THE WATCHDOG

User Manual

WYBRON
INCORPORATED

ADVANCING THE ART OF LIGHTING

Software version: 1.0
Manual revision: IR

CONTENTS

Introduction

The Watchdog is a monitoring system which allows you to view a graphical representation of the health and status reported by your Coloram II System. The Watchdog's compact DMX Interface and versatile Software Program integrate easily into an existing installation or help meet your monitoring needs for new installations.

This manual gives step-by-step instructions for preparation, setup and operation of The Watchdog Monitoring System.

The Watchdog and The Coloram II System

The Watchdog Monitoring System consists of a Watchdog DMX Interface and Watchdog Software Program to be installed on your PC or laptop computer. One Watchdog Monitoring System will display health and status information for up to 200 Color Changers, Gobo Changers or Dowsers.

The DMX512 control cable from the lighting board is connected to the Watchdog DMX Interface and then continues out to one or more Coloram II Power Supplies. Your PC or laptop computer is then connected to the Watchdog DMX Interface. The Coloram II Power Supplies transmit IDS Return Data back to the Watchdog DMX Interface along pins 4 and 5 of the DMX cable.

Note: The Watchdog is compatible with all Coloram II Power Supplies equipped with software version 2.1 and greater.
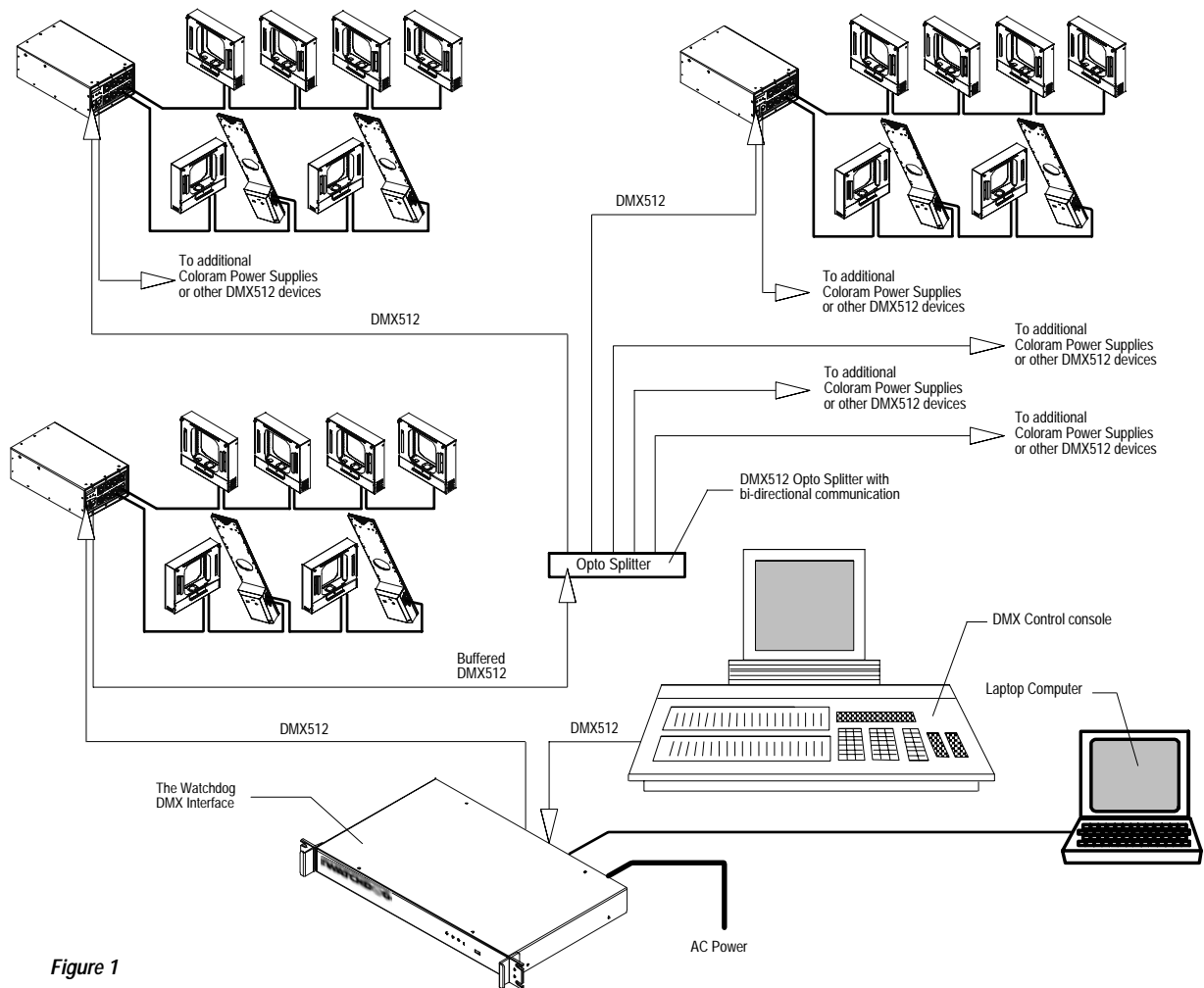

To additional
Coloram Power Supplies
or other DMX512 devices

DMX512

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To additional
Coloram Power Supplies
or other DMX512 devices

DMX512 Opto Splitter with
bi-directional communication

Opto Splitter

DMX Control console

Laptop Computer

Buffered
DMX512

DMX512

DMX512

The Watchdog
DMX Interface

AC Power

Figure 1

4

Using The Watchdog

The Watchdog automatically displays icons representing all of the Coloram II Power Supplies which are connected to the DMX line, as well as icons representing all of the Color Changers, Gobo Changers and Dowsers which are connected to the Power Supplies. If the remote fan control channel is turned on in the Power Supply, an icon of a fan will be displayed. The icons are automatically sized and arranged to fit the window size of your choice.

