

APPENDIX A—STARTUP SETTINGS SHEETS

Startup Settings Sheets are provided to further simplify the programming process. Startup Settings Sheets do the following:

- Provide a preview of the detailed information required by the IQ Analyzer in the “Program Mode” by individual programming category. This permits the operator to gather all required information prior to beginning the programming process.
- Provide a place to logically record the required programming details for the particular application.

Make a copy of the required sheets and complete them as required for the application. Follow the step by step instructions on each individual sheet. Note that each sheet references the Screens Tree by Figure Number, and the text by Paragraph Number associated with that particular sheet. The Screens Tree is especially helpful since it presents an overall view of the entire programming category.

NOTICE

It is highly recommended that each step on a Startup Settings Sheet be followed carefully in sequence. This will help to insure that all required information is recorded accurately the first time.

Startup Settings Sheet #1

GENERAL SETUP SETTINGS *(Reference Paragraph 5-5 and Figure 6-4)*

- Step 1:** Choose Type of System *Select One*
- ▶▶▶▶ 3 PHASE/4 WIRE
 - ▶▶▶▶ 3 PHASE/3 WIRE
 - ▶▶▶▶ 1 PHASE/3 WIRE
 - ▶▶▶▶ 1 PHASE/2 WIRE

Step 2: If either single phase system was selected in Step 1, proceed to Step 3. If either three phase system was selected, choose the Phase Rotation.

- Select One*
- ▶▶▶▶ ABC ROTATION
 - ▶▶▶▶ CBA ROTATION

- Step 3:** Choose Frequency *Select One*
- ▶▶▶▶ 25 HZ
 - ▶▶▶▶ 40 HZ
 - ▶▶▶▶ 50 HZ
 - ▶▶▶▶ 60 HZ

Step 4: Choose Incoming L-L Voltage ▶▶▶▶ Enter from 100-600 Vac _ _ _

Step 5: Choose PT Primary Rating ▶▶▶▶ Enter from 120-500,000 volts _ _ _ , _ _ _
(120 volts secondary assumed)

Step 6: Choose CT Primary Rating ▶▶▶▶ Enter from 5-10,000A _ _ _ , _ _ _
(5A secondary assumed)

Step 7: Choose GND CT Primary Rating ▶▶▶▶ Enter from 5-10,000A _ _ _ , _ _ _
(5A secondary assumed)

- Step 8:** Programming Options *Select One*
- ▶▶▶▶ Faceplate only
 - ▶▶▶▶ Faceplate & Network
 - ▶▶▶▶ Input3 key only
 - ▶▶▶▶ Input3 key & Network

- Step 9:** Power Energy Options *Select One*
- ▶▶▶▶ Kilowatt-hours
 - ▶▶▶▶ Megawatt-hours

- Step 10:** Choose Var Sign *Select One*
- ▶▶▶▶ Lagging Vars & PF negative at load
 - ▶▶▶▶ Lagging Vars & PF Positive at load

- Step 11:** Communication Mode *Select One*
- ▶▶▶▶ IQA 6000/6200 (Series-III)
 - ▶▶▶▶ IQ66400/6600 (PowerNet)

- Step 12:** Date and Time ▶▶▶▶ Enter updated date and time if required _____
- Step 13:** Change Password ▶▶▶▶ Enter new 5 digit password if required _ _ _ _ _

GENERAL SETUP PROGRAMMING COMPLETE

Startup Settings Sheet #2

ANALOG INPUT SETTINGS

(Reference Paragraph 5-6.2 and Figure 6-5)

Note: *One Analog Input is available*

Step 1: Analog Input

▣ 0-20mA
4-20mA

Select One

ANALOG INPUT PROGRAMMING COMPLETE

Startup Settings Sheet #3

ANALOG OUTPUT SETTINGS

(Reference Paragraph 5-6.3 and Figure 6-6)

Note: Up to three Analog Outputs are available. Each is programmed individually.

Select Up to Three

- Step 1:** Choose Analog Outputs ▶▶▶ ANALOG OUTPUT 1
 ANALOG OUTPUT 2
 ANALOG OUTPUT 3

Step 2: Choose and indicate in the space provided one of the below listed parameter types for each of the Analog Outputs selected in Step 1.

Parameter Types				Parameter Selections		
Current	Voltage	Power	%THD	Frequency	Power Factor	
IA	VAN	SYSTEM WATTS	IA	VAN	System ▶▶▶	_____ Analog Output 1
IB	VBN	PHASE A WATTS	IB		Displacement	_____ Analog Output 2
IC	VCN	PHASE B WATTS	IC		and	_____ Analog Output 3
IN	VAB	PHASE C WATTS	IN		System	
IG	VBC	SYSTEM VARS	VAN		Apparent	
Iavg	VCA	PHASE A VARS	VBN			
	VNG	PHASE B VARS	VCN			
		PHASE C VARS	VAB			
		SYSTEM VA	VBC			
		PHASE A VA	VCA			
		PHASE B VA				
		PHASE C VA				

Step 3: Indicate in the space provided, parameter selections for each of the Analog Outputs selected in Step 1. All spaces within a particular Analog Output should be complete, except as indicated.

	Analog Output 1	Analog Output 2	Analog Output 3
Range	4 - 20MA Select One 0 - 20MA	4 - 20MA Select One 0 - 20MA	4 - 20MA Select One 0 - 20MA
Full Scale	100% Select One 200%	100% Select One 200%	100% Select One 200%
Zero Position	ZERO SCALE + OR - Select One (Power Parameter Only) MID SCALE	ZERO SCALE + OR - Select One (Power Parameter Only) MID SCALE	ZERO SCALE + OR - Select One (Power Parameter Only) MID SCALE

ANALOG OUTPUT PROGRAMMING COMPLETE

Startup Settings Sheet #4

DISCRETE INPUT SETTINGS

(Reference Paragraph 5-6.1 and Figure 6-7)

Note: Up to three Discrete Inputs are available. Each is programmed individually.

Step 1: Choose Discrete Inputs **Select Up to Three**

DISCRETE INPUT 1
 DISCRETE INPUT 2
 DISCRETE INPUT 3

Step 2: Choose and indicate in the space provided one of the below listed categories for each of the Discrete Inputs selected in Step 1.

<u>Discrete Input Category</u>	<u>Category</u>
EVENT TRIGGER INPUT	_____ Discrete Input 1
RESET INPUT	_____ Discrete Input 2
SYNC INPUT	_____ Discrete Input 3
(Applicable to Discrete Input #1 Only)	

Note: If “Event Trigger” or “Sync Input” was selected in Step 2, programming is complete for that particular Discrete Input after completing Step 2.

Step 3: If “Reset Input” was selected in Step 2 for any or all of the Discrete Inputs, choose and indicate in the space provided one of the below listed categories for each of the Discrete Inputs from Step 2 requiring additional programming.

<u>Reset Category</u>	<u>Category</u>
RESET PEAK DEMAND	_____ Discrete Input 1
RESET MIN/MAX	_____ Discrete Input 2
RESET RELAYS	_____ Discrete Input 3
RESET TRIGGER LOCK	

Note: If “Reset Peak Demand” or “Reset Min/Max” was selected in Step 3, programming is complete for that particular Discrete Input after completing Step 3.

Note: If “Reset Trigger Lock” was selected in Step 3 for any particular Discrete Input, proceed directly to Step 5 to complete programming.

Continued on next page

Startup Settings Sheet #4 Discrete Input Programming (continued from previous page)

Step 4: If "Reset Relays" was selected in Step 3 for any particular Discrete Input, choose and indicate in the space provided one of the below listed Relays for each applicable Discrete Input.

<u>Relays</u>	<u>Relay</u>
RELAY #1	»»» _____ Discrete Input 1
RELAY #2	_____ Discrete Input 2
RELAY #3	_____ Discrete Input 3
RELAY #4	_____ Discrete Input 3

Step 5: If "Reset Trigger Lock" was selected in Step 3 for any particular Discrete Input, choose and indicate in the space provided one of the below listed Event Triggers for each applicable Discrete Input.

<u>Trigger Locks</u>	<u>Trigger Lock</u>
ALL EVENT TRIGGERS	»»» _____ Discrete Input 1
EVENT TRIGGER #1	_____ Discrete Input 2
EVENT TRIGGER #2	_____ Discrete Input 3
EVENT TRIGGER #3	_____ Discrete Input 3
EVENT TRIGGER #4	
EVENT TRIGGER #5	
EVENT TRIGGER #6	
EVENT TRIGGER #7	

DISCRETE INPUT PROGRAMMING COMPLETE

Startup Settings Sheet #5

EVENT TRIGGER SETTINGS

(Reference Paragraph 5-7.2, Figure 6-8, and Table 5.7)

Note: *Up to seven Event Triggers can be programmed for 1 of 39 different conditions. Each is programmed individually.*

Step 1: Choose the number of "Pre-Trigger Cycles" that will apply to all programmed Event Triggers and enter in the space provided.

