1.0 Document Identification

Document No.: 81-9059-0476-0
Revision: A
Title: Win3500Plus Control System Design Guide

2.0 Contact Information

Refer questions to:
Danny Holland, PESA Marketing Dept.
(256) 726-9200 Extension 460 or dholland@pesa.com

3.0 Printing Layout

The page numbers shown below refer to page numbers in the Adobe Portable Document Format (.pdf) file associated with this document.

Page Numbers	Description	Media Type	Portrait or Landscape	Simplex or Duplex	Printing Method
1 – 2	Printing Specification	N/A	Portrait	Duplex	B&W
3 – 74	Manual Body	2A	Portrait	Duplex	B&W

4.0 Approved Media Types

Type 1 – Cover Paper

Type	Paper	Color	Weight	Size	Caliper	Smoothness	Brightness	Opacity
1A	Neenah Classic Crest Cover	Avon Brilliant White	80lb	8.5" x 11"	10.5 mils	130	93	98
1B	Beckett Cambric Cover	Bamboo	80lb	8.5" x 11"	12.5 mils	300	93	94.5
1C	Beckett Cambric Cover	Blue	80lb	8.5" x 11"	12.5 mils	300	93	94.5
1D	Neenah Classic Crest Cover	Avon Brilliant White	80lb	11" x 17"	10.5 mils	130	93	98

Type 2 – Text Paper

Type	Paper	Color	Weight	Size	Caliper	Smoothness	Brightness	Opacity
2A	Hammermill Laser Plus	White	24lb	8.5" x 11"	3.9 mils	50	90	92
2B	Hammermill Laser Plus	White	24lb	11" x 17"	3.9 mils	50	90	92
2C	Wausau Exact Multipurpose	Gold	20lb	8.5" x 11"	4.0 mils	160	84	87

5.0 Special Notes

5.1 Printing Method

B&W: Indicated pages shall be printed at a resolution of 600 dpi or higher using electrostatic process with black toner.

Color: Indicated pages shall be printed at a resolution of 400 dpi or higher using either CMYK electrostatic or bubble jet process.

5.2 Binding Method

Document shall be bound using one staple in the upper left corner.

5.3 Tabloid Inserts

All tabloid (11" x 17") inserts in 8.5" x 11" documents shall be folded to 8.5" x 11" with two concertina-style folds.

6.0 Sources

Beckett Papers (International Paper)
2 Gateway Blvd.
E. Granby, CT 06026
(800) 543-1188
http://www.internationalpaper.com/our_brands/printing_links/beckett_frame.html

GBC (General Binding Corporation)
1 GBC Plaza
Northbrook, IL 60062
(800) 477-3444
http://www.gebco.com/

Hammermill Papers (International Paper)
6400 Poplar Ave.
Memphis, TN 38197-7000
(800) 242-2148
http://www.hammermillpaper.com/

IBICO, Inc.
760 Bonnie Lane
Elk Grove, IL 60007
(847) 640-7333
http://www.ibico.com/

Neenah Paper Div., Kimberly-Clark Corp.
1400 Holcomb Bridge Rd.
Roswell, GA 30076
(800) 241-3405
http://www.kimberly-clark.com/what/additional/neenah.html

Spiral Binding Company, Inc.
1 Maltese Dr.
Totowa NJ 07511
(800) 631-3572
http://www.spiralbinding.com/

Wausau Paper Mills Co.—Printing & Writing Div.
P.O. Box 305
Brokaw, WI 54417-0305
(800) 877-5196
http://www.wausaupapers.com/

Win3500Plus Control System
Design Guide Information

General Information

Corporate Sales Office

PESA Switching Systems, Inc.
35 Pinelawn Road, Suite 99E
Melville, NY 11747

Tel: 631-845-5020
Fax: 631-845-5023

Customer Service

PESA Switching Systems, Inc.
330-A Wynn Drive
Huntsville, AL 35805

Tel: 256-726-9222
Fax: 256-726-9268

PESA On-Line Web Site

www.pesa.com

Customer Configuration Information

The following information should be completed to identify your specific system configuration. PESA Switching Systems, Inc. recommends that you fax or mail this information to our Customer Service Department. This will allow us to prepare in advance your specific needs and insure that system cabling and configuration methods are properly met.

Company Name _____

Company Address _____

City _____State _____ Country _____ ZIP _____

Contact for System Information _____

Contact Telephone _____ Fax _____

The following information will be requested for initial setup of your 3500+ Controller. Please use the following space as a reference for your system setup.

Each 3500+ Configuration requires a unique name. Please enter the name you plan to use as reference.
Configuration Name _____

Number of Levels _____

Number of Components _____

Number of Sources _____

Number of Destinations _____

Number of Reentries _____

Number of Panels _____

Table of Contents

I. Introduction

a. What is the 3500+ 7
b. Features 7
c. Configuration Guide Process 8
   i. Step 1 Company information
   ii. Step 2 Configuration
   iii. Step 3 Control Panel

II. System Configuration

a. Levels 9
b. Components 11
c. Tie Line 13
d. Category 15
e. Index 17
f. Source 17
g. Destination 26
h. Reentry 34
i. Panels 35
   i. Overview
   ii. Panel Types
j. Panel Configuration Tables
   i. RCP-XY 47
   ii. RCP-MB2 48
   iii. RCP-MLDT2 49
   iv. RCP-MLDT 50
   v. RCP-241 52
   vi. RCP-48X 53
   vii. RCP-64X 54
   viii. RCP-128X 56
   ix. RCP-CSD 60
   x. RCP-MP32 62
   xi. RCP-PVPG 66
   xii. RCP-TP / RCP-MLTP 67
   xiii. RCP-MLTP2 68
   xiv. RCP-SLCXY 69

Introduction

Congratulations on the purchase of your new 3500+ System Controller. To provide you the most efficient way of setting up your system, this document has been developed to guide you through the various parameters necessary to define your controller and control panel definitions. Parameters such as source names, destination names, category names, number of levels, and components will be necessary to properly configure your system.

In addition, accurately completing this document will give PESA Switching Systems, Inc. the ability to custom configure your system at our facility prior to shipment and site installation. Before proceeding with this section you should have a good understanding of the components to be configured and the functionality of your equipment. As with any attempt to learn something new, building a strong foundation of basic building blocks is the first step to building a useable system. You should become familiar with the basics of Section 1 before actually configuring your system. Any information offered in this configuration guide will ultimately reduce configuration time during installation.

What is the 3500+

The 3500+ is a control system that combines software and hardware into a package for powerful router control. The 3500+ utilizes an open architecture using the Windows™ based platform. The controller card can be installed inside most of the PESA family of routers and is compatible with all the 3500 and 3300 series control panels.

Features

The following is a basic list of features and benefits of the 3500+ System Controller. Please refer to your user manual for in depth information.

- **Up to 512 Inputs and Outputs / 16 Levels**
- **Up to 32 Components**
- **600 Sources and Destinations**
- **Virtual Matrix Mapping**
- **Matrix Breakup/Segmentation**
- **Tieline Management**
- **On-line Diagnostics**

Configuration Guide Process

Step 1: Customer Identification

In the front of the guide is a form that we recommend you complete in helping us with your configuration and system requirements. The information can be mailed or faxed to PESA Switching Systems. This information is reviewed by our manufacturing systems test engineers to insure you receive accurate system configuration and panel setup. PESA will keep a copy of your configuration on file in our Customer Service Department to assist in any troubleshooting or support needs during and after your site installation.

Step 2: Establish Source and Destination Profile

Prior to configuring your 3500+ Control System it is important to have a complete list of Source and Destination devices identified. You must be aware of how you intend to utilize these devices in your system. Requirements such as breakaways, tielines, and salvos should be defined before attempting setup on panel configurations.

Step 3: Panel Configuration

Certain features are included on all of the PESA Switching Systems control panels. Current status of the bus is available at all times by performing panel queries at the control panel.

The 3500+ allows multiple panel control of any bus in the switching matrix. This feature allows central and local control or multiple local control of all buses in the switching system.

All control panels include a regulated power supply operating from 115 to 220 VAC, 50/60 Hz primary power. Connection to the 3500+ Controller is via RS485 twisted pair connections.

Although specific combinations of features vary from model to model, the feature itself, when selected is the same. These features include:

- Download mnemonics: The assigned inputs to mnemonics is downloaded from the 3500+ allowing reconfiguration of the matrix without changing the operation of the panel.
- Sixteen Level Control: Level control selection allows the control panel to be matched to any or a multiple of levels that match the switching system.
- Break: An operation that moves a current level on-line source to a new source.
- Selectable Level Control: Set up switches to control the panel to switch video, audio, or audio-follow-video.
- Locking Capability: Allows the user to lock, unlock, or protect destinations as defined by the 3500+ controller or by the local panel within defined system permission.

Configuration of Levels

The 3500+ System Controller allows the user to define their system based on the type of levels to be used. Some applications separate video routers and audio router as separate levels while other applications required more defined definitions as RGB, or separated audio channel levels. The following diagram and text explains level configuration.

Define the number of different control levels in your system., i.e. Video, Audio Left, Audio Right, Digital Video, etc.

A level is a group of related components that are switched together by the PESA Win3500Plus controller.

The example shown in Figure 1 is a 2x2 RGB video level named VID, which is made up of three components named RED, GRN, and BLU.

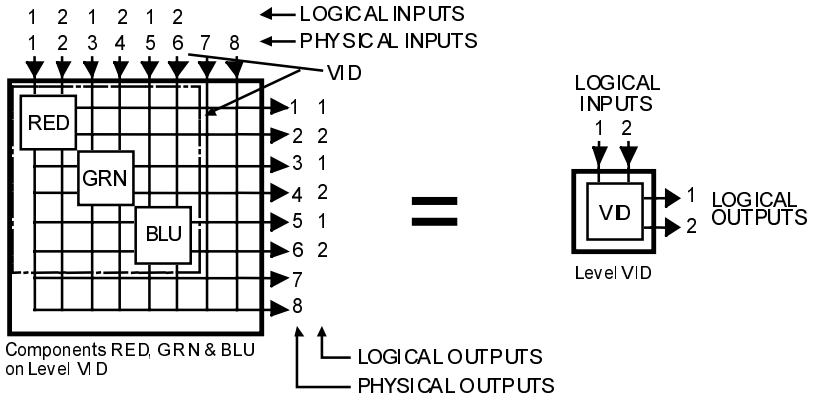
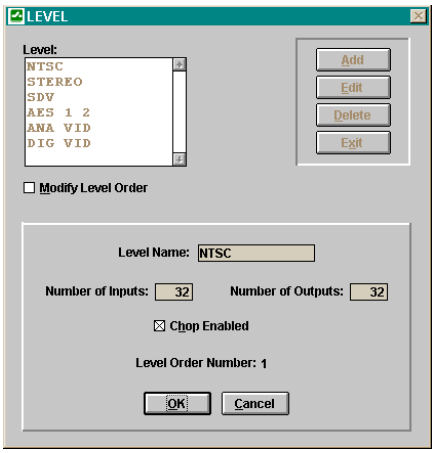


Figure 1 2x2 RGB Level

In the configuration menu of the WIN3500 software the following screen is displayed for level assignments. To add a level simply click on the “Add” button and type in the desired level name, the number of physical inputs and outputs associated with this level.



Fill in the required information for your system below. (Maximum number of levels is 16 each)

Level Name	Number of Inputs	Number of Outputs
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		

Component

A component is the most basic signal element which can be switched by a single crosspoint. For example, in RGB video, “Red”, “Green”, and “Blue” are components; in stereo audio, “Left” and “Right” are components. The example shown in Figure 2 is a 2x2 RGB video level named VID, which is made up of three components named RED, GRN, and BLU.

