

REPEATER UNIT

Model: RPT-800_V2



SHERLO
TRONICS

APPLICATIONS:

- Shopping Centre Panic Systems
- Housing Estate Panic Systems
- Retirement Village Panic systems
- Farm Panic

SPECIFICATIONS:

Encryption.....Code-Hopping
Frequency.....433Mhz
Memory Capacity.....4000 Remotes
Receiving range.....800m (open air)
Transmitting range.....1500m (open air)
Power input range.....8 ~ 16V DC
Current drain.....60mA, 12VDC
Dimensions.....180 X 65 x 55mm
Weight (Packaged)150 grams
Warranty.....2 year

Line of sight



1.5km

Built-up



500m

Indoors



120m

Line of sight



500m

Built-up



120m

Indoors



75m

DESCRIPTION OF FUNCTIONS:

The Repeater is used to strengthen signals thus extending the operation range of remote controls which are required to work around large buildings indoors or outdoors. The Repeater unit will now only Repeat signals that are LEARNT into its memory device. A maximum of 3992 Remotes may be learnt in. The Repeater is compatible only to the Sherlotronics range of Code-hopping encryption transmitters.

The **New Version 2** Model, makes use of a memory device (Eeprom). This makes it possible to learn in only the Remotes that are supplied with the system. The main benefit for this feature is to limit the amount of RF traffic on the working frequency as the Repeaters will now only be able to repeat signals that are physically learnt into the memory. We have added a Wire Terminal connector block onto the PCB so that the installer can connect a long wire onto the unit and run it down to the location which is easy to reach. When the unit is placed into LEARN mode the Repeater will firstly Learn in the signal to its memory followed by repeat the signals out as our previous models have done. The repeater however may be left in LEARN mode for days if not Months at a time. If left in LEARN mode the unit will work like the previous models and repeat any signal out that it receives as we have termed "Promiscuous". Once you taken the unit out of LEARN mode by un-bridging the AUTO LEARN terminal connector, the repeater will only respond and repeat signals that are actually learnt into its memory. The unit has a memory capacity to 3992 Remotes.

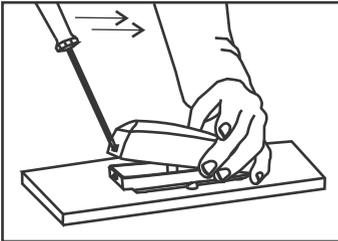
The New Repeater also has a AC Fail Detect output as well as it can be set to transmit a System Alive signal every 4 hours. Both the AC Fail and System Alive signals can be programmed into either stand alone receivers or our Wireless Mimic base units.

As with the RPT-800_V1 Repeater, the masking feature is still implemented. This will prevent unnecessary activity on the frequency from a particular remote that is used frequently. The Repeater will mask the signal for 1 minute if it is received more than 5 times within a short period.

OPENING & MOUNTING THE HOUSING:

The plastic housing is splash proof, and may be mounted externally if required. The receiver should be mounted Vertically for best performance. Ensure that you do not mount the unit close to electric fences cables or energizers, as these products produce extreme levels of interference and may reduce the performance of the product. If mounting indoors try and centralise the unit, and keep it at least **3 meters** away from Armed Response company's alarm radio transmitters.

We recommend you mount the unit more than 2 metres above the floor height either inside a cupboard or just above the trap door. For large properties that require reception range from the bottom of the drive way, mount the unit in the garage which may be closer to the gate, and run a cable back to the Alarm panel. Always conduct a signal range test before you hand over the product to the client, ensuring that the remote works reliably from all areas of the site.



Insert a small 1-1.5mm flat screw driver into the slot at the back of the housing and lever the lid open.

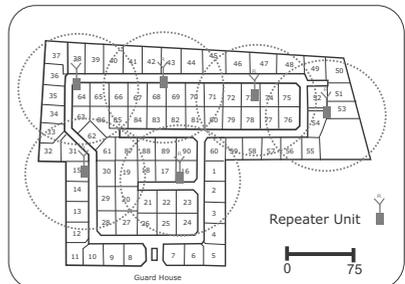
Mount the Repeater unit as high as possible on either a Plastic or Aluminium pole on the exterior of a building if you are requiring maximum range performance. This technique will improve the performance by 60% apposed to mounting the unit right up against a brick wall.

