UT203 FID Phase IV
Owner's Module

Operation Manual

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Preface

The *UT203 FID Phase IV Owner's Module Operation Manual* is catalog number 808-690, 2/91. This manual is specifically for use with the UT203 FID Phase IV and replaces the *UT203 FID Owner's Module Operation Manual* (808-533), 1/90.

The following changes have been made to the *UT203 FID Owner's Module Operation Manual* (808-533), 1/90 to reflect changes made for the UT203 FID Phase IV.

Section/Chapter	Changes
Introduction	1. The Introduction replaces the section previously titled Preface.
Preface	2. A new Preface has been written to reflect changes from UT203 FID Phase III to UT203 FID Phase IV.
Configuration Sheets	3. Information has been added to reflect that the UT203 FID Phase IV enclosure has eleven slots, not the previous nine.
Appendix F	4. Configuration sheets have been changed to reflect new UT203 FID Phase IV decisions.

Contents

Illustrations

Introduction

The *UT203 FID Phase IV Owner's Module Operation Manual* is designed as a convenient reference for the day-to-day use of the Carrier UT203 Field Installed Device (FID).

This manual provides you with:

- a physical description of the UT203 FID.
- an explanation of UT203 FID Configuration Sheets.
- UT203 Owner's Module operating instructions.
- a Glossary.
- blank Configuration Sheets.

It is important that you read this entire manual before you attempt to operate a UT203 FID.

note A Building Supervisor is not required to perform any operations described in this manual. If your system is equipped with a Building Supervisor, you will need a copy of the *Building Supervisor Operation Manual.*

This manual is written for UT203 FIDs intended for use in the USA. If yours is a metric application, see Appendix A, Customary U.S./Metric Conversion Chart.

UT203 Field Installed Device

UT203 Field Installed Device

The UT203 Field Installed Device (FID) is a general purpose HVAC and lighting controller capable of either stand-alone or network operation. Generally, the UT203 FID is used to allow the Carrier Comfort Network to control and communicate with non-Carrier and existing non-CCN Carrier equipment. A single UT203 FID can control or monitor up to sixty building points. These points can be input or output, analog or discrete, in almost any combination.

Each UT203 FID is configured on-site to meet the needs of the particular installation. Configuration data is entered into the UT203 FID via an Owner's Module (OM) or a Building Supervisor. Once configured, the UT203 FID requires no daily intervention by the operator.

The UT203 Owner's Module is a hand-held user interface that provides the operator with on-site monitoring, system control, system adjustment, and troubleshooting capabilities. Complete instructions for using the OM are provided in the **UT203 Owner's Module** section of this manual.

Figure 1 on page 2 shows the interior and component location of a UT203 FID. Before attempting to use a UT203 FID, familiarize yourself with the location of the following:

A. Power Supply Module

   This module provides power to the Processor and up to eight modules. It is designed for international use with switch selectable voltages and CEE-22 international standard power plug connector.

B. Processor Module

   All the control algorithms and configuration data are stored in the Processor Module. Essentially, this module is the *brain* of the UT203 FID.

C. I/O Modules

   The I/O modules provide control of analog (4-20 mA or 2-10 Vdc) or discrete (24 Vdc) output devices and receive analog (thermistor, nickel RTD, 4-20 mA) or discrete (pulsed or sensed) input signals.

   Three different I/O modules are available: the 8 Input Module, the 8 Output Module, and the 4 Input/4 Output Module.

D. CLIP Modules

   Each CLIP (Closed Loop Current to Pressure) Module will convert a 4-20 mA analog output signal from the UT203 FID to 3-15 psi pneumatic output.

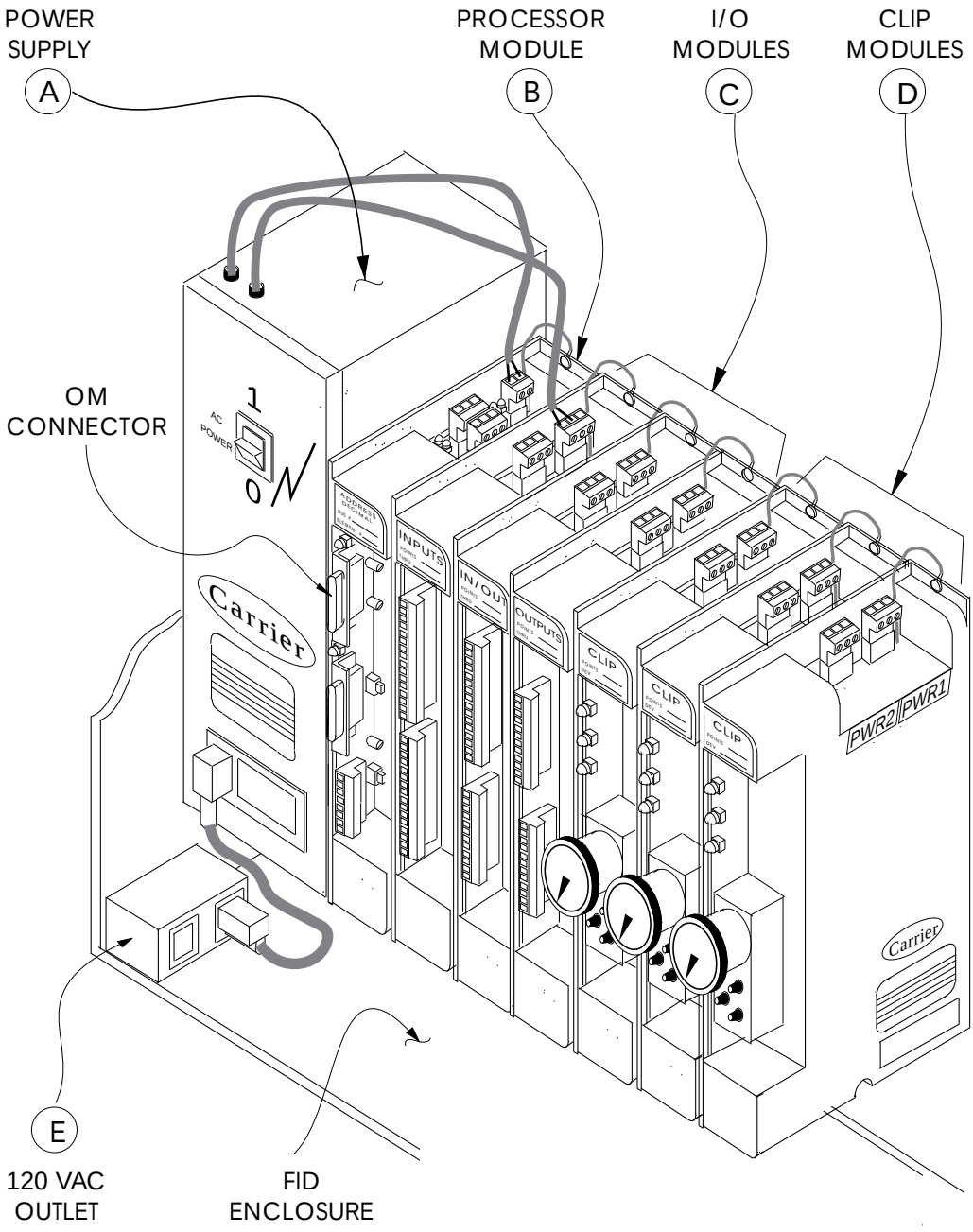

Figure 1 - UT203 Field Installed Device

Configuration Sheets

Configuration Sheets

This section of the manual contains an explanation of and instructions for the UT203 FID Configuration Sheets.

Sample UT203 FID Configuration Sheets are shown in Figures 2 through 11. Follow these example sheets when completing the configuration sheets for your installation.

Point configuration for each UT203 FID is recorded on configuration sheets by a Carrier representative before the equipment installed. Copies of the UT203 FID Configuration Sheets are left with the customer and should be kept in the enclosure of the respective piece of equipment.

If you change the configuration of any points in a UT203 FID, be sure to record and circle the new data on the appropriate configuration sheet.

Configuration sheets for UT203 FIDs include:

- UT203 FID Enclosure Layout Sheet
- UT203 FID Module Wire List for each module
- UT203 FID Configuration - Globals, PIs & Holidays Sheet
- UT203 FID Configuration - Setpoint Schedule Sheet
- UT203 FID Configuration Sheet for each module
- UT203 FID Configuration - Time Schedule Sheet

note

Sixteen time schedules are available in the UT203 FID. Each time schedule configuration sheet has room for four different schedules. If a UT203 FID uses more than four schedules, additional sheets will be needed.

The various configuration sheets are detailed below and on the following pages.

UT203 FID Enclosure Layout Sheet

Refer to the example in Figure 2 as you read the descriptions that follow.

Identification Block

The following information is specified in the block below the title *UT203 FID Enclosure Layout:*

- *LOCATION* - specifies the building, floor and area where the UT203 FID is physically located; the area can be a room name (e.g. mechanical room) or a section (e.g. north).

- *ADDRESS* - specifies communications bus number and system element number; be sure to specify element number in both hexadecimal and decimal. Refer to the Decimal to Hexadecimal Conversion Chart in Appendix C.

- *SYSTEMS CONTROLLED* - the air handler, chiller, or other system that the UT203 FID is controlling

Slot Identification

The UT203 FID backplate has 11 slots (locations) for mounting modules. The slots in the UT203 FID are referred to by numbers 1 through 11(from left to right). The slot numbers are listed in the next block down on the UT203 FID Enclosure Layout Sheet.

The Power Supply Module occupies both slots 1 and 2. The Processor Module typically occupies slot 3, leaving room for 8 I/O modules or CLIP Modules. If more modules are required, an additional enclosure can be added. The slots in the additional enclosure are also numbered 1 through 11 to correspond with the Enclosure Sheet.

The various types of modules are listed in the column below each slot number.