»»» PRE-TRIGGER CYCLES (0-6) _____

Select Up to Seven

Step 2: Choose Event Triggers to be programmed

»»» EVENT TRIGGER 1

EVENT TRIGGER 2

EVENT TRIGGER 3

EVENT TRIGGER 4

EVENT TRIGGER 5

EVENT TRIGGER 6

EVENT TRIGGER 7

Note: *If an Event Trigger will not be programmed, "Not Used" is entered for that particular Event Trigger. Especially as it applies to previously programmed IQ Analyzers, take the time to insure that it is made clear in Step 3 which Event Triggers will not be used. This will help to avoid unexplained Event happenings while the IQ Analyzer is in service.*

Note: *To complete Event Trigger programming, programming selections will be made from Tables A through L and used to fill in the blank spaces provided in the Data Collection Table for each Event Trigger.*

Step 3: Check () "Not Used" in the Data Collection Table if a particular Event Trigger is not to be programmed. Double check to make sure that those checked "Not Used" are consistent with selections made in Step 2. No further programming action will be required for those Event Triggers programmed with "Not Used."

Step 4: To complete Event Trigger programming, make programming level selections from the referenced tables stating with Table A, and indicate the selections in the spaces provided in the Data Collection Table.

Continued on next page

Startup Settings Sheet #5 Event Trigger Programming (continued from previous page)

Data Collection Table

Event Trigger	Not Used ()	Level 2 Selections (Select 1 from Table A)	Level 3 Selections	Level 4 Selections	Level 5 Selections	Level 6 Selections
1	<input type="checkbox"/>	_____	_____	_____	_____	_____
			_____	_____	_____	_____
			_____	_____	_____	_____
			_____	_____	_____	_____
2	<input type="checkbox"/>	_____	_____	_____	_____	_____
			_____	_____	_____	_____
			_____	_____	_____	_____
			_____	_____	_____	_____
3	<input type="checkbox"/>	_____	_____	_____	_____	_____
			_____	_____	_____	_____
			_____	_____	_____	_____
			_____	_____	_____	_____
4	<input type="checkbox"/>	_____	_____	_____	_____	_____
			_____	_____	_____	_____
			_____	_____	_____	_____
			_____	_____	_____	_____
5	<input type="checkbox"/>	_____	_____	_____	_____	_____
			_____	_____	_____	_____
			_____	_____	_____	_____
			_____	_____	_____	_____
6	<input type="checkbox"/>	_____	_____	_____	_____	_____
			_____	_____	_____	_____
			_____	_____	_____	_____
			_____	_____	_____	_____
7	<input type="checkbox"/>	_____	_____	_____	_____	_____
			_____	_____	_____	_____
			_____	_____	_____	_____
			_____	_____	_____	_____

Continued on back side of page

Startup Settings Sheet #5 Event Trigger Programming (continued from previous side)

Table A
Level 2 Selections

Event Causes (Select One for Each Event Trigger being Programmed)	Further Programming
MAGNITUDE THD	If selected, complete programming selections from Table B
% THD	If selected, complete programming selections from Table C
MINIMUM	If selected, complete programming selections from Table D
MAXIMUM	If selected, complete programming selections from Table E
MAXIMUM DEMAND	If selected, complete programming selections from Table F
VOLTAGE DISTURBANCE	If selected, complete programming selections from Table G
FREQUENCY DEVIATION	If selected, complete programming selections from Table H
CURRENT UNBALANCE	If selected, complete programming selections from Table I
VOLTAGE UNBALANCE	If selected, complete programming selections from Table J
DISCRETE INPUT	If selected, complete programming selections from Table K
MANUAL CAPTURE REQUEST	If selected, complete programming selections from Table L
MIN/MAX UPDATE	If selected, complete programming selections from Table M

Table B
Levels 3 through 5 Selections
(Use when Level 2 Selection is "Magnitude THD")

Level 3 (Select One Parameter)	Level 4 (Select One to Four Parameters as Required)	Level 5 (Establish a Corresponding Input for Each Parameter Selected for Level 4)
IA IB IC IN VAN VBN VCN VAB VBC VCA	TRIGGER THRESHOLD	* Required Trigger Threshold Current or Voltage
	RESET THRESHOLD	* Required Reset Threshold Current or Voltage
	REQUEST (MANUAL/AUTO)	Select Auto or Manual
	DELAY TIME	Select Delay Time form 0.1 to 60 seconds (in 0.1 second increments)

* Refer to "RAW #" in the glossary if assistance is required with establishing the desired current or voltage in terms of its "RAW #."

Continued on next page

Startup Settings Sheet #5 Event Trigger Programming (continued from previous page)

Table C
Levels 3 through 5 Selections
 (Use when Level 2 Selection is "% THD")

Level 3 (Select One Parameter)	Level 4 (Select One to Four Parameters as Required)	Level 5 (Establish a Corresponding Input for Each Parameter Selected for Level 4)
IA IB IC IN VAN VBN VCN VAB VBC VCA	TRIGGER THRESHOLD RESET THRESHOLD REQUEST (MANUAL/AUTO) DELAY TIME	Select Trigger Threshold Percentage up to 1000% (in 1% increments) Select Reset Threshold Percentage up to 1000% (in 1% increments) Select Auto or Manual Select Delay Time form 0.1 to 60 seconds (in 0.1 second increments)

Table D
Levels 3 through 5 Selections
 (Use when Level 2 Selection is "Minimum")

Level 3 (Select One Parameter)	Level 4 (Select One to Four Parameters as Required)	Level 5 (Establish a Corresponding Input for Each Parameter Selected for Level 4)
IA IB IC SYSTEM WATTS SYSTEM VARS SYSTEM VA SYSTEM PF (DISPLACEMENT) SYSTEM PF (APPARENT)	TRIGGER THRESHOLD RESET THRESHOLD RESET (MANUAL/AUTO) DELAY TIME	* (Required) Trigger Threshold Current or Watts or Vars or VA or PF * (Required) Reset Threshold Current or Watts or Vars or VA or PF Select Auto or Manual Select Delay Time form 0.1 to 60 seconds (in 0.1 second increments)

1. Refer to "RAW #" in the glossary if assistance is required with establishing the desired current in terms of its "RAW #."
2. Watts, Vars, VA (up to ± 1200)
3. Power Factor (± 0 – 100%)

Continued on back side of page

Startup Settings Sheet #5 Event Trigger Programming (continued from previous side)

Table E
Levels 3 through 5 Selections
 (Use when Level 2 Selection is "Maximum")

Level 3 (Select One Parameter)	Level 4 (Select One to Four Parameters as Required)	Level 5 (Establish a Corresponding Input for Each Parameter Selected for Level 4)
IA IB IC IN IG VGN SYSTEM WATTS SYSTEM VARS SYSTEM VA SYSTEM PF (DISPLACEMENT) SYSTEM PF (APPARENT)	TRIGGER THRESHOLD RESET THRESHOLD RESET (MANUAL/AUTO) DELAY TIME	* (Required) Trigger Threshold Current or Voltage or Watts or Vars or VA or PF * (Required) Reset Threshold Current or Voltage or Watts or Vars or VA or PF Select Auto or Manual Select Delay Time form 0.1 to 60 seconds (in 0.1 second increments)

1. Refer to "RAW #" in the glossary if assistance is required with establishing the desired current or voltage in terms of its "RAW #."
2. Watts, Vars, VA (up to ∞ 1200)
3. Power Factor (∞ 0 – 100%)

Table F
Levels 3 through 5 Selections
 (Use when Level 2 Selection is "Maximum Demand")

Level 3 (Select One Parameter)	Level 4 (Select One to Three Parameters as Required)	Level 5 (Establish a Corresponding Input for Each Parameter Selected for Level 4)
IA IB IC IAVG SYSTEM WATTS SYSTEM VARS SYSTEM VA	TRIGGER THRESHOLD RESET THRESHOLD REQUEST (MANUAL/AUTO)	* (Required) Trigger Threshold Current or Watts or Vars or VA * (Required) Reset Threshold Current or Watts or Vars or VA Select Auto or Manual

1. Refer to "RAW #" in the glossary if assistance is required with establishing the desired current in terms of its "RAW #."
2. Watts, Vars, VA (up to \pm 1200)

Continued on next page

Startup Settings Sheet #5 Event Trigger Programming (continued from previous side)

Table G
Levels 3 through 6 Selections
 (Use when Level 2 Selection is "Voltage Disturbance")

Level 3 (Select One Parameter)	Level 4 (Select One Parameter)	Level 5 (Select One to Four Parameters as Required)	Level 6 (Establish a Corresponding Input for Each Parameter Selected for Level 5)
SAG SWELL	LINE – LINE VOLTS LINE – NEUTRAL VOLTS	TRIGGER THRESHOLD RESET THRESHOLD RESET (MANUAL/AUTO) DELAY TIME	* Required Trigger Threshold Volts * Required Reset Threshold Volts Select Auto or Manual Select Delay Time from 0 to 3600 cycles (in 2 cycle increments)
Interruption (IQA-6400 only) <i>No Further Selections Required for Interruption</i>		
Excess dV/dt (IQA-6600 only) <i>No Further Selections Required for Interruption</i>		

* Refer to "RAW #" in the glossary if assistance is required with establishing the desired current in terms of its "RAW #."

