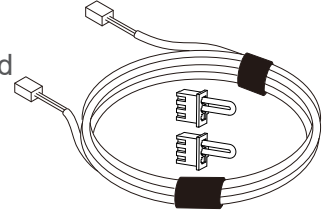


## Cascade cable connection 3 m (REU-CSA-C1)

### Suitable for:

- N-Series internal, and external continuous flow water heaters (connects 2-24 units)
- HD56kWe external continuous flow water heaters (connects 2-9 units)

With the use of the cascade cable connection(s), **up to 24** water heaters (N-Series), and **up to 9** water heaters (HD56) can be electronically connected, enabling all water heaters connected to modulate operation and function as one hot water source. The connection will rotate water heater operation to ensure equal usage, and balance the flow rate between units. If a water heater is faulty the electronic connection automatically removes the water heater from the sequence by closing the flow servo.



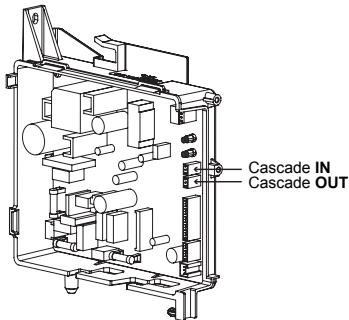
One cable is required for each water heater.

Each kit includes one cable, two cascade jumpers, two cable ties and two cable tie clamps.

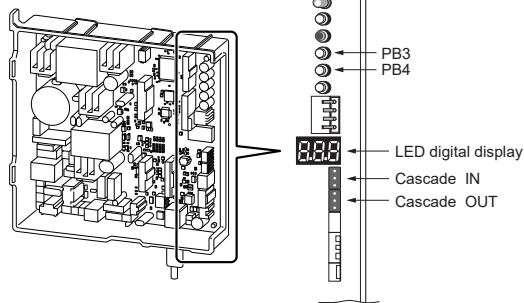
### Cascade cable assembly

1. Connect one end of the cascade cable to the cascade OUT accessory port on the PCB.
2. Connect the other end of the cascade cable to the cascade IN accessory port on the PCB of the next water heater.
3. Repeat steps 1 and 2 for each subsequent water heater in the system.
4. Connect the cascade jumper to the open accessory ports.
5. Follow the programming instructions on the next page.

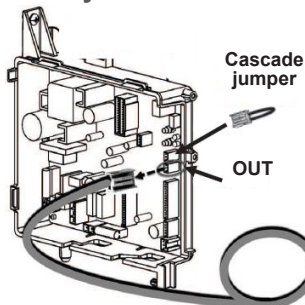
**N-Series PCB**



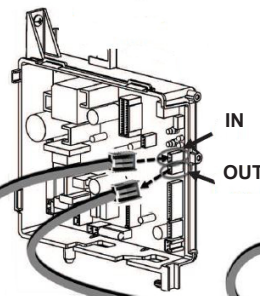
**HD56kWe PCB**



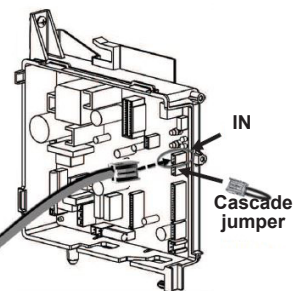
**N-Series example  
Primary PCB**



**Secondary 1 PCB**



**Secondary 2 PCB**



- For proper operation, do not combine different models with cascade communication.
- Do not install the cascade communication with a storage system.

## Cascade cable connection 3 m (REU-CSA-C1)



- MAKE SURE the power is on to all units before starting.
- MAKE SURE to refer to the correct model parameter settings below, they are different.

**Parameter settings:** Refer to the commissioning sheet for instructions on how to access and change the parameter settings.

Rinnai INFINITY N-Series									
Menu #	Menu description	Value							
		A	b	C	d	E	F	H	J
07	Cascades cable connection	Secondary (2-24)	Primary	N/A	N/A	N/A	N/A	N/A	N/A
08	Units in standby	1	2	3	4	5	6	N/A	N/A
Rinnai INFINITY HD56kWe external									
15	Cascades cable connection	Secondary (2-24)	Primary	N/A	N/A	N/A	N/A	N/A	N/A
16	Units in standby	1	2	3	4	5	6	N/A	N/A

### Cascade (all water heaters come set from the factory as secondary)

**Primary:** Select the primary water heater for the cascade communication. Set the parameter setting for this water heater to Primary (N-Series - 07b, HD56 - 15b). The LED / status monitor will display the set temperature for the system.

**Secondary:** As soon as one water heater is selected as primary, all other units will display a series of three dashes '---'. On all units displaying '---':

- N-Series: Push the On/Off button once
- HD56: Press and hold PB3 and PB4 at the same time for five seconds

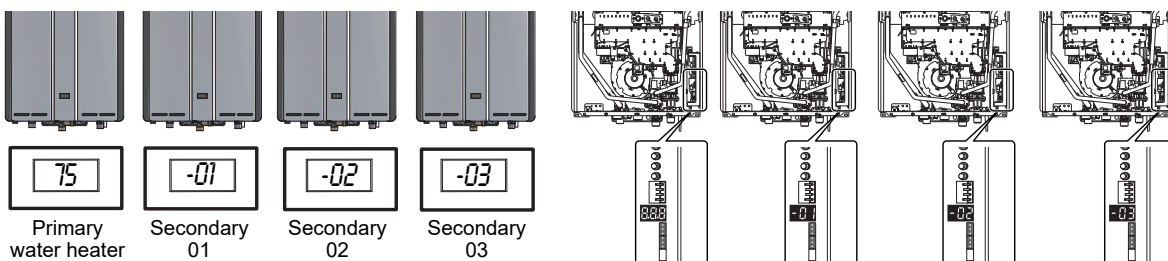
ID numbers will automatically be allocated and displayed, refer images below.

### Units in standby

08 (N-Series) or 16 (HD56) as a parameter setting is only available on the primary unit. Menu # 08 (N-Series) or menu # 16 (HD56) will not be available as a selection on units displaying a secondary ID.

A maximum of six water heaters can be in standby (or a ready-to-fire mode), meaning that the water flow control valves of the standby water heaters are open. These water heaters will fire immediately on initial water flow demand, allowing quicker response time when demand increases. When the water flow demand is determined, only the necessary number of water heaters will fire to meet demand. Water heaters not firing will close their valves.

Adjust the parameter setting of the primary unit to set the number of water heaters in standby\*. Standby units will maintain the operation with the water valve in the open position. The remaining water heaters will maintain the water flow control valve in the closed position.



\* For the majority of applications the number of units in standby would be set to 1 (N-Series: 08=A, HD56: 16=A). Higher numbers would only be set if there is a regular 'massive' initial demand requirement.