TIGER PERFORMANCE PRODUCTS, INC.

Aviation and Marine • Safety • Communications

Tiger Communications™
Multifunction Modular Marine Radio Intercom System

INSTALLATION AND OPERATING INSTRUCTION MANUAL

Attention Installer: To assure trouble free installation, please read the entire instructions through once before beginning.

Intercom System Features - MADE PROUDLY IN THE USA!

1. Waterproof design with components either IP67 or IP68 rated.
2. Configuration-Specifically designed for permanent panel mount installation.
3. Up to eight (8) position intercom with push to talk positions.
4. Voice activated feature allows “hands free” intercommunication between the positions. Start speaking and the intercom instantly turns on to relay your message clearly to other headsets/helmets; stop talking and it turns off to reduce background noise. There’s no reason to raise your voice or turn your head to communicate.
5. Transmit capability allows the driver and co-driver positions to transmit over a radio via the push to talk buttons through their headset/helmet microphones. The intercom function is automatically disabled during transmitting, so that only the voice of the person communicating will be heard.
6. 3 or 6-radio switching is capable with all intercom systems.
7. Radio monitoring capability allows radio output to be heard by all positions.
8. Hardware included – All hardware for headset/helmet panel mount jacks, PTT switches and other panel mount products is supplied with the system.
9. Optional easy to use digital sound Processing (DSP) reduces background and wind noise.
10. Distortion- Less than 1% total harmonic distortion.
11. Wireless- wireless headsets/helmets replace standard wired headsets and allow the user to use all standard features wirelessly through the intercom system.
12. Optional Bluetooth wireless cell phone feature with driver isolation or common audio.
13. Warranty, All radio/intercom system components are constructed of high-quality parts and carry a 1-year parts and labor warranty on defective parts and workmanship

What You'll Need

5/8'' Drill Bit, 3/4'' Drill Bit, 1" Drill Bit, Pilot Drill Bit, Jig Saw or Similar Marker
Power Drill W/ Phillips Bit, Tape Measure or Ruler, Template(s) (Provided)
Sandpaper or File, Multi-meter (With DC reading), Jeweler Flat Head Screwdriver

Intercom Installation

The location that you select requires a minimum front panel size of 4 inches wide by 2.5 inches high. The depth behind the panel requires 5 inches plus cable access.

Caution: When finding location move vehicle controls through the limits of their travel while observing to make certain no intercom components interfere with any vehicle control components.

Panel Preparation

Intercom

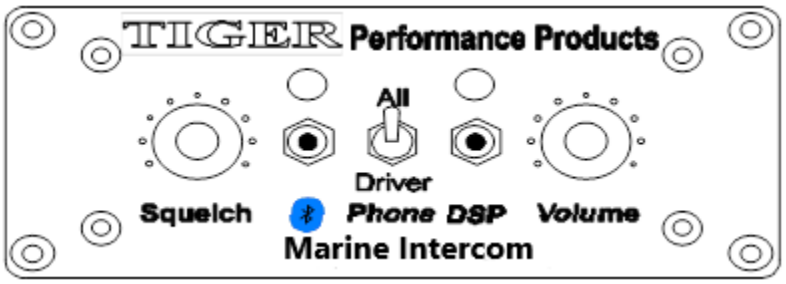
1. Position the intercom template on the selected area and secure the template.
2. Locate the body on the template and drill 4 pilot holes at the corners of the body big enough to fit a cutting blade.
3. Remove template and connect the 4 holes with a straight edge and marker to make a rectangle.
4. Carefully cut out a rectangle towards the inside of the box.
5. Once cut out roughly test fit intercom if the area is too small sad or file some material and re-fit until intercom fits through hole.
6. After fitting the intercom to the desired position, attach the intercom to the panel with the included hardware.

Note: Actual template on page 13.

Monaural/Stereo Intercom with Digital Sound Processing (DSP)

Monaural/Stereo intercom systems have all standard features and relay all wired communication in Stereo where applicable, including any external music systems. Mono Intercoms are also capable of being outfitted with any wireless Products. The DSP feature digitally processes outside noise and cuts back outside nuisance noise while amplifying headset/helmet audio. This feature is controlled by a button on the front panel and is activated when the user quickly presses the button for approximately 1 second and then is de-activated by pressing the button for an additional 1 second. Note: wireless products relay all communication monaurally.

