RECEIVER DECODER (25.0KHZ) & (8.33KHZ)

RDL854-1A & RDL854-1E
120VAC-240VAC
&
RDL854-1F 12VDC VERSION
STANDARD VERSION
OPERATOR/MAINTENANCE MANUAL

For Technical Support Call:
1-888-964-1488
www.ruralelectric.com

SAFETY NOTICE:
Important

1. **Dangerous voltages are present in airfield lighting equipment and only qualified personnel should service or install airfield lighting equipment.**
2. **Always read and understand the entire installation manual prior to connecting the radio receiver to any equipment. Comply with limitations of load and maximum current contained in this manual. Always follow all local electrical safety codes for the installation of this equipment.**
Removing power from the radio receiver may not always remove control power from the device…always follow appropriate lock out and tag out procedures whenever servicing the radio receiver or associated control equipment.

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Section 1: RDL854-1A&E and RDL854-1F Introduction

Operators Notice:

Read the entire manual prior to installing or operating this equipment. Rural Electric assumes no liability for installation, use or modifications completed by the installer.

Overview:

1. The RDL854-1A&E and the RDL854-1F are an air to ground radio receiver/decoder designed to reliably control airfield lighting over a preset VHF frequency by closing one of four single pole double throw dry contact relays in response to the "clicks" counted (3, 5 or 7) in a 5 second period. The controller has a selectable timeout feature of 15, 30 and 60 minutes and will maintain the pilot commanded state until the preset timeout has expired or a new command set is received. The radio is tested to operate within a tolerance of less than or equal to 5uV (microvolts). An integrated heater is provided to allow operations in subzero environments.
2. The AC radio receiver is capable of a wide range of operating voltages from 90-264VAC, 60 or 50 Hz with no modifications through the use of a switching power supply. All input power is fused using a secondary panel mounted inline 5A fuse. Radio power, including the integrated heater, is controlled via a single on/off toggle switch on the face plate (see Figure 6).
3. The DC version is powered by 12VDC. All input power is fused using a secondary panel mounted inline 5A fuse. Radio power is controlled via a single on/off toggle switch on the face plate (see Figure 6).
4. Four dry contacts, single pole double throw, with replaceable modules, are provided (RA, R3, R5 and R7). All relays may be configured to operate in series (one active at a time) or parallel (cumulatively active) with relay RA (Radio Active) being always energized if the radio has received 3, 5 or 7 clicks.
5. This unique configuration allows the Rural Electric RDL854-1A&E and RDL854-1F to control a myriad of airfield equipment directly without any additional relay panels or logic boards. All relay contacts in the RDL854-1A&E and RDL854-1F are for control purposes only and should not be utilized above 250V or 5 Amps. Powerconnections to lighting circuits should always be accomplished using a suitable airfield regulator orlighting contactor rated at the appropriate load.

Important Information:

1. Read the entire manual before installing or operating!
2. Rural Electric, Inc. reserves the right to revise the contents of this manual at any time.
3. Only qualified personnel should install, maintain, and repair airfield electrical equipment and the equipment should only be utilized as designed. Field modifications will void all warrantees and may result in equipment damage, serious injury or death.
4. Follow all state, local and federal building and safety codes when installing or servicing this equipment. Always follow lock out and tag out procedures whenever working around or on airfield electrical equipment. Lethal voltages are present; removing radio power may not remove all control power to associated equipment. The radio is not intended to function as an electrical lock out.
5. Always ensure all equipment is properly grounded, appropriately fused and all antenna lines have the provided surge suppressors properly installed.

Equipment Orientation:

Figure 1a Screw Type Radio Layout

Equipment Orientation:

Figure 1b Cage Clamp Type Radio Layout

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Section 2: RDL854-1A&E and RDL854-1F Cabinet and Antenna Installation

Site Selection:

1. 1. Radio control equipment should be located as far away from the antenna as possible. Secure the antenna mast to a sturdy structure approximately 10 feet high, and in clear view from approaching aircraft. All antenna cabling should be routed in a conduit by itself, away from power and control wiring which may induce unintended radio signals through the cabling. Cable distances in excess of 100' induce high losses and is suggested to request the appropriate coax cable (LMR-400)
2. All mounting positions must have a power source and earth ground available. Grounding the unit to existing conduit or other devices may induce unwanted electrical interference and will not meet surge arrestor requirements. **<u>ALWAYS use a primary earth ground.</u>**

Cabinet Mounting / Conduit Entry:

The radio receiver is housed inside a NEMA 12/4 enclosure of the highest quality. Utilize all mounting holes for a secure wall mount.

1. Temporarily place the unit on the wall in the desired location and level the enclosure.
2. Mark locations for the four mounting holes.
3. Remove the enclosure and set aside.
4. Drill four holes in the pre-marked locations and install appropriate anchoring hardware.
5. Install the anchors in the wall.
6. Secure Radio to wall or other surface, in desired location.
7. Plumb electrical conduits as required using a separate conduit run for antenna cabling away from all other electrical cables to avoid interference. Avoid penetrating the top of the enclosure if you wish to maintain the NEMA 4 rating of the enclosure!
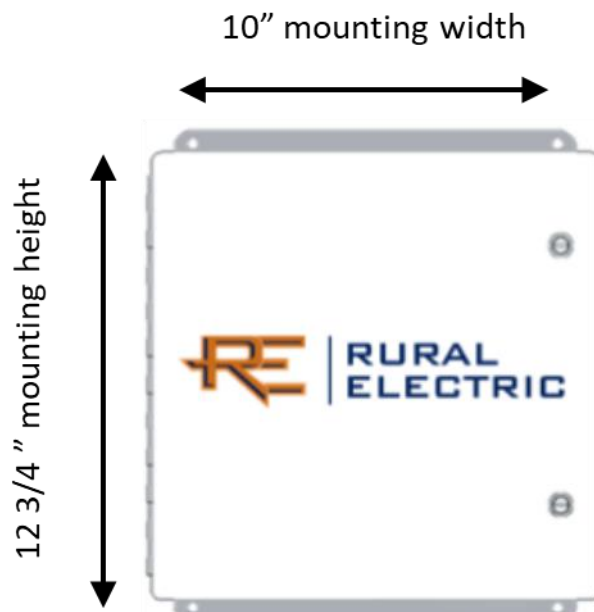

Figure 2 Cabinet Mounting

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Antenna Connections:

The Antenna-CF that can be purchased from Rural Electric Inc., is the most suitable air band antenna that may be used with the RDL854-1A&E and RDL854-1F receiver / decoder using these general procedures:

1. Ensure all antenna wiring is routed away from power and control cabling that may introduce noise and unwanted operations.
2. All antennas must have a lightning arrestor placed in line with the antenna cabling, preferably immediately below the antenna with a direct earth ground attached.
3. Antenna locations should be selected to allow line of sight to transmitting radios, either from the ground or air as appropriate. Failure to achieve line of sight to the antenna will create inconsistent control results.
4. Avoid grounding the antenna against a structure or other object. The antenna must stand in free space clear of vegetation, building materials or other items that may create a path to ground and lower antenna gain.
5. Utilize a BNC connector to connect with the receiver plug located in the RDL854-1A&E or RDL854-F cabinet. Connections are critical to efficient radio operations; avoid modifying the factory connectors on theradio or antennas.

If you are using the provided antenna please refer to the RDL854-1A&E or RDL854-1F Antenna Information and Kit Installation Instructions in Appendix E of this manual.

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Section 3: Wiring Connections

   This section describes the required connections to place your RDL854-1A&E or RDL854-1F Receiver/Decoder into service. These instructions assume the technician is familiar with airfield regulator control wiring and is not intended to replace a thorough review of technical documentation for all connected equipment. If you are unsure of any connections do not proceed!

Terminal Strips:

   Field power and control connections are made using screw style terminal blocks and cage clamp terminal blocks, see Figure 3a and Figure 3b. Additional terminal block entry points are provided for jumpers and field connections. Wire connections to these terminal blocks are made as follows

1. Strip the wire approximately 3/8" (9-10mm). Wire gauges from 10AWG-26AWG are suitable, either stranded or solid.
2. To secure the wire use correct torque specifications with a flat blade screwdriver.
3. Test each connection by gently pulling the wire.

AC Power Source Connections—Powering the Radio:

   For the RDL854-1A&E choose a suitable power source with a primary interrupt breaker or fuse. Any source from 90V to 264V AC, 50-60 Hz may be connected to the RDL854-1A&E. Make the following connections: (see figure 3)

1. Line into terminal "L"
2. Neutral into terminal "N"
3. Earth Ground to terminal "GND". Ensure that you use a dedicated ground conductor to a ground bus. Do not rely on conduit grounds or grounds that run through equipment generating substantial electrical noise.

12VDC Power Source Connections—Powering the Radio:

   For RDL854-1F choose a suitable power source with a primary interrupt breaker or fuse. The 12VDC Sis to be connected to the RDL854-1F. Make the following connections: (see figure 3b)

4. Positive into terminal "+"
5. Negative into terminal "-"
6. Earth Ground to terminal "GND". Ensure that you use a dedicated ground conductor to a ground bus. Do not rely on conduit grounds or grounds that run through equipment generating substantial electrical noise.

   This radio uses dry contact closures for the RA, R3, R5 and R7 outputs. To use line voltage switched via RA, R3, R5 and R7 you may insert the provided jumpers in the small rectangular holes and pressing firmly until seated level with the terminal block. This will parallel the line in voltage to the relay inputs for switching.
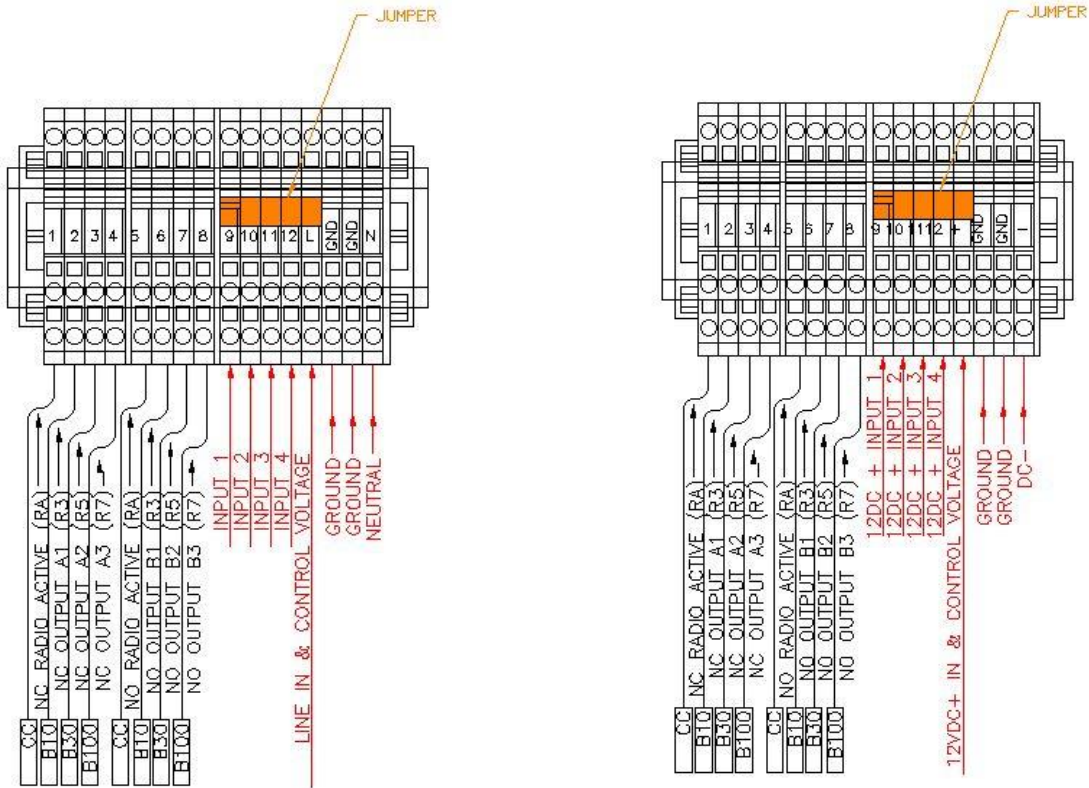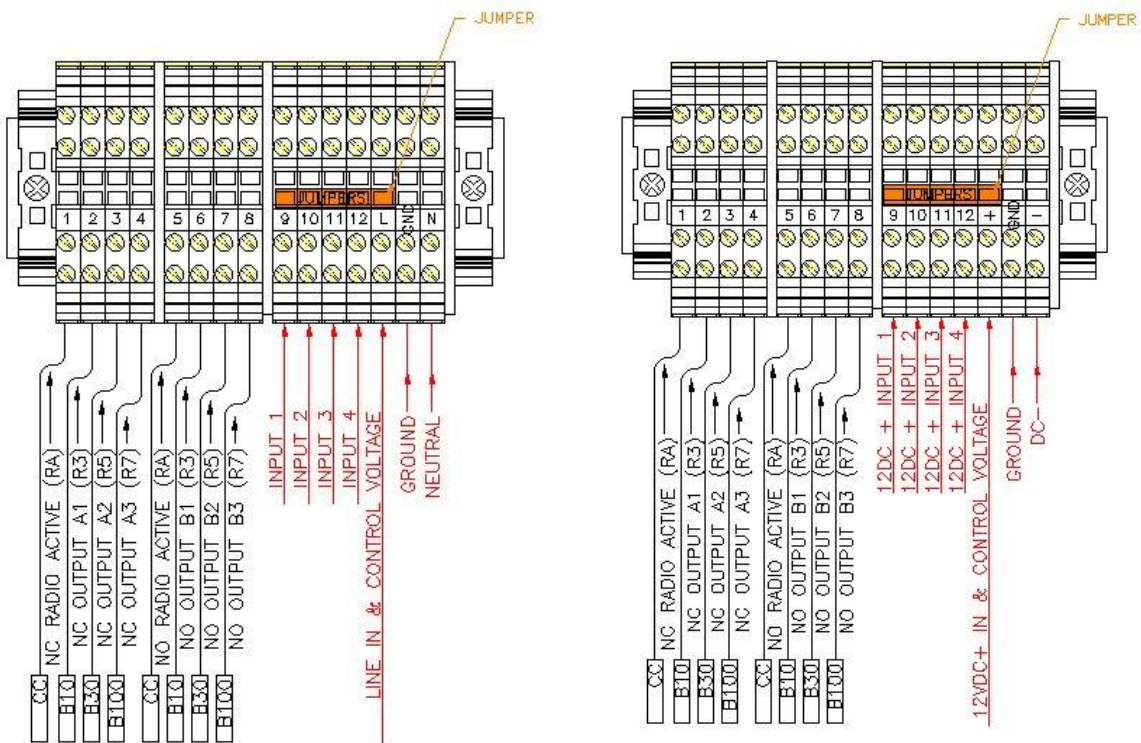
Figure 3a AC & DC Power Cage Clamp Connections

Figure 3*b* AC & DC Power Screw Type Connections

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Control Voltage Connections—Wiring Relay Inputs:

Terminals 9-12 are inputs to relays RA, R3, R5 and R7 respectively, see Figure 4. These input terminals are isolated but may be joined to use a common input voltage such as the line in or regulator source CCI. You may jumper the isolated relay inputs to form a common input or create unique inputs as you desire using the jumpers provided. While a myriad of input combinations are possible, a few standard input schemes and instructions for jumper use are listed below.

Inserting Jumpers:

(Jumpers are provided as a convenient and safe way to join isolated terminals)
1. Remove all control power
2. Place the metal jumper into position shown in Figure 3 at the desired location(s)
3. Press the jumper firmly until it seats flush with terminal strip face

Removing Jumpers:
1. Remove all power sources
2. Using a tool gently pry the jumper up approximately ¼" to release
3. Remove and retain the jumper for future use

To switch radio power line voltage:
1. Insert jumpers between terminals L-12, 12-11, 11-10, 10-9 (4 total)
2. Provide line voltage source at terminal "L"

To switch a common external control voltage source:
1. Insert jumpers between terminals 12-11, 11-10, 10-9 (3 total)
2. Provide control voltage at any one of the terminals 12, 11, 10 or 9
3. Examples may be CCI, DC voltages or other line voltages
   (Note---Any voltage from 5VDC to 250V AC is suitable and a maximum of 5 Amps)

To switch isolated control voltages at any individual relay(s):
1. Provide the desired control voltage to the corresponding relay input terminal
2. RA – Terminal 9
3. R3 – Terminal 10
4. R5 – Terminal 11
5. R7 – Terminal 12
6. Note- Any combination of jumpers may be inserted for custom controls

Some terminals use cage clamps to attach wires! On these Insert a small screw driver into square hole in desired terminal until terminal cage clamp is released and insert wires in round hole. When the screwdriver is removed the terminal will lock the wire in place. To remove wire insert screwdriver and remove wire.

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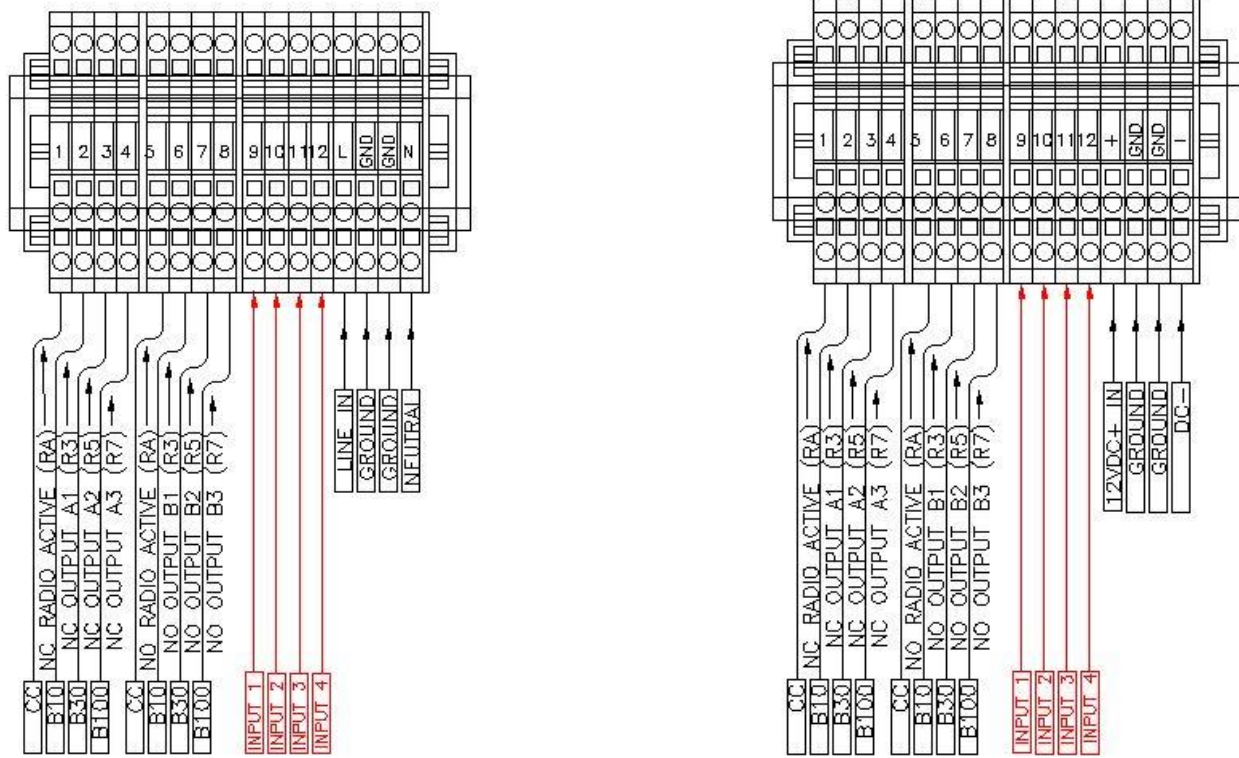
Figure 4a AC & DC cage clamp type Input Connections
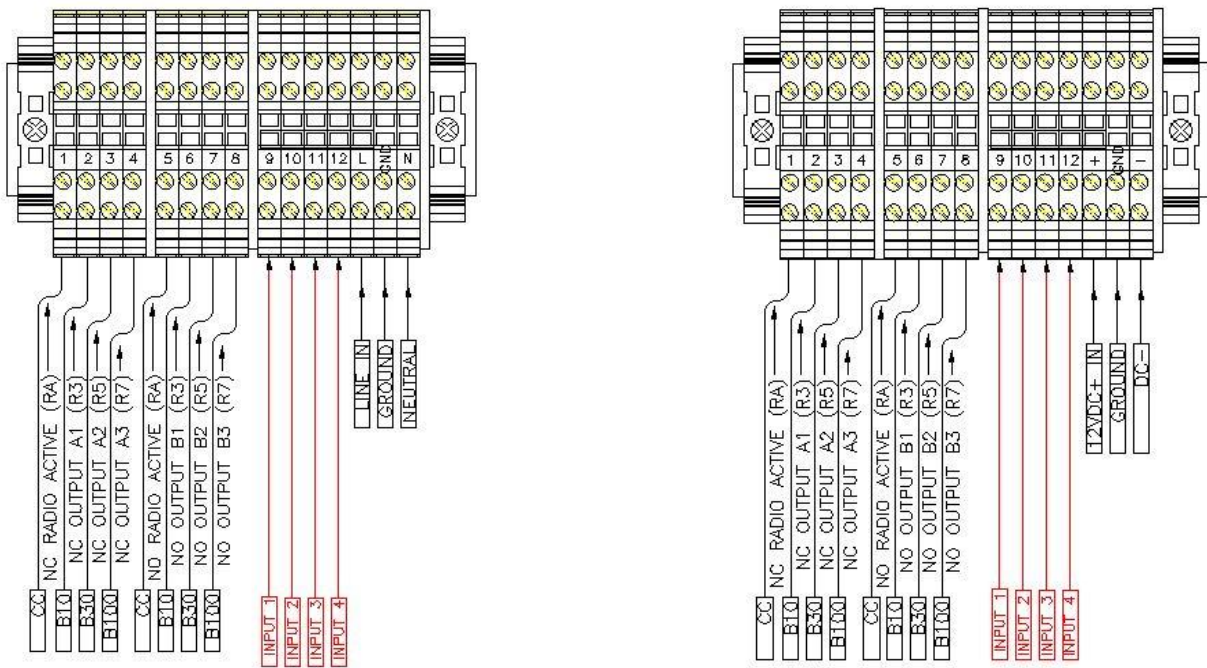
Figure 4b AC & DC Screw Type Input Connections

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Control Output Connections…Wiring Relay Outputs:

Outputs of the four control relays (RA, R3, R5 and R7) are arranged in two banks as shown in Figure 5. The normally closed (NC) bank is connected to terminals numbered 1-4 and the normally open (NO) bank is connected to terminals numbered 5-8. The relays are active when the radio has received a 3, 5 or 7 click response and controlled as listed in Table 1 depending upon the setting of the "Serial / Parallel" selector.

Multiple wiring configurations are possible; some of the more common are listed below:

To control one or more airfield or heliport contactors using a common control voltage:
1. ==Terminal 5 (RA) is best for simple ON/OFF situations== such as energizing contactors for Heliport Lighting.

