

## Merit LILIN Application Note

How does DB052E control devices via the IR control codes

**Document Number:** A00300

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**Dept:** Technical Support, Taipei

**Subject:** How does DB052E control devices via the IR control codes

### Requirement:

1. DB052E (FW v1.0.200.1033 or above) with an IR receiver and a sender.
2. Device with IR remote controller.
3. PC.

**Description:** We use a LILIN NVR5416 for an example. Show you how a DB052E controls a IR device via the device's IR control codes.

Record an IR code at DB052E sent by a NVR

**Step #1. Insert an IR receiver into IR IN port and an IR sender into IR OUT port.**



**DB052E**




**Notice:** Place IR sender close to the controlled IR receiving device.

**Step #2. Log in DB052E by the browser (the default IP address is 192.168.0.200).**

**Step #3. Create a username and a password for DB052E.**

**Step #4. Press the button of the IR remote control.**

1. Take one NVR IR remote controller as an example.
2. Press  button pointing to the IR receiver of the DB052E. The IR code will be shown on the browser of DB052E.



**LILIN**
Setting | Log Out

Digital Input		1	2	3	4	5	6	7	8
Value									
		0	0	0	0	0	0	0	0
		9	10	11	12	13	14	15	16
		0	0	0	0	0	0	0	0

Virtual Input		1	2	3	4	5	6	7	8
Value									
		0	0	0	0	0	0	0	0
		9	10	11	12	13	14	15	16
		0	0	0	0	0	0	0	0

Global Counter		1	2	3	4	5	6	7	8
Value		007	007	007	007	007	007	007	007
		0	0	0	0	0	0	0	0
		9	10	11	12	13	14	15	16
		007	007	007	007	007	007	007	007
		0	0	0	0	0	0	0	0

IR Remote		1
Value		
		33429480

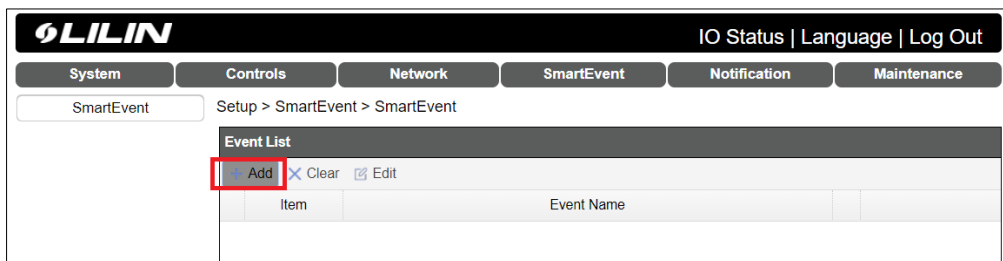
  

Metadata		1	2	3	4	5	6	7	8
Value		...	...	...	...	...	...	...	...