Monaural/Stereo Intercom with Digital Sound Processing and Bluetooth

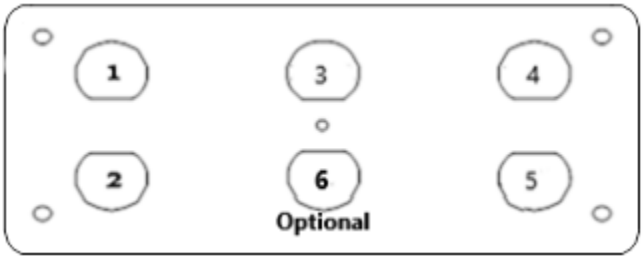


Monaural/Stereo Intercoms with Wireless Phone Feature and DSP have all the same features as the standard monaural/stereo intercoms along with the optional features of the Bluetooth wireless phone connectivity and DSP and relay all wired communication in stereo where applicable. For pairing instructions refer to page 8. Note: wireless products relay all communication monaurally.

Back Panel Cable Connection Reference

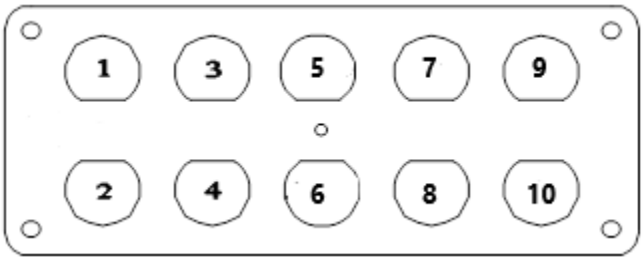
2 Person Key:	**3 Person Key:**
1 - 8 Pin Station 1 + Radio PTT **2 -** 8 Pin Station 2 + Radio PTT **3 -** 4 Pin 12-28V Power **4 -** 4 Pin Audio In/Out **5 -** 5 Pin Radio	**1 -** 8 Pin Station 1 + Radio PTT **2 -** 8 Pin Station 2 + Radio PTT **3 -** 8 Pin Station 3 **4 -** 4 Pin Audio In/Out **5 -** 5 Pin Radio **6 -** 4 Pin 12-28V Power
4 Person Key: **1 -** 8 Pin Station 1 + Radio PTT **2 -** 8 Pin Station 2 + Radio PTT 3 – 8 Pin Station 3 4 – 8 Pin Station4 **5 -** 5 Pin Radio **6 -** 4 Pin 12-28V Power	

2,3,4 Person Intercom



6 Person Key:	**7 Person Key:**
1 - 8 Pin Driver Station 1 **2 -** 3 Pin Driver Station 1 **3 -** 8 Pin Co-Driver Station 2 **4 -** 3 Pin Co-Driver Station 2 Radio PTT **5 -** 8 Pin Station 3 **6** - 4 Pin 12-28V Power **7** - 8 Pin Station 4 **8** - 5 Pin Radio **9 -** 8 Pin Station 5 **10 -** 8 Pin Station 6	**1 -** 8 Pin Driver Station 1 + Radio PTT **2 -** 3 Pin Driver Station 7 **3 -** 8 Pin Co-Driver Station 2 **4** - 3 Pin Co-Driver Station 2 Radio PTT **5** - 8 Pin Station 3 **6** - 4 Pin 12-28V Power **7** - 8 Pin Station 4 **8** - 5 Pin Radio **9** - 8 Pin Station 5 **10** - 8 Pin Station 6
8 Person Key: **1 -** 8 Pin Driver Station 1 + Radio PTT **2 -** 8 Pin Driver Station 7 **3 -** 8 Pin Co-Driver Station 2 + Radio PTT **4 -** 8 Pin Co-Driver Station 8	**5 -** 8 Pin Station 3 **6** - 4 Pin 12-28V Power **7** - 8 Pin Station 4 **8** - 5 Pin Radio **9** - 8 Pin Station 5 **10 -** 8 Pin Station 6

6,7,8 Person Intercom



Headset Helmet Jack Installation

Headset/Helmet Panel Mount Jack

1. First decide the desired location for the headset helmet jack keeping in mind what side the cord comes out of headset and the length of the cable in comparison to the location of the intercom box.
2. When deciding the location of the panel bezel, it requires a 2 inch diameter surface area for the mounting plate and a 3 inch depth.
3. After finding a suitable area mark hole location and drill a 1 inch hole in the center of the selected area.
4. After drilling hole(s) route cable(s) to proper position on intercom box and plug in the cable. Attach the panel bezel to the cockpit surface using the provided hardware.
5. Where applicable feed the PTT cable through the hole prior to mounting the panel bezel. Repeat as many times as needed.

