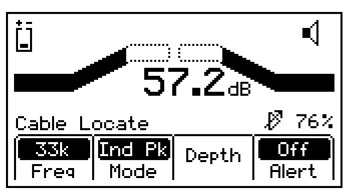
M-Series Receiver Enhancements:
Software Version 18

Audio Selection for Directional Peak Cable Locate Mode
An additional feature has been added that allows the user to select the audio response of the receiver in Directional Peak mode.

Access the function from the Menu/Setup screens.
MENU + More>> + Setup + More>> + More>> + Audio Config
Highlight preferred audio by pressing the up or down arrows.
Press Locate/OK to save the setting

Inductive Peak Mode for Cable/Pipe Locating

If you cannot make a direct connection, or use the 3M™ Dynatel™ Dyna-Coupler clamp to apply a locating signal on the target, use the induction method. This method uses the internal coil of the transmitter to generate a magnetic field. This is the least preferred method of applying a signal on a target conductor because it can easily be picked up by other non-target conductors in the area. However, it is the preferred method of applying a signal to multiple cables/pipes in the same trench, and for the 'two-man sweeping' application. (See Quick 2-Man 2220PL.pdf)



1. Verify battery level of transmitter and remove any cables from the output jack.
2. Position the transmitter over the target facility with the hinge of the transmitter over and in line with the cable/pipe path.
3. Align the Induction Direction arrows on the transmitter with the target conductor.
4. Turn on the transmitter by pressing the Trace key.
5. Press TRACE again to select induction frequency.
6. Select High Output level for the best signal-to-noise ratio.
7. Trace the signal path with the receiver using the Induction Peak mode.

The induction mode of the receiver is a mode in which the upper antenna of the receiver is tuned to minimize distortion from the magnetic field of the transmitter.

This mode is indicated by the induction icon in the bottom left-hand corner of the receiver's locate screen.

Note: The receiver must be at least 25 feet away from the transmitter to begin tracing the target path.

GPS Enhancements

Path Mapping with GPS

The M-Series cable and pipe locators are compatible with hand-held GPS devices and now have the ability to map the path of under ground target facilities. While measuring the depth to the target, the technician can automatically log the coordinates of the path on the GPS device. These logged points contain the Trace template that can have valuable information regarding the facility (owner, utility, size, etc.) and the method used to find the path (frequency, current, and measured depth).

In order to transmit the path information to a GPS device, the GPS has to have the ability to accept information on one of its com ports at 4800 Baud. Using the manual supplied with the GPS device, configure the com port of the GPS to communicate with the receiver.

If ArcPad™ is the mapping software on the mobile device, download the 3M software application script from the website : www.3M.com/dynatel

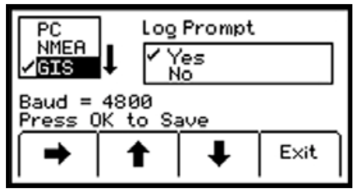
With 3M's ArcPad™ application installed, the receiver will send the path information (locate frequency, depth, current, and trace template information) into the software program as a logged point and can be saved as a .shp file.

Create Trace Templates

The easiest way to create a Trace template is using the Dynatel PC Tools software. (Software available for no charge at www.3M.com/dynatel - 3M™ Dynatel™ M-Series Locator PC Tools).
Create a TRACE template.
Save and download the template to the receiver.

Up to four Trace Templates can be stored on the Receiver.
Each Trace template is limited to 132 user editable characters.
The trace template appears in table format: two columns with 6 lines.
The first column is limited to 8 characters and the second column is limited to 14 characters. In addition to the 132 character table, the receiver will send a sequence number, the frequency, the measured depth of the conductor, and the current to the GPS.

Select Com Port Setting



Menu[6] + Com [SK] + GIS [SK] (or PDA [SK])

If the GPS has the ability to send NMEA coordinates on its com port and has the ability to receive information at 4800 baud, set the receiver's com port to **GIS**.

If the GPS only has the ability to receive information, set the com port of the receiver to **PDA** mode.

Log Prompt = On: Before the receiver returns to locate mode, a verification screen will pop up on the receiver with the trace template information that will be sent to the GPS device. This information can be modified and confirmed. Press OK to send to GPS.
Log Prompt = Off: When the receiver returns to locate mode, the trace template and locate information will be sent automatically to the GPS.

Sending Path Information to GPS Device

Establish communication on GPS unit.
Set comport on receiver.
Locate target utility.
Measure depth to target utility.
If Log prompt is activated, when the Locate button is pressed (or after a five second delay) a screen will appear that displays the path information.
Press OK to send the information to the GPS, or Exit to abort the exchange.

For more information refer to the software release notes @ www.mmm.com/dynatel