

# **INFRATECH**

## **HI-INTENSITY MEDIUM WAVE INFRARED CURING SYSTEMS**



## **USER'S MANUAL**

### **HI-INTENSITY MEDIUM WAVE SYSTEMS**

#### **Models**

#### **S 2002**

*with Programmable Digital Controls*

#### **S 2002 IR**

*with Programmable Digital Temperature Controls*

Congratulations on your purchase of an INF RATECH IRIDIUM Hi-Intensity Medium Wave Curing System. These systems have been designed, tested and engineered to give optimum performance, ease of operation and many years of reliable, productive use.

INF RATECH uses the latest technology and the best components available when designing and manufacturing our infrared paint curing systems. From our long lasting elements to our new *Digital* temperature control system that allows for curing by time and temperature that provide the fastest, most accurate curing available.. INF RATECH clearly leads the industry with one innovation after another.

#### **Manufactured and Distributed By:**

Infratech Division of Seachrome Corporation  
939 North Vernon Avenue  
Azusa, California 91702  
(800) 421-9455 FAX (626) 858-1951  
[www.infratech-usa.com](http://www.infratech-usa.com)

## UNPACKING & ASSEMBLY INSTRUCTIONS

1. Check for visible damage and notify freight carrier if any exists.
2. Carefully remove all packing, bubble pack, and cardboard boxes on the bottom of the pallet.
3. The arm is pre-assembled and wired ready to insert into the vertical posts of the main stand assembly. The brackets are designed to accept the arm and hold it in place while you use the same bolts that held the wooden shipping brackets in place to secure the arm in place.
4. Unbolt the stand from the wooden shipping pallet and remove the system from the pallet.
5. Open the small cardboard box and remove the casters and hardware.
6. Attach casters in the four holes provided using the lock washers and nuts provided.
7. Open the long cardboard box and remove the Quartz Tubes.
8. Remove the end reflectors and guard from each heater.
9. There is a wire with ring terminal on each end of the Heater (under the reflector). Connect the wires to the Elements taking care to get a tight connection.
10. Insert the two Elements into the two Heaters on the arm assembly.
11. Anytime during assembly, you can call toll-free (800)421-9455 for technical assistance.
12. Refer to operating instructions before using the Heater.

**NOTE:** To prevent breakage, unit is shipped without the element installed.

## ELEMENT REPLACEMENT INSTRUCTIONS

1. Check U/L label on Heater for proper voltage.
2. Remove end plates.
3. Open element clips at each end of Heater and carefully install quartz tube. Remove one nut from end of element. Slip on wire over element screw. Replace nut. **NOTE:** Hold element ceramic firmly while tightening nut to prevent damage to element. Nut should be tightened snug, as loose connection could cause element to fail. Connect other side of element in like manner. Close element clips over tube.
4. Replace end plates.
5. Clean tube and reflector with alcohol or equivalent.
6. Snap on grill provided.

## BASIC OPERATING INSTRUCTIONS

1. Plug unit into appropriate power source.
2. To adjust systems operational height: Support the control panel handle and extension arms, then loosen the slide lock knob on the mast slide assembly and with one foot on stand base, lift or lower the entire assembly as required. Normal operating position for most jobs is 1/2 way up the mast. Be sure to adequately re-tighten the slide lock knob after you have repositioned the slider to prevent system control assembly from moving.
3. Extension arm: To raise or lower the extension arm, simply depress the control handle located on the extension arms to the rubber stop and push up or down on the extension arms as required for positioning. Release the handle to lock in the desired position.
4. Heater cassette assembly can be swiveled 270° around extension arm. This makes a narrow foot print so the unit can work in tight locations. The heater head can also tilt down 90° by loosen the locking knob and moving head down to the desired location.
5. Each heater cassette can be individually adjusted to “clam shell” heat around corners or for doorjamb. When heaters are rotated outward, the unit heats a larger area and requires a little more time to cure. When heaters are swiveled in, the cure time and area is reduced. When heaters are swiveled in, consider using at a lower temperature to prevent vehicle damage.
6. Position system so that the heater's cassettes are from 18” to 36” away from the panel.

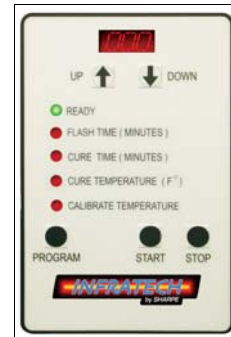
**IMPORTANT NOTE: NEVER POSITION HEATERS CLOSER THAN 18” FROM TARGET AREA.** You should start out with the systems heater cassettes positioned out at 36 inches away from the surface until you get a feeling for the

## SETTING UP DIGITAL CONTROL SYSTEMS

### Programmable Digital Control Box Functions S 2002



### Programmable Digital Temperature Control Box Functions S 2002 IR



#### Digital Control Factory Presets:

Flash Time: 3 Min.  
Cure Time: 30 Min.  
Intensity: 75% Power

With system plugged in to power and "Ready" light on, but prior to starting system, you can change the factory pre-sets.

**To Change Flash Time:** Press program button until flash time led flashes, use arrow up or down buttons to increase or decrease time displayed. When light stops flashing, new time is locked into memory.