Figure 2 shows The Watchdog main screen with a Coloram II System consisting of three Power Supplies, three Gobo Changers, three Color Changers and one Dowser.
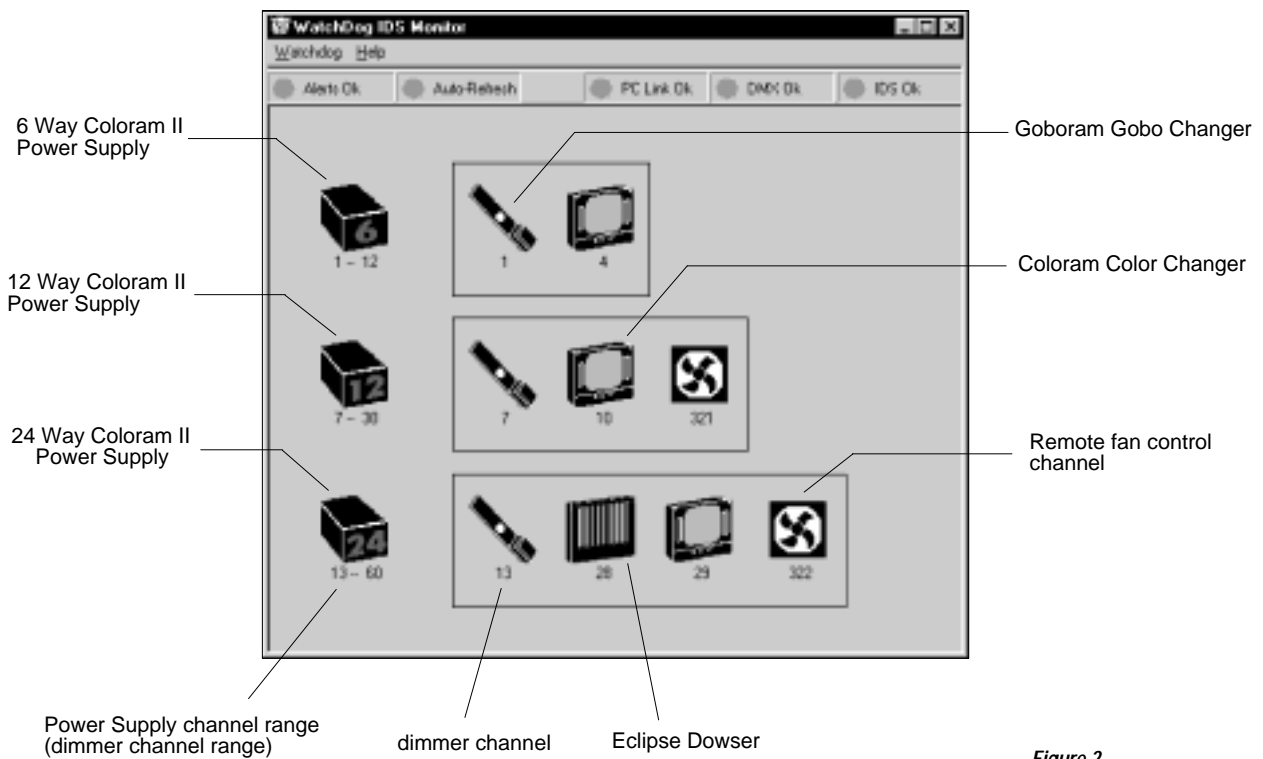

Figure 2

If an "alert" is triggered by any of the Color Changers, Gobo Changers or Dowsers connected to The Watchdog Monitoring System, a red circle with a line through it will appear over that icon. A yellow circle with a line through it indicates an "alert" was triggered but the condition which triggered the "alert" has been corrected.