A check mark or *X* in the appropriate block specifies the type of module that will occupy each slot. If a CCN system element other than a FID module (such as a Bridge, Repeater, etc.) occupies a slot, its name will be written in the blank space at the bottom of the column below the slot number.

The example UT203 FID Enclosure Layout Sheet in Figure 2 illustrates a UT203 FID containing the following modules:

Slots 1 and 2: Power Supply

Slot 3: Processor Module

Slot 4: 8 Input Module

Slot 5: 4 Input/4 Output Module

Slot 6: 8 Output Module

Slot 7: CLIP Module

Slot 8: CLIP Module

Slot 9: CLIP Module

Processor Switch Settings

The 1st four switch settings are made by placing a check mark or *X* in the appropriate box.

- *COMM1 MODE* - specifies the communication mode. RS-232 is selected if local communication with a Building Supervisor is desired. RS-485 is selected if communication with the CCN is desired.

- *COMM1 SPEED* - specifies the baud rate for COMM1 connectors where 1=1200, 2=2400, 3=4800, 4=9600.

- *COMM3 SPEED* - specifies the baud rate for communication between the Processor Module and I/O Modules. It should be set to *4* for 9600, although three other choices are listed: 1=1200, 2=2400, and 3=4800.

- *LINE TERMINATION* - sets the line termination resistance for the COMM1 RS-485 port. The choices are *CENTER* and *END*. In most cases the switch will be set to *CENTER* even if the FID is the last element on a bus.

The spaces before *S1* and *S2* in *ELEMENT NUMBER* are used to record the FID's element number in hexadecimal.

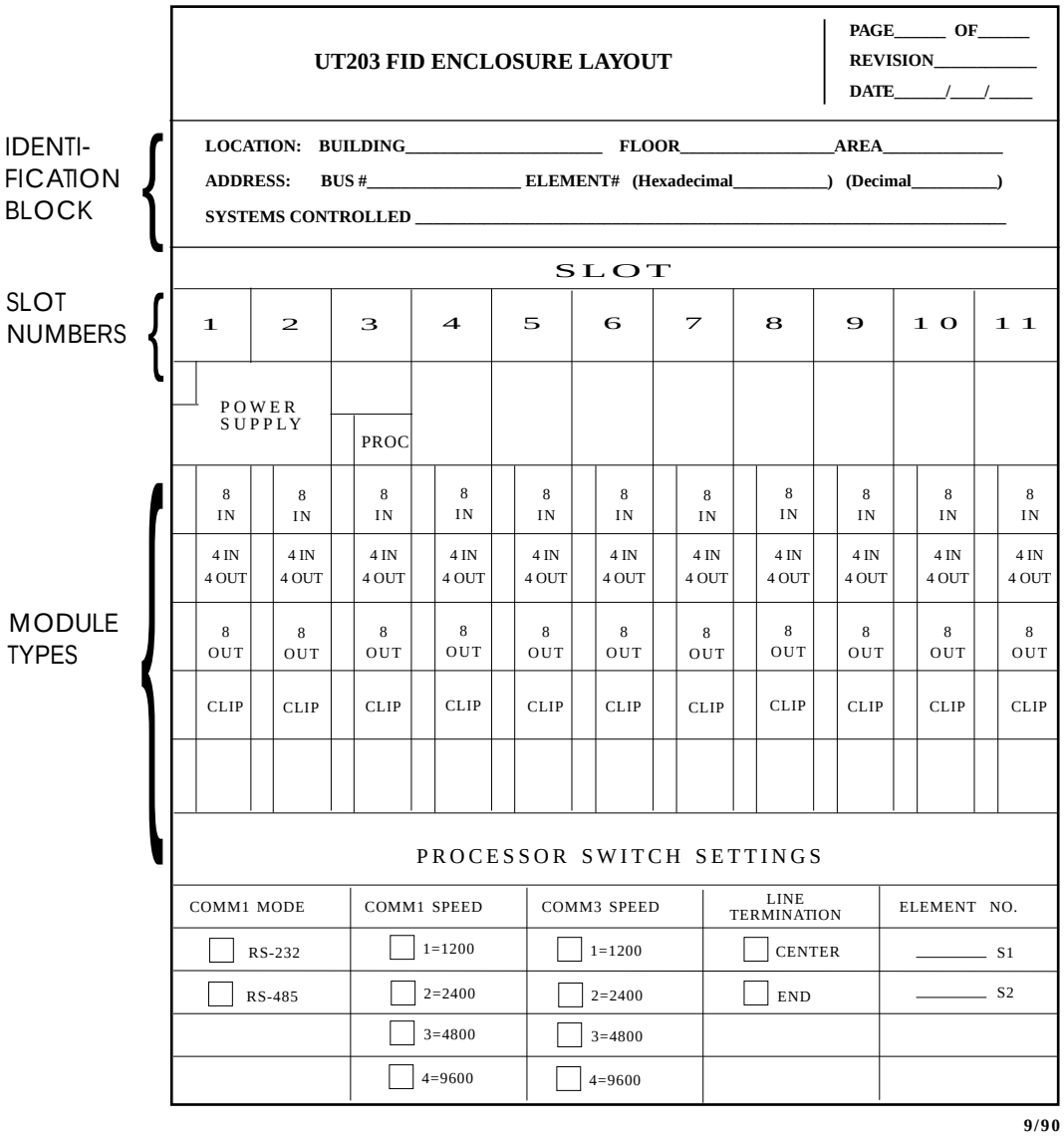

Figure 2 - UT203 FID Enclosure Layout Sheet

Module Wire Lists

There are three different wire lists available for the UT203 FID. Each list corresponds to one of the three I/O modules that are available: the 8 Input Module, the 8 Output Module, and the 4 Input/4 Output Module.

Refer to the sample Module Wire Lists in Figures 3 through 5 while reading the following explanation.

The module name is listed on the top of the sheet beneath the title.

Identification Block

The location and address of the FID and the slot number of the particular module is filled out for you as described on pages 3 and 4.

Wiring Information

The remaining eight lines in the Module Wire List specify all hardware points attached to this module.

Column one specifies the point/cable number of the hardware device.

A check mark or *X* in the appropriate box in column two specifies the type of device connected to the point. For analog inputs, points may be type A, B, or C where:

- Type A is a thermistor or RTD sensor
- B is a 2-wire, 4-20 mA sensor
- C is a 4-wire, 4-20 mA sensor
  (Power for a 4-wire device is externally supplied)

Discrete input points can only be Type B. Type B is for for both sensed or pulsed devices.

Analog and discrete input types are listed on the bottom of the Module Wire List.

Outputs will be either AO for analog out or DO for discrete out.

The third column, entitled *TERM #*, lists the terminal screw numbers where the device is wired to the module.

The Carrier sensor code (which is defined in Appendix D) is displayed in the fourth column. The numbers of the wiring drawing and system sheet that depict this system are shown in the fifth and sixth columns. Those drawings are the job submittal drawings.

The abbreviation for the system in which the device is mounted is indicated in column 7. Column 8 contains the abbreviated name for the actual device. The last column is reserved for comments.

UT203 FID MODULE WIRE LIST
8 INPUT MODULE

PAGE_____ OF_____
REVISION_____
DATE_____/____/_____

LOCATION: BUILDING_____ FLOOR_____ AREA_____

ADDRESS: BUS #_____ ELEMENT# (Decimal)_____ SLOT #_____

POINT/ CABLE#	TYPE CHK ONE		TERM# +	TERM# -	SENSOR CODE	WIRING DWG#	SS #	SYSTEM	POINT NAME	COMMENTS
		A	4	3						
		B	2	3						
		C	1	2						
		A	8	7						
		B	6	7						
		C	5	6						
		A	12	11						
		B	10	11						
		C	9	10						
		A	16	15						
		B	14	15						
		C	13	14						
		A	20	19						
		B	18	19						
		C	17	18						
		A	24	23						
		B	22	23						
		C	21	22						
		A	28	27						
		B	26	27						
		C	25	26						
		A	32	31						
		B	30	31						
		C	29	30						

ANALOG SENSORS TYPE

THERMISTOR and RTD
2 WIRE 4 - 20 mA
4 WIRE 4 - 20 mA

DISCRETE SENSORS TYPE

SENSED or PULSED

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Figure 3 - UT203 FID Module Wire List
8 Input Module

UT203 FID MODULE WIRE LIST

4 INPUT / 4 OUTPUT MODULE

PAGE_____ OF_____
REVISION_____
DATE_____/____/_____

LOCATION: BUILDING_____ FLOOR_____ AREA_____

ADDRESS: BUS #_____ ELEMENT# (Decimal)_____ SLOT #_____

POINT/ CABLE#	TYPE CHK ONE		TERM# +	-	SENSOR CODE	WIRING DWG#	SS #	SYSTEM	POINT NAME	COMMENTS
INPUTS										
		A	4	3						
		B	2	3						
		C	1	2						
		A	8	7						
		B	6	7						
		C	5	6						
		A	12	11						
		B	10	11						
		C	9	10						
		A	16	15						
		B	14	15						
		C	13	14						
OUTPUTS										
		AO	17	18						
		DO	19	18						
		AO	20	21						
		DO	22	21						
		AO	23	24						
		DO	25	24						
		AO	26	27						
		DO	28	27						

ANALOG SENSORS TYPE

THERMISTOR and RTD
2 WIRE 4 - 20 mA
4 WIRE 4 - 20 mA

DISCRETE SENSORS TYPE

SENSED or PULSED

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Figure 4 - UT203 FID Module Wire List
4 Input/4 Output Module

UT203 FID MODULE WIRE LIST

8 OUTPUT MODULE

PAGE_____ OF_____
REVISION_____
DATE_____/____/_____

LOCATION: BUILDING_____ FLOOR_____ AREA_____

ADDRESS: BUS #_____ ELEMENT# (Decimal)_____ SLOT #_____

POINT/ CABLE#	TYPE CHK ONE		TERM# +	TERM# -	SENSOR CODE	WIRING DWG#	SS #	SYSTEM	POINT NAME	COMMENTS
		AO	1	2						
		DO	3	2						
		AO	4	5						
		DO	6	5						
		AO	7	8						
		DO	9	8						
		AO	10	11						
		DO	12	11						
		AO	13	14						
		DO	15	14						
		AO	16	17						
		DO	18	17						
		AO	19	20						
		DO	21	20						
		AO	22	23						
		DO	24	23						

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Figure 5 - UT203 FID Module Wire List
8 Output Module

UT203 FID Configuration - Globals, PIs, & Holidays Sheet

Figure 6 is the UT203 FID Configuration - Globals, PIs, & Holidays Sheet.

