

Finally there exists a line of products that will eliminate the confusion and difficulty of clock system upgrades and maintenance. NATIONAL TIME is proud to introduce a module that will revolutionize the clock industry. Gone are the days of searching old catalogs or the internet to locate compatible secondary clocks for an existing system. The Universal Reset Translator or URT will allow clocks of different manufacturers to occupy the same wiring circuit and it will also offer improved functionality of existing systems. 120VAC versions and 24VAC versions are available as well as a high output version capable of driving entire clock circuits.

The **URT-EX**'s microprocessor can intelligently interpret reset sequences of different systems and translate them into a reset that National's EX series secondary clock will accept. Using solid state switching circuitry, the URT takes control of the secondary clocks and synchronizes them with other clocks on the system. Now, National's superior time-tested clock movement can operate on a different manufacturer's reset protocol. *See Bulletin C-433 for the list of compatible clock systems.*

The **URT-EX** is small enough to install behind an existing clock and powerful enough to operate multiple 'down stream' clocks. To drive many clocks, the larger and higher output **URTH-EX** can drive entire clock circuits. Combining the URT with a power limited transformer creates an intelligent power supply for an entire circuit of low voltage clocks (RPS-6-URT-EX).

The **URT-OD** series reset translator will enhance existing clock systems to perform National's *On-Demand Technology*. National Time's current series of analog and digital clocks don't force you to wait for long periods as your clock system recovers from a power interruption. We update the time when you need it. *NOW*. The URT-OD will add On-Demand resets to your existing master clock by controlling National's D/DX/DU Series digital clocks and/or National's RD2WS/RD3WS Series analog clocks. Without batteries, the URT-OD will keep time for over a week during power outages and immediately correct the clocks when power is restored. The standard URT-OD can fit into an existing clock electrical box and control multiple clocks. The URTH-OD has the unique capability of superimposing the *On-Demand* correction technology over the existing clock circuit wiring not affecting the existing clocks of other manufacturers. This allows the new National clocks on that circuit to correct to the proper time immediately after power outages or time changes.

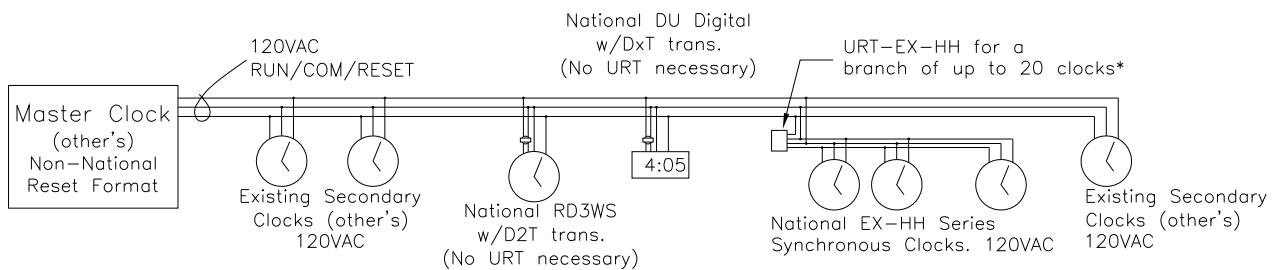
## Features:

- Microprocessor Based Solid State Control Circuitry
- 120 VAC and 24VAC versions
- Most Reset Formats Supported
- Automatic Reset Format Recognition (no switches or jumpers)
- No Batteries to Replace
- Add National's Superior Time Tested EX Series clocks to existing system (EX series)
- Add On-Demand Correction Capability to Existing Systems (OD Series)