Table H
Levels 3 through 5 Selections
 (Use when Level 2 Selection is "Frequency Deviation")

Level 3 (Select One Parameter)	Level 4 (Select One to Four Parameters as Required)	Level 5 (Establish a Corresponding Input for Each Parameter Selected for Level 4)
HIGH LOW HIGH OR LOW	TRIGGER THRESHOLD RESET THRESHOLD REQUEST (MANUAL/AUTO) DELAY TIME	Required Trigger Threshold Frequency (0.02 to 10Hz in increments of 0.01) Required Reset Threshold Frequency (0.02 to 10Hz in increments of 0.01) Select Auto or Manual Select Delay Time from 0.1 to 60 seconds (in 0.1 second increments)

Continued on back side of page

Startup Settings Sheet #5 Event Trigger Programming (continued from previous side)

Table I
Levels 3 and 4 Selections
(Use when Level 2 Selection is "Current Unbalance")

Level 3 <i>(Select One to Four Parameters as Required)</i>	Level 4 <i>(Establish a Corresponding Input for Each Parameter Selected for Level 3)</i>
TRIGGER THRESHOLD	Required Trigger Threshold (1 to 100%)
RESET THRESHOLD	Required Reset Threshold (1 to 100%)
RESET (MANUAL/AUTO)	Select Auto or Manual
DELAY TIME	Select Delay Time from 0.1 to 60 seconds (in 0.1 second increments)

Table J
Levels 3 through 5 Selections
(Use when Level 2 Selection is "Voltage Unbalance")

Level 3 <i>(Select One Parameter)</i>	Level 4 <i>(Select One to Four Parameters as Required)</i>	Level 5 <i>(Establish a Corresponding Input for Each Parameter Selected for Level 4)</i>
LINE – LINE VOLTS	TRIGGER THRESHOLD	Required Trigger Threshold (1 to 100%)
LINE – NEUTRAL VOLTS	RESET THRESHOLD	Required Reset Threshold (1 to 100%)
	RESET (MANUAL/AUTO)	Select Auto or Manual
	DELAY TIME	Select Delay Time from 0.1 to 60 seconds (in 0.1 second increments)

Continued on next page

Startup Settings Sheet #5 Event Trigger Programming (continued from previous side)

Table K
Levels 3 Selection
 (Use when Level 2 Selection is "Discrete Input")

Level 3 (Select One)
INPUT #1
INPUT #2
INPUT #3

Table L
Levels 3 Selection
 (Use when Level 2 Selection is "Manual Capture Request")

Level 3 (Select One)
FRONT PANEL ONLY
IMPACC AND FRONT PANEL

Table M
Levels 3 Selection
 (Use when Level 2 Selection is "MIN/MAX UPDATE")

Level 3 (Select One to Five Parameters as Required)
MIN/MAX CURRENT
MIN/MAX VOLTAGE
MIN/MAX POWER FACTOR
MIN/MIX POWER/FREQUENCY
MIN/MAX THD

EVENT TRIGGER PROGRAMMING COMPLETE

Startup Settings Sheet #6

RELAY OUTPUT SETTINGS

(Reference Paragraph 5-6.4 and Figure 6-9)

Note: Up to four Form C (NO/NC) Relay Outputs are available. Each is programmed individually.

Select Up to Four

Step 1: Choose Relay Outputs **»»» RELAY OUTPUT 1**

RELAY OUTPUT 2

RELAY OUTPUT 3

RELAY OUTPUT 4

Step 2: Choose one Mode Option for each Relay Output selected in Step 1.

Relay Output 1 »»»	Mode 1: Active = ON <input type="checkbox"/>	Relay Output 3 »»»	Mode 1: Active = ON <input type="checkbox"/>
	Mode 2: Active = OFF <input type="checkbox"/>		Mode 2: Active = OFF <input type="checkbox"/>
Relay Output 2 »»»	Mode 1: Active = ON <input type="checkbox"/>	Relay Output 4 »»»	Mode 1: Active = ON <input type="checkbox"/>
	Mode 2: Active = OFF <input type="checkbox"/>		Mode 2: Active = OFF <input type="checkbox"/>

Step 3: Choose and indicate in the space provided one of the below listed categories for each of the Relay Outputs selected in Step 1.

<u>Reset Output Category</u>	<u>Category</u>
DISABLE	»»» _____ Relay Output 1
LOAD SHEDDING	_____ Relay Output 2
PULSE INITIATOR	_____ Relay Output 3
EVENT/DINPUT/NETWORK	_____ Relay Output 4
REVERSE SEQUENCE ALARM	_____

Note: If "Disable" was selected in Step 3 for any Relay Output, programming is complete for that particular Relay Output after completing Step 3.

- Note:**
- (1) If "Load Shedding" was selected in Step 3 for any Relay Output, proceed directly to those particular Relay Outputs.
 - (2) If "Pulse Initiator" was selected in Step 3 for any Relay Output, proceed directly to Step 6 for those particular Relay Outputs.
 - (3) If "Event/Dinput/Network" was selected in Step 3 for any Relay Output, proceed directly to Step 7 for those particular Relay Outputs.
 - (4) If "Reverse Sequence Alarm" was selected in Step 3 for any Relay Output, proceed directly to Step 8 for those particular Relay Outputs.

Continued on next page

Startup Settings Sheet #6 Relay Output Programming (continued from previous page)

Step 4: For those Relay Outputs with “Load Shedding,” choose and indicate in the space provided one of the below listed parameters for each Relay Output with “Load Shedding.”

Load Shedding Parameters

- DEMAND AMPS
- DEMAND FORWARD WATTS
- DEMAND REVERSE WATTS
- DEMAND FORWARD VARS
- DEMAND REVERSE VARS
- DEMAND VA

Parameters

- »»» _____ Relay Output 1
- _____ Relay Output 2
- _____ Relay Output 3
- _____ Relay Output 4

Step 5: For those Relay Outputs with a specific “Load Shedding Parameter” identified in Step 4, indicate in the space provided below the new “Threshold Setting” for each Relay Output.

Threshold Setting

- »»» _____ Relay Output 1
- _____ Relay Output 2
- _____ Relay Output 3
- _____ Relay Output 4

Note: Programming is complete upon completion of Step 5 for any Relay Output with “Load Shedding.”

Step 6: For those Relay Outputs with “Pulse Initiator,” choose and indicate in the space provided one of the below listed parameters for each Relay Output with “Pulse Indicator.”

Pulse Initiator Parameters

- FORWARD KW-HR
- FORWARD KVAR-HR
- KVA-HR
- REVERSE KW-HR
- REVERSE KVAR-HR

Parameters

- »»» _____ Relay Output 1
- _____ Relay Output 2
- _____ Relay Output 3
- _____ Relay Output 4

Note: Programming is complete upon completion of Step 6 for any Relay Output with “Pulse Initiator.”

Continued on back side of page

Startup Settings Sheet #6 Relay Output Programming (continued from previous page)

Step 7: For those Relay Outputs with “Event/Alarm/IMPACC,” select *one or more* “Event/ DINPUT/NETWORK” categories by checking () the appropriate boxes. At the same time, check () the appropriate box to indicate the type of “Reset” for each “Event/DINPUT/NETWORK” category selected. If “Automatic Reset” is selected, indicate in the space provided the “Release Time” from 0 to 1800 seconds.

RELAY OUTPUT 1

<u>Event/Alarm/IMPACC Category</u>	<u>Reset Types</u>		<u>Automatic Release Time</u>			
	(Manual)	(Automatic)				
▶▶▶▶ NOT USED <input type="checkbox"/>	----- No Further Selection Required -----					
EVENT TRIGGER #1 <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	___	___	___	___
EVENT TRIGGER #2 <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	___	___	___	___
EVENT TRIGGER #3 <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	___	___	___	___
EVENT TRIGGER #4 <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	___	___	___	___
EVENT TRIGGER #5 <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	___	___	___	___
EVENT TRIGGER #6 <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	___	___	___	___
EVENT TRIGGER #7 <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	___	___	___	___
DISCRETE INPUT #1 <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	___	___	___	___
DISCRETE INPUT #2 <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	___	___	___	___
DISCRETE INPUT #3 <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	___	___	___	___
NETWORK INPUT <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> (Recommended)	0	0	0	0


RELAY OUTPUT 2

<u>Event/Alarm/IMPACC Category</u>	<u>Reset Types</u>		<u>Automatic Release Time</u>			
	(Manual)	(Automatic)				
▶▶▶▶ NOT USED <input type="checkbox"/>	----- No Further Selection Required -----					
EVENT TRIGGER #1 <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	___	___	___	___
EVENT TRIGGER #2 <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	___	___	___	___
EVENT TRIGGER #3 <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	___	___	___	___
EVENT TRIGGER #4 <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	___	___	___	___
EVENT TRIGGER #5 <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	___	___	___	___
EVENT TRIGGER #6 <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	___	___	___	___
EVENT TRIGGER #7 <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	___	___	___	___
DISCRETE INPUT #1 <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	___	___	___	___
DISCRETE INPUT #2 <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	___	___	___	___
DISCRETE INPUT #3 <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	___	___	___	___
NETWORK INPUT <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> (Recommended)	0	0	0	0