Globals

Global variables are those that apply to all appropriate points configured in the UT203 FID. For example, the value entered for Global Decision 1, the *Y-Percent*, applies to all mixed air or multizone dampers.

Permissive Interlocks

The Permissive Interlock (PI) function allows normal operation of an output point to be overridden under an operator-defined condition. For example, PI can be used to shut off a cooling tower fan if the condenser water temperature falls below a certain value.

The first column is labelled *TABLE NO.* This refers to the Permissive Interlock table number. Up to 16 Permissive Interlocks numbered from 501 to 516 can be entered in the UT203 FID. As you can see, only 8 interlocks can be entered on this sheet. If more than 8 are required, another sheet is used. The global decisions are crossed out and the Permissive Interlocks are numbered starting with *509*. The column following the decisions is used to specify a 24 character description of the interlock. This description can only be entered and displayed at the Building Supervisor.

Holidays

A total of 30 holidays per calendar year can be configured in a UT203 FID. The month and day of each holiday are entered in Holiday Table 801. For example, Number 1 is the month of the first holiday of the year, and Number 2 is the day of the first holiday of the year. Number 3 is the month of the second holiday of the year, and Number 4 is the day of the second holiday of the year.

The desired values and default values for all decisions are entered in the appropriate blocks. Complete descriptions of all default values are given in the *UT203 FID Overview and Configuration Manual.*

note

For more information regarding the configuration of FID algorithm decisions, refer to the *UT203 FID Overview and Configuration Manual.*

UT203 FID CONFIGURATION - GLOBAL, PIs & HOLIDAYS

LOCATION: BUILDING_____ **FLOOR**_____ **AREA**_____

ADDRESS: BUS #_____ **ELEMENT # (Decimal)**_____

PAGE_____ **OF**_____

REVISION_____

DATE_____/____/_____

GLOBAL DECISIONS

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
37	38	39	40	41	42	43											

PERMISSIVE INTERLOCK TABLES

TABLE NO.	DECISIONS										24-CHARACTER DESCRIPTION OF INTERLOCK (FOR BUILDING SUPERVISOR DISPLAY)
	1	2	3	4	5	6	7	8	9	10	

HOLIDAY TABLE 801

Mo	Day	Mo	Day	Mo	Day	Mo	Day	Mo	Day	Mo	Day	Mo	Day	Mo	Day	Mo	Day	Mo	Day	Mo	Day	Mo	Day	Mo	Day	Mo	Day	Mo	Day	Mo	Day
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30		
31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	5	56	57	58	59	60		

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Figure 6 - UT203 FID Configuration Sheet
Globals, PIs, and Holidays

UT203 FID Configuration - Time Schedule Sheet

Typically, output points are subject to time schedule control. Thus, the UT203 FID needs to know when the building is occupied and when it is unoccupied. Occupied (Occ) and unoccupied (Unocc) times should be listed on the Time Schedule Configuration Sheet for each day of the week and for days that have been designated as holidays. Up to 16 different time schedules may be entered into the UT203 FID.

Typically, all hardware points on the same system share the same time schedule.

The column following *SCHED NO.* is used to list the systems using the particular time schedule. The system names listed here can only be entered and displayed at the Building Supervisor. A total of 24 characters may be used.

Time Schedule Variables

Look at the time schedule configuration data sheet in Figure 7. In the example,

- hardware points for Air Handler 1 (AH1) are all on Time Schedule 601. The schedule number is shown in the first column labelled *SCHED NO.*
- Monday through Friday, the building is occupied from 6 a.m. (0600) until 6 p.m. (1800).
- on Saturdays, the building is occupied from 10 a.m. (1000) until 3 p.m. (1500).
- on Sundays and holidays, the building remains unoccupied (2400 - 0000).

Cycling Variables

Stop Time 1 and 2 and Duration Occ and Unocc in the 4 columns under the heading *Cycling Variables* specify the cycling parameters for the DO points assigned to this time schedule.

The points assigned to Schedule 601 in Figure 7 will cycle off:

- during occupied periods, for 10 minutes on the hour, and for 10 minutes 30 minutes after each hour.
- during unoccupied periods, for 30 minutes on the hour, and for 30 minutes, 30 minutes after each hour. (Note that these points will be OFF for the entire hour.)

AOSS Variables

Adaptive Optimal Start/Stop (AOSS) variables appear in the five columns to the right of the cycling variables. Adaptive Optimal Start is used to bring

occupancy. Adaptive Optimal Stop is an energy-savings measure to readjust the occupied temperature setpoint limits for a length of time prior to the start of the unoccupied period.

The first column in this section identifies the points that will be using the Adaptive Optimal Start/Stop routine. On Figure 7, Points 13, 14, 22, and 24 are subject to Adaptive Optimal Start/Stop.

The column labelled *KI* specifies the building insulation factor. Values for this parameter can vary from 0 (perfectly insulated) to 99 (poorly insulated).

RTG is the Response Time Gain. This parameter is used to adjust the Start/ Stop routines for climate differences. A higher RTG results in a faster day to day reaction. Values for RTG can vary from a minimum adjustment of 0.1 to a maximum adjustment of 1.0.

STB is the maximum Stop Time Bias in minutes. Values can vary from 0 to 255.

SBA is the Setpoint Bias Amount in degrees F. These values can vary from 0 to 20 degrees.

Loadshed

The last column on the Time Schedule Configuration Sheet is the Loadshed Bias — the amount of minutes by which the normal off-cycle duration for a discrete out is expanded during a Redline alert. The Loadshed Bias causes the off-cycle to start that much earlier. The value entered in the Loadshed Bias Time decision is added to the beginning of the normal off-cycle time during a Redline alert.

Note that if Loadshed is required, the CCN must have a Loadshed Option installed.

Up to 16 time schedules numbered from 601 to 616 may be entered into the UT203 FID. Only 4 time schedules can be entered on a Time Schedule Sheet. If more than 4 schedules are required, another one of these sheets is used and the numbering sequence of the schedules is continued.

The desired values and default values for all decisions are entered in the appropriate blocks. Complete descriptions of all time schedule decisions and default values are given in the *UT203 FID Overview and Configuration Manual.*

UT203 FID CONFIGURATION - TIME SCHEDULE

LOCATION: **BUILDING**________________________ **FLOOR**______________ **AREA**_____________

ADDRESS: **BUS #**________________ **ELEMENT #** **(Decimal)**___________________________________

PAGE______ **OF**______

REVISION____________

DATE______/____/_____

TIME SCHEDULE VARIABLES													CYCLING VARIABLES				AOSS VARIABLES					LOAD-SHED
SCHED NO.	24-CHARACTER DESCRIPTION OF SYSTEMS USING THIS SCHEDULE (FOR BUILDING SUPERVISOR DISPLAY)	PERIOD	OCC TIMES	UNOCC TIMES	DAYS DESIRED								CYCLE OFF TIME		OFF TIME DURATION		POINTS USING AOSS	KI ΔT1	RTG ΔT2	STB ΔT3	SBA ΔT4	OFF TIME BIAS
					MON	TUE	WED	THR	FRI	SAT	SUN	HOL	1	2	OCC	UNOC						
		1																				
		2																				
		3																				
60__		4																				
		5																				
		6																				
		7																				
		1																				
		2																				
		3																				
60__		4																				
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		2																				
		3																				
60__		4																				
		5																				
		6																				
		7																				
		1																				
		2																				
		3																				
60__		4																				
		5																				
		6																				
		7																				

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Figure 7 - UT203 FID Configuration Sheet Time Schedule

UT203 FID Configuration - Setpoint Schedule Sheet

Twelve different setpoint schedules are available in the UT203 FID. Each schedule may be one of the following four types:

Type 1 - temperature in degrees Fahrenheit (-10°F - 244°F)

Type 2 - relative humidity in percent (0 - 100%)

Type 3 - static pressure in inches of water (0 - 5")

Type 4 - current (4 - 20 mA)

On the UT203 FID Configuration - Setpoint Schedule Sheet in Figure 8, output points for Air Handler 1 (AH1) are all on Setpoint Schedule 701. This setpoint schedule is a Type 1, temperature. Low and high temperature setpoints for occupied and unoccupied times are specified.

Up to 12 setpoint schedules numbered from 701 to 712 may be entered into the UT203 FID. The column following *SCHED NO.* is used to list the systems using the particular time schedule. The systems listed here can only be entered and displayed at the Building Supervisor. A total of 24 characters may be used.