3. Write down this IR code at IR Remote field.
4. Repeat step #2~#3 until getting all function codes that you need.

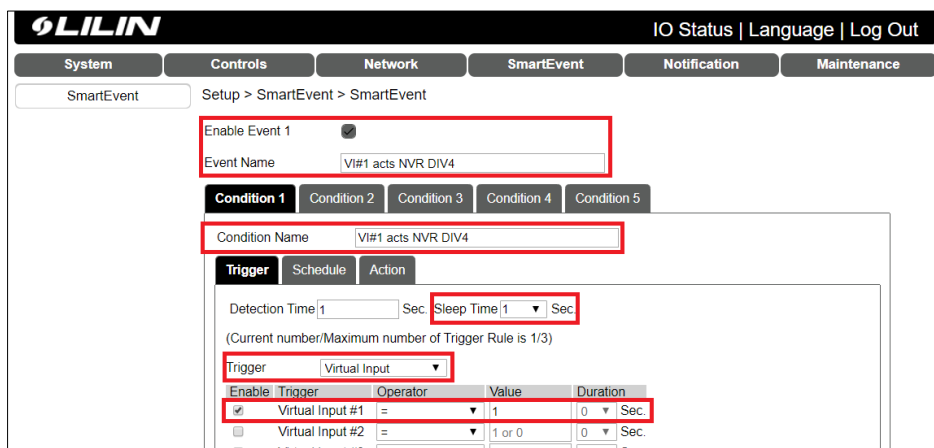
Send an IR code at DB052E to a NVR

1. Go to Setup > SmartEvent and Add an event.



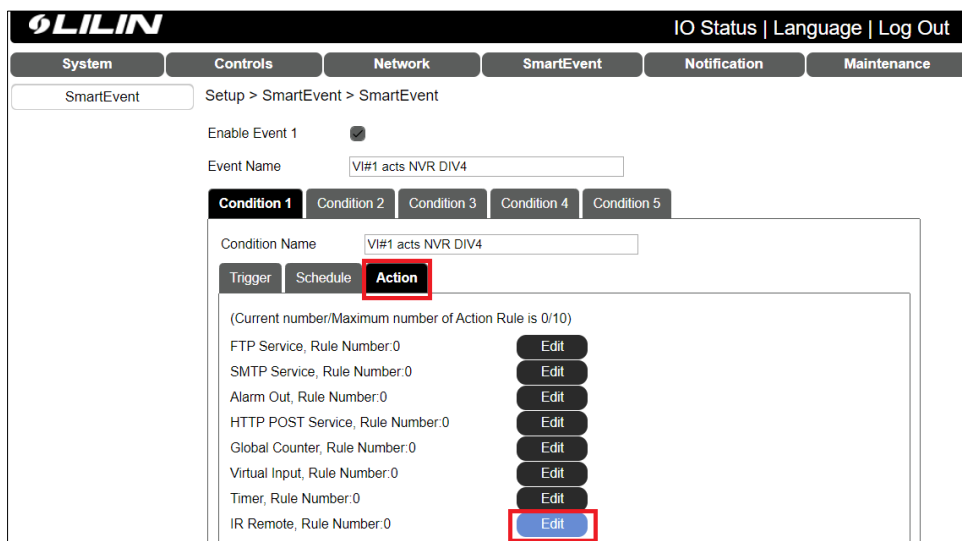
The screenshot shows the LILIN web interface. At the top, there's a navigation bar with 'IO Status | Language | Log Out'. Below it, a menu bar contains 'System', 'Controls', 'Network', 'SmartEvent', 'Notification', and 'Maintenance'. The 'SmartEvent' menu is selected, showing a breadcrumb 'Setup > SmartEvent > SmartEvent'. The main area is titled 'Event List' and contains an 'Add' button (highlighted with a red box), a 'Clear' button, and an 'Edit' button. Below these buttons is a table with columns 'Item' and 'Event Name'.

2. Set if the virtual input #1 gets triggered. Make the NVR switch to division 4.



The screenshot shows the LILIN web interface with the 'SmartEvent' setup page. The 'Add' button is highlighted with a red box. Below it, the 'Event Name' field is set to 'Vi#1 acts NVR DIV4'. The 'Condition 1' tab is selected, and the 'Condition Name' field is also set to 'Vi#1 acts NVR DIV4'. The 'Trigger' tab is active, showing a table with columns 'Enable', 'Trigger', 'Operator', 'Value', and 'Duration'. The first row is highlighted with a red box, showing 'Virtual Input #1' with an equals sign operator and a value of '1'. The 'Sleep Time' dropdown is set to '1' second.

Press  button pointing to the IR receiver. You will see its IR code on the browser of DB0522.



The screenshot shows the LILIN web interface with the 'SmartEvent' setup page. The 'Action' tab is selected, showing a list of actions with their respective rule numbers. The 'Edit' button for the 'IR Remote, Rule Number:0' is highlighted with a red box. The 'Trigger' and 'Schedule' tabs are also visible.

4. **IO Status**
Language | Log Out

System
Controls
Network
SmartEvent
Notification
Maintenance

SmartEvent
Setup > SmartEvent > SmartEvent

Enable Event 1 ☒

Event Name
VI#1 acts NVR DIV4

Condition 1
Condition 2
Condition 3
Condition 4
Condition 5

Condition Name
VI#1 acts NVR DIV4

Trigger
Schedule
**Action**

IR Remote
Operator
Set Value
Incremental Value
33429480
Add
Delete
Back

**Action 1**
Enable Action IR Remote
Operator is Set Value
Incremental Value is 33429480

3. **Save the event.**
Cancel

#### Step #5. Trigger the virtual inputs to send the IR function codes.

1. Click the virtual input #1 button twice, then the NVR will automatically switch to division 4.

[Setting](#) | [Log Out](#)

Digital Input								
	1	2	3	4	5	6	7	8
Value	0	0	0	0	0	0	0	0
	9	10	11	12	13	14	15	16
Value	0	0	0	0	0	0	0	0

Virtual Input								
	1	2	3	4	5	6	7	8
Value	1	0	0	0	0	0	0	0
	9	10	11	12	13	14	15	16
Value	0	0	0	0	0	0	0	0

Global Counter								
	1	2	3	4	5	6	7	8
Value	007	007	007	007	007	007	007	007
	0	0	0	0	0	0	0	0

Contact [lilin.zendesk.com](https://lilin.zendesk.com) for technical support.

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