

ALLIED ELECTRONICS, INC
STATION SITE CONTROLLER (SSC)

Installation and Start Up Guide

Husky ANDI
to Wayne PIB and Gilbarco



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1. General Information

1.1. Installation Environment

1. The Allied Electronics Station Site Controller (SSC) operates on 115 Vac @60hz,36 watts. The SSC is supplied with approximately 8ft. of 115 Vac power cord, and should be connected to an approved isolated ground receptacle on its own dedicated circuit. The SSC must be installed in a temperature controlled environment (between 32⁰ F and 100⁰ F).
2. Allied Electronics recommends that the SSC be installed with a UL Listed Power Conditioner to protect against power surges, low voltage (brown outs), and lightning.
3. The SSC must be installed in accordance with the National Electrical Code (NFPA 70), the Automotive and Marine Service Station Code (NFPA 30A), and all state and local electrical codes.
4. The SSC must be installed indoors, above the Class 1, Division 2 Hazardous location.
5. All field wiring (that is, all wiring connected directly to dispensing devices) should be oil and gas resistant, as required by Paragraph 501-13 of the NEC, and should be sealed in accordance with Article 500 of the NEC.
6. For use with peripheral devices which are UL Listed, have an EIA RS232C (or RS422A) communication protocol, and are installed over a hazardous location.

1.2. Warranty

The SSC has a one year parts warranty only, from date of installation, which can either be phoned in or submitted using the warranty/registration card enclosed in every SSC. If the start up information is not registered with our office within thirty (30) days of installation, warranty will begin from the date of shipment. Allied will warrant all parts against defects but not against physical damage or improper installation. All parts being returned "under warranty" must be accompanied with a Allied RMA number. When calling Allied for RMA numbers for SSC main boards, you will be asked for the main board serial number, located on the upper left hand corner inside box, and a description of the problem.

1.3. FCC Warning

This equipment generates, uses, and can radiate radio frequency energy and if not installed and used in accordance with the instruction manual, may cause interference to radio communications. It has been tested and found to comply with the limits for a Class "A" computing device pursuant to Subpart B of Part 15 of the FCC Rules, which are designed to provide reasonable protection against such interference when operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference, in which case the user, at his own expense, will be required to take whatever measures may be required to correct the interference.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

1.4. Overview

The SSC interfaces to the following devices:

Wayne Dispensers

1. Wayne Dispensers via a 7-wire Fully Populated RS-232 communication board connected to the Wayne PIB which is located in the Electronic Central.

Gilbarco Dispensers

1. Gilbarco Dispensers via the 20/45 ma current loop board which is connected to the Blue/Black or the Universal Distribution Box.

Tokheim OPTs

1. Tokheim OPTs via an RS-485 interface board.

Point - Of - Sale (POS)

1. Generic PC Based Point -Of -Sale Computer via a fully populated RS-232 board. Supporting the ANDI protocol interface.

Tank gauge

1. Veeder Root TLS 250, 350 & 350R or equivalent tank gauge system via a fully populated RS-232 board.
2. Any Tank Gauge system that uses the Veeder Root protocol.

Car Wash

1. Ryko III, Ryko IV, Unitec POS 4000 and the Unitec/Interlink Car Wash controllers via a fully populated RS-232 board.
2. Ryko compatible controllers

1.5. Installation Information

1.5.1. Procedures

1. Hardware Installation

- a. Mount SSC unit onto wall.
- b. Route and connect all communication cables as labeled.
Refer to “*Configuration Diagrams*” section.
- c. Apply AC power to unit.

The SSC software will first initialize the hardware and then run some internal diagnostics before starting the application program. To indicate that the software is active, the SSC will display the following:

- d. The prompt will display, ⇒ [SSC System Reset]
[Initializing ...]

SSC will next show the following on the display for several seconds.

- ⇒ [Software Version]
[SSC Warm Start]

SSC will then show the following on the display when ready.

- ⇒ [Software Version]
[Date & Time]