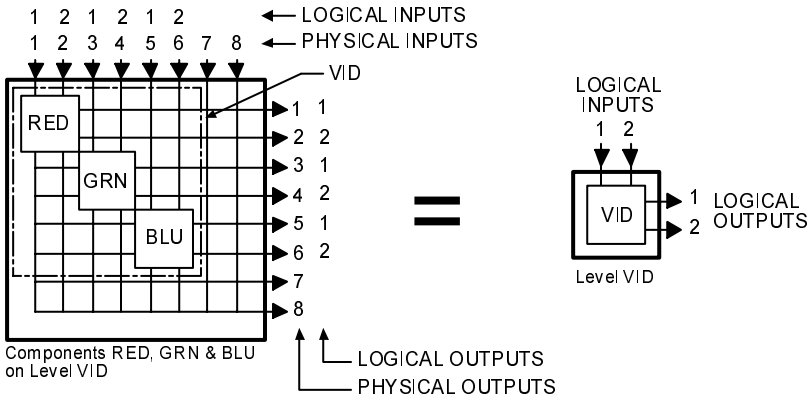


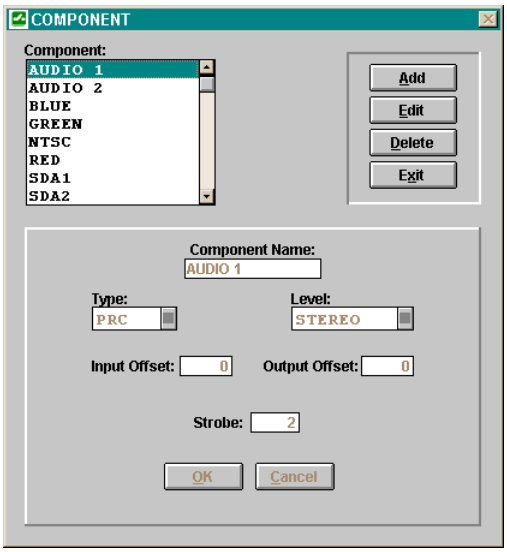
Figure 2 The Components of a 2x2 RGB Level

1. Enter the component name in the **Component Name** box. Component names are one to eight characters in length and are constructed using uppercase letters, numbers, and spaces. The first character must be a letter. For the example shown in Figure 2, “RED” would be used for the first component, “GRN” for the second and “BLU for the third.

2. Select the level this component will be associated with from the **Level** drop box. For the example shown in Figure 2, “VID” would be used for all three components.

5. Enter the amount of **Input Offset** and **Output Offset**. For the example shown in Figure 2, “0” and “0” would be used for the component “RED”; “2” and “2” would be used for the component “GRN”; and “4” and “4” would be used for the component “BLU”.

NOTE: Win3500Plus allows components to overlap in matrix space. Care should be taken when entering offsets to ensure that any resulting overlap of components is intentional.



Fill in the required information for your system below. (Maximum number of components is 32 each)

Component Name	Type	Level	Input Offset	Output Offset
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				

Tieline

A tieline is a special type of logical switch that allows a logical input on one level to be switched to a logical output on a different level. The example shown in Figure demonstrates a tieline being used to route a video signal from an analog camera, through an external analog-to-digital converter, to a digital VTR.

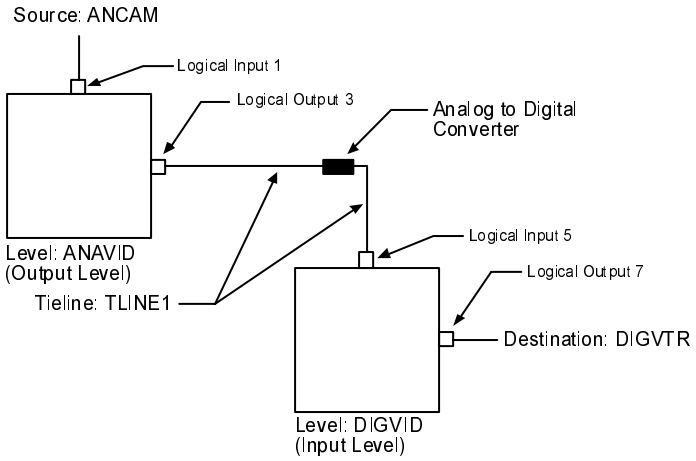
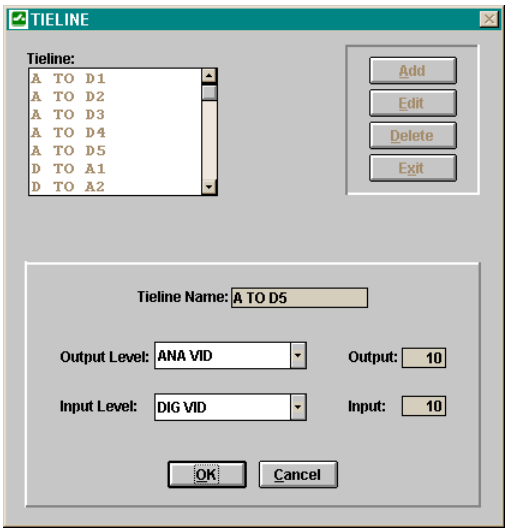


Figure 3 Configuring a Tieline



1. Enter the **Tieline Name**. Tieline names are one to eight characters in length and are constructed using uppercase letters, numbers, and spaces. The first character must be a letter. For the example shown in Figure , “TLINE1” would be used.

2. Select the **Output Level** from the drop box and enter the **Output** number. For the example shown in Figure , “ANAVID” and “3” would be used.

3. Select the **Input Level** from the drop box and enter the **Input** number (this is the logical input number). For the example shown in Figure , “DIGVID” and “5” would be used.

Once a tieline has been configured, it may then be used by a source.

Fill in the required information for your system below. (Maximum number of tielines are 64 each)

Tieline Name	Output Level	Output Number	Input Level	Input Number
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				

Category

Open the **Configuration** menu and select **Category** to display the CATEGORY window (Figure). This will allow you to add, edit, and delete categories.

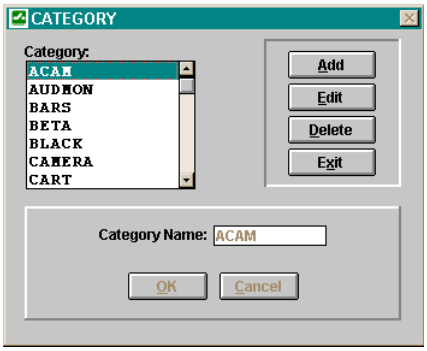


Figure 4 Category Window

A category is the first portion of a source, destination, or reentry name. They provide an easy means of classifying and grouping switching system devices.

To add a category:

1. Enter the **Category Name**. Category names are one to six characters in length and are constructed using uppercase letters and numbers. The first character must be a letter. Imbedded spaces are not permitted.

Fill in the required information for your system below. (Maximum number of categories is 128)

Category Name	Category Name	Category Name	Category Name	Category Name
1	17	33	49	65
2	18	34	50	66
3	19	35	51	67
4	20	36	52	68
5	21	37	53	69
6	22	38	54	70
7	23	39	55	71
8	24	40	56	72
9	25	41	57	73
10	26	42	58	74
11	27	43	59	75
12	28	44	60	76
13	29	45	61	77
14	30	46	62	78
15	31	47	63	79
16	32	48	64	80

Category Naming table (continued)

Category Name	Category Name	Category Name
81	97	113
82	98	114
83	99	115
84	100	116
85	101	117
86	102	118
87	103	119
88	104	120
89	105	121
90	106	122
91	107	123
92	108	124
93	109	125
94	110	126
95	111	127
96	112	128

Index

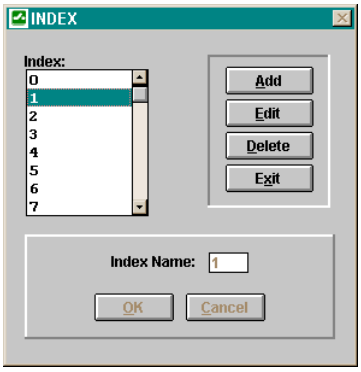


Figure 5 Index Window

An index is the last portion of a source, destination, or reentry name. They provide an easy means of differentiating similar switching system devices. Valid indices are 0-F.

Source

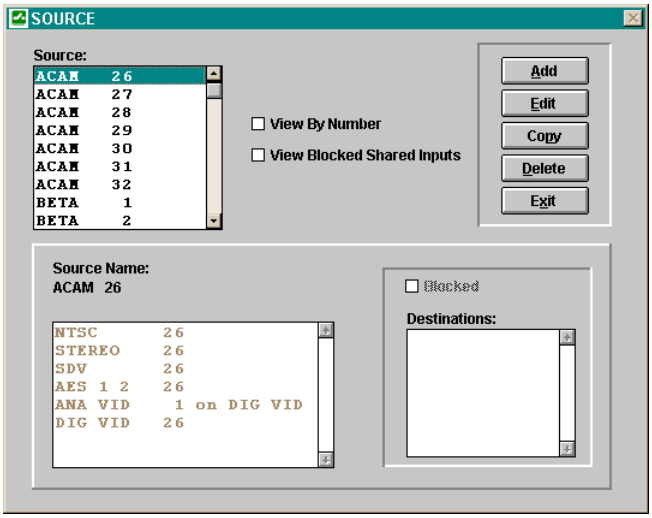


Figure 6 Source Window

When configuring a switching system, it may be desirable to use source blocking to restrict the switching of certain logical inputs. This may be done while configuring either sources or destinations.

Since a blocked source may contain a logical input that is shared (used by more than one source), care should be taken to ensure that all sources using the logical input are blocked from the destination to be protected.

Check the View Blocked Shared Inputs check box to display the BLOCKED SHARED INPUTS window (Figure). This window will only be displayed if at least one source block exists. The blocking status of shared inputs will be indicated by one of three messages displayed in red under the **Blocked Sources** list box

Selected Blocked Source Has No Shared Inputs: No shared inputs exist for the source selected.

All Shared Inputs of Selected Source Are Blocked: One or more shared inputs exist and the destination has been protected by blocking every source using any of the shared inputs.

Block Conflict Exists: All Shared Inputs of Selected Source Are Not Blocked: One or more shared inputs exist and the destination may not be adequately protected. At least one source using a restricted input has not been blocked from the destination.

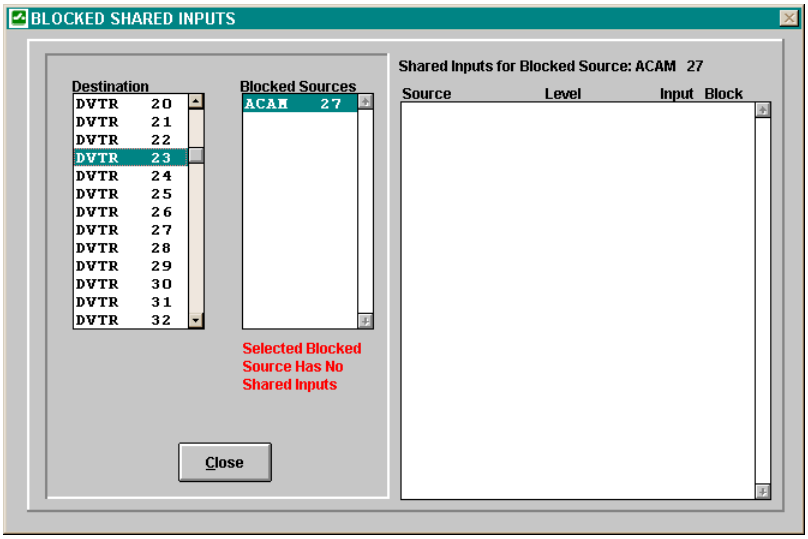


Figure 7 Blocked Shared Inputs Window

1. Create the source name by selecting a **Category** and an optional **Index** from the **Edit Name** drop boxes. If no index is selected, the default “00” (which is not displayed) will be used.
2. If one or more tielines have been configured, the **Tieline** button will be enabled. Clicking this button will open the TIELINE SOURCE DEFINITION window (Figure) which will allow the use of a tieline input for a **Selected Level**:

   a) Select the **Source Level**. For the example shown in Figure , “DIGVID” would be used.

   b) Select the **Tieline Level**. For the example shown in Figure , “ANAVID” would be used.

   c) Enter the **Tieline Level Input**. For the example shown in Figure , “1” would be used.

   d) Click **Modify** to update the **Source Definition** list box.

   e) Once all desired tieline connections are created, click **OK** to return to the SOURCE CONFIGURATION window.
3. Use the **Move** and **Remove** buttons to build the **Selected Levels** list using levels associated with the first **Input Number** to be used.
4. Select the first **Input Number** (physical input, not logical input).

