WYBRON

Advancing The Art Of Lighting

Infochip

User Manual

infotrace IT
control & management system

5090 Infochip

Software version: V1.0
Manual issue date: October 30, 2006
Manual revision: March 2009

CONTENTS

Safety Information

SAVE THESE INSTRUCTIONS
READ AND FOLLOW ALL INSTRUCTIONS

This manual gives step-by-step instructions for the installation and setup of Infochip in a non-RDM device.

There is a potential risk of injury to persons if the product is not used as instructed.

The Infochip is not intended for residential use.

WARNING: When using electrical appliances, use basic precautions, including:

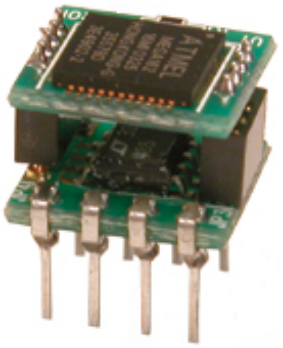
- Read this manual before connecting power.
- Use supervision around children.
- Only use attachments recommended or sold by Wybron.
- Use in a dry location only.

For questions, contact Wybron technical support at 1-800-624-0146.

Product Modification Warning

Wybron, Inc. products are designed and manufactured to meet the requirements of United States and International Safety standards. Modifications to the products could affect safety and render the product non-compliant to relevant safety standards.

Introduction



Wybron Infochip

Infochip™ gives any DMX512 device the ability to send feedback to its operators using Remote Device Management, an industry-standard feedback protocol. This allows the device to be recognized by and communicate with Infogate™, the heart of the Infotrace™ feedback system. It's installed in place of the DMX receiver/transceiver integrated circuit (IC) in any non-RDM device, regardless of manufacturer.

The primary functions available to a device with Infochip include:

- Discovery
- Identification
- Remote DMX address setting
- Control of the device
- Report host device ON time

For any multi-channel device, Infochip and Infogate will detect the device's footprint – its number of DMX addresses and their functions.

Any host device equipped with Infochip will work in both an Infotrace environment and a standard DMX non-RDM environment.

CAUTION:
Both the Infochip and the Infotrace feedback system are NOT compatible with Wybron Coloram II systems, including RAM Power Supplies. ONLY connect Infogate to a PS Power Supply; do NOT connect it to a RAM Power Supply.

Damage from such action will not be covered by the product warranties.

Infotrace System Overview

This diagram outlines the key components of the Infotrace system:

Infogate: The software and hardware required to facilitate the transfer and display of information.

Infochip: A conversion chip that can be used with non-RDM equipment to enable communication with the Infogate software.

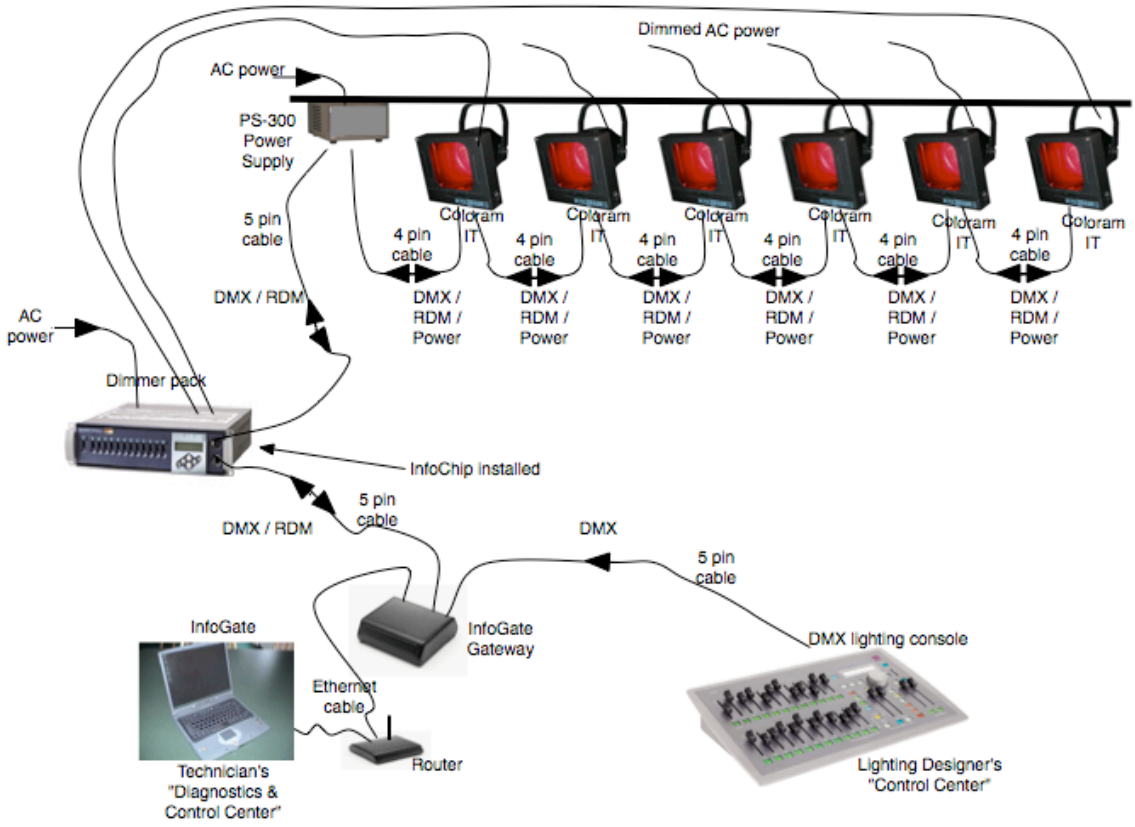
Infostore: An Internet-based application that aggregates the data captured by Infogate and allows for the accumulation of historical information related to the equipment performance in the installation.

