



For best results use only a high-quality Berg Crystal, some miniature crystals will not provide acceptable performance.



The case on this receiver may be removed at your own risk. Please encase the receiver in shrink wrap to protect it's components. You must place insulating tape over the metal crystal such that the metal crystal case can not touch and short on the sockets. Electrical tape works well. Simply push the crystal through a small piece of tape and wrap the edges of the tape on the crystal.

## WARRANTY & SUPPORT INFO

For warranty, troubleshooting, or application information, please contact us at any of the following:

(913) 390-6939

[www.castlecreations.com](http://www.castlecreations.com)

[support@castlecreations.com](mailto:support@castlecreations.com)

This device complies with part 15 of the FCC Rules. Operation 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.



Make all adjustments with the engine not running, or if in an electric plane, make sure that the motor is disconnected.

This is not a toy, use only under adult supervision. Observe all AMA and governmental requirements for safe operation of an RC aircraft.

Observe all traditional channel safety guidelines, do not attempt to fly or operate two RC planes on the same channel.

Castle Creations, Inc. warrants this product to be free from manufacturing defects for a period of one year from date of purchase.

### Safety First!

Castle Creations, Inc., is not responsible for your use of this product, or for any damages or injuries you may cause or sustain as a result of its usage. An electric motor that is connected to a battery and speed control may start unexpectedly and cause serious injuries. Keep the propeller away from your body and others at all times. Always observe local laws regarding the operation of remote controlled aircraft.

This product may contain chemicals known to the State of California to cause cancer and or birth defects or other reproductive harm. Do not ingest this product, it may hurt you.



**Designed in Kansas**

Components manufactured in the USA, Mexico, and China



Thank you for purchasing the very finest in receiver technology. Make sure to read through all of these directions and tips to get the most from your new Castle Creations Berg 7P receiver.

### Castle Creations Berg 7P Receiver Specifications:

- ★ Compatible with most brands' 72mHz FM transmitters\*
- ★ Number of channels: 7
- ★ Channel outputs: 1-2-3-4-5-6-7
- ★ FM Tx channels 8 and 9 may be mapped to Rx outputs via Castle Link (sold separately)
- ★ Triple tuned RF circuitry with steep flank 8 pole IF ceramic filter set
- ★ True Digital Signal Processing (TDSP) filtering with adaptive algorithms
- ★ Sensitivity: Better than 1.2  $\mu$ V
- ★ Shift polarity: auto-detects positive or negative
- ★ Dimensions: 0.85" x 1.25" x 0.55"
- ★ Weight: 9 grams
- ★ Selectable Fail Safe mode: Upon two seconds of no signal, servos move to user programmed positions until the signal returns.

*\*Not for use with PCM encoded signals or the Futaba 9Z series with synth module.*

### Transmitter Signal Recognition (TSR) process:

The receiver "learns" the characteristics and specific signal signatures of your transmitter when you power it up. After that, the receiver will only listen to your transmitter\*.

*Note: If a similar transmitter on the same channel is powered up and is CLOSER to your receiver than your own transmitter, loss of signal/fail safe may be experienced.*

### True Digital Signal Processing (TDSP):

TDSP is a proprietary process developed by Peter Berg. In addition to highly advanced triple-tuned RF filtering hardware, Castle Creations Berg receivers use a microprocessor and sophisticated software algorithms to filter the incoming signal. The system decides which signals are valid and which are not. Most standard FM receivers simply pass on the invalid signals to the servos as a "glitch".

TDSP receiver technology essentially eliminates glitches and provides a new level of confidence that you will **only** get with Berg by Castle Creations.

**castlecreations.com**

**VERTICAL PIN**  
FOR BEST PERFORMANCE, USE ONLY A BERG CRYSTAL

castle creations  
**Berg 7P**<sup>TM</sup>  
SEVEN CHANNEL PROGRAMMABLE RECEIVER

**FULL RANGE  
PROGRAMMABLE RECEIVER  
WITH FAIL SAFE**

**TRUE DIGITAL SIGNAL PROCESSING (TDSP)  
TRANSMITTER SIGNAL RECOGNITION (TSR)**



**castle**<sup>TM</sup>

## POWERING YOUR BERG 7P RECEIVER

When you power up the receiver, it goes into a “learning cycle” for less than one second where it learns the characteristics of your transmitter including shift polarity, number of channels and frame timing.

*Note: If all seven channels are connected to servos and you need a battery pack to power the receiver and servos, use a “Y” harness with any channel.*

## RANGE CHECKING

### Always range check your radio.

Start with your transmitter on and the antenna collapsed. Then power up the receiver in the aircraft. Check to see that all channels are working correctly. Start walking backwards and count your paces. For a passing range check, you should be able to get approximately 30 paces (100 feet) away from the plane before seeing indications of a lost/degraded signal\*.

