



### List of Acronyms, Abbreviations, and Definitions

Term	Definition
CU	Control Unit – the receiver/control device in a conference system.
DU	Discussion Unit – the transmitter/microphone device in a conference system.
Unit	Unless otherwise specified, refers to the discussion unit, aka, microphone units
	in a conference system.

### 1. Before Starting

- 1.1. Prepare the following
  - 1 \* Router
  - 1 \* Ethernet cable (or 2 if configured via wired connection)
  - 1 \* Computer
  - Camera(s) (RS-485 compatible)
  - Signal cable(s) between camera(s) and control unit (the crystal head on the control unit side uses Pins 1,2,6, refer to your camera manual in regards to the camera pinouts)



Camera Control Schematic

Wiring Diagram

1.2. Power up the router and DG-U100 control unit. Configure the channel frequencies, address code, and 315 antenna communication frequency.

### 2. Software Installation

2.1. Copy the Takstar DG-U100 software package to your computer or download it via our website at:

https://icn.takstar.com/upload/downloadFile/DG-U100%E5%B1%80%E5%9F%9F%E7%B D%91%E8%BD%AF%E4%BB%B6.ZIP

2.2. Extract the zip file, find the setup.exe inside extracted folder, double-click it to install.

Name	Date modified	Туре	Size	
DotNetFX40Client	7/25/2022 10:22 AM	File folder		
WindowsInstaller3_1	7/25/2022 10:22 AM	File folder		
🔂 setup.exe 🚽	7/23/2022 10:30 PM	Application	418 KB	
wireless conference Setup(ENG).msi	7/23/2022 10:30 PM	Windows Installer	1,478 KB	

### 3. Network Connection

- 3.1. Connect the ETHERNET port on the CU to the LAN port on the router using an ethernet cable. And if the LINK LED on the CU glows red, it means that both devices are connected successfully.
- 3.2. Connect your computer to the router via Wi-Fi network or wired connection (via router LAN port), and enable the network interface.



### 4. Software Login

- 4.1. Once the connection is ready, open the Takstar DG-U100 wireless conference system app. Here you will see two login methods.
  - a. Regular login: for regular users (see *Section 7*); usable only after registering the control unit through Password login.

Note: First-time user should perform Password login beforehand.

b. Password login: for engineering installation. Password is required (default: 88888888)

Login Management		×
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	Password management	
Time before auto login	type password	
26		
88888888	Device port 8234	
Regular login	Password login <b>¢</b> 文	

Hit Enter and input password again to confirm. (Default: 888888888)

Cogin Management	CTOD <sup>®</sup> 担胜
	Password management
Time before auto login	retype password ********
	Device port 8234_
Regular login	Fassword login 中文

To change password, click [Reset password] to change. (Need to input the new password twice again and click [Reset password] to change.)

Eugin Management	
ТЛК	STAR°得胜
	Password management
Time before auto login	type password ******
-	retype password *******
30	Reset password
	Device port 8234_
Regular login	Password login 中文

Note: After clicking [Password login], the below screen will appear if your

computer has multiple network interfaces. Please choose the correct network interface in use so that you can discover the control unit IP after login.

ъŧ	Select Network Adapter	×
	Network Adapter list	
	Realtek PCIs GBE Family Control Intel(R) Dual Band Wireless-AC	

4.2. Device port number is automatically generated by computer and does not have to be changed. Click [Password login] to start configuration.

### 5. Device Management

After logging in with password, you will enter the Device Management page where the selected network interface name is shown. The device list, device information, receiver channel management, discussion unit management and camera management are only available after choosing a relevant control unit IP.

#### 5.1. Search Device

Click [Search device] and select the IP of the control unit to be configured from the Device list.

Wireless Conference System	- 0 ×	Wireless Conference System	- 🗆 X
Floor Control Device Management		Floor Control Device Management	
Network adapter		Network adapter	
Realtak 00228E Wireless LAN 002.11a		Realtek 68223E Wireless LAN 802.114	ration.
Device list Search device Receiver Manage	Channel ment	Device list Search device	Receiver Channel Management
Selected device		Selected device	
Device ID Discussion Manage	on Unit ment	Device ID	Discussion Unit Management
Device name Regist device		Device name Regist device	
Perice IP Came Manage	ra ment	Device IP	Camera Management
Device HDC		Device MAC	

Note:

- A. If the drop-down list does not show any control unit IP after clicking [Search device], it is likely that the correct network interface is not chosen after login. Please exit the software, log in again by password and select the correct network interface.
- B. If multiple control units are used, there will be multiple IP addresses. The control unit IP can be set on CU in two methods:
  - 1) Static IP (uncheck DHCP): manually set unique IP on each control unit.
  - 2) Dynamic IP (check DHCP): allow control unit to automatically assign IP when multiple CUs are used in the same LAN.

