MODEL 8040 MicroPLUS® / MicroCLIK™ RF RECEIVER (WEIGAND)

The model 8040 **RF Receiver** is designed for use as a Stand-Alone or Weigand applications using Micro**PLUS**® or Micro**CLIK**™ transmitters. A built-in dry contact form "C" relay can directly control a gate operator if desired. A "**Master**" transmitter can be setup to quickly put the RF receiver into **"Learn Mode"** to program in additional transmitter codes. The RF receiver current draw may be reduced to about 1 milliampere average for solar gate operator applications.

DoorKing Part Number
8040-080
5300 MicroPLUS Transmitter Codes
100 MicroCLIK Transmitter Codes

MicroPLUS® Transmitter Codes

The 8040 RF receiver can handle up to 5300 Micro**PLUS**® transmitter codes. The **High Security Encrypted "Rotating Code" RF Receiver** will output Micro**PLUS**® transmitter codes to a Weigand controller in 26, 30 or 31-bit Weigand format.

The received transmitter code **MUST** match the programmed **"Transmitter Code", "Facility Code"** (or not match the Facility Code if a Weigand controller is used)**,** and **"Transmitter Button Code"** before the receiver will respond.

P/N 8069-080   P/N 8070-080   P/N 8071-080

Micro**PLUS**® Transmitters

MicroCLIK™ Transmitter Codes

The **8040** RF receiver can handle up to 100 Micro**CLIK**™ transmitter codes. The **RF Receiver** will output Micro**CLIK**™ transmitter codes to a Weigand controller in 26 or 31-bit Weigand format.

The received transmitter code **MUST** match the programmed **"Transmitter Code", "Facility Code"** (or not match the Facility Code if a Weigand controller is used)**,** and **"Transmitter Button Code"** before the receiver will respond.

P/N 8066-080   P/N 8067-080   P/N 8068-080

Micro**CLIK**™ Transmitters

Installation

This receiver is **NOT** designed to be installed outdoors without being protected from the weather. An outdoor enclosure is available for the receiver if required, (P/N 8057-110 - Metal Outdoor Box).
Install the 8040 receiver in a location so the antenna is **NOT surrounded by metal and is in free air as high as possible above the ground.** A longer Coax Antenna kit is available for the receiver if required (P/N 1514-073 - Includes antenna, mounting "L" bracket and 15 feet of coax cable). An antenna amplifier kit (P/N 8058-080) or a Yagi directional antenna kit (P/N 1514-072) is also available for the receiver if required.
The **Program LED** on the side of the case will blink as RF energy is received. If the program LED blinks or is on continuously, this indicates that there may be interference on the frequency (318 MHz) and short range may be the result. If this happens, try relocating the receiver or remove the source of interference. An antenna amplifier or a directional antenna may be needed. **Note:** Loop detectors and proximity card readers can cause receiver interference.


Be sure the antenna, coax shield and F connector are completely isolated from the ground.

Removable receiver terminal for easy wiring.

18" Coax Cable

Coax Antenna Kit (Included)
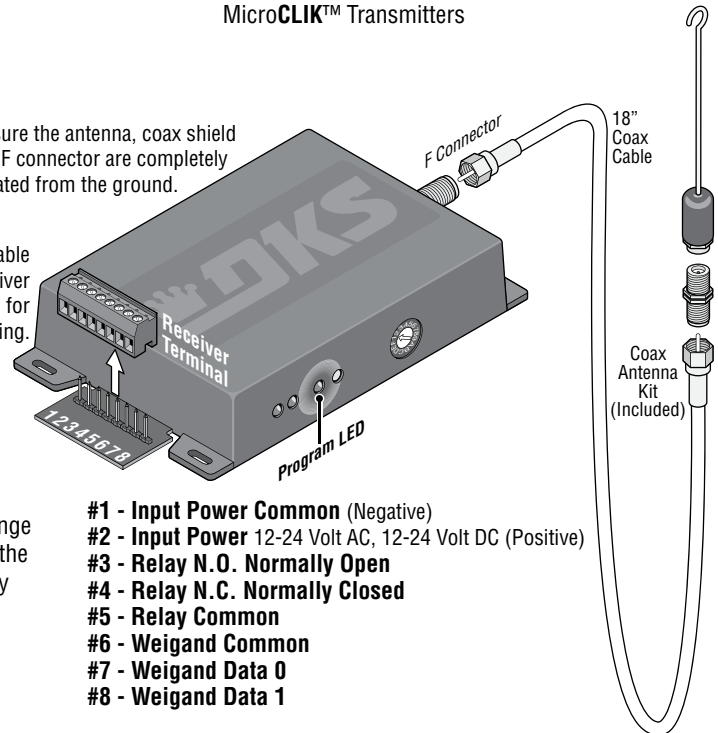
#1 - Input Power Common (Negative)
#2 - Input Power 12-24 Volt AC, 12-24 Volt DC (Positive)
#3 - Relay N.O. Normally Open
#4 - Relay N.C. Normally Closed
#5 - Relay Common
#6 - Weigand Common
#7 - Weigand Data 0
#8 - Weigand Data 1