**To Change Cure Time:** Press program button until cure time led flashes then use exact same procedure as described above to adjust cure time.

**To Change Intensity Setting:** Press program button until intensity led flashes, use arrow up or down buttons to increase or decrease percent of power output displayed. When light stops flashing, new setting is locked into memory.

Changes made prior to starting the system will be locked into memory until you change settings using the above procedures.

**Changes During Operation:** With system operating you can change any setting by using the above instructions. **However**, any changes made when the system is operating will not be held in memory after the current operating cycle.

#### Auto-Temp Control Factory Presets:

Flash Time: 3 Min.  
Cure Time: 30 Min.  
Temperature: 130° F

With system plugged in to power and "Ready" light on but prior to starting system you can change the factory pre-sets.

**To Change Flash Time:** Press program button until flash time led flashes, use arrow up or down buttons to increase or decrease time displayed. When light stops flashing, new time is locked into memory.

**To Change Cure Time:** Press program button until cure time led flashes then use exact same procedure as described above to adjust cure time.

**To Change Temperature Setting:** Press program button until cure temperature led flashes, use arrow up or down buttons to increase or decrease temp displayed. When light stops flashing, new setting is locked into memory.

Changes made prior to starting the system will be locked into memory until you change settings using the above procedures.

**Changes During Operation:** With system operating you can change any setting by using the above instructions. **However**, any changes made when the system is operating will not be held in memory after the current operating cycle.

**Change Temperature Calibration:** The infrared sensor controller is factory calibrated to +/- 3° F. If you wish to re-calibrate the control, press the program button until the calibra led flashes. Use the arrow up/down buttons to change the setting to match your measuring instrument.

# SYSTEM MAINTENANCE

1. Every 4-6 months unplug the system and remove end reflectors from Heaters and re-check connection of lead wires to the elements.
2. Oil from your hands damages elements. If you touch the elements, clean them with denatured alcohol and clean cotton swabs (make sure the elements are cool first).
3. The reflectors on the Heaters should be kept free of dust or over spray. Use a damp cloth or, if necessary, some fine steel wool or a Scotch-Brite® pad to clean residue off.
4. Weekly blow off IR sensor and dust with a cotton swab. **Do not over-spray sensor.**

With proper maintenance, your new INFRA TECH system should give you years of reliable, productive service.

### Working With Infrared & Paint

Every coating system, applicator and shop have many variables (type of material, thickness applied, type of reducer, air temperature and ambient moisture content) that come into play when applying and curing coating systems. All these variables must be taken into consideration when setting curing time settings and power intensity settings. The following is our recommendation to establish the correct setting for your shop.

1. Mix paint for the current weather conditions in your area as recommended by manufacturer.
2. Start with an intensity setting of 75% power (default setting).
3. Set cure time according to product being cured (refer to cure time chart).
4. If the job is not cured, add more time at the same intensity to complete the job.
5. For the next job using the same materials, increase intensity 5% (or 10% max.) and use the same recommended time.
6. At the first sign of solvent pop, back the intensity down 5% and use that setting down 5%.
7. Increase time settings until desired cure is achieved.

**EXTREME CARE** must be taken when using non-IR control systems. Technicians not familiar with the power of these systems are highly encouraged to use the maximum distance or lower power settings on all applications to assist in avoiding damage to the vehicle being repaired until they gain experience in the use of these systems.

Programmable Temperature Control Models (IR)				Cure Times Chart	Programmable Digital Control Models (non-IR)			
Heated Area	Approx. Cure Time	Digital Temp Settings	Distance From Panel	PAINT TYPE	Heated Area	Approx. Cure Time	Power Intensity Settings	Distance From Panel
4' X 4'	6 min.	180°	24"	Water Based Primer	4' X 4'	6 min.	80 %	24"
4' X 6'	10 min.	140°	36"	Water Based Primer	5' X 6'	10 min.	100 %	36"
4' X 4'	10 min.	180°	24"	Solvent Based Primer	4' X 4'	15 min.	80 %	24"
4' X 6'	15 min.	140°	36"	Solvent Based Primer	4' X 6'	15 min.	100 %	36"
4' X 4'	18 min.	180°	24"	High Solids Clear	4' X 4'	18 min.	80 %	24"
4' X 6'	20 min.	140°	36"	High Solids Clear	4' X 6'	20 min.	100 %	36"
4' X 6'	20 min.	140°	36"	Urethane Clear Coat	4' X 6'	20 min.	100 %	36"
4' X 6'	20 min.	140°	36"	Polyurethane Clear Coat	4' X 6'	20 min.	100 %	36"
4' X 6'	20 min.	140°	36"	Acrylic Enamel	4' X 6'	20 min.	100 %	36"
4' X 6'	20 min.	140°	36"	Lacquer	4' X 6'	15 min.	100 %	36"

## WARNING

- **NEVER** block front of heater ● **DO NOT** operate within 25' of flammable materials ●
- **DANGER:** Do not use within 10' when spraying operations are in progress ●
- **NEVER** service heater without disconnecting from power ●
- **Source** of possible shock ● **Use** only with grounded power source ●
- **Only** use grounded extension cords that are rated for the amp load of these units. ●