Cables Available in 1, 5, 10, 15 ,20, 25, 30 and 35 foot lengths (Custom Cable Length upon Request)

Push to Talk Cable Assembly installation

Panel Mount Push to Talk Cable Assembly

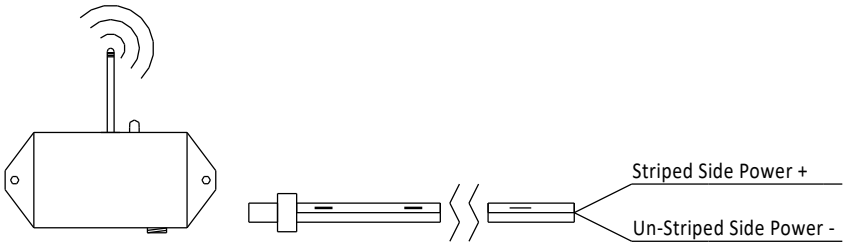
1. decide the desired location keeping in mind that the cable must be within reach of the user.
2. When finding a panel push to talk location keep in mind that the panel bezel requires a 1 3/4 inch diameter surface area for the mounting plate and a 2 inch depth.
3. After finding a suitable area and marking hole location drill a 7/8 hole in the center of the selected area.
4. After drilling hole(s) pull the cable through the hole and install the panel bezel.
5. Position the bezel and attach to the surface using the provided hardware.

6. Repeat again for each panel mount push to talk.

Wireless Installation

Vehicle Powered Transceivers

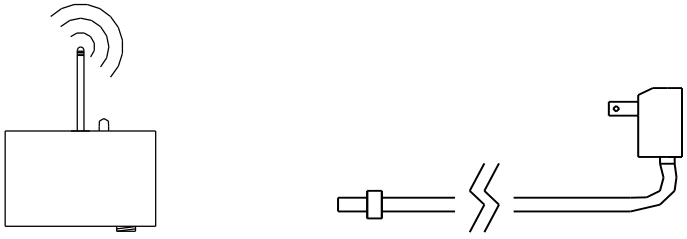
1. Choose a suitable location for the transceiver body that will have the best line of sight to the wireless headset or helmet, making sure not to mount behind metal bulkhead or carbon fiber panel while considering the length of the power cable and communication cables.
2. Attach the body of transceiver with the provided hardware and route power and communication cables to their locations.
3. The power cable for the transceivers should preferably all be routed to a buss bar with a direct 12volt connection to the battery, with the striped side of the cable representing the + power to the transceiver.



Vehicle Powered 12-28 Volt DC Power Cord Transceiver Available in 6’ Foot Length

Battery Powered Transceivers

1. Choose a suitable location for the transceiver body that will have the best line of sight to the wireless headset or helmet, making sure not to mount behind metal bulkhead or carbon fiber panel and also considering the length of the communication cable.
2. Velcro or secure the body to the desired spot to prevent box from moving while in motion and allow for easy removal for re-charging.



Rechargeable Battery 110 Volt AC Wall Charger Powered Transceiver

How to Pair Any Wireless Products

Any new wireless product straight out of the box should be paired and ready to use.

Headset/Helmet/Belt box

1. First initiate pairing at the transceiver side by pressing the power on off button and holding it for approximately 8 seconds or until the LED on the transceiver starts flashing amber only.
2. After making sure the mating device is turned off, press and hold the power on off button on the mating device for approximately 8 seconds or until the LED starts flashing amber.
3. Once flashing you will hear 3 beeps in the mating device signifying that the pairing process has begun.
4. After the pairing has begun the auto-connection takes about 45-50 seconds, after which both devices will flash only green.
5.

Wireless Phone featured Intercom

1. When pairing a cell phone first press and hold the pairing button on the front panel of your intercom system until the LED starts to Quickly flash Blue.
2. Next activate the Bluetooth pairing on your cell phone and wait up to 10 seconds for your cell phone to find the intercom system.
3. After finding and selecting the intercom system it will ask for a 4 number pairing code to connect, when prompted enter “0000” and allow a few seconds for your cell phone to connect. Your phone will then read connected or similar and the LED on the intercom front panel will Slowly flash Blue when paired.

