

ARTISAN®
TECHNOLOGY GROUP

Your **definitive** source for quality pre-owned equipment.

Artisan Technology Group
(217) 352-9330 | sales@artisantg.com | artisantg.com

Full-service, independent repair center
with experienced engineers and technicians on staff.

We buy your excess, underutilized, and idle equipment
along with credit for buybacks and trade-ins.

Custom engineering
so your equipment works exactly as you specify.

- Critical and expedited services
- In stock / Ready-to-ship
- Leasing / Rentals / Demos
- ITAR-certified secure asset solutions

Expert team | Trust guarantee | 100% satisfaction

All trademarks, brand names, and brands appearing herein are the property of their respective owners.

Find the *Schneider Electric / Eurotherm 8705* at our website: *Click HERE*

Dimension®

Control System

Quick Reference Guide

Publication No. HA094554-001
May 1998

Covering Models 8705e and 8725e
(with Version 7 software and hardware)

EUROTHERM
CONTROLS

Eurotherm Controls Inc
11485 Sunset Hills Road
Reston, Virginia 20190-5286

Phone: 703-471-4870, Fax: 703-787-3436
Fax-On-Demand: 703-787-3444
BBS: 703-787-3441

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

DIMENSION® Industrial Process Manager Quick Reference Guide

This quick reference guide is intended to provide a summary explanation of the various parts of your Dimension Industrial Process Manager. It will also serve as a guide to the appropriate section of the Dimension Industrial Process Manager User Manual that should be referenced to obtain detailed information. The quick reference guide contains the following sections:

Section 1 – Installation and Wiring 2
Fig. 1 Typical Rear View – Model 8705 2
Fig. 2 Typical Rear View – Model 8725 3
Fig. 3 Typical Analog Input Connection 4
Fig. 4 Typical Analog Output Connection 4
Fig. 5 Local Digital In/Out Connection (Model 8725 Only) 5
Fig. 6 EIA-232 Connection 5
Fig. 7 EIA-422 Connection 5

Section 2 – Graphic Operator Interface 6
2.1 Screen Selection 6
2.2 Parameter Selection and Window Conventions 6
2.3 Display Summary 7

Section 3 – Dimension Operation 8
3.1 Overview Displays 9
3.2 Programmer Displays 10
3.3 Loop Displays 11
3.4 Logic Displays 13
3.5 Alarm Displays 13

Section 4 – Dimension Configuration 13
4.1 Tag Names 14
4.2 Patch I/O 16
4.3 Display Configuration 18
4.4 I/O Calibration 20
4.5 Communications 22

To most effectively use this quick reference guide, follow these steps:

- **If you are physically installing your Dimension** – Read section 1, Installation and Wiring.
- **If you are configuring your Dimension** – First, familiarize yourself with the information in section 2, Graphic Operator Interface. Then, review the information in section 3, Dimension Operation. Finally, use the information in section 4, Dimension Configuration, to configure your instrument.
- **If you are operating a Dimension that is already installed and functioning** – Refer to section 3, Dimension Operation, for information about the Dimension's operation capabilities and functions.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Getting Started

This Quick Reference Guide is intended to provide the information necessary to get your Dimension Controller installed and operating with the least amount of reading. For a more complete explanation of the controller, refer to the Dimension User Manual.

Products Covered by this Guide

This referance guide covers Dimension control systems with Version 7 software and Version 7 hardware. Version 7 units started shipping in May of 1998.

Section 1 – Installation and Wiring

For detailed information on proper installation and field wiring of your Dimension, refer to section 2 of the Dimension User's Manual. For default input/output assignment parameters and physical input/output connection points, refer to the "Out of the Box" Default Worksheet enclosed in your shipment or refer to the worksheet found in Appendix C of the user's manual.