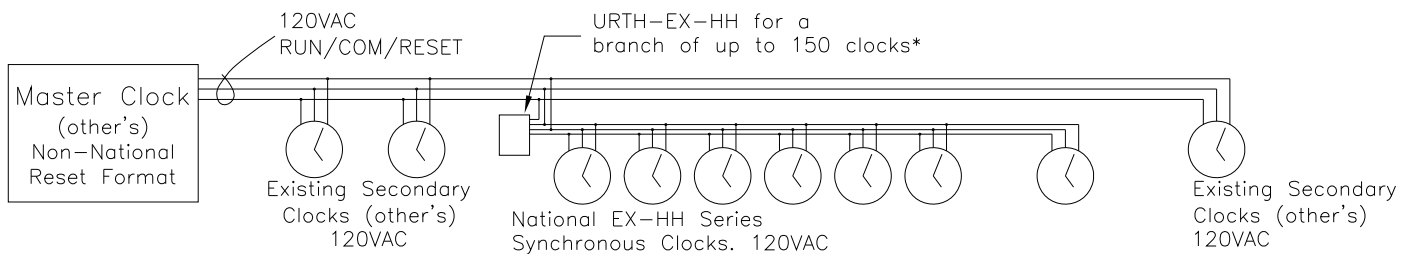
## URT-EX-HH

The addition of a **URT-EX-HH** module allows a National Time 120VAC EXHH series synchronous clock to be reset by a previously incompatible clock system. Many reset formats are automatically deciphered by the module without jumpers or dip switches. Refer to the compatibility listing Bulletin C-433 for supported formats. The master clock reset signal is intercepted by the URT-EX which then transmits a National EX series reset format to up to 20 clocks down stream. National Time also offers the Rotary Drive RD3WS series as well as the DU Series digitals which offer universal resetting capability without a URT module. See Bulletin C-332.



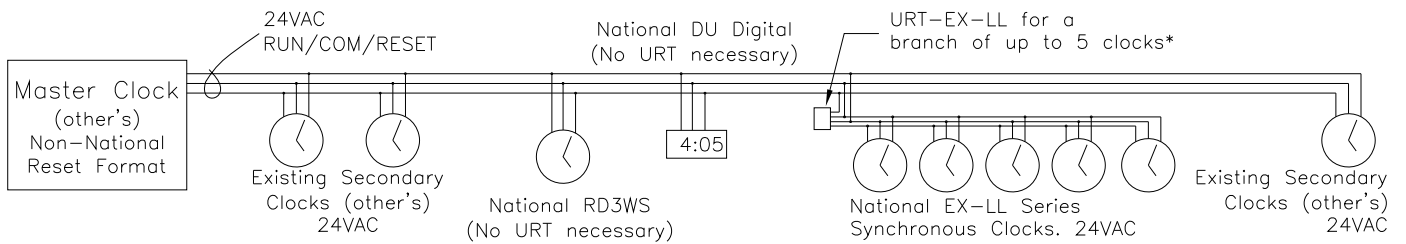
## URTH-EX-HH

The 'High Output' **URTH-EX-HH** offers the same functionality as the URTEX-HH with a more powerful output to drive more secondary clocks. Up to 150 National 120VAC series EX clocks may be controlled by a previously incompatible master clock. The synchronous clock circuit by other manufacturer's is intercepted and converted to the standard National reset sequence and transmitted to all clocks down stream. Many reset formats are automatically deciphered by the module without jumpers or dip switches. Refer to the compatibility listing Bulletin C-433 for supported formats.



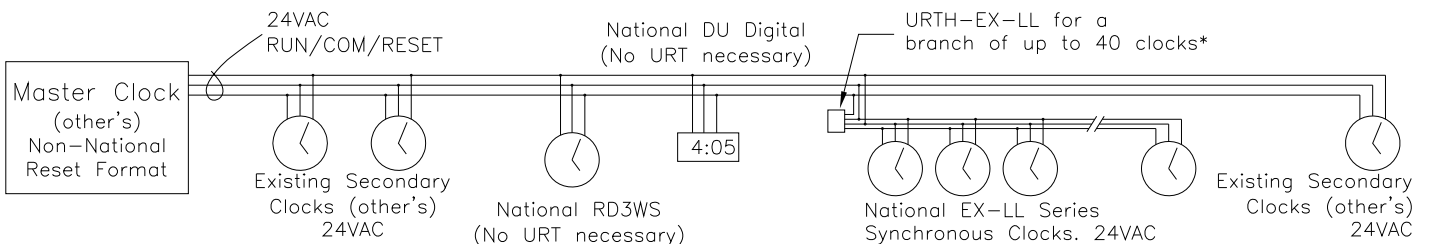
## URT-EX-LL

The addition of a **URT-EX-LL** module allows a National Time low voltage EX-LL series synchronous clock to be reset by a previously incompatible clock system. Many reset formats are automatically deciphered by the module without jumpers or dip switches. Refer to the compatibility listing Bulletin C-433 for supported formats. The master clock reset signal is intercepted by the URT-EX which then transmits the National EX series reset format to up to 5 clocks down stream. National Time also offers the Rotary Drive RD3WS Series as well as the DU Series digital which offer universal resetting capability without a URT module. See Bulletin C-332.



