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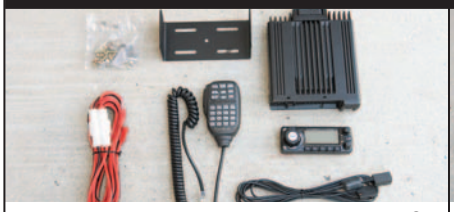
REMOTE CONTACT

Icom IC-208H Wideband FM Transceiver

The Icom IC-208H VHF/UHF FM Transceiver will afford continued communication even from the middle of nowhere. The radio's compact detachable faceplate offers multiple mounting possibilities and keeps it within easy reach of the operator.

AS YOU AND YOUR 4X4 TAKE YOUR ADVENTURES INTO MORE REMOTE REGIONS, THE ABILITY TO MAINTAIN CONTACT WITH A BASECAMP OR REACH HELP IN AN EMERGENCY SITUATION SHOULD RANK HIGHLY ON YOUR VEHICLE-PREPARATION CHECKLIST. BEYOND CELL PHONES AND CB RADIOS, WHICH ARE LIMITED IN RANGE FOR THOSE MIDDLE-OF-NOWHERE EXCURSIONS, FM TRANSCEIVERS CAN PROVIDE NEARLY INFALLIBLE LONG-DISTANCE COMMUNICATION FROM ALMOST ANYWHERE.



In addition to the transceiver head unit, the IC-208H includes a detachable faceplate and separation cable, a radio mounting bracket and hardware, a remote-control microphone, and a fused power-supply cable.

The IC-208H head unit features a large cooling fan and cooling fins to maintain continued operation in temperatures ranging from 14 degrees F to 140 degrees F.

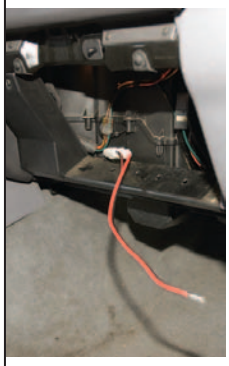
Included with the IC-208H is the HM-133 remote-control microphone, which allows control of most radio functions. It features keypad backlighting and has a coiled Cat 5 network cable for connection to the head unit.

We acquired a 3dB Antenex antenna from PCI Race Radios and had the company cut it to the appropriate length for our required frequencies. The antenna also included a roof seal and an ample amount of cable to meet a variety of mounting needs.

We decided to mount the IC-208H head unit under the rear seat of our '97 Jeep Cherokee, where the factory CD changer would be installed. The carpet already had a cutout, making it easy to remove, and there was a factory heat shield in place to lessen heat transfer from the floorpan.

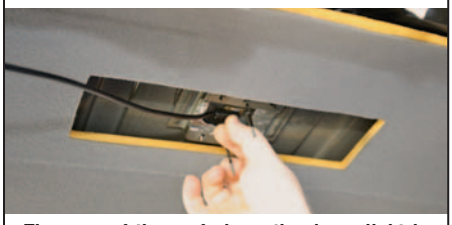
With the mounting holes having been drilled, we placed the radio in the provided cradle mount and secured it in place.

The faceplate separation cable and power supply cables were attached to the radio and routed under the carpet forward to the center console and on to behind the dash. For the microphone, we bought a 5-foot length of network cable and routed it to the center console where we'll install a female Cat 5 connector so we can plug in the mic only when the radio is in use. Once the cables were in place, we tied them up with some wire loom and zip ties.

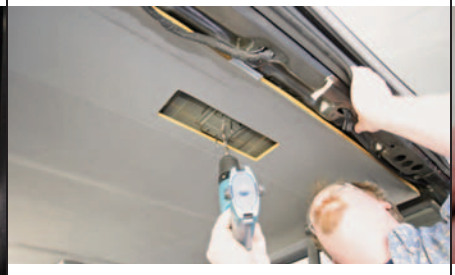


Due to the under-the-rear-seat mounting, the provided fused power-supply cables only reached to behind the glovebox. We added short lengths to each to reach the battery, passing them through a firewall grommet below the passenger-side hood hinge.

With the additional length of Cat 5 network cable routed to the center console, we attached the mic to a female-to-female adapter and routed it through the emergency-brake lever opening. We'll eventually install a Cat 5 plug in the console to the right of the opening so the mic can simply be plugged in. Check out the *4WD&SU* blog at www.4wdandsportutility.com to see the finished product.



The area of the roof above the dome light is double-sheared, so it was necessary to cut out a portion of the mount. Once removed, the antenna easily passed through the newly drilled hole.



We decided to mount the antenna above the rear dome light since we could hide the cable under the rear overhead speaker bar (not shown). We stepped up drill-bit sizes until a 3/8-inch hole could be cleanly drilled.

The PCI antenna features a well-designed base with a double nylon-and-rubber O-ring seal. The antenna mount then threads atop the base to complete the connection.