The desired values and default values for all decisions are entered in the appropriate blocks. Complete descriptions of all time schedule decisions and default values are given in the *UT203 FID Overview and Configuration Manual.*

UT203 FID CONFIGURATION - SETPOINT SCHEDULE

LOCATION: BUILDING_____ FLOOR_____ AREA_____

ADDRESS: BUS #_____ ELEMENT # (Decimal)_____

PAGE_____ OF_____

REVISION_____

DATE_____/____/_____

SETPOINT SCHEDULE VARIABLES

SCHED. NO.	24-CHARACTER DESCRIPTION OF SYSTEMS USING THIS SCHEDULE (FOR BUILDING SUPERVISOR DISPLAY)	TYPE	OCCUPIED SETPOINTS		UNOCCUPIED SETPOINTS	
			LOW	HIGH	LOW	HIGH
701						
702						
703						
704						
705						
706						
707						
708						
709						
710						
711						
712						

SCHEDULE TYPE: 1 = TEMPERATURE 3 = STATIC PRESSURE
2 = % RELATIVE HUMIDITY 4 = 4-20 mA

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Figure 8 - UT203 FID Configuration Sheet
Setpoint Schedule

UT203 FID Configuration - Input/Output Sheets

The sheets in Figures 9 through 11 are the input and output configuration data sheets for the sample UT203 FID. Each I/O module will have its own sheet. All input and output points should be listed on these sheets.

The sheet in Figure 9 is the UT203 FID Configuration - Inputs Sheet for the 8 Input Module occupying slot 4. The sheet in Figure 10 is the UT203 FID Configuration - Inputs/Ouputs Sheet for the 4 Input/4 Output Module occupying slot 5. Figure 11 contains the UT203 FID Configuration - Outputs Sheet for the 8 Output Module occupying slot 6. The same procedure is used in completing all three sheets.

Identification Block

Enter the location and address (communications bus number, system element number) of the UT203 FID in the top block next to UT203 Configuration Data.

Configuration Data

The table number should be listed in the first column labelled *TABLE*. An entry of *1* tells you that the point is a discrete out, *2* is an analog out, *3* is an analog input, and a *4* corresponds to a discrete input point.

The point number should be entered in the second column. This number corresponds to the point number in the first column of the Module Wire List.

On the configuration sheets, it is customary to refer to the point by a three-digit number: the table number (column 1) followed by a two-digit point number. Thus, if Point 2 were an analog input point, its *point number* would be *302*. When using the OM, you are required to use the full three-digit number.

The abbreviation for the system (maximum of 8 characters) in which the hardware device is mounted should be indicated in column 3, while column 4 contains the abbreviated name for the actual hardware device (maximum of 8 characters).

Decision numbers fill the remaining columns across the sheet. Decision values basically instruct the UT203 FID to operate in a particular way. For instance, on the configuration sheet for inputs on page 19, the value entered in Decision 3 for an analog input point tells the UT203 FID what type of sensor is connected at that point. The chart on the next page details this.

Value	Sensor Type
1	10K Thermistor Temperature Sensor
2	RTD Temperature Sensor
3	Relative Humidity Sensor
4	Static Pressure Sensor
5	Milliamp Transducer
6	Chiller Delta Temperature Sensor
7	100 ohm Platinum Temperature Sensor
8	Boiler Delta Temperature Sensor
9	Generic Analog In Sensor (Displays no engineering units)
11	5K Thermistor
13	Relative Humidity Sensor (Externally Powered)
14	Static Pressure Sensor (Externally Powered)
15	Milliamp Transducer (Externally Powered)
16	Chiller Delta Temperature Sensor (Externally Powered)
17	100 ohm Platinum Temperature Sensor (Externally Powered)
18	Boiler Delta Temperature Sensor (Externally Powered)

For a complete description of all point decisions, see the *UT203 FID Overview and Configuration Manual.*

The desired values and default values for all decisions are entered in the appropriate blocks. Complete descriptions of all time schedule decisions and default values are given in the *UT203 FID Overview and Configuration Manual.*

Note that the decisions *wrap around* on the sheet. Looking at the configuration sheet for inputs, you will see that Decisions 1 to 14 appear on the top half of the form and Decisions 15 to 19, 24, 44, and 97 are on the bottom half of the sheet. On the output configuration sheet, Decisions 1 to 27 are on the upper third of the sheet, 28 to 46 are in the middle, and 47 to 59 and 92 to 98 are continued on the bottom third of the sheet.

UT203 FID CONFIGURATION - 8 INPUTS

PAGE_____ OF_____

LOCATION: BUILDING_____ FLOOR_____ AREA_____

REVISION_____

ADDRESS: BUS #_____ ELEMENT # (Decimal)_____

DATE_____/____/_____

TABLE	POINT NO.	SYSTEM	POINT NAME	DECISION NUMBERS 1	2	3	4	5	6	7	8	9	10	11	12	13	14

TABLE	POINT NO.	DECISION NUMBERS 15	16	17	18	19	24	88	97	98	LOW CONV	HIGH CONV	DECIMAL PLACES	DISPLY UNITS	DISCRETE STATES
TABLE 3 Analog Input															
TABLE 4 Discrete Input															

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Figure 9 - UT203 FID Configuration Sheet
Inputs Sheet
(8 Input Module)

UT203 FID CONFIGURATION - 4 INPUTS / 4 OUTPUTS

PAGE_____ OF_____

LOCATION: BUILDING_____ FLOOR_____ AREA_____

REVISION_____

ADDRESS: BUS #_____ ELEMENT # (Decimal)_____

DATE_____/____/_____

TABLE	POINT NO.	SYSTEM	POINT NAME	INPUT DECISION NUMBERS 1	2	3	4	5	6	7	8	9	10	11	12	13	14

TABLE	POINT NO.	INPUT DECISION NUMBERS 15	16	17	18	19	24	88	97	98	LOW CONV	HIGH CONV	DECIMAL PLACES	DISPLY UNITS	DISCRETE STATES
TABLE 3 Analog Input TABLE 4 Discrete Input															

TABLE	POINT NO.	SYSTEM	POINT NAME	OUTPUT DECISION NUMBERS 1	2	3	4	5	6	20	21	22	23	25	26	27	28	29

TABLE	POINT NO.	OUTPUT DECISION NUMBERS 30	31	32	33	34	35	36	37	38	39	40	41	42	43	45	46	47	48	49	50
TABLE 1 Discrete Output TABLE 2 Analog Output																					

POINT NO.	OUTPUT DECISION NUMBERS 51	52	53	54	55	56	57	58	59	92	93	94	95	LOW CONV	HIGH CONV	DECIMAL PLACES	DISPLY UNITS	DISCRETE STATES

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Figure 10 - UT203 FID Configuration Sheet
Inputs & Outputs
(4 Input/4 Output Module)

UT203 FID CONFIGURATION - 8 OUTPUTS

LOCATION: BUILDING_____ FLOOR_____ AREA_____

ADDRESS: BUS #_____ ELEMENT # (Decimal)_____

PAGE_____ OF_____

REVISION_____

DATE_____/____/_____

TABLE	POINT NO.	SYSTEM	POINT NAME	DECISION NUMBERS 1	2	3	4	5	6	20	21	22	23	25	26	27	28	29

TABLE	POINT NO.	DECISION NUMBERS 30	31	32	33	34	35	36	37	38	39	40	41	42	43	45	46	47	48	49	50
TABLE 1 Discrete Output TABLE 2 Analog Output																					

	POINT NO.	DECISION NUMBERS 51	52	53	54	55	56	57	58	59	92	93	94	95	LOW CONV	HIGH CONV	DECIMAL PLACES	DISPLY UNITS	DISCRETE STATES

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Figure 11 - UT203 FID Configuration Sheet
Outputs
(8 Output Module)

UT203 Owner's Module

UT203 Owner's Module

Overview

The UT203 Owner's Module (OM) is a handheld, microprocessor-based unit that enables the operator to communicate with the UT203 FID.

This section of the *UT203 Owner's Module Operation Manual* will show you the layout of the OM and the necessary steps for performing all UT203 FID operations. Before using the OM for the first time, *read this entire section of the manual.*

The OM can be used in two display modes. The data display can be in either customary U.S. or metric units.

To set the display mode, change Global Decision 2. An entry value of *0* displays customary U.S. units and an entry value of *1* displays metric units.

caution

It is important to use the correct OM with the UT203 FID. Old OM versions will corrupt the FID's database and the entire CCN.

If your OM was used with a *pre-CCN* controller, check its part number before using it with the UT203 FID. The part number is listed on the label located on the back of the OM.

OMs that are part number CEAS120910-02 or greater can be used with the UT203 FID and any of Carrier's controllers.