## URTH-EX-LL

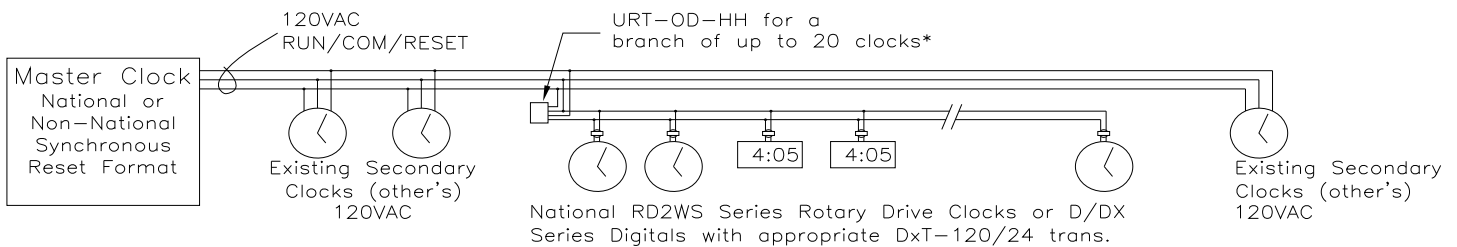
The 'High Output' **URTH-EX-LL** offers the same functionality as the URTEX-LL only the output can drive more secondary clocks. Up to 40 National 24VAC series EX clocks may be controlled by a previously incompatible master clock. The synchronous clock circuit by other manufacturer's is intercepted and converted to the standard National reset sequence and transmitted to all clocks down stream. Many reset formats are automatically deciphered by the module without jumpers or dip switches. Refer to the compatibility listing Bulletin C-433 for supported formats.



## URT-OD-HH

The URT-OD-HH module will allow the high-tech National On-Demand Series clocks to be added to an existing system. The increased performance of the On-Demand series clocks can be realized without replacing the existing master clock or existing synchronous clocks. The small size of this module will allow mounting inside of an existing electrical box and can control as many as 20 two-wire National instant resetting clocks. These would include the RD-2WS series analog clocks as well as the 2.3" and 4" D and DX series digital clocks.

After a power outage, the URT-OD module will transmit time of day data to the National clocks which then adjust to the correct time within seconds on only 2-wires. The URT-OD will keep time during power outages for 10 days or more without batteries. During normal operation, the URT-OD will synchronize its clocks to the existing synchronous resets from the master clock. Many reset formats are automatically deciphered by the module without jumpers or dip switches. Refer to the compatibility listing Bulletin C-433 for supported formats.

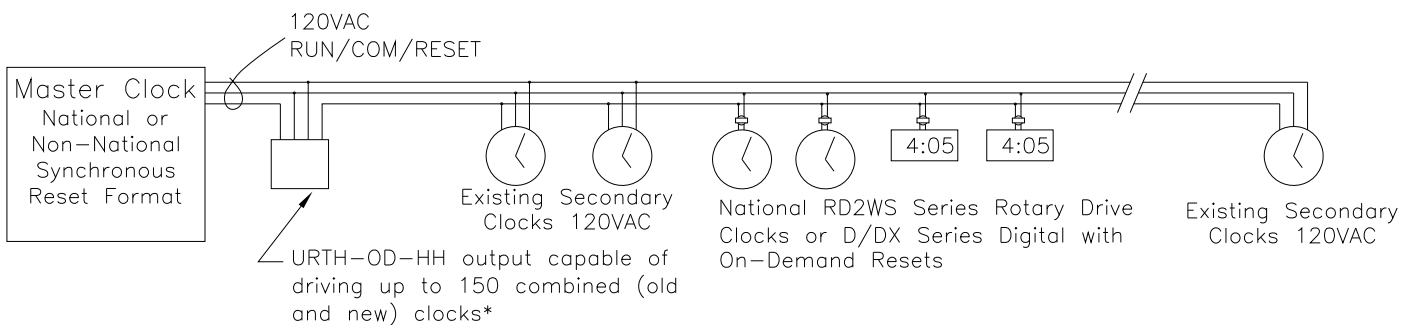


## URTH-OD-HH

The URTH-OD-HH module is a 'high output' version of the URT-OD-HH which offers even more versatility when updating old synchronous systems. The URTH-OD will allow the high-tech National On-Demand series of clocks to be added directly to existing system wires.