NOTE: Selecting **Input Number** “0” for any level will result in that level being omitted from the source being configured.

5. Tab out of the **Input Number** list box or click on another field to update the **Source Definition** list box.
6. Repeat steps 4 through 6 for all **Input Numbers** being used.
7. Select the **Block** radio button to enable the source block section. Use the **Move** and **Remove** buttons to build the **Blocked Destinations** list.
8. Verify that all information shown in the **Source Definition** box is correct and then click the **OK** button to close the SOURCE CONFIGURATION window.

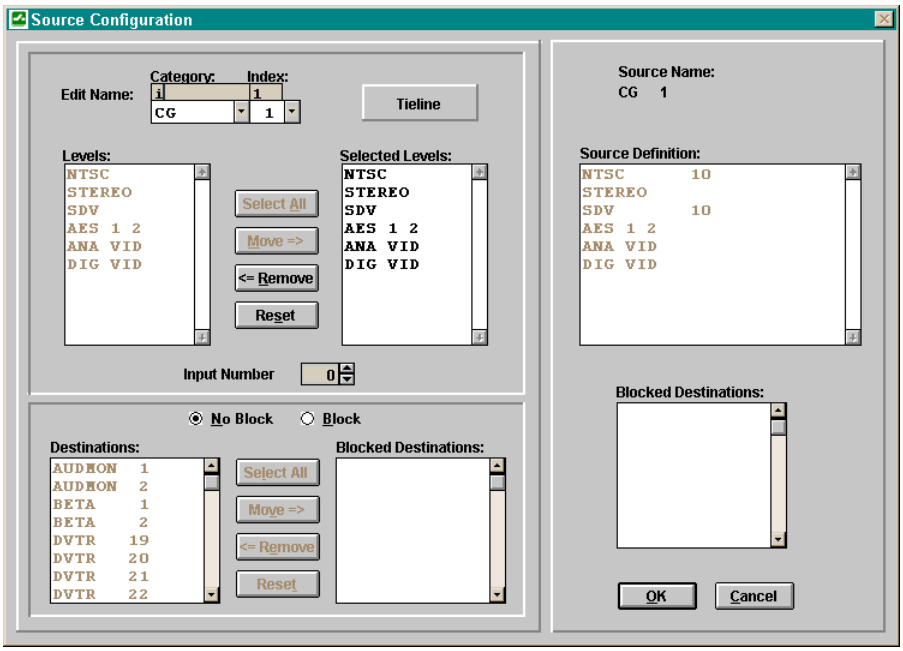


Figure 8 Source Configuration Window

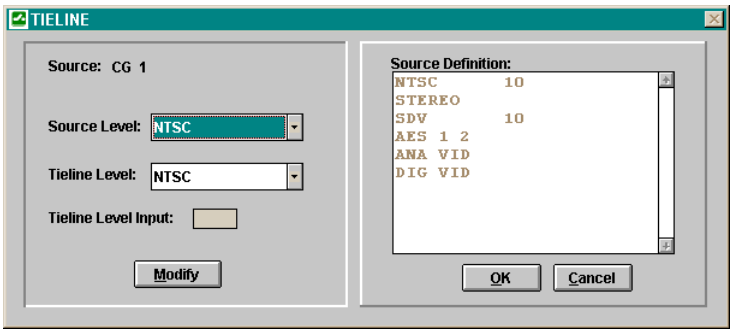


Figure 9 Tieline Source Definition Window

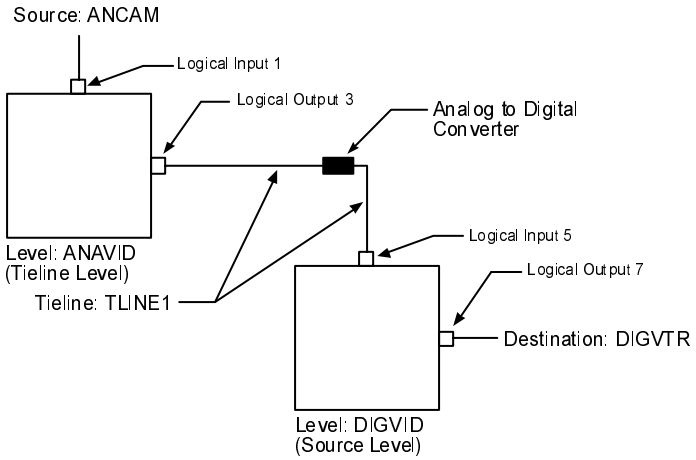


Figure 10 Configuring a Source to use a Tieline

Fill in the required information for your system below. (1-16 refers to levels)

No.	Source Name	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1																	
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	
11																	
12																	
13																	
14																	
15																	
16																	
17																	
18																	
19																	
20																	
21																	
22																	
23																	
24																	
25																	
26																	
27																	
28																	
29																	
30																	
31																	
32																	
33																	
34																	
35																	
36																	
37																	
38																	
39																	
40																	
41																	
42																	

No.	Source Name	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
43																	
44																	
45																	
46																	
47																	
48																	
49																	
50																	
51																	
52																	
53																	
54																	
55																	
56																	
57																	
58																	
59																	
60																	
61																	
62																	
63																	
64																	
65																	
66																	
67																	
68																	
69																	
70																	
71																	
72																	
73																	
74																	
75																	
76																	
77																	
78																	
79																	
80																	
81																	
82																	
83																	
84																	
85																	
86																	

No.	Source Name	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
87																	
88																	
89																	
90																	
91																	
92																	
93																	
94																	
95																	
96																	
97																	
98																	
99																	
100																	
101																	
102																	
103																	
104																	
105																	
106																	
107																	
108																	
109																	
110																	
111																	
112																	
113																	
114																	
115																	
116																	
117																	
118																	
119																	
120																	
121																	
122																	
123																	
124																	
125																	
126																	
127																	
128																	
129																	
130																	

No.	Source Name	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
131																	
132																	
133																	
134																	
135																	
136																	
137																	
138																	
139																	
140																	
141																	
142																	
143																	
144																	
145																	
146																	
147																	
148																	
149																	
150																	
151																	
152																	
153																	
154																	
155																	
156																	
157																	
158																	
159																	
160																	
161																	
162																	
163																	
164																	
165																	
166																	
167																	
168																	
169																	
170																	
171																	
172																	
173																	
174																	

No.	Source Name	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
175																	
176																	
177																	
178																	
179																	
180																	
181																	
182																	
183																	
184																	
185																	
186																	
187																	
188																	
189																	
190																	
191																	
192																	
193																	
194																	
195																	
196																	
197																	
198																	
199																	
200																	
201																	
202																	
203																	
204																	
205																	
206																	
207																	
208																	
209																	
210																	
211																	
212																	
213																	
214																	
215																	
216																	
217																	
218																	

No.	Source Name	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
219																	
220																	
221																	
222																	
223																	
224																	
225																	
226																	
227																	
228																	
229																	
230																	
231																	
232																	
233																	
234																	
235																	
236																	
237																	
238																	
239																	
240																	
241																	
242																	
243																	
244																	
245																	
246																	
247																	
248																	
249																	
250																	
251																	
252																	
253																	
254																	
255																	
256																	

Up to 576 sources are allowed. For systems larger than 256 Please contact PESA Customer Service for additional blank pages.

Destination

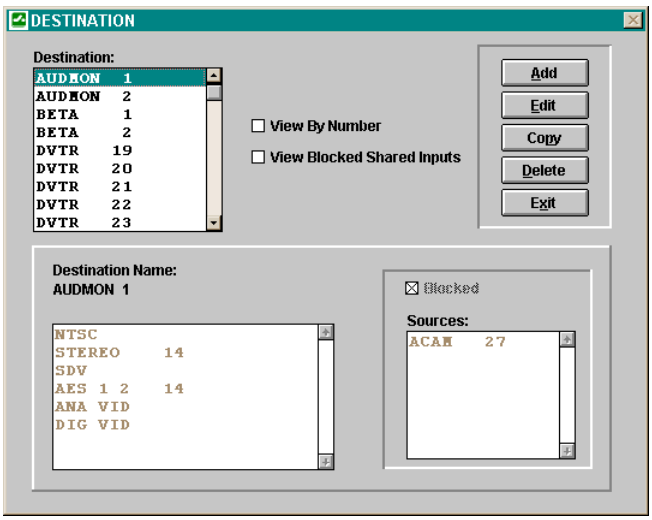


Figure 11 Destination Window

When configuring a switching system, it may be desirable to use source blocking to restrict the switching of certain logical inputs. This may be done while configuring either sources or destinations.

Since a blocked source may contain a logical input that is shared (used by more than one source), care should be taken to ensure that all sources using the logical input are blocked from the destination to be protected.

Check the View Blocked Shared Inputs check box to display the BLOCKED SHARED INPUTS window (Figure). This window will only be displayed if at least one source block exists. The blocking status of shared inputs will be indicated by one of three messages displayed in red under the **Blocked Sources** list box

Selected Blocked Source Has No Shared Inputs: No shared inputs exist for the source selected.

All Shared Inputs of Selected Source Are Blocked: One or more shared inputs exist and the destination has been protected by blocking every source using any of the shared inputs.

Block Conflict Exists: All Shared Inputs of Selected Source Are Not Blocked: One or more shared inputs exist and the destination may not be adequately protected. At least one source using a restricted input has not been blocked from the destination.