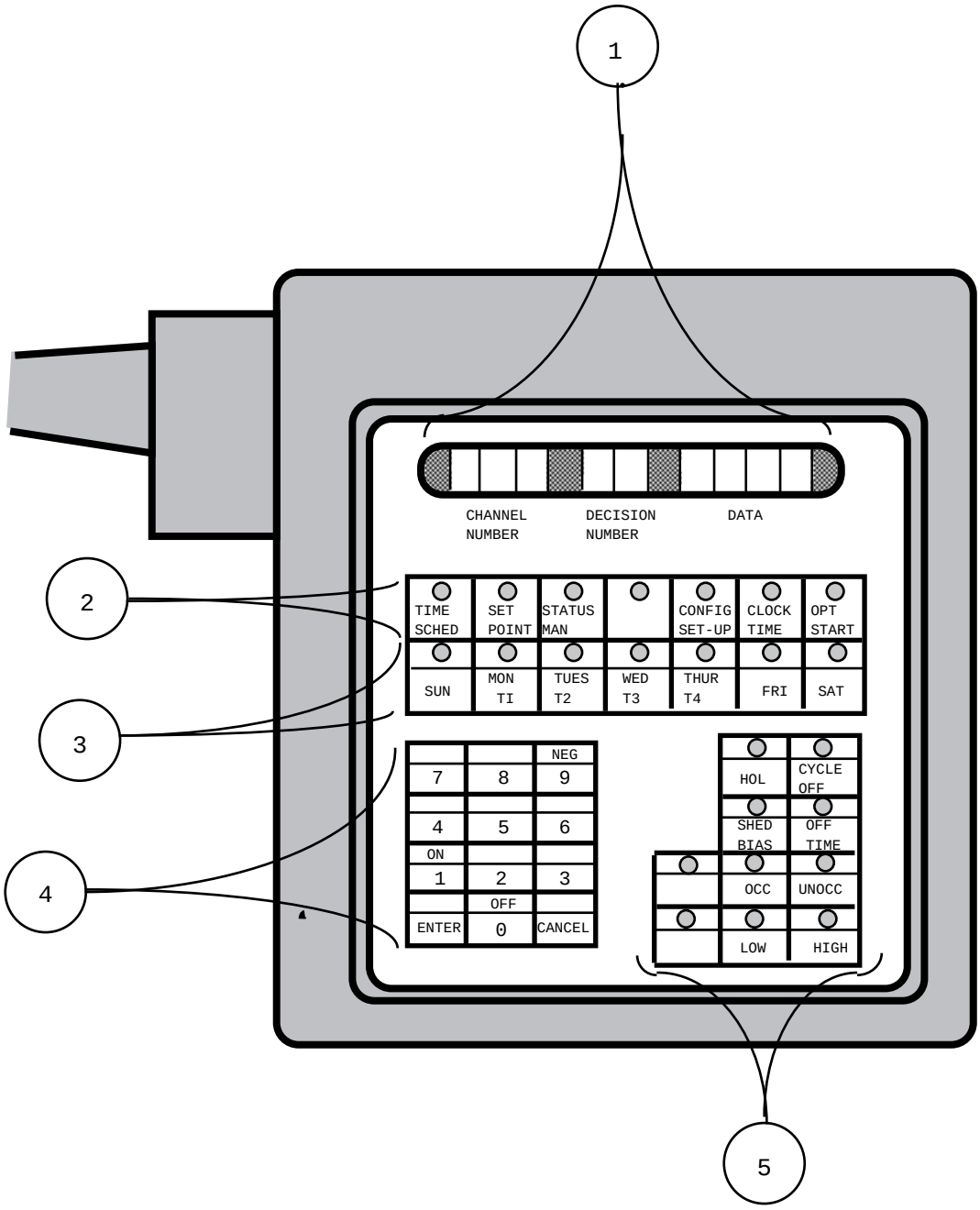


Figure 12 - UT203 Owner's Module

Owner's Module Layout

Refer to the illustration on page 26 or page 28 while reading this section. The circled numbers on the illustration correspond to the circled numbers in this section.

The Display

1

Across the top of the Owner's Module is a display consisting of three groups of LEDs: three on the left, two in the middle, and four on the right. These LEDs are used to display information pertaining to the UT203 FID database. The diagram of the display differs from the actual OM for purposes of illustration.

The Keypad

2

The white operation keys located in the top row are used for entering, viewing, or changing the following operations:

Key	Operation
TIME SCHED	time schedule operation
SETPOINT	setpoint schedule
STATUS MAN	point status
blank	OM start-up
CONFIG SET-UP	configuration
CLOCK TIME	setting UT203 FID clock
OPT START	adaptive optimal start/stop

Each operation key has an indicator light that lights up when that particular operation is in effect. The light will remain lit until you complete or exit the operation.

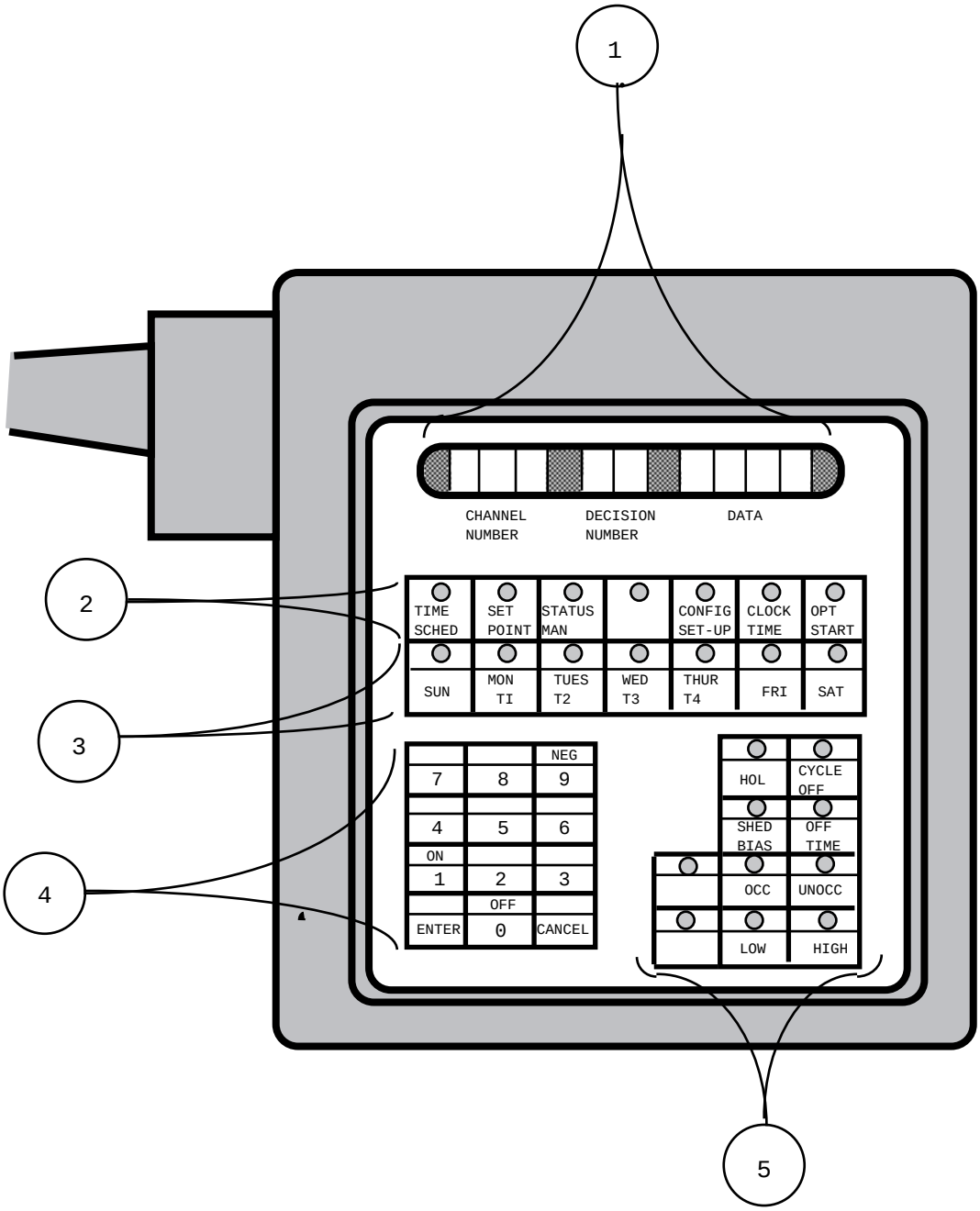


Figure 13 - UT203 Owner's Module

5 The bank of keys on the lower right side of the OM is used to enter, view, or change the following:

Key	Operation
HOL	time schedules for holidays
CYCLE OFF	off-cycle period
SHED BIAS	loadshed bias times
OFF TIME	off-cycle duration
blank key	not used
OCC	occupied period for time and setpoint schedules
UNOCC	unoccupied period for time and setpoint schedules
blank key	not used
LOW	low setpoint values
HIGH	high setpoint values

Each of these keys has an indicator light that lights up when that particular operation is in effect. The light will remain lit until you complete or exit the operation.

Basic Rules of Operation

- When keying in data, press each key once, firmly and slowly.
- Verify the entry on the display. If you make an error, press Cancel and start again.
- Do not enter decimal points or engineering units (degrees, milliamps, percentage, etc.)
- There is no sign off key. Simply unplug the OM connector from the Processor Module to disable communication between the OM and the UT203 FID.

Time-saving Hint

It is not necessary to press Cancel at the end of each operation in order to proceed to another one, but you must be sure to press Enter to save the new data before proceeding.

For example, if you wished to enter configuration and then display the status of a point, you would:

- press CONFIG SET-UP and perform the necessary steps to enter the configuration. (Pressing ENTER would be the last step in this process.)

  You need not press CANCEL.

- press STATUS MAN and perform the necessary steps to display the status of the point.

Operations

To perform any of the following operations, the FID must be turned on and the OM must be plugged into it.

All point numbers must be entered as three digits: *XYY*, where *X* is the table number, and *YY* is the point.

Sign-on Operations

Sign on to the FID and set the current time and day of week before performing other operations.

Press START UP (blank white key)
Press ENTER
Press CANCEL to clear the display

Sign-off Operations

No sign-off is required.
Simply unplug the OM.

Clocktime Operations

Changing FID Clocktime
Press CLOCKTIME
Key in *current time on a 24-hr. clock*
Press ENTER

Changing Day-of-week (DOW)
Press CLOCKTIME
Press *correct DOW key*

Point Status Operations

If a force is in effect, the source is identified in the Decision Number area of the display

FO - forced by OM
FC - forced by Building Supervisor
FI - forced by Permissive Interlock
FL - forced by Loadshed Option
FP - forced by Data Transfer Option
FF - forced by Night Time Free Cooling
FB - forced by a BEST program.