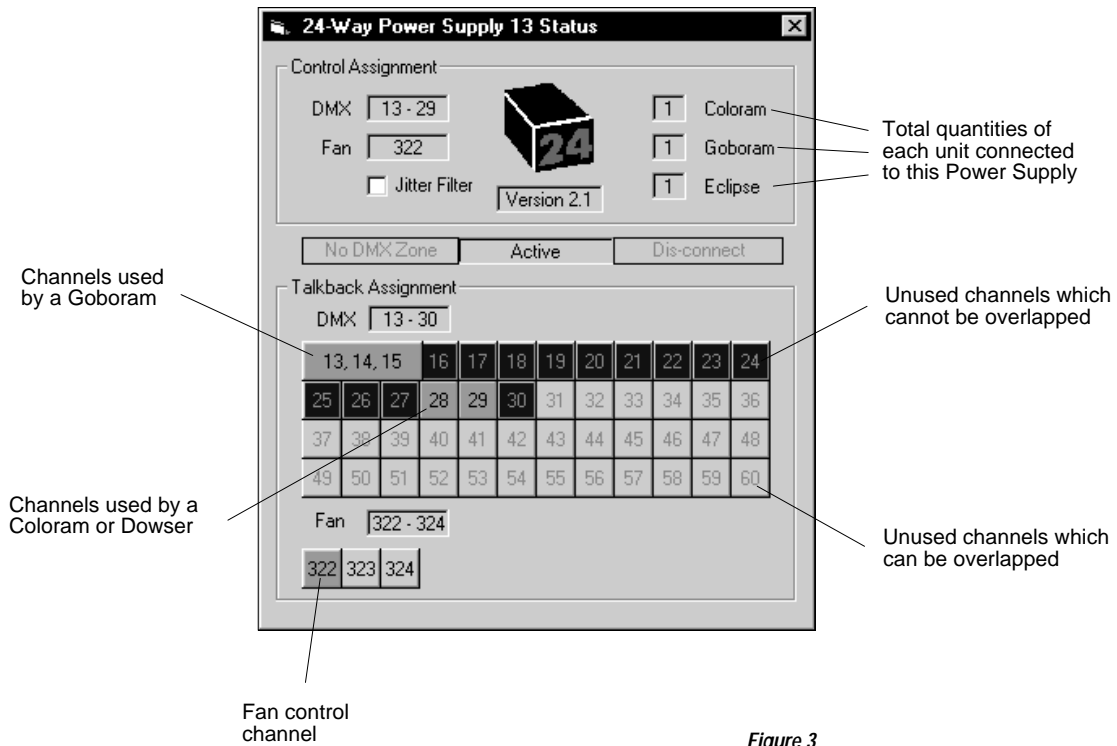A single click on the 24 Way Power Supply icon opens the following window:

24-Way Power Supply 13 Status

Control Assignment

DMX 13 - 29

Fan 322

☐ Jitter Filter

Version 2.1

1 Coloram

1 Goboram

1 Eclipse

Total quantities of each unit connected to this Power Supply

No DMX Zone   Active   Dis-connect

Talkback Assignment

DMX 13 - 30

13, 14, 15	16	17	18	19	20	21	22	23	24
25	26	27	28	29	30	31	32	33	34	35	36
37	38	39	40	41	42	43	44	45	46	47	48
49	50	51	52	53	54	55	56	57	58	59	60

Fan 322 - 324

322 323 324

Channels used by a Goboram

Channels used by a Coloram or Dowser

Unused channels which cannot be overlapped

Unused channels which can be overlapped

Fan control channel

Figure 3

A single click on the icon representing the Gobo Changer connected to the 24 Way Power Supply will open the following window:

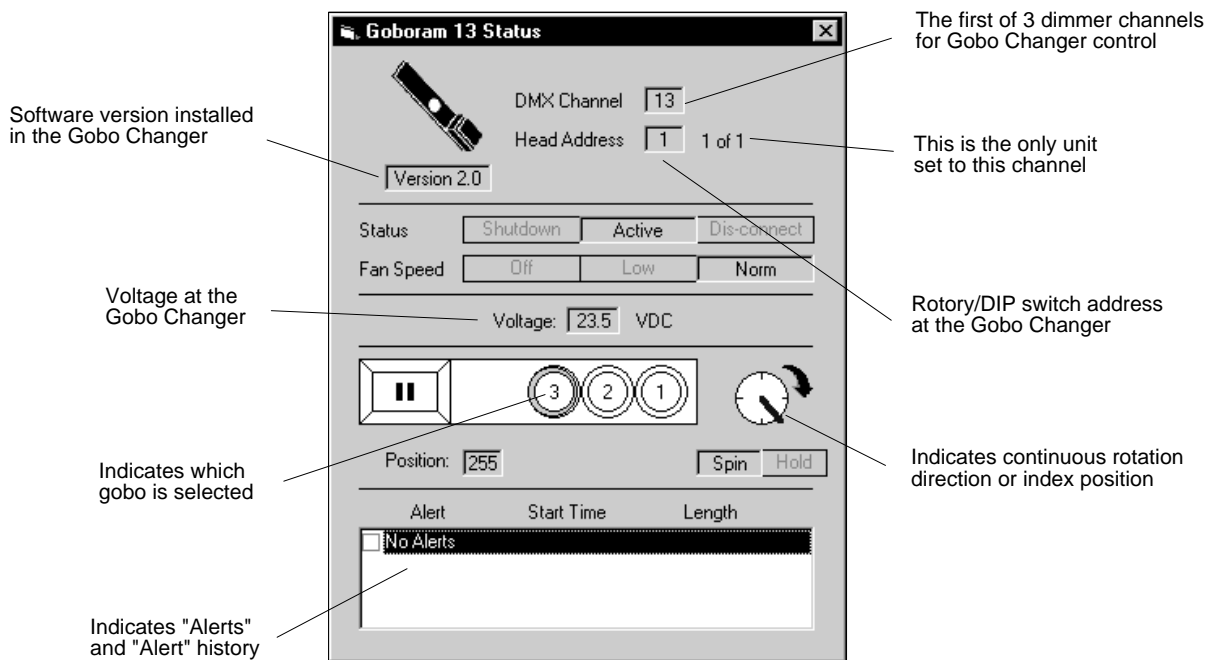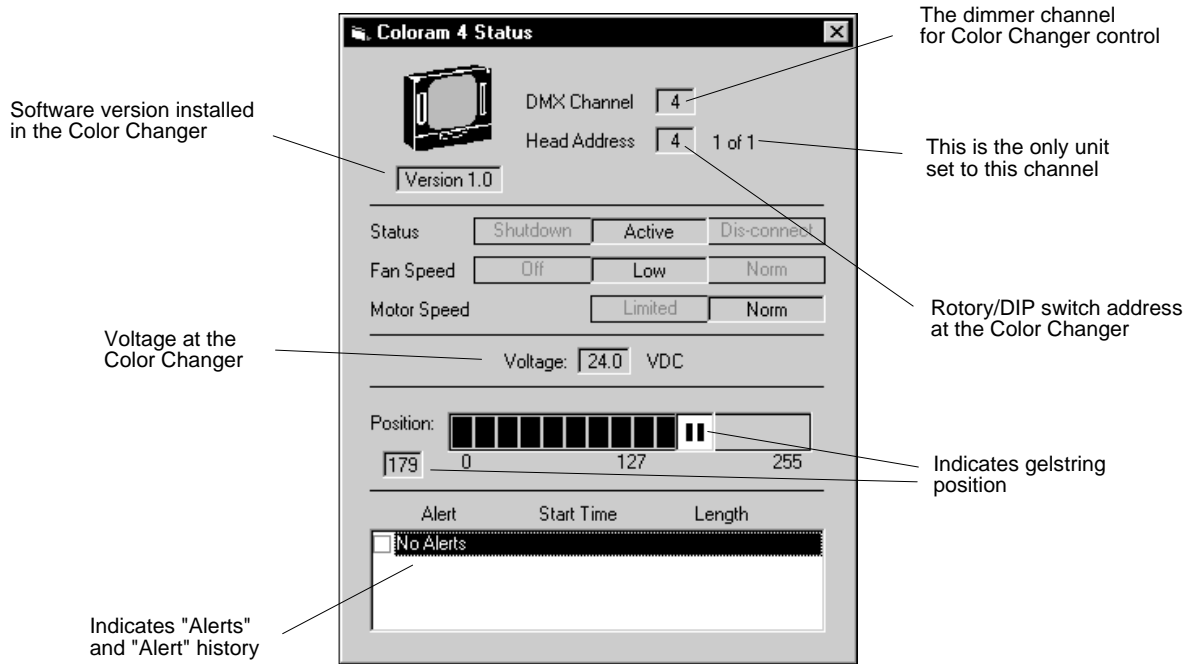**Goboram 13 Status**