IT Products: Coloram IT, CXI IT, Eclipse IT Shutter, and Eclipse IT Iris, all with updated electronics supporting RDM communication in addition to sensors that detect a variety of conditions.

The heart of the Infotrace system is Infogate — specialized software and hardware that uses the industry-standard feedback protocol Remote Device Management (RDM) to facilitate remote addressing and diagnostics for potentially every piece of equipment mounted on a rig. Infogate works with all Wybron IT products as well as RDM-compatible equipment from other manufacturers.

Any piece of non-RDM equipment can be upgraded with the installation of an Infochip.

Infotrace Connection Diagram



Infotrace System Setup

The key components provided by Wybron in the above installation include the Infogate software loaded on the operator's computer, the Infogate gateway box, the Coloram IT color changers, and the PS power supply.

The dimmer pack contains a Wybron Infochip to facilitate RDM communication.

Setting Up Infochip

1. Install the Infochip

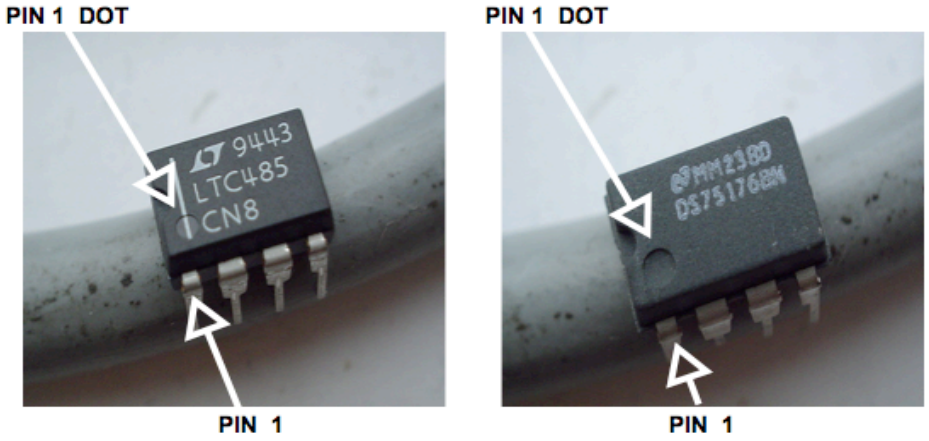
A. Disconnect the non-RDM device from AC power.

B. Open the device to expose the printed circuit board.

C. Locate the 8-pin DMX receiver/transceiver integrated chip (IC).

i. Note the orientation of Pin 1 on the existing 8-pin DMX IC.

a. You can identify the location of Pin 1 by the dot on the top of the integrated chip.