To control one or more airfield regulators using a common control voltage:
1. Wire the inputs for a common control voltage per the "Control Voltage Connections" section
2. Wire the outputs as follows (5 step regulators in parenthesis)
3. CCR CC – Terminal 5
4. CCR B10 (step 3) – Terminal 6
5. CCR B30 (step 4) – Terminal 7
6. CCR B100 (step 5) – Terminal 8
7. Set the selector switch to "Serial"

To control multiple individual devices sequentially using a common control voltage:
1. Wire the inputs for a common control voltage per the "Control Voltage Connections" section
2. Wire the outputs as follows
3. Device A (on whenever the radio is active) – Terminal 5
4. Device B (on when the radio is at 3 clicks or higher) – Terminal 6
5. Device C (on when the radio is at 5 clicks or higher) – Terminal 7
6. Device D (on when the radio is at 7 clicks only) – Terminal 8
7. Set the selector switch to "Parallel"

Cage Clamp Terminals   Screw Type Terminals

Figure 5 Output Connections

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Control Methodology: Selecting Parallel or Serial Outputs:
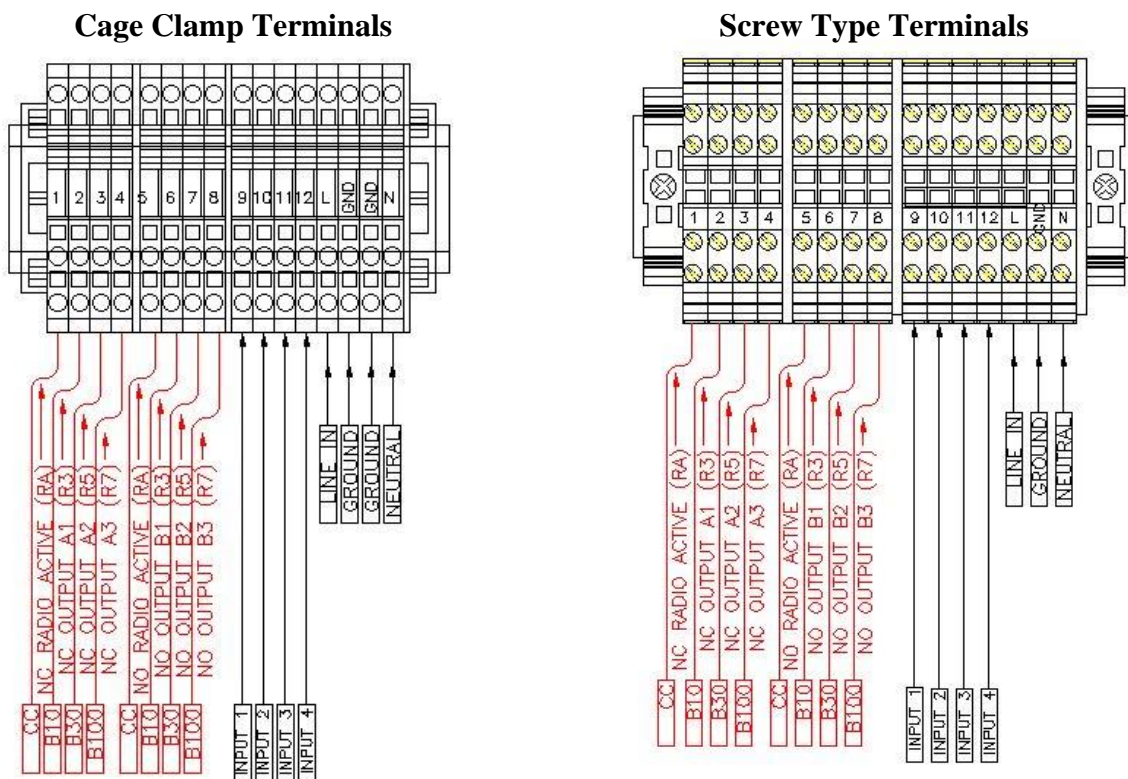
1. For increased flexibility and enhanced equipment compatibility the radio provides four dry relays which may be controlled either serially (single) or in parallel (cumulative). Each relay has two form C contacts, one normally open until energized and the other normally closed until energized which share a common input pole. Each relay is isolated, and jumpers are provided should you wish to switch a common control voltage.
2. The radio receiver will count clicks (squelch breaks) in a preset 5 second time. It is important to note that the radio does not discriminate between noise, voice transmissions, or intentional microphone clicks, it only sees the carrier detect level rise high enough (approximately 5 µV) to declare a squelch break. The 5 second "count" period begins upon receiving the first squelch break and the relays will close depending upon the number of clicks (squelch breaks) counted in that period. The counter is reset upon the expiration of the 5 second period automatically.

Relay operation is summarized as:

2. RA is energized anytime the radio has a signal, either 3, 5 or 7 clicks. RA is best for ON/OFF situations such as energizing contactors for heliport lighting.
3. R3, R5 and R7 are energized at 3, 5 or 7 clicks respectively and held depending upon the "series / parallel selector switch setting.
4. A small indicator light atop each relay signals the relay coil is energized.

You may select either serial or parallel by using the "Parallel / Serial" selector switch. Table 1 outlines operation in both the single and parallel output modes for the normally closed and normally open relay outputs. Remember, each relay has an isolated input so the control voltages switched will depend upon the relay input wiring.

"X"=Closed/On
"-"=Open/Off

	Normally Closed Outputs															
	Idle				3 Clicks				5 Clicks				7 Clicks			
	RA	R3	R5	R7	RA	R3	R5	R7	RA	R3	R5	R7	RA	R3	R5	R7
Series	X	X	X	X	-	-	X	X	-	X	-	X	-	X	X	-
Parallel	X	X	X	X	-	-	X	X	-	-	-	X	-	-	-	-
	Normally Open Outputs															
	Idle				3 Clicks				5 Clicks				7 Clicks			
	RA	R3	R5	R7	RA	R3	R5	R7	RA	R3	R5	R7	RA	R3	R5	R7
Series	-	-	-	-	X	X	-	-	X	-	X	-	X	-	-	X
Parallel	-	-	-	-	X	X	-	-	X	X	X	-	X	X	X	X

Table 1 Relay Outputs

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Section 4: Controls & Indicators

Operating Controls:

The radio is configured with a raised faceplate where all controls and indicators are available. Each labeled item is described below:

Fuse:

A single 5A, 250V inline fuse is provided for supplementary protection of all components.

On / Off Selector:

This toggle switch removes all power from the receiver, encoder and heater assembly.

Parallel / Serial Selector:

This two position toggle switch will place the radio outputs either in Serial (singular) or Parallel (cumulative) mode. See Table 1 (page 11) for a complete functional description.

Timeout Selector:

This toggle switch is used to vary the timeout of radio outputs. A 15 minute standard timeout is default in the center position with optional times of 30 and 60 minutes for unique site requirements. Changing this switch while a current timing scheme is underway will have no effect until the new radio input is received at which time the newly selected time will be used by the processor. A text display and timer countdown will appear in the controller display to show both the selected timeout as well as present time elapsed in that period.

Carrier Test Toggle Switch:

This momentary contact toggle switch is designed to simulate the reception of a "click" on the tuned frequency. The words "Carrier Detect" will appear in the controller display whenever this switch is used.

Reset Toggle Switch:

Pressing the reset toggle switch will reset any active timing scheme underway, de-energize all relays,and clear the carrier detect count cycle. This is normally a maintenance function for troubleshooting purposes only. Using this switch while the radio is in service will cancel any pilot commanded settings...use caution!

Controller LCD Display:

The controller display is used to pass information on the operating status of the radio receiver. The following messages are displayed

1. "Rural Electric 480 984-1488"—Default message when the controller is powered up and idle
2. "Carrier Detect" – Either the carrier test button was depressed or a valid "click" was detected. This message is displayed for a minimum of 300 milliseconds after the detection to aid operator viewing so individual clicks of a duration shorter than 300 milliseconds will result in "carrier detect" remaining in view steady.
3. "XX: XX" countdown timer appears whenever a valid series of clicks has been received and the decoder is executing the programmed timeout scheme. Directly below the countdown timer the programmed timeout is displayed. The fidelity of the countdown timer varies with the timeout setting
4. 15-60 Minute timeouts use a minutes and seconds display.

Delete / Alt / Menu / OK / Esc Buttons (Controller):

These buttons are used during programming and factory maintenance. They are locked out during normal field use. No user functions can be performed with these buttons.

Output Relay Active Lights:

Each of the four output relays will illuminate when the output coil is energized. The relays are arranged from left to right as RA, R3, R5 and R7. Each relay has a normally open (NO) and normally closed (NC) contact sharing a common input. Energizing the relay will open the NC contact and close the NO contact.

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Component Layout:

Figure 7a depicts the internal component connections within the RDL854-1A&E receiver. Internal components connections are not detachable.
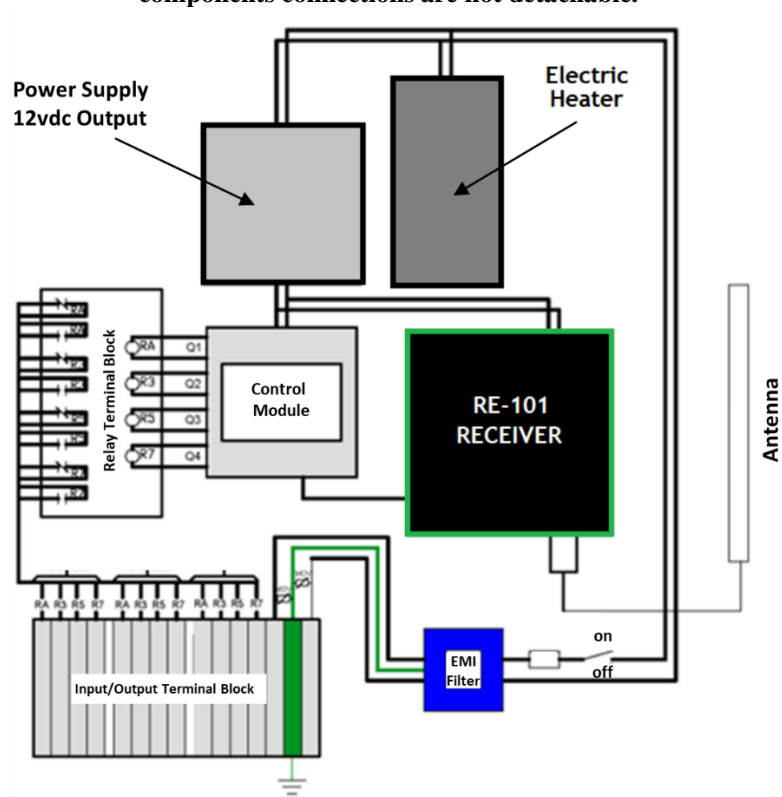
Figure 7a Component Layout

Figure 7b depicts the internal component connections within the RDL854-1F receiver. Internal components connections are not detachable.
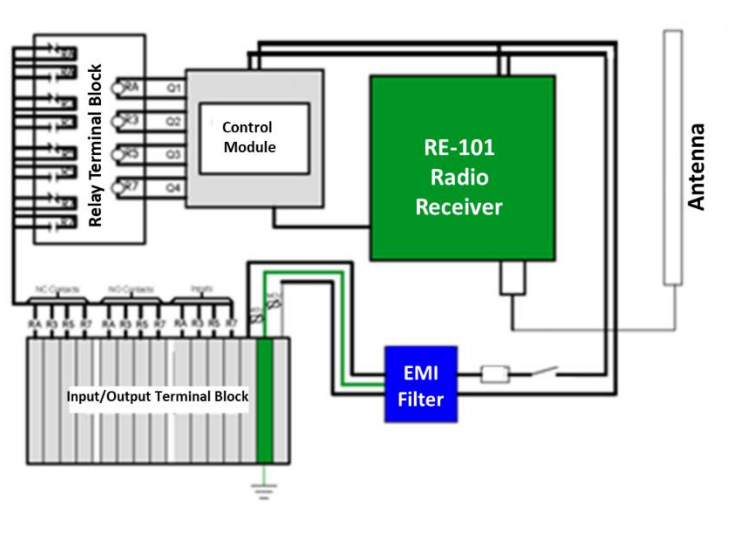
Figure 7b Component Layout

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Section 5: Troubleshooting & Repair
Quick Solutions Guide:
No power to controller display:
>   The controller display should always show some text, lack of a controller display is indicative of a power input problem or controller failure:
>   1. Check power inputs at each terminal strip for proper line and neutral orientation, repair as necessary.
>   2. Verify power switch is on.
>   3. Verify fuse continuity by removing the fuse from the canister (remove power first), repair as necessary.
>   4. Verify 12V power at the "+" and "-" terminals beside relay R7. If DC power is present but still no display suspect controller failure.

Relays do not cycle with radio commands:
>   Relay cycling can be confirmed by viewing the output indicating lights atop each relay:
>   1. Confirm power to the controller display above, correct as necessary.
>   2. Confirm click count is > 3 in a 5 second period, correct as necessary.
>   3. Cycle "Carrier Test" and verify text appears in controller display, if no response from the carrier test but controller has a display suspect a controller or wiring failure.
>   4. If relays cycle normally using carrier test move on to "Verifying Radio Receiver Operations"

Verifying Radio Receiver Operations:
>   Either an appropriately tuned handheld radio or signal generator may be used to test for receiver operation:
>   1. Confirm power and relay cycling as listed above, correct power problems as necessary.
>   2. Confirm the receiver frequency matches the transmitter frequency. Correct as necessary, refer to Addendum A at the end of this manual for detailed instruction.
>   3. Remove the BNC connection at the small metal receiver box.
>   4. Verify the antenna cable has an "Open" circuit, between the Center Conductor (of the cable) and Shield (shell of the BNC connector). If a short is indicated investigate the cable, cable connectors, antenna mount method and lightning arrestor for the source of the short. Correct as necessary.
>   5. Using an appropriately tuned handheld radio near the open BNC connector, cycle the transmitter and observe for carrier detect. Alternatively connect a signal generator to the BNC connector and at 5 µV input signal and verify carrier detect on the controller screen. If no carrier detect and the appropriate frequency is used, suspect receiver failure.

CCR does not cycle with radio commands:
>   1. Verify CCR is in "Remote", field wiring is correct per manufacturer and CCR is powered on. Correct as necessary.
>   2. Verify relays cycle with radio commands as listed above.
>   3. Verify intended input voltage is present at each relay input terminal strip, correct as necessary.
>   4. Verify output voltage is present at the output terminals to each CCR. If correct voltage is present problem exists in the regulator or regulator control wiring. If no output voltage exists...
>   5. Remove all relay input power connections and validate relay closure with ohmmeter between the input and NO contacts. If relay cycles but contacts do not close replace removable relay modules.

Replacing relay modules:
>   1. Remove control power and radio power sources.
>   2. Loosen the cover plate retaining screws (4) and cover plate.
>   3. Remove the faulty module by pressing the small release tab up while gently pulling the module out.
>   4. Insert a replacement module, depress until it "clicks" into place.
>   5. Replace the cover plate retaining screws (4) and cover plate.

Section 6: Maintenance

Your Rural Electric RDL854-1A&E or RDL854-1F is a robust piece of equipment designed for harsh environments but,like any electronic device it should be routinely inspected for environmental conditions that may cause failures. Follow these guidelines to help prevent issues-

Annually:

1. Inspect the enclosure housing for evidence of dust or water penetration. Repair gaskets or conduit entries as required.
2. Cycle relays to confirm proper operation.
3. Inspect control wiring for failing insulation, open conductors or other wiring flaws.
4. Always close and latch the enclosure door for best exterior environmental protection. Subjecting the interior components to environmental conditions by leaving the door open may void the warranty.

Section 7: Theory of Operation

L-854 General Components:

Your Rural Electric RDL854-1A&E and the RDL854-1F radio receivers are s a complete kit featuring (1) radio receiver, (1)antenna with mounting bracket, 25' LMR-240 coax cable terminated with BNC connectors, and (1) VHF lightning suppressor. No mast or other mounting hardware is provided.

L-854 Operation:

1. Major radio receiver subcomponents include the RE101 receiver, RE L12DWD controller; RE-TLD switched power supply, relays, terminal blocks and cabinet heater. Power inputs are made at the terminal block (see Figure 3a) using any voltage source from 90-264Vac (50 or 60 Hz) for the AC RDL854-1A&E. A single on/offswitch controls power to all receiver components and is supplementary protected by a 5A inline fuse.

2. Power inputs for RDL854-1F are made at the terminal block (see Figure 3b) using 12Vdc voltage source. The part RE-TLD (switched power supply) and part RE-CSF060 (cabinet heater), is not used in the RDL854-1F receiver. A single on/offswitch controls power to all receiver components and is supplementary protected by a 5A inline fuse.

3. When in operation the receiver awaits a squelch break on the tuned VHF frequency and begins counting "clicks" in a 5 second period to determine pilot intent. If the radio is keyed 3, 5, or 7 times the controller will process the click count and energize relay coils RA, R3, R5 and R7 depending upon the setting of the serial / parallel selector switch (see Figure 1). The pilot commanded output is held by the controller for a predetermined time interval (FAA standard is 15 minutes) that is adjustable by using the timeout toggle switch to 15, 30 or 60 minutes.

4. It is important to understand that the 5 second click count period begins upon receipt of the first squelch break and the control sequence will respond to the click counts from 3, 5, 7 and stop. As an example, cycling the microphone button rapidly 12 times in 5 seconds will command 3, 5 and 7. Similarly, slowly clicking 7 times may result in the 5 second timing period expiring prior to getting to the 7th input click.

5. Each of the four output relays has a normally closed and normally open contact with a common pole. These common poles may be connected to isolated inputs sources or combined into a unified input using the provided jumpers (see wiring instructions). The contacts are suitable for switching up to 250 volts AC and 5 amps and are intended for control signals only. All the relay outputs are wired to terminal blocks which are grouped by normally closed relay outputs RA-R7 (terminals 1-4), normally open relay outputs RA-R7 (terminals 5-8) and common relay inputs RA-R7 (terminals 9-12).

6. Field wiring of all relay outputs is covered in detail in section 3.

7. After the expiration of the preset timeout the radio will reset itself to the idle state and await further inputs. Anytime during the timeout period the radio is capable of receiving additional commands and will begin another timeout period at the newly commanded state immediately. The ground operator may reset the radio at any time by either cycling the power switch or depressing the reset button.

8. Operator interfaces and maintenance controls are provided via the faceplate for selecting timeout length, operating mode, simulating radio reception, and resetting control inputs. Detailed descriptionsof these controls are provided in section 4.

118-136 KHz Tuning & Squelch Guide

The RDL854-1A&E and the RDL854-1F all have a receiver which is 100% field tunable throughout the airband, 118-136KHz, in .00833KHz and .025KHz increments.

The unit is shipped from the factory set to 122.80000KHz unless a different frequency is requested at the time of order. This frequency will be noted on a silver label attached to the receiver faceplate.

To verify the frequency setting of your unit, or to change the desired frequency of operation, refer to the charts on pages below.

NOTE THAT "0" ON THE CHARTS MEANS THE SWITCH IS "OFF" OR DOWN, AND THAT "1" MEANS THE SWITCH IS "ON", OR UP.

Squelch is set to an optimum level at the factory. Should it be necessary to adjust the squelch, use the instructions & Table 2.

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IMPORTANT NOTE: NEVER ADJUST SWITCHES WITH THE POWER ON. TURN THE POWER SWITCH ON THE FRONT PANEL OFF BEFORE MAKING ANY CHANGES TO FREQUENCY OR SQUELCH SETTINGS!

1. **DIP Switches:**

The operating frequency and squelch (sensitivity) is set via DIP switches located on the receiver. Figure 8 shows the location and numbering for the switches and the Carrier Detect LED indicator.
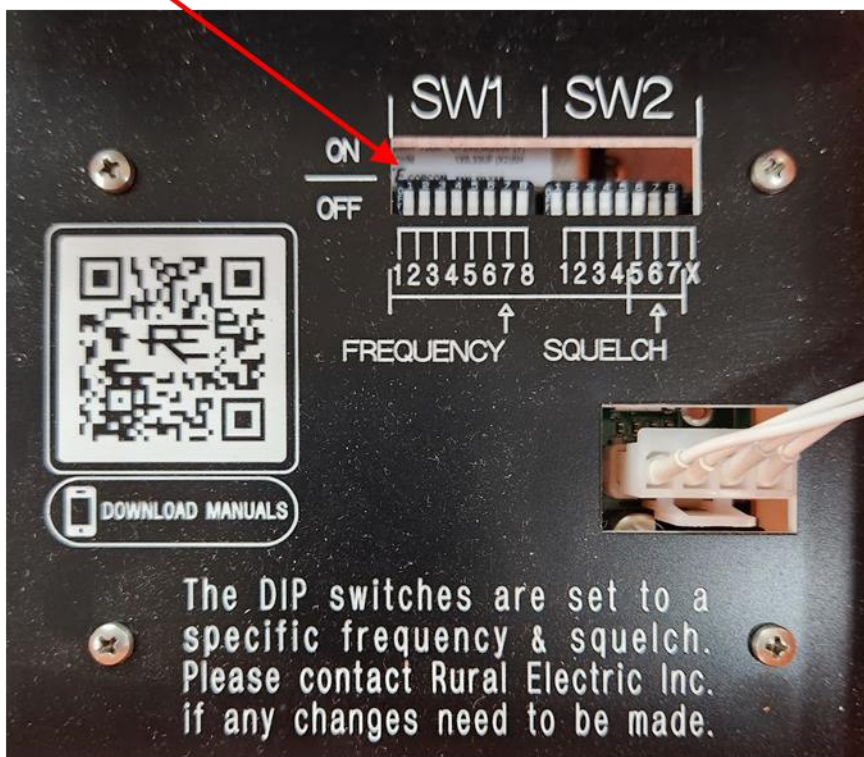
Figure 8 DIP Switch Locations (Frequency & Squelch)

SW1 (1-8), and SW2 (1-4) adjust the receiver's frequency. Refer to Table 3 to find the correct switch settings for your particular frequency. The switches are set according to binary code and begin with SW1-1 as the least significant digit, increasing to the right with SW2-4 as the most significant digit. Refer to page 21 for SW2 (5-7) adjust the squelch. SW2-8 (Marked "X" on faceplate) is for factory use only and is inactive in normal operation. It should be left in the OFF position.

When you have the switches set according to the charts, test operation with a handheld or nearby mobile transmitter:

Turn the power switch of the L-854 to ON.

Set the transmitter to the correct frequency and press and hold the transmit button.

You should see the decoder display show "CARRIER DETECT" and the Red Carrier Detect LED under the Receiver Board faceplate will be energized (see Figure 8). This indicates that the receiver is operating on the correct frequency and receiving signals.

Providing you see the "CARRIER DETECT" display you can now test the decoder operation using short clicks of the transmitter.

If you don't see the display change, push the "CARRIER TEST" button on the front panel. You should see the display indicate "CARRIER TEST". If this is the case turn the unit OFF and check the frequency switch settings again.

If the frequency settings are correct and pushing the transmitter button doesn't show the "CARRIER DETECT" display, the squelch setting should be checked:

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2. Squelch Control:

SW2 5-7 adjust the squelch. The squelch will ship from the factory set at the optimum level. It is possible to increase or decrease the sensitivity as shown here:

The switches are shown in the table below reading from left to right, SW2 (5, 6 and 7):

Squelch Settings			
Sw2	#5	#6	#7
-6dB	1	1	1
-3dB	0	1	1
Nominal (Factory Setting)	1	0	1
+3dB	0	0	1
+6dB	1	1	0
+9dB	0	1	0
+12dB	1	0	0
+15dB	0	0	0

Table 2 Squelch Settings

There are two settings below the factory setting to increase the sensitivity and five settings to decrease the sensitivity. Normally the factory setting will work well. If the sensitivity needs to be increased, the antenna connections and installation should be inspected. Refer to Appendix E for the recommended antenna installation instructions.

In some cases local interference may require decreasing the sensitivity to minimize noise reception and unwanted operation.

