



## Spark Gap Publishing

Due to scheduling the *Spark Gap* will not be published in November. Plan on viewing a new *Spark Gap* again in December.

## October BARC Meeting

### Don't make the annual ordeal seem like pulling teeth!

If you want to do a great service for maintaining BARC as a viable organization, consider volunteering to be on the nominating committee. If so many people volunteer that you can't shoulder your way onto the committee, volunteer to run for an office when a committee member contacts you

## QSO Parties for Nearby States

Get on the air and support these events for our neighbors! They will be delighted to add NE as multiplier for their scoring.

### Iowa QSO Party

The contest is sponsored by Ottumwa ARC. Saturday, October 15, 2011. For details see [www.wa0dx.org](http://www.wa0dx.org)

### Illinois QSO Party

The 2011 Illinois QSO Party will be held October 16, 1700Z October 16 to 0100Z October 17. For details see [www.w9awe.org/ILQP2011.html](http://www.w9awe.org/ILQP2011.html)

## Poser

The following illustration shows a page from the 1987 *Semiconductor Reference Guide*. It shows technical details of a 7400 DIP IC. DIP ICs are in the form of squat caterpillars with 8-24 legs, typically. They are more suitable for experimentation than today's ICs which typically have all connections on the bottom edges. It's possible to use a socket or an experimenter's in-line pc board to make connections between the IC and other components. SMT ICs pretty much require attaching to a specifically etched pc board which is already designed-- not near as much fun for the electronics experimenter.



### QUAD TWO-INPUT NAND GATE

7400  
276-1801

#### GENERAL DESCRIPTION

This device employs TTL logic to achieve high speed at moderate power dissipation. It provides the basic functions used in the implementation of digital integrated circuit systems. For best noise immunity and switching speed, unused inputs should not be left floating, but should be held between 2.4 V and the absolute maximum input voltage.

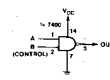
Two possible ways at handling unused inputs are:

- (1) Connect unused inputs to  $V_{CC}$ . For all multi-emitter conventional TTL inputs, a 1 to 10K ohm current limiting series resistor is recommended, to protect against  $V_{CC}$  transients that exceed 5.5 V.
- (2) Connect the unused input to the output of an unused gate that is forced high.

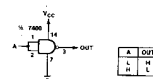
#### ABSOLUTE MAXIMUM RATINGS

Supply Voltage $V_{CC}$	5.25 V
Input High Voltage	2.0 V
Input Low Voltage	0.8 V
Input Clamp Diode Voltage ( $V_{CC} = 5.0 V, I_{IN} = -12 mA$ )	1.5 V
Input High Current ( $V_{CC} = \text{Max.}, V_{IN} = 2.4 V$ )	40 mA
Input Low Current ( $V_{CC} = \text{Max.}, V_{IN} = 0.4 V$ )	-1.6 mA
Operating Temperature	0 to +70°C

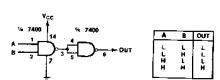
#### TYPICAL APPLICATIONS



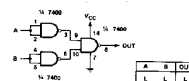
Control Gate



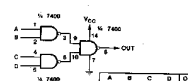
Inverter



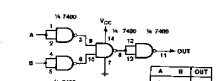
AND Gate



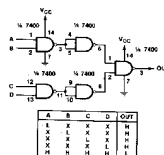
OR Gate



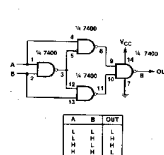
AND-OR Gate



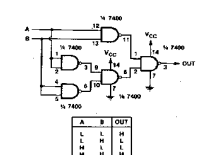
NOR Gate



A B C OUT

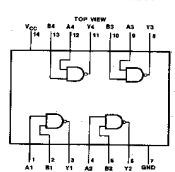


A B C OUT



A B C OUT

#### PIN CONNECTION



#### TRUTH TABLE

$Y = \overline{AB}$





8Q – Maldives. Jim, **G3VDB** will operate as 8Q7EJ from Vilamendoo from October 31 to November 13. Activity on CW and SSB mainly on 20M. QSLs go to his home call.

A2 – Botswana. Sajid, **VA3QY** will be active as **A22EW** from now until October 18th. QSL to his home call.

FH – Mayotte. Look for **FH8NX** to be active from now until March 2013. Activity will be on 20 through 10 Meters, using SSB. QSL direct to Phillip Ward, 36 Totorosa 2, Labattoir 97610, Mayotte.

FJ – St. Barthelemey. **VE3EY** and **VE3TA** will activate this newer country using their home calls portable FJ from 22 to 29 November. In the CQWW CW Test they will use the call **TO3A**. QSL **TO3A** to **VE3EY** and the /FJ calls to the operators home address.