2. Programming steps

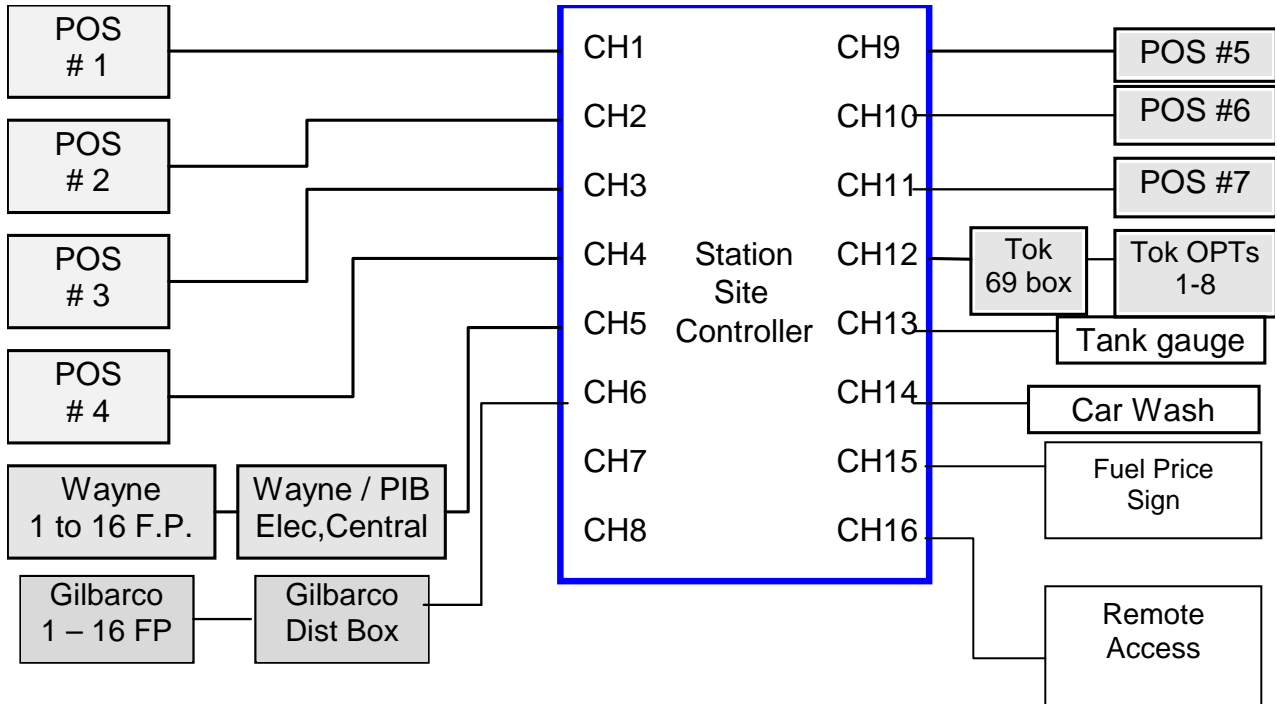
- a. Program the dispensers*.
- b. Program the SSC via the POS**.

Note* - Dispenser programming is not within the scope of this manual.

Note** - It is not within the scope of this manual to supply complete step-by-step programming of the POS.

1.6. Configuration Diagram

1.6.1. SSC to Wayne and Gilbarco



This figure describes an SSC to Wayne and Gilbarco.

Communication Boards

CH1 (POS).....	0399-1610-F (RS-232 Fully Populated board)
CH2 (POS) "Optional"	0399-1610-F (RS-232 Fully Populated board)
CH3 (POS) "Optional"	0399-1610-F (RS-232 Fully Populated board)
CH4 (POS) "Optional"	0399-1610-F (RS-232 Fully Populated board)
CH5 (Wayne Dispenser)	0399-1610-F (RS-232 Fully Populated board)
CH6 (Gilbarco Dispenser).....	0499-2410-(45ma Current loop board)
CH7* (CAT/Cash).....	499-3710 (RS485 board)
CH9 (POS) "Optional"	0399-1610-F (RS-232 Fully Populated board)
CH10 (POS) "Optional"	0399-1610-F (RS-232 Fully Populated board)
CH11(POS) "Optional"	0399-1610-F (RS-232 Fully Populated board)
CH12 (POS) "Optional"	0399-1610-F (RS-232 Fully Populated board)
CH13 (Tank Gauge).....	0399-1610-F (RS-232 Fully Populated board)
CH14 (Car Wash)	0399-1610-F (RS-232 Fully Populated board)
CH15 (Fuel Price Sign).....	0399-1610-F (RS-232 Fully Populated board)
CH16 (Remote Access)	0399-1610-F (RS-232 Fully Populated board)

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Note: The Tokheim OPT's must connect to a Tokheim #69 box.

1.7. Communication Cable Pin Assignments

1.7.1. POS Communication Cables

The SSC supports up to 7 POSs. The POS is a PC Based computer which runs the Point-Of-Sale software. The serial port on the POS can be either a DB-25 or a DB-9 connector.