Receiver Terminal Wiring

12-24 Volt Transformer
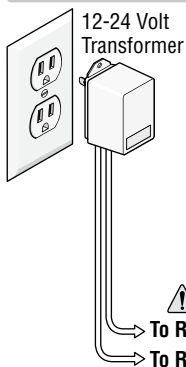
Separate Power Source: Connect 12 - 24 Volt AC or DC power to terminals #1 and #2. Use minimum 18 AWG wire to power the receiver.

- If DC power is used (Transformer): Terminal #1 is **NEGATIVE** and terminal #2 is **POSITIVE**.

- Power can be supplied to the receiver by the Weigand controller instead of a separate power source (See below).
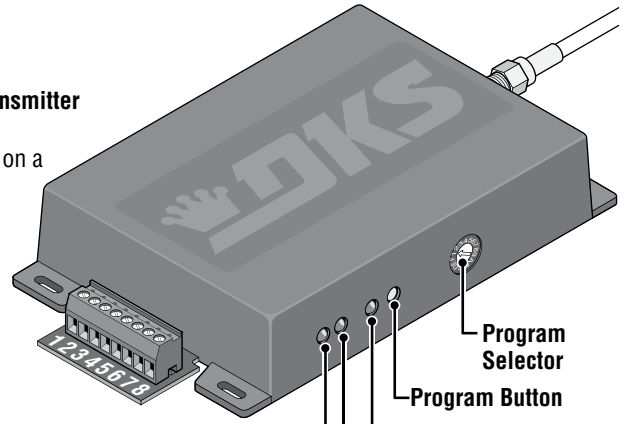
⚠ **DC Polarity Matters!**
➡ **To Receiver Terminal #1 (Neg.)**
➡ **To Receiver Terminal #2 (Pos.)**

Weigand Controller Wiring:
Receiver terminal #2 is **INPUT POWER** (12-24 V).
Receiver terminal #6 is Weigand input power **COMMON**.
Receiver terminal #7 is Weigand **DATA 0**.
Receiver terminal #8 is Weigand **DATA 1**.
Use 22 AWG **shielded** wire, maximum **200 feet**, for Weigand controller wiring. Connect these terminals to the corresponding terminals on the Weigand controller. Refer to the DoorKing Weigand controller installation manual 1835, 1837 or 1838 for specific wiring information.

DKS DOORKING®, INC.

120 Glasgow Avenue
Inglewood, California 90301 U.S.A.

How Receiver Functions

The 8040 receiver responds to the Micro**PLUS**® or Micro**CLIK**™ transmitter's **"Transmitter Code"** that is defined by **"Transmitter Button Codes" and "Facility Codes".** For example: an 8040 receiver can be programmed to respond to only the first button on a multiple button Micro**PLUS**® or Micro**CLIK**™ transmitter while a second 8040 receiver can be programmed to respond to only the second button of the same multiple button Micro**PLUS**® or Micro**CLIK**™ transmitter. Thus allowing a single multiple button Micro**PLUS**® or Micro**CLIK**™ transmitter to activate **two different receivers** without fear of both receivers responding to the same transmitter code. In Weigand output mode, you have the option of having the receiver **match** or **ignore** the facility code to allow the receiver to activate. One receiver can be programmed to respond to a specific facility code while another receiver can be programmed for a different facility code.
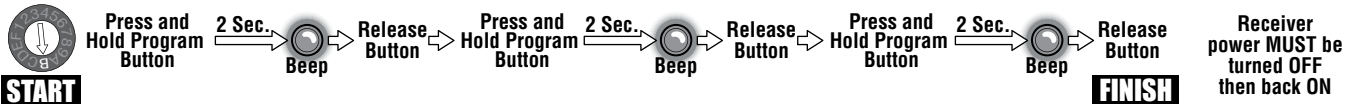
Program Selector

Program Button

Program LED: Will flash sequences during programming and flashes during normal operation or frequency interference.