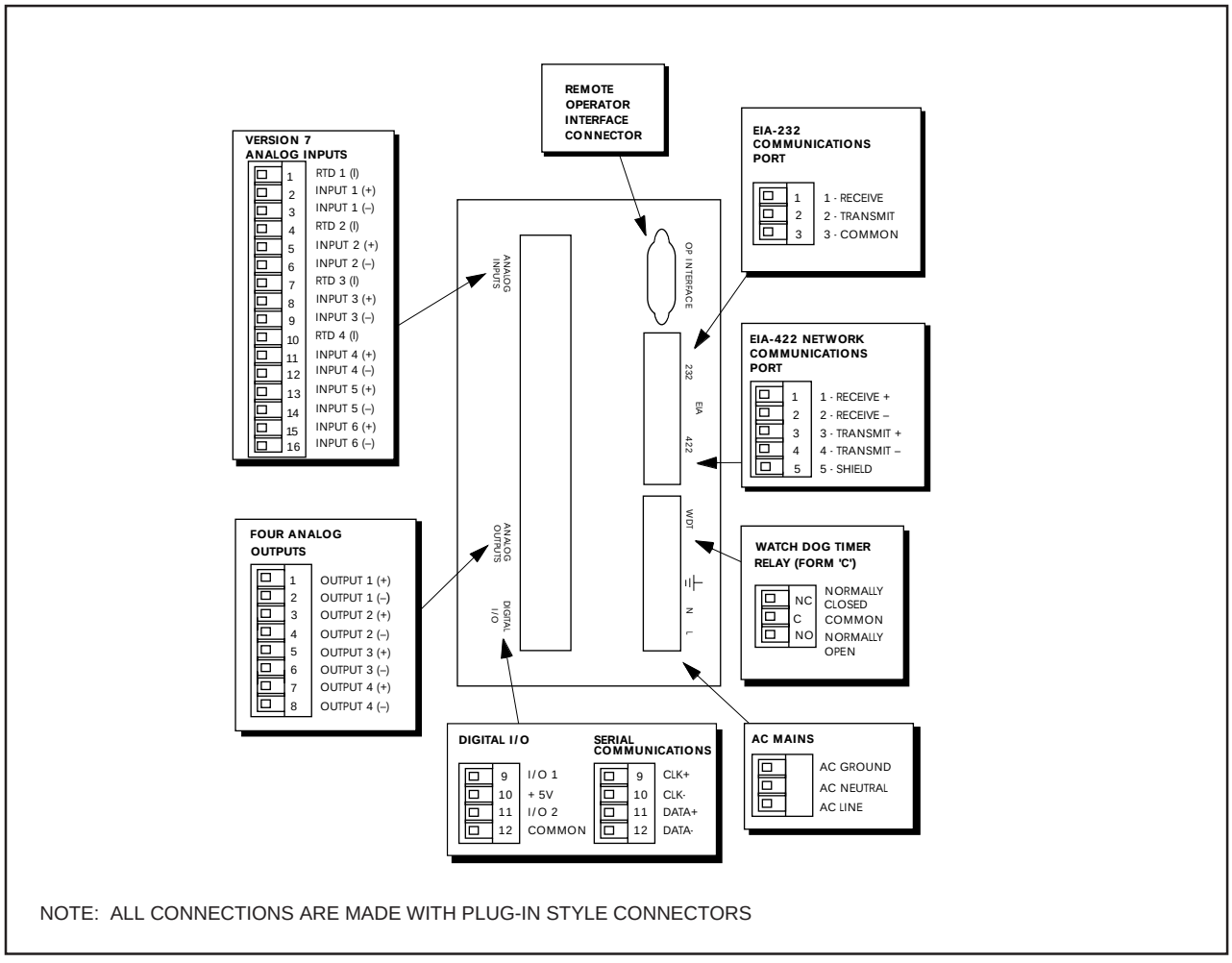


Figure 1. Typical Rear View – Model 8705

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

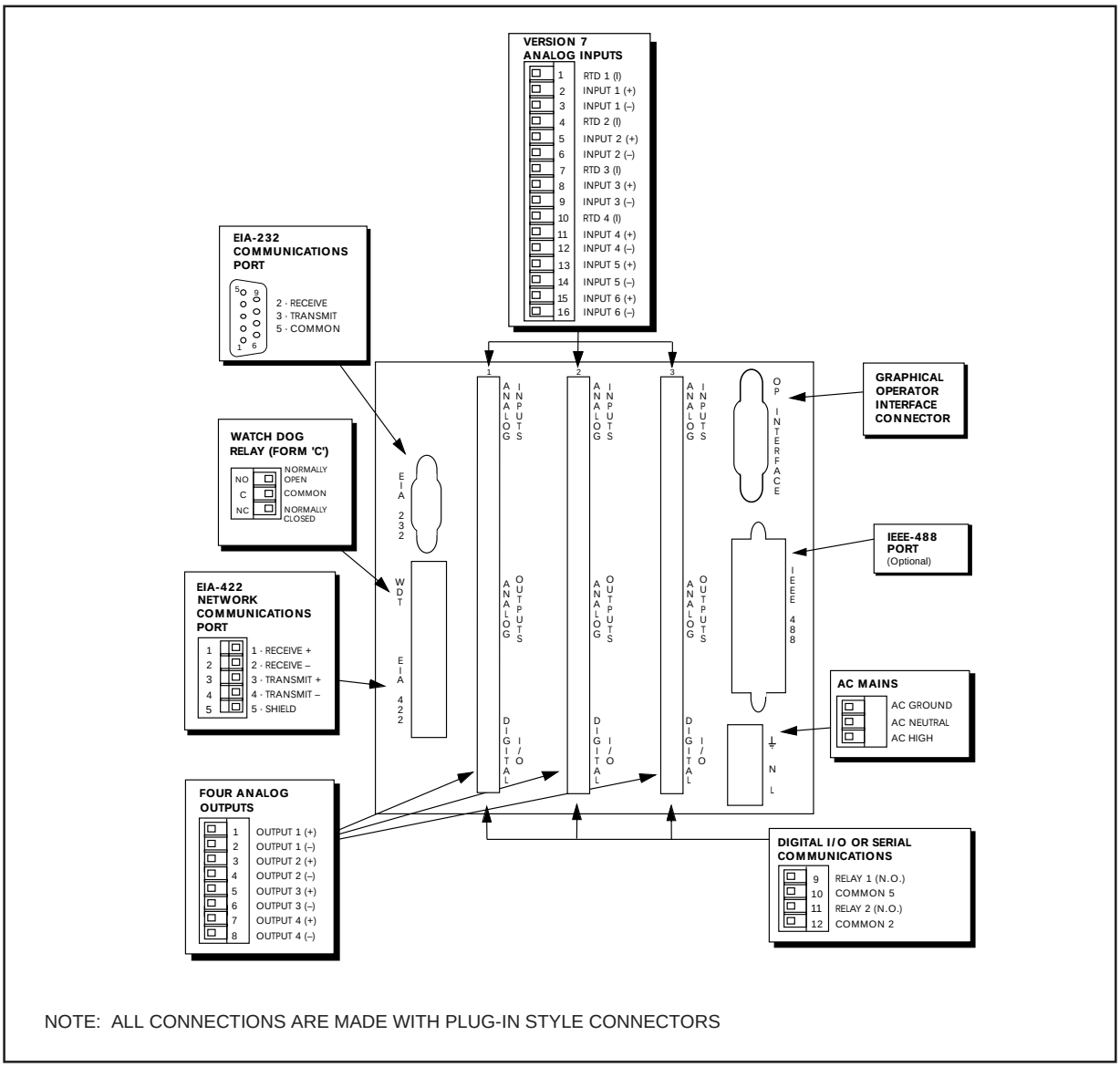


Figure 2. Typical Rear View – Model 8725

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

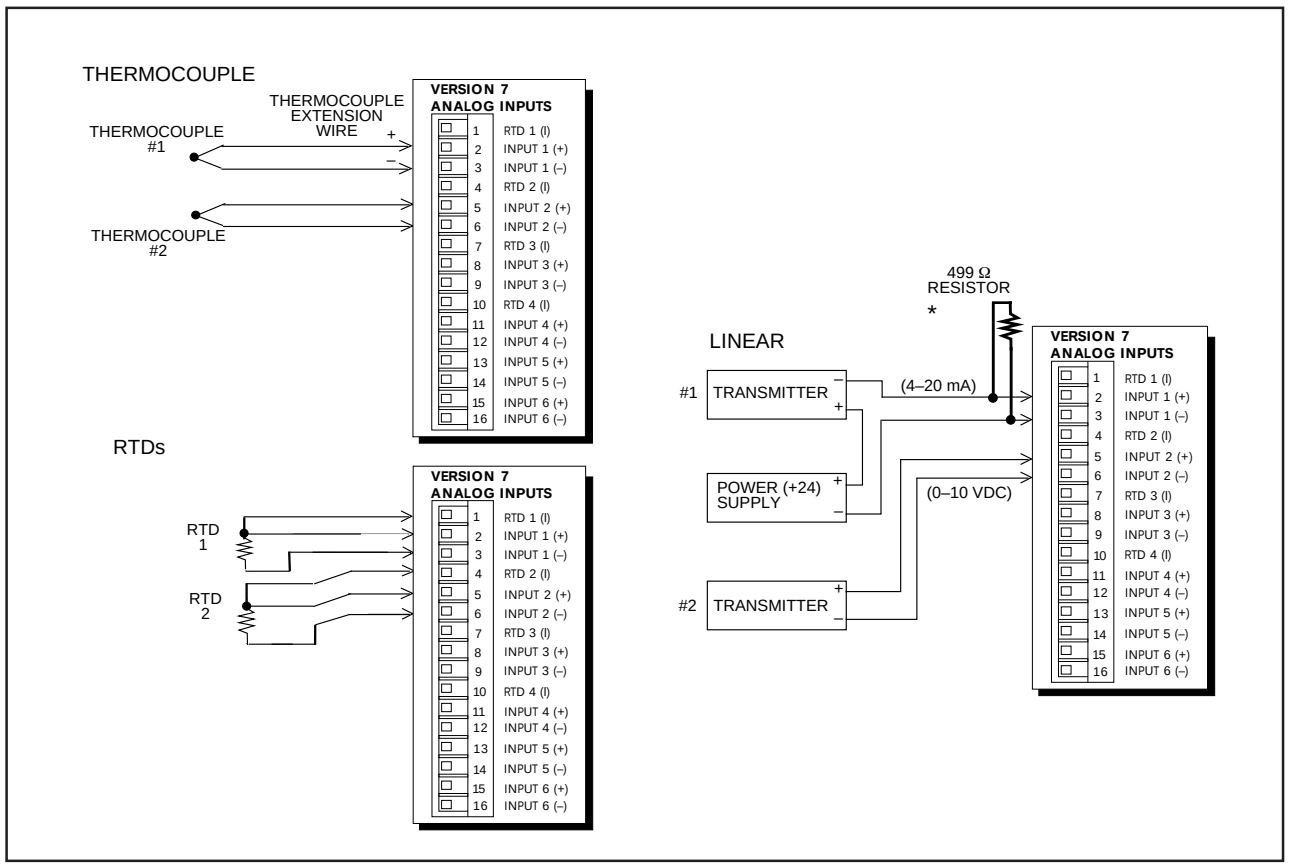


Figure 3. Typical Analog Input Connection

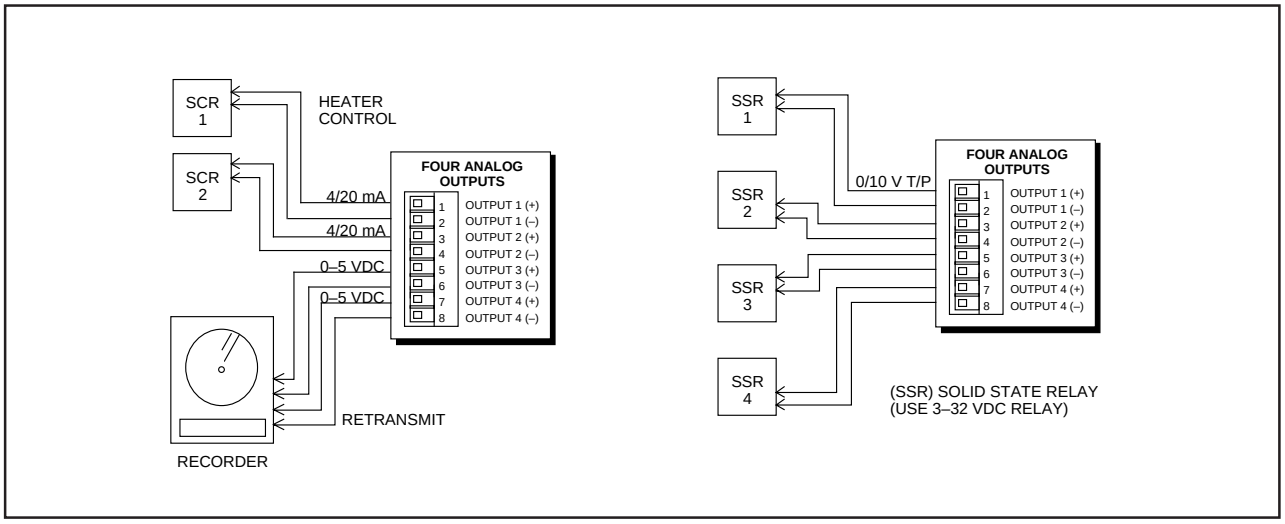


Figure 4. Typical Analog Output Connection

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

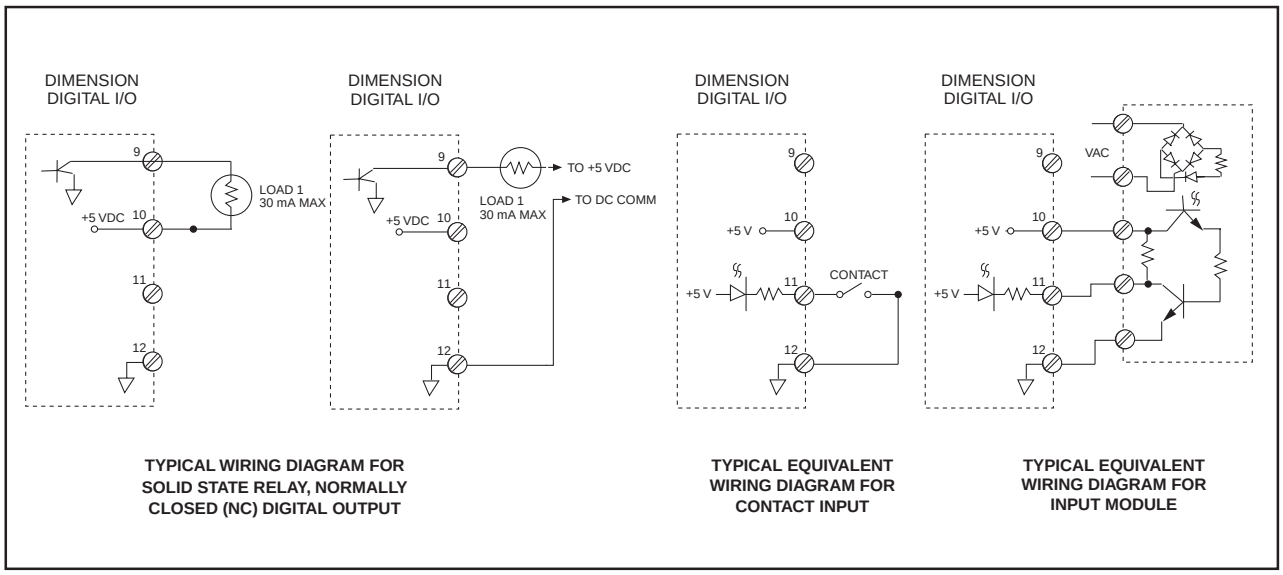


Figure 5. Local Digital In/Out Connection

Note: These are only available when the Dimension is factory configured for this purpose. The unit must be ordered with software non-standard @AD 95, @AD96 or @AD97. These I/O points replace the normal communication channel to the remote digital I/O board, Model 8781-00.

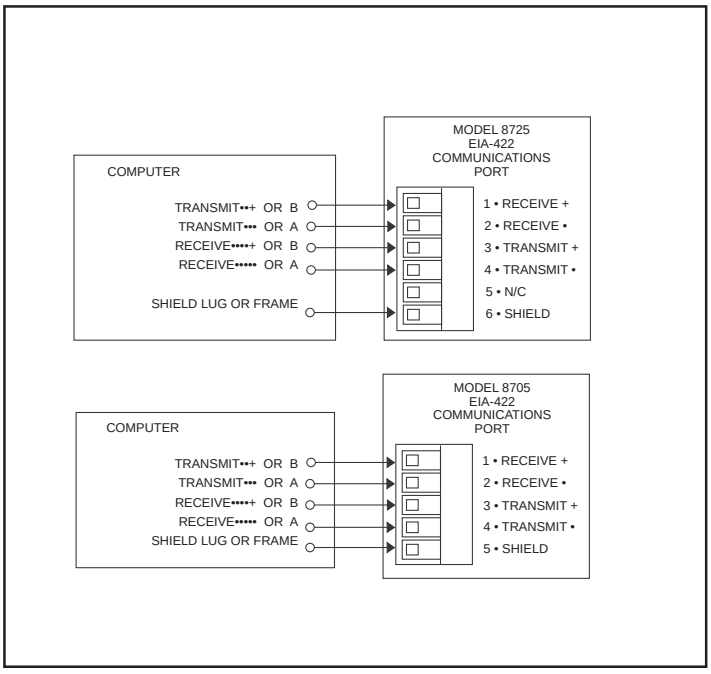


Figure 6. EIA-232 Connection

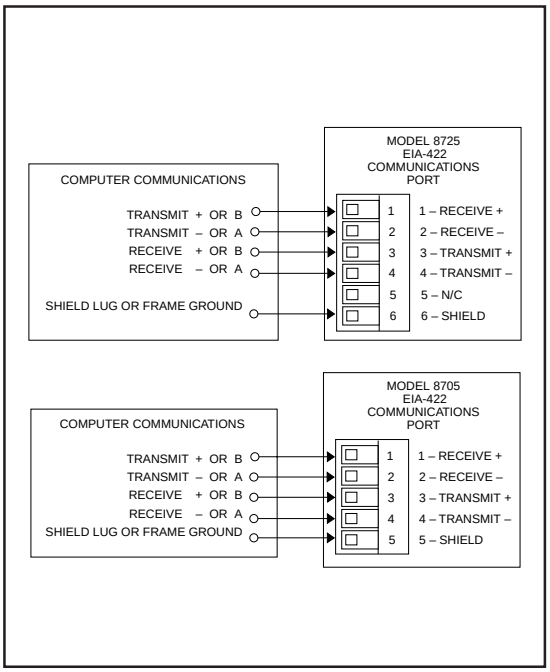
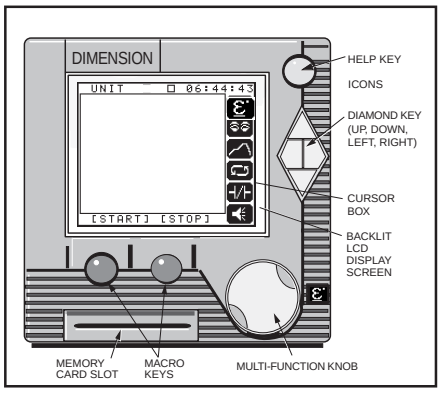


Figure 7. EIA-422 Connection

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Section 2 – Graphic Operator Interface

The operation and configuration of the Dimension may be accomplished from the Graphic Operator Interface (or Operator Interface). It is important to understand the following aspects of the Operator Interface before proceeding to the next steps in the use of the Dimension. For detailed information on the Graphic Operator Interface, refer to section 3 of the user's manual. The following section describes the main functions of the Operator Interface:



Graphic Operator Interface

Help Key	Displays a brief instruction window for the currently accessed field. Also used to cancel an entry and return to the previous value.
Diamond Key	Used to move from one icon level to another and from one display screen to another.
Multi-Function Knob	Rotate to move the cursor to the desired parameter. Press the knob to select the parameter. Rotate the knob to change values. Press the knob a second time to enter the changed parameter.
Memory Card Slot	Used to save/restore Dimension configuration and operation parameters.
Macro Keys	Used to initiate multiple programmed functions with a single key.
Icons	The vertical row of icons along the right side of the display are used to select display function groups.

