



CBX17 Monitor / Control Box User Guide

Inspect your unit carefully upon receipt. Let us know right away of any damage you may note. Included with your purchase are:



WiFi Router (dongle) enables wireless connection to your phone or tablet (with our Viewer APP). Plugs in to USB port. See separate instructions for WiFi operations.



Removable USB (flash) drive

Please read these instructions and follow the steps in the **PGR200 Reel Set Up Guide** before you use your system.

Do a test recording before you perform your first job in the field.



Patch Cord



The CBX17 connects to the push rod using a patch cord.

It is important to follow instructions carefully when connecting or you could damage or break the pins. These instructions also are on the Reel Set Up Guide.

A Make sure cord notch hole is properly aligned with the notch on the Control Box port.

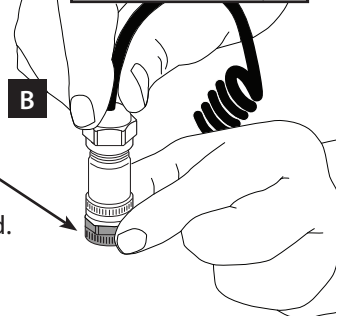
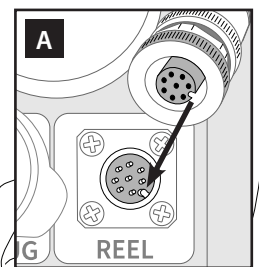
B DON'T force the connection.

Hand tighten ONLY at knurled base until snug.

This bottom segment (shaded) is the ONLY part that turns, forcing the other discs to turn will damage the patch cord.

DON'T power up the system until patch cord is connected.

Leave the patch cord connected to the push rod reel.



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Warranty Information Inspection Systems

Help prevent repairs, see our **Care Tips** on the back cover

All products are warranted against defects in material and workmanship for one year from date of purchase. Products are tested individually prior to shipment. Damage due to negligence, abnormal usage, accidents, or alteration is not covered by this warranty.

Damage not covered by warranty:

Damaged camera head to push rod connection

NG connector (removeable head)



If the camera head is disconnected for transport or to swap heads, be sure to carefully align the push rod with the head connectors and screw on until snug and there are no skipped threads. Don't over-tighten or use tools to tighten.

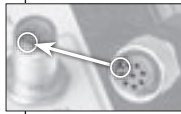
Pin connectors

(older systems with pins on camera head)



Keep the head attached to the push rod at all times to avoid accidental damage to the pins.

Damaged or broken PGR patch cord connection pins (PGR systems with a patch cord connection to the control box)



Carefully align the patch cord to the Control Box when

connecting or the pins on the control box could break.

The patch cord should NOT be disconnected from the push rod reel. Check occasionally to make sure it is snug.

Broken Sapphire Window



The sapphire is extremely hard, but can break with excessive impact, especially on sharp edges of broken concrete or clay tile. Using our Camera Guards, IceBalls or Snoballs greatly reduces impacts to the camera head.

Damaged Pushrod

The camera should not be forced through blockages. The camera won't work if the wires inside the push rod become kinked, buckled or severed. Guides and running water can help reduce friction as you push the camera through a pipe.

Controls and Ports

IMPORTANT!

1. Unplug push rod Patch Cord from REEL port
2. Disconnect camera head from the push rod, then screw it in to TEST PLUG port to test

TEST PLUG

Test camera head separately from push rod

POWER

Give the unit 30 seconds to fully boot up

(MyTana logo will show when ready to operate)

Blinking Blue light indicates low battery. It will blink for 5-10 minutes before battery fails. Plug unit in to standard wall outlet to recharge.

TRANSMIT

Generates 512hz signal at camera head for locating (has nothing to do with Wi-Fi)



Use these CONTROL PANEL buttons for recording and working with files. See next pages.

MICROPHONE



LED CONTROL

Full clockwise = full brightness

POWER SOURCE RECEPTACLE

Any 3 prong extension cord can be used to power unit or recharge battery. Can be plugged in to standard wall outlet.

REEL Connect push rod reel Patch Cord here. USE CARE, see pg 1.

COUNTER RESET

Resets on-screen footage counter to zero

REEL SELECT

Selects reel size you are using to keep footage count accurate.

