

This Application Note applies to the H300 Drive Series

Setting the Real-Time Clock

H300 drives have a built-in Real Time Clock (RTC) in the keypad. The RTC can prove quite useful for HVAC applications. In order to use the features of the RTC it must be set to your local time. This application note will detail a manual method of setting the clock.

Manual Method- Using Drive Keypad

Time & Date Quick Set Guide: (to set the RTC follow these steps/set these parameters)

1. **Pr 00.038→US/Std** This will format the date with the United States convention or the standard convention (US is mm/dd/yy date format & Std is dd/mm/yy date format).
2. **Pr 00.037→Set** This tells the drive you are setting the clock and it will be editable.
3. **Pr 00.034→Date** In this parameter set the current date in the format you chose in step one.
4. **Pr 00.035→Time** Set the current time in this parameter (uses 24hr clock, Int'l/Military time)
5. **Pr 00.037→Local Keypad** this will put the RTC back to run mode. It will keep proper time as long as the drive has power

Verify that the clock has been set by looking at Pr 00.036. This will indicate the correct day of the week whereby (Sunday→0 through Saturday→6):

Verify by re-checking Pr 0.035 after a minute or more, this would insure the clock is indeed ticking.

Sunday	0
Monday	1
Tuesday	2
Wednesday	3
Thursday	4
Friday	5
Saturday	6

Fault Log w/Time & Date Stamp

The drive retains a log of the last 10 Fault Trips in parameters Pr 00.050-00.059. This is also in Pr 10.020-10.029 because all parameters in the quick access menu (menu 0) are also in other menus.

The **Date** and **Time** of each Fault Trip is captured in Pr 00.060 to Pr 00.079 (Pr 10.041-Pr 10.060)

NOTE: Setting the clock is the only way to keep real time. There is a battery built into the RTC keypad that will keep the Real Time Clock running while the drive is unpowered.

The last 10 trip codes and parameters they appear

00.050	Trip 0	{10.020}
00.051	Trip 1	{10.021}
00.052	Trip 2	{10.022}
00.053	Trip 3	{10.023}
00.054	Trip 4	{10.024}
00.055	Trip 5	{10.025}
00.056	Trip 6	{10.026}
00.057	Trip 7	{10.027}
00.058	Trip 8	{10.028}
00.059	Trip 9	{10.029}

Date and Time of the last 10 Trips

00.060	Trip 0 Date	{10.041}
00.061	Trip 0 Time	{10.042}
00.062	Trip 1 Date	{10.043}
00.063	Trip 1 Time	{10.044}
00.064	Trip 2 Date	{10.045}
00.065	Trip 2 Time	{10.046}
00.066	Trip 3 Date	{10.047}
00.067	Trip 3 Time	{10.048}
00.068	Trip 4 Date	{10.049}
00.069	Trip 4 Time	{10.050}
00.070	Trip 5 Date	{10.051}
00.071	Trip 5 Time	{10.052}
00.072	Trip 6 Date	{10.053}
00.073	Trip 6 Time	{10.054}
00.074	Trip 7 Date	{10.055}
00.075	Trip 7 Time	{10.056}
00.076	Trip 8 Date	{10.057}
00.077	Trip 8 Time	{10.058}
00.078	Trip 9 Date	{10.059}
00.079	Trip 9 Time	{10.060}

Historical Fault Log

HVAC Drive Connect (see resources below for web download) provides a convenient tool under **Diagnostics** to allow you to observe the past 10 faults along with the Time & Date of those faults.

Drive Trip Log
Display the drive trip log and trip diagnostic information.

The drive is not tripped, current state is inhibit
(trip data is historic)

Reset Clear Log

Trip	Trip Code	Description	Date	Time	Sub-trip
1	186	Card Rating	2015/10/5	15:30:31	0
2	34	Keypad Mode	2015/10/5	15:20:02	0
3	38	Low Load	2015/9/22	16:05:29	0
4	38	Low Load	2015/9/22	16:02:46	0
5	38	Low Load	2015/9/22	16:01:50	0
6	1	Reserved 001	2015/9/22	15:51:45	0
7	29	An Input 2 Loss	2015/9/22	12:26:31	0
8	24	Thermistor	2015/9/22	12:26:21	2
9	1	Reserved 001	2015/9/22	12:17:57	0
10	1	Reserved 001	2015/9/22	12:16:20	0

Trip	Card Rating
Value	186
Short description	

A parameter file has been transferred from a NV media card to the drive, but the current and/or voltage rating are different between source and target drive. This trip does not stop the data transfer, but is a warning that the data for rating dependent parameters may not be the same on the target as the source drive. This trip also applies if a compare (using Pr mm.000 set to 8yyy) is performed between a parameter file on the card on the drive.

Recommended actions:

- Reset the drive to clear the trip.
- This trip can be suppressed by setting Pr mm.000 to 9666 and resetting the drive.

Clearing the Fault Log

Should one wish to clear out the Historical Fault Log, this can be accomplished by entering a 255 into parameter Pr 10.038 and pressing the red Reset button. After performing the reset, Pr 10.038 will automatically revert to 0.

Resources: can be found on our website: www.controltechniques.com

For help contact techsupport.cta@mail.nidec.com, or call Technical Support at 952-995-8000, 24/7/365

24 Hour Conversion Table

	12 Hr	24Hr
	1 AM	1
	2 AM	2
	3 AM	3
	4 AM	4
	5 AM	5
	6 AM	6
	7 AM	7
	8 AM	8
	9 AM	9
	10 AM	10
	11 AM	11
Mid-day	12 AM	12
	1 PM	13
	2 PM	14
	3 PM	15
	4 PM	16
	5 PM	17
	6 PM	18
	7 PM	19
	8 PM	20
	9 PM	21
	10 PM	22
	11 PM	23