2.1 Screen Selection

Display screens on the Operator Interface are organized in icon/function groups. To move from icon to icon, press the diamond key up or down. The selected icon will appear in inverse video. Each icon group consists of displays that may be accessed by pressing the diamond key to the right or left.

2.2 Parameter Selection and Window Conventions

When making parameter selections on the Operator Interface, rotate the multi-function knob to move the rectangular cursor to the selected item. If a display item cannot be altered, the cursor will not stop at that parameter. When the cursor is on a parameter, press the knob to enable entry of a new parameter.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

When a parameter is selected it will be one of three types, **numeric, text** or **window.** If a **numeric** parameter is selected, rotate the knob *clockwise to increase* the value or *counterclockwise to decrease* the value. When the desired value is obtained, press the knob to enter the new value. Most numeric parameters have high/low limits that cannot be exceeded.

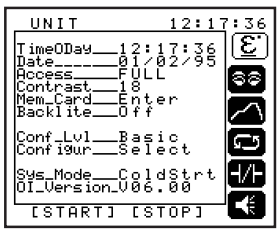
When a **text** parameter is selected, rotate the knob in either direction to scroll through the list of parameter choices. When the desired value is displayed, press the knob to enter the new selection.

When a **window** parameter is selected, a new display screen with new parameter choices will be opened. This screen may also contain numeric, text or window parameters which can be modified as described. The screen will also contain a *Close Window* parameter which, when selected by a knob press, will close the window and return you to the previous display.

2.3 Display Summary

The Graphic Operator Interface provides all of the tools needed for Operation and the Configuration of a Dimension Industrial Process Manager. **Operation** can be described as the Dimension *doing* the work it was purchased to do, and **Configuration** as the process of *setting up* the unit to know how to do the work.

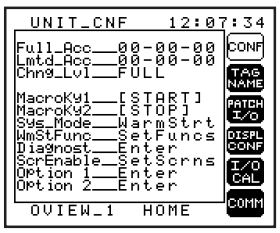
The **Operation** displays are active when the Dimension has completed its power up sequence. The **UNIT** display is active at this time. The Operation displays are divided into the icon/function groups described below and in section 3 of this guide.



Unit Operation	Allows date/time entry, memory card functions and configuration access.
Overview Displays	Designed to be configured on a process basis to show process parameters. Displays may be text, bar graph or xy graph format. Changing of process parameters may also be accomplished.
Programmer Displays	Used to monitor the status of the setpoint/event programmer and to create/edit program recipe segments.
Control Loop Displays	Used to monitor the status of and alter control parameters for control and monitor loops.
Logic Displays	Used to monitor the on/off status of digital inputs, outputs and programmer events.
Alarm Displays	Used to monitor the status of, acknowledge and set limits for loop and input alarms.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Access to the **Configuration** displays is accomplished by selecting the **Configur** parameter shown on the **UNIT** display. This will bring up the **UNIT_CNF** screen shown below. From this screen, move up or down to access the desired configuration function. Configuration displays are divided into the areas described below and in section 4 of this guide.

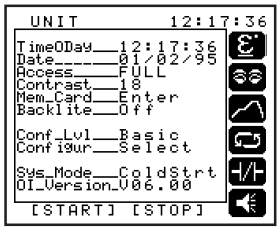




Unit Configuration Display	Used to set access levels, define macro key functions, enable/disable display groups and view/alter unit options.
Tagname Displays	Used to modify the default factory terminology to match that of your process and application.
Patch I/O	Used to assign input, output and function parameters to configure the Dimension to your application.
Display Configuration	Used to format and define operation displays to match your user, application and process needs.
I/O Calibration	Used to define input and output range and type information. Access to the calibration functions is also provided. Note that all Dimension inputs and outputs types are factory calibrated.
Communication Displays	Used to set up parameters for the EIA-232, EIA-422 and IEEE-488 communication ports.

Section 3 – Dimension Operation

The **UNIT** display is the first screen displayed when the unit has completed the power up sequence. It contains the following parameters:



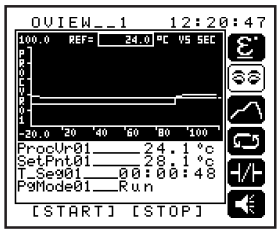
TimeODay	Displays and allows the setting of the current time.
Date	Displays and allows the setting of the current date.
Access	Displays and allows the alteration of the current access privilege level.
Contrast	Displays and allows the setting of the display contrast level.
Mem_Card	Opens a window to provide memory card read/write/format/directory functions.
Backlite	Opens a window to provide display backlight On/Off/Cycle settings
Conf_Lvl	Allows selection of either Basic or Extended configuration levels.
Configur	Selection provides access to the Configuration level of displays.
Sys_Mode	Displays the system operating mode. ColdStrt provides factory defaults upon a power cycle, WarmStrt allows a return to the user (previous) configuration after a power cycle.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

3.1 Overview Displays

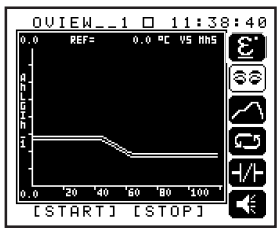
Dimension **Overview** displays are designed to be customized on a process by process basis to present the user the information needed, in the format needed, to manage the process. Ideally, some displays would be configured to provide process overview information and others to provide detail information on parts of the process. The displays should also be configured to allow the user to complete as much interaction from as few displays as possible.

The displays shown below provide examples of the available display formats for the overview set of screens. For more details on Overview Display Configuration, refer to section 3 in the user's manual. Also refer to section 4.1, Tag Names, of this guide for customization of process terminology to meet your process needs.



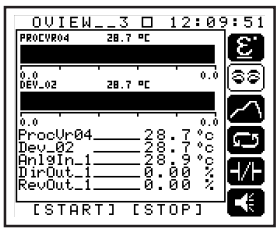
XY Chart Display

Two parameters may be charted versus time and four parameters may be displayed as text.



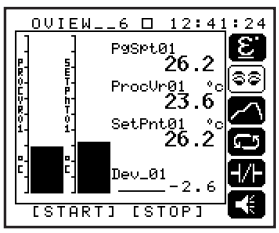
XY Display

Identical to XY Chart Display, but no text is shown.



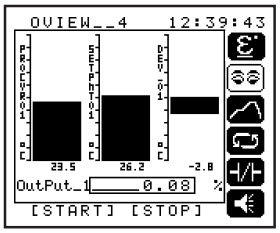
HOR_BAR

Two parameters are displayed in a horizontal bar format and five parameters may be displayed as text.