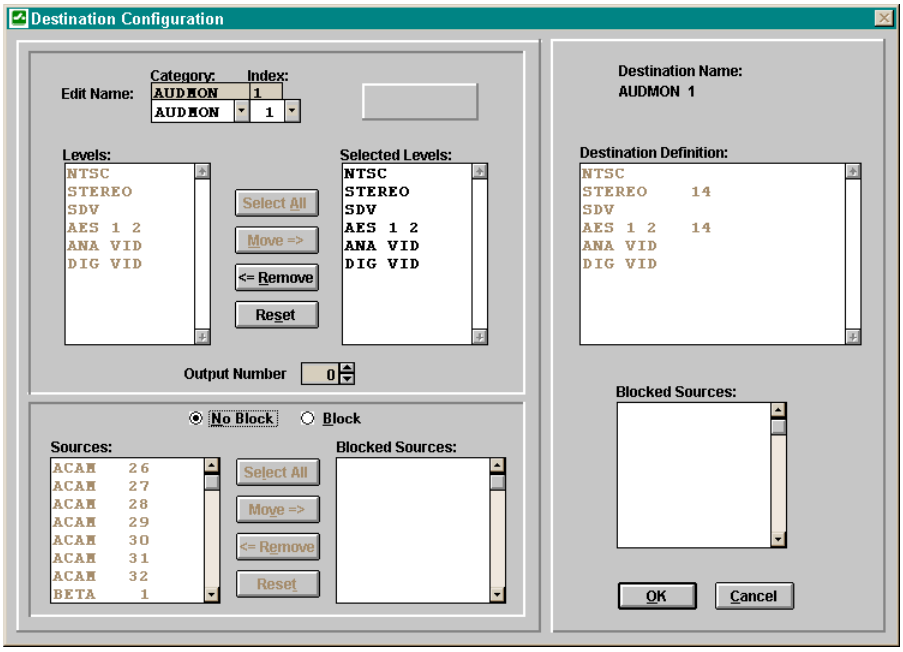


Figure 12 Destination Configuration Window

Fill in the required information for your system below. (1-16 refers to levels)

No.	Destination	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1																	
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	
11																	
12																	
13																	
14																	
15																	
16																	
17																	
18																	
19																	
20																	
21																	
22																	
23																	

No.	Destinations	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
24																	
25																	
26																	
27																	
28																	
29																	
30																	
31																	
32																	
33																	
34																	
35																	
36																	
37																	
38																	
39																	
40																	
41																	
42																	
43																	
44																	
45																	
46																	
47																	
48																	
49																	
50																	
51																	
52																	
53																	
54																	
55																	
56																	
57																	
58																	
59																	
60																	
61																	
62																	
63																	
64																	
65																	
66																	
67																	

No.	Destination Name	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
68																	
69																	
70																	
71																	
72																	
73																	
74																	
75																	
76																	
77																	
78																	
79																	
80																	
81																	
82																	
83																	
84																	
85																	
86																	
87																	
88																	
89																	
90																	
91																	
92																	
93																	
94																	
95																	
96																	
97																	
98																	
99																	
100																	
101																	
102																	
103																	
104																	
105																	
106																	
107																	
108																	
109																	
110																	
111																	

No.	Destination Name	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
112																	
113																	
114																	
115																	
116																	
117																	
118																	
119																	
120																	
121																	
122																	
123																	
124																	
125																	
126																	
127																	
128																	
129																	
130																	
131																	
132																	
133																	
134																	
135																	
136																	
137																	
138																	
139																	
140																	
141																	
142																	
143																	
144																	
145																	
146																	
147																	
148																	
149																	
150																	
151																	
152																	
153																	
154																	
155																	

No.	Destination Name	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
156																	
157																	
158																	
159																	
160																	
161																	
162																	
163																	
164																	
165																	
166																	
167																	
168																	
169																	
170																	
171																	
172																	
173																	
174																	
175																	
176																	
177																	
178																	
179																	
180																	
181																	
182																	
183																	
184																	
185																	
186																	
187																	
188																	
189																	
190																	
191																	
192																	
193																	
194																	
195																	
196																	
197																	
198																	
199																	

No.	Destination Name	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
200																	
201																	
202																	
203																	
204																	
205																	
206																	
207																	
208																	
209																	
210																	
211																	
212																	
213																	
214																	
215																	
216																	
217																	
218																	
219																	
220																	
221																	
222																	
223																	
224																	
225																	
226																	
227																	
228																	
229																	
230																	
231																	
232																	
233																	
234																	
235																	
236																	
237																	
238																	
239																	
240																	
241																	
242																	
243																	

No.	Destination Name	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
244																	
245																	
246																	
247																	
248																	
249																	
250																	
251																	
252																	
253																	
254																	
255																	
256																	

Up to 576 destinations are allowed. For systems larger than 256 Please contact PESA Customer Service for additional blank pages.

Reentry

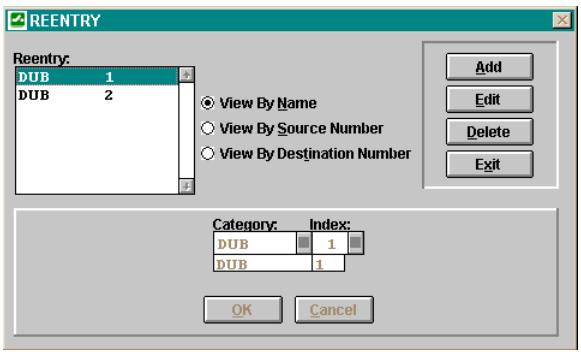


Figure 13 Reentry Window

A reentry is an entity which exists as both a source and destination at the same time, whose function is to facilitate switching a single source to multiple destinations, with a single logical switch.

Example (see Figure): Assume there exists source SRC1 and destinations DST1, DST2, and DST3. Reentry REENT1 is created and switched to the three destinations. With a single logical switch, SRC1 can now be switched to REENT1 and the signal will arrive at all three destinations at the same time.

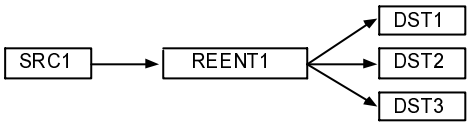


Figure 14 A Typical Reentry

NOTE: Since a reentry serves as both a source and a destination, its name can not duplicate that of any existing source or destination.

- Fill in the required information for your system below. Select from the “Category” and “Index” information already supplied.

	Reentry Name
1	
2	
3	
4	
5	
6	
7	
8	

Panel

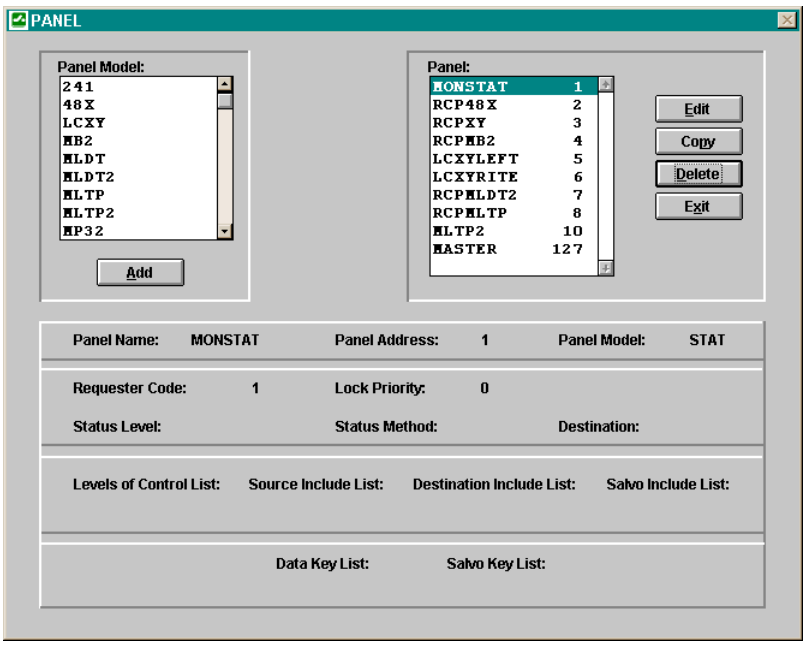


Figure 15 Panel Window

To add a control panel:

1. Select the **Panel Model** to be added.

2. Click the **Add** button in the PANEL window to open the PANEL CONFIGURATION window (Figure). Each PESA control panel has a custom PANEL CONFIGURATION window. Only those configurable items applicable to the chosen panel will be displayed in the window. For a panel-by-panel breakdown of configurable items, see the Control Panel Configurable Items list (Table on page 30). Each configurable item is explained in detail below.

3. Configure the panel.

4. Click the **OK** button to close the PANEL CONFIGURATION window.

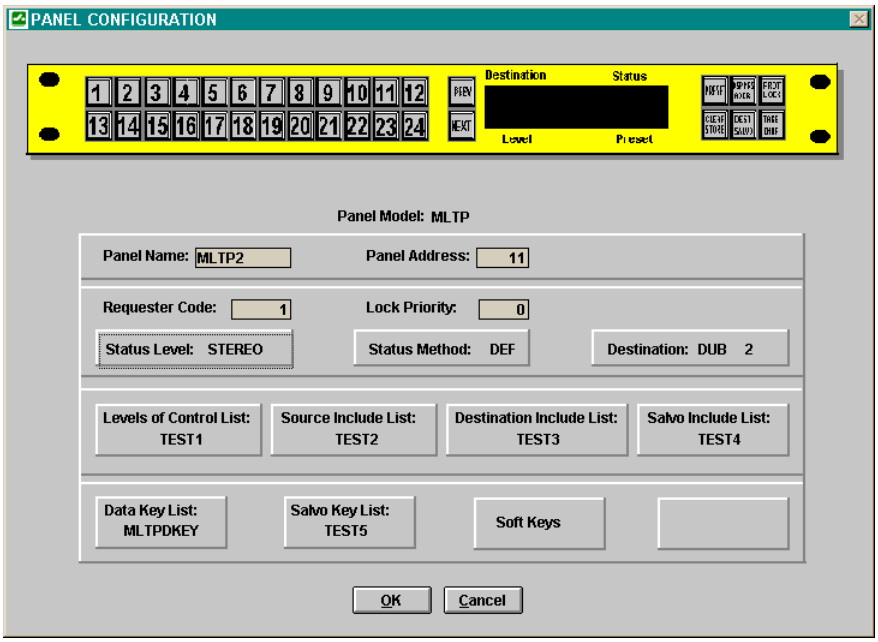


Figure 16 Panel Configuration Window (Typical)

Panel	Panel Name	Panel Address	Requestor Code	Lock Priority	Status Level	Status Method	Destination	Levels Of Control List	Source Include List	Destination Include List	Salvo Include List	Data Key List	Salvo Key List	Soft Keys	Displays
241	X	X	X	X	X	X	X	X				X			
48X	X	X	X	X	X	X	X	X				X			
LCXY	X	X	X	X	X	X	X	X	X	X					
MB2	X	X	X	X	X	X		X	X	X	X	X		X	
MLDT	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
MLDT2	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
MLTP	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
MLTP2	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
MP32	X	X	X	X	X	X	X	X				X			
STAT	X	X	X	X											X
TP	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
XY	X	X	X	X	X	X	X	X	X	X	X	X	X	X	

Table 1 Control Panel Configurable Items

Panel Name

Because a panel is identified by its address, the assignment of a panel name is optional. If used, panel names are one to eight characters in length and are constructed using uppercase letters, numbers, and spaces. The first character must be a letter.

Panel Address

Every control panel has DIP switches on the back. These switches are used to set a unique address for each panel in a switching system.

Requester Code

The requester code is used with the lock priority to determine if a lock or protect can be removed. When a lock or protect has been assigned by a panel (or serial communications port), it can only be removed by another panel (or port) with a higher lock priority or with the same lock priority and same requester code.

Requester codes not explicitly defined automatically default to the panel address.

Lock Priority

The lock priority is used with the requester code to determine if a lock or protect can be removed. When a lock or protect has been assigned by a panel or port, it can only be removed by another panel or port with a higher lock priority, or with the same lock priority and same requester code. *The lower the lock priority number, the higher the priority.*

Panel lock priorities not explicitly defined automatically default to “0” which gives absolute authority to clear any lock or protect on the system.

Status Level

Click the **Status Level** button to open the STATUS LEVEL window (Figure).

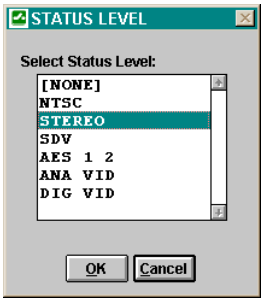


Figure 17 Status Level Window

One function of the LCD display on a panel is to show which source is currently switched to a selected destination. This is known as destination status. Although more than one source can be switched to a single destination (limited to one source per level), the status display can only show one source at a time. When the panel is in all levels mode (ALL LEVS), Status Level is used to designate a default level to be used when displaying status. Only the source on this default level will be displayed.

