

Zululand Amateur Radio Club News

The newsletter for the discerning Ham

May 2017

ZARC Committee

Chairman: Warren Snyders ZS5WOZ

Vice Chairman: Gerald Scrooby ZS5GS

Treasurer: Willie Axford ZS5WI

Secretary: Dawn Snyders ZS5ME

Ham Net: Mike Kramer ZS5MB

Editor: Jo Snyders ZS5PO

Member: Vacant

Webmaster: Chantel Pelser

Club Repeaters

Ntumeni 145.675 MHz

Empangeni 145.700

Club Packet Digipeater/Mail-drop & APRS Digipeater

Ntumeni 144.625 (ZS5ZLB Mail, ZS5ZLB-2 Digipeat, ZS5ZLB-7 KA-Node)

Club Nets

There is also a club discussion net on Tuesday evenings at 18:30 on the 145.675 repeater
Club Members Have A Schedule On Thursdays Between 17:30 and 18:45 On 7.175 Or 3.645 Depending on propagation
ALL are more than welcome to join us for a "rag chew"

SARL News

08h30 - Sundays - 145.650, 7.066 MHz

NEXT ZARC MEETING

DATE: 16th July 2017 (Sunday) **This will also be the AGM**

TIME: Meeting at ± 12:00, followed by the lunch at ± 12:30

QTH: Eagle's Nest Eshowe (**Directions will be circulated later**)

E-Mail: dawnjo@telkomsa.net (Secretary)

Club Web site: <http://zs5zlb.org.za/>

Editor, Q.R.L.



Greetings & Salutations fellow members, I trust that this news letter finds you all in good health. The date of the next club meeting will be on the **16th of July 2017**. The venue will be **Eagles Nest Eshowe**. The meeting will take place at **± 12:00**, and the lunch at around **12:30**. Please make a note in your day books and diaries. The time for the meeting will be at **12:00**, giving everybody a chance to get there after Sunday morning commitments.

**Have you bought insurance to continue enjoying your hobby yet? SARL membership IS that insurance!!!
Is your hobby worth R1.26 per day to you? YES?! Then join the SARL, it's the RIGHT thing to do!!!**

The radical opinions, and rantings of the Editor, are not necessarily the opinions of, or supported by, the ZARC Committee, or it's members.

Wots Potting In The ZARC

Birthday Greetings Go To:



May: Tinkie, SW of ZS5WI on the 18th. J-J, Son of Warren ZS5WOZ on the 23rd.

June: Sakkie, ZS5ID on the 09th. Gerald, ZS5GS on the 15th.

July: Dawn, ZS5ME on the 12th. John, ZS5J on the 20th. Rod, ZL1RK on the 31st.

August: Anne, ZS5FAB on the 2nd. Melissa, daughter of Warren ZS5WOZ on the 17th. Bridget, daughter of Jo ZS5PO, on the 20th.

Many happy returns to all of you, and may you be spared for many more happy, healthy, years.

(If your birthday wishes do not appear here, it is because you have not informed me of your birth date).

Get Well Soon



Dawn, ZS5ME has been suffering from a dose of flu for a number of weeks now. We wish her a speedy recovery.

Club Happenings

Next Club Meeting

This will be the AGM. Taking place on **Sunday 16th of July** at The Eagle's Nest B/B & Restaurant in Eshowe. It has been decided to try a new venue for a change. I will be sending out a copy of their menu as soon as I can get one. Directions to the venue will be forwarded closer to the date.

Competitions



ZS5ZLB did not take part in the Div 3 Sprint this month due to other commitments that weekend.

Packet

On the packet Mail-Drop scene. The TNC is beaconing out. The coax on this set-up still has to be renewed, and the antenna moved to the east side of the tower

APRS

People in the Richards Bay/Empangeni area can get into the PMB I-Gate on 144.800.

For those of you Zululanders who have Internet, go and look on the www.aprs.fi web site, and type your call sign into the slot at the top of the column on the right, and press search, and see if your station appears on the map.

Repeaters

145.675: This repeater was replaced after the Xmas meeting & lunch in 2015, and the old Storno is working well.

145.700: This repeater is now a DEAD puppy, and needs to be recovered from this site. **STILL waiting for ESKOM to open up for us to get into this site.**

“SWAP SHOP”



If you have any items you want to get rid of, or if you are looking for something, Please let the Editor know and he will advertise it in the swap column for you.