Weigand LED's: Will blink as Weigand data is being transmitted.

Programming Selector's 12 functions:
1. Learn Transmitters
2. 26-bit Weigand Programming (Factory Set)
3. 31-bit Weigand Programming
4. 30-bit Weigand Programming
5. Match Facility Code
6. Ignore Facility Code (Factory Set)
7. Learn Master Transmitters (Up to 4)
8. Low Power Mode
9. Normal Power Mode (Factory Set)
A. Erase ALL Memory
B. Set Receiver to Micro**PLUS**® Mode (Factory Set)
C. Set Receiver to Micro**CLIK**™ Mode
D-F. Not Used
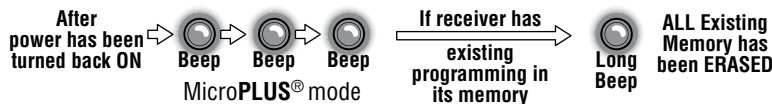
B. Set Receiver to MicroPLUS® Mode (Factory Set)

The receiver comes from the factory already set in the Micro**PLUS**® mode. If you need to change the receiver from Micro**CLIK**™ to Micro**PLUS**® mode, follow the steps below. **CAUTION:** Changing an existing programmed receiver from Micro**CLIK**™ to Micro**PLUS**® mode will erase **ALL EXISTING MEMORY** that has been previously programmed in the receiver.

1. Turn the Programming Selector to **Position B**.
2. Press and hold Program Button until the Program LED flashes ONCE and receiver will BEEP once. Press and hold button again, LED will flash and receiver will beep. Press and hold button a third time until LED continually flashes and beeps.
3. The receiver now needs to have its power turned OFF, then back ON. Receiver is now in Micro**PLUS**® mode.

START → Press and Hold Program Button → 2 Sec. → Beep → Release Button → Press and Hold Program Button → 2 Sec. → Beep → Release Button → Press and Hold Program Button → 2 Sec. → Beep → Release Button **FINISH** → Receiver power MUST be turned OFF then back ON

Verify Receiver is in Micro**PLUS**® mode:
After power has been turned back ON to receiver. Receiver will emit 3-flashes and beeps, this indicates Micro**PLUS**® mode. Receiver may then emit a long flash and beep **ONLY if** existing memory has been erased from the receiver.

After power has been turned back ON → Beep → Beep → Beep (Micro**PLUS**® mode) → If receiver has existing programming in its memory → Long Beep → ALL Existing Memory has been ERASED

C. Set Receiver to MicroCLIK™ Mode

If you need to change the receiver from Micro**PLUS**® to Micro**CLIK**™ mode, follow the steps below. **CAUTION:** Changing an existing programmed receiver from Micro**PLUS**® to Micro**CLIK**™ mode will erase **ALL EXISTING MEMORY** that has been previously programmed in the receiver.

1. Turn the Programming Selector to **Position C**.
2. Press and hold Program Button until the Program LED flashes ONCE and receiver will BEEP once. Press and hold button again, LED will flash and receiver will beep. Press and hold button a third time until LED continually flashes and beeps.
3. The receiver now needs to have its power turned OFF, then back ON. Receiver is now in Micro**CLIK**™ mode.

START → Press and Hold Program Button → 2 Sec. → Beep → Release Button → Press and Hold Program Button → 2 Sec. → Beep → Release Button → Press and Hold Program Button → 2 Sec. → Beep → Release Button **FINISH** → Receiver power MUST be turned OFF then back ON

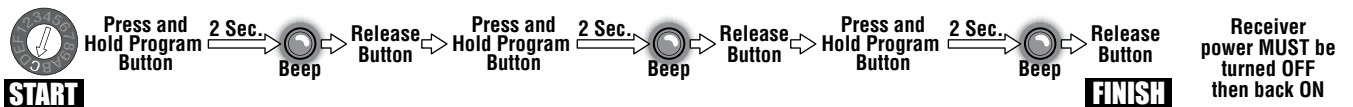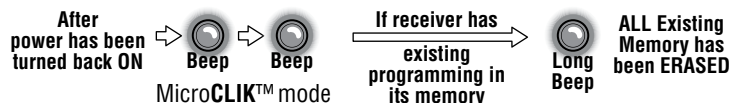**Verify Receiver is in** Micro**CLIK**™ mode:
After power has been turned back ON to receiver. Receiver will emit 2-flashes and beeps, this indicates Micro**CLIK**™ mode. Receiver may then emit a long flash and beep **ONLY if** existing memory has been erased from the receiver.
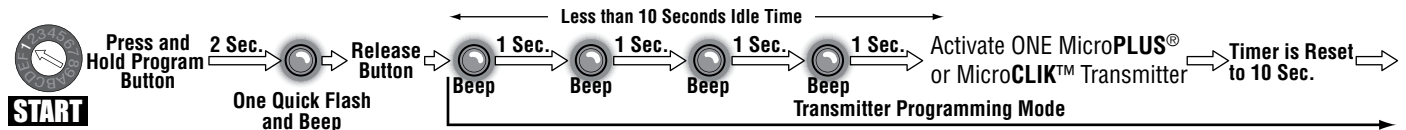
After power has been turned back ON → Beep → Beep (Micro**CLIK**™ mode) → If receiver has existing programming in its memory → Long Beep → ALL Existing Memory has been ERASED