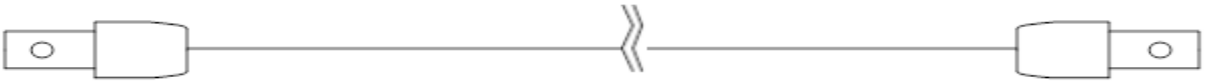
Radio installation

Note: The area selected must be in an easy to access area, must have a depth of 9 inches and have enough room on both sides of the radio to a secure the screws on the flush mount bracket while still being able to reach the intercom with your selected radio cable.

Radio

1. Position the Radio template (where applicable) on the selected area, be sure that the template is square and level to the mounting surface and then secure the template.
2. Locate the body on the template and drill 4 pilot holes at the corners of the body big enough to fit a cutting blade.

3. Remove the template and connect the 4 holes with a straight edge and marker to make a rectangle.
4. Carefully cut out rectangle towards the inside of the line.
5. Roughly test fit the Radio, if the area is too small, sand or file away some material and re-fit until Radio fits through hole with no gaps.
6. After fitting the radio in the hole, from behind panel attach the mounting brackets to both sides of the radio and tighten the depth screws until the radio is tight against the panel.



Radio Cable Assembly

Cables Available in 5, 10, 15 and 20 foot length (Custom Cable Lengths upon Request)

Antenna Installation

1. Choose a location that is located at the highest point possible for optimum 360 degree line of sight. Do not mount antenna below deck or near engine ignition or electrical wires.
2. After selecting area route cable to the radio screw in the cable and secure the bracket to the selected area with the provided hardware.

3 or 6 Radio Switch Box and Selector Switch

Radio Selector Switch Box

1. First find a suitable area for the switch box, preferably behind dash to hide wires, taking in account that the switch box takes a minimum of 4 inches of depth.
2. Make sure the location you choose is within reach of the intercom and radios.
3. Finally mount switch box with included hardware after making sure hardware does not interfere with anything behind mounting surface. Then run the cables to intercom.

Radio Selector Switch

1. Find the desired location keeping in mind that the cable must reach the switch box.
2. When finding the selector switch location remember that the panel bezel requires a 1 3/4 inch diameter surface area for the mounting plate and a 2 inch depth.
3. After finding a suitable area and marking hole location drill a 5/8 hole in the center of the selected area.

4. After drilling hole route cable to proper position on junction box and plug in the cable. Then attach the panel bezel to the cockpit surface using the provided hardware.

Final installation and Notes

Notes

When running cables the best way to route them is to run them through seldom used areas and use grommets on any surface it encounters to prevent chaffing/wear to cables. Also use p-clamps as often as possible to keep cables from moving around.

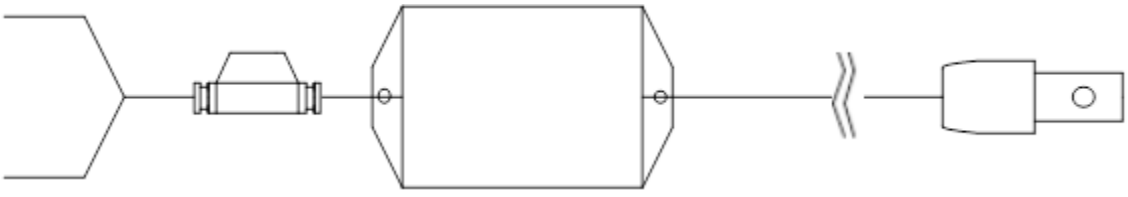
If at all possible DO NOT run power cables next to communication cables or near any radio related antenna or communication cables as it will possibly cause interference with the communication system.

Always coil up and wire tie any extra cable length DO NOT cut cables and re-terminate them as this may cause unintended problems to systems.

Any system provided by Tiger Performance should be run through an ignition noise suppressor to reduce noise through the communication system caused by the alternator.