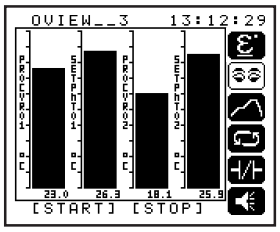
VER_BAR2

Two parameters may be displayed as vertical bar graphs, and four parameters may be displayed as text.



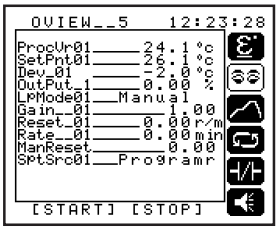
VER_BAR3

Three parameters may be displayed in bar graph format. One parameter may be displayed as text.



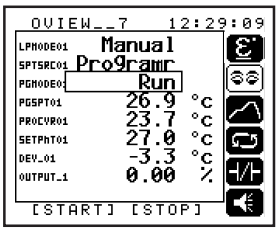
VER_BAR4

Four parameters may be displayed in bar graph format.



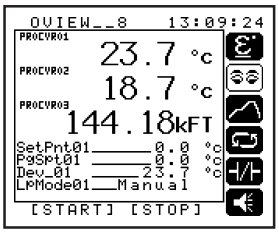
TEXT

Twelve parameters may be displayed in text format.



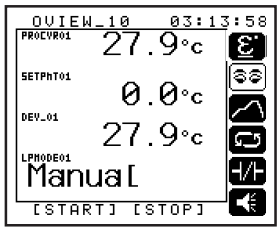
TEXT_2X

Eight parameters may be displayed in 2X text format.



TEXT_3X

Three parameters may be displayed in 3X text format and four parameters may be displayed as text.



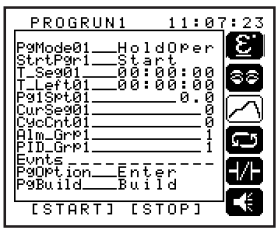
TEXT_3X_4

Four parameters may be displayed in 3X text format.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

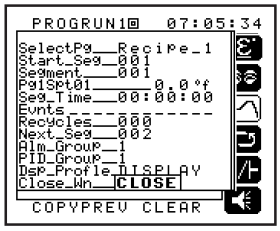
3.2 Programmer Displays

Dimension **Programmer** displays are used to monitor/control the state of the real-time programmer and to create/modify programmer recipes. Refer to section 5 of the user's manual for details on programmer operation. The following items are available on each programmer's **PROGRUN** display:



PgMode#	Used to view the current program status or alter mode between Run/Hold.
StrtPgr#	Used to select a recipe/program starting segment and begin recipe execution.
T_Seg#	Displays time left in the current segment.
T_Left#	Displays time left in current program. A value of XX:XX:XX indicates a never ending recipe.
Pg#Spt#	Displays the current profile setpoint value.
CurSeg#	Displays the number of the currently active segment.
CycCnt#	Displays the number of programmer recycle counts remaining.
Alm_Grp#	Displays the active alarm group number (1-5).
PID_Grp#	Displays the active PID group number (1-5) (only used if programmed PID groups configured).
Evnts	Displays the status of the programmer events. Allows modification if at program end or in hold.
PgOption	Opens a setup window that allows the set up of programmer options such as timed starts, aborts and program fast forward.
PgBuild	Opens a window that allows the viewing/editing of recipe segment data. The contents of this window are as shown in the next display description.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



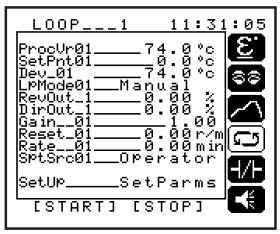
PgBuild Window

SelectPg	Used to select which of the 15 available recipes (groups of segments) to edit/build.
Start_Seg	Used to set the initial (starting) segment for the selected recipe.
Segment	Used to select which segment to edit/build.
Pg#Spt#	Opens a window to allow the definition of the segment setpoint values.
Seg_Time	Used to define how long the segment should last.
Evnts	Used to select which of the 12 events that should be ON during the segment.
Recycles	Used to define how many times to recycle (repeat) a group of segments.
Next_Seg	Used to select which segment to execute when this one completes. Set this to the current segment number to end the program.
Alm_Group	Used to define which group (1-5) of alarm limit values to use during this segment.
PID_Group	Used to define which set (1-5) of PID values to use during this segment. Programmed PID must be configured to use this.
Dsp_Profle	Used to open a window that will graphically show the recipe selected.

Note: *The **COPYPREV** and **CLEAR** macro keys are available to copy the previous segment to the current or to clear the current segment values.*

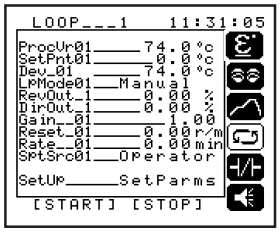
3.3 Loop Displays

Dimension **Loop** displays are used to monitor/control the operation of control and monitor loops in your Dimension. Refer to section 4 of the user's manual for details on loop operation. The following items are available on the **LOOP** display:

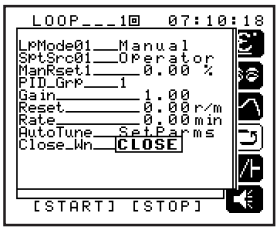


ProcVr#	Displays the *actual* value of the process variable.
SetPnt#	Used to view/alter the *desired* value of the control loop.
Dev_#	Displays the difference between the actual and desired values.
LpMode#	Used to view/alter the loop mode between Auto (closed loop) and Manual (open loop) control.
RevOut_#	Used to set the reverse (heating) output in Manual mode or to display the calculated value in Auto mode.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



DirOut_#	Used to set the direct (cooling) output in Manual mode or to display the calculated value in Auto mode.
Gain_#	Used to set the PID Gain parameter for the active PID group.
Reset_#	Used to set the PID Reset parameter for the active PID group.
Rate_#	Used to set the PID Rate parameter for the active PID group.
SptSrc_#	Used to select the source for the loop setpoint. Choices are **Operator, Programmer** or **Remote**.
SetUp	Used to open a window that allows the set up of additional loop parameters as shown and described in the display below.



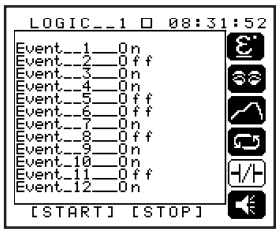
SetUp Window

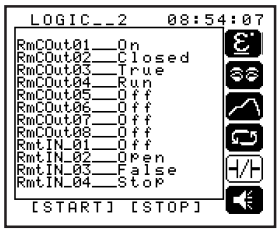
LpMode#	Used to view/alter the loop mode between Auto (closed loop) and Manual (open loop) control.
SptSrc#	Used to select the source for the loop setpoint. Choices are **Operator, Programmer** or **Remote**.
ManRset#	Used to set a Manual Reset (or output bias) value.
PID_Grp	Used to select which PID group (1-5) will be displayed/set in the next 3 parameters.
Gain	Used to set the PID Gain parameter for the selected group.
Reset	Used to set the PID Reset parameter for the selected group.
Rate	Used to set the PID Rate parameter for the selected group.
Autotune	Opens a window to allow access to the autotune function setup window.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

3.4 Logic Displays

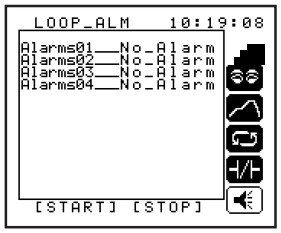
Dimension **Logic** displays are used to monitor the on/off status of digital I/O and programmer on/off events in your Dimension. Refer to section 7 of the user's manual for details on Logic operations. The following displays provide examples of a programmer event status and a digital input/output status screens. Note that 4 sets of terminology for on/off may be defined. The default sets are On/Off, Open/Closed, True/False and Run/Stop.