Status Method

Click the **Status Method** button to open the STATUS METHOD window (Figure).

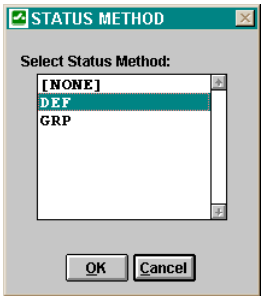


Figure 18 Status Method Window

When a panel is in all levels mode (ALL LEVS), the status shown will be the source on the Status Level assigned to that panel. If the destination is not defined on the Status Level, **Status Method** is used to control the resulting display:

If **DEF** (Default Method) is selected, NO XXXXX will be displayed where XXXXX is the Status Level assigned to the panel.

If **GRP** (Group Method) is selected, the controller will examine every level sequentially, starting with the level designated as Level Order 1. The source switched on the first level found where the destination is defined, will be displayed as the destination status.

Destination

Click the **Destination** button to open the DEFAULT DESTINATION window (Figure).

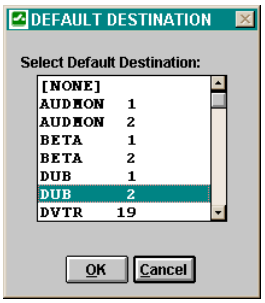


Figure 19 Default Destination Window

Select the default destination for which status will be displayed when power is applied to a panel, or when a new configuration is downloaded to the controller. Although not mandatory, it is recommended that a default destination be selected.

The panel will have control over the destination selected here, even if it is not included in the associated destination include list.

Levels of Control List

Click the **Levels Of Control List** button to open the LEVELS OF CONTROL LIST window (Figure).

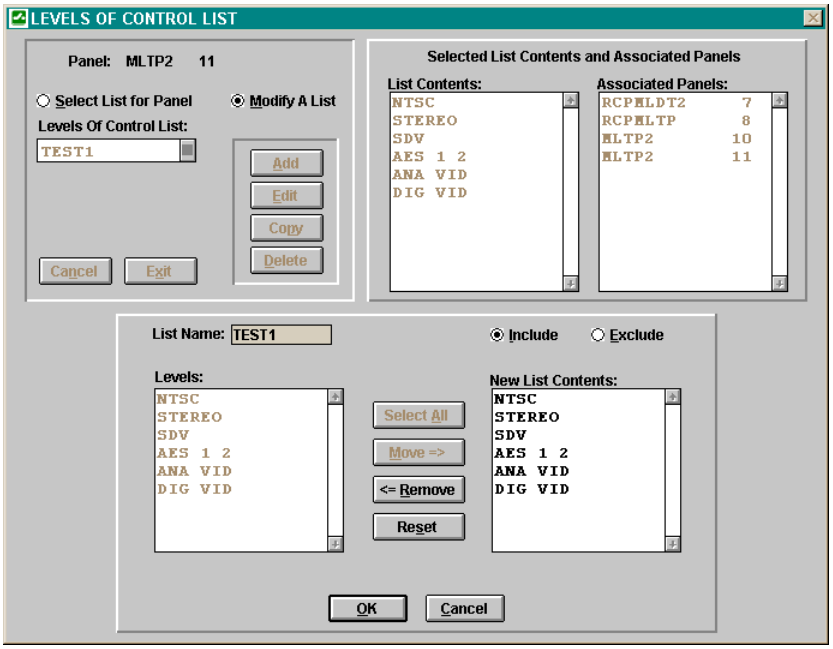


Figure 20 Levels of Control List Window

The Levels of Control List is a named list of all levels the panel is authorized to control. Two special lists come pre-configured: ALL and [NONE]. To configure a panel to have control over only some of the levels in a system, a named list must be created as follows:

1. Click the **Modify A List** radio button.
2. Click the **Add** button.
3. Enter a **List Name**. Levels of Control List names are one to eight characters in length and are constructed using uppercase letters, numbers, and spaces. The first character must be a letter.
4. Click either the **Include** or **Exclude** radio button. **Include** will cause the list to be made of all levels shown in the **New List Contents** list box. **Exclude** will cause the list to be made of all levels *except* those shown in the **New List Contents** list box.
5. Use the **Move** and **Remove** buttons to create a list of levels in the **New List Contents** list box.
6. Click the **OK** button.
7. Click the **Select List for Panel** radio button.
8. Select the new list from the **Levels Of Control List** drop box.
9. Click the **Exit** button.

The LEVELS OF CONTROL LIST window also shows all panels using level of control lists created for this type of panel, including **ALL** and **[NONE]**.

NOTE: A panel using the **[NONE]** levels of control list cannot be used to take switches.

Source Include List

Click the **Source Include List** button to open the SOURCE INCLUDE LIST window.

A source include list is a named list of the sources a specific control panel is authorized to control. A source include list may be shared by multiple panels.

The Source Include List is a named list of all sources the panel is authorized to control. It functions the same as the LEVELS OF CONTROL LIST window (Figure).

Destination Include List

Click the **Destination Include List** button to open the DESTINATION INCLUDE LIST window.

A destination include list is a named list of the destinations a specific control panel is authorized to control. A destination include list may be shared by multiple panels. The default destination assigned to a panel may be controlled even if it is not on the destination include list.

The Destination Include List is a named list of all destinations the panel is authorized to control. It functions the same as the LEVELS OF CONTROL LIST window (Figure).

Salvo Include List

Click the **Salvo Include List** button to open the SALVO INCLUDE LIST window.

A salvo include list is a named list of the salvos a specific control panel is authorized to control. A salvo include list may be shared by multiple panels.

The Salvo Include List is a named list of all salvos the panel is authorized to control. It functions the same as the LEVELS OF CONTROL LIST window (Figure).

Data Key List

Click the **Data Key List** button to open the DATA KEY LIST window (Figure 21).

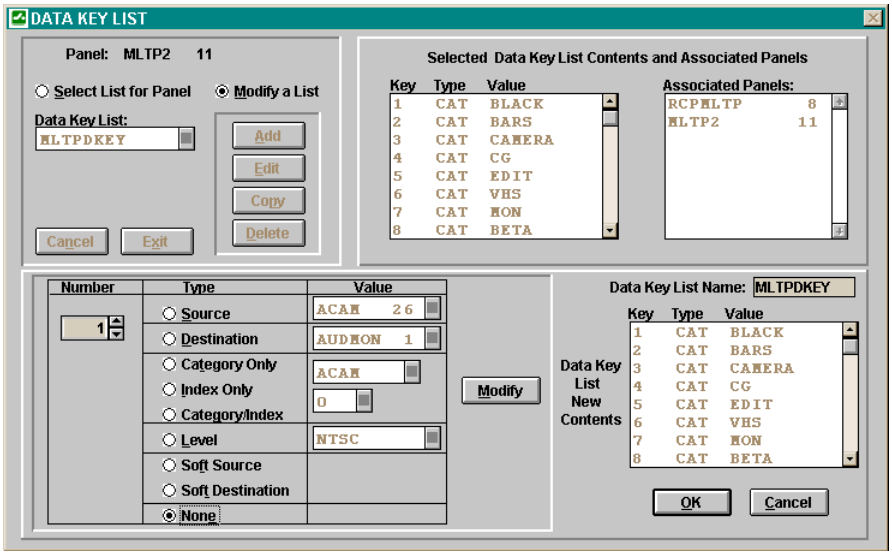


Figure 21 Data Key List Window

A data key is a user configurable control panel key, whose assigned function is used when the panel is in any mode except Salvo Select Mode.

A data key list is a named list of the functions assigned to each data key on a panel. A data key list may be shared by multiple panels as long as they are the same type of panel. Different panel types may not use the same data key list.

A Data Key List is created as follows:

1. Click the **Modify a List** radio button.
2. Click the **Add** button.
3. Enter a **Data Key List Name**. Data Key List names are one to eight characters in length and are constructed using uppercase letters, numbers, and spaces. The first character must be a letter.
4. Select the key **Number**, **Type** and **Value**.
5. Click the **Modify** button to transfer this information to the **Data Key List New Contents** list box.
6. Repeat steps 4 and 5 until all desired keys have been defined.
7. Click the **OK** button.
8. Click the **Select List for Panel** radio button.
9. Select the new list from the **Data Key List** drop box.
10. Click the **Exit** button.

The DATA KEY LIST window also shows all panels using data key lists created for this type of panel.

Salvo Key List

Click the **Salvo Key List** button to open the SALVO KEY LIST window (Figure).

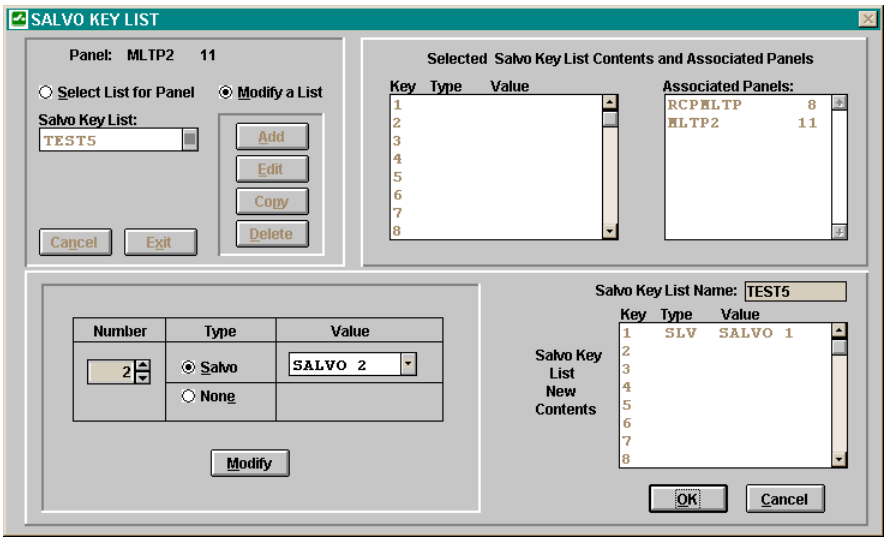


Figure 22 Salvo Key List

NOTE: A Salvo Key List can not be created until at least one salvo has been configured.

A salvo key is a user configurable control panel key, whose assigned function is used when the panel is in salvo select mode.

A salvo key list is a named list of the functions assigned to each salvo key on a panel. A salvo key list may be shared by multiple panels as long as they are the same type of panel. Different panel types may not use the same salvo key list.

A Salvo Key List is created as follows:

1. Click the **Modify a List** radio button.

2. Click the **Add** button.

3. Enter a **Salvo Key List Name**. Salvo Key List names are one to eight characters in length and are constructed using

uppercase letters, numbers, and spaces. The first character must be a letter.

4. Select the key **Number**, **Type** and **Value**.

5. Click the **Modify** button to transfer this information to the **Salvo Key List New Contents** list box.

6. Repeat steps 4 and 5 until all desired keys have been defined.

7. Click the **OK** button.

8. Click the **Select List for Panel** radio button.

9. Select the new list from the **Salvo Key List** drop box.

10. Click the **Exit** button.

The SALVO KEY LIST window also shows all panels using salvo key lists created for this type of panel.

Soft Keys

Click the **Soft Keys** button to open the SOFT KEY DEFINITION window (Figure 23).