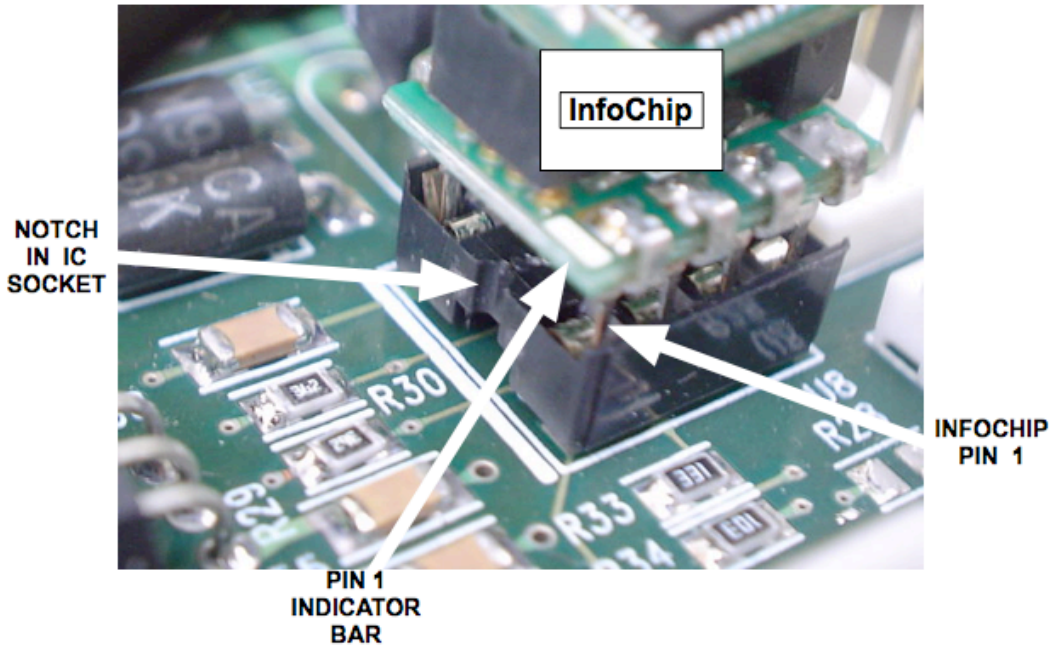
DMX Tranceiver IC's

Linear Technology LTC485 and National DS75176BN

D. Replace the DMX receiver/transceiver integrated chip with the Infochip, making sure that Pin 1 of the Infochip matches the orientation of Pin 1 on the original DMX chip when seated in the receiver/transceiver.

i. Pin 1 on the Infochip is marked by a small white bar next to it on the bottom board.

ii. Pin 1 on the Infochip should also line up on the same side as the notch in the IC socket.



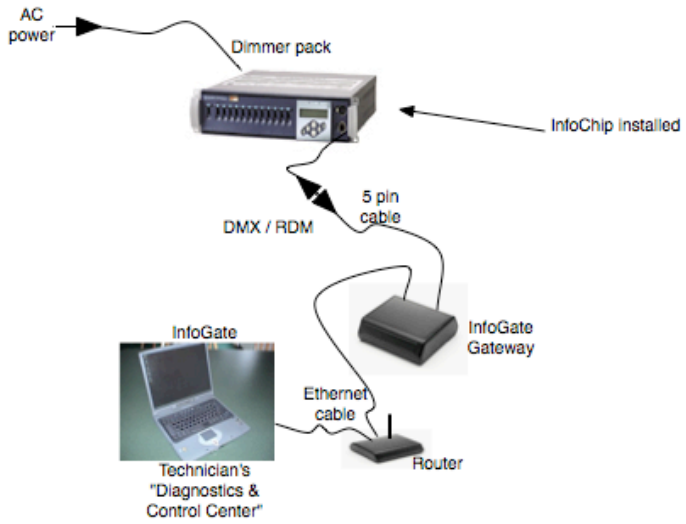
H. Close the device.

CAUTION:
If the Infochip is installed in the incorrect orientation on the DMX receiver/transceiver, significant damage may occur to both the device and the Infochip when power is connected. Please confirm that the Infochip is installed in the correct orientation prior to connecting the device to power and DMX.

Damage from improper installation of the Infochip will not be covered by the product warranties.

2. Connect the device

A. Connect the Infochip device to the Infogate gateway box and the network router.



Connecting Infochipped Device

i. At this point, the Infochip device needs to be the **only** Infochip (or Wybron IT) device on the link to Infogate. This allows the programming sequence to begin.

3. Program the Infochip

A. Each newly installed Infochip needs to be programmed with the personality profile for the specifc model and type of host device in which the Infochip resides. This can be done at the Wybron factory or by a qualified technician on site.