Displaying Point Status
Press STATUS MAN
Key in *point number*
Press ENTER
Press ENTER to view the next point

Forcing a Discrete Point
Press STATUS MAN
Key in *point number*
Press ENTER
Press 1/ON to force point ON
or
Press 0/OFF to force point OFF
Press ENTER to make the change

Forcing an Analog Point
Press STATUS MAN
Key in *point number*
Press ENTER
Key in *force value*
Press ENTER

Removing an OM Force on a Point
Press STATUS MAN
Key in *point number*
Press ENTER
Key in 9999
Press ENTER

Setpoint Operations

Changing Schedule Type
Press SETPOINT
Key in *last two digits of schedule*
Press ENTER
Key in *new schedule type*
Press ENTER

Changing OCC/UNOCC Temperature Range

Press SETPOINT
Key in *last two digits of schedule*
Press ENTER (schedule type will appear)
Press OCC or UNOCC
Press LOW TEMP or HIGH TEMP
Key in *new value*
Press ENTER

Time Schedule Operations

Changing Day-of-week or Holiday

Press TIME SCHED
Key in *last two digits of schedule*
Press ENTER
Key in *period number*
Press ENTER
Press correct DOW key or HOL

Changing OCC/UNOCC Time Range

Press *last two digits of schedule*
Press ENTER
Key in *period number*
Press ENTER
Press OCC or UNOCC
Key in *new time on 24-hr. clock*
Press ENTER
Press ENTER to move to next period

Changing Cycle-off Time

Press TIME SCHED
Key in *last two digits of schedule*
DO NOT PRESS ENTER
Press CYCLE OFF
Key in *1st time in minutes*
Press ENTER
Press CYCLE OFF
Key in *2nd time in minutes*
Press ENTER

Changing Duration of Off Cycle

Press TIME SCHED
Key in *last two digits of schedule*
DO NOT PRESS ENTER
Press OFF TIME
Press OCC or UNOCC
Key in *new time in minutes*
Press ENTER

Changing Loadshed Bias

Press TIME SCHED
Key in *last two digits of schedule*
Press ENTER
Key in *period number*
Press ENTER
Press SHED BIAS
Key in *new time in minutes*
Press ENTER

Changing Adaptive Optimal Start/Stop Values

Press TIME SCHED
Key in *last two digits of schedule*
Press OPT START
Press a ΔT key
Key in *new value*
Press ENTER

Configuration Operations

Changing Configuration Decision Values

Press CONFIG SETUP
Key in *point number* (Globals = 000, PIs = Table No., Holidays = 801)
Press ENTER
Key in *decision number*
Press ENTER
Key in *new value*
Press ENTER
Press ENTER to advance to next decision

Appendixes

Appendix A - Customary U.S./Metric Conversions

The type of engineering units displayed on the UT203 Owner's Module is determined by Global Decision 2.

Listed below are the engineering units and ranges for customary U.S. and metric units that are displayed by the OM.

to Measure	Type	Units*	Range
Temperature	cust. U.S.	^{o}F	-9^{o}F through 244^{o}F
	metric	^{o}C	-22.8^{o}C through 117.8^{o}C
Static Pressure	cust. U.S.	"H_2O	0.0 "H_2O through 5.0 "H_2O
	metric	Pa	0 Pa through 1244 Pa
Output Pressure	cust. U.S.	psi	0.0 psi through 16.5 psi
	metric	kPa	0 kPa through 114 kPa
Enthalpy	cust. U.S.	Btu/lb	0 Btu/lb through 51 Btu/lb
	metric	kJ/kg	-18 kJ/kg through 101 kJ/kg

* full English translation of display units:

^{o}F	= degrees Fahrenheit	^{o}C	= degrees Centigrade
"H_2O	= inches of water	Pa	= Pascals
psi	= Pounds force per Square Inch	kPa	= Kilopascals

Appendix B - Error Messages

During normal operation, the following error messages may appear on the two LEDs labelled *Decision Number* on the OM display:

Message	Meaning/Action
E0	OM communication with the UT203 FID is not established. Repeat the sign on procedure.
E2	The command does not apply to the selected channel.
E3	Point does not exist.
E4	Point is not configured.
E5	Limit exceeded on analog force.
E6	Decision number does not exist.
E7	OM communication has failed with the UT203 FID; unplug the OM and carefully plug it back in.
E8	OM communication has failed; press CANCEL and try again.
E9	OM communication has timed out; press CANCEL and try again.

Appendix C - Decimal to Hexadecimal Conversion Chart

Dec	Hex		Dec	Hex		Dec	Hex		Dec	Hex	
	S1	S2		S1	S2		S1	S2		S1	S2
1	0	1	61	3	D	121	7	9	181	B	5
2	0	2	62	3	E	122	7	A	182	B	6
3	0	3	63	3	F	123	7	B	183	B	7
4	0	4	64	4	0	124	7	C	184	B	8
5	0	5	65	4	1	125	7	D	185	B	9
6	0	6	66	4	2	126	7	E	186	B	A
7	0	7	67	4	3	127	7	F	187	B	B
8	0	8	68	4	4	128	8	0	188	B	C
9	0	9	69	4	5	129	8	1	189	B	D
10	0	A	70	4	6	130	8	2	190	B	E
11	0	B	71	4	7	131	8	3	191	B	F
12	0	C	72	4	8	132	8	4	192	C	0
13	0	D	73	4	9	133	8	5	193	C	1
14	0	E	74	4	A	134	8	6	194	C	2
15	0	F	75	4	B	135	8	7	195	C	3
16	1	0	76	4	C	136	8	8	196	C	4
17	1	1	77	4	D	137	8	9	197	C	5
18	1	2	78	4	E	138	8	A	198	C	6
19	1	3	79	4	F	139	8	B	199	C	7
20	1	4	80	5	0	140	8	C	200	C	8
21	1	5	81	5	1	141	8	D	201	C	9
22	1	6	82	5	2	142	8	E	202	C	A
23	1	7	83	5	3	143	8	F	203	C	B
24	1	8	84	5	4	144	9	0	204	C	C
25	1	9	85	5	5	145	9	1	205	C	D
26	1	A	86	5	6	146	9	2	206	C	E
27	1	B	87	5	7	147	9	3	207	C	F
28	1	C	88	5	8	148	9	4	208	D	0
29	1	D	89	5	9	149	9	5	209	D	1
30	1	E	90	5	A	150	9	6	210	D	2
31	1	F	91	5	B	151	9	7	211	D	3
32	2	0	92	5	C	152	9	8	212	D	4
33	2	1	93	5	D	153	9	9	213	D	5
34	2	2	94	5	E	154	9	A	214	D	6
35	2	3	95	5	F	155	9	B	215	D	7
36	2	4	96	6	0	156	9	C	216	D	8
37	2	5	97	6	1	157	9	D	217	D	9
38	2	6	98	6	2	158	9	E	218	D	A

(continued)

Dec	Hex		Dec	Hex		Dec	Hex		Dec	Hex	
	S1	S2		S1	S2		S1	S2		S1	S2
39	2	7	99	6	3	159	9	F	219	D	B
40	2	8	100	6	4	160	A	0	220	D	C
41	2	9	101	6	5	161	A	1	221	D	D
42	2	A	102	6	6	162	A	2	222	D	E
43	2	B	103	6	7	163	A	3	223	D	F
44	2	C	104	6	8	164	A	4	224	E	0
45	2	D	105	6	9	165	A	5	225	E	1
46	2	E	106	6	A	166	A	6	226	E	2
47	2	F	107	6	B	167	A	7	227	E	3
48	3	0	108	6	C	168	A	8	228	E	4
49	3	1	109	6	D	169	A	9	229	E	5
50	3	2	110	6	E	170	A	A	230	E	6
51	3	3	111	6	F	171	A	B	231	E	7
52	3	4	112	7	0	172	A	C	232	E	8
53	3	5	113	7	1	173	A	D	233	E	9
54	3	6	114	7	2	174	A	E	234	E	A
55	3	7	115	7	3	175	A	F	235	E	B
56	3	8	116	7	4	176	B	0	236	E	C
57	3	9	117	7	5	177	B	1	237	E	D
58	3	A	118	7	6	178	B	2	238	E	E
59	3	B	119	7	7	179	B	3	239	E	F
60	3	C	120	7	8	180	B	4			

Appendix D - Sensor Descriptions

Code	Description
C-4	Current to Pressure Module
DP-1	Dew Point Sensor
E-1	Universal Resistance Transducer
F-3	Paddle Type Flow Sensor
H-21	Space Humidity Transmitter - Electronic
H-22	Duct Humidity Transmitter - Electronic
I-1	Remote Intercom
IR-1	Current Status Relay
P-1	Pressure Transducer 3-15 psi
P-3	Pressure Transducer 0-30 psi
P-4	Pressure Transducer 0-60 psi
P-5	Pressure Transducer 0-200 psi
P-6	Differential Pressure Transducer 0-1.0" H_20
P-7	Differential Pressure Transducer 0-5" H_20
P-9	Differential Pressure Transducer 0-10" H_20
P-10	Differential Pressure Transducer 0-15" H_20
P-11	Differential Pressure Transducer 0-30" H_20
P-12	Differential Pressure Transducer 0-40" H_20
P-13	Differential Pressure Transducer 0-70" H_20
P-14	Differential Pressure Transducer 0-90" H_20
P-15	Differential Pressure Transducer 0-110" H_20
P-16	Differential Pressure Transducer 0-150" H_20
P-17	Differential Pressure Transducer 0-230" H_20
P-18	Differential Pressure Transducer 0-250" H_20
P-19	Differential Pressure Transducer 0-400" H_20
P-20	Differential Pressure Transducer 0-450" H_20
P-21	Pressure Switch - Electric
P-22	Pressure Switch - Electric
P-23	Differential Pressure Switch
P-26	Pressure Transducer 0-300 psi
P-27	Pressure Transducer 0-15 psi
P-2	Differential Pressure Transducer 0-12" H_20
P-29	Differential Pressure Transducer 0-35" H_20
P-31	Water Differential Pressure Switch
P-32	Pressure Switch - Weather Proof 0-100 psi
P-99	Differential Pressure Transducer +/-750" H_20

continued on next page

Code	Description
R-2	Status Relay 480 Vac SPDT Contact
R-4	Status Relay 208 Vac SPDT Contact
R-5	Status Relay 114 Vac SPDT Contact
R-20	Start/Stop Relay 24 Vdc SPDT Contact
R-21	Start/Stop Relay 24 Vdc DPDT Contact
S-1	HOA Maintained Contact Switch
T-2	Replaced By T-49
T-3	Replaced By T-49
T-12	Rigid Bulb Electric Thermostat
T-20	Replaced By T-42
T-21	Replaced By T-46
T-22	Replaced By T-44 or T-47
T-24	Replaced By T-40
T-40	Room Air Temperature Sensor
T-42	Duct Air Temperature Sensor
T-44	Fluid Immersion Temperature Sensor
T-46	Outside Air Temperature Sensor
T-47	Pipe Clamp Temperature Sensor
T-49	Averaging Temperature Sensor
V-2	KIP Solenoid Valve 24 Vac
V-5	KIP Solenoid Valve 24 Vdc

