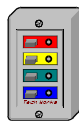


Tech Works “Light-Call” Visual Communication Firmware Selection

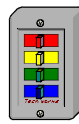
How to determine the system functionality by picking the right firmware.

The hardware in this product is interchangeable
So the functions are in the Firmware

Smart Substations – (Tone Optional)



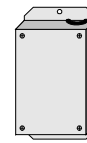
5210B



5220B



5230



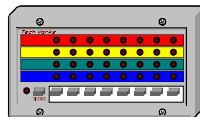
5250

Hardware suffixes that are common among various Smart Substations:

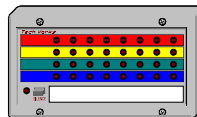
“S” – “Screw Terminals”

“T” – “Tone”

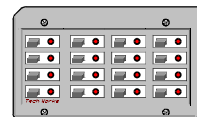
Master Stations – (Tone Standard but can be disabled)



5200B



5201B



5260

The firmware that determines the functions -
Available Firmware Options:

“CC” – “Clinic-Call”

“DC” – “Duress-Call”

“LC” – “Light-Call”

“PA” - “Patient Arrival”

“ZL” – “Zone Light”

“CC” – “Clinic-Call” – Application -

This is our multifunction software for outpatient medical office applications. Clinic-Call was design specifically for “Room Status” communication to indicate What is going on in each exam room and where staff is and if they need assistance. Colors are typically used to indicate a staff member or function. The software allows a single button to change the status of a light by how many times it is pushed. Each device with this suffix features a status light that has four different functions; “*Steady*”, “*Slow Flash*”, “*Fast Flash*”, and “*Off*”. Either the push of a button or the monitoring of “*Next Patient*” by a “*Doctor Follow*” Master controls each Light Status. In this way a color such as Yellow can indicate that a Patient is in a room waiting for Doctor Yellow if the light is On. When the Doctor enters and presses that button it changes to “*Fast Flashing*” indicating to staff that he or she is with the patient. When they are done they can press the button turning the light “*Off*” to indicate that the room is available or press another color to let another staff member know that they are needed in this room.

When CC is installed on a Substation –

Available on Models: 5210, 5220

Standard “CC” –

Each Substation has a “S” – “Software” option switch.

When the “S” switch is “Down” the buttons function as:

- a) First press – Solid Light
- b) Second press –Fast Flash Light
- c) Third press – Extinguish Light

When the “S” switch is “Up” the top button (Red) functions as:

- a) First press – Fast Flashing Light
- b) Second press – Extinguish Light

All other buttons function (Yellow, Green, and White) function as:

- d) First press – Solid Light
- e) Second press –Fast Flash Light
- f) Third press – Extinguish Light

The function of the top Light / Button depends on a dipswitch setting. When the substation dipswitch is set to the “Down” position all buttons function the same. With the dipswitch “Up”, the top button sends a “*Fast Flash*” on the first push which is used to summon Help to that room. A second push turns the Top Light “*Off*”.

Special Order “CC” Substation Options –

“CCR” - Some wanted it backwards so we **Reversed** it:

- a) First press – Fast Flash Light
- b) Second press – Solid Light
- c) Third press – Extinguish Light

“CCE” – And then some wanted it **Expanded** so the “Slow Flash” function is a button push:

- a) First press – Solid Light
- b) Second press – Slow Flash Light
- c) Third press – Fast Flash Light
- d) Fourth press – Extinguish Light

“PT” – “Patient Timer” –

This is an option only on the 5210 and effects the function of the bottom button only. All other buttons and dipswitches function as a standard Clinic-Call substation described above. Pressing the bottom button allows a count down timer to tell staff when a period of time has past. Originally this was designed for Ophthalmology clinics where the provider would put dilation drops in a patient’s eyes and when the timer expires, a flashing message is sent to the annunciator indicating that the patient is ready for examination. Many other applications have been discovered where a count down timer is required. This feature is on the bottom button and has a corresponding “*Slow Flash*” while it counts down. The count down period is 5 minutes for each push of the button so if you want to count down for 10 minutes, you push the button twice. At the end of the count down period a “*Fast Flash*” message is displayed and sent to the network. To cancel the timer and stop the “*Slow Flashing*” simply hold down the corresponding button and the light will change to “*Off*”.