SSC (CH1 - CH4 & CH9 - CH11) To POS (Serial Port) DB-25 Cable

SSC			POS	
DB25 Female			DB25 Female	
Pins			Pins	
TXD	2	----- Black	-----	3 RXD
RXD	3	----- White	-----	2 TXD
RTS	4	----- Green	-----	5 CTS
CTS	5	----- Red	-----	4 RTS
GND	7	----- Blue	-----	7 GND
DSR	6	----- Brown	-----	11 N/C
				20 DTR
DTR	11	----- Orange	-----	6 DSR
N/C	20	-----	-----	

SSC (CH1 - CH4 & CH9 - CH11) To POS (Serial Port) DB-9 Cable

SSC			POS	
DB25 Female			DB9 Female	
Pins			Pins	
TXD	2	----- Black	-----	2 RXD
RXD	3	----- White	-----	3 TXD
RTS	4	----- Red	-----	8 CTS
CTS	5	----- Green	-----	7 RTS
DSR	6	----- Brown	-----	4 DTR
GND	7	----- Blue	-----	5 GND
DTR	11	----- Orange	-----	6 DSR

1.7.2. Wayne PIB/Electronic Central Dispenser Control Cable

The SSC uses a Fully Populated RS232 communication board in Channel 5 to interface to the Wayne PIB/dispensers. Up to 24 fueling positions may be connected. Channel 5 must have a 7-wire custom cable which terminates in a female DB-25 connector.

SSC (CH5) To the Wayne Cable (Female DB-25)

SSC DB25 Female Pins				Wayne/PIB DB25 Female Pins
TXD 2	-----	Black	-----	3 RXD
RXD 3	-----	White	-----	2 TXD
RTS 4	-----	Red	-----	5 CTS
CTS 5	-----	Green	-----	4 RTS
DSR 6	-----	Orange	-----	11 DTR
N/C 8	-----		-----	20 N/C
GND 7	-----	Brown	-----	7 GND
DTR 11	-----	Blue	-----	8 DCD
N/C 20	-----		-----	6 N/C

1.7.3. Gilbarco Pump Control Cables

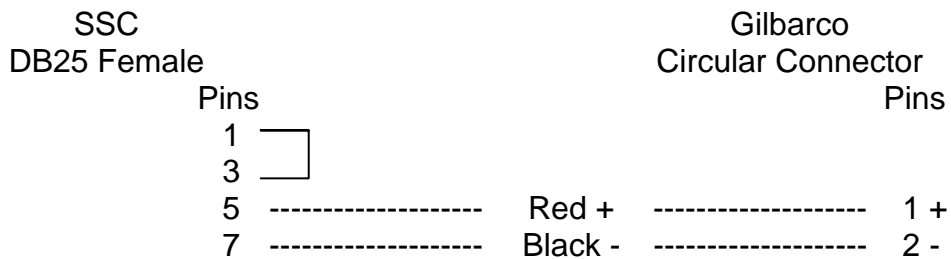
The SSC can support up to 16 fueling positions of Wayne dispensers on channel 5 (Primary dispenser channel) and up to 16 fueling positions of Gilbarco dispensers on channel 6 (Secondary dispenser channel).

Up to 16 fueling positions may be connected to the SSC on Channel (CH6). CH6 must have a 2-wire custom cable which terminates in either a 2 pin male CPC (circular plastic connector) a female DB-9 connector or a RJ45 connector.

Interface board switches should be set to 45ma/2 wire.

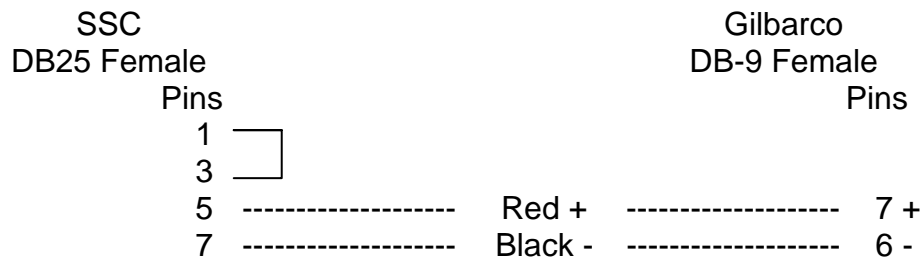
(1) Circular Plastic Connector

SSC (CH6) To the Gilbarco (CPC)



