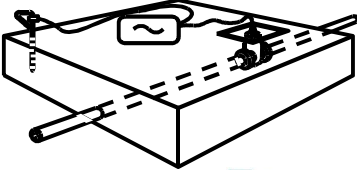



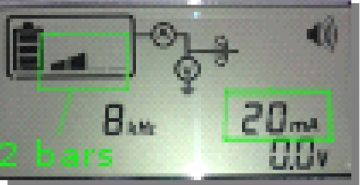
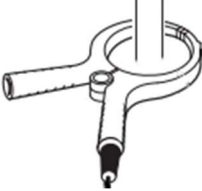
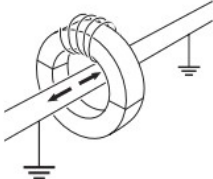










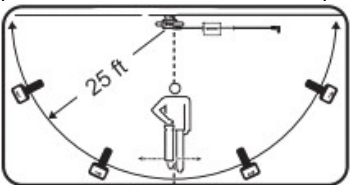




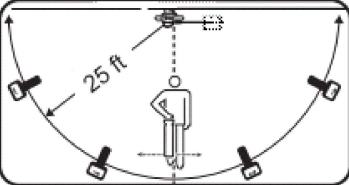




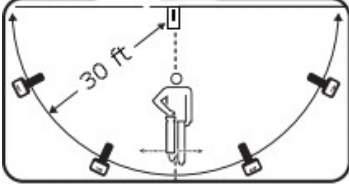








RD7100 & RD8100 QUICK START GUIDE

ACTIVE LOCATING - Direct	ACTIVE LOCATING – Ring Clamp	ACTIVE LOCATING - Induction
<p>TRANSMITTER SETUP</p> <ol style="list-style-type: none"> 1. Drive ground stake 10' from locate area in good dirt clear from utility lines. 2. Plug cables into front of transmitter. Clip black lead to ground stake & red lead to line.  <ol style="list-style-type: none"> 3. Turn transmitter on  4. Use the  key to select 8kHz. 5. Use the up and down keys to adjust the output level to 2 bars  6. Verify you are getting 20 mA's of current on the transmitter. 	<p>TRANSMITTER SETUP</p> <ol style="list-style-type: none"> 1. Plug ring clamp into the transmitter. 2. Place clamp around line.  <ol style="list-style-type: none"> 3. The ring clamp will not work if placed at the end of a wire or pipe. The line to be traced must have continuity on both sides.  <ol style="list-style-type: none"> 4. Turn transmitter on  5. Use the  key to select 33kHz. 6. Use the up and down keys to adjust the output level to 4 bars, 100%. 	<p>TRANSMITTER SETUP</p> <ol style="list-style-type: none"> 1. Unplug connect leads or ring clamp from the transmitter. 2. Place transmitter directly above the line to be traced with the handle of the transmitter in the same direction of the line.  <ol style="list-style-type: none"> 3. Turn transmitter on  4. Use the  key to select 33kHz. 5. Use the up and down keys to adjust the output level to 4 bars, 100%. 
<p>RECEIVER SETUP</p> <ol style="list-style-type: none"> 7. Turn on the receiver  8. Use the  key to select 8kHz. 9. Use the antenna key  to select Guidance Mode  on the receiver. This is the easiest mode to start but Peak mode is more precise. 10. Hold the receiver so that the handle points back toward the red clip.  <ol style="list-style-type: none"> 11. Walk in an arc approximately 25' around transmitter. Identify location of line by finding the spot with the strongest signal response. A depth will display in the bottom right corner when you are over the line. 	<p>RECEIVER SETUP</p> <ol style="list-style-type: none"> 7. Turn on the receiver  8. Use the  key to select 33kHz. 9. Use the antenna key  to select Guidance Mode  on the receiver. This is the easiest mode to start but Peak mode is more accurate. 10. Hold the receiver so that the handle points back toward the red clip.  <ol style="list-style-type: none"> 11. Walk in an arc approximately 25' around transmitter. Identify location of line by finding the spot with the strongest signal response. A depth will display in the bottom right corner when you are over the line. 	<p>RECEIVER SETUP</p> <ol style="list-style-type: none"> 6. Turn on the receiver  7. Use the  key to select 33kHz. 8. Use the antenna key  to select Guidance Mode  on the receiver. This is the easiest mode to start but Peak mode is more accurate. 9. Stay 30 feet away from the transmitter at all times otherwise you will get interference from transmitted halo emitted from the transmitter. 10. Hold the receiver so that the handle points back toward the red clip.  <ol style="list-style-type: none"> 11. Walk in a short arc around transmitter staying approximately 30 feet or more from it. Identify location of line by finding the spot with the strongest signal response. A depth will display in the bottom right corner when you are over the line.

RD7100 & RD8100 QUICK START GUIDE

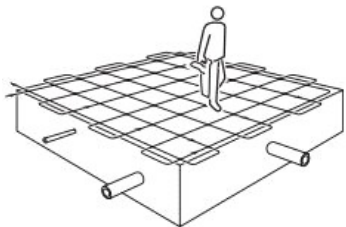
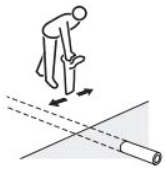
PASSIVE LOCATING

RECEIVER SETUP

1. Turn on your receiver 
2. Use the  key to select your desired passive frequency; POWER, CATV, RADIO or CPS.
3. Use the antenna key  to select Peak Mode  on the receiver. Peak mode will give a 'peak' response when over the target line.
4. Adjust sensitivity to 90  to begin search using the up/down keys . Reduce it once your signal strength gets higher as you get closer to a line. Keep adjusting so your scale peaks around 50% when you are over the target line.
5. Make a visual check for signs of buried lines such as trenching, pedestals, gas meters, valve sights, or manhole covers to help determine the direction of the utility line to be found. Try to keep the handle pointing the same direction of the target line.





6. Make a full sweep in a grid pattern to search for all utilities running in all directions.
7. Identify the location of line by finding the spot with the strongest signal response.

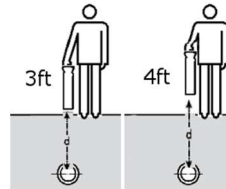


5 THINGS TO REMEMBER

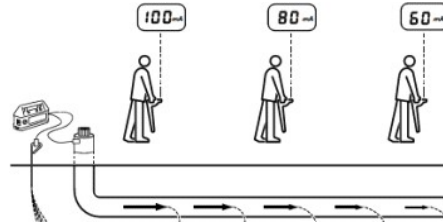
1. **Read the operations manual** as soon as possible. These instructions do not replace the proper detailed instructions within the operations manual.
2. Try to **keep your output settings and frequency as low as possible** to avoid coupling signal onto neighboring lines.
3. Try to always actively **locate using a direct connection**.
4. Always **use an independent ground source** for your black lead.
5. **Take the path of least resistance**. Always hookup at the end of the line to push your current towards to greater mass or larger pipe or cable.

3 WAYS TO VERIFY YOUR LOCATE

1. Verify your **Peak & Null antenna responses are in the same spot**. Select peak/null antenna mode  by pushing the antenna key . Follow the arrows and signal strength. Your locate is most likely correct if the arrows are at the same location as your highest signal strength.
2. **Use the depth to verify your locate**. Measure the depth against the ground then lift the receiver exactly a foot off the ground and verify it added a foot to your original depth reading.



3. Your **Current Measurement (mA)** on the bottom right of your receiver screen should closely match the current you are actively applying to the line with your transmitter. 100mA's at the transmitter should also be about 100mA's at the beginning of your locate and slowly start to disperse during the locate.



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