### 5.2. Register Device

Select the CU IP for configuration, and the below screen will appear, showing the device ID, device name, IP address and MAC address. Now you can also perform receiver channel/discussion unit/camera management functions which are no longer greyed out.



Change the Device ID (if necessary), click [Register device] and click [OK] to register.

Wereless Conference System – – × Register notice Response Finders East Product State Sta	Writess Conference System     -     ×     Register notice       Flarer Cartely territes Rescenant     -     ×     Register notice       Redict OFCER Writes LM 000 116     -     -     ×       Brite Status OFCER Writes LM 000 116     -     -     -       Brite Status OFCER Writes LM 000 116     -     -     -       Brite Status OFCER Writes LM 000 116     -     -     -	Weekes Conference System – – × Rec Custral Barrier Massemant Satural Adaptor Receiver Channel 192: 106.1:10 Satural Advisor Satural Advi	Writess Conference System     -     ×       Flare Carly     Fries Respendence     Register notice       Starts August     Each computer can only register one device,     Each computer can only register one device,       Starts August     Management     Each computer can only register one device,       Starts August     Discussion Unit     Management	Writess Conference System     -     ×       Faire Canada     Register notice       Faire Canada     Receiver Channel       Brites 1100     Receiver Channel       Scherted derice     Discussion Unit       Brites and     Discussion Unit       Brites and     Discussion Unit	Writess Conference System     -     ×       Firer Castral, Brrier Massgewatt     Register notice       Kentral Advice     Each computer can only register one device,       Mine Lab. 100     Discussion Unit       Brrier Base     Discussion Unit       Brrier ame     Discussion Unit       Brrier ame     Camera       Management     Management			
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Note: Verify registration by doing a Regular login. A successful Regular login indicates that the device is successfully registered.

### 5.3. Receiver Channel Management

Click [Receiver Channel Management] to enter the following page.



Select [Receiver Channel Management]

57	Receiver Channe	el Managen	nent						3							×
6	Select CH	EQ operat	ion													
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	Delegate 🔾	31	SQ [		Echo 🗌	] 23	÷	57mS	Ex (	oite 🗌	1	2	harmon1 cs	0	0	35 ÷

**Channel Management Interface** 

① Select CH: select any of the four channels (A, B, C, D) for configuration.

2 Select priority: set the priority of the currently selected channel, including Chairman, Guest, and Delegate.

(3) EQ settings: a total of 15 EQ points adjustable, adjustment range: -12dB~12dB.

(4) Enable EQ: check/uncheck the checkbox to enable/disable EQ; used to compare before-and-after sound effects. [Reset EQ] to set all EQ settings to default zeros.

(5) Copy EQ to: copy the EQ settings of the current channel to one of the other three channels.

(6) Copy EQ from: copy the EQ settings from one of the other three channels to the current channel.

⑦ VOL: controls the input volume level of the currently selected channel, range: 0~31.

8 SQ: check/uncheck to enable/disable squelch function which prevents feedback.

(9) Echo: check to enable and adjust Echo VOL and Echo delay. Echo VOL: 0~25; Echo delay: 22ms~197ms.

(10) Excite: check/uncheck to enable/disable exciter, which is mainly used to beautify sound and improve clarity. Odd harmonics:  $0^{-6}$ ; Even harmonics:  $0^{-6}$ .

(1) Master VOL: the master output volume of all four channels, A, B, C, D.

Note: In this step, we only have to select a corresponding channel and set its priority, and the other settings such as EQ, input/output volume can be adjusted later as required by live test after syncing discussion units. Close this page to proceed to the next step.

### 5.4. Discussion Unit Management

Click [Discussion Unit Management] to enter respective page where you can manage and sync discussion units.



ᄙ Discussion Unit	Management	×
© Select Unit ID	Unit operation Regist /	]
Priority Delegate	SYN 6 +	
Conference mode FIFO () No DLGT ()	3 Adjust all unit gains 3	

Select [Discussion Unit Management]

**Discussion Unit Management Interface** 

① Select unit ID: select the ID of the unit that requires syncing.

