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Description

The RELAX II, a trainable, infrared scanner which is operated by any TASH single switch. (Switches are sold separately, and can be found in the TASH catalogue.)

“Trainable”: The RELAX II can *learn* the codes from your own hand held transmitters. It is capable of learning and transmitting 40 different control codes for TV’s, Converters, VCR’s and almost any other equipment operated by infrared transmitter.

“Infrared”: The RELAX II, once trained, acts as an infrared transmitter.

“Scanner”: Each infrared transmission code is saved at a particular location on the RELAX II, marked by a label and a red light emitting diode (LED). Once the switch is activated, the RELAX II scans through your options at an adjustable speed.

Although the RELAX II comes ready to transmit ten “X-10” codes, an X-10 Radio Receiver is required (TASH model #4168, sold separately).

The RELAX II is shipped with a 9V battery.

System Package #8210 consists of:

RELAX II, X-10 Radio Transceiver, any single switch, and choice of any 2 X-10 modules.

Operating Modes

The RELAX II has two operating modes: one is TRAIN, in which it *learns* the required codes and the other is USE, where it *transmits* the learned codes.

Single Switch Control

A single switch is needed to operate the RELAX II and is plugged into the jack marked S1 or S2 at the side of the display (figure 1, page 7). Either S1 or S2 may be used. A built-in black switch is located next to the jack for the convenience of an assistant.

The RELAX II has *two* sets of LED's on the display panel, one green for the device and one red for the function.

Top Group of Lights

TV*	switch activation at any one
VCR*	of these LED's results in scanning
CD*	of the bottom group of LED's - see
TAPE*	below for description

X-10 has 10 built-in signals for X-10 control - these
 cannot be changed

* Although the LED's are identified with specified labels, the RELAX II is not restricted to these devices and can be used with most any equipment for which you possess a remote control infrared transmitter.

Bottom Group of LEDs

These ten LEDs represent the functions to be controlled. Examples of functions include volume up, volume down, channel up and channel down for TV's and stereos, and fast-forward for VCR's. Again, they are labeled for reference but the RELAX II is *not* limited to these functions; you can program codes at your desired location and label accordingly. X-10 code locations however *cannot* be changed.

Train Mode

The RELAX II can be trained to reproduce up to 40 codes from a variety of transmitters. Each code can be independently retrained at any time.

The following steps outline the training procedure:

1. Put the RELAX II into the TRAIN mode using the Train/Use switch.
2. Place the RELAX II and the original remote control transmitter “nose to nose” on a flat surface. That is, the transmitting window of the original remote must be placed against the transmitting window of the RELAX II.
3. Select an appropriate location on the RELAX II display for the code you wish to train by activating the switch. The first switch activation results in scanning of the top group of LED's - hit the switch again to select the desired appliance (TV, VCR, etc.). The RELAX II will begin scanning the bottom group of LED's - hit the switch one more time to select the infrared code location.

NOTE: DO NOT select a training location unless you are ready to train, as this causes unnecessary drain on the batteries. You can terminate TRAIN mode by returning the switch to USE - previously learned codes will not be affected. If you change your mind after selecting a location, you must terminate TRAIN mode by switching to USE and then back to TRAIN to start again.

4. Press the button of the desired function on the original transmitter. After a short delay, the RELAX II will emit a beep; release the button as soon as you hear the beep. The RELAX II has now learned that function and the scanning resumes. When the next desired location lights up, it can be trained in the same manner.

Trouble Shooting in Train Mode

Due to the variety of different infrared transmission techniques, it may be necessary to modify the training procedure for some devices. If a beep is not produced within one or two seconds of pressing the original transmitter button, release the button and press it again. This second button press should provide the RELAX II with the additional information it needs to complete its training and result in a beep. In the unlikely situation training is still not successful, the RELAX II may not be receiving a strong enough signal. First, try repositioning the two units and repeating the train routine starting at step 1. Second, new batteries in the original transmitter may be required to produce a stronger signal. If successful training cannot be accomplished you may have a commercial transmitter that is not compatible with the RELAX II. To stop training, put the switch back to USE.

If the RELAX II detects an error when analyzing the received infrared signal and is unable to “learn” the code, it will emit three short beeps and turn off its LEDs. Try the train routine again. Contact your local supplier or TASH (please see page 7) if you require assistance.

** When training the RELAX II, it may take up to 5 seconds.

** Some of the new remotes send two signals. The first is a short burst followed by a second signal. If your remote is not training, hold for a longer time in case your remote is sending two signals.