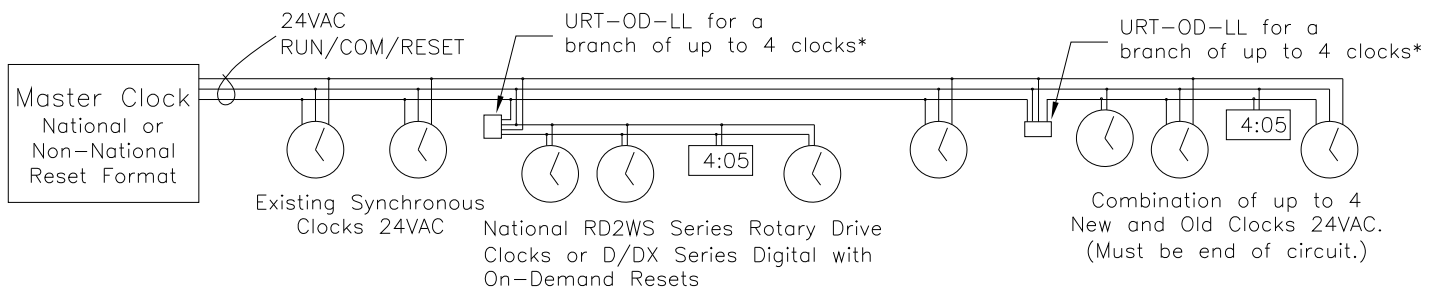
Existing synchronous clocks may be intermixed on the same wires and will operate as normal Through resets from the existing master clock. The URTH-OD will superimpose the time of day Data directly on the existing run power of the clock system. The increased performance of the On-Demand series clocks can be realized without replacing the existing master clock or existing synchronous clocks. The URTH-OD can be installed anywhere upstream of the National On-Demand clocks. These would include the RD-2WS series analog clocks as well as the 2.3" and 4" D and DX series digital clocks.

For systems with less than 150 clocks (or 5 Amps), the URTH-OD can be installed at the existing master clock location. After a power outage, the URTH-OD module will transmit time of day data to the National clocks which will adjust to the correct time within seconds on only two of the three existing wires. The URTH-OD will keep time during power outages for 10 days or more without batteries. During normal operation, the URTH-OD will synchronize the On-Demand clocks to the existing reset signals from the master clock. Many reset formats are automatically deciphered by the module without jumpers or dip switches. Refer to the compatibility listing Bulletin C-433 for supported formats. National's RD-3WS and DU Series digitals may also be used and share the existing 3-wires.



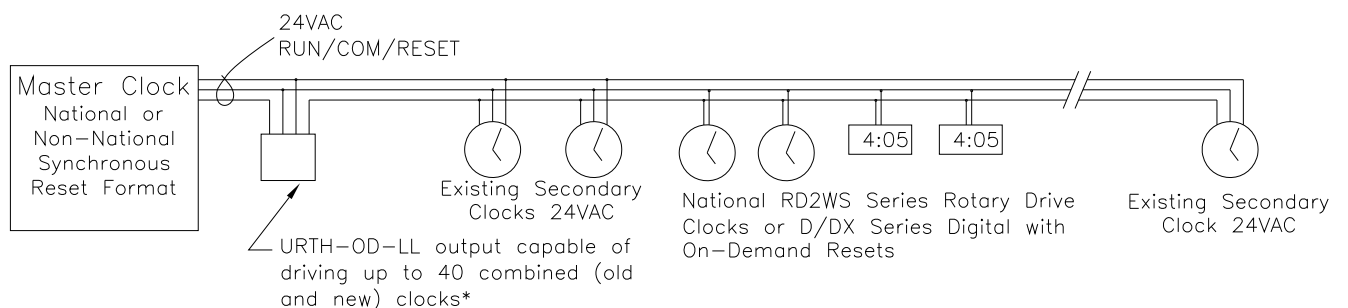
## URT-OD-LL

The URT-OD-LL module will allow the high-tech National On-Demand series of clocks to be added to an existing system. The increased performance of the On-Demand series clocks can be realized without replacing the existing master clock or existing 24VAC synchronous clocks. The small size of this module will allow mounting inside of an existing electrical box and can control up to four (0.5A) 2-wire National instant resetting clocks. These would include the RD-2WS series analog clocks as well as the 2.3" and 4" D and DX series digital clocks. After a power outage, the URT-OD module will transmit time of day data to the National clocks which will adjust to the correct time within seconds on only 2-wires. The URT-OD will keep time during power outages for 10 days or more without batteries. During normal operation, the URT-OD will synchronize its clocks to the existing synchronous resets from the master clock. Many reset formats are automatically deciphered by the module without jumpers or dip switches. Refer to the compatibility listing Bulletin C-433 for supported formats.