(2) Priority: displays the priority level of the currently selected unit.

③ Conference mode: check to enable FIFO (First-In-First-Out) or No DLGT (No Delegate) mode.

(4) Register: check/uncheck to enable/disable the selected unit.

(5) Sync channel for selected unit: cannot be selected if the current DU is chairman/guest; subject to receiver channel priority setting.

6 Sync: follow below steps for syncing.

After selecting the Unit ID and Conference mode, power up the DU, and click [Sync] to start pairing. At this time, the indicator of the CU IR window flashes. Align the IR windows between the DU and CU until the LED indicator stops flashing and the signal

meter on CU channel is full, while the audio signal meter, 315 signal meter and effective signal meter are full on DU, as shown below.

A
TIIIII 🚥
ଏ SYN
640.00MHz
Vol:31
Chairman11
Active (3) 1

TALKING	DLGT	NONE	
75. IN	MEET	ING	
	Teraa ee		-71

CU LCD Channel Display

DU LCD Display

After syncing, adjust unit gain as appropriate and go back to Receiver Channel Management page to adjust EQ settings if necessary. Once finished, it's recommended to shut down the unit before syncing another.

### Note:

- A. All delegate units can be synced on the same channel. Subject to FIFO conference mode influence, delegate units will not be fixed to one channel, but will use the spare channels other than Chairman and Guest channels alternately.
- B. Channels that are set to Chairman or Guest priority will have their channel IDs automatically generated and will be totally occupied. By system default, the ABCD channel corresponds to Chairman #11~14 or Guest #1~4.
- C. The Register checkbox determines whether the unit ID is enabled. You cannot perform syncing if it is disabled. For Delegate #21~100, it needs to be manually selected and checked, while for Chairman #11~14 and Guest #1~4, it is checked by default.

(7) Adjust unit gain: controls the gain of the currently selected unit; range: 0~15.

(8) Cam ID: shows the ID of the camera that's linked to the currently selected unit. If not linked to any, \* is shown instead.

(9) Adjust all unit gains: controls the gains of all numbered units centrally, which should be adjusted appropriately based on application. Range: 0~15

### 5.5. Camera Management

Click [Camera Management] to start linking cameras to discussion units.

	Camera Management				
	Conserts Strong         28         38         48         58         68         72           1         15         0         Pal-9         Pal-9 <td< th=""><th>Pal_D Pal_P Sony Flip</th></td<>	Pal_D Pal_P Sony Flip			
	Tracking Select unit 11     Bond to 1     Select camera     Camera operation	1 ~			
🖸 Wireless Conference System - 🗆 🗙	8 Baud rate 9600				
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Device 10 100 Discussion Unit Borice American Borice A	Unbind to unit Vide Zoom Track to unit Unbind to unit Unbind to unit Unbind to unit Unbind to unit Unbind to unit				
Brrier 27 10:0:1:00 Derier BC 54:02:16:4:40:0:12	Set current position as default	89%			

Select [Camera Management]

**Camera Management Interface** 

#### 5.5.1. Camera Settings

① Camera ID: check/uncheck to enable/disable the corresponding camera.

(2) Camera protocol: this device supports three camera protocols, namely Pel-D,

Pel-P, Sony; choose the protocol appropriate to your camera specifications.

(3) Flip: check/uncheck to enable/disable flipped camera image. Depends on the placement of the camera.

(4) Tracking: check/uncheck to enable/disable camera tracking; when linking a camera, the first step is to enable this function, otherwise other operations cannot be performed.

(5) Select unit: select the unit that needs to link to a camera.

(6) Bond to: this shows the ID of the camera (1~7) currently linked to the selected unit at (5). If not linked to any, \* is shown instead.

Select camera: select the ID of the camera you need to link to, optional among 1~7.

Note:

Camera Setup					
1# 🗹	3#	4#	5#	6#	7#

- A. #1~7 under Camera settings correspond to the ID number set on the camera. Takstar wireless conference system supports linking up to 7 cameras at the same time (including multi-CU system)
- B. When camera tracking is enabled, only one delegate unit is allowed to speak. Therefore, please turn off the tracking function when the camera is not in use.
   Please restart the CU after the above operations are completed.

#### 5.5.2. Camera Operation

8 Baud rate 9600: system default.

(9) Speed: the horizontal and vertical speed percentage of camera rotation; range: 0%-91%.

