

InfraRed Xpander

IR-XP²

TWO-WAY LEARNING INFRARED CONTROLLER



The **IR-XP² InfraRed Xpander** is a multi-function two-way learning infrared controller that allows centralized control of audio, video, home theater, and other infrared-operated equipment throughout the home or business. It has two user-selectable modes of operation: *Xpander mode* - for use with TimeCommander, TimeCommander-Plus or StarGate, or *Serial mode* - for direct control from any computer.

XPANDER MODE

In **Xpander Mode**, the IR-XP² connects to the AUX port of the TimeCommander, TimeCommander-Plus or StarGate. IR emitters (one included) plug into the emitter output jacks on the rear panel of the IR-XP². The system can be programmed to issue any combination of IR commands in response to any input condition(s) such as time, received X-10, IR, analog or digital inputs, ascii, etc. For example, if it's 7:30pm Monday-Friday and the security system is armed (no one is home) then turn on the vcr, select channel 7 and record *Jeopardy* for 30 minutes, then turn off the vcr:

```
If
  Time is 7:30PM MTWTF
  and (DI:SECURITY SYSTEM) is ON
Then
  (IR:VCR POWER) Send 1 Time(s)
  (IR:VCR CHAN 7) Send 1 Time(s)
  (IR:VCR RECORD) Send 1 Time(s)
  Delay: 0:30:00
  (IR:VCR STOP) Send 1 Time(s)
  (IR:VCR POWER) Send 1 Time(s)
End
```

SERIAL MODE

In **Serial Mode**, the IR-XP² connects directly to a serial port. It can be operated from any computer or device capable of sending/receiving ascii commands via RS-232. This provides an open platform for incorporating custom software and adding IR control to any system that supports ascii.

TWO-WAY IR CONTROL

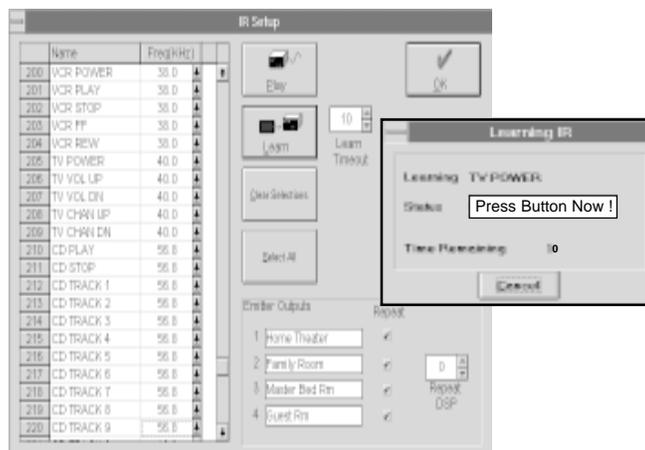
In addition to sending IR commands, the IR-XP² can also **respond** to IR commands received from any IR remote. Events can be activated in response to any received IR command. For example, pressing the TV POWER button on your IR remote can also dim the lights, close the drapes, turn on the surround sound amplifier, select video source, etc:

```
If
  (IR:TV POWER) is received
Then
  (X:FAM RM LTS A-1) Set Level 50%
  (X:DRAPES D-1) OFF
  (IR:SURROUND POWER) Send 1 Time(s)
  (IR:SOURCE VIDEO) Send 1 Time(s)
End
```

Unused remote buttons can also be programmed to activate specific events. For maximum flexibility, a universal remote can be used, with a bank of commands dedicated for home automation functions.

EASY IR LEARNING

The new *Event Manager* software includes an IR Setup menu that simplifies the learning and programming of IR commands into the schedule. Once the various IR commands are defined in the IR setup menu, you simply click LEARN and the *Event Manager* prompts you to aim your hand-held remote at the IR-XP²'s front panel and press the appropriate button. It can be set up to automatically advance through each defined IR command until all selected commands have been learned. A frequency selection box is also included for learning IR commands from remote controls that operate at different carrier frequencies.



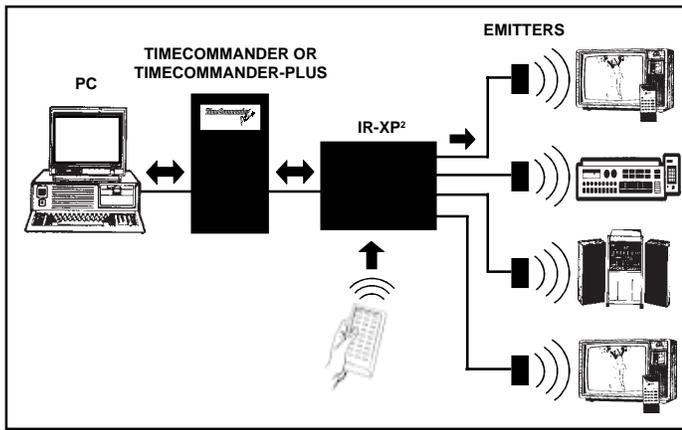
LEARNS 500 IR COMMANDS

The IR-XP² learns and stores up to 250 IR commands and can be expanded (with optional memory upgrade) to store a second bank of 250 IR commands.