FR - Reunion Island. **DJ7RJ** plans to be active as **FR/DJ7RJ** until October 26 on CW and Phone, all HF bands. If the bands are open you should hear him as he will be using 500 Watts. QSL direct to home call.

SV5 – Dodecanese. Look for **SV5/LA4GY** from Rhodes until October 10. He will operate 40 through 6 Meters CW, Digital and Phone. QSL to the home call.

T32 – Christmas Island. This crew has had to regroup due to equipment transportation problems. The ship that was to take the cargo from Tarawa to Christmas has encountered major problems and is off for repairs. They quickly assembled alternate equipment and will proceed to T32 on scheduled. As a result the scale of the operation will be reduced. Fewer stations and simpler antennas. Look for **T32C** from now till October 26.

YJ – Vanuatu. **DJ0YI** and **NQ7R** will be active as **YJ0ABP** and **YJ0ANR** respectively until October 14th. No specifics on bands/modes but they should be easy to find. QSL to home calls.

So much for the news for October. Good hunting and remember we are only few weeks away from the CQWW contests. As usual, thanks to the ARRL DX Bulletin, the 425 DX Newsletter and the OPDX DX Bulletin for information contained in this column.

73, Mike NA9Q

## Reusable Containers Needed

by Ladonna, KB00UO

Social Committee has some items that we could use members assistance with:

Your Social Committee is in need of disposable containers, all sizes, but specifically the 2 cup size. Our supply of containers that we use for leftovers, to sell soup at the soup supper, etc. is dwindling fast. In order to save money we ask that any containers that you might toss into your recycle bin, instead be recycled to us, such as 1 lb and 2 pound butter/margarine containers, whipped cream containers, etc., or the Glad or Rubbermade disposable containers.

If anyone wants to donate some new containers, you can get the Glad or Rubbermade containers in multi-packs at your local Walmart, Sams Club, Target, etc.

Any and all donations in any size of containers will be greatly appreciated as it helps save us from having to expend club funds for items that most of us recycle.





## Annual Meeting - December 1 at Famous Daves in Bellevue

by Ladonna, KB00UO

Yes it's time to start thinking about the Annual meeting and elections. The Annual Meeting will be held Thursday Night, December 1, 2011 at Famous Daves in Bellevue. Happy Hour will start at 5:30 p.m., with members sitting down by 6:15 to place our orders, Dinner from 6:15 p.m. to 7:30 p.m. with the General Meeting to start at 7:30 p.m. Following the General Meeting and Election of officers, we will have a drawing for Raffle prizes and Door prizes.

This year, we have a Dual Band Hand Held Radio as one of the raffle prizes and a \$50 Gift Certificate to Applebees for the second Raffle Prize. Raffle Tickets will be \$2.00 each and 6 for \$10.00. **YOU MUST BE PRESENT AT THE ANNUAL MEETING TO WIN.** Raffle Tickets will go on sale in October at the membership meeting, so you can increase your odds of winning. We are hoping to have the Radio to Display starting at the October Meeting.



## Ham Events

If you have an event that you want to have listed, be sure to send an e-mail to the *Spark Gap*. Editor-recommended events are **highlighted**.