Frequency Settings:

1. The frequency settings are shown below.
2. Switch Settings are shown SW1 1-8 & SW2 1-4 From LEFT to RIGHT as shown on the FACEPLATE

Actual Freq.	8.33 KHz Freq. on Transmitter		8.33 KHz DIP Switch Settings	25.0 KHz DIP Switch Settings	Actual Freq.	8.33 KHz Freq. on Transmitter		8.33 KHz DIP Switch Settings	25.0 KHz DIP Switch Settings
118.0	118.000	/ 118.005	1111 1111 1111	111111111111	118.5	118.500	/ 118.505	1100 0011 1111	110101111111
118.00833	118.010		0111 1111 1111		118.50833	118.510		0100 0011 1111	
118.01667	118.015		1011 1111 1111		118.51667	118.515		1000 0011 1111	
118.025	118.025	/ 118.030	0011 1111 1111	011111111111	118.525	118.525	/ 118.530	0000 0011 1111	010101111111
118.03333	118.035		1101 1111 1111		118.53333	118.535		1111 1101 1111	
118.04167	118.040		0101 1111 1111		118.54167	118.540		0111 1101 1111	
118.05	118.050	/ 118.055	1001 1111 1111	101111111111	118.55	118.550	/ 118.555	1011 1101 1111	100101111111
118.05833	118.060		0001 1111 1111		118.55833	118.560		0011 1101 1111	
118.06667	118.065		1110 1111 1111		118.56667	118.565		1101 1101 1111	
118.075	118.075	/ 118.080	0110 1111 1111	001111111111	118.575	118.575	/ 118.580	0101 1101 1111	000101111111
118.08333	118.085		1010 1111 1111		118.58333	118.585		1001 1101 1111	
118.09167	118.090		0010 1111 1111		118.59167	118.590		0001 1101 1111	
118.1	118.100	/ 118.105	1100 1111 1111	110111111111	118.6	118.600	/ 118.605	1110 1101 1111	111001111111
118.10833	118.110		0100 1111 1111		118.60833	118.610		0110 1101 1111	
118.11667	118.115		1000 1111 1111		118.61667	118.615		1010 1101 1111	
118.125	118.125	/ 118.130	0000 1111 1111	010111111111	118.625	118.625	/ 118.630	0010 1101 1111	011001111111
118.13333	118.135		1111 0111 1111		118.63333	118.635		1100 1101 1111	
118.14167	118.140		0111 0111 1111		118.64167	118.640		0100 1101 1111	
118.15	118.150	/ 118.155	1011 0111 1111	100111111111	118.65	118.650	/ 118.655	1000 1101 1111	101001111111
118.15833	118.160		0011 0111 1111		118.65833	118.660		0000 1101 1111	
118.16667	118.165		1101 0111 1111		118.66667	118.665		1111 0101 1111	
118.175	118.175	/ 118.180	0101 0111 1111	000111111111	118.675	118.675	/ 118.680	0111 0101 1111	001001111111
118.18333	118.185		1001 0111 1111		118.68333	118.685		1011 0101 1111	
118.19167	118.190		0001 0111 1111		118.69167	118.690		0011 0101 1111	
118.2	118.200	/ 118.205	1110 0111 1111	111011111111	118.7	118.700	/ 118.705	1101 0101 1111	110001111111
118.20833	118.210		0110 0111 1111		118.70833	118.710		0101 0101 1111	
118.21667	118.215		1010 0111 1111		118.71667	118.715		1001 0101 1111	
118.225	118.225	/ 118.230	0010 0111 1111	011011111111	118.725	118.725	/ 118.730	0001 0101 1111	010001111111
118.23333	118.235		1100 0111 1111		118.73333	118.735		1110 0101 1111	
118.24167	118.240		0100 0111 1111		118.74167	118.740		0110 0101 1111	
118.25	118.250	/ 118.255	1000 0111 1111	101011111111	118.75	118.750	/ 118.755	1010 0101 1111	100001111111
118.25833	118.260		0000 0111 1111		118.75833	118.760		0010 0101 1111	
118.26667	118.265		1111 1011 1111		118.76667	118.765		1100 0101 1111	
118.275	118.275	/ 118.280	0111 1011 1111	001011111111	118.775	118.775	/ 118.780	0100 0101 1111	000001111111
118.28333	118.285		1011 1011 1111		118.78333	118.785		1000 0101 1111	
118.29167	118.290		0011 1011 1111		118.79167	118.790		0000 0101 1111	
118.3	118.300	/ 118.305	1101 1011 1111	110011111111	118.8	118.800	/ 118.805	1111 1001 1111	111110111111
118.30833	118.310		0101 1011 1111		118.80833	118.810		0111 1001 1111	
118.31667	118.315		1001 1011 1111		118.81667	118.815		1011 1001 1111	
118.325	118.325	/ 118.330	0001 1011 1111	010011111111	118.825	118.825	/ 118.830	0011 1001 1111	011110111111
118.33333	118.335		1110 1011 1111		118.83333	118.835		1101 1001 1111	
118.34167	118.340		0110 1011 1111		118.84167	118.840		0101 1001 1111	
118.35	118.350	/ 118.355	1010 1011 1111	100011111111	118.85	118.850	/ 118.855	1001 1001 1111	101110111111
118.35833	118.360		0010 1011 1111		118.85833	118.860		0001 1001 1111	
118.36667	118.365		1100 1011 1111		118.86667	118.865		1110 1001 1111	
118.375	118.375	/ 118.380	0100 1011 1111	000011111111	118.875	118.875	/ 118.880	0110 1001 1111	001110111111
118.38333	118.385		1000 1011 1111		118.88333	118.885		1010 1001 1111	
118.39167	118.390		0000 1011 1111		118.89167	118.890		0010 1001 1111	
118.4	118.400	/ 118.405	1111 0011 1111	111101111111	118.9	118.900	/ 118.905	1100 1001 1111	110110111111
118.40833	118.410		0111 0011 1111		118.90833	118.910		0100 1001 1111	
118.41667	118.415		1011 0011 1111		118.91667	118.915		1000 1001 1111	
118.425	118.425	/ 118.430	0011 0011 1111	011101111111	118.925	118.925	/ 118.930	0000 1001 1111	010110111111
118.43333	118.435		1101 0011 1111		118.93333	118.935		1111 0001 1111	
118.44167	118.440		0101 0011 1111		118.94167	118.940		0111 0001 1111	
118.45	118.450	/ 118.455	1001 0011 1111	101101111111	118.95	118.950	/ 118.955	1011 0001 1111	100110111111
118.45833	118.460		0001 0011 1111		118.95833	118.960		0011 0001 1111	
118.46667	118.465		1110 0011 1111		118.96667	118.965		1101 0001 1111	
118.475	118.475	/ 118.480	0110 0011 1111	001101111111	118.975	118.975	/ 118.980	0101 0001 1111	000110111111
118.48333	118.485		1010 0011 1111		118.98333	118.985		1001 0001 1111	
118.49167	118.490		0010 0011 1111		118.99167	118.990		0001 0001 1111	

Frequency: 118.0000 to 118.99167

Table 3k DIP Switch Settings (Frequencies 118.0000 – 118.99167)

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Frequency: 119.0000 to 119.99167							
Actual Freq.	**8.33 KHz Freq. on Transmitter**		**8.33 KHz DIP Switch Settings**	**25.0 KHz DIP Switch Settings**	**Actual Freq.**	**8.33 KHz Freq. on Transmitter**	**8.33 KHz DIP Switch Settings**	**25.0 KHz DIP Switch Settings**

Actual Freq.	8.33 KHz Freq. on Transmitter		8.33 KHz DIP Switch Settings	25.0 KHz DIP Switch Settings	Actual Freq.	8.33 KHz Freq. on Transmitter		8.33 KHz DIP Switch Settings	25.0 KHz DIP Switch Settings
119.0	119.000	/ 119.005	1110 0001 1111	111010111111	119.5	119.500	/ 119.505	1101 0010 1111	110000111111
119.00833	119.010		0110 0001 1111		119.50833	119.510		0101 0010 1111	
119.01667	119.015		1010 0001 1111		119.51667	119.515		1001 0010 1111	
119.025	119.025	/ 119.030	0010 0001 1111	011010111111	119.525	119.525	/ 119.530	0001 0010 1111	010000111111
119.03333	119.035		1100 0001 1111		119.53333	119.535		1110 0010 1111	
119.04167	119.040		0100 0001 1111		119.54167	119.540		0110 0010 1111	
119.05	119.050	/ 119.055	1000 0001 1111	101010111111	119.55	119.550	/ 119.555	1010 0010 1111	100000111111
119.05833	119.060		0000 0001 1111		119.55833	119.560		0010 0010 1111	
119.06667	119.065		1111 1110 1111		119.56667	119.565		1100 0010 1111	
119.075	119.075	/ 119.080	0111 1110 1111	001010111111	119.575	119.575	/ 119.580	0100 0010 1111	000000111111
119.08333	119.085		1011 1110 1111		119.58333	119.585		1000 0010 1111	
119.09167	119.090		0011 1110 1111		119.59167	119.590		0000 0010 1111	
119.1	119.100	/ 119.105	1101 1110 1111	110010111111	119.6	119.600	/ 119.605	1111 1100 1111	111111011111
119.10833	119.110		0101 1110 1111		119.60833	119.610		0111 1100 1111	
119.11667	119.115		1001 1110 1111		119.61667	119.615		1011 1100 1111	
119.125	119.125	/ 119.130	0001 1110 1111	010010111111	119.625	119.625	/ 119.630	0011 1100 1111	011111011111
119.13333	119.135		1110 1110 1111		119.63333	119.635		1101 1100 1111	
119.14167	119.140		0110 1110 1111		119.64167	119.640		0101 1100 1111	
119.15	119.150	/ 119.155	1010 1110 1111	100010111111	119.65	119.650	/ 119.655	1001 1100 1111	101111011111
119.15833	119.160		0010 1110 1111		119.65833	119.660		0001 1100 1111	
119.16667	119.165		1100 1110 1111		119.66667	119.665		1110 1100 1111	
119.175	119.175	/ 119.180	0100 1110 1111	000010111111	119.675	119.675	/ 119.680	0110 1100 1111	001111011111
119.18333	119.185		1000 1110 1111		119.68333	119.685		1010 1100 1111	
119.19167	119.190		0000 1110 1111		119.69167	119.690		0010 1100 1111	
119.2	119.200	/ 119.205	1111 0110 1111	111100111111	119.7	119.700	/ 119.705	1100 1100 1111	110111011111
119.20833	119.210		0111 0110 1111		119.70833	119.710		0100 1100 1111	
119.21667	119.215		1011 0110 1111		119.71667	119.715		1000 1100 1111	
119.225	119.225	/ 119.230	0011 0110 1111	011100111111	119.725	119.725	/ 119.730	0000 1100 1111	010111011111
119.23333	119.235		1101 0110 1111		119.73333	119.735		1111 0100 1111	
119.24167	119.240		0101 0110 1111		119.74167	119.740		0111 0100 1111	
119.25	119.250	/ 119.255	1001 0110 1111	101100111111	119.75	119.750	/ 119.755	1011 0100 1111	100111011111
119.25833	119.260		0001 0110 1111		119.75833	119.760		0011 0100 1111	
119.26667	119.265		1110 0110 1111		119.76667	119.765		1101 0100 1111	
119.275	119.275	/ 119.280	0110 0110 1111	001100111111	119.775	119.775	/ 119.780	0101 0100 1111	000111011111
119.28333	119.285		1010 0110 1111		119.78333	119.785		1001 0100 1111	
119.29167	119.290		0010 0110 1111		119.79167	119.790		0001 0100 1111	
119.3	119.300	/ 119.305	1100 0110 1111	110100111111	119.8	119.800	/ 119.805	1110 0100 1111	111011011111
119.30833	119.310		0100 0110 1111		119.80833	119.810		0110 0100 1111	
119.31667	119.315		1000 0110 1111		119.81667	119.815		1010 0100 1111	
119.325	119.325	/ 119.330	0000 0110 1111	010100111111	119.825	119.825	/ 119.830	0010 0100 1111	011011011111
119.33333	119.335		1111 1010 1111		119.83333	119.835		1100 0100 1111	
119.34167	119.340		0111 1010 1111		119.84167	119.840		0100 0100 1111	
119.35	119.350	/ 119.355	1011 1010 1111	100100111111	119.85	119.850	/ 119.855	1000 0100 1111	101011011111
119.35833	119.360		0011 1010 1111		119.85833	119.860		0000 0100 1111	
119.36667	119.365		1101 1010 1111		119.86667	119.865		1111 1000 1111	
119.375	119.375	/ 119.380	0101 1010 1111	000100111111	119.875	119.875	/ 119.880	0111 1000 1111	001011011111
119.38333	119.385		1001 1010 1111		119.88333	119.885		1011 1000 1111	
119.39167	119.390		0001 1010 1111		119.89167	119.890		0011 1000 1111	
119.4	119.400	/ 119.405	1110 1010 1111	111000111111	119.9	119.900	/ 119.905	1101 1000 1111	110011011111
119.40833	119.410		0110 1010 1111		119.90833	119.910		0101 1000 1111	
119.41667	119.415		1010 1010 1111		119.91667	119.915		1001 1000 1111	
119.425	119.425	/ 119.430	0010 1010 1111	011000111111	119.925	119.925	/ 119.930	0001 1000 1111	010011011111
119.43333	119.435		1100 1010 1111		119.93333	119.935		1110 1000 1111	
119.44167	119.440		0100 1010 1111		119.94167	119.940		0110 1000 1111	
119.45	119.450	/ 119.455	1000 1010 1111	101000111111	119.95	119.950	/ 119.955	1010 1000 1111	100011011111
119.45833	119.460		0000 1010 1111		119.95833	119.960		0010 1000 1111	
119.46667	119.465		1111 0010 1111		119.96667	119.965		1100 1000 1111	
119.475	119.475	/ 119.480	0111 0010 1111	001000111111	119.975	119.975	/ 119.980	0100 1000 1111	000011011111
119.48333	119.485		1011 0010 1111		119.98333	119.985		1000 1000 1111	
119.49167	119.490		0011 0010 1111		119.99167	119.990		0000 1000 1111	

Table 3k DIP Switch Settings (Frequencies 119.0000 – 119.99167

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	Frequency: 120.0000 to 120.99167						
Actual Freq.	8.33 KHz Freq. on Transmitter		8.33 KHz DIP Switch Settings	25.0 KHz DIP Switch Settings	Actual Freq.	8.33 KHz Freq. on Transmitter		8.33 KHz DIP Switch Settings	25.0 KHz DIP Switch Settings

Actual Freq.	8.33 KHz Freq. on Transmitter	8.33 KHz DIP Switch Settings	25.0 KHz DIP Switch Settings	Actual Freq.	8.33 KHz Freq. on Transmitter	8.33 KHz DIP Switch Settings	25.0 KHz DIP Switch Settings
120.0	120.000 / 120.005	1111 0000 1111	111101011111	120.5	120.500 / 120.505	1100 1011 0111	110110011111
120.00833	120.010	0111 0000 1111		120.50833	120.510	0100 1011 0111	
120.01667	120.015	1011 0000 1111		120.51667	120.515	1000 1011 0111	
120.025	120.025 / 120.030	0011 0000 1111	011101011111	120.525	120.525 / 120.530	0000 1011 0111	010110011111
120.03333	120.035	1101 0000 1111		120.53333	120.535	1111 0011 0111	
120.04167	120.040	0101 0000 1111		120.54167	120.540	0111 0011 0111	
120.05	120.050 / 120.055	1001 0000 1111	101101011111	120.55	120.550 / 120.555	1011 0011 0111	100110011111
120.05833	120.060	0001 0000 1111		120.55833	120.560	0011 0011 0111	
120.06667	120.065	1110 0000 1111		120.56667	120.565	1101 0011 0111	
120.075	120.075 / 120.080	0110 0000 1111	001101011111	120.575	120.575 / 120.580	0101 0011 0111	000110011111
120.08333	120.085	1010 0000 1111		120.58333	120.585	1001 0011 0111	
120.09167	120.090	0010 0000 1111		120.59167	120.590	0001 0011 0111	
120.1	120.100 / 120.105	1100 0000 1111	110101011111	120.6	120.600 / 120.605	1110 0011 0111	111010011111
120.10833	120.110	0100 0000 1111		120.60833	120.610	0110 0011 0111	
120.11667	120.115	1000 0000 1111		120.61667	120.615	1010 0011 0111	
120.125	120.125 / 120.130	0000 0000 1111	010101011111	120.625	120.625 / 120.630	0010 0011 0111	011010011111
120.13333	120.135	1111 1111 0111		120.63333	120.635	1100 0011 0111	
120.14167	120.140	0111 1111 0111		120.64167	120.640	0100 0011 0111	
120.15	120.150 / 120.155	1011 1111 0111	100101011111	120.65	120.650 / 120.655	1000 0011 0111	101010011111
120.15833	120.160	0011 1111 0111		120.65833	120.660	0000 0011 0111	
120.16667	120.165	1101 1111 0111		120.66667	120.665	1111 1101 0111	
120.175	120.175 / 120.180	0101 1111 0111	000101011111	120.675	120.675 / 120.680	0111 1101 0111	001010011111
120.18333	120.185	1001 1111 0111		120.68333	120.685	1011 1101 0111	
120.19167	120.190	0001 1111 0111		120.69167	120.690	0011 1101 0111	
120.2	120.200 / 120.205	1110 1111 0111	111001011111	120.7	120.700 / 120.705	1101 1101 0111	110010011111
120.20833	120.210	0110 1111 0111		120.70833	120.710	0101 1101 0111	
120.21667	120.215	1010 1111 0111		120.71667	120.715	1001 1101 0111	
120.225	120.225 / 120.230	0010 1111 0111	011001011111	120.725	120.725 / 120.730	0001 1101 0111	010010011111
120.23333	120.235	1100 1111 0111		120.73333	120.735	1110 1101 0111	
120.24167	120.240	0100 1111 0111		120.74167	120.740	0110 1101 0111	
120.25	120.250 / 120.255	1000 1111 0111	101001011111	120.75	120.750 / 120.755	1010 1101 0111	100010011111
120.25833	120.260	0000 1111 0111		120.75833	120.760	0010 1101 0111	
120.26667	120.265	1111 0111 0111		120.76667	120.765	1100 1101 0111	
120.275	120.275 / 120.280	0111 0111 0111	001001011111	120.775	120.775 / 120.780	0100 1101 0111	000010011111
120.28333	120.285	1011 0111 0111		120.78333	120.785	1000 1101 0111	
120.29167	120.290	0011 0111 0111		120.79167	120.790	0000 1101 0111	
120.3	120.300 / 120.305	1101 0111 0111	110001011111	120.8	120.800 / 120.805	1111 0101 0111	111100011111
120.30833	120.310	0101 0111 0111		120.80833	120.810	0111 0101 0111	
120.31667	120.315	1001 0111 0111		120.81667	120.815	1011 0101 0111	
120.325	120.325 / 120.330	0001 0111 0111	010001011111	120.825	120.825 / 120.830	0011 0101 0111	011100011111
120.33333	120.335	1110 0111 0111		120.83333	120.835	1101 0101 0111	
120.34167	120.340	0110 0111 0111		120.84167	120.840	0101 0101 0111	
120.35	120.350 / 120.355	1010 0111 0111	100001011111	120.85	120.850 / 120.855	1001 0101 0111	101100011111
120.35833	120.360	0010 0111 0111		120.85833	120.860	0001 0101 0111	
120.36667	120.365	1100 0111 0111		120.86667	120.865	1110 0101 0111	
120.375	120.375 / 120.380	0100 0111 0111	000001011111	120.875	120.875 / 120.880	0110 0101 0111	001100011111
120.38333	120.385	1000 0111 0111		120.88333	120.885	1010 0101 0111	
120.39167	120.390	0000 0111 0111		120.89167	120.890	0010 0101 0111	
120.4	120.400 / 120.405	1111 1011 0111	111110011111	120.9	120.900 / 120.905	1100 0101 0111	110100011111
120.40833	120.410	0111 1011 0111		120.90833	120.910	0100 0101 0111	
120.41667	120.415	1011 1011 0111		120.91667	120.915	1000 0101 0111	
120.425	120.425 / 120.430	0011 1011 0111	011110011111	120.925	120.925 / 120.930	0000 0101 0111	010100011111
120.43333	120.435	1101 1011 0111		120.93333	120.935	1111 1001 0111	
120.44167	120.440	0101 1011 0111		120.94167	120.940	0111 1001 0111	
120.45	120.450 / 120.455	1001 1011 0111	101110011111	120.95	120.950 / 120.955	1011 1001 0111	100100011111
120.45833	120.460	0001 1011 0111		120.95833	120.960	0011 1001 0111	
120.46667	120.465	1110 1011 0111		120.96667	120.965	1101 1001 0111	
120.475	120.475 / 120.480	0110 1011 0111	001110011111	120.975	120.975 / 120.980	0101 1001 0111	000100011111
120.48333	120.485	1010 1011 0111		120.98333	120.985	1001 1001 0111	
120.49167	120.490	0010 1011 0111		120.99167	120.990	0001 1001 0111	

Table 3k DIP Switch Settings (Frequencies 120.0000 – 120.99167)

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Frequency: 121.0000 to 121.99167							
Actual Freq.	8.33 KHz Freq. on Transmitter	8.33 KHz DIP Switch Settings	25.0 KHz DIP Switch Settings	Actual Freq.	8.33 KHz Freq. on Transmitter	8.33 KHz DIP Switch Settings	25.0 KHz DIP Switch Settings
121.0	121.000 / 121.005	1110 1001 0111	111000011111	121.5	121.500 / 121.505	1101 1010 0111	110011101111
121.00833	121.010	0110 1001 0111		121.50833	121.510	0101 1010 0111	
121.01667	121.015	1010 1001 0111		121.51667	121.515	1001 1010 0111	
121.025	121.025 / 121.030	0010 1001 0111	011000011111	121.525	121.525 / 121.530	0001 1010 0111	010011101111
121.03333	121.035	1100 1001 0111		121.53333	121.535	1110 1010 0111	
121.04167	121.040	0100 1001 0111		121.54167	121.540	0110 1010 0111	
121.05	121.050 / 121.055	1000 1001 0111	101000011111	121.55	121.550 / 121.555	1010 1010 0111	100011101111
121.05833	121.060	0000 1001 0111		121.55833	121.560	0010 1010 0111	
121.06667	121.065	1111 0001 0111		121.56667	121.565	1100 1010 0111	
121.075	121.075 / 121.080	0111 0001 0111	001000011111	121.575	121.575 / 121.580	0100 1010 0111	000011101111
121.08333	121.085	1011 0001 0111		121.58333	121.585	1000 1010 0111	
121.09167	121.090	0011 0001 0111		121.59167	121.590	0000 1010 0111	
121.1	121.100 / 121.105	1101 0001 0111	110000011111	121.6	121.600 / 121.605	1111 0010 0111	111101101111
121.10833	121.110	0101 0001 0111		121.60833	121.610	0111 0010 0111	
121.11667	121.115	1001 0001 0111		121.61667	121.615	1011 0010 0111	
121.125	121.125 / 121.130	0001 0001 0111	010000011111	121.625	121.625 / 121.630	0011 0010 0111	011101101111
121.13333	121.135	1110 0001 0111		121.63333	121.635	1101 0010 0111	
121.14167	121.140	0110 0001 0111		121.64167	121.640	0101 0010 0111	
121.15	121.150 / 121.155	1010 0001 0111	100000011111	121.65	121.650 / 121.655	1001 0010 0111	101101101111
121.15833	121.160	0010 0001 0111		121.65833	121.660	0001 0010 0111	
121.16667	121.165	1100 0001 0111		121.66667	121.665	1110 0010 0111	
121.175	121.175 / 121.180	0100 0001 0111	000000011111	121.675	121.675 / 121.680	0110 0010 0111	001101101111
121.18333	121.185	1000 0001 0111		121.68333	121.685	1010 0010 0111	
121.19167	121.190	0000 0001 0111		121.69167	121.690	0010 0010 0111	
121.2	121.200 / 121.205	1111 1110 0111	111111101111	121.7	121.700 / 121.705	1100 0010 0111	110101101111
121.20833	121.210	0111 1110 0111		121.70833	121.710	0100 0010 0111	
121.21667	121.215	1011 1110 0111		121.71667	121.715	1000 0010 0111	
121.225	121.225 / 121.230	0011 1110 0111	011111101111	121.725	121.725 / 121.730	0000 0010 0111	010101101111
121.23333	121.235	1101 1110 0111		121.73333	121.735	1111 1100 0111	
121.24167	121.240	0101 1110 0111		121.74167	121.740	0111 1100 0111	
121.25	121.250 / 121.255	1001 1110 0111	101111101111	121.75	121.750 / 121.755	1011 1100 0111	100101101111
121.25833	121.260	0001 1110 0111		121.75833	121.760	0011 1100 0111	
121.26667	121.265	1110 1110 0111		121.76667	121.765	1101 1100 0111	
121.275	121.275 / 121.280	0110 1110 0111	001111101111	121.775	121.775 / 121.780	0101 1100 0111	000101101111
121.28333	121.285	1010 1110 0111		121.78333	121.785	1001 1100 0111	
121.29167	121.290	0010 1110 0111		121.79167	121.790	0001 1100 0111	
121.3	121.300 / 121.305	1100 1110 0111	110111101111	121.8	121.800 / 121.805	1110 1100 0111	111001101111
121.30833	121.310	0100 1110 0111		121.80833	121.810	0110 1100 0111	
121.31667	121.315	1000 1110 0111		121.81667	121.815	1010 1100 0111	
121.325	121.325 / 121.330	0000 1110 0111	010111101111	121.825	121.825 / 121.830	0010 1100 0111	011001101111
121.33333	121.335	1111 0110 0111		121.83333	121.835	1100 1100 0111	
121.34167	121.340	0111 0110 0111		121.84167	121.840	0100 1100 0111	
121.35	121.350 / 121.355	1011 0110 0111	100111101111	121.85	121.850 / 121.855	1000 1100 0111	101001101111
121.35833	121.360	0011 0110 0111		121.85833	121.860	0000 1100 0111	
121.36667	121.365	1101 0110 0111		121.86667	121.865	1111 0100 0111	
121.375	121.375 / 121.380	0101 0110 0111	000111101111	121.875	121.875 / 121.880	0111 0100 0111	001001101111
121.38333	121.385	1001 0110 0111		121.88333	121.885	1011 0100 0111	
121.39167	121.390	0001 0110 0111		121.89167	121.890	0011 0100 0111	
121.4	121.400 / 121.405	1110 0110 0111	111011101111	121.9	121.900 / 121.905	1101 0100 0111	110001101111
121.40833	121.410	0110 0110 0111		121.90833	121.910	0101 0100 0111	
121.41667	121.415	1010 0110 0111		121.91667	121.915	1001 0100 0111	
121.425	121.425 / 121.430	0010 0110 0111	011011101111	121.925	121.925 / 121.930	0001 0100 0111	010001101111
121.43333	121.435	1100 0110 0111		121.93333	121.935	1110 0100 0111	
121.44167	121.440	0100 0110 0111		121.94167	121.940	0110 0100 0111	
121.45	121.450 / 121.455	1000 0110 0111	101011101111	121.95	121.950 / 121.955	1010 0100 0111	100001101111
121.45833	121.460	0000 0110 0111		121.95833	121.960	0010 0100 0111	
121.46667	121.465	1111 1010 0111		121.96667	121.965	1100 0100 0111	
121.475	121.475 / 121.480	0111 1010 0111	001011101111	121.975	121.975 / 121.980	0100 0100 0111	000001101111
121.48333	121.485	1011 1010 0111		121.98333	121.985	1000 0100 0111	
121.49167	121.490	0011 1010 0111		121.99167	121.990	0000 0100 0111	

Table 3k DIP Switch Settings (Frequencies 121.0000 – 121.99167)
NOT ALLOCATED EMERGENCY