DMX Channel 13

Head Address 1   1 of 1

Version 2.0

Status   Shutdown   Active   Dis-connect

Fan Speed   Off   Low   Norm

Voltage: 23.5 VDC

▮▮   ③ ② ①

Position: 255   Spin Hold

| Alert | Start Time | Length |
| ☐ No Alerts | | |

The first of 3 dimmer channels for Gobo Changer control

Software version installed in the Gobo Changer

This is the only unit set to this channel

Voltage at the Gobo Changer

Rotary/DIP switch address at the Gobo Changer

Indicates which gobo is selected

Indicates continuous rotation direction or index position

Indicates "Alerts" and "Alert" history

Figure 4

6

A single click on the icon representing the Color Changer connected to the 6 Way Power Supply will open the following window:
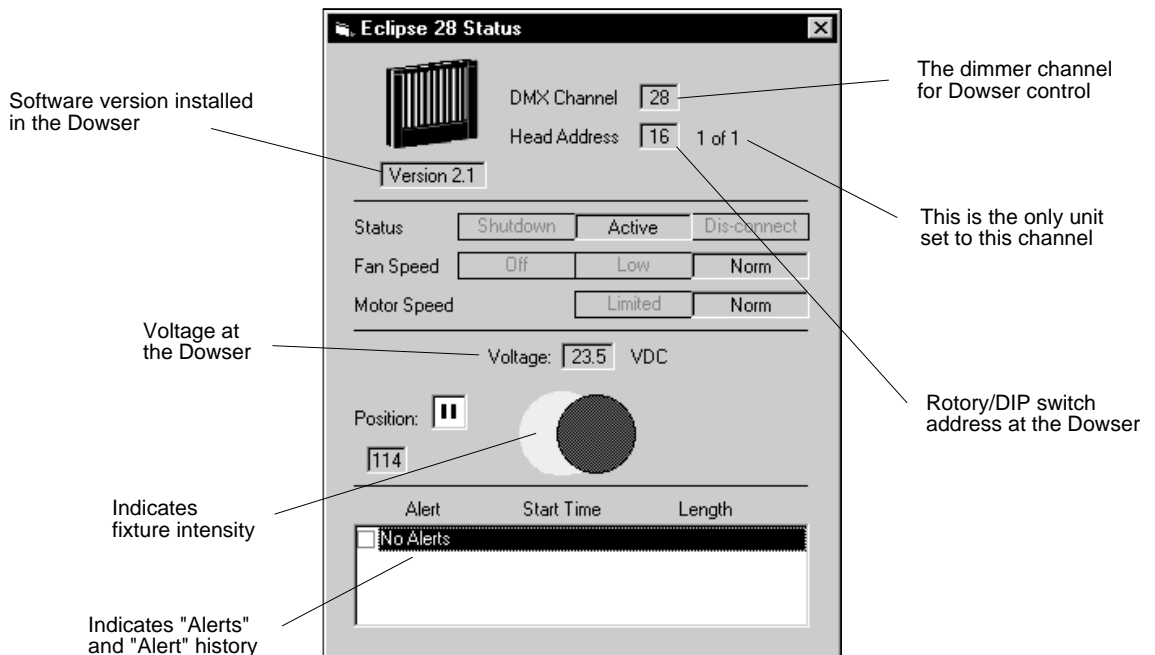
The dimmer channel for Color Changer control

Software version installed in the Color Changer

Coloram 4 Status

DMX Channel   4

Head Address   4   1 of 1

This is the only unit set to this channel

Version 1.0

Status	Shutdown	Active	Dis-connect
Fan Speed	Off	Low	Norm
Motor Speed		Limited	Norm

Rotary/DIP switch address at the Color Changer

Voltage at the Color Changer

Voltage: 24.0 VDC

Position:

179   0   127   255

Indicates gelstring position

| Alert | Start Time | Length |
No Alerts

Indicates "Alerts" and "Alert" history

Figure 5

A single click on the icon representing the Dowser connected to the 24 Way Power Supply will open the following window:

Eclipse 28 Status

DMX Channel   28

Head Address   16   1 of 1

The dimmer channel for Dowser control

Software version installed in the Dowser

Version 2.1

This is the only unit set to this channel

Status	Shutdown	Active	Dis-connect
Fan Speed	Off	Low	Norm
Motor Speed		Limited	Norm

Voltage at the Dowser

Voltage: 23.5 VDC

Position:

114

Rotary/DIP switch address at the Dowser

Indicates fixture intensity

| Alert | Start Time | Length |
No Alerts

Indicates "Alerts" and "Alert" history

Figure 6

7

A single click on the icon representing the fan control channel for the
12 Way Power Supply will open the following window:

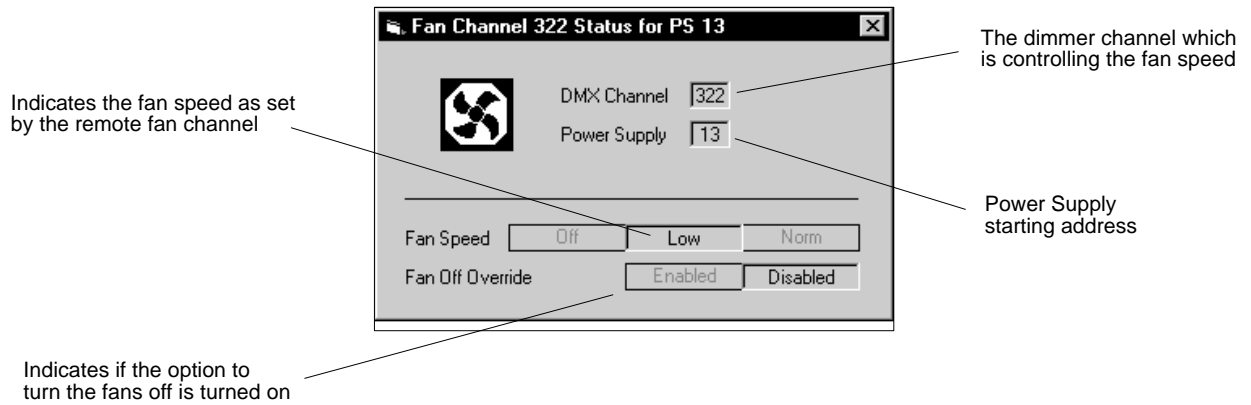Fan Channel 322 Status for PS 13

DMX Channel 322
Power Supply 13

Fan Speed   Off   Low   Norm
Fan Off Override   Enabled   Disabled

The dimmer channel which
is controlling the fan speed

Indicates the fan speed as set
by the remote fan channel

Power Supply
starting address

Indicates if the option to
turn the fans off is turned on

Figure 7

The Watchdog Components

DMX Interface

DMX512 control signal is daisy chained through The Watchdog DMX Interface via standard 5-pin XLR connectors. As the DMX signal is internally wired through, The Watchdog DMX Interface will continue to pass the DMX signal to the DMX output connector in the event of AC power loss. The Watchdog DMX Interface automatically accommodates all line voltages worldwide.