MSA- = mini reel (100')

MS11- = mid-sized reel (150' or 200')

MY30 (NGx10/ PGR200) = large reel (200')

PGR400 = muni reel (400')

Hold REEL SELECT button for 3 seconds to switch from feet to metric (or metric to feet)

Operating the System

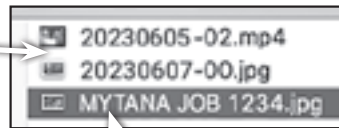
BASICS

We strongly recommend doing a test recording **BEFORE** you perform your first inspection in the field.

Keep the shipping caps that are on the ends of the camera head and the push rod. Use them to protect these connections whenever you remove the camera head in the future.

Files

In this manual, the term **"Files"** refers to your recordings, whether video (.mp4) or snapshots (.jpg)



File Naming – by default, files are named with the date (YYYYMMDD) and a numbering sequence (-XX)

ex: **20180205-02.mp4** – would be the *third* video recorded on Feb. 5, 2018

the *first* will be "20180205-00",
the *second* "20180205-01", etc.

You can customize the names of files in the Overlay menu, see pgs 6-7 *requires a USB keyboard*

Startup

- Push **POWER** button. Blue light around switch will glow. Wait about 30 seconds for MyTana logo to appear.

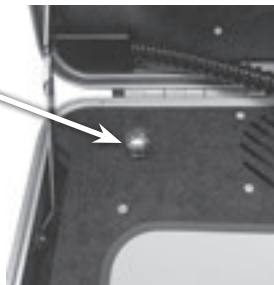
Battery

Recharge the internal battery by plugging the unit in to a standard wall outlet. Store the unit with half charge and in cool temperatures to extend battery life.

Transmit mode drains battery more quickly, use this only when locating 512Hz signal from camera head.

Ground Screw

Can be used for grounding purposes if needed.



RECORDING VIDEO

- Push **REC/PAUSE**
- Use the Control Panel arrow buttons **▲▼** to choose the drive you want to record to: Internal, External or Both. If external, be sure to insert USB (flash) drive in USB port.
You can copy or move recordings to a different drive later. (see File Management menu selections next pages)
- Push **MENU/OK** to start recording. Red dot appears on screen and timer will start.
- Push **STOP/BACK** to stop recording.

AUDIO

MUTE is the default setting for recording, meaning NO sound will be recorded (MUTE is ON if you see "MUTE" on the screen).

To Record Sound

- Push **UNMUTE** and "MUTE" will disappear from the screen, the built-in microphone is now active.

Make sure cover is removed, see image opposite page.

If a WiFi dongle/router is in one of the USB ports, it could cause sound interference while recording to either the Internal or an external USB drive.

Remove the dongle to prevent interference

TO TAKE STILL SHOTS

- Press the **SCREEN SHOT** button if you want still shots, (not available while recording video)

WIRELESS STREAMING

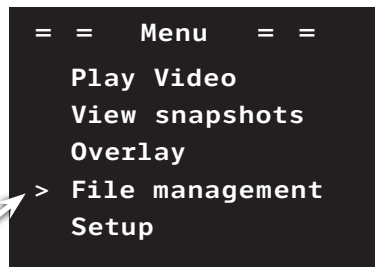
See separate App instruction sheet for using WiFi operations.

Screen Menus

MAIN MENU

Push **MENU/OK** on the control panel to bring up the Main Menu on the screen.

Use the arrow **▲▼** buttons on the control panel to move the cursor to select any menu item.



Press **STOP/BACK** repeatedly to exit any menu and return to previous screens.

Play Video

View recordings by selecting the drive that you recorded to, Internal or external.

Refer to pg 3 for file naming information.

Use the **▲▼** buttons on the control panel to Fast Forward or REWIND during playback.

View Snapshots

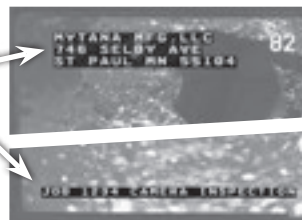
Lets you see static (.jpg) images – if you took snapshots rather than full video. See page 3 for instructions on how to take snapshots.

Overlay (see pages 6-7)

Lets you to add, change or move the overlays that appear on your videos or images.



Most tasks require a USB Keyboard to be connected to one of the USB ports.



File Management (see right)

This is the menu where you will work most with your files. You can copy, move, or delete files.