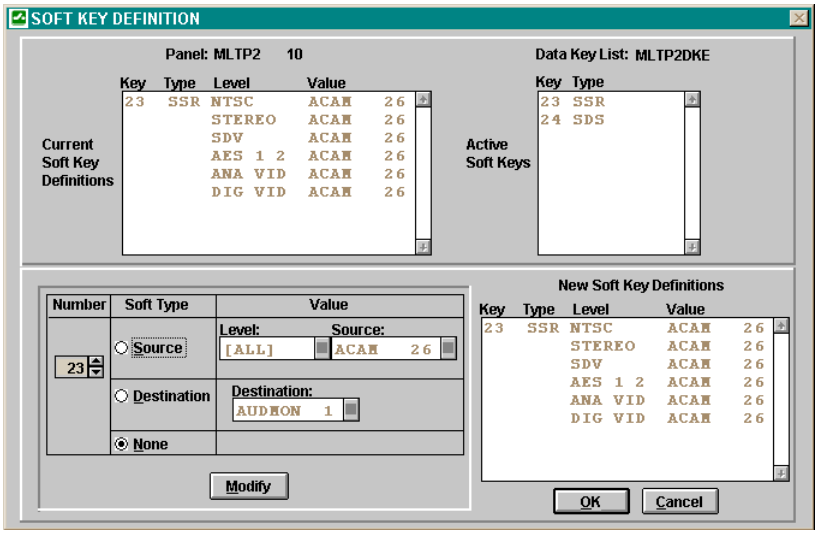


Figure 23 Soft Key Definition Window

NOTE: Soft Keys can not be configured until at least one soft key has been defined in the Data Key List assigned to the panel.

A Soft Key can be configured locally at the panel using Store Mode, or with Win3500Plus as follows:

1. Select the key **Number**, **Type** and **Value**.
2. Click the **Modify** button to transfer this information to the **New Soft Key Definitions** list box.
3. Repeat steps 1 and 2 until all desired keys have been defined.
4. Click the **OK** button.

View Keys

To display the VIEW KEYS window (Figure 24), click on the panel image at the top of the PANEL CONFIGURATION window.

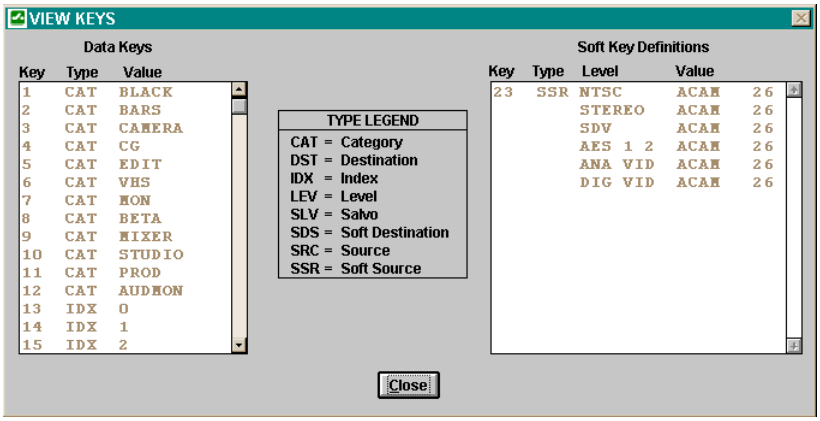
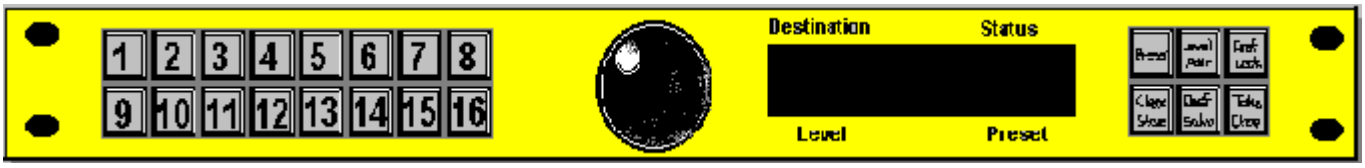


Figure 24 View Keys Window

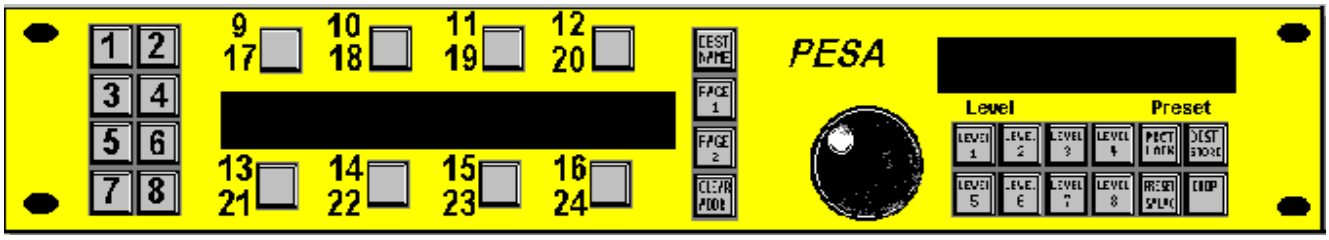
The VIEW KEYS window contains a summary listing of all user configured data, salvo and soft keys.

Panel Configuration Tables



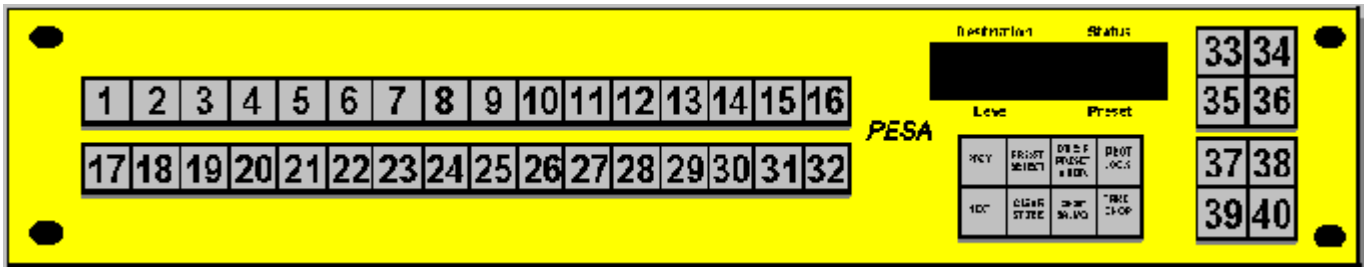
RCP-XY Panel

BUTTON NUMBER	TYPE	VALUE
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		



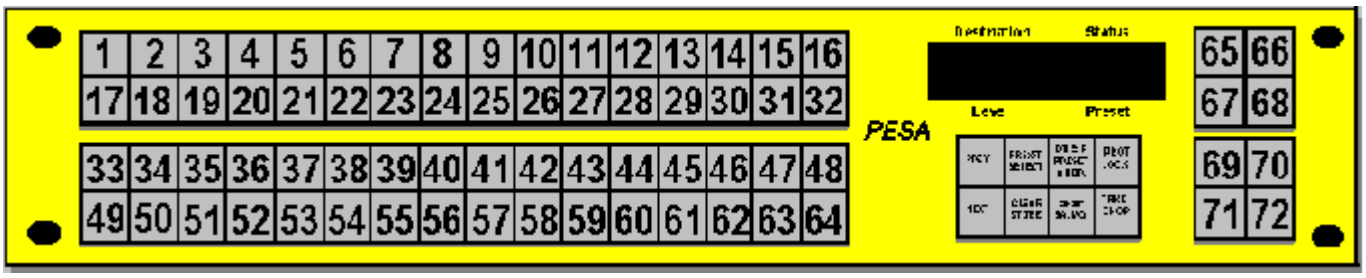
RCP-MB2 Panel

BUTTON NUMBER	TYPE	VALUE	BUTTON NUMBER	TYPE	VALUE
1			17		
2			18		
3			19		
4			20		
5			21		
6			22		
7			23		
8			24		
9			25		
10			26		
11			27		
12			28		
13			29		
14			30		
15			31		
16			32		



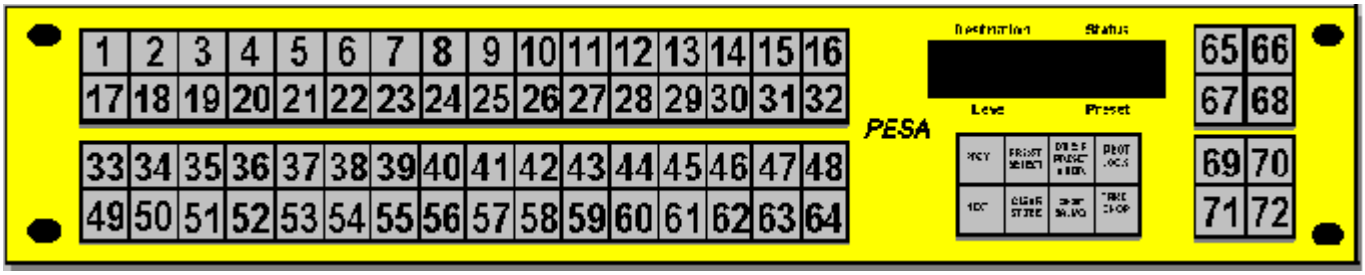
RCP-MLDT2 Panel

BUTTON NUMBER	TYPE	VALUE	BUTTON NUMBER	TYPE	VALUE
1			17		
2			18		
3			19		
4			20		
5			21		
6			22		
7			23		
8			24		
9			25		
10			26		
11			27		
12			28		
13			29		
14			30		
15			31		
16			32		



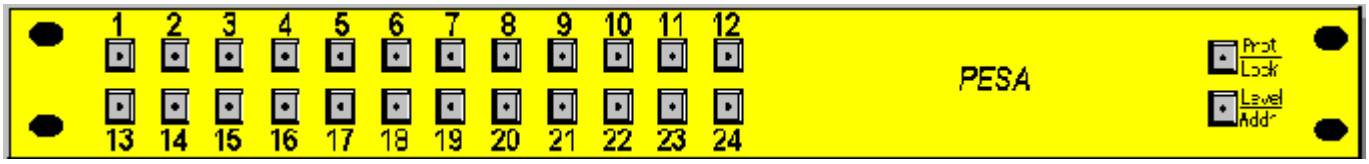
RCP-MLDT Panel

BUTTON NUMBER	TYPE	VALUE	BUTTON NUMBER	TYPE	VALUE
1			17		
2			18		
3			19		
4			20		
5			21		
6			22		
7			23		
8			24		
9			25		
10			26		
11			27		
12			28		
13			29		
14			30		
15			31		
16			32		



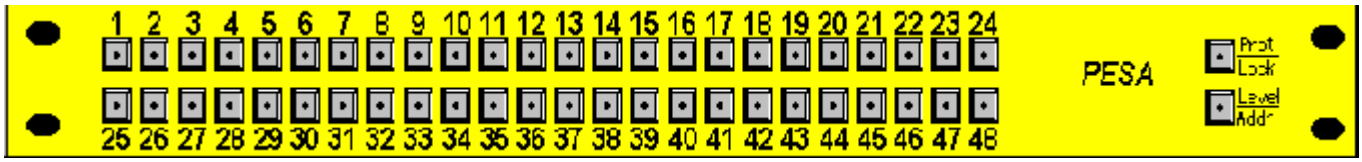
RCP-MLDT Panel (cont'd)

BUTTON NUMBER	TYPE	VALUE	BUTTON NUMBER	TYPE	VALUE
33			49		
34			50		
35			51		
36			52		
37			53		
38			54		
39			55		
40			56		
41			57		
42			58		
43			59		
44			60		
45			61		
46			62		
47			63		
48			64		