Ignition Noise Suppressor

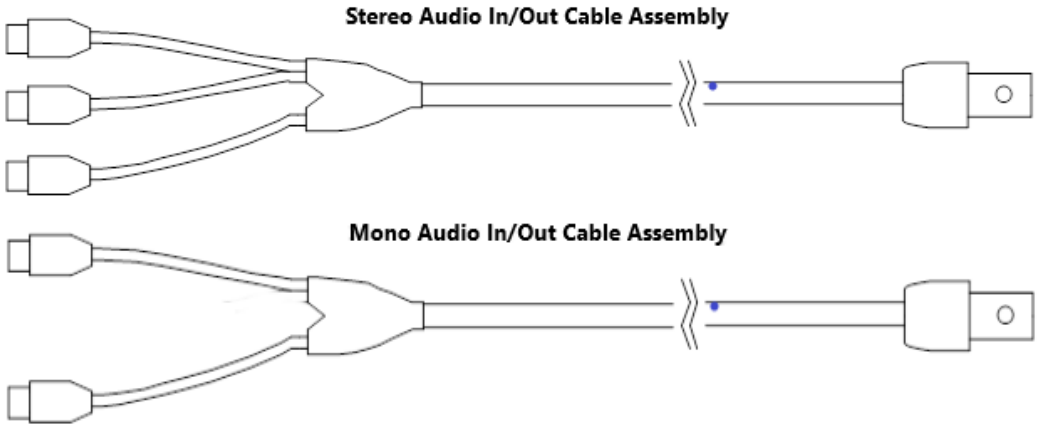
1. The ignition noise suppressor must be within reach of both the intercom and radio as it supplies power to both.
2. Secure with the provided hardware the ignition noise suppressor to its location.
3. Connect the red and black wires to a direct the 12-28 volt power source, red representing the power and the black representing the ground, then route power cables to the radio and the back of the intercom.



Cables Available in 6 Foot Length

Audio In/Out

1. When applicable an audio In/Out cable allows the user to connect RCA cables from an external music source (CD, Radio, TV Ect.) to an intercom system via the 4-pin connector on the back panel.
2. This cable also has a third RCA connector to connect to a camera or other device for audio recording purposes.
3. To install simply plug the RCA connectors in the color corresponding jacks on your external source and match them up to the colors on the left and right channels of your audio input cable. To install the audio output cable, plug a single RCA cable into your camera or other device and plug the other end into the audio outside of your audio in/out cable.



NOTE: Cables Available in a 2' length

Installation Checklist and Adjustments

After the system is fully installed, once again verify that all components do not interfere with any vehicle controls and all communication cables are as far away from power cables as possible.

Intercom

1. Make sure plugs are secure in the back of the intercom.
2. Plug in 5 pin radio or 3-station radio switch box cable into the back of the intercom, if no radio is being used in the system, cover the 5-pin connector with a dust cap.
3. Finally plug in the 4-pin audio in/out plug into the back of the intercom if applicable or cover with a dust cap.
4. Power up the system: Using a voltmeter, check to make sure you have DC voltage to the ignition noise suppressor 3 pin power plug is approximately 12-15 volts DC.

5. Plug 3 pin ignition noise suppressor cable back in and power the intercom on with the volume switch on the front panel, then temporarily turn both the volume and squelch knobs clockwise to the max. Position.
6. Activate a headset either by turning on a wireless headset/helmet on or by plugging a wired headset/helmet into a jack.
7. Make sure any microphone on-off buttons are activated and confirm the intercom is functioning as intended; you should be able to hear yourself talk.
8. Test all headsets and helmet combinations and verify that all stations work.
9. If a station does not work carefully review the instructions again and confirm everything has been installed properly.
10. Adjusting Squelch and volume

Squelch

1. First turn intercom volume all the way to the clockwise to max position.
2. Put on headset and adjust squelch clockwise to max. position, you should be able to hear background noise easily.
3. Slowly turn the squelch knob counterclockwise until background noise can no longer be heard and speak into microphone to confirm that it will still pick up voice communication.

Volume

1. After adjusting squelch, slowly adjust the volume knob clockwise until the volume is at the desired level. **Note:** Once set the volume and squelch should no longer need to be adjusted, other than minor adjustments depending on the environment.

Radio

1. Have another radio that can be tuned to the same frequency nearby to test operation.
2. Turn on radio and adjust squelch by turning knob clockwise until static is heard, after you hear static adjust knob counterclockwise until it stops.
3. For volume using a second radio call over the frequency and adjust the knob counterclockwise until the level you desire is achieved.
4. After adjusting squelch and volume take a headset/ helmet and press all push to talk buttons and talk into the microphone while listening to the second radio to confirm proper function.
5. Radio Gain adjustment is performed before you receive your radio and is rarely ever required when installing your radio.
6. Radio gain adjustment should only be performed by a knowledgeable technician and itrequires two people. First remove the set screw in the back of the intercom with a flat head screwdriver. Then using the same flat head, adjust the potentiometer while talking over the radio until outgoing audio is clear.