1. Learn Transmitters

1. Turn the Programming Selector to **Position 1**.
2. Press and hold Program Button until the Program LED flashes ONCE and receiver will BEEP once. Receiver is now in **"Learn Mode"** and will flash and beep every second for 10 seconds.
3. Press a **specific** button on the desired transmitter to be **"Learned"** within 10 seconds. Receiver will reset 10 second timer after each transmitter button has been pressed.
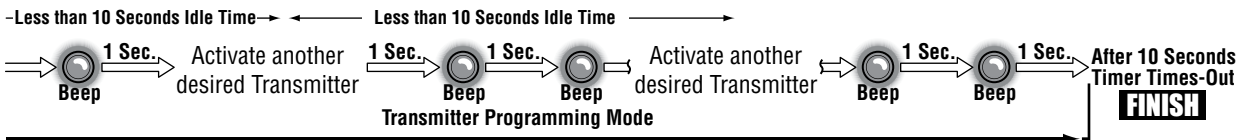
> **2 and 3 Button Transmitters Note:**
> There are three (3) different **"2-Button"** transmitter button combinations that each receiver can be programmed to respond to: button-1, button-2 and buttons 1&2 pressed at the same time.
> There are six (6) different **"3-Button"** transmitter button combinations that each receiver can be programmed to respond to: button-1, button-2, button-3, buttons 1&2 pressed at the same time, buttons 2&3 pressed at the same time and buttons 1&3 pressed at the same time.

START Press and Hold Program Button → 2 Sec. → One Quick Flash and Beep → Release Button → **Beep** 1 Sec. → **Beep** 1 Sec. → **Beep** 1 Sec. → **Beep** 1 Sec. → Activate ONE Micro**PLUS**® or Micro**CLIK**™ Transmitter → Timer is Reset to 10 Sec.

Less than 10 Seconds Idle Time — *Transmitter Programming Mode*

4. Press other desired transmitter buttons to be learned, each within a 10 second time period.

Less than 10 Seconds Idle Time — *Less than 10 Seconds Idle Time*

→ **Beep** 1 Sec. → Activate another desired Transmitter → 1 Sec. **Beep** 1 Sec. **Beep** → Activate another desired Transmitter → **Beep** 1 Sec. → **Beep** 1 Sec. → After 10 Seconds Timer Times-Out **FINISH**

Transmitter Programming Mode

5. After all desired transmitters have been learned by the receiver, wait for the receiver to time-out.
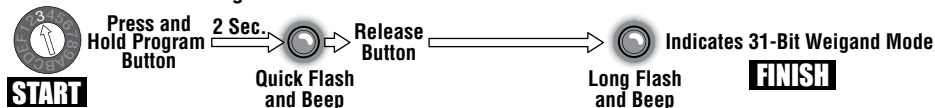
2. 26-Bit Weigand (Factory Set)

1. Turn the Programming Selector to **Position 2**.
2. Press and hold Program Button until the Program LED flashes ONCE and receiver will BEEP once.
3. Receiver LED will then give a long flash and beep.
4. This indicates receiver is now in **"26-Bit Weigand Mode"**.

START Press and Hold Program Button → 2 Sec. → Quick Flash and Beep → Release Button → Long Flash and Beep Indicates 26-Bit Weigand Mode **FINISH**
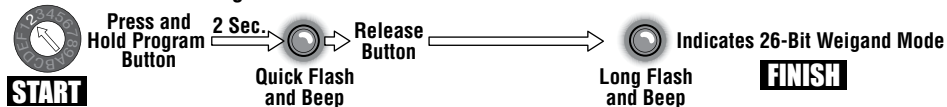
3. 31-Bit Weigand

1. Turn the Programming Selector to **Position 3**.
2. Press and hold Program Button until the Program LED flashes ONCE and receiver will BEEP once.
3. Receiver LED will then give a long flash and beep.
4. This indicates receiver is now in **"31-Bit Weigand Mode"**.