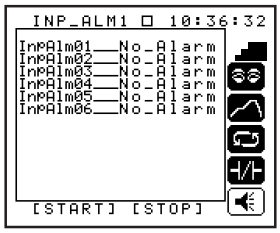


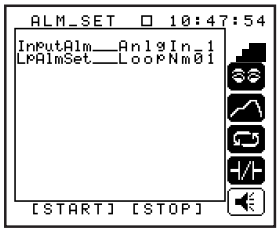


3.5 Alarm Displays

Dimension **Alarm** displays are used to view alarms status, acknowledge alarms and define alarm limits for monitor analog inputs and control loops. Refer to section 6 of the user's manual for details on alarm capabilities and set up. The **LOOP_ALM** display is used to monitor the status of control loop process variable limit and deviation alarms. The **INP_ALM** display is used to monitor the status of the monitor input variables limit alarms. If an alarm is detected, the **No Alarm** text will change to indicate the active alarm type. To acknowledge an alarm on either the **LOOP_ALM** or **INP_ALM** display, select the alarm and press the multi-fuction knob to enter acknowledgement. The **ALM_SET** display is used to access a window that allows you to set the alarm limit values for loop and monitor inputs.







Section 4 – Dimension Configuration

The Configuration area of the Dimension is used to customize the factory setup to match the needs of your process and users. It is important to break down the configuration process into manageable steps that can be verified/tested as they are completed. For example, if your process involves multiple control loops, a real-time programmer and logic outputs used to show process status, proceed with the setup and checkout in a step by step manner:

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

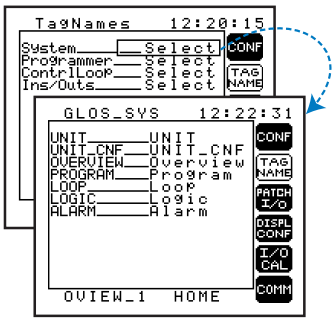
1. **Verify** individual loop component operation (input, output, control action and operator setpoint) before proceeding to the next loop.
2. **Implement** the real-time programmer functions when all loops have been completed.
3. **Follow up** with the logic outputs.
4. **Complete** the process by setting up process terminology (tagnames) and displays that allow the operators to perform their duties in an efficient and understandable manner.

Note: *When working in the Configuration display areas, use the **HOME** macro key to return to the main configuration screens (**Tagnames, Patch I/O, Disp Conf, I/O Cal** and **Comm**). To exit the configuration area and return to the Operation displays, press the **OVIEW_1** macro key.*

4.1 Tag Names

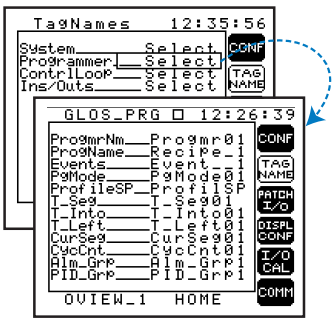
The **Tag Name** TAG NAME icon is used to modify the factory default terminology to process-specific terminology for your application. Refer to section 3 of the user's manual for details on tag name configuration.

The **System** selection is used to modify the screen titles of the displays. The following items may be modified from the **GLOS_SYS** display:



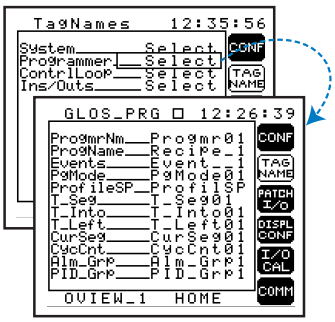
UNIT	The top level operation screen title. This is also the default power up display.
UNIT_CNF	Top level configuration screen title.
OVERVIEW	Allows the modification of Overview display titles.
PROGRAM	Allows the modification of Programmer display titles.
LOOP	Allows the modification of Control Loop display titles.
LOGIC	Allows the modification of Logic display titles.
ALARM	Allows the modification of Alarm Status/Setup display titles.

The **Programmer** selection is used to modify the programmer parameter tag names to match your process requirements. The following items may be modified from the **GLOS_PROG** display:



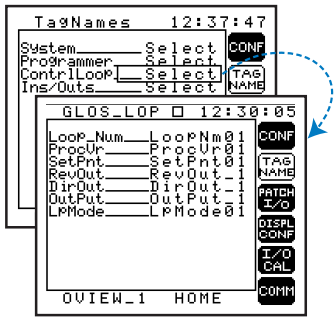
ProgmrNm	Used to select which programmer to modify.
ProgName	Allows the modification of the program *Recipe* names.
Events	Allows the modification of program *Event 1 through 12* names.
PgMode	Allows the modification of the *Run/Hold* status & selection name.
ProfileSP	Allows the modification of programmer *profile* (setpoint) names.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



T_Seg	Allows the modification of *Time Left in Segment* name.
T_Into	Allows the modification of *Time Into Program* name.
T_Left	Allows the modification of *Time Left in Program* name.
CurSeg	Allows the modification of the *Active Segment* name.
CycCnt	Allows the modification of the *Recycle Counter* name.
Alm_Grp	Allows the modification of the *active Alarm Group* name.
PID_Grp	Allows the modification of the active *PID Group* name.

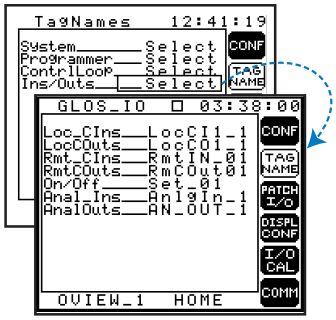
The **ContrlLoop** selection is used to modify control and monitor loop tag name parameters to match your process requirements. The following parameters may be modified from the **GLOS_LOP** display:



Loop_Num	Used to select which loop to set up.
ProcVr	Allows the modification of the loop's *Process Variable* name.
SetPnt	Allows the modification of the loop's *Setpoint* name.
RevOut	Allows the modification of the loop's *Reverse* (heating) name.
DirOut	Allows the modification of the loop's *Direct* (cooling) name.
Output	Allows the modification of the loop's *Output* (reverse & direct) name.
LpMode	Allows the modification of the loop's *Control Mode* selection (auto/manual) name.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

The **Ins/Outs** selection is used to modify digital and analog input and output tag name parameters to match your process requirements. The following parameters may be modified from the **GLOS_IO** display:

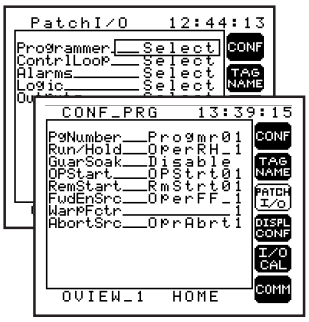


Loc_CIns	Allows the modification of the Local Digital Inputs (model 8725 only).
LocCOuts	Allows the modification of the Local Digital Outputs (model 8725 only).
Rmt_CIns	Allows the modification of the Remote Digital Inputs on an 8781 expansion I/O kit.
RmtCOuts	Allows the modification of the Remote Digital Outputs on an 8781 expansion I/O kit.
On/Off	Allows modification of the 4 On/Off set definitions. Default sets are On/Off, Open/Closed, True/False, and Run/Stop. These sets are used when display digital on/off states are on a display screen.
Anal_Ins	Allows modification of the Analog Input names.
AnalOuts	Allows the modification of the Analog Output names.

4.2 Patch I/O

The **Patch I/O** PATCH I/O icon is used to modify the factory default input/output/function setup of the Dimension to match your process or application.