Continued on next page

Startup Settings Sheet #6 Relay Output Programming (continued from previous page)

RELAY OUTPUT 3

<u>Event/Alarm/IMPACC Category</u>	<u>Reset Types</u>		<u>Automatic Release Time</u>			
	(Manual)	(Automatic)				
» NOT USED <input type="checkbox"/>	-----No Further Selection Required-----					
EVENT TRIGGER #1 <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	___	___	___	___
EVENT TRIGGER #2 <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	___	___	___	___
EVENT TRIGGER #3 <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	___	___	___	___
EVENT TRIGGER #4 <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	___	___	___	___
EVENT TRIGGER #5 <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	___	___	___	___
EVENT TRIGGER #6 <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	___	___	___	___
EVENT TRIGGER #7 <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	___	___	___	___
DISCRETE INPUT #1 <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	___	___	___	___
DISCRETE INPUT #2 <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	___	___	___	___
DISCRETE INPUT #3 <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	___	___	___	___
NETWORK INPUT <input type="checkbox"/>	<input type="checkbox"/>	 (Recommended)	0	0	0	0

RELAY OUTPUT 1

<u>Event/Alarm/IMPACC Category</u>	<u>Reset Types</u>		<u>Automatic Release Time</u>			
	(Manual)	(Automatic)				
» NOT USED <input type="checkbox"/>	-----No Further Selection Required-----					
EVENT TRIGGER #1 <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	___	___	___	___
EVENT TRIGGER #2 <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	___	___	___	___
EVENT TRIGGER #3 <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	___	___	___	___
EVENT TRIGGER #4 <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	___	___	___	___
EVENT TRIGGER #5 <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	___	___	___	___
EVENT TRIGGER #6 <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	___	___	___	___
EVENT TRIGGER #7 <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	___	___	___	___
DISCRETE INPUT #1 <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	___	___	___	___
DISCRETE INPUT #2 <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	___	___	___	___
DISCRETE INPUT #3 <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	___	___	___	___
NETWORK INPUT <input type="checkbox"/>	<input type="checkbox"/>	 (Recommended)	0	0	0	0

Note: Programming is complete upon completion of Step 7 for any Relay Output with "Event/DINPUT/Network."

Continued on back side of page

Startup Settings Sheet #6 Relay Output Programming (continued from previous page)

Step 8: For those Relay Outputs with "Reverse Sequence Alarm," select Manual or Automatic Reset by checking () the appropriate box. If Automatic Reset is checked for any Relay Output, enter the OFF Delay Setting (0-1800 seconds) in the space provided.

		<u>Reset Types</u>		<u>Off Delay Setting</u>
		(Manual)	(Automatic)	(0 – 1800 Seconds)
▶▶▶▶	RELAY OUTPUT #1 <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	____ _
	RELAY OUTPUT #2 <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	____ _
	RELAY OUTPUT #3 <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	____ _
	RELAY OUTPUT #4 <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	____ _

RELAY OUTPUT PROGRAMMING COMPLETE

Startup Settings Sheet #7

DEMAND SETTINGS
(Reference Paragraph 5-7.4 and Figure 6-10)

Note: Both Current Demand and Power Demand Windows can be programmed. Each is programmed individually.

Step 1: CURRENT DEMAND WINDOW ▶▶▶▶▶ Enter from 1-60 minutes _____

Step 2: POWER DEMAND WINDOW ▶▶▶▶▶

Select One

FIXED WINDOW

SLIDING WINDOW

Note: If "Fixed Window" is selected in Step 2, complete the programming with Step 3. If "Sliding Window" is selected, proceed directly to Step 4 and complete the programming with that step.

Step 3: FIXED WINDOW ▶▶▶▶▶ Enter a Demand Window of 1-60 minutes _____

Step 4: SLIDING WINDOW ▶▶▶▶▶ Enter a Sub-Demand Interval of 1-60 minutes _____

(and)

Enter Number of Intervals (1-60) _____

Note: The product of the "Sub-Demand Interval" times the number of intervals is the window period (1-60 minutes).

DEMAND PROGRAMMING COMPLETE



Startup Settings Sheet #8

DISPLAY MANAGER SETTINGS*(Reference Paragraph 5-2.3 and Figure 6-11)*

Step 1: METER MENU RETURN TIME ➡ Enter 0-15 minutes _____ _____
 (0 = no return)

Step 2: CUSTOM SCREENS

Note: Up to 28 different parameters can be programmed to form a customized screen. Listed below are the 60 parameter possibilities plus a "Default" selection. Choosing "Default" will automatically program 28 pre-selected parameters as indicated by the bold type. An asterisk (*) is used in the display to indicate what parameters are presently programmed. To add new parameters and/or delete existing parameters, move to the specific parameter and use the F1 (SELECT) pushbutton. An asterisk will appear or disappear next to the parameter, depending upon whether the parameter is being added or deleted.

Select from 0 to 28 parameters from the list below by checking (☑) appropriate boxes.

- | | | |
|--|--|--|
| <input type="checkbox"/> 1 AVG CURRENT | <input type="checkbox"/> 30 PHASE A VARS | <input type="checkbox"/> 63 THD AMPS IC |
| <input type="checkbox"/> 2 GND CURRENT | <input type="checkbox"/> 31 PHASE B VARS | <input type="checkbox"/> 64 THD AMPS IN |
| <input type="checkbox"/> 3 AVG VLL | <input type="checkbox"/> 32 PHASE C VARS | <input type="checkbox"/> 65 THD VOLTS VAB |
| <input type="checkbox"/> 4 SYS WATTS | <input type="checkbox"/> 33 PHASE A WATTS | <input type="checkbox"/> 66 THD VOLTS VBC |
| <input type="checkbox"/> 5 SYS VARS | <input type="checkbox"/> 34 PHASE B WATTS | <input type="checkbox"/> 67 THD VOLTS VCA |
| <input type="checkbox"/> 6 SYS VA | <input type="checkbox"/> 35 PHASE C WATTS | <input type="checkbox"/> 68 THD VOLTS VAN |
| <input type="checkbox"/> 7 NET WATT-HOURS | <input type="checkbox"/> 36 FORWARD WATT-HOURS | <input type="checkbox"/> 69 THD VOLTS VBN |
| <input type="checkbox"/> 8 NET VAR-HOURS | <input type="checkbox"/> 37 REVERSE WATT-HOURS | <input type="checkbox"/> 70 THD VOLTS VCN |
| <input type="checkbox"/> 9 FREQUENCY | <input type="checkbox"/> 38 LEADING VAR-HOURS | <input type="checkbox"/> 71 MIN AVG AMPS |
| <input type="checkbox"/> 10 DISP POWER FACTOR | <input type="checkbox"/> 39 LAGGING VAR-HOURS | <input type="checkbox"/> 72 MAX AVG AMPS |
| <input type="checkbox"/> 11 %THD IA | <input type="checkbox"/> 40 VA-HOURS | <input type="checkbox"/> 73 MIN VLL VOLTS |
| <input type="checkbox"/> 12 %THD VAB | <input type="checkbox"/> 41 PEAK DMD CURRENT | <input type="checkbox"/> 74 MAX VLL VOLTS |
| <input type="checkbox"/> 13 K-FACTOR | <input type="checkbox"/> 42 AVG VLN VOLTS | <input type="checkbox"/> 75 MIN VLN VOLTS |
| <input type="checkbox"/> 14 PEAK SYS DMD WATTS | <input type="checkbox"/> 43 VNG VOLTS | <input type="checkbox"/> 76 MAX VLN VOLTS |
| <input type="checkbox"/> 15 IA AMPS | <input type="checkbox"/> 44 DISP PF PHASE A | <input type="checkbox"/> 77 MAX IN AMPS |
| <input type="checkbox"/> 16 IB AMPS | <input type="checkbox"/> 45 DISP PF PHASE B | <input type="checkbox"/> 78 MAX IG AMPS |
| <input type="checkbox"/> 17 IC AMPS | <input type="checkbox"/> 46 DISP PF PHASE C | <input type="checkbox"/> 79 MAX VNG VOLTS |
| <input type="checkbox"/> 18 IN AMPS | <input type="checkbox"/> 47 APPARENT PF PHASE A | <input type="checkbox"/> 80 MAX SYS WATTS |
| <input type="checkbox"/> 19 VAB VOLTS | <input type="checkbox"/> 48 APPARENT PF PHASE B | <input type="checkbox"/> 81 MAX SYS VARS |
| <input type="checkbox"/> 20 VBC VOLTS | <input type="checkbox"/> 49 APPARENT PF PHASE C | <input type="checkbox"/> 82 MAX SYS VA |
| <input type="checkbox"/> 21 VCA VOLTS | <input type="checkbox"/> 50 APPARENT SYS PF | <input type="checkbox"/> 83 MIN APPARENT PF |
| <input type="checkbox"/> 22 VAN VOLTS | <input type="checkbox"/> 51 %THD IB | <input type="checkbox"/> 84 MAX APPARENT PF |
| <input type="checkbox"/> 23 VBN VOLTS | <input type="checkbox"/> 52 %THD IC | <input type="checkbox"/> 85 MIN DISP PF |
| <input type="checkbox"/> 24 VCN VOLTS | <input type="checkbox"/> 53 %THD IN | <input type="checkbox"/> 86 MIN DISP PF |
| <input type="checkbox"/> 25 PEAK SYS DMD VARS | <input type="checkbox"/> 54 %THD VCA | <input type="checkbox"/> 87 PRESENT DMD WATTS |
| <input type="checkbox"/> 26 PEAK SYS DMD VA | <input type="checkbox"/> 55 %THD VBC | <input type="checkbox"/> 88 PRESENT DMD VARS |
| <input type="checkbox"/> 27 PHASE A VA | <input type="checkbox"/> 56 %THD VAN | <input type="checkbox"/> 89 PRESENT DMD VA |
| <input type="checkbox"/> 28 PHASE B VA | <input type="checkbox"/> 57 %THD VBN | <input type="checkbox"/> 90 PRESENT DMD AMPS |
| <input type="checkbox"/> 29 PHASE C VA | <input type="checkbox"/> 58 %THD VCN | <input type="checkbox"/> 91 TIMESTAMP (HMSMDY) |
| | <input type="checkbox"/> 59 THDF (CBEMA Xfmr Derating) | <input type="checkbox"/> 92 INPUT#1 CHANGE COUNT |
| | <input type="checkbox"/> 60 CREST FACTOR | <input type="checkbox"/> 93 INPUT#2 CHANGE COUNT |
| | <input type="checkbox"/> 61 THD AMPS IA | <input type="checkbox"/> 94 INPUT#3 CHANGE COUNT |
| | <input type="checkbox"/> 62 THD AMPS IB | <input type="checkbox"/> DEFAULT 28 (IN BOLD) |