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Frequency: 122.0000 to 122.99167							
Actual Freq.	**8.33 KHz Freq. on Transmitter**	**8.33 KHz DIP Switch Settings**	**25.0 KHz DIP Switch Settings**	**Actual Freq.**	**8.33 KHz Freq. on Transmitter**	**8.33 KHz DIP Switch Settings**	**25.0 KHz DIP Switch Settings**
122.0	122.000 / 122.005	1111 1000 0111	111110101111	122.5	122.500 / 122.505	1100 0111 1011	110100101111
122.00833	122.010	0111 1000 0111		122.50833	122.510	0100 0111 1011	
122.01667	122.015	1011 1000 0111		122.51667	122.515	1000 0111 1011	
122.025	122.025 / 122.030	0011 1000 0111	011110101111	122.525	122.525 / 122.530	0000 0111 1011	010100101111
122.03333	122.035	1101 1000 0111		122.53333	122.535	1111 1011 1011	
122.04167	122.040	0101 1000 0111		122.54167	122.540	0111 1011 1011	
122.05	122.050 / 122.055	1001 1000 0111	101110101111	122.55	122.550 / 122.555	1011 1011 1011	100100101111
122.05833	122.060	0001 1000 0111		122.55833	122.560	0011 1011 1011	
122.06667	122.065	1110 1000 0111		122.56667	122.565	1101 1011 1011	
122.075	122.075 / 122.080	0110 1000 0111	001110101111	122.575	122.575 / 122.580	0101 1011 1011	000100101111
122.08333	122.085	1010 1000 0111		122.58333	122.585	1001 1011 1011	
122.09167	122.090	0010 1000 0111		122.59167	122.590	0001 1011 1011	
122.1	122.100 / 122.105	1100 1000 0111	110110101111	122.6	122.600 / 122.605	1110 1011 1011	111000101111
122.10833	122.110	0100 1000 0111		122.60833	122.610	0110 1011 1011	
122.11667	122.115	1000 1000 0111		122.61667	122.615	1010 1011 1011	
122.125	122.125 / 122.130	0000 1000 0111	010110101111	122.625	122.625 / 122.630	0010 1011 1011	011000101111
122.13333	122.135	1111 0000 0111		122.63333	122.635	1100 1011 1011	
122.14167	122.140	0111 0000 0111		122.64167	122.640	0100 1011 1011	
122.15	122.150 / 122.155	1011 0000 0111	100110101111	122.65	122.650 / 122.655	1000 1011 1011	101000101111
122.15833	122.160	0011 0000 0111		122.65833	122.660	0000 1011 1011	
122.16667	122.165	1101 0000 0111		122.66667	122.665	1111 0011 1011	
122.175	122.175 / 122.180	0101 0000 0111	000110101111	122.675	122.675 / 122.680	0111 0011 1011	001000101111
122.18333	122.185	1001 0000 0111		122.68333	122.685	1011 0011 1011	
122.19167	122.190	0001 0000 0111		122.69167	122.690	0011 0011 1011	
122.2	122.200 / 122.205	1110 0000 0111	111010101111	122.7	122.700 / 122.705	1101 0011 1011	110000101111
122.20833	122.210	0110 0000 0111		122.70833	122.710	0101 0011 1011	
122.21667	122.215	1010 0000 0111		122.71667	122.715	1001 0011 1011	
122.225	122.225 / 122.230	0010 0000 0111	011010101111	122.725	122.725 / 122.730	0001 0011 1011	010000101111
122.23333	122.235	1100 0000 0111		122.73333	122.735	1110 0011 1011	
122.24167	122.240	0100 0000 0111		122.74167	122.740	0110 0011 1011	
122.25	122.250 / 122.255	1000 0000 0111	101010101111	122.75	122.750 / 122.755	1010 0011 1011	100000101111
122.25833	122.260	0000 0000 0111		122.75833	122.760	0010 0011 1011	
122.26667	122.265	1111 1111 1011		122.76667	122.765	1100 0011 1011	
122.275	122.275 / 122.280	0111 1111 1011	001010101111	122.775	122.775 / 122.780	0100 0011 1011	000000101111
122.28333	122.285	1011 1111 1011		122.78333	122.785	1000 0011 1011	
122.29167	122.290	0011 1111 1011		122.79167	122.790	0000 0011 1011	
122.3	122.300 / 122.305	1101 1111 1011	110010101111	**122.8**	122.800 / 122.805	**1111 1101 1011**	**111111001111**
122.30833	122.310	0101 1111 1011		122.80833	122.810	0111 1101 1011	
122.31667	122.315	1001 1111 1011		122.81667	122.815	1011 1101 1011	
122.325	122.325 / 122.330	0001 1111 1011	010010101111	122.825	122.825 / 122.830	0011 1101 1011	011111001111
122.33333	122.335	1110 1111 1011		122.83333	122.835	1101 1101 1011	
122.34167	122.340	0110 1111 1011		122.84167	122.840	0101 1101 1011	
122.35	122.350 / 122.355	1010 1111 1011	100010101111	122.85	122.850 / 122.855	1001 1101 1011	101111001111
122.35833	122.360	0010 1111 1011		122.85833	122.860	0001 1101 1011	
122.36667	122.365	1100 1111 1011		122.86667	122.865	1110 1101 1011	
122.375	122.375 / 122.380	0100 1111 1011	000010101111	122.875	122.875 / 122.880	0110 1101 1011	001111001111
122.38333	122.385	1000 1111 1011		122.88333	122.885	1010 1101 1011	
122.39167	122.390	0000 1111 1011		122.89167	122.890	0010 1101 1011	
122.4	122.400 / 122.405	1111 0111 1011	111100101111	122.9	122.900 / 122.905	1100 1101 1011	110111001111
122.40833	122.410	0111 0111 1011		122.90833	122.910	0100 1101 1011	
122.41667	122.415	1011 0111 1011		122.91667	122.915	1000 1101 1011	
122.425	122.425 / 122.430	0011 0111 1011	011100101111	122.925	122.925 / 122.930	0000 1101 1011	010111001111
122.43333	122.435	1101 0111 1011		122.93333	122.935	1111 0101 1011	
122.44167	122.440	0101 0111 1011		122.94167	122.940	0111 0101 1011	
122.45	122.450 / 122.455	1001 0111 1011	101100101111	122.95	122.950 / 122.955	1011 0101 1011	100111001111
122.45833	122.460	0001 0111 1011		122.95833	122.960	0011 0101 1011	
122.46667	122.465	1110 0111 1011		122.96667	122.965	1101 0101 1011	
122.475	122.475 / 122.480	0110 0111 1011	110100101111	122.975	122.975 / 122.980	0101 0101 1011	000111001111
122.48333	122.485	1010 0111 1011		122.98333	122.985	1001 0101 1011	
122.49167	122.490	0010 0111 1011		122.99167	122.990	0001 0101 1011	

Table 3k DIP Switch Settings (Frequencies 122.0000 – 122.99167)

DEFAULT

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Frequency: 123.0000 to 123.99167									
Actual Freq.	**8.33 KHz Freq. on Transmitter**		**8.33 KHz DIP Switch Settings**	**25.0 KHz DIP Switch Settings**	**Actual Freq.**	**8.33 KHz Freq. on Transmitter**		**8.33 KHz DIP Switch Settings**	**25.0 KHz DIP Switch Settings**
123.0	123.000 /	123.005	1110 0101 1011	111011001111	123.5	123.500 /	123.505	1101 0110 1011	110001001111
123.00833	123.010		0110 0101 1011		123.50833	123.510		0101 0110 1011	
123.01667	123.015		1010 0101 1011		123.51667	123.515		1001 0110 1011	
123.025	123.025 /	123.030	0010 0101 1011	011011001111	123.525	123.525 /	123.530	0001 0110 1011	010001001111
123.03333	123.035		1100 0101 1011		123.53333	123.535		1110 0110 1011	
123.04167	123.040		0100 0101 1011		123.54167	123.540		0110 0110 1011	
123.05	123.050 /	123.055	1000 0101 1011	101011001111	123.55	123.550 /	123.555	1010 0110 1011	100001001111
123.05833	123.060		0000 0101 1011		123.55833	123.560		0010 0110 1011	
123.06667	123.065		1111 1001 1011		123.56667	123.565		1100 0110 1011	
123.075	123.075 /	123.080	0111 1001 1011	001011001111	123.575	123.575 /	123.580	0100 0110 1011	000001001111
123.08333	123.085		1011 1001 1011		123.58333	123.585		1000 0110 1011	
123.09167	123.090		0011 1001 1011		123.59167	123.590		0000 0110 1011	
123.1	123.100 /	123.105	1101 1001 1011	110011001111	123.6	123.600 /	123.605	1111 1010 1011	111110001111
123.10833	123.110		0101 1001 1011		123.60833	123.610		0111 1010 1011	
123.11667	123.115		1001 1001 1011		123.61667	123.615		1011 1010 1011	
123.125	123.125 /	123.130	0001 1001 1011	010011001111	123.625	123.625 /	123.630	0011 1010 1011	011110001111
123.13333	123.135		1110 1001 1011		123.63333	123.635		1101 1010 1011	
123.14167	123.140		0110 1001 1011		123.64167	123.640		0101 1010 1011	
123.15	123.150 /	123.155	1010 1001 1011	100011001111	123.65	123.650 /	123.655	1001 1010 1011	101110001111
123.15833	123.160		0010 1001 1011		123.65833	123.660		0001 1010 1011	
123.16667	123.165		1100 1001 1011		123.66667	123.665		1110 1010 1011	
123.175	123.175 /	123.180	0100 1001 1011	000011001111	123.675	123.675 /	123.680	0110 1010 1011	001110001111
123.18333	123.185		1000 1001 1011		123.68333	123.685		1010 1010 1011	
123.19167	123.190		0000 1001 1011		123.69167	123.690		0010 1010 1011	
123.2	123.200 /	123.205	1111 0001 1011	111101001111	123.7	123.700 /	123.705	1100 1010 1011	110110001111
123.20833	123.210		0111 0001 1011		123.70833	123.710		0100 1010 1011	
123.21667	123.215		1011 0001 1011		123.71667	123.715		1000 1010 1011	
123.225	123.225 /	123.230	0011 0001 1011	011101001111	123.725	123.725 /	123.730	0000 1010 1011	010110001111
123.23333	123.235		1101 0001 1011		123.73333	123.735		1111 0010 1011	
123.24167	123.240		0101 0001 1011		123.74167	123.740		0111 0010 1011	
123.25	123.250 /	123.255	1001 0001 1011	101101001111	123.75	123.750 /	123.755	1011 0010 1011	100110001111
123.25833	123.260		0001 0001 1011		123.75833	123.760		0011 0010 1011	
123.26667	123.265		1110 0001 1011		123.76667	123.765		1101 0010 1011	
123.275	123.275 /	123.280	0110 0001 1011	001101001111	123.775	123.775 /	123.780	0101 0010 1011	000110001111
123.28333	123.285		1010 0001 1011		123.78333	123.785		1001 0010 1011	
123.29167	123.290		0010 0001 1011		123.79167	123.790		0001 0010 1011	
123.3	123.300 /	123.305	1100 0001 1011	110101001111	123.8	123.800 /	123.805	1110 0010 1011	111010001111
123.30833	123.310		0100 0001 1011		123.80833	123.810		0110 0010 1011	
123.31667	123.315		1000 0001 1011		123.81667	123.815		1010 0010 1011	
123.325	123.325 /	123.330	0000 0001 1011	010101001111	123.825	123.825 /	123.830	0010 0010 1011	011010001111
123.33333	123.335		1111 1110 1011		123.83333	123.835		1100 0010 1011	
123.34167	123.340		0111 1110 1011		123.84167	123.840		0100 0010 1011	
123.35	123.350 /	123.355	1011 1110 1011	100101001111	123.85	123.850 /	123.855	1000 0010 1011	101010001111
123.35833	123.360		0011 1110 1011		123.85833	123.860		0000 0010 1011	
123.36667	123.365		1101 1110 1011		123.86667	123.865		1111 1100 1011	
123.375	123.375 /	123.380	0101 1110 1011	000101001111	123.875	123.875 /	123.880	0111 1100 1011	001010001111
123.38333	123.385		1001 1110 1011		123.88333	123.885		1011 1100 1011	
123.39167	123.390		0001 1110 1011		123.89167	123.890		0011 1100 1011	
123.4	123.400 /	123.405	1110 1110 1011	111001001111	123.9	123.900 /	123.905	1101 1100 1011	110010001111
123.40833	123.410		0110 1110 1011		123.90833	123.910		0101 1100 1011	
123.41667	123.415		1010 1110 1011		123.91667	123.915		1001 1100 1011	
123.425	123.425 /	123.430	0010 1110 1011	011001001111	123.925	123.925 /	123.930	0001 1100 1011	010010001111
123.43333	123.435		1100 1110 1011		123.93333	123.935		1110 1100 1011	
123.44167	123.440		0100 1110 1011		123.94167	123.940		0110 1100 1011	
123.45	123.450 /	123.455	1000 1110 1011	101001001111	123.95	123.950 /	123.955	1010 1100 1011	100010001111
123.45833	123.460		0000 1110 1011		123.95833	123.960		0010 1100 1011	
123.46667	123.465		1111 0110 1011		123.96667	123.965		1100 1100 1011	
123.475	123.475 /	123.480	0111 0110 1011	001001001111	123.975	123.975 /	123.980	0100 1100 1011	000010001111
123.48333	123.485		1011 0110 1011		123.98333	123.985		1000 1100 1011	
123.49167	123.490		0011 0110 1011		123.99167	123.990		0000 1100 1011	

Table 3k DIP Switch Settings (Frequencies 123.0000 – 123.99167)

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Frequency: 124.0000 to 124.99167									
Actual Freq.	8.33 KHz Freq. on Transmitter		8.33 KHz DIP Switch Settings	25.0 KHz DIP Switch Settings	Actual Freq.	8.33 KHz Freq. on Transmitter		8.33 KHz DIP Switch Settings	25.0 KHz DIP Switch Settings
124.0	124.000 /	124.005	1111 0100 1011	111100001111	124.5	124.500 /	124.505	1100 1111 0011	110111110111
124.00833	124.010		0111 0100 1011		124.50833	124.510		0100 1111 0011	
124.01667	124.015		1011 0100 1011		124.51667	124.515		1000 1111 0011	
124.025	124.025 /	124.030	0011 0100 1011	011100001111	124.525	124.525 /	124.530	0000 1111 0011	010111110111
124.03333	124.035		1101 0100 1011		124.53333	124.535		1111 0111 0011	
124.04167	124.040		0101 0100 1011		124.54167	124.540		0111 0111 0011	
124.05	124.050 /	124.055	1001 0100 1011	101100001111	124.55	124.550 /	124.555	1011 0111 0011	100111110111
124.05833	124.060		0001 0100 1011		124.55833	124.560		0011 0111 0011	
124.06667	124.065		1110 0100 1011		124.56667	124.565		1101 0111 0011	
124.075	124.075 /	124.080	0110 0100 1011	001100001111	124.575	124.575 /	124.580	0101 0111 0011	000111110111
124.08333	124.085		1010 0100 1011		124.58333	124.585		1001 0111 0011	
124.09167	124.090		0010 0100 1011		124.59167	124.590		0001 0111 0011	
124.1	124.100 /	124.105	1100 0100 1011	110100001111	124.6	124.600 /	124.605	1110 0111 0011	111011110111
124.10833	124.110		0100 0100 1011		124.60833	124.610		0110 0111 0011	
124.11667	124.115		1000 0100 1011		124.61667	124.615		1010 0111 0011	
124.125	124.125 /	124.130	0000 0100 1011	010100001111	124.625	124.625 /	124.630	0010 0111 0011	011011110111
124.13333	124.135		1111 1000 1011		124.63333	124.635		1100 0111 0011	
124.14167	124.140		0111 1000 1011		124.64167	124.640		0100 0111 0011	
124.15	124.150 /	124.155	1011 1000 1011	100100001111	124.65	124.650 /	124.655	1000 0111 0011	101011110111
124.15833	124.160		0011 1000 1011		124.65833	124.660		0000 0111 0011	
124.16667	124.165		1101 1000 1011		124.66667	124.665		1111 1011 0011	
124.175	124.175 /	124.180	0101 1000 1011	000100001111	124.675	124.675 /	124.680	0111 1011 0011	001011110111
124.18333	124.185		1001 1000 1011		124.68333	124.685		1011 1011 0011	
124.19167	124.190		0001 1000 1011		124.69167	124.690		0011 1011 0011	
124.2	124.200 /	124.205	1110 1000 1011	111000001111	124.7	124.700 /	124.705	1101 1011 0011	110011110111
124.20833	124.210		0110 1000 1011		124.70833	124.710		0101 1011 0011	
124.21667	124.215		1010 1000 1011		124.71667	124.715		1001 1011 0011	
124.225	124.225 /	124.230	0010 1000 1011	011000001111	124.725	124.725 /	124.730	0001 1011 0011	010011110111
124.23333	124.235		1100 1000 1011		124.73333	124.735		1110 1011 0011	
124.24167	124.240		0100 1000 1011		124.74167	124.740		0110 1011 0011	
124.25	124.250 /	124.255	1000 1000 1011	101000001111	124.75	124.750 /	124.755	1010 1011 0011	100011110111
124.25833	124.260		0000 1000 1011		124.75833	124.760		0010 1011 0011	
124.26667	124.265		1111 0000 1011		124.76667	124.765		1100 1011 0011	
124.275	124.275 /	124.280	0111 0000 1011	001000001111	124.775	124.775 /	124.780	0100 1011 0011	000011110111
124.28333	124.285		1011 0000 1011		124.78333	124.785		1000 1011 0011	
124.29167	124.290		0011 0000 1011		124.79167	124.790		0000 1011 0011	
124.3	124.300 /	124.305	1101 0000 1011	110000001111	124.8	124.800 /	124.805	1111 0011 0011	111101110111
124.30833	124.310		0101 0000 1011		124.80833	124.810		0111 0011 0011	
124.31667	124.315		1001 0000 1011		124.81667	124.815		1011 0011 0011	
124.325	124.325 /	124.330	0001 0000 1011	010000001111	124.825	124.825 /	124.830	0011 0011 0011	011101110111
124.33333	124.335		1110 0000 1011		124.83333	124.835		1101 0011 0011	
124.34167	124.340		0110 0000 1011		124.84167	124.840		0101 0011 0011	
124.35	124.350 /	124.355	1010 0000 1011	100000001111	124.85	124.850 /	124.855	1001 0011 0011	101101110111
124.35833	124.360		0010 0000 1011		124.85833	124.860		0001 0011 0011	
124.36667	124.365		1100 0000 1011		124.86667	124.865		1110 0011 0011	
124.375	124.375 /	124.380	0100 0000 1011	000000001111	124.875	124.875 /	124.880	0110 0011 0011	001101110111
124.38333	124.385		1000 0000 1011		124.88333	124.885		1010 0011 0011	
124.39167	124.390		0000 0000 1011		124.89167	124.890		0010 0011 0011	
124.4	124.400 /	124.405	1111 1111 0011	111111110111	124.9	124.900 /	124.905	1100 0011 0011	110101110111
124.40833	124.410		0111 1111 0011		124.90833	124.910		0100 0011 0011	
124.41667	124.415		1011 1111 0011		124.91667	124.915		1000 0011 0011	
124.425	124.425 /	124.430	0011 1111 0011	011111110111	124.925	124.925 /	124.930	0000 0011 0011	010101110111
124.43333	124.435		1101 1111 0011		124.93333	124.935		1111 1101 0011	
124.44167	124.440		0101 1111 0011		124.94167	124.940		0111 1101 0011	
124.45	124.450 /	124.455	1001 1111 0011	101111110111	124.95	124.950 /	124.955	1011 1101 0011	100101110111
124.45833	124.460		0001 1111 0011		124.95833	124.960		0011 1101 0011	
124.46667	124.465		1110 1111 0011		124.96667	124.965		1101 1101 0011	
124.475	124.475 /	124.480	0110 1111 0011	001111110111	124.975	124.975 /	124.980	0101 1101 0011	000101110111
124.48333	124.485		1010 1111 0011		124.98333	124.985		1001 1101 0011	
124.49167	124.490		0010 1111 0011		124.99167	124.990		0001 1101 0011	

Table 3k DIP Switch Settings (Frequencies 124.0000 – 124.99167)

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Frequency: 125.0000 to 125.99167							
Actual Freq.	8.33 KHz Freq. on Transmitter	8.33 KHz DIP Switch Settings	25.0 KHz DIP Switch Settings	Actual Freq.	8.33 KHz Freq. on Transmitter	8.33 KHz DIP Switch Settings	25.0 KHz DIP Switch Settings
125.0	125.000 / 125.005	1110 1101 0011	111001110111	125.5	125.500 / 125.505	1101 1110 0011	110010110111
125.00833	125.010	0110 1101 0011		125.50833	125.510	0101 1110 0011	
125.01667	125.015	1010 1101 0011		125.51667	125.515	1001 1110 0011	
125.025	125.025 / 125.030	0010 1101 0011	011001110111	125.525	125.525 / 125.530	0001 1110 0011	010010110111
125.03333	125.035	1100 1101 0011		125.53333	125.535	1110 1110 0011	
125.04167	125.040	0100 1101 0011		125.54167	125.540	0110 1110 0011	
125.05	125.050 / 125.055	1000 1101 0011	101001110111	125.55	125.550 / 125.555	1010 1110 0011	100010110111
125.05833	125.060	0000 1101 0011		125.55833	125.560	0010 1110 0011	
125.06667	125.065	1111 0101 0011		125.56667	125.565	1100 1110 0011	
125.075	125.075 / 125.080	0111 0101 0011	001001110111	125.575	125.575 / 125.580	0100 1110 0011	000010110111
125.08333	125.085	1011 0101 0011		125.58333	125.585	1000 1110 0011	
125.09167	125.090	0011 0101 0011		125.59167	125.590	0000 1110 0011	
125.1	125.100 / 125.105	1101 0101 0011	110001110111	125.6	125.600 / 125.605	1111 0110 0011	111100110111
125.10833	125.110	0101 0101 0011		125.60833	125.610	0111 0110 0011	
125.11667	125.115	1001 0101 0011		125.61667	125.615	1011 0110 0011	
125.125	125.125 / 125.130	0001 0101 0011	010001110111	125.625	125.625 / 125.630	0011 0110 0011	011100110111
125.13333	125.135	1110 0101 0011		125.63333	125.635	1101 0110 0011	
125.14167	125.140	0110 0101 0011		125.64167	125.640	0101 0110 0011	
125.15	125.150 / 125.155	1010 0101 0011	100001110111	125.65	125.650 / 125.655	1001 0110 0011	101100110111
125.15833	125.160	0010 0101 0011		125.65833	125.660	0001 0110 0011	
125.16667	125.165	1100 0101 0011		125.66667	125.665	1110 0110 0011	
125.175	125.175 / 125.180	0100 0101 0011	000001110111	125.675	125.675 / 125.680	0110 0110 0011	001100110111
125.18333	125.185	1000 0101 0011		125.68333	125.685	1010 0110 0011	
125.19167	125.190	0000 0101 0011		125.69167	125.690	0010 0110 0011	
125.2	125.200 / 125.205	1111 1001 0011	111110110111	125.7	125.700 / 125.705	1100 0110 0011	110100110111
125.20833	125.210	0111 1001 0011		125.70833	125.710	0100 0110 0011	
125.21667	125.215	1011 1001 0011		125.71667	125.715	1000 0110 0011	
125.225	125.225 / 125.230	0011 1001 0011	011110110111	125.725	125.725 / 125.730	0000 0110 0011	010100110111
125.23333	125.235	1101 1001 0011		125.73333	125.735	1111 1010 0011	
125.24167	125.240	0101 1001 0011		125.74167	125.740	0111 1010 0011	
125.25	125.250 / 125.255	1001 1001 0011	101110110111	125.75	125.750 / 125.755	1011 1010 0011	100100110111
125.25833	125.260	0001 1001 0011		125.75833	125.760	0011 1010 0011	
125.26667	125.265	1110 1001 0011		125.76667	125.765	1101 1010 0011	
125.275	125.275 / 125.280	0110 1001 0011	001110110111	125.775	125.775 / 125.780	0101 1010 0011	000100110111
125.28333	125.285	1010 1001 0011		125.78333	125.785	1001 1010 0011	
125.29167	125.290	0010 1001 0011		125.79167	125.790	0001 1010 0011	
125.3	125.300 / 125.305	1100 1001 0011	110110110111	125.8	125.800 / 125.805	1110 1010 0011	111000110111
125.30833	125.310	0100 1001 0011		125.80833	125.810	0110 1010 0011	
125.31667	125.315	1000 1001 0011		125.81667	125.815	1010 1010 0011	
125.325	125.325 / 125.330	0000 1001 0011	010110110111	125.825	125.825 / 125.830	0010 1010 0011	011000110111
125.33333	125.335	1111 0001 0011		125.83333	125.835	1100 1010 0011	
125.34167	125.340	0111 0001 0011		125.84167	125.840	0100 1010 0011	
125.35	125.350 / 125.355	1011 0001 0011	100110110111	125.85	125.850 / 125.855	1000 1010 0011	101000110111
125.35833	125.360	0011 0001 0011		125.85833	125.860	0000 1010 0011	
125.36667	125.365	1101 0001 0011		125.86667	125.865	1111 0010 0011	
125.375	125.375 / 125.380	0101 0001 0011	000110110111	125.875	125.875 / 125.880	0111 0010 0011	001000110111
125.38333	125.385	1001 0001 0011		125.88333	125.885	1011 0010 0011	
125.39167	125.390	0001 0001 0011		125.89167	125.890	0011 0010 0011	
125.4	125.400 / 125.405	1110 0001 0011	111010110111	125.9	125.900 / 125.905	1101 0010 0011	110000110111
125.40833	125.410	0110 0001 0011		125.90833	125.910	0101 0010 0011	
125.41667	125.415	1010 0001 0011		125.91667	125.915	1001 0010 0011	
125.425	125.425 / 125.430	0010 0001 0011	011010110111	125.925	125.925 / 125.930	0001 0010 0011	010000110111
125.43333	125.435	1100 0001 0011		125.93333	125.935	1110 0010 0011	
125.44167	125.440	0100 0001 0011		125.94167	125.940	0110 0010 0011	
125.45	125.450 / 125.455	1000 0001 0011	101010110111	125.95	125.950 / 125.955	1010 0010 0011	100000110111
125.45833	125.460	0000 0001 0011		125.95833	125.960	0010 0010 0011	
125.46667	125.465	1111 1110 0011		125.96667	125.965	1100 0010 0011	
125.475	125.475 / 125.480	0111 1110 0011	001010110111	125.975	125.975 / 125.980	0100 0010 0011	000000110111
125.48333	125.485	1011 1110 0011		125.98333	125.985	1000 0010 0011	
125.49167	125.490	0011 1110 0011		125.99167	125.990	0000 0010 0011	