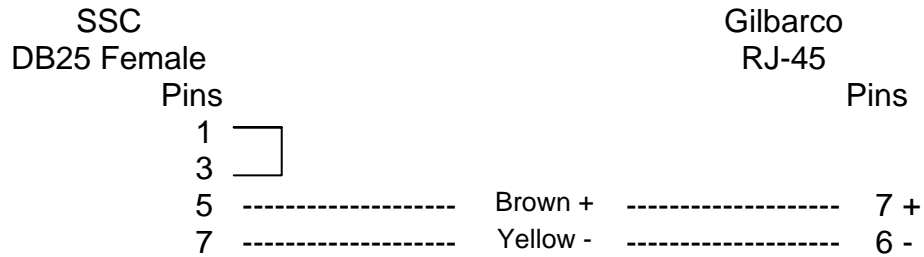
(2) DB-9 Connectors

SSC (CH6) To the Gilbarco (Female DB-9)



(3) RJ-45 Connectors

SSC (CH6) To the Gilbarco (RJ-45)



1.7.4. Tokheim OPT

<u>SSC CH12</u>	<u>69 Interface Box (J1)</u>	<u>Function</u>
Pin 1	Screw 4	Shield
Pin 2	Screw 2	RS 485 +
Pin 3	Screw 1	RS 485 -
Pin 4	Screw 3	Ground

SSC (CH12) to the OPT Cable

SSC DB25 Female			Tokheim #69 Box J1 Connector
Pins			Screws
1	-----	Shield	----- 4
2	-----	White	----- 2
3	-----	Red	----- 1
4	-----	Black	----- 3

Note: Up to 8 Tokheim OPTs may be connected to the ssc on CH-12 via the Tokheim #69 box. A #18 awg 3 conductor shielded cable rated at 600 volts oil and gas resistant must be used for DPT and OPT communication, Allied part #28318 or equivalent.

Caution: The OPT cable cannot be installed in the same conduit as the intercom cable or high voltage lines. Serious damage to the OPT and or the SSC may result if the cable is not installed properly.

1.7.5. Tank Gauge Cables and RJ45 Adapters

The SSC uses Channel 13 to interface to the Veeder-Root or Equivalent tank gauge systems. Configure the tank gauge communication parameters as follows:

Baud Rate: 9600 Parity: Odd Stop Bits: 1 Data Bits: 7

1.7.5.1. Veeder Root TLS

On a TLS-250, the communication parameters are set using a rotary switch and DIP switches, (please refer to the TLS 250 manual).

On a TLS-350, the communication parameters are programmed via the TLS keyboard (please refer to TLS 350/350R manual).

SSC (CH13) Cable to the TLS

SSC				TLS	
DB25 Female				DB25 Male	
Pins				Pins	
TXD	2	-----	Black	-----	3 RXD
RXD	3	-----	White	-----	2 TXD
RTS	4]			
CTS	5]			
GND	7	-----	Red	-----	7 GND
DSR	6]			
DTR	11]			

1.7.5.2. Red Jacket ST

SSC (CH13) Cable to the Red Jacket "ST" tank gauge

SSC				Red Jacket	
DB25 Female				DB9 Female	
Pins				Pins	
TXD	2	-----	Black	-----	2 RXD
RXD	3	-----	White	-----	3 TXD
CTS	5	-----	Green	-----	7 RTS
GND	7	-----	Red	-----	5 GND
DSR	6]			
DTR	11]			

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1.7.5.3. Omntec OEL8000 II

SSC (CH13) Cable to the OMNTEC Model OEL8000 II Tank / Leak detection system

SSC				OMNTEC	
DB25 Female				DB9 Female	
Pins				Pins	
TXD	2	-----	Black	-----	3 RXD
RXD	3	-----	White	-----	2 TXD
GND	7	-----	Red	-----	5 GND

1.7.5.4. OPW EECO

SSC (CH13) RJ45 adapter set to the OPW EECO #1500, 2000, 3000

SSC	RJ45	CAT 5 Cable		RJ45	EECO
DB25 Female	Adapter	(T568B Spec.)		Modular Jack	DB9 Male
Pins	Pins			Pins	
TXD 2	(Org) 2	-----	Orange	-----	2 RXD
RXD 3	(Blk) 3	-----	Wht/Grn	-----	3 TXD
RTS 4 <input type="checkbox"/>					
CTS 5 <input type="checkbox"/>					
GND 7	(Grn) 5	-----	Wht/Brn	-----	5 TXD
DSR 6 <input type="checkbox"/>					<input type="checkbox"/> 7 RTS
DTR 11 <input type="checkbox"/>					<input type="checkbox"/> 8 CTS

1.7.6. Car Wash Cable

The SSC uses channel 14 to interface to the car wash controller. Six different car wash controllers are supported. (Ryko CODE-A-WASH III, Ryko CODE-A-WASH IV, Unitec POS 4000, Unitec Interlink and Kesseltronics, standard, and "Advanced Dual bay" controllers).