Setup

Lets you change the time and date in the unit. Your unit will arrive preset. If you wish to reset or change the time:

Select **Setup**, then **MENU/OK**

Select **Set Date/Time**, then **MENU/OK**

Use **▲▼** and **MENU/OK** to set the date and time

Push **STOP/BACK** repeatedly to exit menus

You can change the time format in the Overlay Menu, see pages 6-7

FILE MANAGEMENT MENU



If an external (flash) drive is NOT inserted in one of the USB ports, this menu (right) will show and you can only **delete individual** files from the **internal** drive. More info far right.



When a USB drive is inserted into a port:

There will be new options to copy (or move) files from one drive to the other. More info below and far right.

The default menu gives options to **Copy** or **Delete** files from the either the internal or external drive.

You can change the COPY option to **MOVE** (read caution below)

Use the **▲▼** buttons to move the cursor to
> Toggle Copy or Move

Press **MENU/OK**

Menu items will now say
"Move video from..." etc.

Press **STOP/BACK** to return to previous screen.

CAUTION!

COPYING files *duplicates* file(s) from one drive (internal or external) to the other.

- The file(s) **remain** in the original location Recommended

MOVING files *transfers* file(s) from one drive (internal or external) to the other.

- The file(s) are then **automatically deleted** from the original location. Do this procedure with care

FIRMWARE VERSIONS These instructions are current for MyTana Firmware ver. 1755. Older versions may have slightly different options in the screen menus. To find your system's version, follow this path:

Main Menu > Setup > System Information > Firmware

```

= = File Management = =
Delete files from internal
Select files : Individual

```

And you can work with a single file or a group of files at once.
More info below and right.

```

= = File Management = =
Copy video from internal
Copy video from external
Copy snapshots from internal
Copy snapshots from external
Delete files from internal
Delete files from external
Toggle Copy or Move
Select files : Individual

```

The default menu is also setup to work with a single file (**Individual**)

You can change **INDIVIDUAL** to **GROUP** so you can select multiple files to work with at the same time

Use the ▲▼ buttons to move the cursor to
> Select Files: Individual

Press MENU/OK

Menu changes to
"Select Files: Group"

Press STOP/BACK to return to previous screen.

TO COPY/MOVE OR DELETE FILES

There must be a flash drive inserted in the USB port to Copy or Move files.
Read information in previous section (left) before doing these procedures.

Copying/moving files from a selected drive (internal or external) automatically chooses the other drive as the destination.

Use the ▲▼ buttons to move the cursor (>) to the procedure you want to do

Press MENU/OK

Your list of files will appear for selection.

```

= = File Management = =
Copy video from internal
> Copy video from external
Copy snapshots from internal
Copy snapshots from external
Delete files from internal
Delete files from external
Toggle Copy or Move
Select files : Individual

```

Selecting an Individual file: (default)

Use the ▲▼ buttons to move the cursor to the file you want to Copy/Move or Delete

Press MENU/OK

File will automatically Copy/Move or be Deleted.

****Remember:** if you MOVE a file, it will automatically be deleted from the original location (see CAUTION, opposite page).

Press STOP/BACK repeatedly to exit menus.

To select a GROUP of files:

Be sure the Menu shows "Select Files: Group"
(see "change Individual to Group" left)

Use the ▲▼ buttons to move cursor to the first file you want to work with

Press MENU/OK

File will be selected as indicated by [x]

Move cursor to the next file

Press MENU/OK

Repeat until you have selected all the jobs you wish to work with

Press STOP/BACK

A screen will appear to confirm selections, it also gives options to Change the selection or Cancel the process.

```

= = Copy video from internal = =
[ ] 20100425-03.mp4 5.30 MB
[ ] 20100425-02.mp4 2.94 MB
> [ ] 20100425-01.mp4 6.34 MB
[ ] 20100425-00.mp4 4.94 MB

```

```

= = Copy video from internal = =
[ ] 20100425-03.mp4 5.30 MB
[ ] 20100425-02.mp4 2.94 MB
[x] 20100425-01.mp4 6.34 MB
> [ ] 20100425-00.mp4 4.94 MB

```

```

= = 3 files selected = =
> Copy files
Change selection
Cancel

```

Press STOP/BACK to apply the function and return to previous screens.

Screen Menus *continued*

OVERLAY MENU

The Overlay menu lets you edit the text field overlays that appear on your videos or images. You can also change the time format of the time/date stamp. **Most tasks require a USB Keyboard** Connect the keyboard to one of the USB ports on the front of the camera.