Table 3k DIP Switch Settings (Frequencies 125.0000 – 125.99167)

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	Frequency: 126.0000 to 126.99167								
Actual Freq.	8.33 KHz Freq. on Transmitter		8.33 KHz DIP Switch Settings	25.0 KHz DIP Switch Settings	Actual Freq.	8.33 KHz Freq. on Transmitter		8.33 KHz DIP Switch Settings	25.0 KHz DIP Switch Settings
126.0	126.000	/ 126.005	1111 1100 0011	111111010111	126.5	126.500	/ 126.505	1100 0000 0011	110101010111
126.00833	126.010		0111 1100 0011		126.50833	126.510		0100 0000 0011	
126.01667	126.015		1011 1100 0011		126.51667	126.515		1000 0000 0011	
126.025	126.025	/ 126.030	0011 1100 0011	011111010111	126.525	126.525	/ 126.530	0000 0000 0011	010101010111
126.03333	126.035		1101 1100 0011		126.53333	126.535		1111 1111 1101	
126.04167	126.040		0101 1100 0011		126.54167	126.540		0111 1111 1101	
126.05	126.050	/ 126.055	1001 1100 0011	101111010111	126.55	126.550	/ 126.555	1011 1111 1101	100101010111
126.05833	126.060		0001 1100 0011		126.55833	126.560		0011 1111 1101	
126.06667	126.065		1101 1100 0011		126.56667	126.565		1101 1111 1101	
126.075	126.075	/ 126.080	0110 1100 0011	001111010111	126.575	126.575	/ 126.580	0101 1111 1101	000101010111
126.08333	126.085		1010 1100 0011		126.58333	126.585		1001 1111 1101	
126.09167	126.090		0010 1100 0011		126.59167	126.590		0001 1111 1101	
126.1	126.100	/ 126.105	1100 1100 0011	110111010111	126.6	126.600	/ 126.605	1110 1111 1101	111001010111
126.10833	126.110		0100 1100 0011		126.60833	126.610		0110 1111 1101	
126.11667	126.115		1000 1100 0011		126.61667	126.615		1010 1111 1101	
126.125	126.125	/ 126.130	0000 1100 0011	010111010111	126.625	126.625	/ 126.630	0010 1111 1101	011001010111
126.13333	126.135		1111 0100 0011		126.63333	126.635		1100 1111 1101	
126.14167	126.140		0111 0100 0011		126.64167	126.640		0100 1111 1101	
126.15	126.150	/ 126.155	1011 0100 0011	100111010111	126.65	126.650	/ 126.655	1000 1111 1101	101001010111
126.15833	126.160		0011 0100 0011		126.65833	126.660		0000 1111 1101	
126.16667	126.165		1101 0100 0011		126.66667	126.665		1111 0111 1101	
126.175	126.175	/ 126.180	0101 0100 0011	000111010111	126.675	126.675	/ 126.680	0111 0111 1101	001001010111
126.18333	126.185		1001 0100 0011		126.68333	126.685		1011 0111 1101	
126.19167	126.190		0001 0100 0011		126.69167	126.690		0011 0111 1101	
126.2	126.200	/ 126.205	1110 0100 0011	111011010111	126.7	126.700	/ 126.705	1101 0111 1101	110001010111
126.20833	126.210		0110 0100 0011		126.70833	126.710		0101 0111 1101	
126.21667	126.215		1010 0100 0011		126.71667	126.715		1001 0111 1101	
126.225	126.225	/ 126.230	0010 0100 0011	011011010111	126.725	126.725	/ 126.730	0001 0111 1101	010001010111
126.23333	126.235		1100 0100 0011		126.73333	126.735		1110 0111 1101	
126.24167	126.240		0100 0100 0011		126.74167	126.740		0110 0111 1101	
126.25	126.250	/ 126.255	1000 0100 0011	101011010111	126.75	126.750	/ 126.755	1010 0111 1101	100001010111
126.25833	126.260		0000 0100 0011		126.75833	126.760		0010 0111 1101	
126.26667	126.265		1111 1000 0011		126.76667	126.765		1100 0111 1101	
126.275	126.275	/ 126.280	0111 1000 0011	001011010111	126.775	126.775	/ 126.780	0100 0111 1101	000001010111
126.28333	126.285		1011 1000 0011		126.78333	126.785		1000 0111 1101	
126.29167	126.290		0011 1000 0011		126.79167	126.790		0000 0111 1101	
126.3	126.300	/ 126.305	1101 1000 0011	110011010111	126.8	126.800	/ 126.805	1111 1011 1101	111110010111
126.30833	126.310		0101 1000 0011		126.80833	126.810		0111 1011 1101	
126.31667	126.315		1001 1000 0011		126.81667	126.815		1011 1011 1101	
126.325	126.325	/ 126.330	0001 1000 0011	010011010111	126.825	126.825	/ 126.830	0011 1011 1101	011110010111
126.33333	126.335		1110 1000 0011		126.83333	126.835		1101 1011 1101	
126.34167	126.340		0110 1000 0011		126.84167	126.840		0101 1011 1101	
126.35	126.350	/ 126.355	1010 1000 0011	100011010111	126.85	126.850	/ 126.855	1001 1011 1101	101110010111
126.35833	126.360		0010 1000 0011		126.85833	126.860		0001 1011 1101	
126.36667	126.365		1110 1000 0011		126.86667	126.865		1110 1011 1101	
126.375	126.375	/ 126.380	0100 1000 0011	000011010111	126.875	126.875	/ 126.880	0110 1011 1101	001110010111
126.38333	126.385		1000 1000 0011		126.88333	126.885		1010 1011 1101	
126.39167	126.390		0000 1000 0011		126.89167	126.890		0010 1011 1101	
126.4	126.400	/ 126.405	1111 0000 0011	111101010111	126.9	126.900	/ 126.905	1100 1011 1101	110110010111
126.40833	126.410		0111 0000 0011		126.90833	126.910		0100 1011 1101	
126.41667	126.415		1011 0000 0011		126.91667	126.915		1000 1011 1101	
126.425	126.425	/ 126.430	0011 0000 0011	011101010111	126.925	126.925	/ 126.930	0000 1011 1101	010110010111
126.43333	126.435		1101 0000 0011		126.93333	126.935		1111 0011 1101	
126.44167	126.440		0101 0000 0011		126.94167	126.940		0111 0011 1101	
126.45	126.450	/ 126.455	1001 0000 0011	101101010111	126.95	126.950	/ 126.955	1011 0011 1101	100110010111
126.45833	126.460		0001 0000 0011		126.95833	126.960		0011 0011 1101	
126.46667	126.465		1110 0000 0011		126.96667	126.965		1101 0011 1101	
126.475	126.475	/ 126.480	0110 0000 0011	001101010111	126.975	126.975	/ 126.980	0101 0011 1101	000110010111
126.48333	126.485		1010 0000 0011		126.98333	126.985		1001 0011 1101	
126.49167	126.490		0010 0000 0011		126.99167	126.990		0001 0011 1101	

Table 3k DIP Switch Settings (Frequencies 126.0000 – 126.99167)

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Frequency: 127.0000 to 127.99167							
Actual Freq.	8.33 KHz Freq. on Transmitter		8.33 KHz DIP Switch Settings	25.0 KHz DIP Switch Settings	Actual Freq.	8.33 KHz Freq. on Transmitter	8.33 KHz DIP Switch Settings	25.0 KHz DIP Switch Settings

Actual Freq.	8.33 KHz Freq. on Transmitter	8.33 KHz DIP Switch Settings	25.0 KHz DIP Switch Settings	Actual Freq.	8.33 KHz Freq. on Transmitter	8.33 KHz DIP Switch Settings	25.0 KHz DIP Switch Settings
127.0	127.000 / 127.005	1110 0011 1101	111010010111	127.5	127.500 / 127.505	1101 0001 1101	110000010111
127.00833	127.010	0110 0011 1101		127.50833	127.510	0101 0001 1101	
127.01667	127.015	1010 0011 1101		127.51667	127.515	1001 0001 1101	
127.025	127.025 / 127.030	0010 0011 1101	011010010111	127.525	127.525 / 127.530	0001 0001 1101	010000010111
127.03333	127.035	1100 0011 1101		127.53333	127.535	1110 0001 1101	
127.04167	127.040	0100 0011 1101		127.54167	127.540	0110 0001 1101	
127.05	127.050 / 127.055	1000 0011 1101	101010010111	127.55	127.550 / 127.555	1010 0001 1101	100000010111
127.05833	127.060	0000 0011 1101		127.55833	127.560	0010 0001 1101	
127.06667	127.065	1111 1101 1101		127.56667	127.565	1100 0001 1101	
127.075	127.075 / 127.080	0111 1101 1101	001010010111	127.575	127.575 / 127.580	0100 0001 1101	000000010111
127.08333	127.085	1011 1101 1101		127.58333	127.585	1000 0001 1101	
127.09167	127.090	0011 1101 1101		127.59167	127.590	0000 0001 1101	
127.1	127.100 / 127.105	1101 1101 1101	110010010111	127.6	127.600 / 127.605	1111 1110 1101	111111100111
127.10833	127.110	0101 1101 1101		127.60833	127.610	0111 1110 1101	
127.11667	127.115	1001 1101 1101		127.61667	127.615	1011 1110 1101	
127.125	127.125 / 127.130	0001 1101 1101	010010010111	127.625	127.625 / 127.630	0011 1110 1101	011111100111
127.13333	127.135	1110 1101 1101		127.63333	127.635	1101 1110 1101	
127.14167	127.140	0110 1101 1101		127.64167	127.640	0101 1110 1101	
127.15	127.150 / 127.155	1010 1101 1101	100010010111	127.65	127.650 / 127.655	1001 1110 1101	101111100111
127.15833	127.160	0010 1101 1101		127.65833	127.660	0001 1110 1101	
127.16667	127.165	1100 1101 1101		127.66667	127.665	1110 1110 1101	
127.175	127.175 / 127.180	0100 1101 1101	000010010111	127.675	127.675 / 127.680	0110 1110 1101	001111100111
127.18333	127.185	1000 1101 1101		127.68333	127.685	1010 1110 1101	
127.19167	127.190	0000 1101 1101		127.69167	127.690	0010 1110 1101	
127.2	127.200 / 127.205	1111 0101 1101	111100010111	127.7	127.700 / 127.705	1100 1110 1101	110111100111
127.20833	127.210	0111 0101 1101		127.70833	127.710	0100 1110 1101	
127.21667	127.215	1011 0101 1101		127.71667	127.715	1000 1110 1101	
127.225	127.225 / 127.230	0011 0101 1101	011100010111	127.725	127.725 / 127.730	0000 1110 1101	010111100111
127.23333	127.235	1101 0101 1101		127.73333	127.735	1111 0110 1101	
127.24167	127.240	0101 0101 1101		127.74167	127.740	0111 0110 1101	
127.25	127.250 / 127.255	1001 0101 1101	101100010111	127.75	127.750 / 127.755	1011 0110 1101	100111100111
127.25833	127.260	0001 0101 1101		127.75833	127.760	0011 0110 1101	
127.26667	127.265	1110 0101 1101		127.76667	127.765	1101 0110 1101	
127.275	127.275 / 127.280	0110 0101 1101	001100010111	127.775	127.775 / 127.780	0101 0110 1101	000111100111
127.28333	127.285	1010 0101 1101		127.78333	127.785	1001 0110 1101	
127.29167	127.290	0010 0101 1101		127.79167	127.790	0001 0110 1101	
127.3	127.300 / 127.305	1100 0101 1101	110100010111	127.8	127.800 / 127.805	1110 0110 1101	111011100111
127.30833	127.310	0100 0101 1101		127.80833	127.810	0110 0110 1101	
127.31667	127.315	1000 0101 1101		127.81667	127.815	1010 0110 1101	
127.325	127.325 / 127.330	0000 0101 1101	010100010111	127.825	127.825 / 127.830	0010 0110 1101	011011100111
127.33333	127.335	1111 1001 1101		127.83333	127.835	1100 0110 1101	
127.34167	127.340	0111 1001 1101		127.84167	127.840	0100 0110 1101	
127.35	127.350 / 127.355	1011 1001 1101	100100010111	127.85	127.850 / 127.855	1000 0110 1101	101011100111
127.35833	127.360	0011 1001 1101		127.85833	127.860	0000 0110 1101	
127.36667	127.365	1101 1001 1101		127.86667	127.865	1111 1010 1101	
127.375	127.375 / 127.380	0101 1001 1101	000100010111	127.875	127.875 / 127.880	0111 1010 1101	001011100111
127.38333	127.385	1001 1001 1101		127.88333	127.885	1011 1010 1101	
127.39167	127.390	0001 1001 1101		127.89167	127.890	0011 1010 1101	
127.4	127.400 / 127.405	1110 1001 1101	111000010111	127.9	127.900 / 127.905	1101 1010 1101	110011100111
127.40833	127.410	0110 1001 1101		127.90833	127.910	0101 1010 1101	
127.41667	127.415	1010 1001 1101		127.91667	127.915	1001 1010 1101	
127.425	127.425 / 127.430	0010 1001 1101	011000010111	127.925	127.925 / 127.930	0001 1010 1101	010011100111
127.43333	127.435	1100 1001 1101		127.93333	127.935	1110 1010 1101	
127.44167	127.440	0100 1001 1101		127.94167	127.940	0110 1010 1101	
127.45	127.450 / 127.455	1000 1001 1101	101000010111	127.95	127.950 / 127.955	1010 1010 1101	100011100111
127.45833	127.460	0000 1001 1101		127.95833	127.960	0010 1010 1101	
127.46667	127.465	1111 0001 1101		127.96667	127.965	1100 1010 1101	
127.475	127.475 / 127.480	0111 0001 1101	001000010111	127.975	127.975 / 127.980	0100 1010 1101	000011100111
127.48333	127.485	1011 0001 1101		127.98333	127.985	1000 1010 1101	
127.49167	127.490	0011 0001 1101		127.99167	127.990	0000 1010 1101	

Table 3k DIP Switch Settings (Frequencies 127.0000 – 127.99167)

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Frequency: 128.0000 to 128.99167							
Actual Freq.	8.33 KHz Freq. on Transmitter	8.33 KHz DIP Switch Settings	25.0 KHz DIP Switch Settings	Actual Freq.	8.33 KHz Freq. on Transmitter	8.33 KHz DIP Switch Settings	25.0 KHz DIP Switch Settings
128.0	128.000 / 128.005	1111 0010 1101	111101100111	128.5	128.500 / 128.505	1100 1000 1101	110110100111
128.00833	128.010	0111 0010 1101		128.50833	128.510	0100 1000 1101	
128.01667	128.015	1011 0010 1101		128.51667	128.515	1000 1000 1101	
128.025	128.025 / 128.030	0011 0010 1101	011101100111	128.525	128.525 / 128.530	0000 1000 1101	010110100111
128.03333	128.035	1101 0010 1101		128.53333	128.535	1111 0000 1101	
128.04167	128.040	0101 0010 1101		128.54167	128.540	0111 0000 1101	
128.05	128.050 / 128.055	1001 0010 1101	101101100111	128.55	128.550 / 128.555	1011 0000 1101	100110100111
128.05833	128.060	0001 0010 1101		128.55833	128.560	0011 0000 1101	
128.06667	128.065	1110 0010 1101		128.56667	128.565	1101 0000 1101	
128.075	128.075 / 128.080	0110 0010 1101	001101100111	128.575	128.575 / 128.580	0101 0000 1101	000110100111
128.08333	128.085	1010 0010 1101		128.58333	128.585	1001 0000 1101	
128.09167	128.090	0010 0010 1101		128.59167	128.590	0001 0000 1101	
128.1	128.100 / 128.105	1100 0010 1101	110101100111	128.6	128.600 / 128.605	1110 0000 1101	111010100111
128.10833	128.110	0100 0010 1101		128.60833	128.610	0110 0000 1101	
128.11667	128.115	1000 0010 1101		128.61667	128.615	1010 0000 1101	
128.125	128.125 / 128.130	0000 0010 1101	010101100111	128.625	128.625 / 128.630	0010 0000 1101	011010100111
128.13333	128.135	1111 1100 1101		128.63333	128.635	1100 0000 1101	
128.14167	128.140	0111 1100 1101		128.64167	128.640	0100 0000 1101	
128.15	128.150 / 128.155	1011 1100 1101	100101100111	128.65	128.650 / 128.655	1000 0000 1101	101010100111
128.15833	128.160	0011 1100 1101		128.65833	128.660	0000 0000 1101	
128.16667	128.165	1101 1100 1101		128.66667	128.665	1111 1111 0101	
128.175	128.175 / 128.180	0101 1100 1101	000101100111	128.675	128.675 / 128.680	0111 1111 0101	001010100111
128.18333	128.185	1001 1100 1101		128.68333	128.685	1011 1111 0101	
128.19167	128.190	0001 1100 1101		128.69167	128.690	0011 1111 0101	
128.2	128.200 / 128.205	1110 1100 1101	111001100111	128.7	128.700 / 128.705	1101 1111 0101	110010100111
128.20833	128.210	0110 1100 1101		128.70833	128.710	0101 1111 0101	
128.21667	128.215	1010 1100 1101		128.71667	128.715	1001 1111 0101	
128.225	128.225 / 128.230	0010 1100 1101	011001100111	128.725	128.725 / 128.730	0001 1111 0101	010010100111
128.23333	128.235	1100 1100 1101		128.73333	128.735	1110 1111 0101	
128.24167	128.240	0100 1100 1101		128.74167	128.740	0110 1111 0101	
128.25	128.250 / 128.255	1000 1100 1101	101001100111	128.75	128.750 / 128.755	1010 1111 0101	100010100111
128.25833	128.260	0000 1100 1101		128.75833	128.760	0010 1111 0101	
128.26667	128.265	1111 0100 1101		128.76667	128.765	1100 1111 0101	
128.275	128.275 / 128.280	0111 0100 1101	001001100111	128.775	128.775 / 128.780	0100 1111 0101	000010100111
128.28333	128.285	1011 0100 1101		128.78333	128.785	1000 1111 0101	
128.29167	128.290	0011 0100 1101		128.79167	128.790	0000 1111 0101	
128.3	128.300 / 128.305	1101 0100 1101	110001100111	128.8	128.800 / 128.805	1111 0111 0101	111100100111
128.30833	128.310	0101 0100 1101		128.80833	128.810	0111 0111 0101	
128.31667	128.315	1001 0100 1101		128.81667	128.815	1011 0111 0101	
128.325	128.325 / 128.330	0001 0100 1101	010001100111	128.825	128.825 / 128.830	0011 0111 0101	011100100111
128.33333	128.335	1110 0100 1101		128.83333	128.835	1101 0111 0101	
128.34167	128.340	0110 0100 1101		128.84167	128.840	0101 0111 0101	
128.35	128.350 / 128.355	1010 0100 1101	100001100111	128.85	128.850 / 128.855	1001 0111 0101	101100100111
128.35833	128.360	0010 0100 1101		128.85833	128.860	0001 0111 0101	
128.36667	128.365	1100 0100 1101		128.86667	128.865	1110 0111 0101	
128.375	128.375 / 128.380	0100 0100 1101	000001100111	128.875	128.875 / 128.880	0110 0111 0101	001100100111
128.38333	128.385	1000 0100 1101		128.88333	128.885	1010 0111 0101	
128.39167	128.390	0000 0100 1101		128.89167	128.890	0010 0111 0101	
128.4	128.400 / 128.405	1111 1000 1101	111110100111	128.9	128.900 / 128.905	1100 0111 0101	110100100111
128.40833	128.410	0111 1000 1101		128.90833	128.910	0100 0111 0101	
128.41667	128.415	1011 1000 1101		128.91667	128.915	1000 0111 0101	
128.425	128.425 / 128.430	0011 1000 1101	011110100111	128.925	128.925 / 128.930	0000 0111 0101	010100100111
128.43333	128.435	1101 1000 1101		128.93333	128.935	1111 1011 0101	
128.44167	128.440	0101 1000 1101		128.94167	128.940	0111 1011 0101	
128.45	128.450 / 128.455	1001 1000 1101	101110100111	128.95	128.950 / 128.955	1011 1011 0101	100100100111
128.45833	128.460	0001 1000 1101		128.95833	128.960	0011 1011 0101	
128.46667	128.465	1110 1000 1101		128.96667	128.965	1101 1011 0101	
128.475	128.475 / 128.480	0110 1000 1101	001110100111	128.975	128.975 / 128.980	0101 1011 0101	000100100111
128.48333	128.485	1010 1000 1101		128.98333	128.985	1001 1011 0101	
128.49167	128.490	0010 1000 1101		128.99167	128.990	0001 1011 0101	

Table 3k DIP Switch Settings (Frequencies 128.0000 – 128.99167)

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Frequency: 129.0000 to 129.99167							
Actual Freq.	8.33 KHz Freq. on Transmitter	8.33 KHz DIP Switch Settings	25.0 KHz DIP Switch Settings	Actual Freq.	8.33 KHz Freq. on Transmitter	8.33 KHz DIP Switch Settings	25.0 KHz DIP Switch Settings
129.0	129.000 / 129.005	1110 1011 0101	111000100111	129.5	129.500 / 129.505	1101 1001 0101	110011000111
129.00833	129.010	0110 1011 0101		129.50833	129.510	0101 1001 0101	
129.01667	129.015	1010 1011 0101		129.51667	129.515	1001 1001 0101	
129.025	129.025 / 129.030	0010 1011 0101	011000100111	129.525	129.525 / 129.530	0001 1001 0101	010011000111
129.03333	129.035	1100 1011 0101		129.53333	129.535	1110 1001 0101	
129.04167	129.040	0100 1011 0101		129.54167	129.540	0110 1001 0101	
129.05	129.050 / 129.055	1000 1011 0101	101000100111	129.55	129.550 / 129.555	1010 1001 0101	100011000111
129.05833	129.060	0000 1011 0101		129.55833	129.560	0010 1001 0101	
129.06667	129.065	1111 0011 0101		129.56667	129.565	1100 1001 0101	
129.075	129.075 / 129.080	0111 0011 0101	001000100111	129.575	129.575 / 129.580	0100 1001 0101	000011000111
129.08333	129.085	1011 0011 0101		129.58333	129.585	1000 1001 0101	
129.09167	129.090	0011 0011 0101		129.59167	129.590	0000 1001 0101	
129.1	129.100 / 129.105	1101 0011 0101	110000100111	129.6	129.600 / 129.605	1111 0001 0101	111101000111
129.10833	129.110	0101 0011 0101		129.60833	129.610	0111 0001 0101	
129.11667	129.115	1001 0011 0101		129.61667	129.615	1011 0001 0101	
129.125	129.125 / 129.130	0001 0011 0101	010000100111	129.625	129.625 / 129.630	0011 0001 0101	011101000111
129.13333	129.135	1110 0011 0101		129.63333	129.635	1101 0001 0101	
129.14167	129.140	0110 0011 0101		129.64167	129.640	0101 0001 0101	
129.15	129.150 / 129.155	1010 0011 0101	100000100111	129.65	129.650 / 129.655	1001 0001 0101	101101000111
129.15833	129.160	0010 0011 0101		129.65833	129.660	0001 0001 0101	
129.16667	129.165	1100 0011 0101		129.66667	129.665	1110 0001 0101	
129.175	129.175 / 129.180	0100 0011 0101	000000100111	129.675	129.675 / 129.680	0110 0001 0101	001101000111
129.18333	129.185	1000 0011 0101		129.68333	129.685	1010 0001 0101	
129.19167	129.190	0000 0011 0101		129.69167	129.690	0010 0001 0101	
129.2	129.200 / 129.205	1111 1101 0101	111111000111	129.7	129.700 / 129.705	1100 0001 0101	110101000111
129.20833	129.210	0111 1101 0101		129.70833	129.710	0100 0001 0101	
129.21667	129.215	1011 1101 0101		129.71667	129.715	1000 0001 0101	
129.225	129.225 / 129.230	0011 1101 0101	011111000111	129.725	129.725 / 129.730	0000 0001 0101	010101000111
129.23333	129.235	1101 1101 0101		129.73333	129.735	1111 1110 0101	
129.24167	129.240	0101 1101 0101		129.74167	129.740	0111 1110 0101	
129.25	129.250 / 129.255	1001 1101 0101	101111000111	129.75	129.750 / 129.755	1011 1110 0101	100101000111
129.25833	129.260	0001 1101 0101		129.75833	129.760	0011 1110 0101	
129.26667	129.265	1110 1101 0101		129.76667	129.765	1101 1110 0101	
129.275	129.275 / 129.280	0110 1101 0101	001111000111	129.775	129.775 / 129.780	0101 1110 0101	000101000111
129.28333	129.285	1010 1101 0101		129.78333	129.785	1001 1110 0101	
129.29167	129.290	0010 1101 0101		129.79167	129.790	0001 1110 0101	
129.3	129.300 / 129.305	1100 1101 0101	110111000111	129.8	129.800 / 129.805	1110 1110 0101	111001000111
129.30833	129.310	0100 1101 0101		129.80833	129.810	0110 1110 0101	
129.31667	129.315	1000 1101 0101		129.81667	129.815	1010 1110 0101	
129.325	129.325 / 129.330	0000 1101 0101	010111000111	129.825	129.825 / 129.830	0010 1110 0101	011001000111
129.33333	129.335	1111 0101 0101		129.83333	129.835	1100 1110 0101	
129.34167	129.340	0111 0101 0101		129.84167	129.840	0100 1110 0101	
129.35	129.350 / 129.355	1011 0101 0101	100111000111	129.85	129.850 / 129.855	1000 1110 0101	101001000111
129.35833	129.360	0011 0101 0101		129.85833	129.860	0000 1110 0101	
129.36667	129.365	1110 0101 0101		129.86667	129.865	1111 0110 0101	
129.375	129.375 / 129.380	0101 0101 0101	000111000111	129.875	129.875 / 129.880	0111 0110 0101	001001000111
129.38333	129.385	1001 0101 0101		129.88333	129.885	1011 0110 0101	
129.39167	129.390	0001 0101 0101		129.89167	129.890	0011 0110 0101	
129.4	129.400 / 129.405	1110 0101 0101	111011000111	129.9	129.900 / 129.905	1101 0110 0101	110001000111
129.40833	129.410	0110 0101 0101		129.90833	129.910	0101 0110 0101	
129.41667	129.415	1010 0101 0101		129.91667	129.915	1001 0110 0101	
129.425	129.425 / 129.430	0010 0101 0101	011011000111	129.925	129.925 / 129.930	0001 0110 0101	010001000111
129.43333	129.435	1100 0101 0101		129.93333	129.935	1110 0110 0101	
129.44167	129.440	0100 0101 0101		129.94167	129.940	0110 0110 0101	
129.45	129.450 / 129.455	1000 0101 0101	101011000111	129.95	129.950 / 129.955	1010 0110 0101	100001000111
129.45833	129.460	0000 0101 0101		129.95833	129.960	0010 0110 0101	
129.46667	129.465	1111 1001 0101		129.96667	129.965	1100 0110 0101	
129.475	129.475 / 129.480	0111 1001 0101	001011000111	129.975	129.975 / 129.980	0100 0110 0101	000001000111
129.48333	129.485	1011 1001 0101		129.98333	129.985	1000 0110 0101	
129.49167	129.490	0011 1001 0101		129.99167	129.990	0000 0110 0101	