Continued on next page

Startup Settings Sheet #8 Display Manager Programming (continued from previous page)

Select One

- Step 3: SCREEN SAVER**
 - 0 = DIM
 - 1 = Normal

- Step 4: ALARM SCREEN**
 - ALL ALARM SCREENS
 - NO EVENT ALARM SCREEN

- Step 5: NEUTRAL DISPLAYS**
 - NO NEUTRAL IN DELTA
 - ALWAYS SHOW NEUTRAL

- Step 6: DATE FORMAT**
 - MM/DD/20YY
 - DD/MM/20YY

Display Options⁽¹⁾

Option 1	Option 2
ALL ALARM SCREENS: Upon waveform capture event or alarm condition, blink the event LED and display the event timestamp and cause.	NO EVENT ALARM SCREEN: (Default) Upon waveform capture event or alarm condition, blink the event LED but do not interrupt normal display operation.
NO NEUTRAL IN DELTA: (Default) When configured for 3-phase, 3-wire operation, hide line-to-neutral voltage readings, per-phase PF, and per-phase power.	ALWAYS SHOW NEUTRAL: Regardless of the system configuration, display all parameters, including line-to-neutral voltage, etc. NOTE: In 3-phase, 3-wire mode, the IQ Analyzer calculates the center of the power triangle and uses it as neutral for all calculations.
MM/DD/YY FORMAT (Default) Display all dates in month, day, year format. This setting does not affect communications formats.	DD/MM/YY FORMAT Display all dates in day, month, year format. This setting does not affect communications formats.

DISPLAY MANAGER PROGRAMMING COMPLETE

Startup Settings Sheet #9

TREND SETTINGS

(Reference Paragraph 5-11.3 and Figure 6-12)

Time Between Trends

0 minutes => every 8 line cycles
 1-5039 minutes => periodic sampling
 5040 minutes => one sample per triggering input
 for Trend1-3 or waveform event for Trend4

Trend1 Interval (0-5040) ___ ___ ___ ___ (5)
 Trend2 Interval (0-5040) ___ ___ ___ ___ (5)
 Trend3 Interval (0-5040) ___ ___ ___ ___ (5)
 Trend4 Interval (0-5040) ___ ___ ___ ___ (0)

Maximum Memory Allocation in Percent

Trend1 Allocation (0-100) ___ ___ ___ (93%)
 Trend2 Allocation (0-100) ___ ___ ___ (1%)
 Trend3 Allocation (0-100) ___ ___ ___ (1%)
 Trend4 Allocation (0-100) ___ ___ ___ (5%)

Items to Trend (up to 6 items per trend)

The defaults are 0 (unused) unless marked otherwise.

Trend1 Item1	_____	(Default 91 Time)
Trend1 Item2	_____	(Default 7 Watt-Hrs)
Trend1 Item3	_____	
Trend1 Item4	_____	
Trend1 Item5	_____	
Trend1 Item6	_____	
Trend2 Item1	_____	
Trend2 Item2	_____	
Trend2 Item3	_____	
Trend2 Item4	_____	
Trend2 Item5	_____	
Trend2 Item6	_____	
Trend3 Item1	_____	
Trend3 Item2	_____	
Trend3 Item3	_____	
Trend3 Item4	_____	
Trend3 Item5	_____	
Trend3 Item6	_____	
Trend4 Item1	_____	(Default 19 VAB)
Trend4 Item2	_____	(Default 20 VBC)
Trend4 Item3	_____	(Default 21 VCA)
Trend4 Item4	_____	(Default 22 VAN)
Trend4 Item5	_____	(Default 23 VBN)
Trend4 Item6	_____	(Default 24 VCN)

- 0 UNUSED
- 1 AVG CURRENT
- 2 GND CURRENT
- 3 AVG VLL
- 4 SYS WATTS
- 5 SYS VARS
- 6 SYS VA
- 7 **NET WATT-HOURS (Trend1)**
- 8 NET VAR-HOURS
- 9 FREQUENCY
- 10 DISP POWER FACTOR
- 11 %THD IA
- 12 %THD VAB
- 13 K-FACTOR
- 14 PEAK SYS DMD WATTS
- 15 IA AMPS
- 16 IB AMPS
- 17 IC AMPS
- 18 IN AMPS
- 19 **VAB VOLTS (Trend4)**
- 20 **VBC VOLTS (Trend4)**
- 21 **VCA VOLTS (Trend4)**
- 22 **VAN VOLTS (Trend4)**
- 23 **VBN VOLTS (Trend4)**
- 24 **VCN VOLTS (Trend4)**
- 25 PEAK SYS DMD VARS
- 26 PEAK SYS DMD VA
- 27 PHASE A VA
- 28 PHASE B VA
- 29 PHASE C VA
- 30 PHASE A VARS
- 31 PHASE B VARS
- 32 PHASE C VARS
- 33 PHASE A WATTS
- 34 PHASE B WATTS
- 35 PHASE C WATTS
- 36 FORWARD WATT-HOURS
- 37 REVERSE WATT-HOURS
- 38 LEADING VAR-HOURS
- 39 LAGGING VAR-HOURS
- 40 VA-HOURS
- 41 PEAK DMD CURRENT
- 42 AVG VLN VOLTS
- 43 VNG VOLTS
- 44 DISP PF PHASE A
- 45 DISP PF PHASE B
- 46 DISP PF PHASE C
- 47 APPARENT PF PHASE A
- 48 APPARENT PF PHASE B
- 49 APPARENT PF PHASE C
- 50 APPARENT SYS PF
- 51 %THD IB
- 52 %THD IC
- 53 %THD IN
- 54 %THD VCA
- 55 %THD VBC
- 56 %THD VAN
- 57 %THD VBN
- 58 %THD VCN
- 59 THDF (CBEMA Xfmr Derating)
- 60 CREST FACTOR
- 61 THD AMPS IA
- 62 THD AMPS IB
- 63 THD AMPS IC
- 64 THD AMPS IN
- 65 THD VOLTS VAB
- 66 THD VOLTS VBC
- 67 THD VOLTS VCA
- 68 THD VOLTS VAN
- 69 THD VOLTS VBN
- 70 THD VOLTS VCN
- 71 MIN AVG AMPS
- 72 MAX AVG AMPS
- 73 MIN VLL VOLTS
- 74 MAX VLL VOLTS
- 75 MIN VLN VOLTS
- 76 MAX VLN VOLTS
- 77 MAX IN AMPS
- 78 MAX IG AMPS
- 79 MAX VNG VOLTS
- 80 MAX SYS WATTS
- 81 MAX SYS VARS
- 82 MAX SYS VA
- 83 MIN APPARENT PF
- 84 MAX APPARENT PF
- 85 MIN DISP PF
- 86 MIN DISP PF
- 87 PRESENT DMD WATTS
- 88 PRESENT DMD VARS
- 89 PRESENT DMD VA
- 90 PRESENT DMD AMPS
- 91 **TIMESTAMP (Trend1)**
- 92 INPUT#1 CHANGE COUNT
- 93 INPUT#2 CHANGE COUNT
- 94 INPUT#3 CHANGE COUNT

Startup Settings Sheet #10

TIME OF USE SETTINGS

(Reference Paragraph 5-13.2 and Figure 6-13)

Select Holidays (up to 22 dates)