Run a good quality 6 core cable from the supplied 3.2A Power-supply to the Repeater unit. The reason you need a 6 core cable is so that you can run two for the Power to the Repeater, one for the AC Fail detect and then two for learning in the signals to the repeater. By running the LEARN wires to the inside of the power-supply it will be easy to locate at a later stage, so it is important that the power-supply has easy access and is not hidden away.

SITE POSITIONING HINTS:

Using either a site plan or google maps, study the site layout. Set repeaters on high points approx 75 meters apart from each other.

This practice will ensure that the system has good signal strength throughout all dwellings from behind walls.



Typical Retirement Village Repeater Site Plan

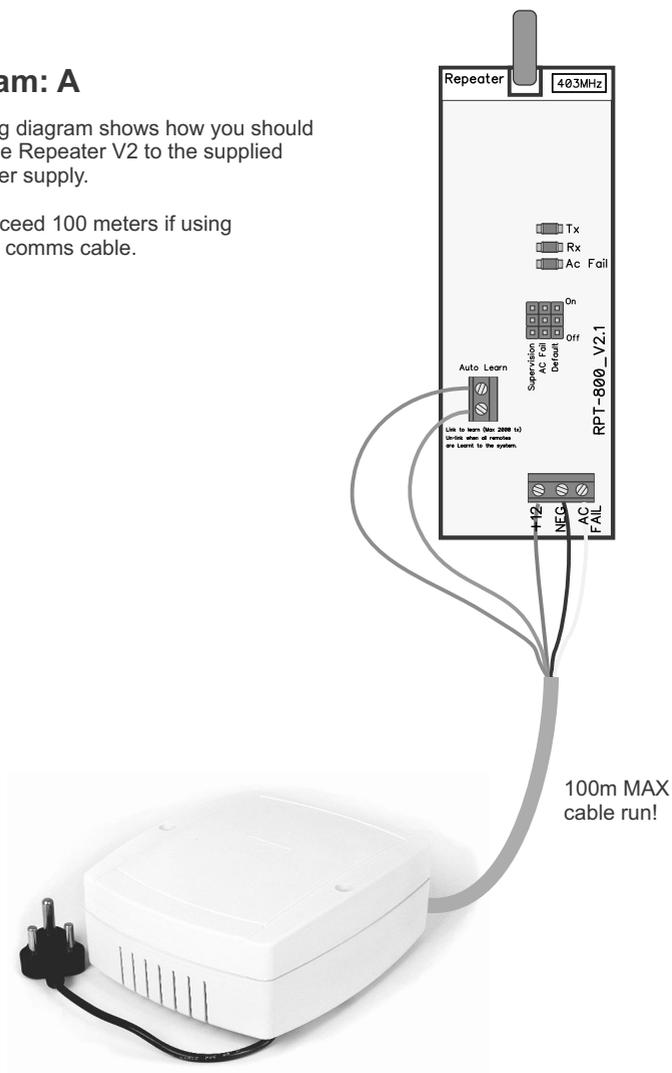
WIRING DETAIL:

The Repeater should be wired to a 12V Power-supply. The LEARN input should be wired down to a easy to locate position so that you will be able to easily place the Repeater into LEARN mode without having to climb ladders or go into a roof.

Diagram: A

This wiring diagram shows how you should wire up the Repeater V2 to the supplied 3.2A Power supply.

Do not exceed 100 meters if using solid core comms cable.