## URTH-OD-LL

The URTH-OD-LL module is a 'high output' version of the URT-OD-LL which offers even more versatility when updating old synchronous systems. The URTH-OD will allow the high-tech National On-Demand series of clocks to be added directly to existing system wires. Existing synchronous clocks may be intermixed on the same wires and will operate as normal through resets from the existing master clock. The URTH-OD will superimpose the time of day data directly on the existing run power of the clock system. The increased performance of the On-Demand series clocks can be realized without replacing the existing master clock or existing synchronous clocks. The URTH-OD can be installed anywhere upstream of the National On-Demand clocks. These would include the RD-2WS series analog clocks as well as the 2.3" and 4" D and DX series digital clocks. For circuits with less than 40 clocks (or 5 Amps), the URTH-OD can be installed at the existing master clock/power supply location. After a power outage, the URTH-OD module will transmit time of day data to the National clocks which will adjust to the correct time within seconds on only 2-wires. The URTH-OD will keep time during power outages for 10 days or more without batteries. During normal operation, the URTH-OD will synchronize the On-Demand clocks to the existing reset signals from the master clock. Many reset formats are automatically deciphered by the module without jumpers or dip switches. Refer to the compatibility listing Bulletin C-433 for supported formats.





## Specifications

### URT-EX-HH; URT-OD-HH

**Input Power Range:** 95-132VAC; 45mA @ 120VAC  
**Reset Input Range:** 3mA @ 95-132VAC  
**Output Voltage:** (Input Power Voltage -1)VAC  
**Output Power:** 0.5A @ 120VAC  
**Dimensions:** 2.75" x 2.0 x 0.8"

### URTH-EX-LL; URTH-OD-LL

**Input Power Range:** 16-28VAC; 50mA @ 24VAC  
**Reset Input Range:** 3mA @ 16-28VAC  
**Output Voltage:** (Input Power Voltage -1)VAC  
**Output Power:** 5A @ 120VAC  
**Dimensions:** 9" x 8" x 4"

### URT-EX-LL; URT-OD-LL

**Input Power Range:** 16-28VAC; 50Ma @ 24vac  
**Reset Input Range:** 3mA @ 16-28VAC  
**Output Voltage:** (Input Power Voltage -1) VAC  
**Output Power:** 0.5A @ 24VAC\*\*  
**Dimensions:** 2.75" x 2.0 x 0.8"

### URTH-EX-HH; URTH-OD-HH

**Input Power Range:** 95-132VAC; 45mA @ 120VAC  
**Reset Input Range:** 3mA @ 95-132 VAC  
**Output Voltage:** (Input Power Voltage-1)VAC  
**Output Power:** 5A @ 120VAC  
**Dimensions:** 9" x 8" x 4"

### PS-3-URT-OD

**Input Power Range:** 0.7A @ 120VAC (If fully loaded)  
**Reset Input Range:** 3mA @ 95-132VAC  
**Run Output:** (Input Power Voltage -1) VAC  
**Dimensions:** 9" x 8" x 4"

## Ordering

Order No.	Description
URT-EX-HH	Universal Reset Translator for National EX-HH Clocks 120VAC input/output; 0.5 Amp
URTH-EX-HH	Universal Reset Translator for National EX-HH Clocks 120VAC input/output; 5 Amp
URT-EX-LL	Universal Reset Translator for National EX-LL Clocks 24VAC input/output; 0.5 Amp
URTH-EX-LL	Universal Reset Translator for National EX-LL Clocks 24VAC input/output; 5 Amp
URT-OD-HH	Universal Reset Translator to On-Demand Resets; 120VAC input/output; 0.5 Amp
URTH-OD-HH	Universal Reset Translator to On-Demand Resets; 120VAC input/output; 5 Amp
URT-OD-LL	Universal Reset Translator to On-Demand Resets; 24VAC input/output; 0.5 Amp
URTH-OD-LL	Universal Reset Translator to On-Demand Resets; 24VAC input/output; 5 Amp
PS-3-URT-OD	Power Supply w/OD Reset Translator; 120VAC input, 3.12A 24VAC output.