Tasks that do not require a keyboard are indicated >> 

WORKING WITH CUSTOM TEXT



Adding Custom Text

Replaces date/time stamp at bottom of screen

- Push **MENU/OK** on control panel to access the Main Screen
- Select **Overlay**, then **MENU/OK**
- Select **Set Up Primary Overlay**, then **MENU/OK**
- Select **Custom Text**, then **MENU/OK**
- 5 custom text lines appear, select one then push **MENU/OK**
Each selection allows 2 lines with 20 characters each
You can enter all 5 custom names while you are here, or just one at a time
- Push **STOP/BACK** repeatedly to return to the Main Screen

Reposition Custom Text on the screen

- Push **MENU/OK** on control panel to access the Main Screen
- Select **Overlay**, then **MENU/OK**
- Select **Set Up Primary Overlay**, then **MENU/OK**
- Select movement you need, then
press **MENU/OK** repeatedly until the title is in the desired location.
Use the ▲▼ buttons to toggle between the movement choices
- Push **STOP/BACK** repeatedly to return to the Main Screen

Delete Custom Text on a job

- Push **MENU/OK** on control panel to access the Main Screen
- Select **Overlay**, then **MENU/OK**
- Select **Set Up Primary Overlay**, then **MENU/OK**
- Select **Custom Text**, then **MENU/OK**
- Select custom text to remove,
then **MENU/OK**
- Use backspace or Delete/Back keys to delete the title, then **MENU/OK**
- Push **STOP/BACK** repeatedly to return to the Main Screen

Replace Custom Text with the time/date stamp



- Push **MENU/OK** on control panel to access the Main Screen
- Select **Overlay**, then **MENU/OK**

Check that **Primary Overlay** at the top of the Overlays menu has 16 x 16 showing.

16 x 16 is the display size of the time stamp

8 x 13 will also show the stamp but very small

None will display nothing and the following steps won't work

Press the **MENU/OK** while the arrow is next to Primary Overlay to toggle between these... once it says 16x16, continue on.

```

= = Overlays = =
> Primary Overlay: 16 x 16
Set Up Primary Overlay
Secondary Overlay
  
```

- Select **Set Up Primary Overlay** (2nd menu item) then **MENU/OK**
- Select **Text**, then **MENU/OK**
- Select **^d^t**, then **MENU/OK**

Time/date stamp will display with CURRENT time/date

- Push **STOP/BACK** repeatedly to return to the Main Screen

Find jobs with Custom Text



- Push **MENU/OK** on control panel to access the Main Screen
- Select **Overlay**, then **MENU/OK**
- Select **Set Up Primary Overlay**, then **MENU/OK**
- Select **Custom Text**, then **MENU/OK**
- Choose the job you want to record that you have already named, then **MENU/OK**

To display text, push **MENU/OK**

- Push **STOP/BACK** repeatedly to return to the Main Screen and continue with recording



WORKING WITH CUSTOM TITLES

Entering a Custom Title

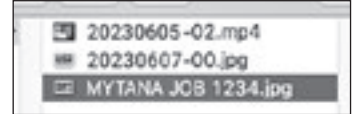
- Push **MENU/OK** on control panel to access the Main Screen
- Select **Overlay**, then **MENU/OK**
- Select **Secondary Overlay**, then **MENU/OK**
- Select **Title**, then **MENU/OK**
- Enter your title using the keyboard. If a 2nd line is needed, push **MENU/OK** to move cursor to the second line for typing
- Push **STOP/BACK** repeatedly to return to the Main Screen

Reposition Title on the screen

- Push **MENU/OK** on control panel to access the Main Screen
- Select **Overlay**, then **MENU/OK**
- Select **Title Overlay**, then **MENU/OK**
- Select movement you need, then press **MENU/OK** repeatedly until the title is in your desired location
Use the ▲▼ buttons to toggle between the movement choices
- Push **STOP/BACK** repeatedly to return to the Main Screen

Remove a Title

- Push **MENU/OK** on control panel to access the Main Screen
- Select **Overlay**, then **MENU/OK**
- Select **Title Overlay**, then **MENU/OK**
- Select **Edit Text**, then **MENU/OK**
- Use backspace or Delete/Back on the keyboard to delete the title, then **MENU/OK**
- Push **STOP/BACK** repeatedly to return to the Main Screen



CHANGE A FILE NAME

Replaces the default file name (ex: **20171116-01.mp4**) with your own text. Consider using what you use for Custom Title or Custom Text.

