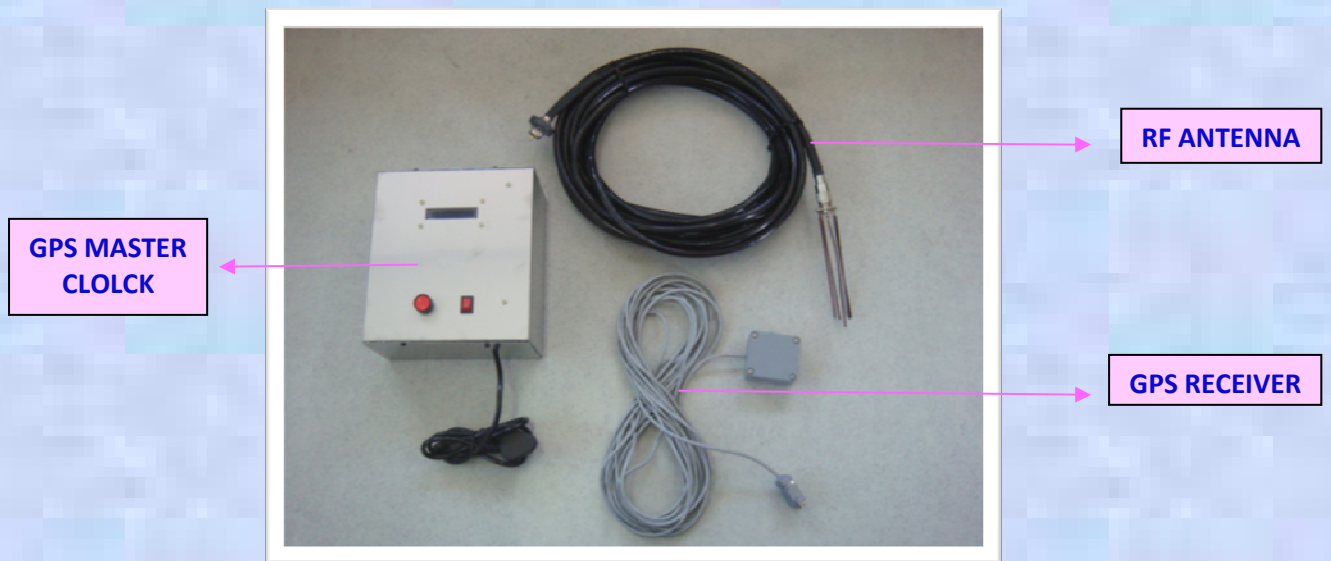


# GPS MASTER CLOCK USER MANUAL:

- THE DEVICE HAS 2 SWITCHES AND 2 CONNECTORS AND ONE LCD DISPLAY.
- SWITCH 1 ON THE LEFTHAND SIDE OF THE DEVICE IS FOR TESTING ONLY.
- USING THIS SWITCH YOU CAN TRANSMIT THE GPS TIME ANY TIME. TO TRANSMIT JUST PUSH THE SWITCH AND RELEASE. (THE TRANSMISSION WILL NOT HAPPEN BETWEEN 50 TO 60 TH SECOND EVEN IF YOU PRESS THE SWITCH)



- THE SECOND SWITCH IS ON THE RIGHT SIDE OF THE BOX. THIS IS USED TO DETERMINE THE TRANSMISSION DURATION. IF THE SWITCH IS PUSHED DOWN (SEE THE LABEL) THEN THE TRANSMISSION WILL BE FOR EVERY 1 MINUTE AT THE 60<sup>TH</sup> SECOND FOR 24 HOURS. IF THE
- SWITCH IS PUSHED UP THE TRANSMISSION WILL BE FOR 15 MINUTES IN A HOUR AND WILL BE BETWEEN 0 TO 15 MINUTES FOR EVERY ONE MINUTE AND AT THE 60<sup>TH</sup> SECOND.
- THE CONNECTOR ON THE TOP LEFT IS FOR CONNECTING THE GPS RECEIVER. CONNECT THE GPS RECEIVER TO THIS AND TIGHTEN THE SCREWS.
- THE CONNECTOR ON THE RIGHT TOP IS FOR THE 433 MHZ ANTENNA CABLE. CONNECT THE CABLE TO THIS CONNECTOR.
- THE SYSTEM HAS A 16 \* 2 LINE CHARACTER LCD WITH BACK LIGHT. THIS DISPLAY WILL SHOW THE STATUS OF THE ANTENNA, RTC, GPS RECEIVER AND THE REAL TIME.
- AT THE BOTTOM THERE ARE 2 CONNECTORS WITH BLACK AND RED COLOUR. THIS IS THE POWER SUPPLY, FROM THE SMPS 12 VOLTS.