Figure 8

9
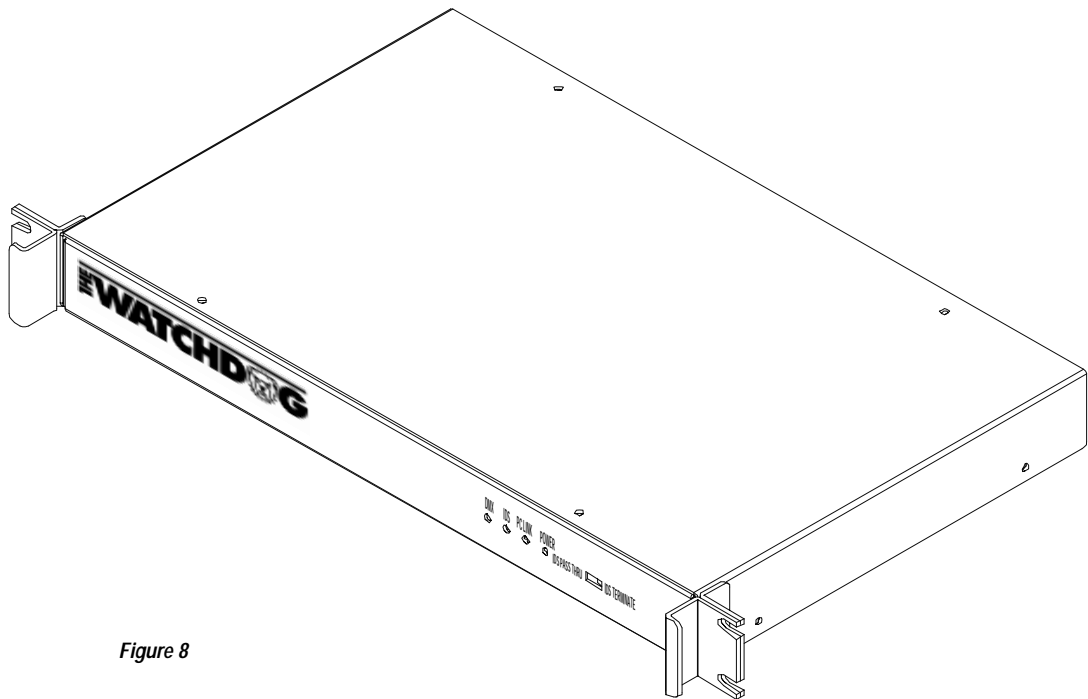
PC Software

The Watchdog PC Software consists of two setup disks and can be loaded onto most PCs or laptop computers. The PC Software runs on a Windows 95 operating system and works best with a P166 Mhz or faster Pentium processor. The Watchdog Software Program features high quality graphics displayed in an easy to understand format.
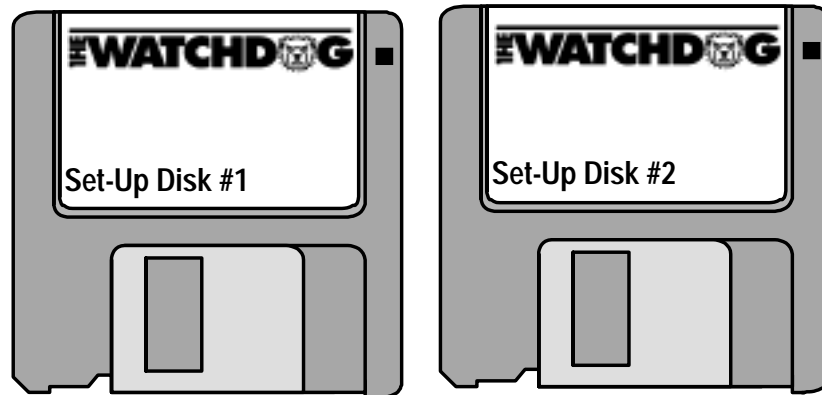
Figure 9

Installing The Watchdog

To get your Watchdog Monitoring System up and running, follow these hookup and checkout procedures.

1. Mount The Watchdog DMX Interface

The Watchdog DMX Interface is designed to be free standing or mounted into a 19" rack. You decide which mounting method best suits your application.

Rack mount tabs

Rubber feet
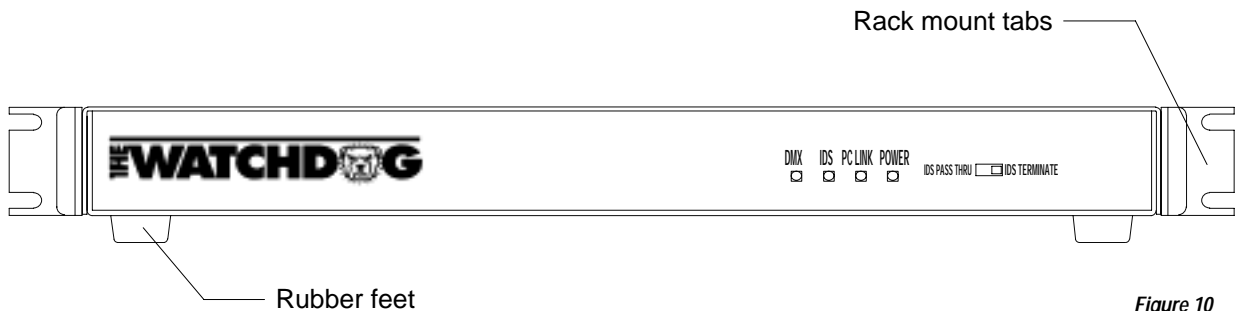
Figure 10

2. Connect The Watchdog DMX Interface to AC power

Plug the AC cord into a non-dimmed power circuit. The Power Supply automatically accommodates 85 - 132 VAC (50/60 Hz) and 170 - 264 VAC (50/60 Hz). Power at the Watchdog DMX Interface is indicated by a red LED marked "Power".