Appendix E - Glossary

address	See *network address.*
algorithm	A defined procedure for solving a problem in a finite number of steps that frequently involves repetition of an operation. In the CCN, this defined procedure is the software routine that controls either a single CCN product or a set of Carrier products comprising a system.
analog	Relating to a mechanism which represents a continuously variable quantity (compare to *discrete*).
analog in	An input signal that varies in magnitude (analog input, AI) with the quantity being sensed (for example: temperature, pressure, relative humidity). In the UT203 FID, a specific point type.
analog out	An output signal that varies in magnitude (analog output, AO) with amount of change required to control the device. In the UT203 FID, a specific point type.
broadcast	A method of sending the same piece of information to all system elements on the CCN.
Building Supervisor	The main human interface for the CCN. Provides means to monitor HVAC equipment and controls within the CCN. Strictly an operator interface, the Supervisor does not perform any control functions.
bus segment	In the CCN, a section of a communications bus that can extend up to 1000 feet and support up to 60 system elements.
CCN	Acronym for the Carrier Comfort Network. This is the umbrella term used by Carrier to describe its implementation of communicating electronic controls throughout its product line.
CLIP Module	Closed Loop Current(I)/Pressure Module used in the UT203 to convert an electronic signal to pneumatic pressure.
communications bus	In the CCN, the primary bus or one of up to 240 secondary buses. Physically, a communications bus may consist of up to four *bus segments* through the use of three repeaters.

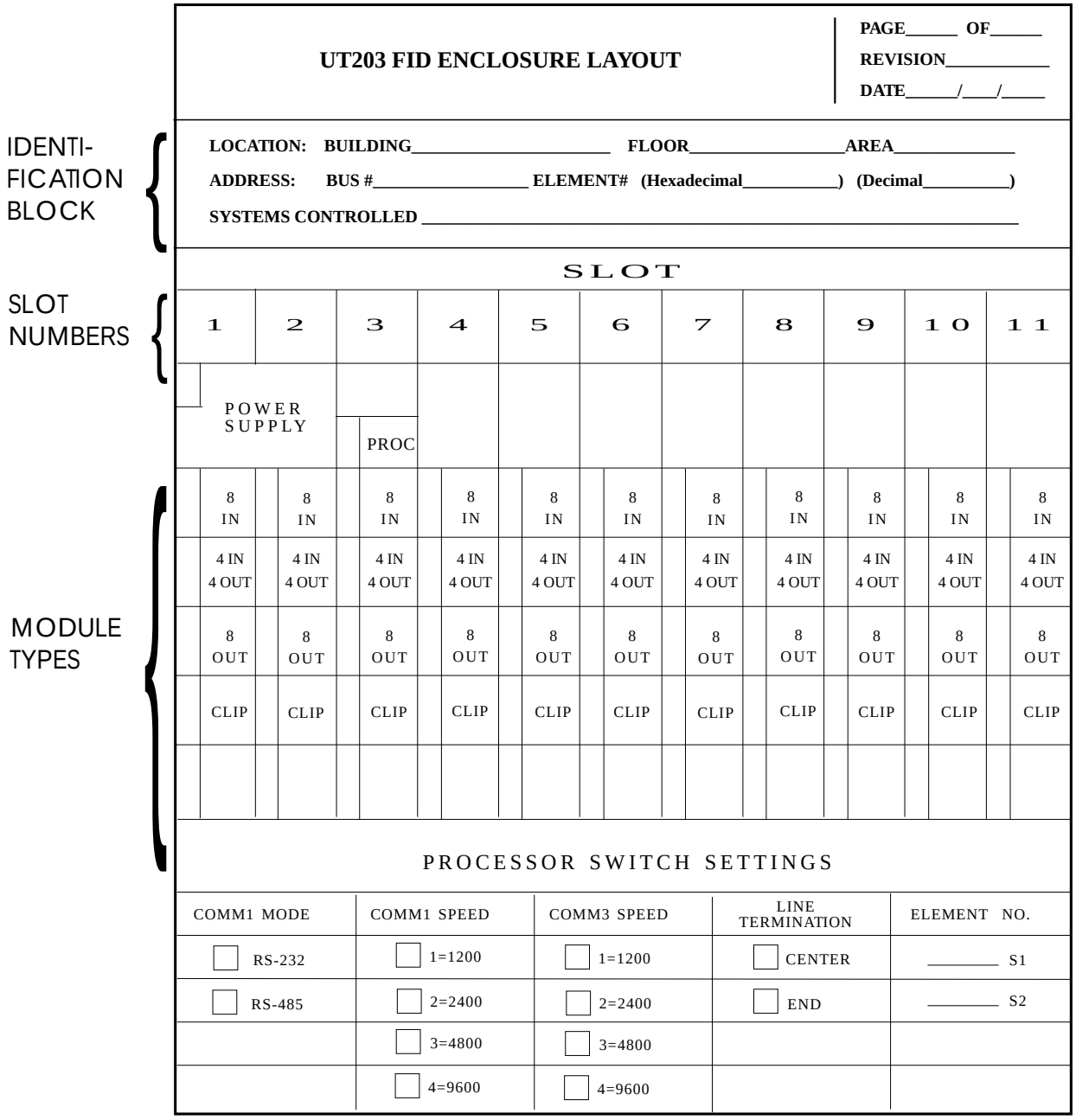
communications bus number	The numerical identifier (0-239) of a single communications bus in the CCN. This number provides one part of the *network address* required to direct communications to a system element.
configuration	The software characteristics (decisions) selected for each algorithm in the CCN.
customary U.S.	Refers to the units displayed for all U.S.A. CCN installations.
cycling	The scheduled shut off a device (for a user-defined period of time) to save energy.
decision	A piece of information that determines how an algorithm will run. Each decision in an algorithm is user-defined.
discrete	Relating to a mechanism which represents a two-state condition (compare to *analog*).
discrete in (discrete input, DI)	An input signal that indicates the two-state condition (ON/OFF) of the device being sensed. In the UT203 FID, a specific point type.
discrete out (discrete output, DO)	An output signal that provides a two-state command (ON/OFF) to the device being controlled. In the UT203 FID, a specific point type.
element	See *system element*.
FID	Acronym for Field Installed Device. See *UT203 FID*.
force	In the UT203 FID, the act of temporarily overriding the automatic control of a point.
Global Decision	A decision that applies to all applicable algorithms within a given system element.
LED	Acronym for Light Emitting Diode. A light often used in computerizd devices to indicate operating status.
loadshed	A technique used in energy management systems to reduce the maximum electrical consumption within a facility.
network address	Unique two-part identification number for each system element in the CCN. It is formed by the communications bus number and the system element number.

primary bus	The portion of the CCN that is assigned to communications bus number *0*. Physically, it consists of up to four bus segments coupled by three repeaters, and can accommodate up to 239 system elements.
secondary bus	A portion of the CCN that is connected to the primary bus through a bridge. Up to 239 secondary buses may be connected to the primary bus. Physically, each secondary bus can consist of up to 4 bus segments coupled by 3 repeaters and can accommodate up to 239 system elements.
sensor	Input device used to detect or measure conditions such as temperature or status (ON/OFF).
stand-alone	Descriptive term for a device that operates without a central computer or without other system elements.
system element	General term for individual components that are connected to a communications bus on the CCN. PICs, UT203 FIDs, CIO modules, and Building Supervisors are active, addressable system elements.
system element number	User-configured number that identifies a single addressable system element connected to the primary or secondary communications bus. Serves as one part of the network address required to direct communications to the system element.
UT203 FID	In the CCN, this is a solid-state, microprocessor-based controller that regulates building equipment using closed-loop, direct digital control.

Appendix F - Configuration Sheets

The following pages contain copies of the UT203 FID configuration sheets. These sheets have been sized appropriately in order to fit in this manual. Full size forms are available from Carrier's Literature Distibution on C-9.