1 X **Neutec SM-1645** 16 channel 2Mtr VHF radio for sale.
Service, user and reprogramming instruction manuals available.
Reason for selling: Surplus to requirements



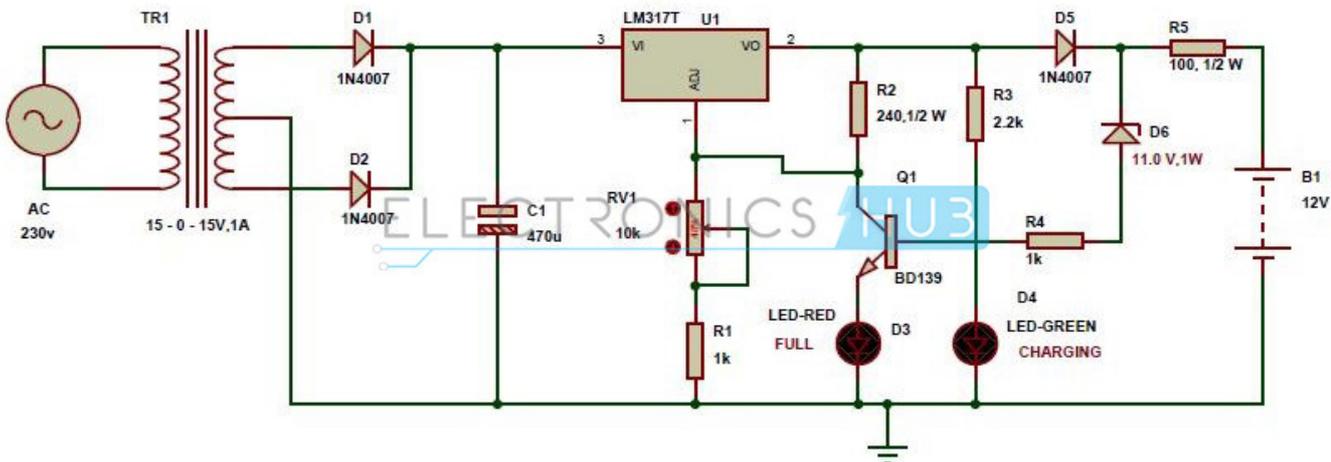
If anyone has an Icom **OPC-581** or **OPC-587** separation cable for the **Icom IC 706** to swap or sell. They can contact me, **Willie ZS5WI**, via **078 351 9597**, or email me at zs5wi@telkomsa.net. Thank you.

Home Brewers Hoekie



The first charger schematic in a set of three

Automatic 12v Battery Charger Circuit Diagram



Circuit Diagram of Automatic Battery Charger

This **automatic battery charger circuit** mainly involves two sections – power supply section and load comparison section.

The main supply voltage 230V, 50Hz is connected to the primary winding of the center tapped transformer to step down the voltage to 15-0-15V.

The output of the transformer is connected to the Diodes D1, D2. Here diodes D1, D2 are used to convert low AC voltage to pulsating DC voltage. This process is also called as rectification. The pulsating DC voltage is applied to the 470uF capacitor to remove the AC ripples.

Thus the output of the capacitor unregulated Dc voltage. This unregulated DC voltage is now applied to the LM317 variable voltage regulator to provide regulated DC voltage.

The output voltage of this voltage regulator is variable from 1.2V to 37V and the maximum output current from this IC is 1.5A. The output voltage of this voltage regulator is varied by adjusting the 10k pot, which is connected to the adjust pin of LM317.

Lm317 voltage regulator output is applied to the battery through the diode D5 and resistor R5. Here diode D5 is used to avoid the discharge of battery when main supply fails.

When battery is fully charged, the zener diode D6, which is connected in reverse bias, now conducts. Now base of BD139 NPN transistor gets the current through the zener so that the total current is grounded.

In this circuit, the green LED is used for indicating that the battery is charging. Resistor R3 is used to protect the green LED from high voltages.

Circuit Principle

If the battery voltage is below 12V, then the current from LM317 IC flows through the resistor R5 and diode D5 to the battery. At this time zener diode D6 will not conduct, because battery takes all the current for charging.

When the battery voltage rises to 13.5V, the current flow to the battery stops, and zener diode gets sufficient breakdown voltage and it allows the current through it.

Now the base of the transistor gets sufficient current to turn on so that the output current from LM317 voltage regulator is grounded through the transistor Q1. As a result the Red LED indicates the full charge.

Charger settings

The output voltage of the battery charger should be less than 1.5 times of the battery and the current of the charger should be 10% of the battery current. Battery charger should have over voltage protection, short circuit protection and reversed polarity protection.

NOTE: Also get an idea about [how to build a battery charging level indicator circuit?](#)



If you would like to contribute to your Club newsletter, or to contact me for any reason, please use the address / Phone numbers below.

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