Hz2 PROGRAMMING INSTRUCTIONS

IMPORTANT - Review instruction throughly before installing Hz motors

Hz2Inst Rev. B

-The motor is supplied in "Factory Mode". Set direction of rotation (Step 4) before pressing the program button.
-A means of disconnecting the power independently to each motor should be provided.

1) FCC

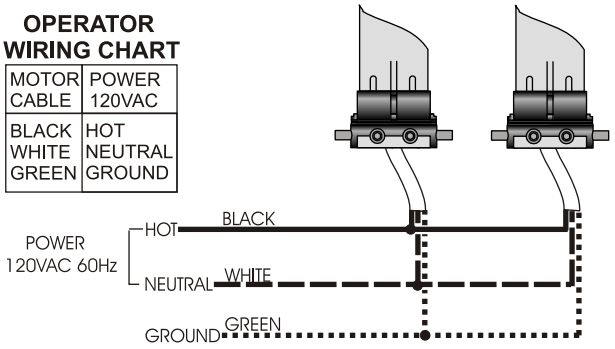
-This device complies with part 15 of the FCC Rules. Operating is subject to the following two conditions:(1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation.
-Caution: Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

2) Hz Operator Wiring

All wiring must conform to the National Electrical Code and local codes
-The Hz operator can be wired to power in parallel (unlike normal AC tubular operators)
-It is recommended that provisions be made to cut power individually when wiring Hz operators.
This can be in the form of an inline off/on switch, a disconnect plug, or access to the operator cable for use of a installers power cable with off/on switch. The ability to cut the power to each motor individually is required to easily program the receiver in the operator.

OPERATOR WIRING CHART

MOTOR CABLE	POWER 120VAC
BLACK	HOT
WHITE	NEUTRAL
GREEN	GROUND



3) Installation

-The Hz motor uses standard T5 accessories.
-Use only SIMU accessories (brackets, adaptors, clips....)
-Mount Hz motor heads **at least** 18 inches from each other to prevent RF interference.
-Always install the power cable with a drip loop to prevent water penetration
-SIMU motors conform to IP44 requirements and as such must be protected against direct weather elements such as rain, sleet, ...etc.

4) Setting Direction of Rotation

The motor must be in "**Factory Mode**": requires continuous pressure on the transmitter to run. The motor will be in "**Factory Mode**" right out of the box when power is connected. If the motor is not in factory mode, or if you have any problems changing the direction of rotation, go to step (9) **Returning to Original Factory Mode** below and follow the procedure to change the motor back to factory mode.

4.1 Before programming you must wake the motor up by pressing and holding up and down until the motor gives a short up/dn bounce.

Press the up and down buttons at the same time the motor will give a small up/down bounce. This means the motor is now **awake.** Press the up button. If the motor goes down instead of up, press and hold the stop button until the motor gives a short up/dn bounce. Confirm the up button now makes the motor run up.

4.2 Press the up button and confirm the motor runs up.

4.3 If the motor runs down instead of up, press and hold the stop button until the motor gives an up/dn bounce.

Note: In factory mode the motor will only run when the transmitter button is held down and only for 3 seconds on one press. To continue running the motor in the selected direction, release the transmitter button and press it again.

5) Setting the Limits (standard Hz only, for Hz DMI limit instructions see the catalog)

1) Identify which limit adjustment screw controls the up limit and which controls the down limit (see diagrams on right). It is important to note that the arrows by the limit adjustment screw refer to the tube's rotation. Thus if the material comes off the tube on the back side and the limit adjustment screws face the front (as per diagram 2), the limit adjustment screw facing up controls the down limit and vice versa.

2) Turning an adjustment screw clockwise will increase the maximum travel in the direction that it controls, and turning it counterclockwise will decrease the maximum travel.

3) To set a limit, run the motor in the selected direction to it's limit. You will know the motor is at its limit when the motor will not run further in the selected when you release the transmitter button and press it in the selected direction again.

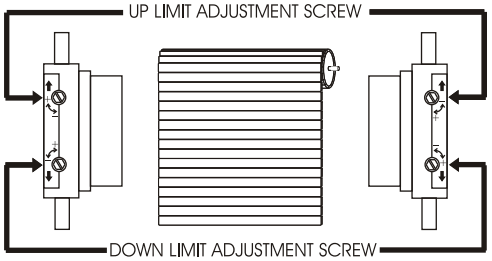
4) If the motor stops at its limit before reaching the desired limit stop, turn the appropriate limit screw positive (clockwise). Every 2 to 3 turns of the limit adjustment screw will allow the motor to travel about 1 inch further on a new signal from the transmitter.
(If the motor does not stop on its own before reaching the desired limit, go to step 6)

5) When you are approximately at the desired limit position, use the transmitter to run the motor away from the limit 2 to 3 feet, and then back. This will allow you to see precisely where the limit is set. Make small adjustments and repeat.

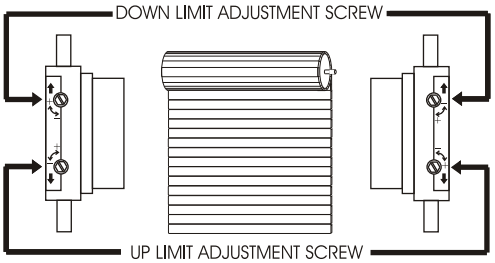
6) If the motor does not stop on its own at least 6 inches before the desired limit position, release the transmitter button and let the motor stop. Then turn the limit adjustment screw in the negative (counterclockwise) direction. Confirm that the motor is stopped at the limit and set the limit as per steps 4 and 5. If the motor is not stopped at the limit, continue turning the limit adjustment screw **counterclockwise** (up to 120 turns may be required)

NOTE: The motor has a built in thermal cutoff. If after several minutes of use the motor will not run in either direction, allow the motor to cool for approximately 20 minutes.