Table 3k DIP Switch Settings (Frequencies 129.0000 – 129.99167)

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Frequency: 130.0000 to 130.99167							
Actual Freq.	8.33 KHz Freq. on Transmitter	8.33 KHz DIP Switch Settings	25.0 KHz DIP Switch Settings	Actual Freq.	8.33 KHz Freq. on Transmitter	8.33 KHz DIP Switch Settings	25.0 KHz DIP Switch Settings
130.0	130.000 / 130.005	1111 1010 0101	111110000111	130.5	130.500 / 130.505	1100 0100 0101	110100000111
130.00833	130.010	0111 1010 0101		130.50833	130.510	0100 0100 0101	
130.01667	130.015	1011 1010 0101		130.51667	130.515	1000 0100 0101	
130.025	130.025 / 130.030	0011 1010 0101	011110000111	130.525	130.525 / 130.530	0000 0100 0101	010100000111
130.03333	130.035	1101 1010 0101		130.53333	130.535	1111 1000 0101	
130.04167	130.040	0101 1010 0101		130.54167	130.540	0111 1000 0101	
130.05	130.050 / 130.055	1001 1010 0101	101110000111	130.55	130.550 / 130.555	1011 1000 0101	100100000111
130.05833	130.060	0001 1010 0101		130.55833	130.560	0011 1000 0101	
130.06667	130.065	1110 1010 0101		130.56667	130.565	1101 1000 0101	
130.075	130.075 / 130.080	0110 1010 0101	001110000111	130.575	130.575 / 130.580	0101 1000 0101	000100000111
130.08333	130.085	1010 1010 0101		130.58333	130.585	1001 1000 0101	
130.09167	130.090	0010 1010 0101		130.59167	130.590	0001 1000 0101	
130.1	130.100 / 130.105	1100 1010 0101	110110000111	130.6	130.600 / 130.605	1110 1000 0101	111000000111
130.10833	130.110	0100 1010 0101		130.60833	130.610	0110 1000 0101	
130.11667	130.115	1000 1010 0101		130.61667	130.615	1010 1000 0101	
130.125	130.125 / 130.130	0000 1010 0101	010110000111	130.625	130.625 / 130.630	0010 1000 0101	011000000111
130.13333	130.135	1111 0010 0101		130.63333	130.635	1100 1000 0101	
130.14167	130.140	0111 0010 0101		130.64167	130.640	0100 1000 0101	
130.15	130.150 / 130.155	1011 0010 0101	100110000111	130.65	130.650 / 130.655	1000 1000 0101	101000000111
130.15833	130.160	0011 0010 0101		130.65833	130.660	0000 1000 0101	
130.16667	130.165	1101 0010 0101		130.66667	130.665	1111 0000 0101	
130.175	130.175 / 130.180	0101 0010 0101	000110000111	130.675	130.675 / 130.680	0111 0000 0101	001000000111
130.18333	130.185	1001 0010 0101		130.68333	130.685	1011 0000 0101	
130.19167	130.190	0001 0010 0101		130.69167	130.690	0011 0000 0101	
130.2	130.200 / 130.205	1110 0010 0101	111010000111	130.7	130.700 / 130.705	1101 0000 0101	110000000111
130.20833	130.210	0110 0010 0101		130.70833	130.710	0101 0000 0101	
130.21667	130.215	1010 0010 0101		130.71667	130.715	1001 0000 0101	
130.225	130.225 / 130.230	0010 0010 0101	011010000111	130.725	130.725 / 130.730	0001 0000 0101	010000000111
130.23333	130.235	1100 0010 0101		130.73333	130.735	1110 0000 0101	
130.24167	130.240	0100 0010 0101		130.74167	130.740	0110 0000 0101	
130.25	130.250 / 130.255	1000 0010 0101	101010000111	130.75	130.750 / 130.755	1010 0000 0101	100000000111
130.25833	130.260	0000 0010 0101		130.75833	130.760	0010 0000 0101	
130.26667	130.265	1111 1100 0101		130.76667	130.765	1100 0000 0101	
130.275	130.275 / 130.280	0111 1100 0101	001010000111	130.775	130.775 / 130.780	0100 0000 0101	000000000111
130.28333	130.285	1011 1100 0101		130.78333	130.785	1000 0000 0101	
130.29167	130.290	0011 1100 0101		130.79167	130.790	0000 0000 0101	
130.3	130.300 / 130.305	1101 1100 0101	110010000111	130.8	130.800 / 130.805	1111 1111 1001	111111111011
130.30833	130.310	0101 1100 0101		130.80833	130.810	0111 1111 1001	
130.31667	130.315	1001 1100 0101		130.81667	130.815	1011 1111 1001	
130.325	130.325 / 130.330	0001 1100 0101	010010000111	130.825	130.825 / 130.830	0011 1111 1001	011111111011
130.33333	130.335	1110 1100 0101		130.83333	130.835	1101 1111 1001	
130.34167	130.340	0110 1100 0101		130.84167	130.840	0101 1111 1001	
130.35	130.350 / 130.355	1010 1100 0101	100010000111	130.85	130.850 / 130.855	1001 1111 1001	101111111011
130.35833	130.360	0010 1100 0101		130.85833	130.860	0001 1111 1001	
130.36667	130.365	1100 1100 0101		130.86667	130.865	1110 1111 1001	
130.375	130.375 / 130.380	0100 1100 0101	000010000111	130.875	130.875 / 130.880	0110 1111 1001	001111111011
130.38333	130.385	1000 1100 0101		130.88333	130.885	1010 1111 1001	
130.39167	130.390	0000 1100 0101		130.89167	130.890	0010 1111 1001	
130.4	130.400 / 130.405	1111 0100 0101	111100000111	130.9	130.900 / 130.905	1100 1111 1001	110111111011
130.40833	130.410	0111 0100 0101		130.90833	130.910	0100 1111 1001	
130.41667	130.415	1011 0100 0101		130.91667	130.915	1000 1111 1001	
130.425	130.425 / 130.430	0011 0100 0101	011100000111	130.925	130.925 / 130.930	0000 1111 1001	010111111011
130.43333	130.435	1101 0100 0101		130.93333	130.935	1111 0111 1001	
130.44167	130.440	0101 0100 0101		130.94167	130.940	0111 0111 1001	
130.45	130.450 / 130.455	1001 0100 0101	101100000111	130.95	130.950 / 130.955	1011 0111 1001	100111111011
130.45833	130.460	0001 0100 0101		130.95833	130.960	0011 0111 1001	
130.46667	130.465	1110 0100 0101		130.96667	130.965	1101 0111 1001	
130.475	130.475 / 130.480	0110 0100 0101	001100000111	130.975	130.975 / 130.980	0101 0111 1001	000111111011
130.48333	130.485	1010 0100 0101		130.98333	130.985	1001 0111 1001	
130.49167	130.490	0010 0100 0101		130.99167	130.990	0001 0111 1001	

Table 3k DIP Switch Settings (Frequencies 130.0000 – 130.99167)

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Frequency: 131.0000 to 131.99167							
Actual Freq.	8.33 KHz Freq. on Transmitter		8.33 KHz DIP Switch Settings	25.0 KHz DIP Switch Settings	Actual Freq.	8.33 KHz Freq. on Transmitter		8.33 KHz DIP Switch Settings	25.0 KHz DIP Switch Settings

Actual Freq.	8.33 KHz Freq. on Transmitter	8.33 KHz DIP Switch Settings	25.0 KHz DIP Switch Settings	Actual Freq.	8.33 KHz Freq. on Transmitter	8.33 KHz DIP Switch Settings	25.0 KHz DIP Switch Settings
131.0	131.000 / 131.005	1110 0111 1001	111011111011	131.5	131.500 / 131.505	1101 0101 1001	110001111011
131.00833	131.010	0110 0111 1001		131.50833	131.510	0101 0101 1001	
131.01667	131.015	1010 0111 1001		131.51667	131.515	1001 0101 1001	
131.025	131.025 / 131.030	0010 0111 1001	011011111011	131.525	131.525 / 131.530	0001 0101 1001	010001111011
131.03333	131.035	1100 0111 1001		131.53333	131.535	1110 0101 1001	
131.04167	131.040	0100 0111 1001		131.54167	131.540	0110 0101 1001	
131.05	131.050 / 131.055	1000 0111 1001	101011111011	131.55	131.550 / 131.555	1010 0101 1001	100001111011
131.05833	131.060	0000 0111 1001		131.55833	131.560	0010 0101 1001	
131.06667	131.065	1111 1011 1001		131.56667	131.565	1100 0101 1001	
131.075	131.075 / 131.080	0111 1011 1001	001011111011	131.575	131.575 / 131.580	0100 0101 1001	000001111011
131.08333	131.085	1011 1011 1001		131.58333	131.585	1000 0101 1001	
131.09167	131.090	0011 1011 1001		131.59167	131.590	0000 0101 1001	
131.1	131.100 / 131.105	1101 1011 1001	110011111011	131.6	131.600 / 131.605	1111 1001 1001	111110111011
131.10833	131.110	0101 1011 1001		131.60833	131.610	0111 1001 1001	
131.11667	131.115	1001 1011 1001		131.61667	131.615	1011 1001 1001	
131.125	131.125 / 131.130	0001 1011 1001	010011111011	131.625	131.625 / 131.630	0011 1001 1001	011110111011
131.13333	131.135	1110 1011 1001		131.63333	131.635	1101 1001 1001	
131.14167	131.140	0110 1011 1001		131.64167	131.640	0101 1001 1001	
131.15	131.150 / 131.155	1010 1011 1001	100011111011	131.65	131.650 / 131.655	1001 1001 1001	101110111011
131.15833	131.160	0010 1011 1001		131.65833	131.660	0001 1001 1001	
131.16667	131.165	1100 1011 1001		131.66667	131.665	1110 1001 1001	
131.175	131.175 / 131.180	0100 1011 1001	000011111011	131.675	131.675 / 131.680	0110 1001 1001	001110111011
131.18333	131.185	1000 1011 1001		131.68333	131.685	1010 1001 1001	
131.19167	131.190	0000 1011 1001		131.69167	131.690	0010 1001 1001	
131.2	131.200 / 131.205	1111 0011 1001	111101111011	131.7	131.700 / 131.705	1100 1001 1001	110110111011
131.20833	131.210	0111 0011 1001		131.70833	131.710	0100 1001 1001	
131.21667	131.215	1011 0011 1001		131.71667	131.715	1000 1001 1001	
131.225	131.225 / 131.230	0011 0011 1001	011101111011	131.725	131.725 / 131.730	0000 1001 1001	010110111011
131.23333	131.235	1101 0011 1001		131.73333	131.735	1111 0001 1001	
131.24167	131.240	0101 0011 1001		131.74167	131.740	0111 0001 1001	
131.25	131.250 / 131.255	1001 0011 1001	101101111011	131.75	131.750 / 131.755	1011 0001 1001	100110111011
131.25833	131.260	0001 0011 1001		131.75833	131.760	0011 0001 1001	
131.26667	131.265	1110 0011 1001		131.76667	131.765	1101 0001 1001	
131.275	131.275 / 131.280	0110 0011 1001	001101111011	131.775	131.775 / 131.780	0101 0001 1001	000110111011
131.28333	131.285	1010 0011 1001		131.78333	131.785	1001 0001 1001	
131.29167	131.290	0010 0011 1001		131.79167	131.790	0001 0001 1001	
131.3	131.300 / 131.305	1100 0011 1001	110101111011	131.8	131.800 / 131.805	1110 0001 1001	111010111011
131.30833	131.310	0100 0011 1001		131.80833	131.810	0110 0001 1001	
131.31667	131.315	1000 0011 1001		131.81667	131.815	1010 0001 1001	
131.325	131.325 / 131.330	0000 0011 1001	010101111011	131.825	131.825 / 131.830	0010 0001 1001	011010111011
131.33333	131.335	1111 1101 1001		131.83333	131.835	1100 0001 1001	
131.34167	131.340	0111 1101 1001		131.84167	131.840	0100 0001 1001	
131.35	131.350 / 131.355	1011 1101 1001	100101111011	131.85	131.850 / 131.855	1000 0001 1001	101010111011
131.35833	131.360	0011 1101 1001		131.85833	131.860	0000 0001 1001	
131.36667	131.365	1101 1101 1001		131.86667	131.865	1111 1110 1001	
131.375	131.375 / 131.380	0101 1101 1001	000101111011	131.875	131.875 / 131.880	0111 1110 1001	001010111011
131.38333	131.385	1001 1101 1001		131.88333	131.885	1011 1110 1001	
131.39167	131.390	0001 1101 1001		131.89167	131.890	0011 1110 1001	
131.4	131.400 / 131.405	1110 1101 1001	111001111011	131.9	131.900 / 131.905	1101 1110 1001	110010111011
131.40833	131.410	0110 1101 1001		131.90833	131.910	0101 1110 1001	
131.41667	131.415	1010 1101 1001		131.91667	131.915	1001 1110 1001	
131.425	131.425 / 131.430	0010 1101 1001	011001111011	131.925	131.925 / 131.930	0001 1110 1001	010010111011
131.43333	131.435	1100 1101 1001		131.93333	131.935	1110 1110 1001	
131.44167	131.440	0100 1101 1001		131.94167	131.940	0110 1110 1001	
131.45	131.450 / 131.455	1000 1101 1001	101001111011	131.95	131.950 / 131.955	1010 1110 1001	100010111011
131.45833	131.460	0000 1101 1001		131.95833	131.960	0010 1110 1001	
131.46667	131.465	1111 0101 1001		131.96667	131.965	1100 1110 1001	
131.475	131.475 / 131.480	0111 0101 1001	001001111011	131.975	131.975 / 131.980	0100 1110 1001	000010111011
131.48333	131.485	1011 0101 1001		131.98333	131.985	1000 1110 1001	
131.49167	131.490	0011 0101 1001		131.99167	131.990	0000 1110 1001	

Table 3k DIP Switch Settings (Frequencies 131.0000 – 131.99167)

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	Frequency: 132.0000 to 132.99167						
Actual Freq.	**8.33 KHz Freq. on Transmitter**		**8.33 KHz DIP Switch Settings**	**25.0 KHz DIP Switch Settings**	**Actual Freq.**	**8.33 KHz Freq. on Transmitter**	**8.33 KHz DIP Switch Settings**	**25.0 KHz DIP Switch Settings**

Actual Freq.	8.33 KHz Freq. on Transmitter	8.33 KHz DIP Switch Settings	25.0 KHz DIP Switch Settings	Actual Freq.	8.33 KHz Freq. on Transmitter	8.33 KHz DIP Switch Settings	25.0 KHz DIP Switch Settings
132.0	132.000 / 132.005	1111 0110 1001	111100111011	132.5	132.500 / 132.505	1100 1100 1001	110111011011
132.00833	132.010	0111 0110 1001		132.50833	132.510	0100 1100 1001	
132.01667	132.015	1011 0110 1001		132.51667	132.515	1000 1100 1001	
132.025	132.025 / 132.030	0011 0110 1001	011100111011	132.525	132.525 / 132.530	0000 1100 1001	010111011011
132.03333	132.035	1101 0110 1001		132.53333	132.535	1111 0100 1001	
132.04167	132.040	0101 0110 1001		132.54167	132.540	0111 0100 1001	
132.05	132.050 / 132.055	1001 0110 1001	101100111011	132.55	132.550 / 132.555	1011 0100 1001	100111011011
132.05833	132.060	0001 0110 1001		132.55833	132.560	0011 0100 1001	
132.06667	132.065	1110 0110 1001		132.56667	132.565	1101 0100 1001	
132.075	132.075 / 132.080	0110 0110 1001	001100111011	132.575	132.575 / 132.580	0101 0100 1001	000111011011
132.08333	132.085	1010 0110 1001		132.58333	132.585	1001 0100 1001	
132.09167	132.090	0010 0110 1001		132.59167	132.590	0001 0100 1001	
132.1	132.100 / 132.105	1100 0110 1001	110100111011	132.6	132.600 / 132.605	1110 0100 1001	111011011011
132.10833	132.110	0100 0110 1001		132.60833	132.610	0110 0100 1001	
132.11667	132.115	1000 0110 1001		132.61667	132.615	1010 0100 1001	
132.125	132.125 / 132.130	0000 0110 1001	010100111011	132.625	132.625 / 132.630	0010 0100 1001	011011011011
132.13333	132.135	1111 1010 1001		132.63333	132.635	1100 0100 1001	
132.14167	132.140	0111 1010 1001		132.64167	132.640	0100 0100 1001	
132.15	132.150 / 132.155	1011 1010 1001	100100111011	132.65	132.650 / 132.655	1000 0100 1001	101011011011
132.15833	132.160	0011 1010 1001		132.65833	132.660	0000 0100 1001	
132.16667	132.165	1101 1010 1001		132.66667	132.665	1111 1000 1001	
132.175	132.175 / 132.180	0101 1010 1001	000100111011	132.675	132.675 / 132.680	0111 1000 1001	001011011011
132.18333	132.185	1001 1010 1001		132.68333	132.685	1011 1000 1001	
132.19167	132.190	0001 1010 1001		132.69167	132.690	0011 1000 1001	
132.2	132.200 / 132.205	1110 1010 1001	111000111011	132.7	132.700 / 132.705	1101 1000 1001	110011011011
132.20833	132.210	0110 1010 1001		132.70833	132.710	0101 1000 1001	
132.21667	132.215	1010 1010 1001		132.71667	132.715	1001 1000 1001	
132.225	132.225 / 132.230	0010 1010 1001	011000111011	132.725	132.725 / 132.730	0001 1000 1001	010011011011
132.23333	132.235	1100 1010 1001		132.73333	132.735	1110 1000 1001	
132.24167	132.240	0100 1010 1001		132.74167	132.740	0110 1000 1001	
132.25	132.250 / 132.255	1000 1010 1001	101000111011	132.75	132.750 / 132.755	1010 1000 1001	100011011011
132.25833	132.260	0000 1010 1001		132.75833	132.760	0010 1000 1001	
132.26667	132.265	1111 0010 1001		132.76667	132.765	1100 1000 1001	
132.275	132.275 / 132.280	0111 0010 1001	001000111011	132.775	132.775 / 132.780	0100 1000 1001	000011011011
132.28333	132.285	1011 0010 1001		132.78333	132.785	1000 1000 1001	
132.29167	132.290	0011 0010 1001		132.79167	132.790	0000 1000 1001	
132.3	132.300 / 132.305	1101 0010 1001	110000111011	132.8	132.800 / 132.805	1111 0000 1001	111101011011
132.30833	132.310	0101 0010 1001		132.80833	132.810	0111 0000 1001	
132.31667	132.315	1001 0010 1001		132.81667	132.815	1011 0000 1001	
132.325	132.325 / 132.330	0001 0010 1001	010000111011	132.825	132.825 / 132.830	0011 0000 1001	011101011011
132.33333	132.335	1110 0010 1001		132.83333	132.835	1101 0000 1001	
132.34167	132.340	0110 0010 1001		132.84167	132.840	0101 0000 1001	
132.35	132.350 / 132.355	1010 0010 1001	100000111011	132.85	132.850 / 132.855	1001 0000 1001	101101011011
132.35833	132.360	0010 0010 1001		132.85833	132.860	0001 0000 1001	
132.36667	132.365	1100 0010 1001		132.86667	132.865	1110 0000 1001	
132.375	132.375 / 132.380	0100 0010 1001	000000111011	132.875	132.875 / 132.880	0110 0000 1001	001101011011
132.38333	132.385	1000 0010 1001		132.88333	132.885	1010 0000 1001	
132.39167	132.390	0000 0010 1001		132.89167	132.890	0010 0000 1001	
132.4	132.400 / 132.405	1111 1100 1001	111111011011	132.9	132.900 / 132.905	1100 0000 1001	110101011011
132.40833	132.410	0111 1100 1001		132.90833	132.910	0100 0000 1001	
132.41667	132.415	1011 1100 1001		132.91667	132.915	1000 0000 1001	
132.425	132.425 / 132.430	0011 1100 1001	011111011011	132.925	132.925 / 132.930	0000 0000 1001	010101011011
132.43333	132.435	1101 1100 1001		132.93333	132.935	1111 1111 0001	
132.44167	132.440	0101 1100 1001		132.94167	132.940	0111 1111 0001	
132.45	132.450 / 132.455	1001 1100 1001	101111011011	132.95	132.950 / 132.955	1011 1111 0001	100101011011
132.45833	132.460	0001 1100 1001		132.95833	132.960	0011 1111 0001	
132.46667	132.465	1110 1100 1001		132.96667	132.965	1101 1111 0001	
132.475	132.475 / 132.480	0110 1100 1001	001111011011	132.975	132.975 / 132.980	0101 1111 0001	000101011011
132.48333	132.485	1010 1100 1001		132.98333	132.985	1001 1111 0001	
132.49167	132.490	0010 1100 1001		132.99167	132.990	0001 1111 0001	

Table 3k DIP Switch Settings (Frequencies 132.0000 – 132.99167)