- Holiday1 Month & Day _____
- Holiday2 Month & Day _____
- Holiday3 Month & Day _____
- Holiday4 Month & Day _____
- Holiday5 Month & Day _____
- Holiday6 Month & Day _____
- Holiday7 Month & Day _____
- Holiday8 Month & Day _____
- Holiday9 Month & Day _____
- Holiday10 Month & Day _____
- Holiday11 Month & Day _____
- Holiday12 Month & Day _____
- Holiday13 Month & Day _____
- Holiday14 Month & Day _____
- Holiday15 Month & Day _____
- Holiday16 Month & Day _____
- Holiday17 Month & Day _____
- Holiday18 Month & Day _____
- Holiday19 Month & Day _____
- Holiday20 Month & Day _____
- Holiday21 Month & Day _____
- Holiday22 Month & Day _____

Seasons (up to 8 starting dates)

- Season1 Month & Day _____
- Season2 Month & Day _____
- Season3 Month & Day _____
- Season4 Month & Day _____
- Season5 Month & Day _____
- Season6 Month & Day _____
- Season7 Month & Day _____
- Season8 Month & Day _____

Choose Daylight Savings Adjustment

Select One

- No daylight savings adjustment
- Set present time to Standard (winter)
- Set present time to Daylight (summer)

Choose Clock Synchronization

Select One

- Synchronize Clock to Line Voltage
- No Clock Sync (free-running watch)

The DEFAULT MINIMUM is recommended as the starting point for schedules. There will be a single season beginning on January 1, and holidays are cleared. All schedules begin at 12AM and are preloaded with the following rates: Weekdays (Rate1), Saturdays(Rate2), Sundays(Rate3), and Holidays(Rate4).

Schedule for Weekdays in Season1

Each period has a Starting Time (Hr:Min AM/PM) and Rate (1-4)

TR01	<u>12 :00 AM</u>	Rate=	___
TR02	___ : ___	Rate=	___
TR03	___ : ___	Rate=	___
TR04	___ : ___	Rate=	___
TR05	___ : ___	Rate=	___
TR06	___ : ___	Rate=	___
TR07	___ : ___	Rate=	___
TR08	___ : ___	Rate=	___
TR09	___ : ___	Rate=	___
TR10	___ : ___	Rate=	___

Schedule for Saturdays in Season1

Each period has a Starting Time (Hr:Min AM/PM) and Rate (1-4)

TR01	<u>12 :00 AM</u>	Rate=	___
TR02	___ : ___	Rate=	___
TR03	___ : ___	Rate=	___
TR04	___ : ___	Rate=	___
TR05	___ : ___	Rate=	___
TR06	___ : ___	Rate=	___
TR07	___ : ___	Rate=	___
TR08	___ : ___	Rate=	___
TR09	___ : ___	Rate=	___
TR10	___ : ___	Rate=	___

Schedule for Sundays in Season1

Each period has a Starting Time (Hr:Min AM/PM) and Rate (1-4)

TR01	<u>12 :00 AM</u>	Rate=	___
TR02	___ : ___	Rate=	___
TR03	___ : ___	Rate=	___
TR04	___ : ___	Rate=	___
TR05	___ : ___	Rate=	___
TR06	___ : ___	Rate=	___
TR07	___ : ___	Rate=	___
TR08	___ : ___	Rate=	___
TR09	___ : ___	Rate=	___
TR10	___ : ___	Rate=	___

Schedule for Holidays in Season1

Each period has a Starting Time (Hr:Min AM/PM) and Rate (1-4)

TR01	<u>12 :00 AM</u>	Rate=	___
TR02	___ : ___	Rate=	___
TR03	___ : ___	Rate=	___
TR04	___ : ___	Rate=	___
TR05	___ : ___	Rate=	___
TR06	___ : ___	Rate=	___
TR07	___ : ___	Rate=	___
TR08	___ : ___	Rate=	___
TR09	___ : ___	Rate=	___
TR10	___ : ___	Rate=	___

Schedule for Weekdays in Season2

Each period has a Starting Time (Hr:Min AM/PM) and Rate (1-4)

TR01	<u>12 :00 AM</u>	Rate=	___
TR02	___ : ___	Rate=	___
TR03	___ : ___	Rate=	___
TR04	___ : ___	Rate=	___
TR05	___ : ___	Rate=	___
TR06	___ : ___	Rate=	___
TR07	___ : ___	Rate=	___
TR08	___ : ___	Rate=	___
TR09	___ : ___	Rate=	___
TR10	___ : ___	Rate=	___

Schedule for Saturdays in Season2

Each period has a Starting Time (Hr:Min AM/PM) and Rate (1-4)

TR01	<u>12 :00 AM</u>	Rate=	___
TR02	___ : ___	Rate=	___
TR03	___ : ___	Rate=	___
TR04	___ : ___	Rate=	___
TR05	___ : ___	Rate=	___
TR06	___ : ___	Rate=	___
TR07	___ : ___	Rate=	___
TR08	___ : ___	Rate=	___
TR09	___ : ___	Rate=	___
TR10	___ : ___	Rate=	___

Schedule for Sundays in Season2

Each period has a Starting Time (Hr:Min AM/PM) and Rate (1-4)

TR01	<u>12 :00 AM</u>	Rate=	___
TR02	___ : ___	Rate=	___
TR03	___ : ___	Rate=	___
TR04	___ : ___	Rate=	___
TR05	___ : ___	Rate=	___
TR06	___ : ___	Rate=	___
TR07	___ : ___	Rate=	___
TR08	___ : ___	Rate=	___
TR09	___ : ___	Rate=	___
TR10	___ : ___	Rate=	___

Schedule for Holidays in Season2

Each period has a Starting Time (Hr:Min AM/PM) and Rate (1-4)

TR01	<u>12 :00 AM</u>	Rate=	___
TR02	___ : ___	Rate=	___
TR03	___ : ___	Rate=	___
TR04	___ : ___	Rate=	___
TR05	___ : ___	Rate=	___
TR06	___ : ___	Rate=	___
TR07	___ : ___	Rate=	___
TR08	___ : ___	Rate=	___
TR09	___ : ___	Rate=	___
TR10	___ : ___	Rate=	___

Schedule for Weekdays in Season3

Each period has a Starting Time (Hr:Min AM/PM) and Rate (1-4)

TR01	<u>12</u> : <u>00</u> <u>AM</u>	Rate=	___
TR02	___ : ___	Rate=	___
TR03	___ : ___	Rate=	___
TR04	___ : ___	Rate=	___
TR05	___ : ___	Rate=	___
TR06	___ : ___	Rate=	___
TR07	___ : ___	Rate=	___
TR08	___ : ___	Rate=	___
TR09	___ : ___	Rate=	___
TR10	___ : ___	Rate=	___

Schedule for Saturdays in Season3

Each period has a Starting Time (Hr:Min AM/PM) and Rate (1-4)

TR01	<u>12</u> : <u>00</u> <u>AM</u>	Rate=	___
TR02	___ : ___	Rate=	___
TR03	___ : ___	Rate=	___
TR04	___ : ___	Rate=	___
TR05	___ : ___	Rate=	___
TR06	___ : ___	Rate=	___
TR07	___ : ___	Rate=	___
TR08	___ : ___	Rate=	___
TR09	___ : ___	Rate=	___
TR10	___ : ___	Rate=	___

Schedule for Sundays in Season3

Each period has a Starting Time (Hr:Min AM/PM) and Rate (1-4)

TR01	<u>12</u> : <u>00</u> <u>AM</u>	Rate=	___
TR02	___ : ___	Rate=	___
TR03	___ : ___	Rate=	___
TR04	___ : ___	Rate=	___
TR05	___ : ___	Rate=	___
TR06	___ : ___	Rate=	___
TR07	___ : ___	Rate=	___
TR08	___ : ___	Rate=	___
TR09	___ : ___	Rate=	___
TR10	___ : ___	Rate=	___

Schedule for Holidays in Season3

Each period has a Starting Time (Hr:Min AM/PM) and Rate (1-4)

TR01	<u>12</u> : <u>00</u> <u>AM</u>	Rate=	___
TR02	___ : ___	Rate=	___
TR03	___ : ___	Rate=	___
TR04	___ : ___	Rate=	___
TR05	___ : ___	Rate=	___
TR06	___ : ___	Rate=	___
TR07	___ : ___	Rate=	___
TR08	___ : ___	Rate=	___
TR09	___ : ___	Rate=	___
TR10	___ : ___	Rate=	___

Schedule for Weekdays in Season4

Each period has a Starting Time (Hr:Min AM/PM) and Rate (1-4)

TR01	<u>12</u> : <u>00</u> <u>AM</u>	Rate=	___
TR02	___ : ___	Rate=	___
TR03	___ : ___	Rate=	___
TR04	___ : ___	Rate=	___
TR05	___ : ___	Rate=	___
TR06	___ : ___	Rate=	___
TR07	___ : ___	Rate=	___
TR08	___ : ___	Rate=	___
TR09	___ : ___	Rate=	___
TR10	___ : ___	Rate=	___

Schedule for Saturdays in Season4

Each period has a Starting Time (Hr:Min AM/PM) and Rate (1-4)