event type	start date	event description
education	Oct 6	amateur license testing, Lincoln, NE - K0IH@ARRL.NET
special event	Oct 8	Transmitting from Nowhere, KS - www.w0uk.net
BARC Bd mtg	Oct 13	7:30 PM, - www.bellevuearc.org
contest	Oct 15	<b>Iowa QSO Party</b> - iaqso.wa0dx.org/
contest	Oct 15	10-10 Fall CW QSO Party - www.ten-ten.org
contest	Oct 16	<b>Illinois QSO party</b> - www.w9awe.org
BARC club mtg	Oct 20	7:30 PM <b>club meeting</b> - www.bellevuearc.org
public service	Oct 20	Make-A-Wish Bike Ride
hamfest	Oct 22	3900 club, Sergeant Bluff, IA - www.3900club.com <b>Check the best route to travel due to flood damage in IA.</b>
hamfest	Oct 29	Ensor Museum Auction Tailgate & Special Event, Olathe, KS - www.w0erh.org
contest	Oct 29	<b>CQ Worldwide SSB</b> - cq-amateur-radio.com
contest	Oct 29	Fall <b>50-MHz Sprint</b> - www.svhfs.org
special event	Oct 29	23rd NASCAR Days Festival - www.nc4ar.net
education	Nov 3	amateur license testing, Lincoln, NE - K0IH@ARRL.NET
special event	Nov 4	Cape Fear Amateur Radio Society, to honor Vietnam Veterans - pr@cfarsnc.org. cfarsnc.org
public service	Nov 5	Veterans Day Parade
hamfest	Nov 6	IA section convention, Davenport, IA - www.arcsupport.com/drac/hamfest.html
contest	Nov 6	<b>ARRL Sweepstakes CW</b>
special event	Nov 6	150th Birth Date of Dr James Naismith, Inventor of the Game of Basketball, Almonte Amateur Radio Club, Inc. - www.almontearclub.ca
BARC Bd mtg	Nov 10	7:30 PM, - www.bellevuearc.org
special event	Nov 11	<b>Salute to Veterans</b> , K0GRL, Bellevue, NE - www.sacmarc.org
BARC club mtg	Nov 17	7:30 PM <b>club meeting</b> - www.bellevuearc.org
contest	Nov 20	<b>ARRL Sweepstakes phone</b>
education	Nov 29	amateur license testing, Ak-Sar-Ben ARC - www.aksarbenarc.org
BARC club meeting	Dec 1	<b>Annual Christmas Dinner and Meeting</b> at Famous Dave's restaurant, 2015 Pratt Ave, Bellevue, social hour, 5:30 p.m., dinner at 6:30 p.m., annual meeting 7:30 p.m.
education	Dec 1	amateur license testing, Lincoln, NE - K0IH@ARRL.NET
BARC Bd mtg	Jan 12	7:30 PM, - www.bellevuearc.org

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event type	start date	event description
special event	Jan 14	US Navy Seal Teams Established 1962, NI61W, - kk6fz@arrl.net
BARC club mtg	Jan 19	7:30 PM <b>club meeting</b> - www.bellevuearc.org
hamfest	Jan 21	North KC Hamfest, Kansas City, MO - www.northkchamfest.com
education	Jan 31	amateur license testing, Ak-Sar-Ben ARC - www.aksarbenarc.org
BARC Bd mtg	Feb 16	7:30 PM, - www.bellevuearc.org
BARC club mtg	Feb 23	7:30 PM <b>club meeting</b> - www.bellevuearc.org
BARC Bd mtg	Mar 8	7:30 PM, - www.bellevuearc.org
BARC club mtg	Mar 13	7:30 PM <b>club meeting</b> - www.bellevuearc.org
education	Mar 27	amateur license testing, Ak-Sar-Ben ARC - www.aksarbenarc.org
BARC Bd mtg	Apr 12	7:30 PM, - www.bellevuearc.org
BARC club mtg	Apr 19	7:30 PM <b>club meeting</b> - www.bellevuearc.org
BARC Bd mtg	May 10	7:30 PM, - www.bellevuearc.org
BARC club mtg	May 17	7:30 PM <b>club meeting</b> - www.bellevuearc.org
education	May 29	amateur license testing, Ak-Sar-Ben ARC - www.aksarbenarc.org
BARC Bd mtg	Jun 14	7:30 PM, - www.bellevuearc.org
BARC club mtg	Jun 21	7:30 PM <b>club meeting</b> - www.bellevuearc.org
BARC Bd mtg	Jul 12	7:30 PM, - www.bellevuearc.org
BARC club mtg	Jul 19	7:30 PM <b>club meeting</b> - www.bellevuearc.org
education	Jul 31	amateur license testing, Ak-Sar-Ben ARC - www.aksarbenarc.org
BARC Bd mtg	Aug 9	7:30 PM, - www.bellevuearc.org
BARC club mtg	Aug 16	7:30 PM <b>club meeting</b> - www.bellevuearc.org
BARC Bd mtg	Sep 13	7:30 PM, - www.bellevuearc.org
BARC club mtg	Sep 20	7:30 PM <b>club meeting</b> - www.bellevuearc.org
education	Sep 25	amateur license testing, Ak-Sar-Ben ARC - www.aksarbenarc.org
BARC Bd mtg	Oct 11	7:30 PM, - www.bellevuearc.org
BARC club mtg	Oct 18	7:30 PM <b>club meeting</b> - www.bellevuearc.org
education	Nov 27	amateur license testing, Ak-Sar-Ben ARC - www.aksarbenarc.org

## September Program



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The September program feature a presentation about the Omaha Area Metro Area Motorist Assist Program. Lt Bridges of the Nebraska Highway Patrol. described the operation and may have enticed a few recruits to volunteer.

Thanks, Lt Bridges, for the interesting presentation, and thanks Wayne, WH6BUL, for working diligently to find programs for the club meetings.

## October Program

The program features a technical presentation of interest to BARC members.