(1) Camera direction adjustment and zeroing button:

Long-press [Up/Down/Left/Right] to adjust the camera angle; short-press [Zero] to return the camera to 0 coordinates.

(1) Zoom (Out/In): controls the focal length of the camera.

(12) Bind to unit: press this button to link the camera to the selected unit and synchronize the position information to CU.

The specific operations are as follows:

A. According to the operating instructions at the bottom of the purchased camera, flip the dial switch to correct position (with the baud rate set to 9600, and the interface protocol set to support RS-485).

Notice: Flip the dial switch when the camera is not powered on.

- B. Power up the camera, check the protocols supported by the camera through the camera output screen, and set the camera ID number and baud rate (9600).
- C. Connect the camera and CU, insert one end of the signal cable into the RS-485 port of the CU, and connect the other end to the camera (see picture on the right)



D. In management software, check and enable [Tracking] and the camera ID (the same camera ID set above), select the

corresponding protocol of the camera, the baud rate (9600, software default), and then select the unit ID and the camera ID to be linked together.

- E. Based on image output, adjust the angle of the camera (long-press [Up/Down/Left/Right]) and focal length, as well as the camera rotation speed if necessary.
- F. After the camera orientation is set, click [Bind to unit] to store the position information into the CU. At this time, the POWER LED of the camera will flash. Try rotating the camera to another direction and press the TALK button on the DU, the camera should rotate to its initial set position, indicating that the camera is successfully linked.

(13) Unbind to unit

This function can only be used when a unit with a linked camera is selected. Otherwise, this button is greyed out and cannot be used. Click to unbind the unit from the camera.

(14) Track to unit

Applicable only when a unit with a linked camera is selected. Click to rotate the camera towards the position of the selected unit.

(15) Set current position as default

Applicable only after a camera is selected, this function sets the initial position of the camera after the CU is turned on.

### 6. Floor Control

려 Wirele	ss Confere	ence System			-		×
Floor Co	ontrol De	vice Management					
A	1 Trequency 640. OMDHz	2 RSSI	3 Priority Chai	4 Active 11	5 Camera ID 1	6 Interrupt	
B 6	requency 52.500MHz	RSSI Battery	Priority	Active	Camera ID	Interrupt	:
C [	requency 665.0MMz	RSSI Battery	Priority	Active	Camera ID	Interrupt	:
D 6	requency 77.500MHz	RSSI Battery 8	Priority	Active	Camera ID	Interrupt	:
ID	101 Nam	e DG-V100	IP 192.	168.1.100	Tracking 🗹	Search	

#### Floor Control Interface

(1) Frequency: displays the channel and the frequency set by the channel.

(2) RSSI/Battery: displays the signal strength and battery power of the unit occupying the channel.

③ Priority: displays the priority of the unit occupying the channel.

(4) Active: displays the ID of the unit occupying the channel.

(5) Camera ID: displays the camera linked to the active unit, and displays \* if no camera is linked.

(6) Interrupt: applicable only if the priority of the channel is set as Delegate.

(7) ID: displays the ID of the CU selected in Device list under Device Management (if you want to monitor other CU in a multi-CU system, please select the target CU IP address in the Device list under Device Management, and then return to this page).

8 Name: displays the name of the monitored CU.

(9) IP: displays the IP address of the monitored CU.

(1) Tracking: shows whether camera tracking function of the CU is enabled. Checked means enabled.

(1) Search: refresh ABCD channel information.

### 7. Regular Login

Regular login can only be used after device registration. Refer to *Section 5.2* for details.

🕶 Login Management	X	<u>84</u>	Wire	eless Conference System			-	×
ТЛК	STAR <sup>®</sup> 得胜	Ĩ	A	Control Frequency BSSI	Priority	Active	Camera ID	Interrupt
Time before auto login	Password management		в	Frequency ESSI 652.500Mfz Battery	Priority	Active	Canera ID	Interrupt
28			с	Frequency RSSI 665.0MDfr Battery	Priority	Active	Camera ID	Interrupt
Paral and India	Device port 8234		D	Frequency RSSI 677.500004z Battery	Priority	Active	Camera ID	Interrupt
Negular login	ΨX		ID	101 Name DG-U100	IP 192	. 168. 1. 100	Tracking 🗹	Search

Regular login

Floor Control Interface

Users can perform regular login by directly clicking the [Regular login] button or by waiting 30s to be automatically logged in. Regular login only provides Floor Control function. If the CU is not registered, the software will exit in 30s.