Caution: Do not power The Watchdog DMX Interface from a dimmer. Severe damage will result, and is not covered by product warranty.

3. Connect The Watchdog DMX Interface to the DMX line

The DMX Interface has DMX512 input and output connectors located on the back of the unit. Connect the DMX control cable from the lighting console to the input. Connect the DMX control cable from the output to The Coloram II Power Supplies. DMX signal will be indicated by the flashing LED marked "DMX" on the front of The Watchdog DMX Interface.

Note: All DMX control cables, and any other DMX devices, between the DMX interface and The Coloram II Power Supplies must have lines 4 and 5 connected.

4. Connect the PC to The Watchdog DMX Interface

The connector for the PC is located on the back of the DMX Interface. The cable you will need to connect the DMX Interface to your PC will depend on the PC serial port you select.

Note: The maximum length of cable which can be used between the DMX interface and the PC is 30 feet.

5. Set The Coloram II Power Supply options and addresses

While communication between the Power Supplies and the connected units is constant, you will need to turn the "Talkback" option on to send this information back to the DMX interface. This option is found in the SETUP menu. IDS Return Data will be indicated by the flashing "IDS" LED on the front of The Watchdog DMX Interface.

Note: The Power Supply starting address will now increment by three. This is a product of the IDS Talkback protocol and is normal.

Set the Power Supply starting addresses to the desired DMX channel ranges. This is also done in the SETUP menu.

Note: You may overlap Power Supply channel ranges but may not overlap onto any channel which has a Color Changer, Dowser or Gobo Changer set to it.

6. Start The Watchdog program

Click on the **Start** button. Click on **Programs**. Double click on The Watchdog icon. This will open the main window and start The Watchdog program. The PC Link LED on The Watchdog DMX Interface will now slowly blink to indicate communication between the DMX interface and The Watchdog Software Program.

Loading the software

The following directions explain how to install The Watchdog Software Program using the two setup disks.

1. Insert the disk labelled Set-Up Disk #1 into your disk drive
2. Click on the **Start** button
3. Click on **Run**
4. Select or type in **A:\Setup.exe**
5. Click on the **OK** button

A window will appear informing you that initialization files are being copied.

Another window will appear instructing you to insert Set-Up Disk #2.

6. Remove Set-Up Disk #1 from your disk drive
7. Insert the disk labelled Set-Up Disk #2 into your disk drive
8. Click on the **OK** button

A window will appear recommending you close any applications you may be running. If you are running any other applications, click on **Exit Setup**, close the applications and restart the installation procedure.

9. Click on the **OK** button

A window will appear informing you of the destination directory and giving you the option to change it.

10. Click the **Install** icon

You will see various windows appear informing you that The Watchdog setup program is being installed.

Finally, a window will appear informing you that The Watchdog PC Software Program has been correctly installed.

11. Click on the **OK** button

Specifications

The Watchdog DMX Interface

Capacity: 200 units
Compatibility: Coloram II System
Connectors:
        DMX in: Male 5-pin XLR
        DMX out: Female 5-pin XLR
        Serial communication: Male DB9
DMX512 termination: Wired through
Fuse: .25 amp slow blow at 115 VAC
        .125 amp slow blow at 230 VAC
IDS termination: Switchable
Input Power: Automatically accepts 85 - 132 VAC 50/60 Hz and
          170 - 264 VAC 50/60Hz
Input Signal: 1990 USITT standard DMX512 and IDS Return Data
LED indicators: Indicate power, DMX512 signal, IDS signal, and PC link
Size: 10.13"/257.3mm L x 19.00"/482.6mm W x 2.12"/54.8mm H

The Watchdog PC Software Program

Compatibility: The Watchdog DMX Interface
Installation: 2 setup disks
Input signal: RS232/Watchtalk

Hardware requirements:

- ✔ Pentium processor - P166 Mhz or greater is recommended.
- ✔ Microsoft Windows 95 operating system or Microsoft Windows NT Workstation version 4.0 or greater.
- ✔ 2 MB hard disk
- ✔ 32 MB of RAM
- ✔ VGA or higher resolution monitor
- ✔ 115.2 Kbaud serial communications port - The serial port must be configured and available while Watchdog is running.
- ✔ 3.5" Floppy drive

RS232 cable

The cable which connects The Watchdog DMX Interface to the PC is a standard RS232 computer cable.