When CC is installed on a Master Station –

Available on Models: 5200, 5201

The 5200 have a row of buttons across the bottom, one below each column. Pressing this button will clear all pending calls from that substation address. Both the 5200 and the 5201 have a “*Silence*” button, which stops the tone on that unit only.

Standard “CC” - In a Master Station - Clinic-Call software is our “Quiet” product. The only tone that sounds is associated with the top or “Red” row of lights and is a repeating tone when a top row light is “Fast Flashing”. Each column of lights represents an Exam Room Status by displaying the Red, Yellow, Green, and White lights from each room.

Special Order “CC” Master Options –

“DF” – “Doctor Follow” –

These Master Stations monitor the sequence of button pushes in a horizontal row. Each doctor is assigned a color, the Master indicates to the doctor which patient is to be seen next. For example, if 3 yellow lights are on in a row that indicates there are 3 patients in 3 different rooms for Doctor “Yellow”. The first one to have been turned on is changed to a “*Slow Flash*” to indicate that is the “Next” patient for Doctor “Yellow”. When that yellow light is turned “Off” the “Next” yellow light to have been push will start slow flashing.

Pressing the corresponding button on the exam room status station 5210 activates these lights on the Master. If it is desirable to change the priority level of an exam room, or which one is next, simply push the corresponding exam room status button twice within 5 seconds (double push) and that room will become the next patient for that color. By double pressing any button that station of that color will automatically start slow flashing or become “Next”. All other sequencing remains unchanged. Only the station that is double pressed moves to the top of the queue

“DDF” – “Dual Doctor Follow” –

This product is the same as the Doctor Follow Master, but designed for clinics where a group of providers is assigned to a group of only 4 exam rooms. The Master is split in half so that the first or left most four columns keep track of who is next in one of the first four rooms and the second or right most four columns keeps track of who is next in the last four rooms. This allows full tracking of more groups while employing less Masters.

Up to 16 Groups of 4 Exam Rooms can be tracked at one time on a single network.

“EDF” – “Expanded Doctor Follow” –

Expanded Doctor Follow is for the clinic where a group of providers covers more than 8 exam rooms. With this software the “Next” feature covers two Masters or sixteen columns representing sixteen exam rooms. The first Master in address sequence tracks the eight columns it displays plus the next eight addresses. This means that Master 3 will track the 8 rooms on it plus the “Next” rooms of Master 4 for a total of sixteen rooms.

Up to 4 Groups of 16 Exam Rooms can be tracked at one time on a single network.

“DC” – “Duress-Call” – Application -

This is our Emergency Call software designed for applications such as cash cages, mental health counselors, or courtrooms where a stressful situation requires a silent alarm call for assistance in dealing with people that are out of control or in great danger. The key to this software is that there is always an intelligent Substation that originates a call from a button push or other contact closure and an intelligent Master station that responds to the call.

For example in a Courtroom the Judge, Clerk, and Bailiff will all have a hidden button with a call assurance light. If something goes wrong anyone or all of them can push their button. No matter how many times the button is pushed the light on the Button and all Substations and Masters associated with that button keep flashing. When the Master in the Marshall's Office starts flashing it also starts beeping. By pressing a button associated with the *“Flashing Light”* the Marshal changes the light from *“Flashing”* to *“On Steady”* and silences the beeping tone. This also changes the other associated lights on all Substations and the Button that originated the call to *“On Steady”*. Once the problem is addressed and the Marshalls are sure that danger is passed they can turn out the light by pressing the Button that originated the call.

The same sequence of operation applies to other applications such as mental health counselors, cash cages, or any time someone might need to secretly summon help.

When DC is installed on a Substation –

Available on Models: 5220, 5230, 5250

A contact closure, such as a 5131 Hold Up Button, connected to the intelligent Substation such as a 5220B-DCS, would place a *“Fast Flashing”* call to a Master station, such as a 5260-DC. No matter how many times the hold up button is pushed the light on the 5131 Button and the 5220B-DCS and the 5260-DC all keep flashing. The light can only be turned *“Off”* after it has been *“Acknowledged”* by a Master. Once a Master has changed a light to *“On Steady”* pressing the button which originated the call will turn the light *“Off”*.