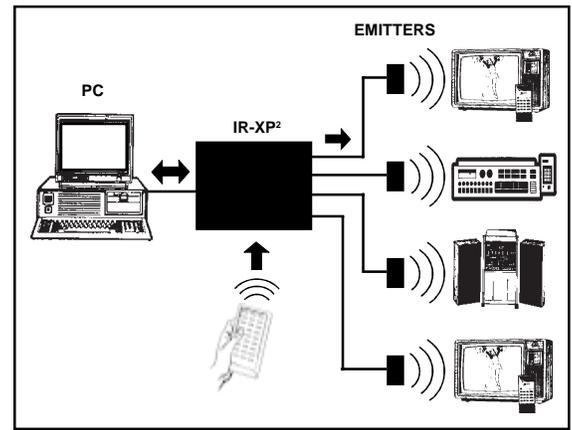
FOUR ZONED OUTPUTS

The IR-XP² has four emitter outputs that can be operated in any combination to distribute IR commands to multiple rooms. This also allows individual control of multiple tv's, vcr's, etc. that respond to the same IR commands. Each emitter output can drive up to four ir emitters or connect to an optional IR connecting block for additional emitter outputs. Emitter wires can be extended up to 1000 feet from the IR-XP² using Catagory-5 twisted-pair cable.

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Xpander Mode



Serial Mode

REPEAT MODE

The IR-XP² can also redirect or "repeat" any IR signal (learned or not) to any combination of the four emitter outputs. This allows control of IR-operated equipment in multiple rooms from one central location. Emitter outputs can also be connected to other IR distribution systems for more advanced custom applications. A "Repeat DSP" select box is also included in the Event Manager to allow adjustment of repeated IR signals to best match the remote being used.

ALTERNATE PLAY

The IR-DEFINE menu also has a checkbox for "Alternate Play" which, when selected, instructs the IR-XP² to play the associated IR command several times in a loop for special cases that require longer IR command lengths.

UPLOAD & DOWNLOAD

The IR-XP² also supports the uploading and downloading of IR commands to and from the computer harddrive. Individual IR commands, groups of IR commands, or complete IR setups can be stored in the computer and transferred directly to the IR-XP² eliminating the need to manually learn each IR command when setting up similar systems.

SPECIFICATIONS

Power	12VDC, 500mA
Connections	RS-232/Aux, Power Sensors: RJ-11
Emitter Outputs	(4) 3.5mm mono
Power Sensor Inputs	(4)
LED Indicators	Xmit, Rec
Transmission Rate.....	2400 bps asynchronous
Data format	8 Data Bits, No Parity, One Stop Bit
Dimensions	5.5" x 6.5" x 1.5"
Weight	19 ounces

OPTIONAL ACCESSORIES

INFRARED EMITTERS

282-00: Single IR mini-emitter with 10 ft. 2-conductor cable and 1/8" (3.5mm) plug. Affixes directly to IR control window of your ir-controlled device by means of a clear adhesive film. The clear film allows control from both the mini-emitter as well as the original hand-held remote. Includes optional black opaque shell that can be used to restrict ir control to the mini-emitter (blocks ir signals from other remotes).

284-00: Dual IR mini-emitter. Same as 282-00 with two ir emitters connected to one cable.

789-40: IR Connecting Block. One IR input / four IR emitter outputs. Provides additional emitter outputs for large installations and custom applications.

POWER STATUS SENSORS

Optional Power Status Sensors can be connected to the IR-XP² to report on/off status of up to four components (tv, vcr, etc.) regardless of how the components are turned on (via hand-held remote, IR-XP² or manually). These can be used to prevent system-issued IR commands from getting out of step with the controlled components. Sensors can also be used to trigger events based on the on/off status of a component.

PSS-TV: Detects on/off status of tv, monitor, etc. by sensing electromagnetic field (emf) near picture tube.

PSS-VIDEO: Detects on/off status of tv, vcr, laser disc, etc. by sensing presence of video signal on video output jack.

PSS-LED: Detects on/off status of audio & video components by sensing light from the power indicator.

PSS-JBX: Modular Junction Box - interfaces up to four Power Status Sensors to the IR-XP² Power Sensor Input jack. (1 required)