*\*Special Note: Castle Creations’ Berg receivers are tuned for flying above the ground. If the antenna is very close to the ground (e.g. aircraft sitting on the ground), you may see a poor range check. If this is the case, simply elevate the aircraft off the ground and try again.*

## BERG 7P LED

The Berg 7P LED is illuminated whenever the receiver does not “see” a valid signal. This may occur due to lack of signal (your TX is off) or due to interference (another TX is on or other environmental causes), or possibly a defective crystal. If your LED is flashing frequently, please do not attempt to fly until you have identified the cause.

## CASTLE LINK PROGRAMMING

Your Castle Creations Berg 7P receiver is ready to fly out of the bag. It can also be programmed on your home computer with the Castle Link USB programming device!

Plug the supplied jumper into any open channel and plug the other end into the Castle Link, then power up the receiver. If all seven channels are being used, you must unplug one to use with Castle Link. Do not use a Y harness.



*Do not attempt to drive servos using only the USB cable and a three wire connector, you may cause damage to your servo or computer.*

Visit [castlecreations.com](http://castlecreations.com) for amazing new features and functionality for your Berg 7P receiver, available only from Castle Creations!

*\*Castle Link USB interface device sold separately.*

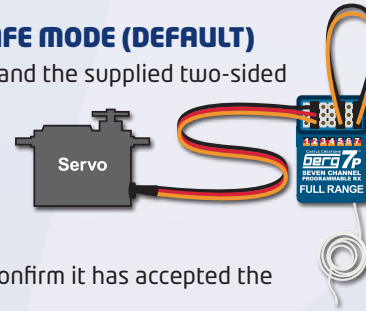
## MANUAL PROGRAMMING



*Always start with the transmitter ON and the receiver unpowered.*

### TO TURN OFF FAIL SAFE MODE (DEFAULT)

Put a servo in channel 2 and the supplied two-sided jumper into channels 7 and 5. When the receiver is powered up in this configuration it will turn OFF Fail Safe Mode and the servo will “wave” continuously to confirm it has accepted the command.



### TO TURN ON FAIL SAFE MODE

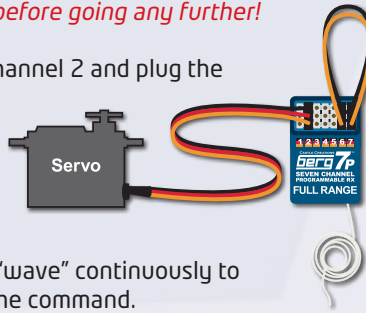


*DO NOT FLY immediately after activating Fail Safe. The receiver expects you to set the Fail Safe positions the next time it is powered up, so be sure to follow ALL the steps below before flying your model.*



*With electric aircraft, remember to REMOVE THE PROP or ROTOR BLADES before going any further!*

**STEP 1:** Put a servo in channel 2 and plug the supplied two-sided jumper into channels 7 and 6. When the receiver is powered up in this configuration it will activate Fail Safe Mode and the servo will “wave” continuously to confirm it has accepted the command.



**STEP 2:** Power down the receiver. The Fail Safe Setup Mode is now enabled, you MUST program your desired servo holding positions the very next time you power up the receiver.

**STEP 3:** Reconnect all servos into their normal positions in the model.

**STEP 4:** Turn your transmitter on and power up the receiver. Use your transmitter sticks to move your control surfaces and throttle to the exact positions you would like to have them should a complete loss of signal occur.

5 to 10 seconds after power up, the receiver will store those positions in memory. Channel 2 will “wave” continuously to confirm the servo positions are set.

**STEP 5:** Power down the receiver completely. Your Berg 7P will keep these servo positions in permanent memory until you change them. The Berg 7P will only require this programming function the first time you power it up after Fail Safe has been activated.

## TO TEST FAIL SAFE OPERATION

**STEP 1:** Turn your transmitter and receiver ON.

**STEP 2:** Check for correct control of all servos and then put all controls in random position.

**STEP 3:** Turn the transmitter OFF. All servos should stay in their positions for two seconds. If Fail Safe is activated, all servos should then move to their programmed Fail Safe positions and stay there until a signal returns.



*NOTE: Castle Creations’ Berg receivers WILL NOT “lock you out” permanently if Fail Safe is engaged. You will have immediate control of your model as soon as the interference clears. The receiver is always looking for a valid signal from your transmitter, even while in Fail Safe and holding your programmed servo positions.*



*NOTE: When turning ON a computer transmitter it may take up to eight seconds for the transmitter to boot up.*



*SUGGESTION: NEVER perform this test “in the air” by turning your transmitter OFF and then ON again.*



*Always perform a standard pre-flight test. Confirm that all channels operate as required and verify that the Fail Safe mode (if activated) does exactly what you programmed it to do.*