## Technical Description (Receiver and Ballast)

- 1. When the power is turned on, the I.C. PT2272 and the R.F. Receiving Circuit will enter into the state of Stand-by.
- 2. If the antenna receives a matched signal, the R.F. Receiving Circuit (L1, L2, Q1, C1, C2, C3, Cp, R2, R3, R7 & D2) will regenerate that signal.
- 3. The Pre-amplifier circuit (U1, R3, R4, R8, R10, R12, C10, C11 & C12) amplifies the regenerated signal to a desired level and feeds into the decoder (I.C. PT2272).
- 4. If the decoded signal matches the pre-setted data stored in the I.C. PT2272, the logic circuit inside the I.C. PT2272 will be activated. Then, a coded signal will be fed to the output logic (U3 & U4).
- 5. The output latching circuit (U3 & U4) and the output driver (Q2, Q3 & Q4) would hold the signal to activate the ballast.
- 6. When the ballast is activated, the L-C network in the ballast will start to oscillate at a frequency about 40KHz. The voltage input to the ballast would be converted and amplified to a certain voltage level to light up the 9W fluorescent U-tube.