TR01	<u>12</u> : <u>00</u> <u>AM</u>	Rate=	___
TR02	___ : ___	Rate=	___
TR03	___ : ___	Rate=	___
TR04	___ : ___	Rate=	___
TR05	___ : ___	Rate=	___
TR06	___ : ___	Rate=	___
TR07	___ : ___	Rate=	___
TR08	___ : ___	Rate=	___
TR09	___ : ___	Rate=	___
TR10	___ : ___	Rate=	___

Schedule for Sundays in Season4

Each period has a Starting Time (Hr:Min AM/PM) and Rate (1-4)

TR01	<u>12</u> : <u>00</u> <u>AM</u>	Rate=	___
TR02	___ : ___	Rate=	___
TR03	___ : ___	Rate=	___
TR04	___ : ___	Rate=	___
TR05	___ : ___	Rate=	___
TR06	___ : ___	Rate=	___
TR07	___ : ___	Rate=	___
TR08	___ : ___	Rate=	___
TR09	___ : ___	Rate=	___
TR10	___ : ___	Rate=	___

Schedule for Holidays in Season4

Each period has a Starting Time (Hr:Min AM/PM) and Rate (1-4)

TR01	<u>12</u> : <u>00</u> <u>AM</u>	Rate=	___
TR02	___ : ___	Rate=	___
TR03	___ : ___	Rate=	___
TR04	___ : ___	Rate=	___
TR05	___ : ___	Rate=	___
TR06	___ : ___	Rate=	___
TR07	___ : ___	Rate=	___
TR08	___ : ___	Rate=	___
TR09	___ : ___	Rate=	___
TR10	___ : ___	Rate=	___

Schedule for Weekdays in Season5

Each period has a Starting Time (Hr:Min AM/PM) and Rate (1-4)

TR01	<u>12 :00 AM</u>	Rate=	___
TR02	___ : ___	Rate=	___
TR03	___ : ___	Rate=	___
TR04	___ : ___	Rate=	___
TR05	___ : ___	Rate=	___
TR06	___ : ___	Rate=	___
TR07	___ : ___	Rate=	___
TR08	___ : ___	Rate=	___
TR09	___ : ___	Rate=	___
TR10	___ : ___	Rate=	___

Schedule for Saturdays in Season5

Each period has a Starting Time (Hr:Min AM/PM) and Rate (1-4)

TR01	<u>12 :00 AM</u>	Rate=	___
TR02	___ : ___	Rate=	___
TR03	___ : ___	Rate=	___
TR04	___ : ___	Rate=	___
TR05	___ : ___	Rate=	___
TR06	___ : ___	Rate=	___
TR07	___ : ___	Rate=	___
TR08	___ : ___	Rate=	___
TR09	___ : ___	Rate=	___
TR10	___ : ___	Rate=	___

Schedule for Sundays in Season5

Each period has a Starting Time (Hr:Min AM/PM) and Rate (1-4)

TR01	<u>12 :00 AM</u>	Rate=	___
TR02	___ : ___	Rate=	___
TR03	___ : ___	Rate=	___
TR04	___ : ___	Rate=	___
TR05	___ : ___	Rate=	___
TR06	___ : ___	Rate=	___
TR07	___ : ___	Rate=	___
TR08	___ : ___	Rate=	___
TR09	___ : ___	Rate=	___
TR10	___ : ___	Rate=	___

Schedule for Holidays in Season5

Each period has a Starting Time (Hr:Min AM/PM) and Rate (1-4)

TR01	<u>12 :00 AM</u>	Rate=	___
TR02	___ : ___	Rate=	___
TR03	___ : ___	Rate=	___
TR04	___ : ___	Rate=	___
TR05	___ : ___	Rate=	___
TR06	___ : ___	Rate=	___
TR07	___ : ___	Rate=	___
TR08	___ : ___	Rate=	___
TR09	___ : ___	Rate=	___
TR10	___ : ___	Rate=	___

Schedule for Weekdays in Season6

Each period has a Starting Time (Hr:Min AM/PM) and Rate (1-4)

TR01	<u>12 :00 AM</u>	Rate=	___
TR02	___ : ___	Rate=	___
TR03	___ : ___	Rate=	___
TR04	___ : ___	Rate=	___
TR05	___ : ___	Rate=	___
TR06	___ : ___	Rate=	___
TR07	___ : ___	Rate=	___
TR08	___ : ___	Rate=	___
TR09	___ : ___	Rate=	___
TR10	___ : ___	Rate=	___

Schedule for Saturdays in Season6

Each period has a Starting Time (Hr:Min AM/PM) and Rate (1-4)

TR01	<u>12 :00 AM</u>	Rate=	___
TR02	___ : ___	Rate=	___
TR03	___ : ___	Rate=	___
TR04	___ : ___	Rate=	___
TR05	___ : ___	Rate=	___
TR06	___ : ___	Rate=	___
TR07	___ : ___	Rate=	___
TR08	___ : ___	Rate=	___
TR09	___ : ___	Rate=	___
TR10	___ : ___	Rate=	___

Schedule for Sundays in Season6

Each period has a Starting Time (Hr:Min AM/PM) and Rate (1-4)

TR01	<u>12 :00 AM</u>	Rate=	___
TR02	___ : ___	Rate=	___
TR03	___ : ___	Rate=	___
TR04	___ : ___	Rate=	___
TR05	___ : ___	Rate=	___
TR06	___ : ___	Rate=	___
TR07	___ : ___	Rate=	___
TR08	___ : ___	Rate=	___
TR09	___ : ___	Rate=	___
TR10	___ : ___	Rate=	___

Schedule for Holidays in Season6

Each period has a Starting Time (Hr:Min AM/PM) and Rate (1-4)

TR01	<u>12 :00 AM</u>	Rate=	___
TR02	___ : ___	Rate=	___
TR03	___ : ___	Rate=	___
TR04	___ : ___	Rate=	___
TR05	___ : ___	Rate=	___
TR06	___ : ___	Rate=	___
TR07	___ : ___	Rate=	___
TR08	___ : ___	Rate=	___
TR09	___ : ___	Rate=	___
TR10	___ : ___	Rate=	___

Schedule for Weekdays in Season7

Each period has a Starting Time (Hr:Min AM/PM) and Rate (1-4)

TR01	<u>12</u> : <u>00</u> <u>AM</u>	Rate=	___
TR02	___ : ___	Rate=	___
TR03	___ : ___	Rate=	___
TR04	___ : ___	Rate=	___
TR05	___ : ___	Rate=	___
TR06	___ : ___	Rate=	___
TR07	___ : ___	Rate=	___
TR08	___ : ___	Rate=	___
TR09	___ : ___	Rate=	___
TR10	___ : ___	Rate=	___

Schedule for Saturdays in Season7

Each period has a Starting Time (Hr:Min AM/PM) and Rate (1-4)

TR01	<u>12</u> : <u>00</u> <u>AM</u>	Rate=	___
TR02	___ : ___	Rate=	___
TR03	___ : ___	Rate=	___
TR04	___ : ___	Rate=	___
TR05	___ : ___	Rate=	___
TR06	___ : ___	Rate=	___
TR07	___ : ___	Rate=	___
TR08	___ : ___	Rate=	___
TR09	___ : ___	Rate=	___
TR10	___ : ___	Rate=	___

Schedule for Sundays in Season7

Each period has a Starting Time (Hr:Min AM/PM) and Rate (1-4)

TR01	<u>12</u> : <u>00</u> <u>AM</u>	Rate=	___
TR02	___ : ___	Rate=	___
TR03	___ : ___	Rate=	___
TR04	___ : ___	Rate=	___
TR05	___ : ___	Rate=	___
TR06	___ : ___	Rate=	___
TR07	___ : ___	Rate=	___
TR08	___ : ___	Rate=	___
TR09	___ : ___	Rate=	___
TR10	___ : ___	Rate=	___

Schedule for Holidays in Season7

Each period has a Starting Time (Hr:Min AM/PM) and Rate (1-4)

TR01	<u>12</u> : <u>00</u> <u>AM</u>	Rate=	___
TR02	___ : ___	Rate=	___
TR03	___ : ___	Rate=	___
TR04	___ : ___	Rate=	___
TR05	___ : ___	Rate=	___
TR06	___ : ___	Rate=	___
TR07	___ : ___	Rate=	___
TR08	___ : ___	Rate=	___
TR09	___ : ___	Rate=	___
TR10	___ : ___	Rate=	___

Schedule for Weekdays in Season8

Each period has a Starting Time (Hr:Min AM/PM) and Rate (1-4)

TR01	<u>12</u> : <u>00</u> <u>AM</u>	Rate=	___
TR02	___ : ___	Rate=	___
TR03	___ : ___	Rate=	___
TR04	___ : ___	Rate=	___
TR05	___ : ___	Rate=	___
TR06	___ : ___	Rate=	___
TR07	___ : ___	Rate=	___
TR08	___ : ___	Rate=	___
TR09	___ : ___	Rate=	___
TR10	___ : ___	Rate=	___

Schedule for Saturdays in Season8

Each period has a Starting Time (Hr:Min AM/PM) and Rate (1-4)