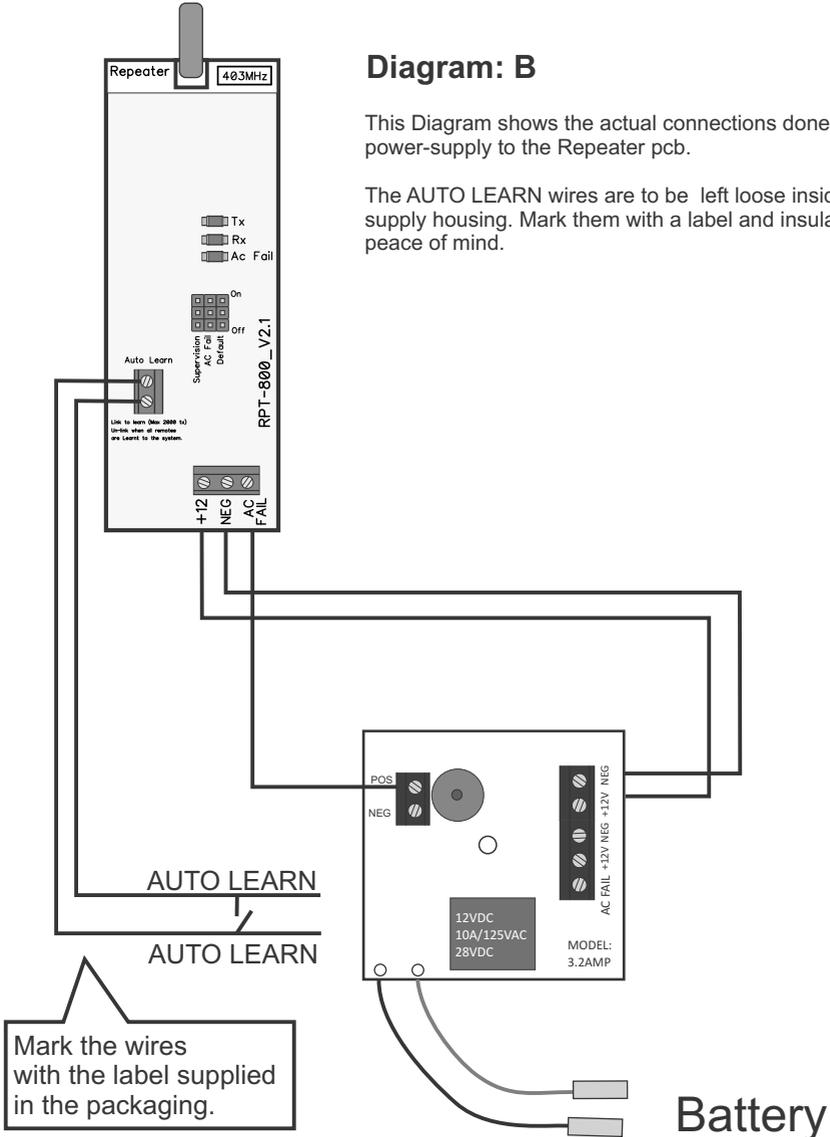
WIRING DETAIL:

The Repeater should be wired to a 12V Power-supply. The LEARN input should be wired down to a easy to locate position so that you will be able to easily place the Repeater into LEARN mode without having to climb ladders or go into a roof.

Diagram: B

This Diagram shows the actual connections done from the power-supply to the Repeater pcb.

The AUTO LEARN wires are to be left loose inside the Power-supply housing. Mark them with a label and insulate them for peace of mind.



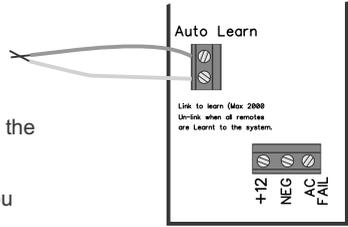
PROGRAMMING THE REPEATER:

To AUTO LEARN or program in the remote control signals to the units memory, simply connect the two AUTO LEARN terminals together.

Once a signal is learnt in the unit will flash the Rx LED followed by the Tx LED.

Once all the remotes are programmed, you can disconnect the wires connected to the AUTO LEARN terminals.

Please note: If the remotes are already handed out, and you have no way of getting hold of them to program them in, it will be quite acceptable to leave the unit in AUTO LEARN mode for a few days or even a week if needed. The unit will work the same whether it is in LEARN MODE or not.