When DC is installed on a Master Station –

Available on Models: 5200, 5201, 5210 (Mini Master, All White Faceplate), 5260

The Masters have a tone generator included, which sounds a repeating tone as long as any light is *“Fast Flashing”*. By pressing the button on the Master next to the flashing light, the light will change to *“Steady”* and will silence the tone. The corresponding lights on the Substation and the Button that originated the call will also change to *“Steady”* indicating that someone has *“Acknowledged”* the call for help and is on the way.

Once the situation is resolved and the crisis over, the originating Button is pressed changing all lights associated with this call to *“Off”*.

“LC” – “Light-Call” – Application -

This is our flagship product, which is a simple Light “On” Light “Off” Visual Only communication system designed to be a simple cost effective nurse call system for nursing homes, small hospitals, and day surgery units. This product is also used as a Doctor Register or any other application where simple visual communication is required. When coupled to the 5400 it can be used to activate other systems such as pocket pagers by simply pressing a button.

When LC is installed on a Substation –

Available on Models: 5210, 5220, 5230, 5250, 5260

Standard “LC” –

Light Call products are normally open momentary contact inputs by default.

When order on a 5210 (5210-LC) only the top button or Red is effected by the “S” dipswitch.

Each Substation has a “S” – “Software” option switch.

When the “S” switch is “Down” all buttons function as:

- a) First press – Solid Light
- b) Second press – Extinguish Light

When the “S” switch is “Up” the top (Red) button functions as:

- a) First press – Fast Flashing Light
- b) Second press – Extinguish Light

All other buttons (Yellow, Green, and White) function as:

- a) First press – Solid Light
- b) Second press – Extinguish Light

When order on a 5220, 5230, 5250, or 5260 all buttons are effected by the “S” dipswitch.

Each Substation has a “S” – “Software” option switch.

When the “S” switch is “Down” all buttons function as:

- a) First press – Solid Light
- b) Second press – Extinguish Light

When the “S” switch is “Up” all buttons function as:

- a) First press – Fast Flashing Light
- b) Second press – Extinguish Light

Special Order “LC” Options –

“**LCSMK**” – This is for the guys that do nursing homes and want to monitor a **Smoke Detector**.

Available on Models: 5230, 5250

Input #1 – Maintained contact can be set for NO or NC and sends a Fast Flash (Smoke Detector by others).

Each Substation has a “S” – “Software” option switch which effects the Input #1:

When the “S” switch is “Down” the buttons function as Normally Open:

- a) Switch transition from “Open” to “Closed” – Fast Flashing Light
- b) Switch transition from “Closed” to “Open” – Extinguish Light

When the “S” switch is “Up” the buttons function as Normally Closed:

- a) Switch transition from “Closed” to “Open” – Fast Flashing Light
- b) Switch transition from “Open” to “Closed” – Extinguish Light

Input #2 – Momentary contact sends a “Fast Flash” - Normally used for the Restroom Pull such as the Tech Works 5252.

- a) First press – Fast Flash
- b) Second press – Extinguish Light

Input #3 & 4 – Momentary contact sends a Steady Lamp - Normally used for the Bed Station such as the Tech Works 5251 and or Nurse “Presence” with a 5221.

- a) First press – Solid Light
- b) Second press – Extinguish Light

“**LCBR**” – This is a **Broadcast Substation** used to send the same information to ALL Masters. It ignores the “Master” Address and sends the information to all Masters on the “Column” set by the dipswitches. This is used to let multiple Nurses Stations know that a pull station is activated in a common public restroom and other similar applications where multiple areas need the same information. Function is Standard Light Call.

Available on Models: 5210, 5250

“MC” – “Maintained Closure” – Application –

Some of our products have been designed to monitor “Maintained Closures” such as smoke detectors or door contacts. When this feature is available the dipswitch allows the installer to select monitoring of normally open or normally closed contacts.

Available on Models: 5230, 5250

Each Substation has a “S” – “Software” option switch.

When the “S” switch is “Down” the buttons function as Normally Open:

- a) Switch transition from “Open” to “Closed” – Fast Flashing Light
- b) Switch transition from “Closed” to “Open” – Extinguish Light

When the “S” switch is “Up” the buttons function as Normally Closed:

- a) Switch transition from “Closed” to “Open” – Fast Flashing Light
- b) Switch transition from “Open” to “Closed” – Extinguish Light

When LC is installed on a Master Station –

Available on Models: 5200, 5201

The 5200 have a row of buttons across the bottom, one below each column. Pressing this button will clear all pending calls from that substation address. Both the 5200 and the 5201 have a “Silence” button, which stops the tone on that unit only.