MATERIAL ROLLS DOWN ON SAME SIDE AS LIMITS



MATERIAL ROLLS DOWN ON OPPOSITE SIDE FROM LIMITS



Hz2 PROGRAMMING INSTRUCTIONS

6) Programming the Transmitters

Waking up the motor - Before programming, changing direction of rotation, setting the limits, etc... You must **Wake the motor up.** (As per step 4 above) Press and hold up and down together until the motor gives a short up/down bounce. The motor is now awake. **Note,** you will not be able to program the motor until you "**wake**" it up. You must set the direction of rotation (step 4) before you program the motor. Only power the motor you are programming. Cut power to all other motors until programming is complete.

Before programming you must wake the motor up by pressing and holding up and down until the motor gives a short up/dn bounce.

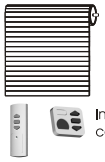
A) Programming one transmitter to one motor (individual control)

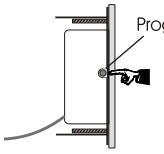
The motor will be in "**Factory Mode**". If it is not, go to step 8.
Press and hold the **Program Button** (about 1 second) until the motor give a short up/dn bounce
If this is the only transmitter for this motor and it is only to control this motor, then programming is complete. Transmitter range will now be approximately 100 ft.

Back of transmitter

B) Programming two or more transmitters to operate one motor (multiple individual controls) or adding a transmitter.

Have the motor memorize the first transmitter as above in step A. Press the **Program Button** on the transmitter that has already been memorized until the motor gives an up/dn bounce. Press the **Program Button** of the second transmitter until the motor gives an up/dn bounce. Repeat for all transmitters to control this motor (12 max per motor)

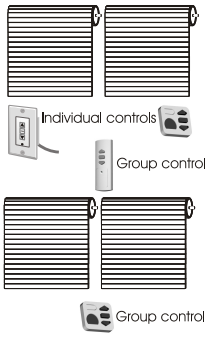




Side of Transmitter

C) Programming group control transmitter (with individual controls)

Program the individual controls as above. With one of the individual controls that has already been memorized by the motor, press and hold the **Program Button** until the motor gives an up/dn bounce.. Press on the **Program Button** of the group control until the motor gives and up/dn bounce Repeat with each motor the group control is to operate.

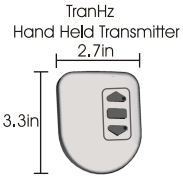


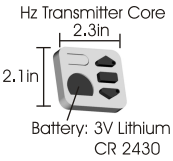
D) Programming group control transmitter (without individual controls)

The motors will be in "**Factory Mode**". If it is not, go to step 8.
Press and hold the **Program Button** (about 1 second) until the motor gives an up/dn bounce.
Move to next motor in group and repeat.

7) Deleting a Transmitter

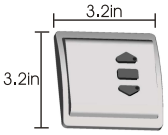
If a motor has two or more transmitters memorized it is possible to delete a transmitter from its memory. On the transmitter you want to keep press and hold the **Program Button** (about 1 second) until the motor gives an up/dn bounce. Press and hold the **Program Button** (about 1 second) on the transmitter you want to delete. When the motor gives an up/dn bounce the transmitter is deleted. **Note**, if the transmitter was not in the receiver's memory, it will be added instead of deleted





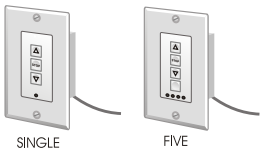
8) Clearing the Memory of Old Transmitters and Adding New Transmitter

If all a motors transmitters are lost or damaged, it is possible to clear the old memorized codes from memory and add the new transmitter. Preform a double power cut in the following sequence:
1) Power off for at least 2 seconds
2) Power on for 5 to 15 seconds
3) Power off for at least 2 seconds
4) Power on (The motor will try and run up for 3 seconds but will not run past its limit)
The motor is now in a **Temporary Mode** (last for 2 minutes)
NOTE: THIS IS NOT "FACTORY MODE". Press and hold the **Program Button** of **<u>any</u>** un-memorized transmitter for **more than 5 seconds.** When the motor gives a short up/dn bounce, release the **Program Button.** The memory of the motor's receiver is now cleared of the old transmitters and the new transmitter has been added. If a motor or motors are entered into **Temporary Programming Mode** by mistake it can be canceled by pressing for a second on the up, stop or down of any transmitter that motor has memorized. The motor will also return to normal operating mode if left for 2 minutes.



9) Returning to Original Factory Mode (Deleting All Transmitters)

Note: When the motor is in Factory Mode is the only time the direction of rotation can be changed
To return the motor to Factory Mode, make a double power cut as described in section (8). Press and hold for 8 seconds the **Program Button** of an **<u>already recorded transmitter.</u>** The motor will give a short up/down bounce. Release the **Program Button.** The motor is now in **Factory Mode.** To wake the motor up press up/dn until the motor gives an up/dn bounce. All transmitters are cleared from memory. The control will be in a momentary fashion (motor will move only as long as the transmitter button is held down)
Note: If you did not use a transmitter that was memorized by the motor, you will have to repeat the process a second time



10) Trouble Shooting

-Motor goes up when down is pressed. Go to step (4) **Setting Direction of Rotation.**
-Can not change the Direction of Rotation. Confirm the motor is in" **Factory Mode**". If it is not, go to step 9.
-Lost transmitter. Go to step (8) to clear old transmitters from memory and add new transmitter.
-The motor will not react to any transmitter. Confirm the motor has power to it. Make sure the motor is **awake** by pressing up/dn together until the motor gives an up/dn bounce. If this does not work, cut power for 3 seconds and try again. If the motor still will not react to the transmitter, follow the instructions in step 8.