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Actual Freq.	8.33 KHz Freq. on Transmitter		8.33 KHz DIP Switch Settings	25.0 KHz DIP Switch Settings	Actual Freq.	8.33 KHz Freq. on Transmitter		8.33 KHz DIP Switch Settings	25.0 KHz DIP Switch Settings
133.0	133.000	133.005	1110 1111 0001	111001011011	133.5	133.500	133.505	1101 1101 0001	110010011011
133.00833	133.010		0110 1111 0001		133.50833	133.510		0101 1101 0001	
133.01667	133.015		1010 1111 0001		133.51667	133.515		1001 1101 0001	
133.025	133.025	133.030	0010 1111 0001	011001011011	133.525	133.525	133.530	0001 1101 0001	010010011011
133.03333	133.035		1100 1111 0001		133.53333	133.535		1110 1101 0001	
133.04167	133.040		0100 1111 0001		133.54167	133.540		0110 1101 0001	
133.05	133.050	133.055	1000 1111 0001	101001011011	133.55	133.550	133.555	1010 1101 0001	100010011011
133.05833	133.060		0000 1111 0001		133.55833	133.560		0010 1101 0001	
133.06667	133.065		1111 0111 0001		133.56667	133.565		1100 1101 0001	
133.075	133.075	133.080	0111 0111 0001	001001011011	133.575	133.575	133.580	0100 1101 0001	000010011011
133.08333	133.085		1011 0111 0001		133.58333	133.585		1000 1101 0001	
133.09167	133.090		0011 0111 0001		133.59167	133.590		0000 1101 0001	
133.1	133.100	133.105	1101 0111 0001	110001011011	133.6	133.600	133.605	1111 0101 0001	111100011011
133.10833	133.110		0101 0111 0001		133.60833	133.610		0111 0101 0001	
133.11667	133.115		1001 0111 0001		133.61667	133.615		1011 0101 0001	
133.125	133.125	133.130	0001 0111 0001	010001011011	133.625	133.625	133.630	0011 0101 0001	011100011011
133.13333	133.135		1110 0111 0001		133.63333	133.635		1101 0101 0001	
133.14167	133.140		0110 0111 0001		133.64167	133.640		0101 0101 0001	
133.15	133.150	133.155	1010 0111 0001	100001011011	133.65	133.650	133.655	1001 0101 0001	101100011011
133.15833	133.160		0010 0111 0001		133.65833	133.660		0001 0101 0001	
133.16667	133.165		1100 0111 0001		133.66667	133.665		1110 0101 0001	
133.175	133.175	133.180	0100 0111 0001	000001011011	133.675	133.675	133.680	0110 0101 0001	001100011011
133.18333	133.185		1000 0111 0001		133.68333	133.685		1010 0101 0001	
133.19167	133.190		0000 0111 0001		133.69167	133.690		0010 0101 0001	
133.2	133.200	133.205	1111 1011 0001	111110011011	133.7	133.700	133.705	1100 0101 0001	110100011011
133.20833	133.210		0111 1011 0001		133.70833	133.710		0100 0101 0001	
133.21667	133.215		1011 1011 0001		133.71667	133.715		1000 0101 0001	
133.225	133.225	133.230	0011 1011 0001	011110011011	133.725	133.725	133.730	0000 0101 0001	010100011011
133.23333	133.235		1101 1011 0001		133.73333	133.735		1111 1001 0001	
133.24167	133.240		0101 1011 0001		133.74167	133.740		0111 1001 0001	
133.25	133.250	133.255	1001 1011 0001	101110011011	133.75	133.750	133.755	1011 1001 0001	100100011011
133.25833	133.260		0001 1011 0001		133.75833	133.760		0011 1001 0001	
133.26667	133.265		1110 1011 0001		133.76667	133.765		1101 1001 0001	
133.275	133.275	133.280	0110 1011 0001	001110011011	133.775	133.775	133.780	0101 1001 0001	000100011011
133.28333	133.285		1010 1011 0001		133.78333	133.785		1001 1001 0001	
133.29167	133.290		0010 1011 0001		133.79167	133.790		0001 1001 0001	
133.3	133.300	133.305	1100 1011 0001	110110011011	133.8	133.800	133.805	1110 1001 0001	111000011011
133.30833	133.310		0100 1011 0001		133.80833	133.810		0110 1001 0001	
133.31667	133.315		1000 1011 0001		133.81667	133.815		1010 1001 0001	
133.325	133.325	133.330	0000 1011 0001	010110011011	133.825	133.825	133.830	0010 1001 0001	011000011011
133.33333	133.335		1111 0011 0001		133.83333	133.835		1100 1001 0001	
133.34167	133.340		0111 0011 0001		133.84167	133.840		0100 1001 0001	
133.35	133.350	133.355	1011 0011 0001	100110011011	133.85	133.850	133.855	1000 1001 0001	101000011011
133.35833	133.360		0011 0011 0001		133.85833	133.860		0000 1001 0001	
133.36667	133.365		1101 0011 0001		133.86667	133.865		1111 0001 0001	
133.375	133.375	133.380	0101 0011 0001	000110011011	133.875	133.875	133.880	0111 0001 0001	001000011011
133.38333	133.385		1001 0011 0001		133.88333	133.885		1011 0001 0001	
133.39167	133.390		0001 0011 0001		133.89167	133.890		0011 0001 0001	
133.4	133.400	133.405	1110 0011 0001	111010011011	133.9	133.900	133.905	1101 0001 0001	110000011011
133.40833	133.410		0110 0011 0001		133.90833	133.910		0101 0001 0001	
133.41667	133.415		1010 0011 0001		133.91667	133.915		1001 0001 0001	
133.425	133.425	133.430	0010 0011 0001	011010011011	133.925	133.925	133.930	0001 0001 0001	010000011011
133.43333	133.435		1100 0011 0001		133.93333	133.935		1110 0001 0001	
133.44167	133.440		0100 0011 0001		133.94167	133.940		0110 0001 0001	
133.45	133.450	133.455	1000 0011 0001	101010011011	133.95	133.950	133.955	1010 0001 0001	100000011011
133.45833	133.460		0000 0011 0001		133.95833	133.960		0010 0001 0001	
133.46667	133.465		1111 1101 0001		133.96667	133.965		1100 0001 0001	
133.475	133.475	133.480	0111 1101 0001	001010011011	133.975	133.975	133.980	0100 0001 0001	000000011011
133.48333	133.485		1011 1101 0001		133.98333	133.985		1000 0001 0001	
133.49167	133.490		0011 1101 0001		133.99167	133.990		0000 0001 0001	

Table 3k DIP Switch Settings (Frequencies 133.0000 – 133.99167)

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Actual Freq.	8.33 KHz Freq. on Transmitter		8.33 KHz DIP Switch Settings	25.0 KHz DIP Switch Settings	Actual Freq.	8.33 KHz Freq. on Transmitter		8.33 KHz DIP Switch Settings	25.0 KHz DIP Switch Settings
134.0	134.000	/ 134.005	1111 1110 0001	111111101011	134.5	134.500	/ 134.505	1100 0010 0001	110101101011
134.00833	134.010		0111 1110 0001		134.50833	134.510		0100 0010 0001	
134.01667	134.015		1011 1110 0001		134.51667	134.515		1000 0010 0001	
134.025	134.025	/ 134.030	0011 1110 0001	011111101011	134.525	134.525	/ 134.530	0000 0010 0001	010101101011
134.03333	134.035		1101 1110 0001		134.53333	134.535		1111 1100 0001	
134.04167	134.040		0101 1110 0001		134.54167	134.540		0111 1100 0001	
134.05	134.050	/ 134.055	1001 1110 0001	101111101011	134.55	134.550	/ 134.555	1011 1100 0001	100101101011
134.05833	134.060		0001 1110 0001		134.55833	134.560		0011 1100 0001	
134.06667	134.065		1110 1110 0001		134.56667	134.565		1101 1100 0001	
134.075	134.075	/ 134.080	0110 1110 0001	001111101011	134.575	134.575	/ 134.580	0101 1100 0001	000101101011
134.08333	134.085		1010 1110 0001		134.58333	134.585		1001 1100 0001	
134.09167	134.090		0010 1110 0001		134.59167	134.590		0001 1100 0001	
134.1	134.100	/ 134.105	1100 1110 0001	110111101011	134.6	134.600	/ 134.605	1110 1100 0001	111001101011
134.10833	134.110		0100 1110 0001		134.60833	134.610		0110 1100 0001	
134.11667	134.115		1000 1110 0001		134.61667	134.615		1010 1100 0001	
134.125	134.125	/ 134.130	0000 1110 0001	010111101011	134.625	134.625	/ 134.630	0010 1100 0001	011001101011
134.13333	134.135		1111 0110 0001		134.63333	134.635		1100 1100 0001	
134.14167	134.140		0111 0110 0001		134.64167	134.640		0100 1100 0001	
134.15	134.150	/ 134.155	1011 0110 0001	100111101011	134.65	134.650	/ 134.655	1000 1100 0001	101001101011
134.15833	134.160		0011 0110 0001		134.65833	134.660		0000 1100 0001	
134.16667	134.165		1101 0110 0001		134.66667	134.665		1111 0100 0001	
134.175	134.175	/ 134.180	0101 0110 0001	000111101011	134.675	134.675	/ 134.680	0111 0100 0001	001001101011
134.18333	134.185		1001 0110 0001		134.68333	134.685		1011 0100 0001	
134.19167	134.190		0001 0110 0001		134.69167	134.690		0011 0100 0001	
134.2	134.200	/ 134.205	1110 0110 0001	111011101011	134.7	134.700	/ 134.705	1101 0100 0001	110001101011
134.20833	134.210		0110 0110 0001		134.70833	134.710		0101 0100 0001	
134.21667	134.215		1010 0110 0001		134.71667	134.715		1001 0100 0001	
134.225	134.225	/ 134.230	0010 0110 0001	011011101011	134.725	134.725	/ 134.730	0001 0100 0001	010001101011
134.23333	134.235		1100 0110 0001		134.73333	134.735		1110 0100 0001	
134.24167	134.240		0100 0110 0001		134.74167	134.740		0110 0100 0001	
134.25	134.250	/ 134.255	1000 0110 0001	101011101011	134.75	134.750	/ 134.755	1010 0100 0001	100001101011
134.25833	134.260		0000 0110 0001		134.75833	134.760		0010 0100 0001	
134.26667	134.265		1111 1010 0001		134.76667	134.765		1100 0100 0001	
134.275	134.275	/ 134.280	0111 1010 0001	001011101011	134.775	134.775	/ 134.780	0100 0100 0001	000001101011
134.28333	134.285		1011 1010 0001		134.78333	134.785		1000 0100 0001	
134.29167	134.290		0011 1010 0001		134.79167	134.790		0000 0100 0001	
134.3	134.300	/ 134.305	1101 1010 0001	110011101011	134.8	134.800	/ 134.805	1111 1000 0001	111110101011
134.30833	134.310		0101 1010 0001		134.80833	134.810		0111 1000 0001	
134.31667	134.315		1001 1010 0001		134.81667	134.815		1011 1000 0001	
134.325	134.325	/ 134.330	0001 1010 0001	010011101011	134.825	134.825	/ 134.830	0011 1000 0001	011110101011
134.33333	134.335		1110 1010 0001		134.83333	134.835		1101 1000 0001	
134.34167	134.340		0110 1010 0001		134.84167	134.840		0101 1000 0001	
134.35	134.350	/ 134.355	1010 1010 0001	100011101011	134.85	134.850	/ 134.855	1001 1000 0001	101110101011
134.35833	134.360		0010 1010 0001		134.85833	134.860		0001 1000 0001	
134.36667	134.365		1100 1010 0001		134.86667	134.865		1110 1000 0001	
134.375	134.375	/ 134.380	0100 1010 0001	000011101011	134.875	134.875	/ 134.880	0110 1000 0001	001110101011
134.38333	134.385		1000 1010 0001		134.88333	134.885		1010 1000 0001	
134.39167	134.390		0000 1010 0001		134.89167	134.890		0010 1000 0001	
134.4	134.400	/ 134.405	1111 0010 0001	111101101011	134.9	134.900	/ 134.905	1100 1000 0001	110110101011
134.40833	134.410		0111 0010 0001		134.90833	134.910		0100 1000 0001	
134.41667	134.415		1011 0010 0001		134.91667	134.915		1000 1000 0001	
134.425	134.425	/ 134.430	0011 0010 0001	011101101011	134.925	134.925	/ 134.930	0000 1000 0001	010110101011
134.43333	134.435		1101 0010 0001		134.93333	134.935		1111 0000 0001	
134.44167	134.440		0101 0010 0001		134.94167	134.940		0111 0000 0001	
134.45	134.450	/ 134.455	1001 0010 0001	101101101011	134.95	134.950	/ 134.955	1011 0000 0001	100110101011
134.45833	134.460		0001 0010 0001		134.95833	134.960		0011 0000 0001	
134.46667	134.465		1110 0010 0001		134.96667	134.965		1101 0000 0001	
134.475	134.475	/ 134.480	0110 0010 0001	001101101011	134.975	134.975	/ 134.980	0101 0000 0001	000110101011
134.48333	134.485		1010 0010 0001		134.98333	134.985		1001 0000 0001	
134.49167	134.490		0010 0010 0001		134.99167	134.990		0001 0000 0001	

Table 3k DIP Switch Settings (Frequencies 134.0000 – 134.99167)

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Actual Freq.	8.33 KHz Freq. on Transmitter		8.33 KHz DIP Switch Settings	25.0 KHz DIP Switch Settings	Actual Freq.	8.33 KHz Freq. on Transmitter		8.33 KHz DIP Switch Settings	25.0 KHz DIP Switch Settings
135.0	135.000	/ 135.005	1110 0000 0001	111010101011	135.5	135.500	/ 135.505	1101 0011 1110	110000101011
135.00833	135.010		0110 0000 0001		135.50833	135.510		0101 0011 1110	
135.01667	135.015		1010 0000 0001		135.51667	135.515		1001 0011 1110	
135.025	135.025	/ 135.030	0010 0000 0001	011010101011	135.525	135.525	/ 135.530	0001 0011 1110	010000101011
135.03333	135.035		1100 0000 0001		135.53333	135.535		1110 0011 1110	
135.04167	135.040		0100 0000 0001		135.54167	135.540		0110 0011 1110	
135.05	135.050	/ 135.055	1000 0000 0001	101010101011	135.55	135.550	/ 135.555	1010 0011 1110	100000101011
135.05833	135.060		0000 0000 0001		135.55833	135.560		0010 0011 1110	
134.63333	135.065		1100 1100 0001		135.56667	135.565		1100 0011 1110	
135.075	135.075	/ 135.080	0111 1111 1110	001010101011	135.575	135.575	/ 135.580	0100 0011 1110	000000101011
135.08333	135.085		1011 1111 1110		135.58333	135.585		1000 0011 1110	
135.09167	135.090		0011 1111 1110		135.59167	135.590		0000 0011 1110	
135.1	135.100	/ 135.105	1101 1111 1110	110010101011	135.6	135.600	/ 135.605	1111 1101 1110	111111001011
135.10833	135.110		0101 1111 1110		135.60833	135.610		0111 1101 1110	
135.11667	135.115		1001 1111 1110		135.61667	135.615		1011 1101 1110	
135.125	135.125	/ 135.130	0001 1111 1110	010010101011	135.625	135.625	/ 135.630	0011 1101 1110	011111001011
135.13333	135.135		1110 1111 1110		135.63333	135.635		1101 1101 1110	
135.14167	135.140		0110 1111 1110		135.64167	135.640		0101 1101 1110	
135.15	135.150	/ 135.155	1010 1111 1110	100010101011	135.65	135.650	/ 135.655	1001 1101 1110	101111001011
135.15833	135.160		0010 1111 1110		135.65833	135.660		0001 1101 1110	
135.16667	135.165		1100 1111 1110		135.66667	135.665		1110 1101 1110	
135.175	135.175	/ 135.180	0100 1111 1110	000010101011	135.675	135.675	/ 135.680	0110 1101 1110	001111001011
135.18333	135.185		1000 1111 1110		135.68333	135.685		1010 1101 1110	
135.19167	135.190		0000 1111 1110		135.69167	135.690		0010 1101 1110	
135.2	135.200	/ 135.205	1111 0111 1110	111100101011	135.7	135.700	/ 135.705	1100 1101 1110	110111001011
135.20833	135.210		0111 0111 1110		135.70833	135.710		0100 1101 1110	
135.21667	135.215		1011 0111 1110		135.71667	135.715		1000 1101 1110	
135.225	135.225	/ 135.230	0011 0111 1110	011100101011	135.725	135.725	/ 135.730	0000 1101 1110	010111001011
135.23333	135.235		1101 0111 1110		135.73333	135.735		1111 0101 1110	
135.24167	135.240		0101 0111 1110		135.74167	135.740		0111 0101 1110	
135.25	135.250	/ 135.255	1001 0111 1110	101100101011	135.75	135.750	/ 135.755	1011 0101 1110	100111001011
135.25833	135.260		0001 0111 1110		135.75833	135.760		0011 0101 1110	
135.26667	135.265		1110 0111 1110		135.76667	135.765		1101 0101 1110	
135.275	135.275	/ 135.280	0110 0111 1110	001100101011	135.775	135.775	/ 135.780	0101 0101 1110	000111001011
135.28333	135.285		1010 0111 1110		135.78333	135.785		1001 0101 1110	
135.29167	135.290		0010 0111 1110		135.79167	135.790		0001 0101 1110	
135.3	135.300	/ 135.305	1100 0111 1110	110100101011	135.8	135.800	/ 135.805	1110 0101 1110	111011001011
135.30833	135.310		0100 0111 1110		135.80833	135.810		0110 0101 1110	
135.31667	135.315		1000 0111 1110		135.81667	135.815		1010 0101 1110	
135.325	135.325	/ 135.330	0000 0111 1110	010100101011	135.825	135.825	/ 135.830	0010 0101 1110	011011001011
135.33333	135.335		1111 1011 1110		135.83333	135.835		1100 0101 1110	
135.34167	135.340		0111 1011 1110		135.84167	135.840		0100 0101 1110	
135.35	135.350	/ 135.355	1011 1011 1110	100100101011	135.85	135.850	/ 135.855	1000 0101 1110	101011001011
135.35833	135.360		0011 1011 1110		135.85833	135.860		0000 0101 1110	
135.36667	135.365		1101 1011 1110		135.86667	135.865		1111 1001 1110	
135.375	135.375	/ 135.380	0101 1011 1110	000100101011	135.875	135.875	/ 135.880	0111 1001 1110	001011001011
135.38333	135.385		1001 1011 1110		135.88333	135.885		1011 1001 1110	
135.39167	135.390		0001 1011 1110		135.89167	135.890		0011 1001 1110	
135.4	135.400	/ 135.405	1110 1011 1110	111000101011	135.9	135.900	/ 135.905	1101 1001 1110	110011001011
135.40833	135.410		0110 1011 1110		135.90833	135.910		0101 1001 1110	
135.41667	135.415		1010 1011 1110		135.91667	135.915		1001 1001 1110	
135.425	135.425	/ 135.430	0010 1011 1110	011000101011	135.925	135.925	/ 135.930	0001 1001 1110	010011001011
135.43333	135.435		1100 1011 1110		135.93333	135.935		1110 1001 1110	
135.44167	135.440		0100 1011 1110		135.94167	135.940		0110 1001 1110	
135.45	135.450	/ 135.455	1000 1011 1110	101000101011	135.95	135.950	/ 135.955	1010 1001 1110	100011001011
135.45833	135.460		0000 1011 1110		135.95833	135.960		0010 1001 1110	
135.46667	135.465		1111 0011 1110		135.96667	135.965		1100 1001 1110	
135.475	135.475	/ 135.480	0111 0011 1110	001000101011	135.975	135.975	/ 135.980	0100 1001 1110	000011001011
135.48333	135.485		1011 0011 1110		135.98333	135.985		1000 1001 1110	
135.49167	135.490		0011 0011 1110		135.99167	135.990		0000 1001 1110	
					136.0	136.000	/ 136.005	1111 0001 1110	111101001011

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Addendum B: FCC Part-15 Compliance

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

1. Reorient or relocate the receiving antenna
2. Increase the separation between the equipment and receiver
3. Connect the equipment into an outlet on a circuit different from that to which the receiver is connected
4. Consult the dealer or an experienced radio technician for help

Modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment under FCC rules

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Appendix A: Required Parts & Tools Not Supplied

Required Parts & Tools Not Supplied:
> Each installation will vary, below is a list of common parts not provided with the standard radio:
> - **Antenna Mast**
> - **Antenna Mast Mounting Bolts (Bracket is designed for standard U-Bolt)**
> - **Silicone Sealant for sealing building penetrations**
> - **Conduit, Conduit hubs for control and communication wiring**
> - **Cabinet Mounting Hardware**
> - **Hand Tools for installation**

Appendix B: Limited Warranty

Rural Electric, Inc.
Terms of Limited Warranty
RDL854-1A&E and RDL854-1F
Radio Receiver/Decoder

Subject to each of the terms and conditions stated herein, Rural Electric, Inc. (hereinafter "RE") warrants solely to the original purchaser that such product is free from defects in materials and workmanship, and is in compliance with RE published specifications (current at the time of purchase) for normal use and service for 2 years from the date of manufacture or 1 year from date of purchase, whichever is sooner. Our obligation under this warranty shall be limited to the repair or exchange of any part which may prove defective under normal use and service by the original purchaser and which our examination shall disclose to our satisfaction to be defective or not in compliance with said specifications.

This warranty is expressly in lieu of all other warranties expressed or implied. Including the warranty of merchantability and fitness for use of all other obligations or liabilities on our part, and we neither assume or authorize any other person to assume for us any other liability in connection with the sale of this product. This warranty shall not apply to this product or any part thereof which has been subject to accident, negligence, modification, alteration, abuse or misuse.

We make no warranty whatsoever in respect to accessories or parts not supplied by us likewise, this warranty does not apply if the product is repaired or serviced by anyone other than RE or personnel trained by RE or if operated in a manner contrary to the instructions which accompany the product or by damage caused by circumstances beyond RE' control, Whether in use or otherwise. The term "original purchaser" as used in this warranty shall be deemed to mean that person whom the product is originally sold and no other person or persons. This warranty shall apply only to products sold or purchased within the United States.

In any and all events, RE shall, not be liable for any breach of warranty in an amount exceeding the purchase price of the product. RE shall repair or replace at its sole option any fabricated part consisting of components or nonconforming (with specifications) parts of the product without charge for the part or parts and shall bear the entire labor expense for any such repair when any such labor is performed or part or parts furnished by RE only. To obtain warranty service, purchaser must notify RE of any alleged defect within the warranty period.

This limited warranty applies only to a product purchased for use from RE. Under no circumstances shall RE be liable to original purchaser or any other person for any incidental, special or consequential damages (including any lost profits, loss of goodwill or lost savings) whether arising out of breach of warranty, breach of contract or otherwise.
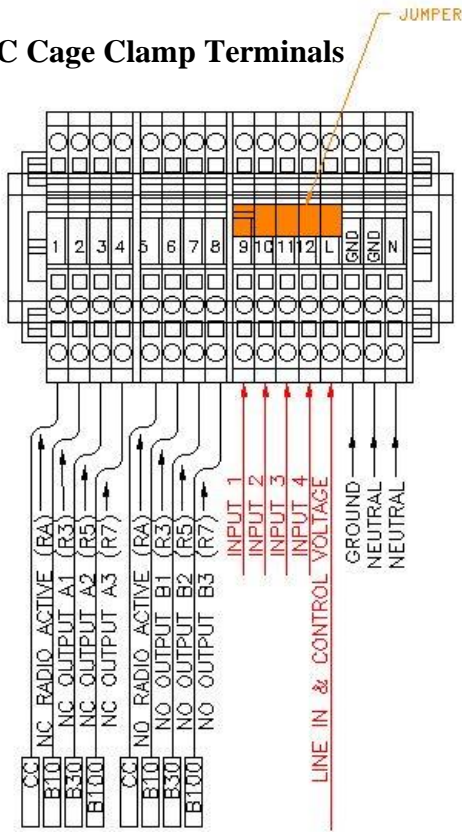
9502 E. Main Street
Mesa, AZ 85207
Phone: 888-964-1488
Fax: 480-984-0319

Rural Manufacturing
9502 E Main St.
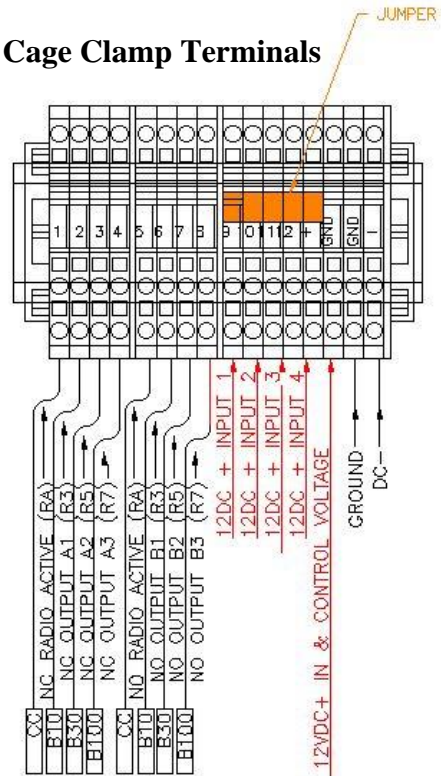Mesa AZ 85207
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Appendix C: Typical Wiring Diagrams
Typical CCR Connections: Using Line Voltage Control
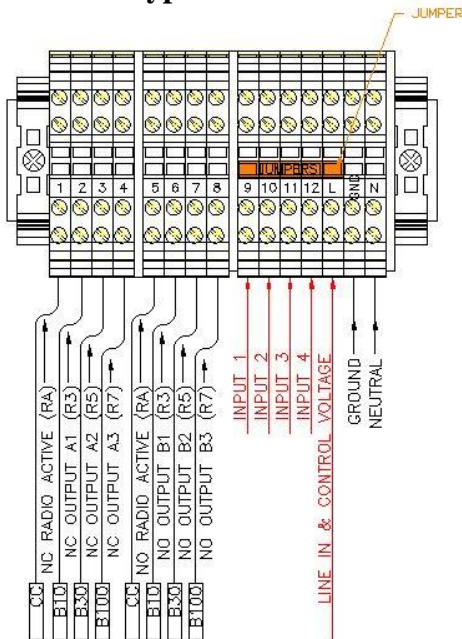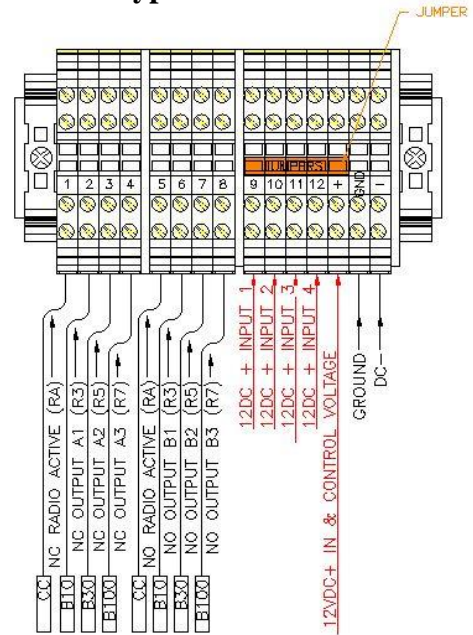
AC Cage Clamp Terminals