DB9 Pin #	Function
2	Receive Data
3	Transmit Data
5	Ground

DMX512 control cable

The DMX control cable from the lighting board to the Power Supply is a five conductor cable with 5-pin XLR connectors on each end. The wiring pin out is specified by the USITT DMX512/ 1990 standard.

XLR Pin #	Function
1	Common
2	Data -
3	Data +
4	Talkback -
5	Talkback +

Parts list

To order any of the following items, contact your authorized WYBRON dealer.

The Watchdog Monitoring System and accessories

6000	The Watchdog Monitoring System
600-08-01	User Manual
600-08-02	Setup disks
600-01-03P	Rack mount tabs

The Coloram II Color Changers and Power Supplies

4520	4 Inch Coloram II
7110	7.5 Inch Coloram II
7080	7.5 Inch Aquaram
10100	10 Inch Coloram II
15010	15 Inch Coloram II
16080	8 Light Coloram II
16090	Large Format Coloram II
16100	Thomas 9 Light Coloram II
5000	Large Format Aquaram
19000	Coloram II 24 Way Power Supply
19012	Coloram II 12 Way Power Supply
19060	Coloram II 6 Way Power Supply

The Goboram Gobo Changer and accessories

4530	Goboram Gobo Changer
453-01-11P	Goboram mounting bracket for Source Four
453-01-15P	Goboram mounting bracket for Shakespeare 600
453-01-14P	Gobo installation template
453-01-16P	Goboram slot cover for Source Four
453-08-05	User Manual
SCRPH632025	Screws for mounting bracket to Source Four light fixture
SCRPH832037	Screws for mounting bracket to Shakespeare 600 light fixture
453-08-01P	Milled barrel for Source Four light fixture

The Coloram II mounting and installation accessories

452-01-03P .... 6.25"/158.75mm mounting plate for 4 inch Color Changer
452-03-04 .... 6.25"/158.75mm mounting plate for 7.5 inch Color Changer
704-01-03P .... 7.5"/190.5mm mounting plate for 7.5 inch Color Changer
711-01-03P .... 10"/254mm mounting plate for 7.5 inch Color Changer
1009-01-20P .... 12.125"/307.98mm mounting plate for 10 inch Color Changer
1009-01-21P .... 14.25"/361.95mm mounting plate for 10 inch Color Changer
SCRPH832037P ..... 3/8" pan head screws for mounting plate to Color Changer
SCRPH832050 .... 1/2" pan head screws for mounting plate to Color Changer

1900-01-05P .... 24 Way Power Supply hanger bracket
715-01-03P .... 6 Way and 12 Way Power Supply hanger bracket
SCRWC252075 ...... Wing screw for Power Supply hanger bracket to pipe
SCRSC2520037 ..... Socket cap screw for hanger bracket to Power Supply

The Coloram II System cable

7042-3 .... 3′ power/signal cable
7042-5 .... 5′ power/signal cable
7042-10 .... 10′ power/signal cable
7042-15 .... 15′ power/signal cable
7042-25 .... 25′ power/signal cable
7042-50 .... 50′ power/signal cable
7042-75 .... 75′ power/signal cable
7042-100 .... 100′ power/signal cable

Warranty information

WYBRON, INC. warrants to the original owner or retail customer that for a period of one year from date of delivery of a portable system or energization of a permanently installed system (up to a maximum of 18 months from delivery) its products will be free from defects in materials and workmanship under normal use and service.

Warranty does not cover any product or part of a product subject to accident, negligence, alteration, abuse, misuse or any accessories or parts not supplied by WYBRON, INC.. Warranty does not cover "consumable" parts such as fuses, lamps, patterns or gelstrings. WYBRON, INC.'s warranty does not extend to items not manufactured by us. Freight terms on warranty repairs are FOB WYBRON, INC. factory or designated repair facility. Collect shipments or freight allowances will not be accepted.

WYBRON, INC.'s sole responsibility under this warranty shall be to repair or replace at WYBRON, INC.'s option such parts as shall be determined to be defected on WYBRON, INC.'s inspection. WYBRON, INC. will not assume any responsibility for any labor expended or materials used to repair any equipment without WYBRON, INC.'s prior written authorization . WYBRON, INC. shall not be responsible for any incidental, general or consequential damages to property, damages for loss of use, time, profits or income, or any other charges.

The owner's obligations during the warranty period under this warranty are to notify WYBRON, INC. at WYBRON, INC.'s address within one week of any suspected defect, and return the goods prepaid to WYBRON, INC. at their factory or authorized service center.

This warranty is contingent on the customer's full and timely compliance with the terms of payment set forth in said purchase order. This warranty is expressly in lieu of any and all other warranties expressed or implied including the warranties of merchantability and fitness for a particular purpose and of other obligations and liabilities on our part. The owner acknowledges that no other representations were made to him or relied upon him with respect to the quality and function of the goods sold.

This written warranty is intended as a complete and exclusive statement of the terms thereof. Prior dealings or trade usage shall not be relevant to modify, explain or vary this warranty. Acceptance of, or acquiescing in, a course of performance under this warranty shall not modify the meaning of this agreement even though either party has knowledge of the performance and a chance to object.