SSC (CH14) To the Ryko CODE-A-WASH III and Kesseltronics Standard Cable

SSC				Car Wash	
DB25 Female				DB9 Male	
Pins				Pins	
TXD 2	-----	White	-----	8	RXD
RXD 3	-----	Red	-----	9	TXD
RTS 4	□				
CTS 5					
GND 7	-----	Black	-----	7	GND
DTR 11	□			1	
DSR 6			□	4	CTS

SSC (CH14) To the Ryko CODE-A-WASH IV and Unitec POS 4000 Cable

SSC				Car Wash	
DB25 Female				DB9 Female	
Pins				Pins	
TXD 2	-----	Black	-----	2	RXD
RXD 3	-----	White	-----	3	TXD
RTS 4	-----	Green	-----	8	CTS
CTS 5	-----	Red	-----	7	RTS
GND 7	-----	Brown	-----	5	GND
DTR 11	-----	Blue	-----	6	DSR
DSR 6	-----	Orange	-----	4	DTR

SSC (CH14) To the Unitec/Interlink Cable

SSC				Car Wash	
DB25 Female				DB9 Female	
Pins				Pins	
TXD 2	-----	Black	-----	2	RXD
RXD 3	-----	White	-----	3	TXD
RTS 4	□				
CTS 5					
GND 7	-----	Brown	-----	5	GND
DTR 11	□				
DSR 6					

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SSC (CH14) To the Kesseltronics “Advanced Dual bay” via the MUX PAP isolator box (DB9) Cable

SSC DB25 Female Pins				Car Wash DB9 Female Pins
TXD 2	-----	Black	-----	2 RXD
RXD 3	-----	White	-----	3 TXD
RTS 4	□			
CTS 5				
GND 7	-----	Brown	-----	5 GND
DTR 6	□			
DSR 11				

SSC (CH14) To the Kesseltronics “Advanced Dual bay” via the MUX PAP isolator box (RJ45) Cable

SSC DB25 Female Pins				Car Wash RJ45 Pins
TXD 2	-----	Orange	-----	2 RXD
RXD 3	-----	Black	-----	3 TXD
RTS 4	□			
CTS 5				
DTR 6	□			
DSR 11				
GND 7	-----	Red	-----	4 GND

2. Programming

2.1. Wayne and Gilbarco addressing

The SSC can support up to 16 fueling positions of Wayne dispensers on channel 5 (Primary dispenser channel) and up to 16 fueling positions of Gilbarco dispensers on channel 6 (Secondary dispenser channel).

In this Husky configuration the Wayne CATs and the Gilbarco CRINDs are not supported.

Wayne Fueling Position			Gilbarco Fueling Position		
Fueling Position	Address	SSC Channel	Fueling Position	Address	SSC Channel
1	1	CH-5	1	1	CH-6
2	2	CH-5	2	2	CH-6
3	3	CH-5	3	3	CH-6
4	4	CH-5	4	4	CH-6
5	5	CH-5	5	5	CH-6
6	6	CH-5	6	6	CH-6
7	7	CH-5	7	7	CH-6
8	8	CH-5	8	8	CH-6
9	9	CH-5	9	9	CH-6
10	10	CH-5	10	10	CH-6
11	11	CH-5	11	11	CH-6
12	12	CH-5	12	12	CH-6
13	13	CH-5	13	13	CH-6
14	14	CH-5	14	14	CH-6
15	15	CH-5	15	15	CH-6
16	16	CH-5	16	16	CH-6

2.1.1. Wayne “Vista” Dispensers

The following parameters must be set in the Wayne “Vista” dispensers and in the 2400 console in order for the system to function correctly.

Vista Dispenser		
Model	Option #2 (Macro)	Option #51 (Blend Ratios)
V390 D1, (<i>non-blend</i>)	5	N/A
V395 D1, (<i>variable blend</i>)	13	Must match mode 17 in the 2400 console
V580, (<i>variable blend</i>)	10	Must match mode 17 in the 2400 console
V580 D3, (<i>variable blend</i>)	11	Must match mode 17 in the 2400 console
V590 Uni-hose, (<i>fixed blend</i>)	10	Must match mode 17 in the 2400 console
V590 D1, (<i>fixed blend</i>)	7	Must match mode 17 in the 2400 console

2400 console		
Mode	Sub-mode	Setting
03 (<i>FP to tank assignment</i>)	FP #	Pure products, ex. (0534, 0540)
18 (<i>Grade to position assignment</i>)	FP #	POS FP config. must match mode 18
17 (<i>Blend ratio to grade</i>)	06 (<i>blended product</i>)	Must match option 51 in the dispenser

2.1.2. Wayne “Vista” Blending Dispensers

Variable Blenders

The ANDI interfaces to the following Wayne variable blenders.