# GPS MASTER CLOCK TROUBLESHOOTING GUIDE:

- THE LCD SHOWS A MESSAGE "CONNECT ANTENNA"
- IF THIS ERROR COMES THE DEVICE WILL NOT TRANSMIT THE TIME DATA
- THIS MESSAGE MEANS THAT THE ANTENNA IS NOT CONNECTED. SO CONNECT THE ANTENNA THE MESSAGE GOES OFF AND THE DEVICE WILL START TO SHOW THE TIME..
- IF THE LCD SHOWS A MESSAGE "CONNECT GPS"
- IF THIS ERROR COMES THE DEVICE WILL NOT TRANSMIT THE TIME DATA.
- THIS MESSAGE MEANS THAT THE GPS WIRE MIGHT HAVE CUT OR THE GPS RECEIVER MAY HAVE DAMAGED.
- SO CHECK THE GPS WIRE, RATS MIGHT HAVE CUT IT
- IF THE LCD SHOWS A MESSAGE "DATA ERROR"
- IF THIS ERROR COMES THE DEVICE WILL NOT TRANSMIT THE TIME DATA.
- THIS MESSAGE MEANS THAT THE GPS IS INSTALLED UNDER SOME SHADOW OR SOME THINGS LIKE METAL, BRICK ETC WILL BE BLOCKING THE GPS RECEIVER. SO GO TO THE INSTALLATION PLACE AND SEE THAT NOTHING BLOCKS THE RECEIVER AND THE RECEIVER IS CLEARLY OPEN TO THE SKY.
- IF THE SYSTEM DOES NOT POWER ON CHECK FOR THE SMPS POWER SUPPLY. THE SMPS WILL HAVE A GREEN LED AT THE OUTPUT. IF THE SMPS IS WORKING THEN THE LED WILL GLOW. IF STILL THE PROBLEM EXISTS CHECK FOR THE CONNECTOR FOR THE SMPS TO THE DEVICE. RED WIRE SHOULD BE CONNECTED TO THE RED CONNECTOR AND THE BLACK WIRE TO THE BLACK CONNECTOR.
- IF STILL NOTHING WORKS SEND IT BACK FOR SERVICE.

# GPS MASTER CLOCK SPECIFICATION

- **WORKING CURRENT** = 10 AMPS
- **TRANSMISSION FREQUENCY** = 433.5 MHZ
- **TRANSMISSION TIME** = LESS THAN 2  
**MILLISECONDS**
- **GPS RECEIVER** = GPS-634R
  - (65 channels with ultra-high sensitive Smart GPS Antenna module)
- **TRANSMISSION POWER** = 60 WATTS RMS  
**POWER**
- **ENCLOSURE** = STAINLESS STEEL  
**BODY**
- **REAL TIME CLOCK(RTC)** = DS1307(FROM  
**DALLAS)**
- **TIME ERROR PER YEAR** = +/- 1 MINUTE  
(IN THIS CASE SINCE WE HAVE GPS THERE IS NO TIME ERROR EVEN PER DAY)
- **THE ENTIRE SYSTEM WORKING** = VOLTAGE 12 VOLTS
- **EXTERNAL ANTENNA** = TELESCOPIC
- **EXTERNAL ANTENNA CABLE** = 10 METERS