

TECHNICAL BULLETIN

Working with Infra-Red Technology-Sensor Placement is Critical



Infra-Red technology is commonplace in many homes used to control audio-visual, television and many other consumer electronic devices. Its popularity proves its ability to control many functions reliably without causing or being affected by outside interference from other signals.

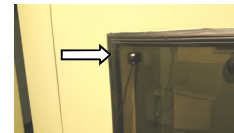
CHARACTERISTICS OF INFRA-RED SIGNALS

Line-of-sight transmission, narrow range of pickup requiring alignment of the transmitter and receiver. Free from outside interference, all signals are contained within the room. Operation can be affected by nearby light sources and can be blocked by solid objects.



PLACEMENT OF IR SENSOR IS CRITICAL

Alignment between the transmitter/remote and the receiver/IR sensor is essential to reliable consistent operation. Therefore, careful placement of the IR sensors within the range of the position that the remote control is used within is necessary to assure reliable operation.



AIMING THE REMOTE CONTROL

A useful trick is to hold a flashlight next to the remote control to see where the light is projected during normal use to know the best spot to place the sensor.

Keep in mind that most users will hold the IR remote control angled upwards at 30 degrees to view the function buttons on the remote-aiming the output signal from the remote upwards rather than directly forward. Concluding that in most applications the IR sensors should be positioned high up on the glass window on the operator's side within 3-4 feet from the sensor for best operation. This may involve running the IR sensor cables through the jack panel into the test room rather than shoot through the glass - particularly in double walled booths.

STRONG MODULATED LIGHT SOURCES

Be mindful of strong modulated light sources such as florescent lights, computer monitors, and LCD TVs that may confuse the sensors from receiving a clean IR signal from the remote control. Keep the IR sensors away from these strong light sources while still in direct view of the remote control output. Do not place IR sensors directly on the front of the Video VRA monitor nor within 3 feet from any other source of infra-red light.

SEEING THE IR SIGNAL

To assist in troubleshooting an infra-red system, use your camera on your cell phone to view the IR signal from the remote control. It will appear as a small blue dot on your camera's viewfinder.



GETTING AROUND OBSTRUCTIONS

If placement of the IR sensor is partially blocked by an object or persons within the room occasionally, consider using the IR BOOSTER accessory to boost and relay the IR signal within the sound room providing a blanket of infra red light to hard to reach sensors.



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