TR01	<u>12</u> : <u>00</u> <u>AM</u>	Rate=	___
TR02	___ : ___	Rate=	___
TR03	___ : ___	Rate=	___
TR04	___ : ___	Rate=	___
TR05	___ : ___	Rate=	___
TR06	___ : ___	Rate=	___
TR07	___ : ___	Rate=	___
TR08	___ : ___	Rate=	___
TR09	___ : ___	Rate=	___
TR10	___ : ___	Rate=	___

Schedule for Sundays in Season8

Each period has a Starting Time (Hr:Min AM/PM) and Rate (1-4)

TR01	<u>12</u> : <u>00</u> <u>AM</u>	Rate=	___
TR02	___ : ___	Rate=	___
TR03	___ : ___	Rate=	___
TR04	___ : ___	Rate=	___
TR05	___ : ___	Rate=	___
TR06	___ : ___	Rate=	___
TR07	___ : ___	Rate=	___
TR08	___ : ___	Rate=	___
TR09	___ : ___	Rate=	___
TR10	___ : ___	Rate=	___

Schedule for Holidays in Season8

Each period has a Starting Time (Hr:Min AM/PM) and Rate (1-4)

TR01	<u>12</u> : <u>00</u> <u>AM</u>	Rate=	___
TR02	___ : ___	Rate=	___
TR03	___ : ___	Rate=	___
TR04	___ : ___	Rate=	___
TR05	___ : ___	Rate=	___
TR06	___ : ___	Rate=	___
TR07	___ : ___	Rate=	___
TR08	___ : ___	Rate=	___
TR09	___ : ___	Rate=	___
TR10	___ : ___	Rate=	___

GLOSSARY

The terms and phrases contained in this Glossary are defined as used in the context of this publication, and are not intended to be all inclusive definitions. In many instances, you will be asked to refer to a specific or section for a definition and/or discussion. Some terms and/or phrases are used, but not covered in detail in any specific section. In those cases, a definition or discussion is presented in the Glossary.

Analog Input

Pages 2-3, 2-7, 4-6, 4-7, 4-20, 5-11, 6-1, 6-13, 6-15, A-4

Analog Output

Pages 2-3, 2-8, 4-6, 4-7, 4-19, 5-13, 6-1, 6-13, 6-15, A-5

Apparent Power Factor

A ratio of total real power, including harmonic component, to reactive power (Total rms watts to VA).

Analysis Mode

Page 5-18

CBEMA Factor

A transformer harmonic derating factor (THDF) defined as a pure sine wave's crest factor (1.4141) divided by the measured crest factor.

Communications

Pages 2-4, 4-4, 5-11, 5-25

Communication Module

Pages 2-4, 5-25

Crest Factor

Ratio of peak current to rms current. A pure sine wave has a crest factor of 1.414.

Custom Screen

(See Display Manager)

Demand

Pages 5-24, 6-1, 6-13, 6-19, A-21

Demand Analysis

Page 5-24

Discrete Input

Pages 2-3, 2-7, 4-6, 4-7, 4-21, 5-11, 6-1, 6-13, 6-16, A-6

Displacement Power Factor

A ratio of fundamental (50/60 Hz) real power to apparent power (Fundamental watts to Fundamental VA).

Display

Page 3-1

Display Manager

Pages 5-5, 6-13, 6-19, A22

Displayed Parameters

Pages 5-1, 5-2

Dry Contact

Contact not providing voltage (e.g., a pushbutton)

EPONI (Ethernet PONI)

Pages 2-5, 5-25

Event Analysis

Page 5-20

Excess dV/dt (IQA-6600 only)

Pages 5-23, A-8

Event Log

Pages 5-33

Event Triggers

Pages 5-20, 5-22, 6-1, 6-13, 6-17, A-8

Flange Mounted

Page 4-2

Form C Contact

Standard 1 normally open and 1 normally closed contacts.

General Setup

Pages 5-8, 6-1, 6-14, A-1

Graphic Screens (IQA-6600 only)

Page 5-26

Harmonic Analysis

Pages 5-24, 5-26

Help Mode

Page 5-5

IMPACC (Integrated Metering, Protection, And Control Communications)

Page 5-25

Installation

Page 4-1

Interruption (IQA-6600 only)

Page 4-2

IPONI (INCOM Product Operated Network Interface)

Pages 1-2, 2-3, 2-5, 5-25

K-Factor

Page 2-13

A derating factor related to the sum of the squares of harmonic current times the squares of their harmonic numbers (multiples of the fundamental).

LEDs

Page 3-1

Maintenance

Page 7-1

Min/Max

Page 5-19

Ordering Information

Page 1-5

Passwords

Page 6-2

Potential Transformer

Pages 2-4, 6-14, A-2

The IQ Analyzer assumes a 120 volt potential transformer secondary and utilizes the ratio between the primary and secondary for calculation purposes.

Two conditions exist that require special consideration. These conditions are:

1. Line voltage is 600 volts or below and potential transformers are not used.
2. Potential transformer secondary voltage is not 120 volts.

Condition 1: During General Setup programming the potential transformer primary must be programmed to 120 volts to yield a 1/1 (unity ratio) ratio for calculation purposes.

Condition 2: If the potential transformers being used do not have 120 volt secondaries, the primary must be programmed to a voltage that will yield an equivalent ratio with 120 volts as the ratio of the actual potential transformers being applied.

Example:

Potential Transformers to be Applied	Potential Transformers Programming
220/110	240/120
Ratio 2/1	Ratio 2/1

Power Supply Module

Pages 1-5, 2-4, 4-6, 4-7

Programming Mode

Pages 3-1, 6-1

Pushbuttons

Page 3-2

Quick Start

Page 1-4

RAW #

During several programming steps, the IQ Analyzer will request that a RAW # be programmed. The RAW # is an internal electronic scaling factor associated with the chip. A complete understanding of RAW # is not required. Merely change the RAW # until the programmed parameter reaches the desired value. Knowing its mathematical relationship to certain parameters, however, is useful for certain programming steps. This relationship is presented here in the form of two formulas, one for current and one for voltage.

Use the appropriate formula to determine what RAW # should be programmed to arrive at the required current or voltage setting as shown in the display. Keep in mind that the calculated RAW # should be rounded to the nearest whole number for programming. The resulting current or voltage setting in the display may not be the exact number selected. The setting will, however, be well within acceptable accuracies.

RAW # Formulas

1. When a current parameter must be determined, use the following formula:

$$\text{RAW \#} = \frac{(\text{Ampere Setting Required})(400)}{\text{CT Ratio}}$$

2. When a voltage parameter must be determined, use the following formula:

$$\text{RAW \#} = \frac{\text{Voltage Setting Required}}{(0.12)(\text{PT Ratio})}$$

RAW # Calculation Example

Refer to the programming example presented in Section 6 and Figure BB of the Programming Flow Chart on page 6-13. The last programming item, Demand Amps, uses a RAW # for the programming process to program 1000A. The CT ratio used in the formula was previously programmed as 1200/5. Using the current parameter formula results in the following RAW #:

$$\text{RAW \#} = \frac{(\text{Ampere Setting Required})(400)}{\text{CT Ratio}}$$

$$\text{RAW \#} = \frac{(1000\text{A})(400)}{1200/5}$$

$$\text{RAW \#} = \frac{400,00}{240} = 1666.6$$

RAW # = 1667 (Rounded to Nearest Whole Number)

Figure BB on page 6-13 shows the programmed RAW # of 1667 and the resultant ampere setting of 1000.24A, well within accuracy levels.

Relay Output Contacts

Pages 2-2, 2-8, 4-21, 5-16, 6-1, 6-13, 6-18, A-16

Reset Mode

Page 5-27

Sag

As defined with respect to the IQ Analyzer, a sag is an undervoltage condition lasting from 0 to 3600 cycles.

Screens Trees

Pages 5-27, 6-5, and 6-14 through 6-21

Software

Pages 2-5, 5-26

Sign Conventions

Page 5-3

Specifications

Page 2-6

Startup Settings Sheets

(See Appendix A)

Swell

As defined with respect to the IQ Analyzer, a swell is an overvoltage condition lasting from 0 to 3600 cycles.

Sync. Pulse Input

A sync. pulse input is essentially a sensor that receives a signal from a utility company, synchronizing the IQ Analyzer with the demand window the utility billing is based on. The sync. pulse is activated by programming Discrete Input #1 for Sync. input. Refer to Figure 6-7 for the Discrete Input Screens Tree.

The sync. pulse input should be wired to contacts 13 and 14 on the IQ Analyzer as shown in Figure 4-33. When an exterior contact is closed by the utility and the circuit is completed across terminals 13 and 14, the last demand period is ended, the peak demand values are updated, and the new demand period begins in line with the utility. (See Demand.)

Time Of Use

Pages 5-34, 6-1, 6-21, A-26

Trend Data

Pages 5-28, 6-1, 6-20, A-24

Triggers

(See Event Triggers)

Troubleshooting

Page 7-1

Wiring

Pages 4-3, 4-8 through 4-21

This page left blank intentionally.