- 580 D1** - Single hose. Multi product dispenser without diesel.
- 580 D3** - Single hose. Multi product dispenser without diesel.
- 395** - Single hose + 1. Multi product dispenser with diesel.

Fixed Blenders

The ANDI interfaces to the following Wayne fixed blenders.

- 590** - Multi hose, multi product dispenser without diesel.
- 590U** - Single hose, multi product dispenser without diesel. Uses the same configuration as the 580.

Dispenser and 2400 Console Settings

For the Wayne blenders to operate properly, several options must be set at the dispenser, at the Decade 2400 console and also at the POS.

1- Dispenser Macro

The dispenser options are set via a macro. Below are the proper macro settings for the variable blenders.

Model Type	Macro Setting
590	7
395	13
580 D1 & 590U	10
580 D3	11

2- 2400 Console Programming

Additional programming parameters must be set via the Decade 2400 console for proper dispenser operation.

a) Set Mode 18 for each fueling point. Mode 18 is the **Grade to Position** assignment for each fueling point. The table below summarizes proper mode setting for each type of blending dispenser.

Model Type	Mode 18 Setting
590	0465000
395	1005640
580 D1 & 590U	0050604
580 D3	0540

b) Set Mode 03 for each fueling point. Mode 03 programs the **Grade** assignment for each fueling point. Below summarizes the proper setting for each type of blending dispenser.

Model Type	Mode 03 Setting
590	0540
395	0541
580 D1 & 590U	0540

c) Set Mode 17, sub- mode 6 (**blend grade**). This sets the Blend Ratio for product 6. This blend ratio must match the ratio that is set at the dispenser in option 51 and also at the POS in the **Blended Fuels Ratios Menu**.

POS Product to Position Mapping

The following is a list of the Wayne product identification numbers:

- 1- Diesel
- 2- Not Used
- 3- Mid grade, ***Non Blended Product***
- 4- Low grade
- 5- High grade
- 6- Blended product

The POS fuel product I.D. numbers must match the Wayne product I.D. numbers. If the product I.D. numbers do not match and if there is a card reader at the dispenser the card reader will display ***“Blend Grade Assign ERROR”***, after configuration. Once the product mapping is corrected, the dispenser card reader will display the idle prompt.

The tables below list the proper fueling point ***“product to position”*** assignment for each blender type. This programming is done via the ***Fueling Point Configuration Menu*** at the POS.

For proper operation the fueling point “product to position” assignment must match the configuration of mode 18 which is programmed via the Wayne Decade 2400 console.

The ***blender type*** setting is not used and should be set to zero (0).

Model 590

Position	Product
1	Not assigned
2	Low grade
3	Blended product
4	High grade
5	Not assigned
6	Not assigned
7	Not assigned
8	Not assigned

**** The low grade and the high grade products may be switched depending on the position of the dispenser and the installation of the product lines.***

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The **blender type** setting is not used and should be set to zero (0).

Model 395

Position	Product
1	Diesel
2	Not assigned
3	Not assigned
4	High grade
5	Blended product
6	Low grade
7	Not assigned
8	Not assigned

** The low grade and the high grade products may be switched depending on the position of the dispenser and the installation of the product lines.*

The **blender type** setting is not used and should be set to zero (0).

Models 580 D1 & 590 U

Position	Product
1	Not assigned
2	Not assigned
3	High grade
4	Not assigned
5	Blended product
6	Not assigned
7	Low grade
8	Not assigned

** The low grade and the high grade products may be switched depending on the position of the dispenser and the installation of the product lines.*

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The *blender type* setting is not used and should be set to zero (0).

Model 580 D3

Position	Product
1	Not assigned
2	Not assigned
3	High grade
4	Blended product
5	Low grade
6	Not assigned
7	Not assigned
8	Not assigned

** The low grade and the high grade products may be switched depending on the position of the dispenser and the installation of the product lines.*

2.1.3. Wayne Blending Quick Reference Guide

Dispenser Model	Dispenser Macro	Mode 03 setting	Mode 18 setting	POS FP Positions
395	13	0541	1 0 0 5 6 4 0	1- Diesel 2- Not Assigned 3- Not Assigned 4- High grade 5- Blend grade 6- Low grade 7- Not Assigned 8- Not Assigned
580 D1 & 590 U	10	0540	0 0 5 0 6 0 4	1- Not Assigned 2- Not Assigned 3- High grade 4- Not Assigned 5- Blend grade 6- Not Assigned 7- Low grade 8- Not Assigned
580 D3	11	0540	0 0 5 6 4 0 0	1- Not Assigned 2- Not Assigned 3- High grade 4- Blend grade 5- Low grade 6- Not Assigned 7- Not Assigned 8- Not Assigned
590	07	540	0 4 6 5 0 0 0	1- Not Assigned 2- Low grade 3- Blend grade 4- High grade 5- Not Assigned 6- Not Assigned 7- Not Assigned 8- Not Assigned

Note: "Not Assigned" = 0 product value.