START Press and Hold Program Button → 2 Sec. → Quick Flash and Beep → Release Button → Long Flash and Beep Indicates 31-Bit Weigand Mode **FINISH**
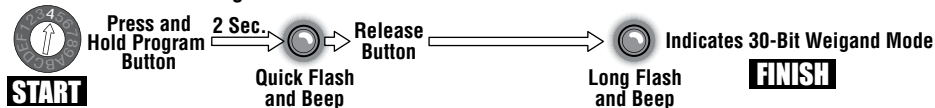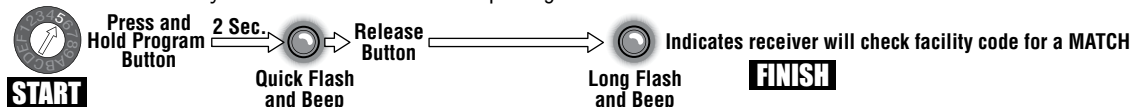
4. 30-Bit Weigand

1. Turn the Programming Selector to **Position 4**.
2. Press and hold Program Button until the Program LED flashes ONCE and receiver will BEEP once.
3. Receiver LED will then give a long flash and beep.
4. This indicates receiver is now in **"30-Bit Weigand Mode"**.

START Press and Hold Program Button → 2 Sec. → Quick Flash and Beep → Release Button → Long Flash and Beep Indicates 30-Bit Weigand Mode **FINISH**

5. Match Facility Code

1. Turn the Programming Selector to **Position 5**.
2. Press and hold Program Button until the Program LED flashes ONCE and receiver will BEEP once.
3. Receiver LED will then give a long flash and beep.
4. This indicates receiver will check the facility code for a match before outputting the transmitter code.

START Press and Hold Program Button → 2 Sec. → Quick Flash and Beep → Release Button → Long Flash and Beep Indicates receiver will check facility code for a MATCH **FINISH**
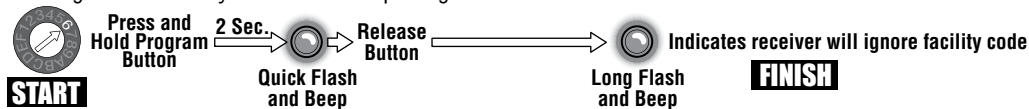
6. Ignore Facility Code

1. Turn the Programming Selector to **Position 6**.
2. Press and hold Program Button until the Program LED flashes ONCE and receiver will BEEP once.
3. Receiver LED will then give a long flash and beep.
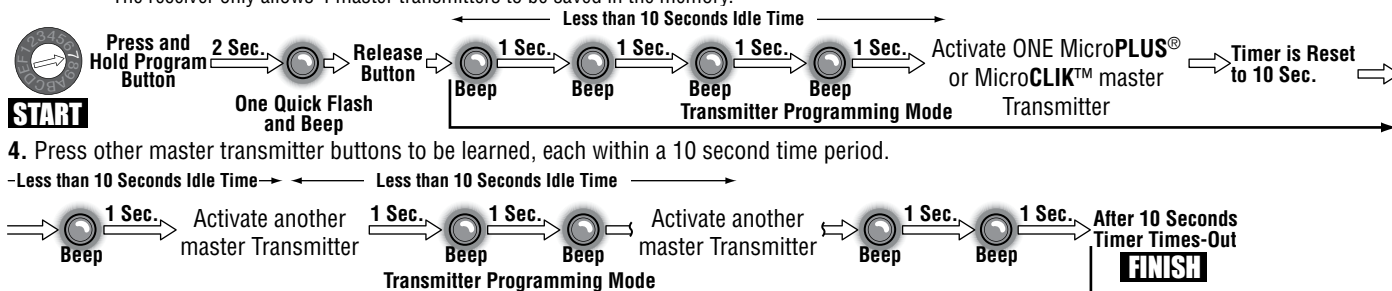**4.** This indicates receiver will ignore the facility code before outputting the transmitter code.