File names appear on your USB drive lists, or will display in Play Video Screen

- Push **MENU/OK** on control panel to access the Main Screen
- Select **File Management**, then **MENU/OK**
- Select **Rename**, then **MENU/OK**
- Select **Internal**, **External** or **Both**, then **MENU/OK**
- Rename files
****Important** Type in **.mp4** at the end of the file name for videos, or **.jpg** at the end of the file name for snapshots– be sure to include the **.** (dot)
- Press **MENU/OK**
- Push **STOP/BACK** repeatedly to return to the Main Screen

CHANGE TIME FORMAT



- Select **Overlays**, then **MENU/OK**
- Select **Primary Overlay**, then **MENU/OK**
- Select **Time Format**, then **MENU/OK**
- There are 7 options to choose from, Select **HH:MM AM/PM**, then **MENU/OK**
- Push **STOP/BACK** repeatedly to return to the Main Screen

Camera Care Tips *Avoid costly repairs!*

GENERAL

NEVER USE A CAMERA TO CLEAR BLOCKAGES or **ram it to jump an offset. This can result in kinked/broken push rod, or damaged camera head.**

DON'T POWER A CAMERA WITH A CONVENTIONAL GENERATOR. Generators produce dirty power that can ruin electronic circuitry. Make sure the battery is charged up before field work, or use an Inverter Generator.

TRAPS Don't use your camera in any kind of traps. Even if a trap seems large enough, due to tight turns involved, the camera could become lodged and incur damage.

If it's an option, run water to reduce friction as you push the camera through a pipe.

HOUSING

CONNECT THE PATCH CORD TO THE CONTROL BOX CAREFULLY. Read instructions included with your system and on page 1.

KEEP DRY Be sure to keep a camera frame or control box (both in-use and out-of-use) out of the "spray" of cable machines and jetters.

- Control panels are generally water resistant, but not waterproof
- Electronics housing is vented for air circulation, so it is not water proof
- Keep reel interiors as dry as possible

Never use wet/dirty gloves when operating the controls. Dirt/grit can get into the buttons and cause them to not function properly.



PUSHROD

Don't use a camera in the same line as a cable machine, the spinning cable can damage both the push rod and camera head.

Cleanouts and entrances can be sharp; cover edges with a rag or use a Tiger Tail guide to avoid cutting the pushrod.

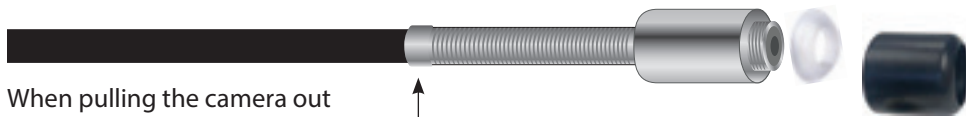
When pulling the camera out of the line, wipe the pushrod down with a cleaning solution on a rag.

When rewinding, stack the push rod carefully into the reel to avoid kinking.

CAMERA HEAD

ALWAYS USE A POLY COVER The 1.5" IceBall lens cover should be used at all times. It is integral to the functionality and protection of the camera head. Keep it on during transport as well. Using a Camera Guard centering guide (right) gives additional protection.

At the end of the day, remove the covers and check the head for damage and signs of water ingress.



CONNECTION

During transport, to avoid jarring the camera head / push rod connection. Either:

- remove the camera head from the push rod, and cap both rod and head with the protective caps that came with the system
- or tuck the camera head inside the reel

To reconnect, align the push rod with the head and **screw on until snug and there are no skipped threads.**

- Don't over-tighten—never use tools to tighten
- Avoid getting grime on the connection components

GUIDES

CAMERA GUARD CENTERING GUIDES included with the MS11-NG2 and PGR systems add extra protection to the camera head and help it navigate through the line.

Different sizes are available for different size pipes. All must be used with the 1.5" IceBall lens cover.

Remove and clean the threads on the nut regularly. Not doing this can result in crud hardening on the threads making them difficult to remove.

- **Apply dielectric grease** to the threads periodically or when changing sizes.

A SNOBALL GUIDE is included with our 11/16" camera head.

Inspect regularly for damage, replace as needed.



(800) 328-8170

MyTana.com

EMAIL mytana@idexcorp.com



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MYTANA LLC 746 SELBY AVE • ST. PAUL, MN 55104