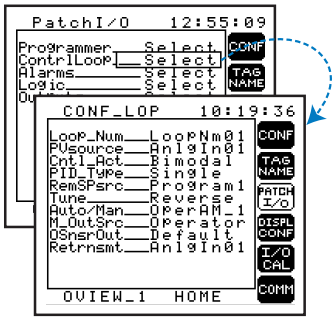
The **Programmer** selection is used to set up any programmers in the system. Refer to section 5 of the user's manual for detailed *programmer* setup. The following parameters may be configured from the **CONF_PRG** display:



PgNumber	Used to select which programmer to set up.
Run/Hold	Defines the action that will cause the active program to switch between run and hold modes.
GuarSoak	Enables or Disables the guaranteed soak function of the programmer.
OPStart	Defines an action that will cause the programmer to begin executing a recipe.
RemStart	Defines an alternate action that will cause the programmer to begin executing at a desired segment number.
FwdEnSrc	Defines an action that will cause the programmer to execute in a fast time base rate.
WarpFctr	Defines the actual time base rate for fast forward operation (1 is normal, 2 is twice rate, 10 is 10 times as fast).
AbortSrc	Defines an action that will cause the programmer to execute the abort segment sequence.

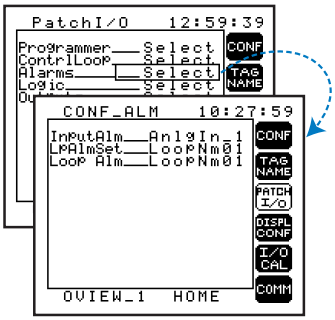
Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

The **ContrlLoop** selection is used to set up any *control and monitor loop* in the system. Refer to section 4 of the user's manual for detailed control and monitor loop configuration description. The following parameters may be setup from the **CONF_LOP** display:



Loop_Num	Used to select which loop to set up.
PVsource	Defines which input will provide the process variable for the selected loop.
Cntl_Act	Defines the control action (Reverse, Direct, Bimodal) for the loop.
PID_Type	Defines the PID type (Single, Dual, Programmed, Select Adaptive) for the loop.
RemSPsrc	Defines the source for a remote setpoint (programmer, analog input, another loop).
Tune	Defines parameters for the Autotune function.
Auto/Man	Defines an action that will cause the control mode to switch between Auto and Manual modes.
M_OutSrc	Defines the source for a manual output value (typically an Operator but may be another loop).
OSnsrOut	Defines what the control output value will be when a process variable Open Sensor is detected.
Retrnsmt	Defines the loop-related parameter that may be patched to an analog output (for re-transmission to an external device).

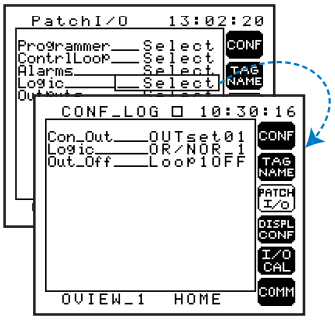
The **Alarms** selection is used to configure alarm characteristics and set alarm limits for monitor and control loops. Refer to section 6 of the user's manual for detailed alarm set up descriptions. The following items may be configured from the **CONF_ALM** display:



InputAlm	Allows set up of the input alarm High and Low limits, hysteresis value and latch/unlatch state.
LpAlmSet	Allows the set up of alarm limits for HighHigh, High, Low and LowLow loop process variable and deviation alarms for alarm groups 1 through 5.
Loop Alm	Allows the set up of the Hysteresis and latch/unlatch states for the loop process variable limit and deviation alarms.

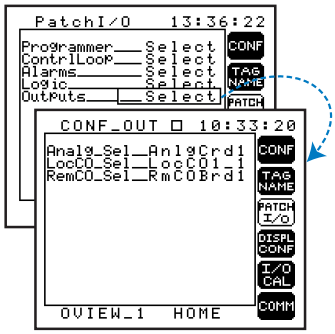
Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

The **Logic** selection is used to define logic set inputs for **Outsets, OR/NOR/AND/NAND sets** and **Output Off sets.** Refer to section 7 of the user's manual for detailed Logic set up descriptions. The following items may be set up from the **CONF_LOG** display:



Con_Out	Defines the inputs for 4 available Output Assignments logic sets. The output (result) of this logic operation may be tied to a physical digital output.
Logic	Defines the inputs for the 4 **OR/NOR** and 4 **AND/NAND** logic sets. The output of the logic set may be used for internal logic functions.
Out_Off	Defines the inputs for an Output Off logic set. A set is provided for each Loop in the system and when TRUE, forces the loop's outputs off.

The **Outputs** selection is used to define assignments for analog and digital outputs. Refer to sections 2, 4, 6 and 7 of the user's manual for detailed output assignment setup descriptions. The following items may be configured from the **CONF_OUT** display:



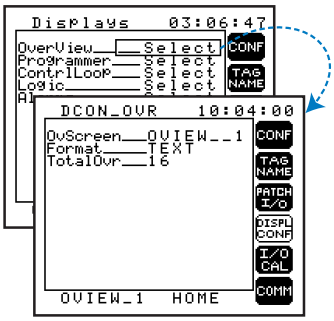
Analg_Sel	Selects an analog card and allows assignment of the outputs to a function such as loop control output (reverse, direct), retransmit, alarms or programmer events.
LocCO_Sel	Selects a local digital output (8725 only), and allows assignment of output functions such as reverse or direct control, programmer events or alarms.
RemCO_Sel	Selects a remote digital output board and allows the assignment of an output function such as reverse or direct control, loop or programmer status (auto/manual, run/hold), alarm or programmer events to the individual outputs.

4.3 Display Configuration

The **Display Configuration** DISPL CONF icon is used to modify the factory default display configuration on the Dimension to match your process needs. Refer to section 3 of the user's manual for detailed instructions on display configuration.

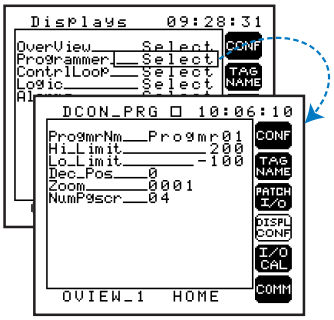
Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

The **OverView** selection is used to modify the default overview display types and to alter the number of overview displays that are available. The following selections are available from the **DCON_OVR** display:



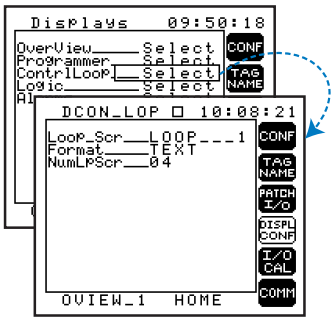
OvScreen	Used to select which of the 16 displays to set up.
Format	Used to define the format and display parameters for the selected display. Available types are **Text, 2X Text, 3X Text, XY Graph, Horizontal** and **Vertical Bar Graphs.**
TotalOvr	Used to define or limit the number of overview screens that are available.

The **Programmer** selection is used to define parameters for the programmer status display screens. The following parameters are available from the **DCON_PRG** display:



ProgmrNm	Used to select which programmer screen to configure.
Hi_Limit	Defines the high limit value for the profile display graph.
Lo_Limit	Defines the low limit value for the profile display graph.
Dec_Pos	Defines the decimal point position for the high/low limits.
Zoom	Defines the zoom factor for the profile display. This alters how much elapsed time will fit on the profile display.
NumPgscr	Used to define or limit the number of operation programmer displays that are available.

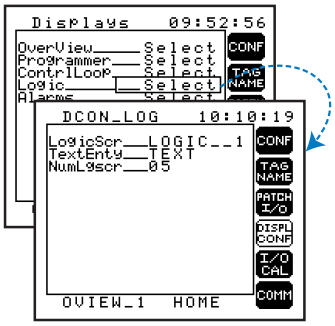
The **ContrlLoop** selection is used to define parameters for, or alter the type of, the loop status displays. The following parameters are available from the **DCON_LOP** display:



Loop_Scr	Used to select which of the loop displays to configure.
Format	Used to define the format and display parameters for the selected display. Available types are **Text, 3X Text, XY Graph** and **Horizontal Bar Graphs.**
NumLpScr	Used to define or limit the number of loop screens that are available.

