REMOTE CONTROL TECHNOLOGIES PTY LTD

Control Master®
CONTROL & AUTOMATION SYSTEMS

TELEREMOTE ASSIST

REMOTE CONTROL TECHNOLOGIES PTY LTD

your safety & productivity partner

Control Master® CONTROL & AUTOMATION SYSTEMS

CUTHEAD® PROTECTION SYSTEMS

earthtrack™ INFORMATION SYSTEMS

AusProTec™ SPECIALISED ELECTRICAL EQUIPMENT

POWER LIGHT™

Presented by:
Name & Title

Control Master®
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TELEREMOTE ASSIST

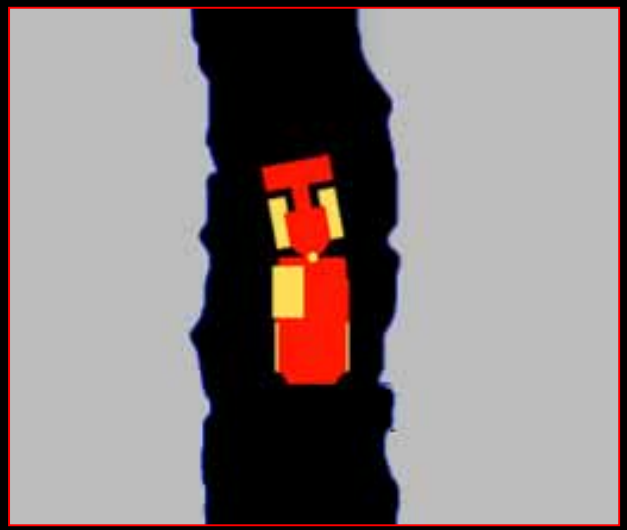
The **Control Master®** Teleremote Assist is a visual aid that has been designed to assist the remote machine operator to avoid damaging machines in an underground mining environment. It provides a Real Time image of the machine, its articulation angle and the position of the walls relative to the machine with centimetre accuracy.

The Teleremote Assist integrates seamlessly with existing **Control Master®** installations utilising the existing Teleremote communications network. This also means that no additional infrastructure is required and maintenance is minimised.

The image provided by Teleremote Assist provides the operator with a Real Time overhead view of the machine and its surroundings. This takes the guess work out of driving a Teleremote machine as the operator can see exact distances, not a flat camera view. When integrated with the **Control Master®** Teleremote system, the operator can utilise both a camera view and an above the machine plan view allowing greater productivity with less damage to the machine.

BENEFITS

- Reduces machine damage
- Prolongs machine life
- Low maintenance
- Uses existing communication system
- Improves productivity of Teleremote controlled machines, even in dusty work areas
- Assists align machine during Teleremote operation



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Component 1: Lasers

- Mounted forward and reverse of articulation point.
- Continuous distance is measured between laser and wall.
- Lasers are mounted in the same position as existing camera mounts from the **Control Master®** Teleremote system.

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Component 2: Angle Sensor

- Allows the system to calculate the geometry of the environment.
- Accurately represents the machine's shape and position.
- Positioned at the machine's articulation point.
- Protected from environmental damage.

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Component 3 & 4: Processing unit & camera distribution unit

- Processing Unit: This unit takes the information from both the lasers and the angle sensor to generate the final image that is presented to the operator.
- Camera Distribution Unit: This unit along with a toggle activates the forward, rear and third camera view.

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Operation:

- Three screens, one showing the image generated and the other two shows front and rear vision of the machine with the option of a third camera.
- Graphical representation of the machine, articulation angle and the environment that it is in.
- Operator sees a scale representation of the machine they are driving and the wall around the machine (centimetre accuracy).
- Operator is able to see precisely the distance of the machine from the walls in Real Time.
- The Teleremote Assist can be relied upon if the vision is obstructed by a dusty environment through the cameras on the Teleremote system.

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Cabin option:

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Personnel Carrier Option:

Thank you for your attention

We look forward to working with you & your team to make mining safer & more productive

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