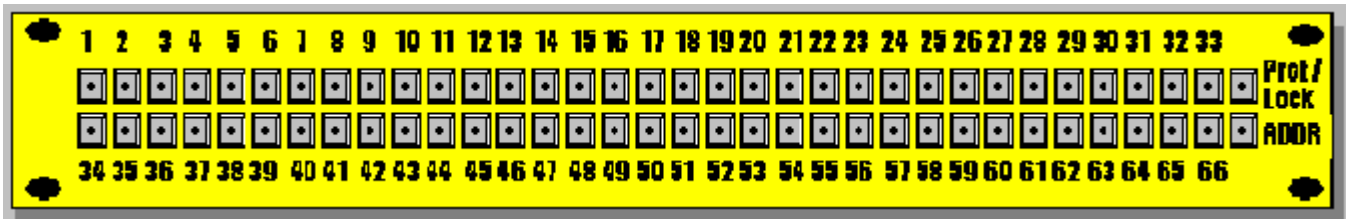
RCP-241 Panel

BUTTON NUMBER	TYPE	VALUE	BUTTON NUMBER	TYPE	VALUE
1			13		
2			14		
3			15		
4			16		
5			17		
6			18		
7			19		
8			20		
9			21		
10			22		
11			23		
12			24		



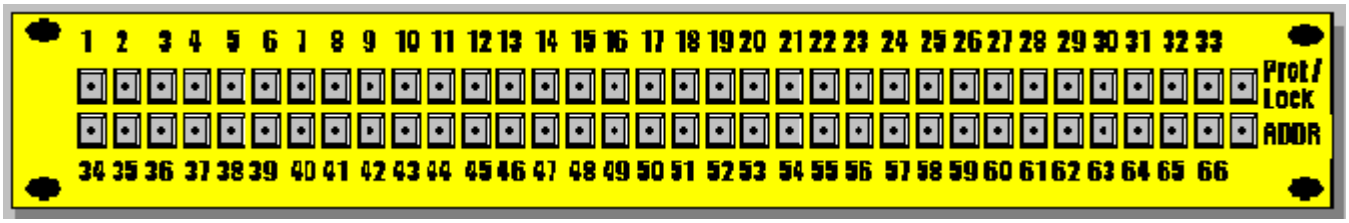
RCP-48X Panel

BUTTON NUMBER	TYPE	VALUE	BUTTON NUMBER	TYPE	VALUE
1			25		
2			26		
3			27		
4			28		
5			29		
6			30		
7			31		
8			32		
9			33		
10			34		
11			35		
12			36		
13			37		
14			38		
15			39		
16			40		
17			41		
18			42		
19			43		
20			44		
21			45		
22			46		
23			47		
24			48		



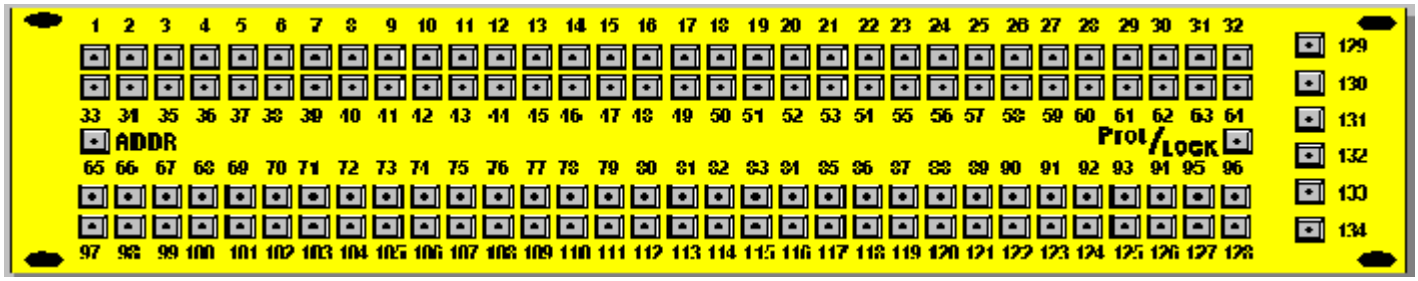
RCP-64X Panel

BUTTON NUMBER	TYPE	VALUE	BUTTON NUMBER	TYPE	VALUE
1			33		
2			34		
3			35		
4			36		
5			37		
6			38		
7			39		
8			40		
9			41		
10			42		
11			43		
12			44		
13			45		
14			46		
15			47		
16			48		
17			49		
18			50		
19			51		
20			52		
21			53		
22			54		
23			55		
24			56		
25			57		
26			58		
27			59		
28			60		



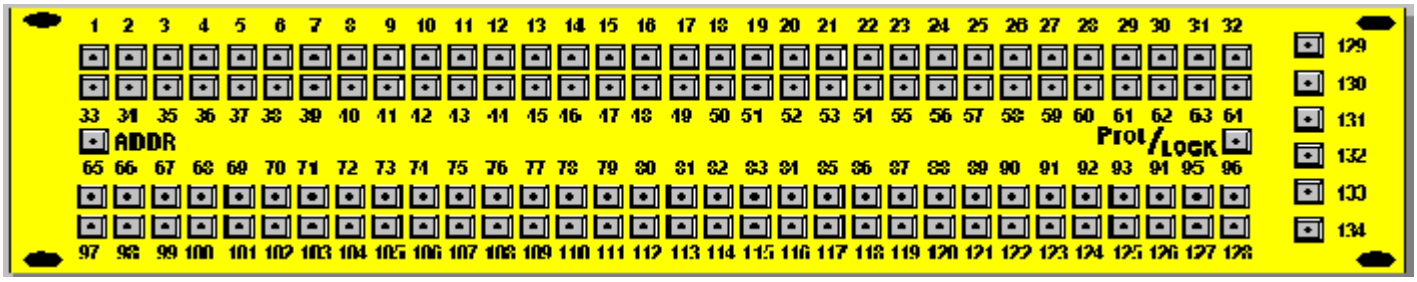
RCP-64X Panel (cont'd)

29			61		
30			62		
31			63		
32			64		



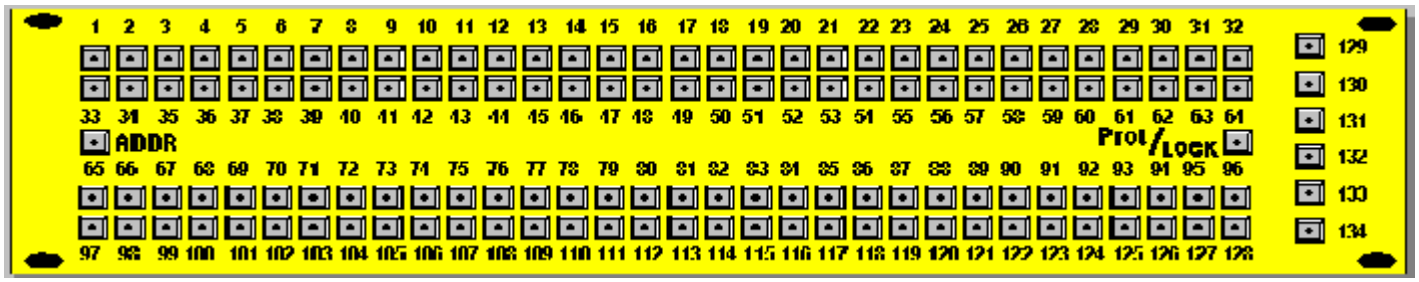
RCP128X Panel

BUTTON NUMBER	TYPE	VALUE	BUTTON NUMBER	TYPE	VALUE
1			17		
2			18		
3			19		
4			20		
5			21		
6			22		
7			23		
8			24		
9			25		
10			26		
11			27		
12			28		
13			29		
14			30		
15			31		
16			32		



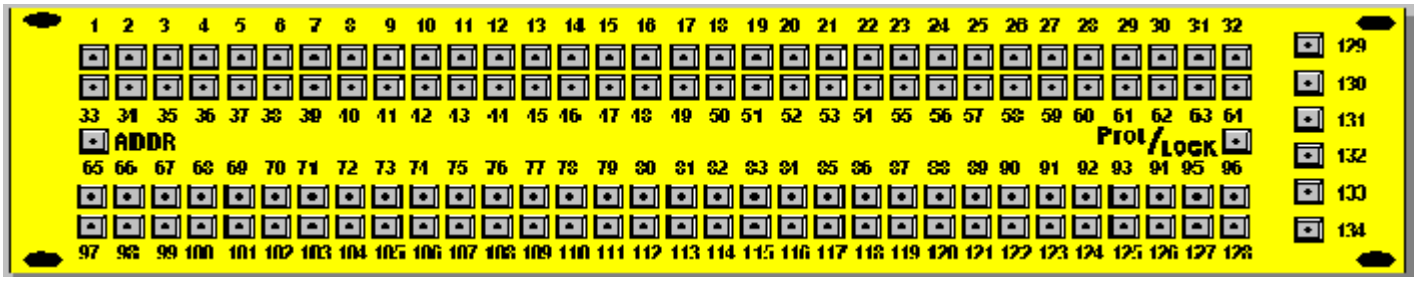
RCP128X Panel (cont'd)

BUTTON NUMBER	TYPE	VALUE	BUTTON NUMBER	TYPE	VALUE
33			49		
34			50		
35			51		
36			52		
37			53		
38			54		
39			55		
40			56		
41			57		
42			58		
43			59		
44			60		
45			61		
46			62		
47			63		
48			64		



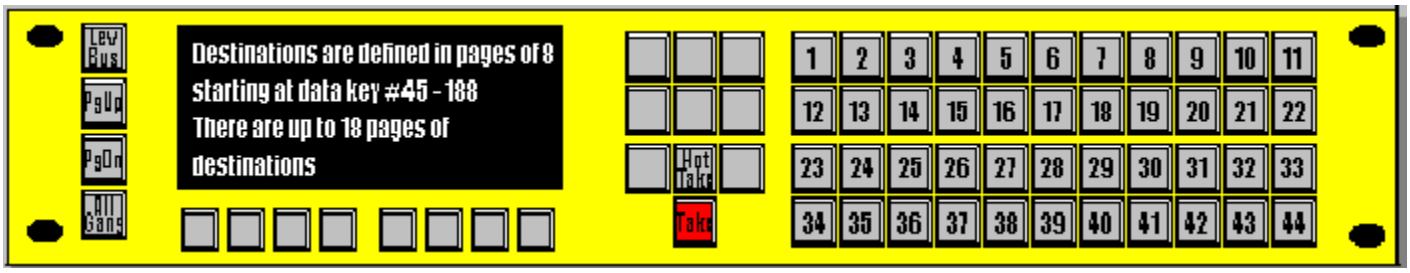
RCP128X Panel (cont'd)

BUTTON NUMBER	TYPE	VALUE	BUTTON NUMBER	TYPE	VALUE
65			81		
66			82		
67			83		
68			84		
69			85		
70			86		
71			87		
72			88		
73			89		
74			90		
75			91		
76			92		
77			93		
78			94		
79			95		
80			96		



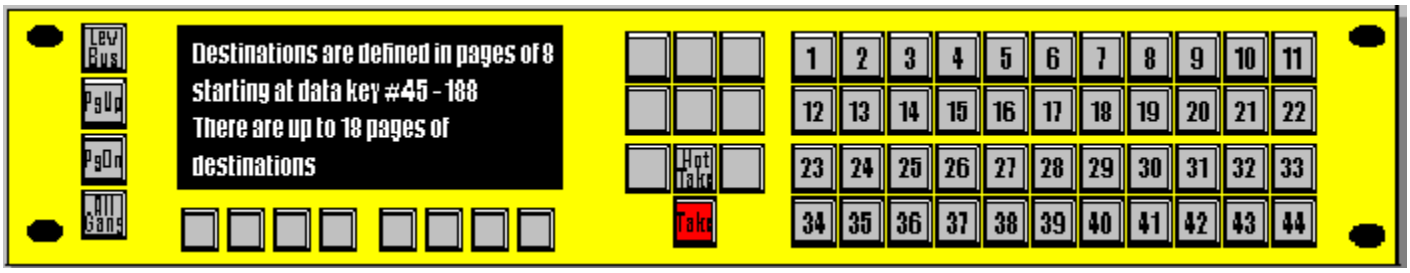
RCP128X Panel (cont'd)