START → **Press and Hold Program Button** → **2 Sec.** → **Quick Flash and Beep** → **Release Button** → **Long Flash and Beep** **Indicates receiver will ignore facility code** **FINISH**

7. Learn Master Transmitters (Up to 4)

1. Turn the Programming Selector to **Position 7**.
2. Press and hold Program Button until the Program LED flashes ONCE and receiver will BEEP once. Receiver is now in **"Learn Mode"** and will flash and beep every second for 10 seconds.
3. Press the button on the master transmitter to be **"Learned"** within 10 seconds. Receiver will reset 10 second timer after each master transmitter button has been pressed.

    Master Transmitters Note:
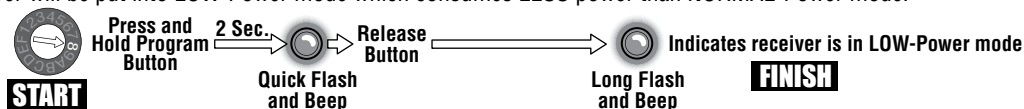   The receiver only allows 4 master transmitters to be saved in the memory.

START → **Press and Hold Program Button** → **2 Sec.** → **One Quick Flash and Beep** → **Release Button** → *Less than 10 Seconds Idle Time* → **Beep** → **1 Sec.** → **Beep** → **1 Sec.** → **Beep** **Transmitter Programming Mode** → **1 Sec.** → **Beep** → **1 Sec.** → Activate ONE Micro**PLUS**® or Micro**CLIK**™ master Transmitter → **Timer is Reset to 10 Sec.** ⇒

4. Press other master transmitter buttons to be learned, each within a 10 second time period.

–Less than 10 Seconds Idle Time→ *Less than 10 Seconds Idle Time*

⇒ **Beep** **1 Sec.** Activate another master Transmitter **1 Sec.** **Beep** **1 Sec.** **Beep** **Transmitter Programming Mode** Activate another master Transmitter **Beep** **1 Sec.** **Beep** **1 Sec.** **After 10 Seconds Timer Times-Out** **FINISH**

5. After all desired master transmitters have been learned by the receiver (up to 4 total), wait for the receiver to time-out.

8. LOW -Power Mode

If you need to change the receiver from normal-power to LOW-Power mode, follow the steps below. LOW-power mode is used in DoorKing solar gate operator applications.
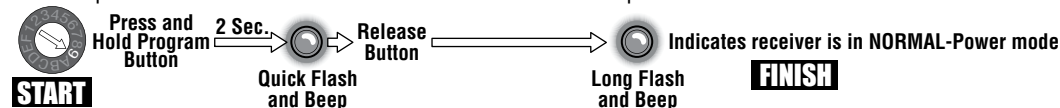**1.** Turn the Programming Selector to **Position 8**.
2. Press and hold Program Button until the Program LED flashes ONCE and receiver will BEEP once.
3. Receiver LED will then give a long flash and beep.
4. This indicates receiver will be put into LOW-Power mode which consumes **LESS** power than NORMAL-Power mode.

START → **Press and Hold Program Button** → **2 Sec.** → **Quick Flash and Beep** → **Release Button** → **Long Flash and Beep** **Indicates receiver is in LOW-Power mode** **FINISH**

9. NORMAL -Power Mode (Factory Set)

The receiver comes from the factory already set in NORMAL-Power mode. If you need to change the receiver from LOW-Power to NORMAL-Power mode, follow the steps below.
1. Turn the Programming Selector to **Position 9**.
2. Press and hold Program Button until the Program LED flashes ONCE and receiver will BEEP once.
3. Receiver LED will then give a long flash and beep.
4. This indicates receiver will be put into NORMAL-Power mode which consumes **MORE** power than LOW-Power mode.

START → **Press and Hold Program Button** → **2 Sec.** → **Quick Flash and Beep** → **Release Button** → **Long Flash and Beep** **Indicates receiver is in NORMAL-Power mode** **FINISH**

A. Erase ALL Memory

1. Turn the Programming Selector to **Position A**.
2. Press and hold Program Button until the Program LED flashes ONCE and receiver will BEEP once. Press and hold button again, LED will flash and receiver will beep again. Press and hold button a third time, LED will flash and receiver will beep a third time.
3. The receiver will then emit a long flash and long beep indicating ALL memory, including master transmitters have been erased from memory.

START → **Press and Hold Program Button** → **2 Sec.** → **Beep** → **Release Button** → **Press and Hold Program Button** → **2 Sec.** → **Beep** → **Release Button** → **Press and Hold Program Button** → **2 Sec.** → **Beep** → **Release Button** → **ALL Memory has been ERASED** **Long Beep** **FINISH**