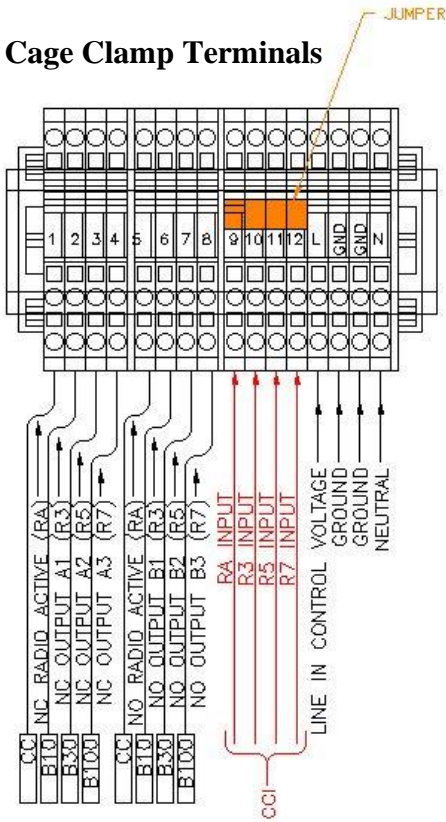**DC Cage Clamp Terminals**

AC Screw Type Terminals

DC Screw Type Terminals

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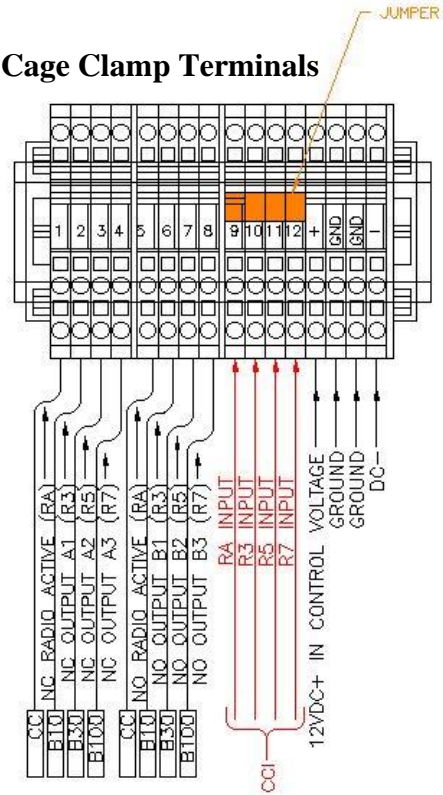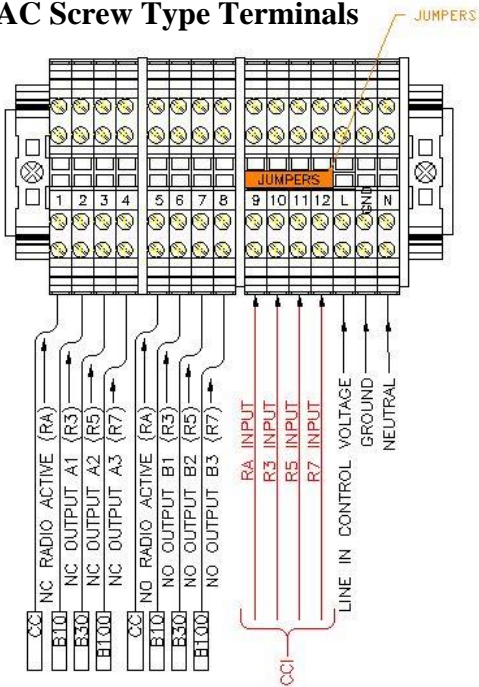L-854 Manual
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Typical CCR Connections: Using CCI

AC Cage Clamp Terminals
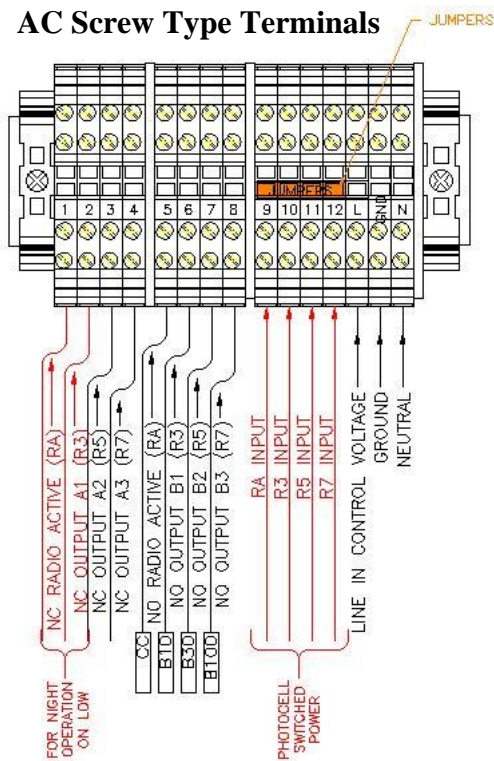

DC Cage Clamp Terminals

AC Screw Type Terminals

DC Screw Type Terminals

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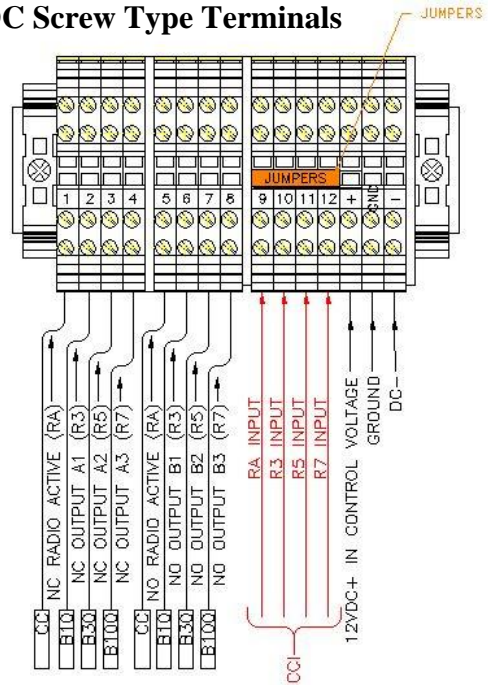
Typical CCR Connections: Using Photocell for Night Only Operation

AC Cage Clamp Terminals
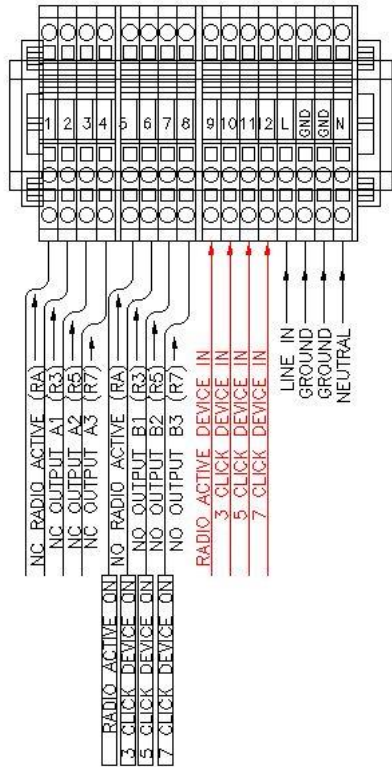

DC Cage Clamp Terminals

AC Screw Type Terminals

DC Screw Type Terminals

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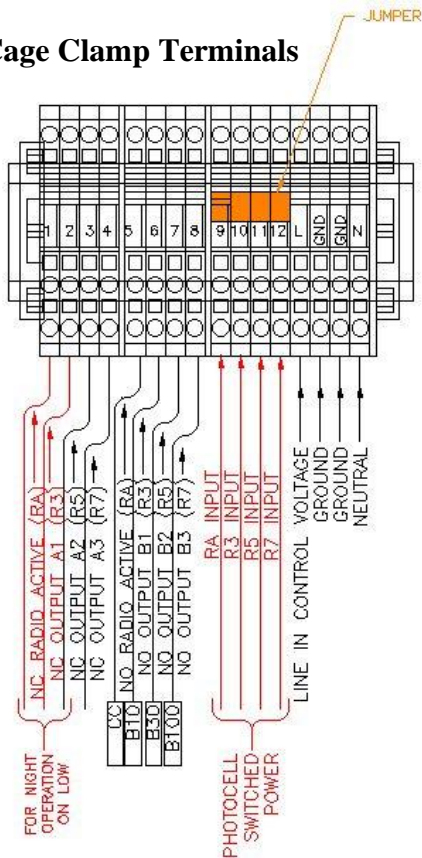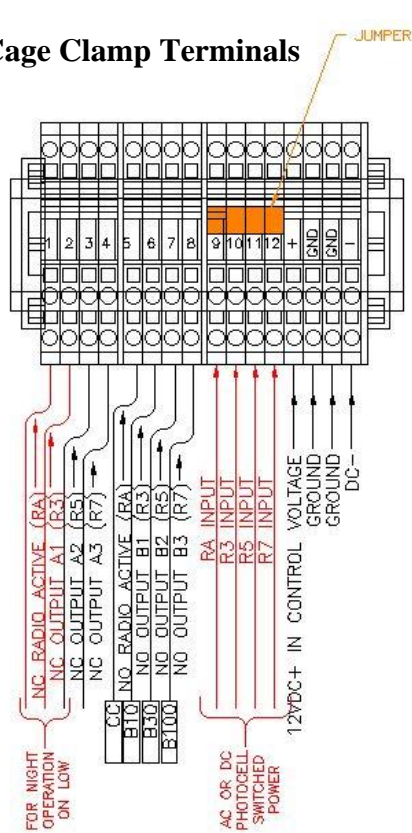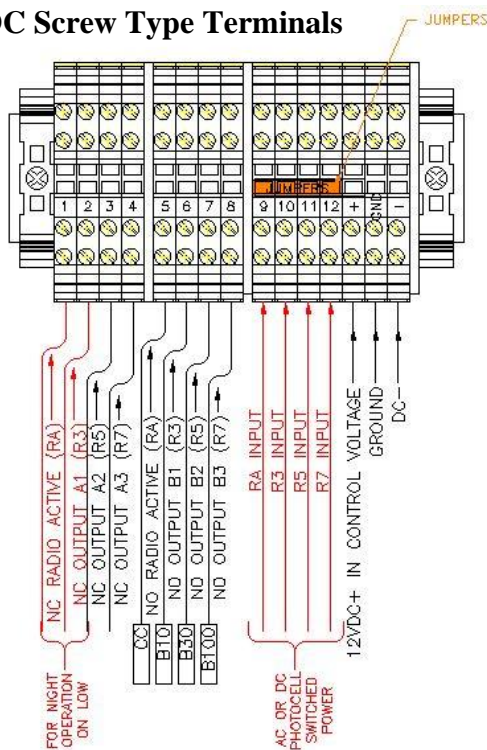
Typical Individual Control with Isolated Input

AC Cage Clamp Terminals

DC Cage Clamp Terminals

AC Screw Type Terminals

DC Screw Type Terminals

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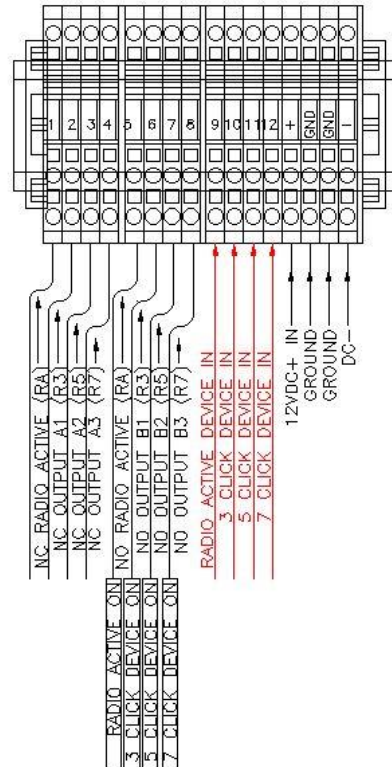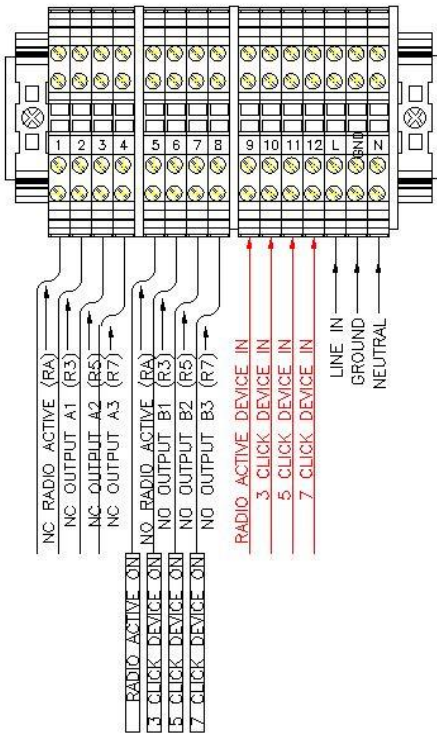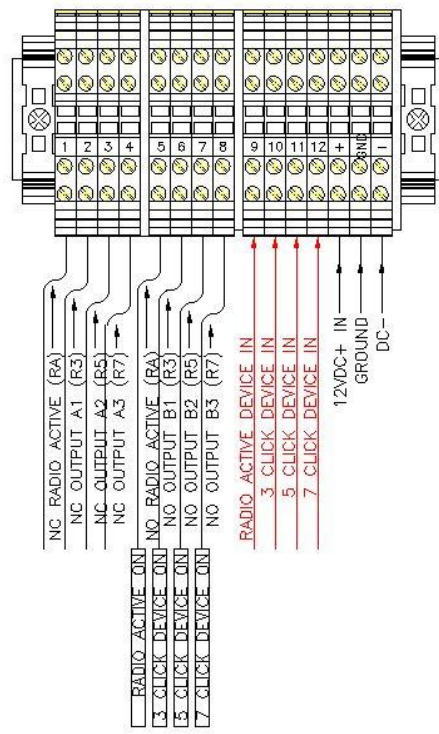
Appendix D: Certificate of Conformance

Intertek

PROGRAM ADMINISTRATOR
DEPARTMENT ALECP
INTERTEK
3933 U.S. ROUTE 11
CORTLAND, NY 13045-0950

ORIGINAL ISSUE DATE: May 23, 2017

Recertification due: March 2025

An Activity Sponsored and Administered by
Intertek

Rural Electric Inc.
9502 E. Main St.
Mesa, AZ 85207

AIRPORT LIGHTING
EQUIPMENT
CERTIFICATION PROGRAM

CERTIFICATE OF
CONFORMANCE

The product described below is hereby approved for listing in the next issue of the Federal Aviation Administration (FAA) Advisory Circular (AC) 150/5345-53, Appendix 3 Addendum "Airport Lighting Equipment Certification Program. The approval is based on successful completion of tests in accordance with the specifications listed in, and the requirements for approval described in the Advisory Circular, and the reporting to the Program Administrator the results of such tests, accompanied by related documents by an Intertek recognized testing laboratory. The certification is not valid for a product modified with non-OEM replacement parts or non-production components.

L-854 – Radio Controls (AC 150/5345-49D)		
Manufacturer	Type	Manufacturer's Catalog Number
Rural Electric Inc.	I	RDL854-1A

1. This Equipment requires continuing validation in accordance with the requirements of AC 150/5345-53, and the Intertek Airport Lighting Equipment Certification Program.

2. Product tested and Report issued by: Intertek

(A) Report No: 102919202MIN-001A; (B) Date of Report: 3/2017; 3/2017; 4/2017
102919202MIN-001B; 102919202CRT-001

NOTE: PLEASE REVIEW, AND ADVISE ADMINISTRATOR AT INTERTEK IMMEDIATELY IF DATA, AS SHOWN, NEED TO BE CORRECTED.

Approved for Certification by:

Jeremy N. Downs, P.E. Program Administrator

Date: May 23, 2017

Form AL-3 1/2006

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Appendix E: Antenna Installation

For Technical Support Call:
1-888-964-1488
www.ruralelectric.com

SAFETY NOTICE: Antenna Installation
1. **READ ALL INSTRUCTIONS PRIOR TO BEGINNING ANY WORK**
2. **Always keep the antenna away from any overhead or other power line source.**
3. **Always install an appropriate Lightning Discharge Element in-line with the antenna cable**
4. **Always ground the Lightning Arrestor directly to earth ground. Do not use conduits or building structures that are not directly grounded via an earth ground rod.**
5. **Never route antenna lines adjacent to power or control lines.**

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Installation Diagram:

L854 Antenna Information and Kit Installation Instructions

Lightning Arrester

Radials

Heat Shrink

Supporting Mast

14—12AWG Ground Wire

Building Roof

Earth Ground

20 Ft. RG—58 Coaxial Cable

Earth Ground

Notes:
- Antenna base height should be approximately 6 feet above roof.
- If a metallic supporting mast is used it must be connected to earth ground.
- Longest—range reception is accomplished with this type of mounting.
- Supporting mast is not provided.
- Cable connection at bulkhead connector Must be protected from the elements.
- Heat—shrink is for waterproofing BNC Type Lightning Arrester

Figure 9: Antenna Installation Detail

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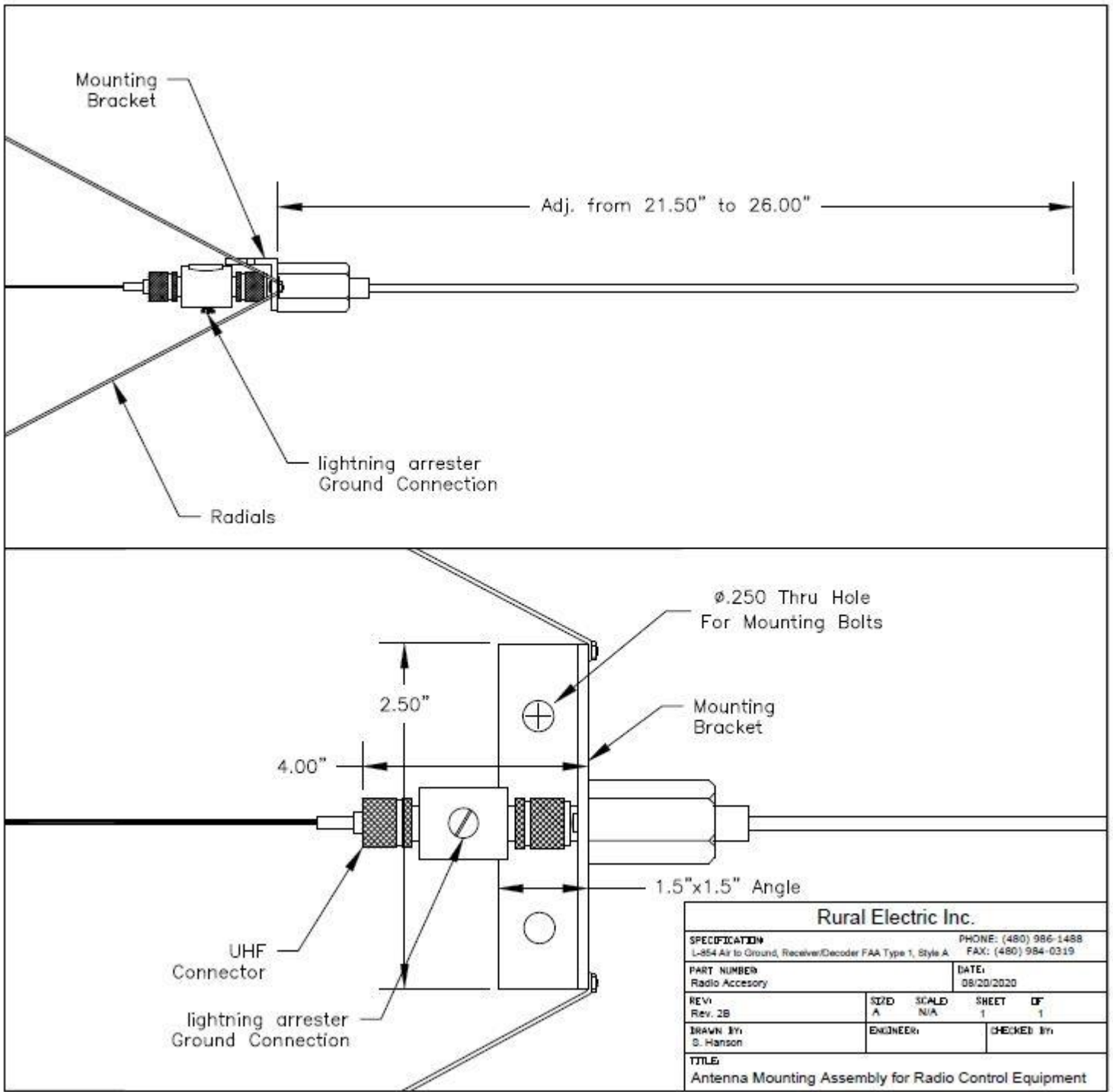
Antenna Detail:

Figure 10: Antenna Details

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Appendix F: AC Power System Schematic

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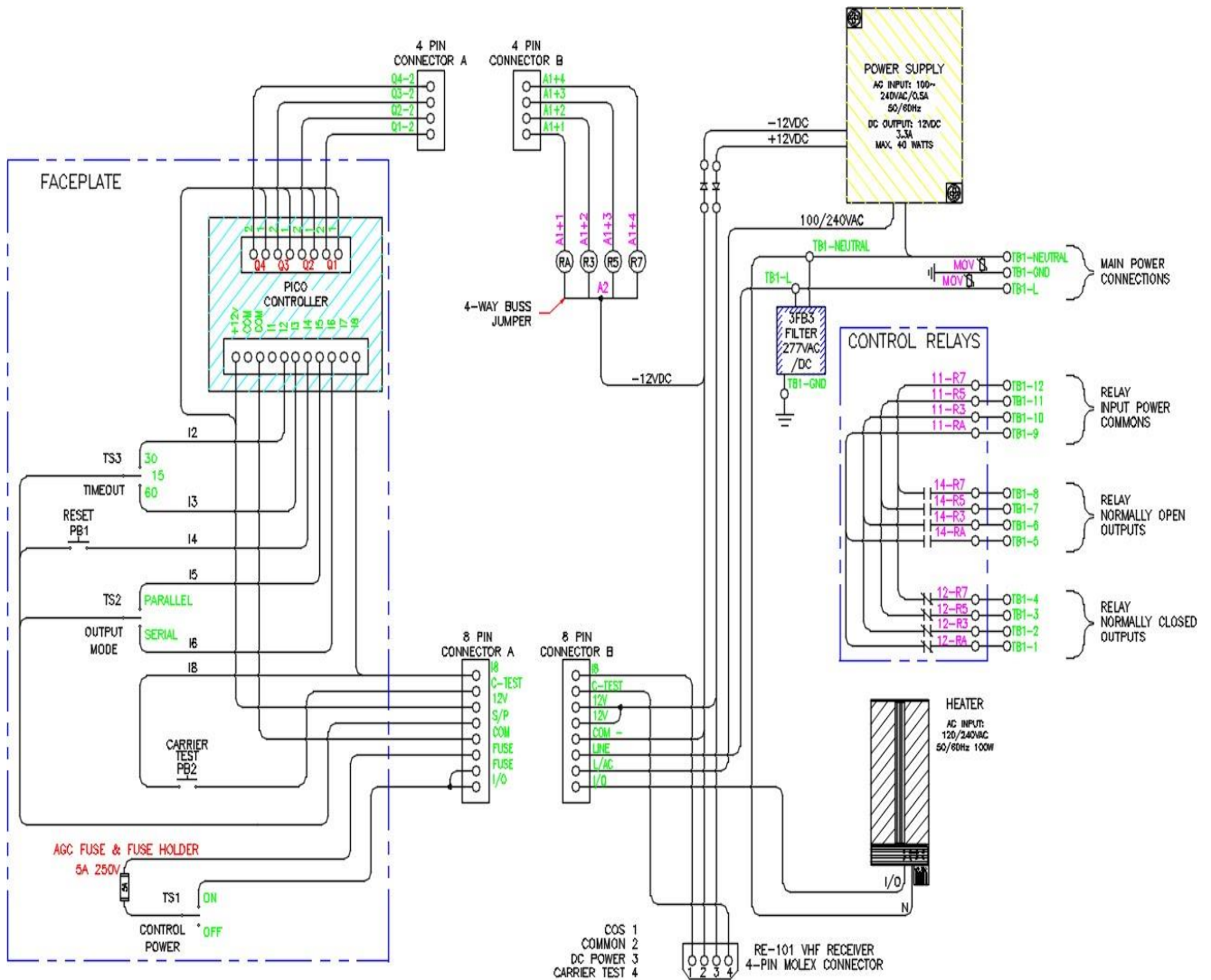
Appendix G: 12VDC System Schematic

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NOTES