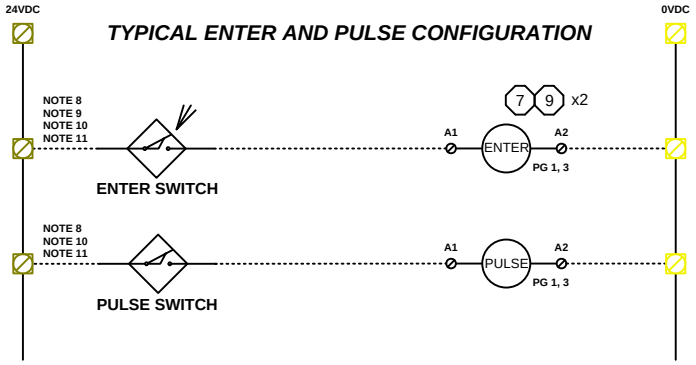
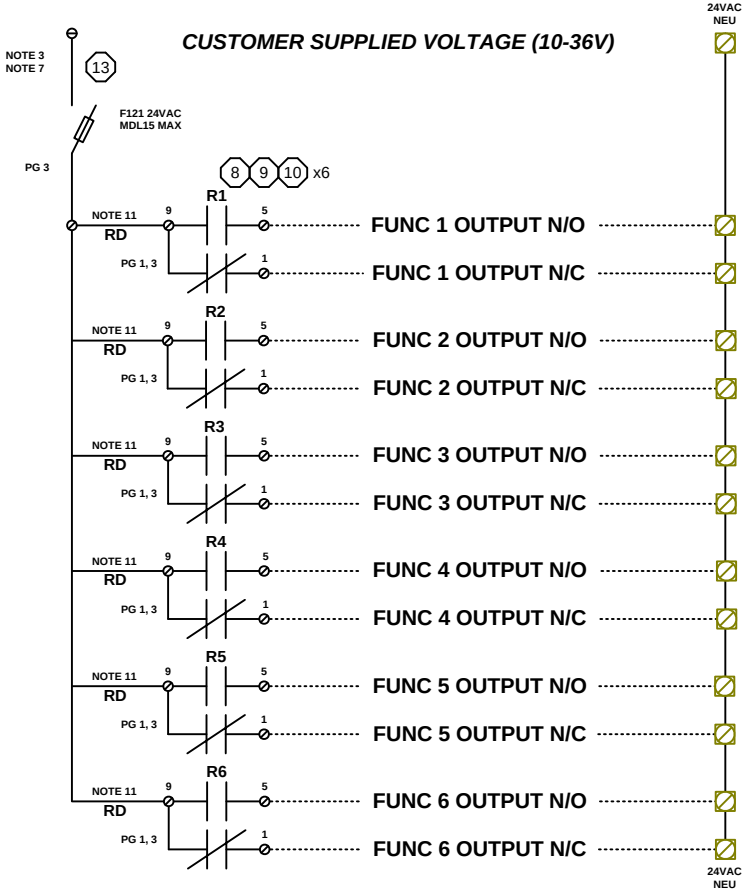
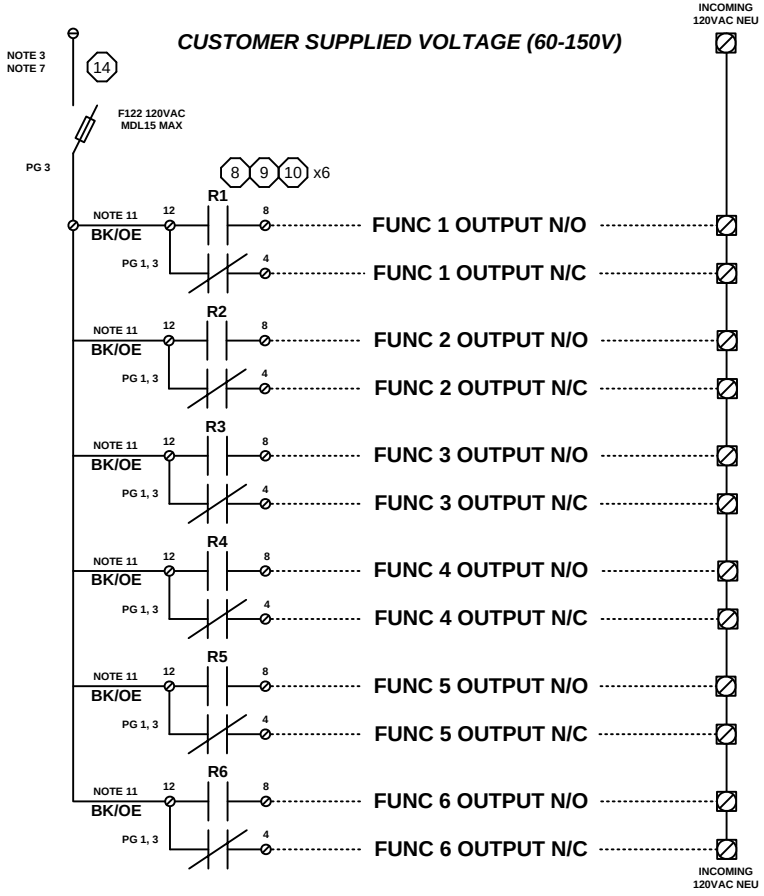
TYPICAL ENTER AND PULSE CONFIGURATION



CUSTOMER SUPPLIED VOLTAGE (10-36V)



CUSTOMER SUPPLIED VOLTAGE (60-150V)



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RELAY DETAIL

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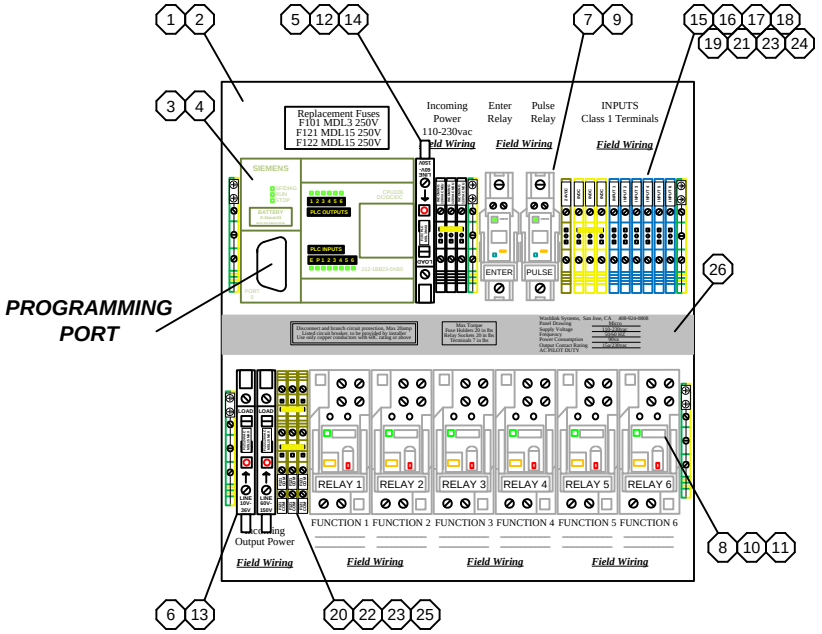

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LAYOUT/BOM

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