BUTTON NUMBER	TYPE	VALUE	BUTTON NUMBER	TYPE	VALUE
97			113		
98			114		
99			115		
100			116		
101			117		
102			118		
103			119		
104			120		
105			121		
106			122		
107			123		
108			124		
109			125		
110			126		
111			127		
112			128		



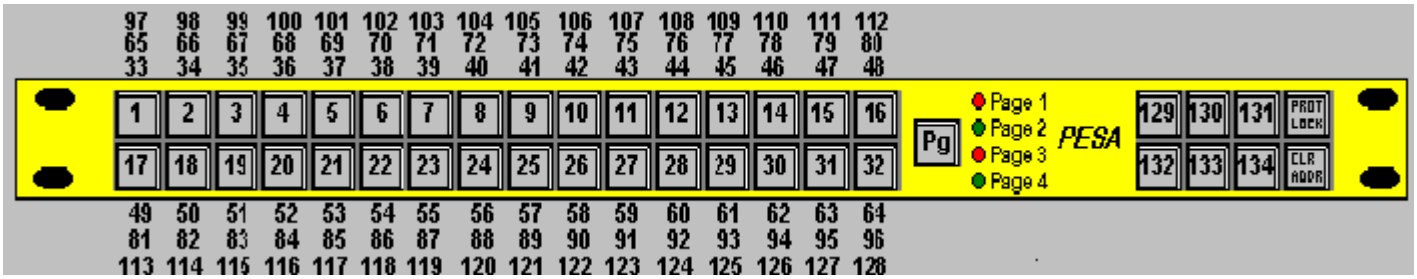
RCP-CSD Panel

BUTTON NUMBER	TYPE	VALUE	BUTTON NUMBER	TYPE	VALUE
1			17		
2			18		
3			19		
4			20		
5			21		
6			22		
7			23		
8			24		
9			25		
10			26		
11			27		
12			28		
13			29		
14			30		
15			31		
16			32		



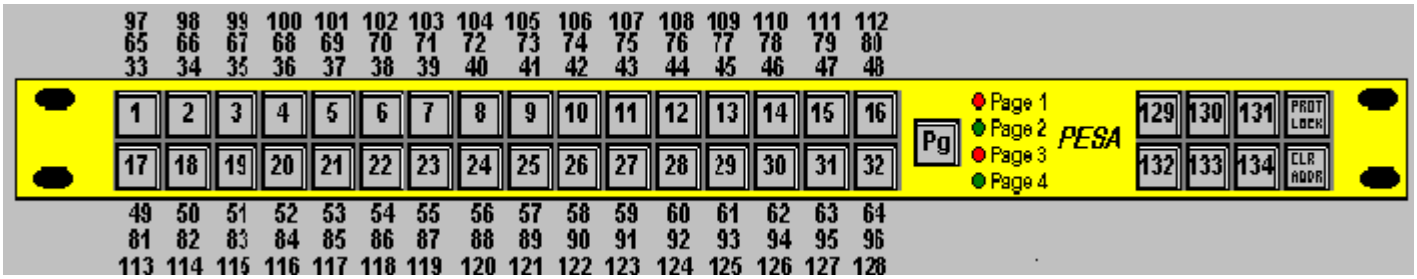
RCP-CSD Panel

BUTTON NUMBER	TYPE	VALUE
33		
34		
35		
36		
37		
38		
39		
40		
41		
42		
43		
44		



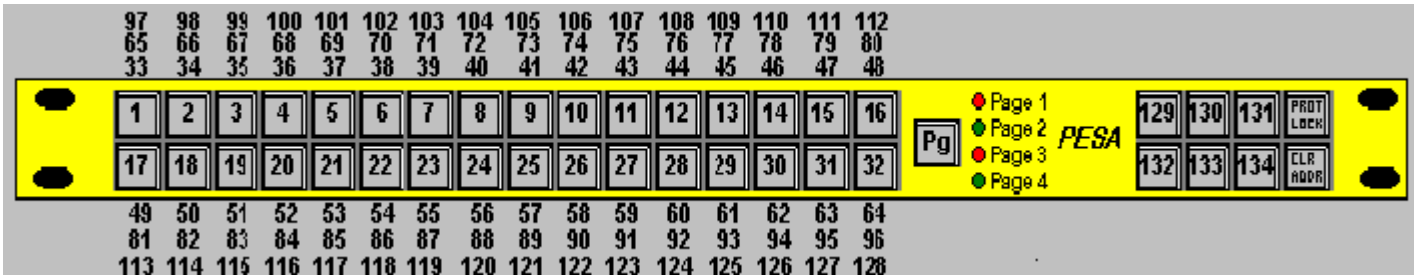
RCP-MP32 Panel

BUTTON NUMBER	TYPE	VALUE	BUTTON NUMBER	TYPE	VALUE
1			17		
2			18		
3			19		
4			20		
5			21		
6			22		
7			23		
8			24		
9			25		
10			26		
11			27		
12			28		
13			29		
14			30		
15			31		
16			32		



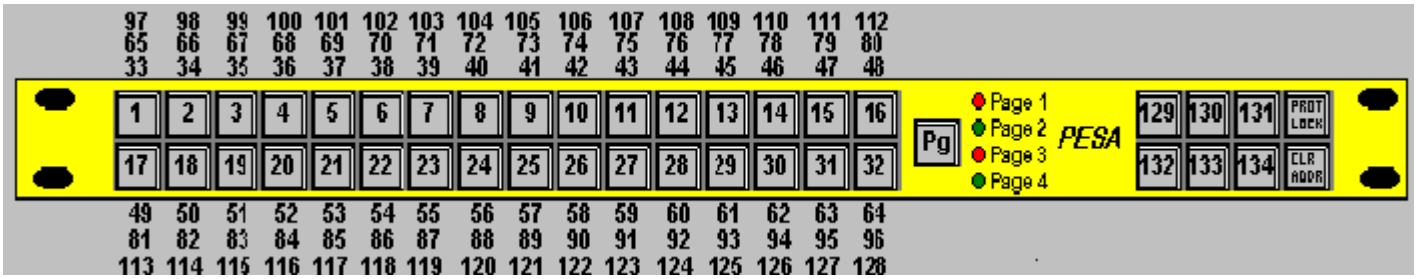
RCP-MP32 Panel (cont'd)

BUTTON NUMBER	TYPE	VALUE	BUTTON NUMBER	TYPE	VALUE
33			49		
34			50		
35			51		
36			52		
37			53		
38			54		
39			55		
40			56		
41			57		
42			58		
43			59		
44			60		
45			61		
46			62		
47			63		
48			64		



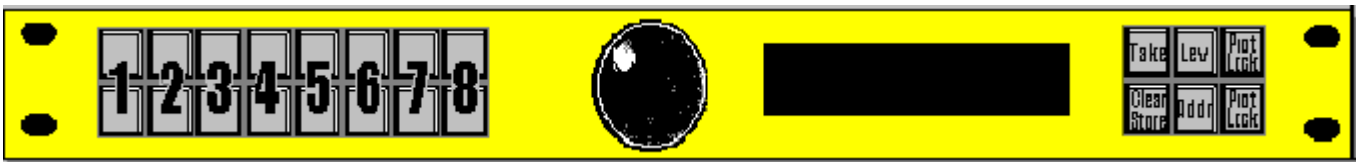
RCP-MP32 Panel (cont'd)

BUTTON NUMBER	TYPE	VALUE	BUTTON NUMBER	TYPE	VALUE
65			81		
66			82		
67			83		
68			84		
69			85		
70			86		
71			87		
72			88		
73			89		
74			90		
75			91		
76			92		
77			93		
78			94		
79			95		
80			96		



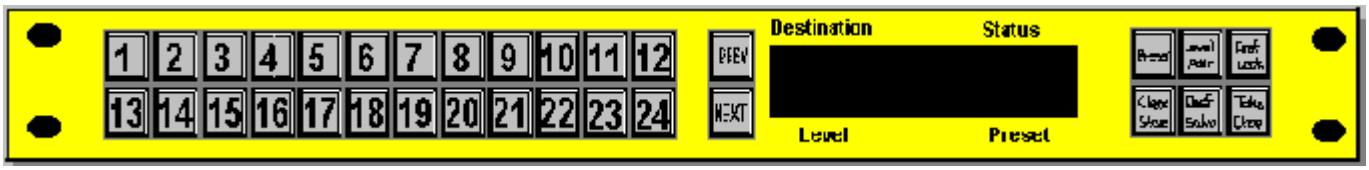
RCP-MP32 Panel (cont'd)

BUTTON NUMBER	TYPE	VALUE	BUTTON NUMBER	TYPE	VALUE
97			113		
98			114		
99			115		
100			116		
101			117		
102			118		
103			119		
104			120		
105			121		
106			122		
107			123		
108			124		
109			125		
110			126		
111			127		
112			128		



RCP-PVPG Panel

BUTTON NUMBER	TYPE	VALUE	BUTTON NUMBER	TYPE	VALUE
1			5		
2			6		
3			7		
4			8		

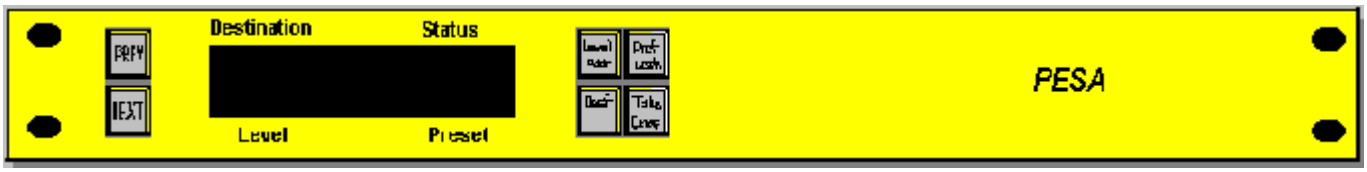


RCP-TP or RCP-MLTP (Using Level Setup Options)

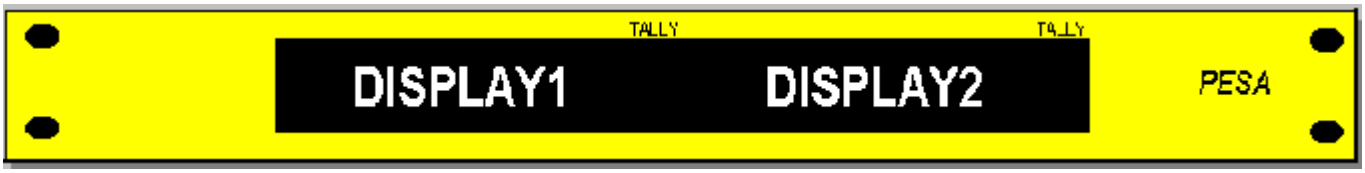
BUTTON NUMBER	TYPE	VALUE	BUTTON NUMBER	TYPE	VALUE
1			17		
2			18		
3			19		
4			20		
5			21		
6			22		
7			23		
8			24		
9					
10					
11					
12					
13					
14					
15					
16					

RCP-MLTP2 Panel

BUTTON NUMBER	TYPE	VALUE	BUTTON NUMBER	TYPE	VALUE
1			17		
2			18		
3			19		
4			20		
5			21		
6			22		
7			23		
8			24		
9			25		
10			26		
11					
12					
13					
14					
15					
16					



RCP-SLCXY



RCP-MLTP2 Panel