B. Please refer to the Infogate user manual for details on how to program the Infochip.

4. Set Device DMX Address

A. Using the device containing Infochip in an Infotrace system:

When used in an IT system, you will first set the dipswitch on the host device (as specified below) and then set the DMX address of the device remotely via Infogate.

The formula for calculating the required dipswitch setting for a host device using an Infochip is shown below. Please note that this dipswitch setting is required!

Host dipswitch setting when used in an IT system =
512 – (number of host device channels) + 1

Example: Fogger with Infochip installed uses 3 DMX channels.

Host dipswitch setting = 512 – 3 + 1 = 510.

The dipswitch for this fogger MUST be manually set to 510 when used in an IT system.

Highest starting DMX address in an IT system =
512 – (2 x (number of device channels)) + 1.

Example: Fogger with Infochip installed uses 3 DMX channels.

Highest starting DMX address = 512 – (2 x 3) + 1 = 507.

In Infogate, this 3 DMX channel fogger can now be remotely set to any starting DMX address up to and including 507. It cannot be set to a starting DMX address of 508 through 512, this is called the “Keep Out Zone”.

i. All foggers in the IT system that have an Infochip installed and also use 3 DMX channels would also require a dipswitch setting of 510.

ii. Each Infochip’d host device within the Infotrace system requires its own calculation for the dipswitch setting.

a. *Example*: A moving light with an Infochip installed, uses 7 DMX channels.

Dipswitch setting = 512 – 7 + 1 = 506.

The dipswitch for this type of moving light (one with 7 channels) MUST be manually set to 506.

In Infogate, this moving light can be remotely set to any starting DMX addresses of 1 through 499 – but not 500 through 512 (its Keep Out Zone).

If the foggers with 3 DMX channels from the earlier example are in the same rig as the moving lights, the foggers would still use a dipswitch setting of 510.

B. Using the device containing Infochip with a conventional (Non-IT) system :

When used in a non-IT system, you will set the device's DMX address by setting the host dipswitch(s).

The formula for calculating the HIGHEST ALLOWED dipswitch setting (DMX address) for a host device containing an Infochip but used in a non-Infotrace system is as follows:

Highest dipswitch setting in a non-IT system
= 512 – (2 x (number of device channels)) + 1.

Example: Fogger with Infochip installed uses 3 DMX channels.

Highest allowed dipswitch setting = 512 – (2 x 3) + 1 = 507.

The dipswitch for the 3 channel fogger containing an Infochip but used in a non-IT system can be up to and including 507 (but no higher).

5. Table of "number of host device channels" vs. "host dipswitch setting" vs. "Highest starting DMX address in IT or a Non-IT system":

Number of host device Channels	Host Dipswitch Setting in IT System	Highest starting DMX address in an IT or a Non-IT System
1	512	511
2	511	509
3	510	507
4	509	505
5	508	503
6	507	501
7	506	499
8	505	497
9	504	495
10	503	493
11	502	491
12	501	489
13	500	487
14	499	485
15	498	483
16	497	481
17	496	479
18	495	477
19	494	475
20	493	473
21	492	471
22	491	469
23	490	467
24	489	465
25	488	463

... and so on.

Non-RDM Equipment and Infotrace

A lighting rig can use any combination of non-IT, non RDM, non-Infochip equipment, along with IT equipment. The non-IT equipment will work the old-fashioned way (manual dipswitch setting, no status reporting, or other features). The RDM protocol allows configuration, status monitoring, and management of RDM devices in such a way that does not disturb the normal operation of the DMX devices that do not recognize the RDM protocol.

Infochip and Standard (Non-IT) Environments

The Coloram IT family of products (Coloram IT, CXI IT, Eclipse IT Shutter and Eclipse IT Iris, which all must be connected to PS Power Supplies) will work in any standard environment that does not use Infogate.

Specifications

Infochip Technical Information

- Compatibility: In place of 8-pin DMX transceiver IC (e.g., National DS75176BN and Linear Technology LTC485).
- Signal termination: None required.

Parts List

To order the item below, contact your authorized WYBRON dealer.

- Infochip: Model 5090

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, or color media. 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.

WYBRON, INC. - **TEL** 719-548-9774 - **FAX** 719-548-0432
Email: info@wybron.com - Visit us on the World Wide Web at **http://www.wybron.com**