With the separation cable routed to the right of the steering wheel, we attached it to the detachable radio face and used Velcro strips to secure it in place. Icom offers a radio face mount, but we had the Velcro handy and it seems to hold it securely.

WHAT'S A HAM?

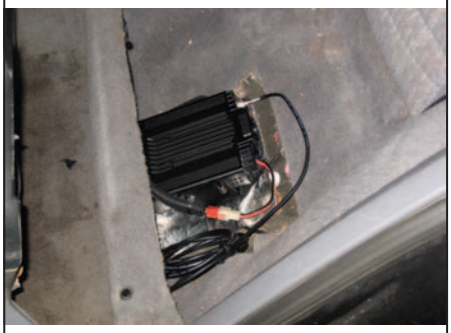
Aside from the usual chunk of cured pork you may be thinking of, ham is slang for an amateur radio user. It originated from early radio days when both commercial and amateur users shared the same wavelength. Commercial radio operators would often refer to amateur operators as "hams" when they'd jam the frequencies and create radio interference. The amateurs affectionately adopted the title, and it is still in use today.

FM transceivers are also widely used in off-road racing for short- and long-distance communications. Most teams will have a dedicated frequency for communicating between the race vehicle and support teams and will also monitor a shared frequency that broadcasts race and emergency information. Even off-road clubs make good use of FM transceivers for trail runs and events to help maintain the flow of vehicles through the obstacles and enable rapid response in emergency situations. Once the proper license is obtained (see sidebar), a ham radio user can transmit and make two-way communications on a frequency licensed to that user, as well as on other frequencies that are shared by many users.

For our latest project rig, we required a powerful enough radio to transmit from the deserts and mountains throughout the north and southwest U.S. as well as throughout Baja California where we attend many off-road races each year. Based on experiences with some bulky CB radios, we also wanted something that wouldn't be a knee-scraper or a head-cracker in its mounting configuration. Our search for a unit that fulfilled these requirements led us to Icom America, a huge player in the worldwide amateur radio industry and a manufacturer of many styles of FM transceivers. Icom's IC-208H is a high-power, dual-band VHF/UHF FM transceiver designed for monitoring and broadcasting on amateur radio bands (standard frequencies of the IC-208H cover 118-173, 230-549, and 810-999 MHz) as well as aviation, marine, and weather frequencies. It is the company's most powerful dual-band mobile radio, offering 55W/50W (VHF/UHF) output for stable long-distance communications, as well as reduced power settings (15/5W) for local communications.

Furthering the IC-208H transceiver's allure, it incorporates a detachable faceplate that can be remotely mounted using the provided separation cable.

When the radio isn't in use, we can keep the antenna in the cab and then simply thread it onto the base upon use. We'll likely put a rubber cap over the threads of the base so the threads will stay clean.



The antenna cable was then routed forward and connected to the radio. With the rear mounting of the head unit, we'll also likely install a small external speaker in the console, but for the time being the speaker in the head unit is sufficiently loud.

HAM RADIO USE: GET YOUR LICENSE

Ham radio users are required to take an exam in order to obtain an amateur radio license. In the United States, amateur radio licenses are monitored by the Federal Communications Commission (FCC). An entry-level license, the most popular, earns a Technician designation, which allows operation on all amateur frequencies above 50 MHz. The next level is the General class, which allows increased use on amateur bands. This level requires a written test and a five-word-per-minute Morse code test. The top license is the Amateur Extra class and permits use on all amateur frequencies. Licenses are issued and renewed free of charge and last for 10 years. A license can be obtained by taking a test administered by an accredited volunteer examiner (VE). A list of VEs in your region can be found on the FCC Wireless Telecommunications Bureau website. Another good source is ARRL, the National Association for Amateur Radio, which offers a searchable index for test centers in your area.

This means that the radio can be mounted just about anywhere in the vehicle, such as under the seat or behind the dash, while the faceplate with radio controls can be remotely mounted to the dash face within easy reach of the operator. Even if the faceplate isn't within easy reach, the IC-208H includes the company's HM-133 remote-control microphone, which allows the ability to control almost every function of the radio from the handheld mic. The IC-208H also offers 500 alpha-numeric memory channels that allow you quick access to the frequencies and operation settings, such as output power and tone, that you use the most.

With radio in hand, we started a driveway installation in our '97 Jeep Cherokee Sport. The IC-208H includes a radio mounting bracket that permits a variety of mounting possibilities. With limited space in the driver's area of the cab, the remote-mount face was a terrific feature. We found a great spot for the radio beneath the rear seat and easily routed the necessary connections forward. With the radio in place, we'll have peace of mind that we're never alone, even in the farthest reaches of nowhere. *4WD*

SOURCES

FCC WIRELESS TELECOMMUNICATIONS BUREAU
http://wireless.fcc.gov

ICOM AMERICA
(425) 454-7619
www.icomamerica.com

NATIONAL ASSOCIATION FOR AMATEUR RADIO (ARRL)
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