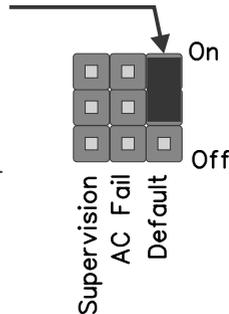
LEDS explained:

Rx - one flash means it has received a programmed signal

Tx - one flash means that the unit is transmitting the signal

DEFAULTING MEMORY:

1. Remove all jumpers off the PCB.
2. Bridge the Default jumpers to the ON position for 10 seconds. The Rx & Tx LED will flash.
3. Once the unit is successfully defaulted all the LEDs will turn on & stay on.
4. Remove the bridge from the ON position and wait for the LEDs to turn off.
5. The unit is now ready to be reprogrammed.



LEARNING THE AC FAIL SIGNAL TO A STANDARD RECEIVER:

Refer to the relevant Receiver programming procedure. Below is a standard 1 Channel Receivers programing procedure. Model RX1-500

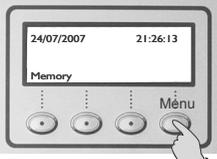
<p>Step 1.</p>  <p>LEARN</p>  <p>Press the Learn switch on the Receiver unit</p>	<p>Step 2.</p>   <p>Then Bridge the AC Fail jumpers on the Repeater unit. The Receiver will sound two beeps once it has learnt in the signal.</p>	<p>Step 3.</p>  <p>LEARN</p>  <p>Press the Learn switch on the Receiver to take the unit out of LEARN mode and back into Normal operation mode.</p>
--	--	---

SYSTEM ALIVE / SUPERVISION FEATURE:

It is recommended that you enable this function if you are installing a Wireless Mimic base unit Model: **MB3000 Ver4**, as the Mimic base unit will monitor the system alive signals from each repeater. If a Repeater malfunctions or is removed from the system the Mimic base will report the problem within a 24 hour window time period. You will need to Learn in the System alive signal to the mimic base before it will become active.

Please follow the procedure below to learn in the System alive signal to the MB3000 mimic base unit.

Step1



Press the far right button to enter the Main Menu.

Step2



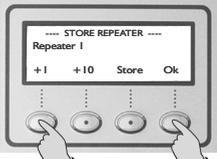
Use the **Up**, **Down** and **Next** button to enter the PIN no: The default is 1;2;3;4. Pin no's can be changed in the Main menu on option [7]

Step3

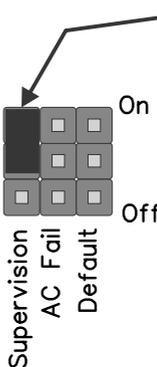


Press far left to move the Arrow down to [5], then press the far right Ok button.

Step4



Press either **+1** or **+10** to select the Repeater Location: you want to Store a repeater. Press **Store** followed by bridging the Supervision jumpers to the ON position. Wait until the "Active" appears on the screen. Press the far right **Ok** button to return to the main menu.



Supervision AC Fail Default

On

Off

SIGNAL MASKING EXPLAINED:

Signal masking is a technique we have implemented which records the amount of signals received by a particular remote control. If the same remote control is repeatedly transmitting the frequency will be highly congested with RF noise and will cause interference on its self. We mask out signals that are received more than 5 times in a 30 second period which are the same code. The mask period is 1 minute. Once the minute has elapsed the Remote control will be repeated out if it is received by the repeater unit. The reason we have implemented this feature is to ensure that transmitters that are connected to motion detectors or beams do not cause continuous signal activation on a Panic system.

Warranty Policy:

This product is covered by this warranty for a period of one (1) year immediately subsequent to the date of purchase indicated on the relevant invoice.

SHERLOTRONICS will replace or repair, at its option within a reasonable period of time, after it receives the product, any part that proves to be defective in materials or workmanship. The cost of parts and labour are included. All other costs are the responsibility of the purchaser.