2.1.4. Gilbarco Distribution box jumper settings

The SSC communicates with the Gilbarco dispensers via two wire communications and uses 45ma current loop boards.

Channel 6 will communicate with up to 16 fueling positions.

The following is a list of the Jumper settings for the Gilbarco distribution box, for pump communications.

1) 1 board, 1 input, 8 loops for dispensers

Option	Jumper setting for Board 1	Jumper setting for Board 2
1	JP11, set to "B"	N/A
1	JP13, set to "B"	N/A

2.1.5. Gilbarco Blending Dispensers

Gilbarco Variable Blenders

The ANDI interfaces to the following Gilbarco variable Blenders:

3+0 4+0 5+0
 3+1 4+1 5+1

A variable blender without diesel, or 3+0, will have position 1, grade 1 on the left on both sides of the pump. Gilbarco products are mapped as positions 1, 3 and 5 (Advantage) and positions 1, 2 and 3 (Advantage with "Optimized" electronics), Low grade, Mid grade and High grade respectively, from left to right when facing each side of the dispenser. A 5+0 will have the products mapped as positions 1, 2, 3, 4 and 5. Low grade, blend grade 1, blend grade 2, blend grade 3 and High grade. The following is an example of a 3+0.

B side	product 3	product 2	product 1	Advantage Adv. w/ optimized & Encore
	position 5 position 3	position 3 position 2	position 1 position 1	
A side	product 1	product 2	product 3	Advantage Adv. w/ optimized & Encore
	position 1 position 1	position 3 position 2	position 5 position 3	

An advantage variable blender with diesel, or 3 + 1, will always have the diesel product for each side mirrored with one another. The diesel will be on the right when facing side A, while diesel will be on the left when facing side B. Gilbarco maps the diesel product as product 6. The remaining grades are mapped the same as the 3 + 0 described above. The pump is shown below:

B Side	product 3	product 2	product 1	product 4	Advantage Adv. w/ optimized & Encore
	position 5 position 3	position 3 position 2	position 1 position 1	position 6 position 6	
A Side	product 1	product 2	product 3	product 4	Advantage Adv. w/ optimized & Encore
	position 1 position 1	position 3 position 2	position 5 position 3	position 6 position 6	

Product to Position Mapping for Gilbarco Variable Blenders

In the Gilbarco system, the product type to product # assignment can be in any order. For the 3+0 and 3+1 variable blenders, the following will be used:

POS Product #1: Low grade
POS Product #2: Blended Product
POS Product #3: High grade
POS Product #4: Diesel

Model 3 + 0 Variable blender

The table below lists the proper product to position assignment for each blender type which is set via the POS ***fueling point configuration*** menu.

The ***blender type*** setting is not used and should be set to zero (0).

Position	Advantage Product	Adv. w/optimized & Encore Product
1	Low grade	Low grade
2	Not assigned	Blended product
3	Blended product	High grade
4	Not assigned	Not assigned
5	High grade	Not assigned
6	Not assigned	Not assigned
7	Not assigned	Not assigned
8	Not assigned	Not assigned

**** The low grade and the high grade products may be switched depending on the position of the dispenser and the installation of the product lines.***

Model 3 + 1 Variable blender

The table below lists the proper product to position assignment for each blender type which is set via the POS *fueling point configuration menu*.

The *blender type* setting is not used and should be set to zero (0).

Position	Advantage Product	Adv. w/optimized & Encore Product
1	Low grade	Low grade
2	Not assigned	Blended product
3	Blended product	High grade
4	Not assigned	Not assigned
5	High grade	Not assigned
6	Diesel	Diesel
7	Not assigned	Not assigned
8	Not assigned	Not assigned

** The low grade and the high grade products may be switched depending on the position of the dispenser and the installation of the product lines.*

Product to Position Mapping Fixed Blenders (Advantage and Optimized)

A Gilbarco fixed blender does not require any special product mapping. The table below lists the proper product to position assignment for this blender type and is programmed via the POS *fueling point configuration menu*.

The *blender type* setting is not used and should be set to zero (0).