Use Mode

1. Plug your desired switch into the jack marked S1 or S2 at the side of the display.
2. To start the scan, hit the switch. The unit will automatically scan the top group of LED's.
3. When the device you wish to use is lit, hit the switch again.
4. The unit will then automatically scan the bottom group of LED's representing the actual infrared transmissions that can be sent. The scan goes from top to bottom, and its speed is adjustable (please see "Scan Speed" on page 8).
5. When the light is at the function that you wish to transmit, hit the switch. The code will be transmitted for as long as the switch is held closed - for example, if the function is "volume up", the volume will be turned up for as long as you hold the switch closed.

NOTE: If the location selected has not been previously trained, the RELAX II will emit a continuous tone when you try to transmit.

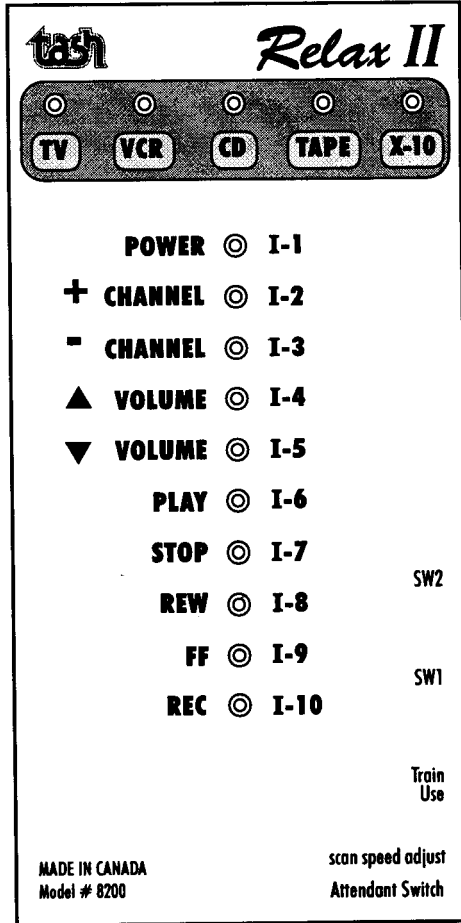
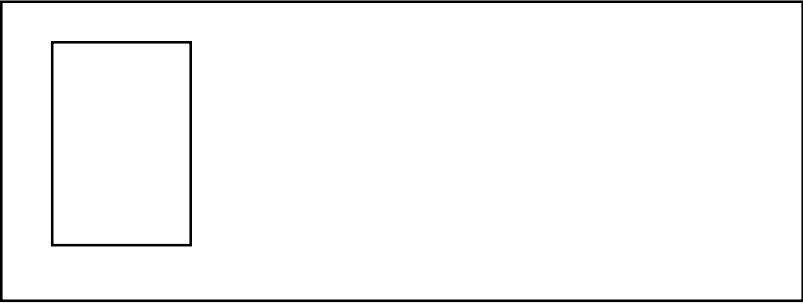


Figure 1
RELAX II Display Panel



*Figure 2
Rear view of RELAX II
to show battery location*

Scanning

The unit may be modified to allow for STEP or HOLD scan. Please contact TASH directly for more information.

Scan Speed

The scanning speed (or time between scan steps) is adjusted by a rotary control accessible through a small hole on the side, below the Train/Use switch. A small screw driver may be placed through the hole and turned clockwise to increase or counter clockwise to decrease the scan speed. Each scan step is accompanied by a short beep. The delay time after the first scan step is longer than the delay after the following scan steps. This makes it easier to select the first location in each group of LED's.

X-10 Control

There are 10 codes already programmed into the RELAX II for X-10 control of small appliances.

IMPORTANT NOTE: To use the X-10 signals, you must have an X-10 Radio Transceiver (TASH #4168), and each appliance you want to control must be plugged into an X-10 module (the modules are chosen specifically for the appliance you want to turn ON/OFF).

The following products are available separately:

- 4168 X-10 Radio Transceiver
- 4160 Lamp Module
- 4162 Appliance Module
- 4164 Wall Switch Module - for ceiling lights
- 4166 Universal Module (for switch-activated devices; for example, TASH's Call Bell, #4500)

To control the chosen appliances, you send the appropriate code from the RELAX II to the X-10 Radio Transceiver. The X-10 Radio Transceiver then sends signals through the house wiring to the appliances you wish to control.*

***IT IS IMPORTANT THAT YOU READ THE MANUAL THAT COMES WITH THE X-10 RADIO TRANSCEIVER FOR CORRECT SET-UP.** The RELAX II / X-10 combination works on House Code "T".

Battery Replacement

The RELAX II uses a 9V battery. The 9V battery supplies the main power for its operation . The RELAX II provides an indication when it is time to replace the battery. When the battery is low, three very short beeps are produced when the single switch is first pressed. Continued use may result in erratic operation. Replacing the battery will correct the problem. To replace the battery, slide back the cover in the direction of the arrow and remove it. Pull the battery out and snap a new battery onto the connector.

ANY QUESTIONS? Contact your local supplier or TASH:

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