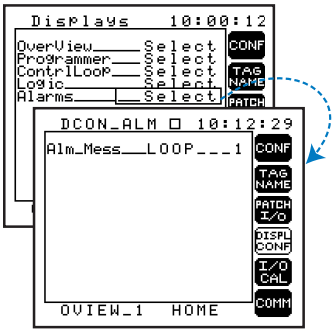
Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

The **Logic** selection is used to alter or define the parameters displayed on the logic displays. The following parameters are available from the **DCON_LOG** display:



LogicScr	Used to select which of the available logic screens to configure.
TextEnty	Used to select the parameters that will be displayed on the selected screen.
NumLgscr	Used to define or limit the number of logic screens that are available.

The **Alarms** selection is used to define or alter custom alarm messages for each control loop in the unit. These messages are displayed when an alarm is detected and the *help* button is pressed while on the Alarm Status display. The following parameter is available from the **DCON_ALM** display:



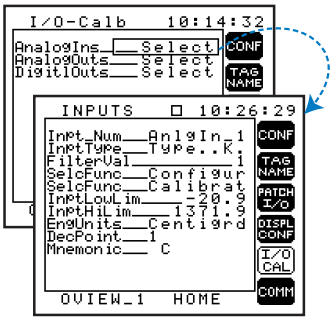
Alm_Mess	Used to select the loop for which to define/alter a message. When a loop is selected, a window will open that allows the entry of a 6 line by 16 character message.

4.4 I/O Calibration

The **I/O Calibration** I/O CAL icon is used to set up and calibrate the inputs and outputs on the Dimension I/O modules. Functions performed on these screens include input type selection, zero/span range adjustment, engineering units selection, decimal position and mnemonic selection, time proportioned cycle time and high/low limit set up. Refer to section 4 of the user's manual for detail information on these functions.

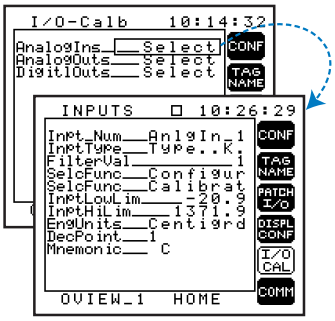
Note: *All Dimension analog input and output types and ranges are factory calibrated.*

The **AnalogIns** selection is used to select, define and configure analog inputs to match your process requirements. The following parameters may be configured from the **INPUTS** display:



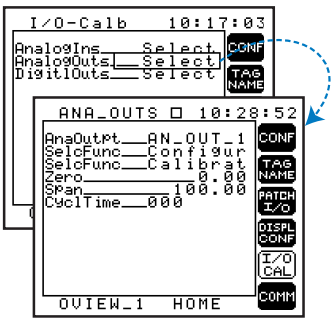
Inpt_Num	Used to select which analog input to configure.
InptType	Used to define the input type. Choices are J, K, T, R, S, E, N, B, G, C, D, Platinell II, NiNiMoly thermocouples; RTD; altitude; pressure; millivolt; volt or current.
FilterVal	Defines the amount of software filtering to apply to the selected input.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



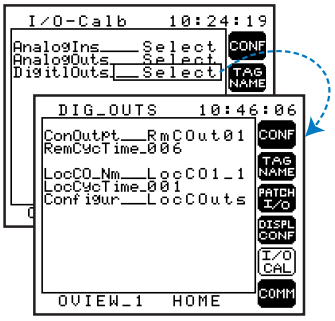
SelcFunc_ Configur	Used to access the linear input span/zero setup window.
SelcFunc_ Calibrat	Used to access the input calibration window.
InptLowLim	Used to set the low limit for user entry for this input.
InptHiLim	Used to set the high limit for user entry for this input.
EngUnits	Used to select Centigrade, Fahrenheit or Linear engineering units.
DecPoint	Displays the number of decimal points configured for the input.
Mnemonic	Displays the engineering unit mnemonic configured for the input (C, F, %, RPM, f/m).

The **AnalogOuts** selection is used to select and configure analog outputs to match your process requirements. The following parameters may be configured from the **ANA_OUTS** display:



AnaOutpt	Used to select which analog output to configure.
SelcFunc_ Configur	Used to configure the output *Zero* and *Span* values.
SelcFunc_ Calibrat	Used to set the calibration *Zero* and *Span* values.
Zero	Displays the configured output *Zero* value.
Span	Displays the configured output *Span* value.
CyclTime	Used to set the *time-proportioned* cycle time (defined in seconds).

The **DigitlOuts** selection is used to select and configure digital outputs to match your configuration requirements. The following parameters may be configured from the **DIG_OUTS** display:



ConOutpt	Used to select which remote contact output to configure.
RemCycTime	Used to set the *time-proportioned* cycle time (defined in seconds).
LocCO_Nm	Used to select which local contact output to configure (8725 only).
LocCycTime	Used to set the *time-proportioned* cycle time (defined in seconds).
Configur	Used to set the output *Zero* and *Span* values.

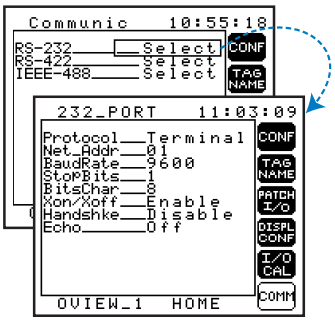
Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

4.5 Communications

The **Communications** COMM icon is used to configure parameters for the **EIA-232, EIA-422** and **IEEE-488** communications ports on the Dimension. Refer to appendix B of the user's manual for detailed information on the communications functions.

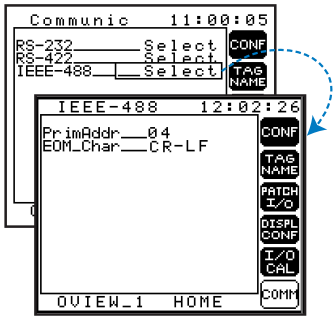
Note: *Whenever changes have been made, the Dimension must be power cycled to implement the changes.*

When selected, the following parameters may be configured from the **232_Port** and **422_Port** displays:



Protocol	Used to select either Network, Terminal, SerialIO or InitModm mode for the data transfer.
Net_Addr	Used to set a unique station address for use in a multi-drop network setup.
BaudRate	Used to set the data transfer speed.
StopBits	Used to set the number of stop bits.
BitsChar	Used to set the number of bits per character.
Xon/Xoff	Used to enable/disable the XON/XOFF flow control protocol (terminal mode).
Handshke	Used to enable/disable hardware handshaking (8725 only).
Echo	Used to turn on/off the local character echo function (terminal mode only).

The **IEEE-488** selection is used to configure communications parameters for the IEEE-488 communications option. The following parameters may be configured from the **IEEE-488** display:



PrimAddr	Used to set the primary station address for the Dimension.
EOM_Char	Used to define the End Of Message character for the protocol.
ScndAddr	Used to enable/disable the secondary address parameter (model 8725 only).
ScndAddr	Used to set the secondary address station number (model 8725 only).

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Artisan Technology Group is an independent supplier of quality pre-owned equipment

Gold-standard solutions

Extend the life of your critical industrial, commercial, and military systems with our superior service and support.

We buy equipment

Planning to upgrade your current equipment? Have surplus equipment taking up shelf space? We'll give it a new home.

Learn more!

Visit us at **artisantg.com** for more info on price quotes, drivers, technical specifications, manuals, and documentation.

Artisan Scientific Corporation dba Artisan Technology Group is not an affiliate, representative, or authorized distributor for any manufacturer listed herein.

We're here to make your life easier. How can we help you today?

(217) 352-9330 | sales@artisantg.com | artisantg.com

ARTISAN® TECHNOLOGY GROUP