Position	Product
1	Low grade
2	Blended product
3	High grade
4	Not assigned
5	Not assigned
6	Not assigned
7	Not assigned
8	Not assigned

** The low grade and the high grade products may be switched depending on the position of the dispenser and the installation of the product lines.*

2.2. Tokheim addressing

2.2.1. Tokheim OPTs

Channel 12 is used to communicate with the Tokheim OPTs. The OPT device address can range from 1 – 8.

Example:

Tokheim OPT	
Tokheim OPT	SSC Channel
1	CH-12
2	CH-12
3	CH-12
4	CH-12
5	CH-12
6	CH-12
7	CH-12
8	CH-12

2.3. SSC Parameters Values and Options

The SSC keypad is not used to configure the SSC. The SSC configuration is done by the POS. The POS has to download all required parameters to the SSC. The SSC will start polling the dispensers only after the POS has downloaded station configuration data. If the SSC has not receive the download from the POS you will see [CHXX Await Cnfg.] This means the SSC is waiting to be configured before this Channel becomes active.

Parameters Downloaded from POS:

- DPT Configuration
- Fuel Information
- Product Information
- Car Wash Information
- Cash / Credit Limits
- Mode of Service
- Default Price Level
- Sale Stacking
- Number of fueling points

2.4. Keypads

2.4.1. Tokheim OPT

Type J (OPT)

1	2	3	Yes		
4	5	6	No		
7	8	9			H E L P
Clear	0	Ok		Cancel	

2.5. Peripheral Devices

2.5.1. Tank Gauge Systems

The ANDI/SSC uses Channel 13 to interface to either the Veeder-Root tank gauge system or the Red Jacket "ST Model" tank gauge system. The SSC is connected to the Serial board on a Device and it may be connected to the DIM board on a TLS 350R.

When the SSC is connected to the DIM board on a TLS 350R it will send real-time fuel transaction data i.e. sale started, sale complete, volume dispensed, meter reading etc. This is accomplished by implementing the Veeder-Root Dispenser Interface Protocol (a proprietary interface defined by Veeder-Root. to the TLS 350R). This will allow the TLS to utilize the AccuChart Automatic Tank Calibration feature for underground storage tank reconciliation.

Configure the TLS-250/350/350R or the Red Jacket communication parameters as follows:

Baud Rate - 9600, Parity - Odd, Stop Bits - 1, Data Bits - 7

Notes:

On a TLS-250 the communication parameters are set using a rotary switch and some DIP switches, (please refer to the TLS 250 manual).

On a TLS-350/350R the communication parameters are programmed via the TLS keyboard (please refer to the TLS 350/350R manual).

No additional SSC configuration is needed, the SSC will automatically check if it is connected to a DIM card. If not, the SSC will not send any Dispenser Interface commands to the TLS. Communicating with other devices requires POS programming.

To display the TLS link status press the "D" key on the SSC keyboard.

CH-13 Link Up
TLS RS-232 FP

Once the SSC detects it is connected to a DIM board the device name changes to TLS-R

CH-13 Link Up
TLS-R RS-232 FP

2.5.2. Car Wash Controllers

The following requirements must be met in order for the Car Wash controllers to communicate to the “ANDI”.

Car Wash controller	Software Version
Ryko Code A Wash III	“8B” or newer
Ryko Code A Wash IV	“V” ⁽¹⁾
Unitec POS 4000	“6.50” or newer ⁽²⁾
Unitec/Interlink	Any version
Kesseltronics	Any version

Notes:

1. The Ryko Code A Wash IV should communicate to the ANDI using any version of software. However, Ryko recommends that the controller be upgraded to the latest version.

2. The Unitec software must be able to support External POS 1, 2 or 3. This information may be found either on the PROM label which is located inside the controller, or via the configuration report printed from the controller. There will be a line on the report indicating the “External POS” type.

The Unitec controller must be programmed to use the Ryko protocol. See section 6.2.10 in the External POS Menu of the Unitec manual. Set POS offset to “0”, Down. Set External POS type to “2”. Set baud rate to 9600.

If the Unitec hardware version is 6.1, a (SA1606) 9 pin adapter (which can be ordered from Unitec, if required) must be used to connect the serial port to the communication cable. If the hardware version is 6.2 or higher, the communication cable must be connected directly to the 9 pin serial port.

To distinguish 6.1 from 6.2 hardware, look at the label attached to the base of the unit. If the Model field has “POS4000” then it is 6.1 hardware. If it has “POS4000/2” (or /3 etc.) then it is 6.2 or higher hardware. The 6.2 and higher cable pinouts are standard for a 9-pin DTE serial port, which is not the case for 6.1 units.

3. The Ryko Code A Wash II will not work with the ANDI system. It can be upgraded to a Code A Wash III.