Standard “LC” - When a Light-Call Master is used an audible signal is generated as well as a visual indicator of all calls. Any “Fast Flashing” light has an associated repeating tone and any “Steady” light has a single tone followed by a “Reminder” tone every 20 seconds.

“PA” - “Patient Arrival” – Applications

Patient arrival is done in one of two ways. As a stand-alone system in counseling offices or as a Master option used in medical clinics.

When used in Psychologist Offices a 5210 or 5260 is placed in the waiting room and each button is labeled with a provider’s name. Typically there is no Receptionist. A passive button such as the 5221-CK “Check-In” button is placed in each provider’s counseling room. When a Patient arrives they press the button next to their providers name which starts the light next to their name and on the corresponding “*Check-In*” button in their room “*Fast Flashing*”. The provider then knows their next patient is waiting and they have the option of pressing the “*Check-In*” button and turning off the light or waiting until they go to the lobby and pressing the corresponding button that originated the light to turn it “*Off*”.

When used in a Medical Clinic the receptionist has a Master Panel with buttons associated with each exam room. When a patient arrives the receptionist presses the button assigning that patient to an available room. This would then light the associated light on other annunciators and the room stations indicating that a patient is in the waiting area and needs to be moved to this room. Typical use is to alert the file staff to pull the chart and take the patient to the room. Once the patient has been put in the room the light is turned off and a colored button for a provider is pushed indicating a patient is in a room waiting for that provider.

When PA is installed on a Substation –

Available on Models: 5210 (5210-PA with all White Face Plate),
5210C (5210C-PA with Colored Face Plate), 5250, 5260

Standard “PA” –

Each Substation has an “S” – “Software” option switch.

When the “S” switch is “Down” the buttons function as:

- a) First press – Solid Light
- b) Second press – Extinguish Light

When the “S” switch is “Up” the buttons function as:

- a) First press – Fast Flashing Light
- b) Second press – Extinguish Light

Special Options –

“**CCP**” –Some wanted a timer where each button functions as follows:

- a) First press – Solid Light
- b) If after 5 minutes the light has not been extinguished it will change to Fast Flashing Light and send the associated network message.
- c) Second press – Extinguish Light

When PA is installed on a Master Station –

Available on Models: 5200

The 5200 Master has a button below each column of lights. When ordered with the Patient Arrival option this button activates the bottom light in each column. The corresponding bottom light on any Substation such as a 5210 or 5220 is controlled.

Standard “PA” –

- a) First press – Solid Light
- b) Second press – Extinguish Light

“ZL” – “Zone Light” – Application

Available on Models: 5220

Intended to provide a light indication of any Substation call associated with a Master or 2 Masters. Any call by color on a Master is indicated by the corresponding color. The light status is the highest status at any time. If a “Steady” Yellow call is present on a Master and no other call is on of the same color, the 5220 -ZL will have a “Steady” Yellow light. If a “Fast Flashing” Yellow light comes on the same Master, the Zone Light will change to “Fast Flashing” on the 5220-ZL. If the “Fast Flashing” Yellow light goes Off and the “Steady” Yellow light is still on, the light on the 5220 -ZL will return to “Steady”. If the “S” option switch on the 5220 is up it will represent 2 Masters starting with the address corresponding to it’s Master address setting plus the next Master address. If the “S” is down the 5220 -ZL will only represent the Master matching its address. The Substation or column address is ignored on this device.

Other suffixes that are common among various Substations:

“S” – “Screw Terminals” –

On selected Substations optional screw terminals are available to connect passive devices. These terminals have labeled connections for “Switches” and “LEDs” to connect wires to things such as passive dome lights, patient stations, pull stations, and hold up buttons.

“T” – “Tone” –

On Master Stations a tone is included. On substations it is an option to add tone. When this option is included on intelligent stations the tone will be repeating on “Fast Flashing” lights and a single tone on “Steady” lights. No tone silence is available. On passive stations the tone simply does whatever the light does. This is not recommended for passive stations intended for “Steady” lights.