Name	Form Number	Catalog Number
UT203 FID Phase 4 Enclosure Layout	G5441	907-417
UT203 FID Module Wire List - 8 Input Module	G5443	907-419
UT203 FID Module Wire List - 4 Input/4 Output	G5442	907-418
UT203 FID Module Wire List - 8 Output	G5444	907-420
UT203 FID Config. - Global, PI's, Holidays	G5438	907-414
UT203 FID Config. - Time Schedule	G5440	907-416
UT203 FID Config. - Setpoint Schedule	G5439	907-415
UT203 FID Config. - 8 Inputs	G5436	907-412
UT203 FID Config. 4 Inputs/4 Outputs	G5435	907-411
UT203 FID Config. - 8 Outputs	G5437	907-413


UT203 FID ENCLOSURE LAYOUT
PAGE_____ OF_____
REVISION_____
DATE_____/___/_____
IDENTI-
FICATION
BLOCK
LOCATION: BUILDING_____ FLOOR_____AREA_____
ADDRESS: BUS #_____ ELEMENT# (Hexadecimal_____) (Decimal_____)
SYSTEMS CONTROLLED _____
SLOT
SLOT
NUMBERS
1 2 3 4 5 6 7 8 9 10 11
POWER SUPPLY
PROC
MODULE
TYPES
8 IN
4 IN 4 OUT
8 OUT
CLIP
PROCESSOR SWITCH SETTINGS
COMM1 MODE
RS-232
RS-485
COMM1 SPEED
1=1200
2=2400
3=4800
4=9600
COMM3 SPEED
1=1200
2=2400
3=4800
4=9600
LINE TERMINATION
CENTER
END
ELEMENT NO.
_____ S1
_____ S2

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UT203 FID MODULE WIRE LIST

8 INPUT MODULE

PAGE_____ OF_____
REVISION_____
DATE_____/____/_____

LOCATION: BUILDING_____ FLOOR_____ AREA_____

ADDRESS: BUS #_____ ELEMENT# (Decimal)_____ SLOT #_____

POINT/ CABLE#	TYPE CHK ONE		TERM# +	TERM# -	SENSOR CODE	WIRING DWG#	SS #	SYSTEM	POINT NAME	COMMENTS
		A	4	3						
		B	2	3						
		C	1	2						
		A	8	7						
		B	6	7						
		C	5	6						
		A	12	11						
		B	10	11						
		C	9	10						
		A	16	15						
		B	14	15						
		C	13	14						
		A	20	19						
		B	18	19						
		C	17	18						
		A	24	23						
		B	22	23						
		C	21	22						
		A	28	27						
		B	26	27						
		C	25	26						
		A	32	31						
		B	30	31						
		C	29	30						

ANALOG SENSORS	TYPE	DISCRETE SENSORS	TYPE
THERMISTOR and RTD		SENSED or PULSED	
2 WIRE 4 - 20 mA			
4 WIRE 4 - 20 mA			

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UT203 FID MODULE WIRE LIST

4 INPUT / 4 OUTPUT MODULE

PAGE_____ OF_____
REVISION_____
DATE_____/____/_____

LOCATION: BUILDING_____ FLOOR_____ AREA_____

ADDRESS: BUS #_____ ELEMENT# (Decimal)_____ SLOT #_____

POINT/ CABLE#	TYPE CHK ONE		TERM# +	TERM# -	SENSOR CODE	WIRING DWG#	SS #	SYSTEM	POINT NAME	COMMENTS
INPUTS										
		A	4	3						
		B	2	3						
		C	1	2						
		A	8	7						
		B	6	7						
		C	5	6						
		A	12	11						
		B	10	11						
		C	9	10						
		A	16	15						
		B	14	15						
		C	13	14						
OUTPUTS										
		AO	17	18						
		DO	19	18						
		AO	20	21						
		DO	22	21						
		AO	23	24						
		DO	25	24						
		AO	26	27						
		DO	28	27						

ANALOG SENSORS	TYPE
THERMISTOR and RTD	
2 WIRE 4 - 20 mA	
4 WIRE 4 - 20 mA	

DISCRETE SENSORS	TYPE
SENSED or PULSED	

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UT203 FID MODULE WIRE LIST

8 OUTPUT MODULE

PAGE_____ OF_____
REVISION_____
DATE_____/____/_____

LOCATION: BUILDING_____ FLOOR_____ AREA_____

ADDRESS: BUS #_____ ELEMENT# (Decimal)_____ SLOT #_____

POINT/ CABLE#	TYPE CHK ONE		TERM# +	TERM# -	SENSOR CODE	WIRING DWG#	SS #	SYSTEM	POINT NAME	COMMENTS
		AO	1	2						
		DO	3	2						
		AO	4	5						
		DO	6	5						
		AO	7	8						
		DO	9	8						
		AO	10	11						
		DO	12	11						
		AO	13	14						
		DO	15	14						
		AO	16	17						
		DO	18	17						
		AO	19	20						
		DO	21	20						
		AO	22	23						
		DO	24	23						

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UT203 FID CONFIGURATION - GLOBAL, PIs & HOLIDAYS

LOCATION: BUILDING_____ FLOOR_____ AREA_____

ADDRESS: BUS #_____ ELEMENT # (Decimal)_____

PAGE_____ OF_____

REVISION_____

DATE_____/____/_____

GLOBAL DECISIONS

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
37	38	39	40	41	42	43											

PERMISSIVE INTERLOCK TABLES

TABLE NO.	DECISIONS										24-CHARACTER DESCRIPTION OF INTERLOCK (FOR BUILDING SUPERVISOR DISPLAY)
	1	2	3	4	5	6	7	8	9	10	

HOLIDAY TABLE 801

Mo	Day	Mo	Day	Mo	Day	Mo	Day	Mo	Day	Mo	Day	Mo	Day	Mo	Day	Mo	Day	Mo	Day	Mo	Day	Mo	Day	Mo	Day	Mo	Day	Mo	Day
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	5	56	57	58	59	60

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UT203 FID CONFIGURATION - TIME SCHEDULE

LOCATION: BUILDING________________________ FLOOR______________ AREA_____________

ADDRESS: BUS #________________ ELEMENT # (Decimal)____________________________________

PAGE______ OF______

REVISION____________

DATE______/____/_____

TIME SCHEDULE VARIABLES													CYCLING VARIABLES				AOSS VARIABLES					LOAD-SHED
SCHED NO.	24-CHARACTER DESCRIPTION OF SYSTEMS USING THIS SCHEDULE (FOR BUILDING SUPERVISOR DISPLAY)	PERIOD	OCC TIMES	UNOCC TIMES	DAYS DESIRED								CYCLE OFF TIME		OFF TIME DURATION		POINTS USING AOSS	KI ΔT1	RTG ΔT2	STB ΔT3	SBA ΔT4	OFF TIME BIAS
					MON	TUE	WED	THR	FRI	SAT	SUN	HOL	1	2	OCC	UNOC						
60__		1																				
		2																				
		3																				
		4																				
		5																				
		6																				
		7																				
60__		1																				
		2																				
		3																				
		4																				
		5																				
		6																				
		7																				
60__		1																				
		2																				
		3																				
		4																				
		5																				
		6																				
		7																				
60__		1																				
		2																				
		3																				
		4																				
		5																				
		6																				
		7																				

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UT203 FID CONFIGURATION - SETPOINT SCHEDULE

LOCATION: BUILDING_____ FLOOR_____ AREA_____

ADDRESS: BUS #_____ ELEMENT # (Decimal)_____

PAGE_____ OF_____

REVISION_____

DATE_____/____/_____

SETPOINT SCHEDULE VARIABLES

SCHED. NO.	24-CHARACTER DESCRIPTION OF SYSTEMS USING THIS SCHEDULE (FOR BUILDING SUPERVISOR DISPLAY)	TYPE	OCCUPIED SETPOINTS		UNOCCUPIED SETPOINTS	
			LOW	HIGH	LOW	HIGH
701						
702						
703						
704						
705						
706						
707						
708						
709						
710						
711						
712						

SCHEDULE TYPE: 1 = TEMPERATURE 3 = STATIC PRESSURE
2 = % RELATIVE HUMIDITY 4 = 4-20 mA

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UT203 FID CONFIGURATION - 4 INPUTS / 4 OUTPUTS

PAGE_____ OF_____

LOCATION: BUILDING_____ FLOOR_____ AREA_____

REVISION_____

ADDRESS: BUS #_____ ELEMENT # (Decimal)_____

DATE_____/____/_____

TABLE	POINT NO.	SYSTEM	POINT NAME	INPUT DECISION NUMBERS 1	2	3	4	5	6	7	8	9	10	11	12	13	14

TABLE 3 Analog Input / TABLE 4 Discrete Input	POINT NO.	INPUT DECISION NUMBERS 15	16	17	18	19	24	88	97	98	LOW CONV	HIGH CONV	DECIMAL PLACES	DISPLY UNITS	DISCRETE STATES

TABLE	POINT NO.	SYSTEM	POINT NAME	OUTPUT DECISION NUMBERS 1	2	3	4	5	6	20	21	22	23	25	26	27	28	29

TABLE 1 Discrete Output / TABLE 2 Analog Output	POINT NO.	OUTPUT DECISION NUMBERS 30	31	32	33	34	35	36	37	38	39	40	41	42	43	45	46	47	48	49	50

TABLE 1 Discrete Output / TABLE 2 Analog Output	POINT NO.	OUTPUT DECISION NUMBERS 51	52	53	54	55	56	57	58	59	92	93	94	95	LOW CONV	HIGH CONV	DECIMAL PLACES	DISPLY UNITS	DISCRETE STATES

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UT203 FID CONFIGURATION - 8 INPUTS

LOCATION: BUILDING_____ FLOOR_____ AREA_____

ADDRESS: BUS #_____ ELEMENT # (Decimal)_____

PAGE_____ OF_____

REVISION_____

DATE_____/____/_____

TABLE	POINT NO.	SYSTEM	POINT NAME	DECISION NUMBERS 1	2	3	4	5	6	7	8	9	10	11	12	13	14

TABLE	POINT NO.	DECISION NUMBERS 15	16	17	18	19	24	88	97	98	LOW CONV	HIGH CONV	DECIMAL PLACES	DISPLY UNITS	DISCRETE STATES
TABLE 3 Analog Input															
TABLE 4 Discrete Input															

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UT203 FID CONFIGURATION - 8 OUTPUTS

PAGE_____ OF_____

LOCATION: BUILDING_____ FLOOR_____ AREA_____

REVISION_____

ADDRESS: BUS #_____ ELEMENT # (Decimal)_____

DATE_____/____/_____

TABLE	POINT NO.	SYSTEM	POINT NAME	DECISION NUMBERS 1	2	3	4	5	6	20	21	22	23	25	26	27	28	29

TABLE	POINT NO.	DECISION NUMBERS 30	31	32	33	34	35	36	37	38	39	40	41	42	43	45	46	47	48	49	50
TABLE 1 Discrete Output TABLE 2 Analog Output																					

TABLE	POINT NO.	DECISION NUMBERS 51	52	53	54	55	56	57	58	59	92	93	94	95	LOW CONV	HIGH CONV	DECIMAL PLACES	DISPLY UNITS	DISCRETE STATES

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